



TOGETHER,  
**WE SHAPE THE FUTURE**  
OF WELDING AND CUTTING.

2019 *PRODUCT CATALOG*



**VICTOR**  
AN ESAB BRAND

**THERMAL  
DYNAMICS**  
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**TWECO**  
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**ARCAIR**  
AN ESAB BRAND

# WE SHAPE THE

As fabricators and fabricators' friends, we do some pretty epic work. And none of it would be possible without each and every one of us – the welders,

**SKYSCRAPERS.** the distributors,  
**MUSCLE CARS.** the engineers,  
**WIND TURBINES.** the tools of  
**OIL RIGS.** the trade.

Across the welding and fabrication world, the skills we have and the everyday work we do varies greatly, but our commitment to that work and to how fabrication moves the world forward is a constant that keeps us all reaching for more.

Together, **we shape the future** of welding and cutting.



# THE FUTURE



## KEEP UP WITH OUR NEWEST SOLUTIONS

We highlight all of our new and recent product launches in our **Launch Magazine**.

Learn about ESAB solutions engineered to deliver multi-voltage flexibility, superior multi-process arc control, lower consumables cost, user-friendly operation and more.

Visit [esab.com/launchmagazine](http://esab.com/launchmagazine) to subscribe today.



### VISIT OUR WEBSITE FOR MORE INFORMATION ON:

- WELDING AUTOMATION
- CUTTING AUTOMATION
- MIG GUN CONSUMABLES
- FILLER METALS
- STEEL INDUSTRY PRODUCTS

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## PRODUCT CATEGORIES

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# OUR BRAND FAMILY.

ESAB's strong, diversified portfolio of products and offerings is unmatched in our industry. This enables us to better serve our customers and their needs and shape the future of welding and cutting together.



## The World Leader in the Production of Welding and Cutting Equipment and Consumables.

Our innovative, world-renowned equipment and solutions are developed with input from our customers and built with the expertise and heritage of a global manufacturing leader.



## The Leader in Arc Welding Accessories and MIG Guns

Tweco is the industry leader in arc welding accessories, which includes Tweco MIG guns a popular choice among professional welders.



## The Leader in Gas Equipment

Victor Gas Equipment's tradition of unparalleled safety, performance and reliability remains a cornerstone of the brand.



## The Recognized Inventor and Leading Producer of Hardfacing Alloys

Stoody is the leader in hardfacing technology and high alloy filler metals. We formulate products that maximize uptime, extend life cycle and reduce operating cost.



## The Standard in Plasma Cutting Performance.

Thermal Dynamics invented the modern plasma electrode, created the lightweight manual plasma cutter category and has redefined high-precision productivity.



## The Recognized Inventor of Arc Gouging and Exothermic Cutting

Arcair is a world leader in air carbon-arc gouging and exothermic cutting products.



## IAN JOHNSON OFFICIAL SPOKESPERSON

We are excited to announce our partnership with off-road and vehicle fabrication expert Ian Johnson, the official spokesperson of ESAB Welding & Cutting Products, North America.

Over the last few years, Ian has been a strong supporter of the ESAB brand on social media, and a staple in our booth at both the SEMA and FABTECH trade shows, providing insight and hands-on demonstrations for hundreds of attendees trying out our Rebel welders.

Ian recently visited our Technology and Research Center in Hanover, PA to film a series of videos focused on specific products and how-to tips. Visit our [YouTube](#) channel to check out the series.

In addition to working with Ian, ESAB will also be the official welding and cutting sponsor of **Big Tire Garage** – Ian's new digital show on Amazon Prime, Facebook and YouTube. Viewers will get to watch off-road, heavy fabrication projects from start to finish.

Follow along on ESAB's social media channels for updates throughout this exciting partnership.

## KNOWLEDGE CENTER

Whether you're new to welding or a veteran fabricator, check out ESAB's Knowledge Center for resources to master your craft.

Learn more at [esab.com/knowledge](https://www.esab.com/knowledge).



## **TURBOTORCH**

AN ESAB BRAND

### **The Leader in Brazing and Soldering**

TurboTorch is the leading provider air fuel brazing and soldering products, which includes portable welding torches, oxy-acetylene gauges and more.



AN ESAB BRAND

### **The Most Trusted Name in Aluminum Welding**

AlcoTec is the world's largest producer and the foremost expert in the production of aluminum welding wire.

## **EXATON**

AN ESAB BRAND

### **Premium Stainless Steel and Nickel Alloys**

Exaton (formerly Sandvik Welding Operations) specializes in crafting the highest-quality filler metals with unwavering consistency for welding stainless steel and nickel alloys in the most-demanding environments.



AN ESAB BRAND

### **The Leader in Measurement and Monitoring for Welding Technology.**

HKS develops, manufactures and distributes high-quality measurement and monitoring solutions for all welding processes. The product range covers the entire range of electrical and thermographic monitoring and process analysis methods from the sensor to sophisticated welding analysis systems.



AN ESAB BRAND

### **The Leader in Orbital TIG Welding**

Arc Machines, Inc. delivers the world's broadest and most advanced range of automated orbital tube and pipe TIG welding equipment and application expertise.

## **MEET THE ELITE.**



**T**heir talent is undeniable. Their creativity, unparalleled. And their work can only be described as awesome. Now, some of the industry's top welders are teaming up

with ESAB to show off their latest projects and share their wisdom. So follow along – because if you want to be the best, you have to learn from the best.

Find out more at [esab.com/elite](http://esab.com/elite).



ESAB and **Arc Junkies Podcast** have teamed up to produce a series of podcast episodes featuring interviews with ESAB's filler metal experts.

On the first Friday of each month, Junkies host Jimmy McKnight and a group of ESAB application experts discuss common welding

issues during a 30 minute podcast segment called Filler Metal Friday. Topics cover a wide range of filler metal applications and issues while providing listeners with helpful insight to improve their skills.



Learn more at [esab.com/podcasts](http://esab.com/podcasts).



# THIS IS OUR PLEDGE.

We are committed to putting customers first. The **Iron Clad Pledge** is our promise to keep our customers' complete satisfaction at the forefront of everything we do. Our pledge is centered around:

- 100% Customer Satisfaction Program
- ESAB's extensive product warranties
- Customer-focused business practices

## 100% SATISFACTION PURCHASE PROTECTION.

We offer a 100% satisfaction guarantee on eligible products. If a customer is not happy within the first 100 days from purchase, we will make it right with a product replacement or complete refund. Should you need assistance, call 1-800-426-1888 and select Option 1 to be connected with a Customer Care representative. Count on ESAB to do whatever it takes to make it right for you.

## THE BEST PRODUCT WARRANTIES IN THE INDUSTRY.

ESAB is a global supplier to the welding and cutting industry. We are committed to providing our customers with reliable, high-quality products. To keep this commitment, we offer solid warranties across the entire ESAB family of brands, including:

- Arc equipment and accessories
- Cutting and gouging equipment
- Filler metals
- PPE

## LIFETIME WARRANTY ON EDGE™ 2.0 REGULATORS.

We have new and expanded warranties on many Victor® products, including a **LIFETIME Warranty** on all EDGE 2.0 regulators. Victor SR Series regulators – along with 100 and 300 Series torches and handles featured in our most popular outfits, such as Journeyman®, Journeyman Select, Performer® and Contender® – now have warranties extended **from 5 years to 10 years** on parts. Additionally, all Victor G Series regulators and 400 Series torches and handles, found in our Medalist® outfits, now have warranties extended **from 5 years to 7 years** on parts.

## CUSTOMER-FOCUSED BUSINESS PRACTICES.

ESAB has standard work processes designed to put customer needs as our top priority. Processes include:

- Voice-of-the-Customer that collects customer input early in the design process to ensure products meet or exceed customer needs.
- Support teams that execute robust, repeatable processes that consistently meet or exceed customer expectations.
- Responsive Customer Care representatives to aid customers with questions and to promote problem resolution.
- Dedication to a constant focus on quality and speed to continually earn our customers' business.

Learn more at [esab.com/ironclad](http://esab.com/ironclad).





100% SATISFACTION IS OUR **PROMISE TO YOU.**

**Our pledge:** To create the best products and give customers complete buying confidence with our 100% Satisfaction Guarantee and the most extensive warranties, including a new lifetime warranty on all Victor® EDGE™ Series 2.0 regulators.

Learn more at [esab.com/ironclad](http://esab.com/ironclad).

# // ARC WELDING EQUIPMENT





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## Arc Welding Processes

### Gas Metal Arc Welding (GMAW, MIG)



This most flexible metal joining process involves an arc established between the workpiece and a wire electrode, which is continuously fed by a wire feeder through a torch.

The arc continuously melts the electrode to form the weld puddle.

An appropriate gas or gas mixture shields the weld area from atmospheric contamination.

The GMAW process has the advantages of high deposition rates, speed, excellent weld quality, minimal distortion of the workpiece, and no stub loss.

GMAW applications include several distinct process variations. Selection depends largely on the workpiece thickness and welding position:

#### Short Circuiting (Short Arc, Dip Transfer)

Involves a small fast-freezing weld puddle. Metal is transferred from the electrode to the puddle by repeated short circuits. Small diameter wires are used and the process operates at low currents and voltages. Short arc is used for welding thin gauge metals in all positions and for vertical and overhead welding of heavier sections.

#### Spray Arc

Electrode metal is transferred to the weld puddle as discrete droplets. Deposition rate is high and there is little or no spatter. With solid wire, the technique is used for 1/8 in. (3.2 mm) and thicker workpieces and for downhand welding.

#### Pulsed Spray Arc

The welding current is varied rapidly between a high and a low value. Metal is transferred to the work only during the high current period. The high peak current provides excellent arc stability. The period of low current maintains the arc and reduces the average current, making it possible to weld thinner gauge materials and to weld in all positions using larger sized wire electrodes than otherwise possible.

#### Cored Wire (FCAW, MCAW)

The electrode is fabricated from strip, enclosing a core of flux and metal which protects and refines the weld puddle and controls bead shape. Some cored wires can be used without external shielding gas. Smaller diameter wires can be used for all position welding. The addition of fluxing, alloy and slag-forming materials often allows high deposition rates, higher welding speeds and improved all-position capability compared with solid wires. This makes cored wire the material of choice in many high-production applications.

### Shielded Metal Arc Welding (SMAW, Stick)



In this first practical arc welding process, the arc is established between a wire rod and the workpiece. The rod is coated with materials, which generate a gas and form a slag to protect the weld puddle and the solidifying weld metal from the atmosphere.

The coating may also supply alloying and refining ingredients,

and the slag may help shape the weld bead, especially in vertical and overhead applications.

Electrodes are available for welding most carbon, low alloy, and stainless steels, some non-ferrous metals, and a wide range of maintenance and repair applications.

Light-duty work is often done with AC power from low cost transformers; production work usually involves DC power from heavy-duty rectifiers.

### Gas Tungsten Arc Welding (GTAW, TIG)



Introduced by ESAB, the GTAW process produces welding heat from an arc between a non-consumable tungsten electrode and the workpiece. An inert gas, usually Argon, shields the arc and the workpiece.

Welding consumables, if used, are added separately. Because the process uses totally inert shielding

gas, welds of the highest quality are produced, and almost any metal can be welded.

### Additional Technical Information

ESAB Technical Service Representatives are available to answer your questions. We also recommend that you take advantage of a series of handbooks published by ESAB which provide excellent guidance on the use of the arc welding processes. In addition, there are references from other sources which can be very helpful in achieving the best possible results.

Call ESAB at 1.800.ESAB.123 to find out more.

# ALL-PROCESS AND INDUSTRIAL MACHINES JOIN THE EVER-GROWING REBELLION.

**REBEL**  
AC/DC

REBEL EMP 205ic AC/DC

REBEL EMP 215ic

REBEL EM 215ic



|                                             | REBEL 205ic AC/DC                                                                    |                                                            |                                                                | REBEL 215ic                                                                                                 |
|---------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Wire Range</b>                           | Full range of .030 solid wire<br>Solid wire: .023-.045<br>Flux-Cored: .030-.045      |                                                            |                                                                | Full range of .030 solid wire<br>Solid wire: .023-.045<br>Flux-Cored: .030-.045                             |
| <b>Rated Output<br/>(amps @ duty cycle)</b> | <b>MIG</b><br>110 A @ 100%<br>150 A @ 40%<br>205 A @ 25%                             | <b>STICK</b><br>100 A @ 100%<br>125 A @ 60%<br>170 A @ 25% | <b>AC/DC TIG</b><br>110 A @ 100%<br>125 A @ 60%<br>205 A @ 25% | 110 A @ 100%<br>150 A @ 40%<br>205 A @ 25%                                                                  |
| <b>Max Output</b>                           | <b>MIG/STICK</b><br>235 A                                                            | <b>AC/DC TIG</b><br>205 A                                  |                                                                | 235 A                                                                                                       |
| <b>Input Rating</b>                         | 110 V-230 V (operating range 90 V-270 V)                                             |                                                            |                                                                | 110 V-230 V                                                                                                 |
| <b>Max Plate Thickness</b>                  | 24 ga., 3/8 in.                                                                      |                                                            |                                                                | 24 ga., 3/8 in.                                                                                             |
| <b>Spool Capable</b>                        | 4 in., 8 in.                                                                         |                                                            |                                                                | 4 in., 8 in.                                                                                                |
| <b>Weight</b>                               | 49 lb.                                                                               |                                                            |                                                                | 40 lb.                                                                                                      |
| <b>Available Models<br/>and Processes</b>   | <b>EMP 205ic AC/DC TRUE ALL-PROCESS</b><br>MIG, Flux-Cored, Stick, DC TIG, AC TIG HF |                                                            |                                                                | <b>EMP 215ic TRUE MULTI-PROCESS</b><br>MIG, Flux-Cored, Stick, DC TIG<br><b>EM 215ic</b><br>MIG, Flux-Cored |

Coming soon, meet the world's first-ever portable all-process machine, Rebel EMP 205ic AC/DC, which runs every process like it was born to. And then there's the most industrial Rebel yet – Rebel EMP 285ic. New or not, every Rebel outperforms the competition and stands up to any challenge with a rugged multi-handle roll cage, steel unibody construction, and IP23S-level protection for outdoor use.

REBEL EMP 235ic

REBEL EM 235ic

REBEL EMP 285ic 1ph

REBEL EMP 285ic 3ph



NEED TO KNOW MORE? VISIT [ESAB.COM/REBEL](http://ESAB.COM/REBEL) TO LEARN ABOUT THE WHOLE REBEL FAMILY.

|  | REBEL 235ic                                                                                                               | REBEL 285ic                                                                            |                                                               |
|--|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------|
|  | Full range of .035 solid wire<br>Solid wire: .023–.045<br>Flux-Cored: .030–.052v                                          | Full range of .045 solid wire<br>Solid wire: .023–.052<br>Flux-Cored: .030–.060        |                                                               |
|  | 160 A @ 100%<br>200 A @ 60%<br>235 A @ 40%                                                                                | <b>1ph unit</b><br>160 A @ 100%<br>220 A @ 60%<br>285 A @ 40%                          | <b>3ph unit</b><br>200 A @ 100%<br>265 A @ 60%<br>285 A @ 50% |
|  | 250 A                                                                                                                     | 300 A (1ph)<br>350 A (3ph)                                                             |                                                               |
|  | 110 V–230 V                                                                                                               | 110 V–230 V (1ph)<br>460 V–575 V (3ph)                                                 |                                                               |
|  | 24 ga., 1/2 in.                                                                                                           | 24 ga., 1/2 in.                                                                        |                                                               |
|  | 4 in., 8 in., 12 in.                                                                                                      | 4 in., 8 in., 12 in.                                                                   |                                                               |
|  | 53 lb.                                                                                                                    | 70 lb.                                                                                 |                                                               |
|  | <b>EMP 235ic TRUE MULTI-PROCESS</b><br><i>MIG, Flux-Cored, Stick, DC TIG</i><br><b>EM 235ic</b><br><i>MIG, Flux-Cored</i> | <b>EMP 285ic 1PH/3PH TRUE MULTI-PROCESS</b><br><i>MIG, Flux-Cored, Stick, DC TIG v</i> |                                                               |

## Rebel™ EM 215ic & EM 235ic Dual-voltage machine for MIG welding



[esab.com/rebel](http://esab.com/rebel)

MIG MACHINES

EM 215ic



EM 235ic



- Excellent performance for best-in-class MIG and Flux-Cored welding
- sMIG Technology - innovative “smart-MIG” feature that dynamically monitors the arc characteristics ultimately adapting to your technique resulting in a smooth, stable arc
- Set wire diameter and plate thickness and you are ready to weld
- Easy-to-read digital LED voltage/amperage display
- Rebel EM 215ic features a unique, industrial five-handle roll cage design and unibody steel construction in a lightweight, highly portable unit; 3-year handle-to-handle warranty
- Rebel Series models come ready-to-weld out of the box with Professional Grade TWECO accessories and Victor gas regulator; shielding gas not included
- Power to Perform – have the confidence with Rebel EM 235ic to run the full range of .035 in. (0.9 mm) wire – short arc and spray transfer even run .045 in. (1.2 mm) solid wire and some .052 in. (1.4 mm) flux cored wire

### Ordering Information

|                                                |            |
|------------------------------------------------|------------|
| Rebel EM 215ic MIG Package                     | 0558102436 |
| Rebel EM 235ic Multi-Process Package           | 0558012700 |
| Rebel EM 235ic Multi-Process Package with cart | 0558012701 |

Rebel EM 215ic packages includes Tweco Fusion 180A MIG gun, Victor flowmeter/regulator, 12.5 ft (3.8 m) gas hose, Tweco earth clamp, drive rolls, contact tips, sample of .030 in. (0.8 mm) MIG wire, 120V power adapter, and operator's manual.

Rebel EM 235ic packages includes Tweco Spraymaster 250A MIG gun, Victor flowmeter regulator, 12.5 ft (3.8 m) gas hose, Tweco earth clamp, drive rolls, contact tips, sample of .035 in. (0.9 mm) MIG wire, 120V power adapter, and operator's manual.

### Specifications - Rebel EM 215ic

| Input Voltage                                                                                | Current Range                          | Supply Voltage Range                              | Wire Feed Speed                      | Rated kVA                        | MIG Voltage Range   | Open Circuit Voltage |
|----------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------|--------------------------------------|----------------------------------|---------------------|----------------------|
| 120 VAC, 208/230 VAC<br>1 ph, 50/60 Hz                                                       | 5 – 150 A (120 V)<br>5 – 240 A (230 V) | 90 – 270 VAC                                      | 80 – 476 ipm<br>(1.5 – 12.1 m/min)   | 4.5 kVA (120 V)<br>7 kVA (230 V) | 14.5 – 26 V         | 68 V                 |
| Welding Output                                                                               |                                        | Wire Diameter                                     |                                      | Maximum Output                   | Max Plate Thickness |                      |
| MIG (GMAW)<br>205 A/24.3 V (230 V) @ 25% Duty Cycle<br>130 A/20.5 V (120 V) @ 20% Duty Cycle |                                        | Mild Steel<br>Stainless<br>Aluminum<br>Flux-Cored |                                      | 235 A / 26V                      | 3/8 in. (9.5 mm)    |                      |
|                                                                                              |                                        |                                                   |                                      |                                  |                     |                      |
| Supply Plug                                                                                  | Lead Cord Length                       | Protection Class                                  | Dimensions L x W x H                 |                                  | Weight              |                      |
| 230 V, NEMA 6-50P                                                                            | 6.5 ft (2 m)                           | IP23S                                             | 23 x 9 x 16 in. (584 x 229 x 406 mm) |                                  | 40 lbs. (18.2 kg)   |                      |

### Specifications - Rebel EM 235ic

| Input Voltage                                                                            | Current Range                          | Wire Feed Speed                                   | Rated kVA                                   | MIG Voltage Range | Open Circuit Voltage |
|------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------|---------------------------------------------|-------------------|----------------------|
| 120 VAC, 208/230 VAC<br>1 ph, 50/60 Hz                                                   | 5 – 150 A (120 V)<br>5 – 250 A (230 V) | 60 – 700 ipm (1.5 – 18 m/min)                     | 4.5 kVA (120 V)<br>7 kVA (230 V)            | 10 – 30 V         | 68 VDC               |
| Welding Output                                                                           |                                        | Wire Diameter                                     |                                             | Maximum Output    | Max Plate Thickness  |
| MIG (GMAW)<br>235 A/26 V (230 V) @ 40% Duty Cycle<br>120 A/19 V (120 V) @ 40% Duty Cycle |                                        | Mild Steel<br>Stainless<br>Aluminum<br>Flux-Cored |                                             | 250 A / 30 V      | 1/2 in. (12.7 mm)    |
|                                                                                          |                                        |                                                   |                                             |                   |                      |
| Supply Plug                                                                              | Lead Cord Length                       | Protection Class                                  | Dimensions L x W x H                        |                   | Weight               |
| 230 V, NEMA 6-50P                                                                        | 10 ft. (3 m)                           | IP23S                                             | 26.5 x 11.5 x 19.5 in. (673 x 292 x 495 mm) |                   | 53 lbs. (24 kg)      |

# Fabricator<sup>®</sup> 141i

## Multi-process welding system



- Delivers 3-in-1 MIG, STICK, and TIG capability from one integrated, portable system
- Features digital meters, 4T trigger control and quick change polarity from the front of the power source
- Overload protection shuts down the power source to protect the internal electrical components from overheating
- Intelligent fan control operates when welding commences to cool components and reduce airborne contaminants pulled through the power source
- Infinite voltage control for precise voltage settings, inductance control for arc stability and spatter control, and adjustable burnback control
- Durable metal feed plate features 2-roll drive system, reversible drive rolls and easy-to-set single scaled wire tension knob
- Adjustable arc force control for optimum Stick (SMAW) electrode performance and built-in hot start for easy arc starting
- Lift TIG start provides TIG arc starting without the use of high frequency
- Spool-gun ready

MULTI-PROCESS MACHINES

### Specifications

| Input Voltage                                                             | Current Range       | Wire Feed Speed                                                            | Rated kVA        | Supply Voltage Range                                                       | MIG Voltage Range                             | Open Circuit Voltage                                                                                                                                             |
|---------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 120 VAC                                                                   | 10 – 140 A          | 90 – 390 ipm (2.3 – 9.9 m/min)                                             | 5 kVA @ 140 A    | 95 – 140 VAC                                                               | 14.5 – 19 V                                   | 53 V                                                                                                                                                             |
| Welding Output                                                            |                     |                                                                            |                  |                                                                            | Wire Diameter                                 |                                                                                                                                                                  |
| MIG (GMAW)<br>140 A/19 V @ 15% Duty Cycle<br>90 A/18.5 V @ 20% Duty Cycle |                     | TIG (GTAW)<br>140 A/15.6 V @ 15% Duty Cycle<br>100 A/14 V @ 20% Duty Cycle |                  | Stick (SMAW)<br>90 A/23 V @ 15% Duty Cycle<br>80 A/23.2 V @ 35% Duty Cycle |                                               | Mild Steel .023 – .030 in. (0.6 – 0.8 mm)<br>Stainless .023 – .030 in. (0.6 – 0.8 mm)<br>Aluminum .030 in. (0.8 mm)<br>Flux-Cored .030 – .035 in. (0.8 – 0.9 mm) |
| Maximum Output                                                            | Max Plate Thickness | Supply Plug                                                                | Lead Cord Length | Protection Class                                                           | Dimensions L x W x H                          | Weight                                                                                                                                                           |
| 140 A                                                                     | 3/16 in. (4.8 mm)   | NEMA 5-20P                                                                 | 10 ft. (3 m)     | IP23S                                                                      | 16.2 x 8.3 x 17.7 in.<br>(410 x 210 x 450 mm) | 32.2 lbs. (14.6 kg)                                                                                                                                              |

### Ordering Information

|                                   |          |
|-----------------------------------|----------|
| Fabricator 141i Package           | W1003141 |
| Fabricator 141i Package with Cart | W1003142 |

*Includes power supply, flowgauge regulator and 12.5 ft. (3.8 m) hose, electrode holder with 13 ft. (4 m) lead, bonus contact tips (1 each) .023 in. (0.6 mm), .030 in. (0.8 mm) installed, .035 in. (0.9 mm), drive rolls .023/.030 in. (0.6/0.8 mm) V-groove installed, .030/.035 in. (0.8/0.9 mm) for flux cored wire, Tweco Fusion 140A MIG Gun with 10 ft. (3 m) cable, 4 general purpose stick electrodes (E6013), power adapter 115V, 20A to 15A, ground clamp with 10 ft. (3 m) lead, shoulder strap, operator's manual and CD, 10 ft. (3m) power cord and NEMA 5-20P 115V AC plug.*

### Options & Accessories

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| TIG Torch and Accessories (required for TIG welding)                | W4013802  |
| Tweco Spool Gun 160 A, 12 ft. (3.6 m) (required for AI MIG welding) | 1027-1390 |
| Ground Clamp and Lead Assembly, 10 ft. (3 m), 25 mm                 | W7003105  |
| Electrode Holder and Lead Assembly, 13 ft. (4 m), 25 mm             | W7003106  |
| Dinse Adapter, 50 mm Female to 25 mm Male                           | W4017500  |
| Victor GF250-50-580 Argon Flowgauge Regulator                       | 0781-9411 |
| Foot Control, 15 ft. (4.6 m) cable and 8-pin Male Plug              | 600285    |
| Gas Hose, 12.5 ft. (3.8 m), Male 5/8-18UNF                          | W4013900  |
| Power Adapter - 120 V, 20 A to 15 A                                 | W4013300  |
| Basic Utility Cart, max 7 in. (177.8 mm) diameter cylinder          | W4014700  |
| Drive Roll, V-Groove, .023/.030 in. (0.6/0.8 mm) (installed)        | 7977036   |
| Drive Roll, Knurled V-Groove, .030/.035 in. (0.8/0.9 mm) (FCAW)     | 7977732   |

## Rebel™ EMP 205ic AC/DC & EMP 215ic Portable, true all-process welding system



[esab.com/rebel](http://esab.com/rebel)

EMP 205ic AC/DC



EMP 215ic



- True All-Process – excellent performance on MIG, Flux-Cored, Stick (including 6010 electrodes), DC TIG and AC TIG (EMP 205ic) industrial applications
- EMP 205ic AC/DC includes standard TIG features such as High Frequency starting, DC Pulse, AC Balance Adjustment, and AC Frequency Adjustment
- sMIG Technology - exclusive sMIG (“smart MIG”) feature continuously learns and adapts to the operator’s welding technique to provide a stable arc and superior, repeatable welds; increases productivity for the experienced welder, and reduces training time for novice welders
- Unique, five-handle roll cage industrial design and unibody steel construction in a lightweight, highly portable unit
- TFT Multilingual Display with 4 programmable memory locations for each process, trim adjustment, inductance control, pre/post flow control and spot weld setting
- Rebel Series models come ready-to-weld out of the box with Professional Grade TWECO accessories and Victor gas regulator

### Ordering Information

|                                                     |            |
|-----------------------------------------------------|------------|
| Rebel EMP 205ic AC/DC 10 ft. (3 m) System           | 0558102553 |
| Rebel EMP 215ic Multi-Process MIG/TIG/Stick Package | 0558102240 |

Rebel EMP 205ic AC/DC Package includes power supply, Tweco Fusion 180 Velocity MIG gun, electrode holder, Heliarc HW-17 TIG Torch outfit with accessory kit, foot control, .035 in. (0.9 mm) wire, Atom Arc 7018 electrodes, Victor argon flowmeter regulator, 12.5 ft. (3.8 m) hose, return clamp with leads, drive rolls and contact tips, and operator’s manual.

Rebel EMP 215ic AC/DC Package includes power supply, Tweco Fusion 180A MIG gun, Victor argon flowgauge regulator and 12.5 ft. (3.8 m) hose, Tweco earth clamp with leads, drive rolls and contact tips, sample .030 in. (0.8 mm) wire, Tweco electrode holder and sample electrodes, 17V Style TIG torch, power adapter and operator’s manual.

### Rebel EMP 205ic AC/DC Specifications

| Input Voltage                                                                                                                                   | Input Current Draw                                                                                             | Current Range                                                                                                    | Wire Feed Speed                 | Rated kVA                    | MIG Voltage Range                    |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------|--------------------------------------|-----------------|
| 120/230 VAC 1 ph +/- 10%, 50/60 Hz                                                                                                              | 30 A (27.6 A) @ 25% Duty Cycle                                                                                 | 5 – 235 A                                                                                                        | 80 – 475 ipm (2.0 – 12.0 m/min) | 4.98 kVA (> 7 kVA generator) | 12 – 26 V                            |                 |
| Welding Output                                                                                                                                  |                                                                                                                |                                                                                                                  |                                 | AC TIG Functionality         |                                      | DC Pulse        |
| MIG (GMAW)<br>205 A/24.3 V @ 25% Duty Cycle<br>150 A/21.5 V @ 40% Duty Cycle<br>125 A/20.3 V @ 60% Duty Cycle<br>110 A/19.5 V @ 100% Duty Cycle | TIG (GTAW)<br>205 A/18.2 V @ 25% Duty Cycle<br>125 A/15.0 V @ 60% Duty Cycle<br>110 A/14.4 V @ 100% Duty Cycle | Stick (SMAW)<br>170 A/27.2 V @ 25% Duty Cycle<br>125 A/25.0 V @ 60% Duty Cycle<br>100 A/24.0 V @ 100% Duty Cycle | Balance Range                   | 1 – 99%                      | 1 – 500 p/s                          |                 |
|                                                                                                                                                 |                                                                                                                |                                                                                                                  | Frequency Range                 | 25 – 400 Hz                  |                                      |                 |
| Open Circuit Voltage                                                                                                                            | Power Factor @ Max Current                                                                                     | Efficiency @ Max Current                                                                                         | Lead Cord Length                | Protection Class             | Dimensions L x W x H                 | Weight          |
| 68 V                                                                                                                                            | 0.98                                                                                                           | 83%                                                                                                              | 6 ft. (1.8 m)                   | IP23                         | 23 x 9 x 16 in. (584 x 229 x 406 mm) | 49 lbs. (22 kg) |

### Rebel EMP 215ic Specifications

| Input Voltage                                                                                | Current Range                                                                                | Supply Voltage Range                                                                          | Wire Feed Speed                 | Rated kVA                            | MIG Voltage Range | Open Circuit Voltage           |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------|-------------------|--------------------------------|
| 120 VAC, 208/230 VAC 1 ph, 50/60 Hz                                                          | 5 – 150 A (120 V)<br>5 – 240 A (230 V)                                                       | 90 – 270 VAC                                                                                  | 59 – 476 ipm (1.5 – 12.1 m/min) | 4.5 kVA (120 V)<br>7 kVA (230 V)     | 10 – 26 V         | 68 V                           |
| Welding Output                                                                               |                                                                                              |                                                                                               |                                 |                                      | Wire Diameter     |                                |
| MIG (GMAW)<br>130 A/20.5 V (120 V) @ 20% Duty Cycle<br>205 A/24.3 V (230 V) @ 25% Duty Cycle | TIG (GTAW)<br>130 A/15.2 V (120 V) @ 40% Duty Cycle<br>180 A/17.2 V (230 V) @ 30% Duty Cycle | Stick (SMAW)<br>90 A/23.6 V (120 V) @ 40% Duty Cycle<br>180 A/27.2 V (230 V) @ 25% Duty Cycle | Mild Steel                      | .023 – .035 in. (0.6 – 0.9 mm)       | Stainless         | .030 – .035 in. (0.8 – 0.9 mm) |
|                                                                                              |                                                                                              |                                                                                               | Aluminum                        | .030 – .045 in. (0.8 – 1.2 mm)       | Flux-Cored        | .030 – .045 in. (0.8 – 1.2 mm) |
| Maximum Output                                                                               | Max Plate Thickness                                                                          | Supply Plug                                                                                   | Protection Class                | Dimensions L x W x H                 | Weight            |                                |
| 235 A / 26 V                                                                                 | 3/8 in. (9.5 mm)                                                                             | 230 V, NEMA 6-50P                                                                             | IP23S                           | 23 x 9 x 16 in. (584 x 229 x 406 mm) | 40 lbs. (18.2 kg) |                                |

MULTI-PROCESS MACHINES

# Rebel™ EMP 235ic & EMP 285ic

## Industrial, multi-process packages



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EMP 235ic



EMP 285ic shown with optional cart



- True Multi-Process – excellent performance on MIG, TIG and STICK
- Unmatched Portability – weighing in at 53 lbs. (24 kg) with dual voltage capability and 4 handle roll cage
- Power to Perform – have the confidence to run the full range of .035 in. (0.9 mm) wire – short arc and spray transfer
- Run solid wire up to .045 in. (1.2 mm) and cored wire up to .052 in. (1.4 mm), plus stick electrodes up to 5/32 in. (4.0 mm) and TIG rods up to 3/16 in. (5.0 mm)
- sMIG Technology – innovative “smart-MIG” feature that dynamically monitors the arc characteristics ultimately adapting to your technique resulting in a smooth, stable arc

### Ordering Information

|                                                      |            |
|------------------------------------------------------|------------|
| Rebel EMP 235ic Multi-Process Package                | 0558012702 |
| Rebel EMP 235ic Multi-Process Package with cart      | 0558012704 |
| Rebel EMP 285ic 120 V – 230 V, 1 ph System           | 0558102554 |
| Rebel EMP 285ic 460 V – 575 V, 3 ph System           | 0558102556 |
| Rebel EMP 285ic 120 V – 230 V, 1 ph System with Cart | 0558012704 |
| Rebel EMP 285ic 460 V – 575 V, 3 ph System with Cart | 0558102557 |

Rebel EMP 235ic Package includes power supply, Tweco SprayMaster 250 MIG gun, Victor argon flowmeter regulator, 12.5 ft. (3.8 m) hose, return clamp with leads, drive rolls and contact tips, .035 in. (0.9 mm) wire, electrode holder and Atom Arc 7018 electrodes, power adapter, and operator's manual. Cart packages include single cylinder cart.

Rebel EMP 285 Packages includes power supply, Tweco Spray Master Velocity V250 MIG gun, electrode holder, Atom Arc 7018 electrodes, Victor argon flowmeter regulator, 12.5 ft. (3.8 m) hose, return clamp with leads, drive rolls and contact tips, .035 in. (0.9 mm) wire and operator's manual. Cart packages include single cylinder cart.

### Rebel EMP 235ic Specifications

| Input Voltage                                                                            | Current Range                                                                                | Wire Feed Speed                                                                               | Rated kVA                                | MIG Voltage Range                                                                                  | Open Circuit Voltage                        |                 |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------|
| 120 VAC, 208/230 VAC<br>1 ph, 50/60 Hz                                                   | 5 – 150 A (120 V)<br>5 – 250 A (230 V)                                                       | 60 – 700 ipm<br>(1.5 – 18 m/min)                                                              | 4.5 kVA (120 V)<br>7 kVA (230 V)         | 10 – 30 V                                                                                          | 68 VDC                                      |                 |
| <b>Welding Output</b>                                                                    |                                                                                              |                                                                                               |                                          | <b>Wire Diameter</b>                                                                               |                                             |                 |
| MIG (GMAW)<br>120 A/19 V (120 V) @ 40% Duty Cycle<br>235 A/26 V (230 V) @ 40% Duty Cycle | TIG (GTAW)<br>130 A/15.2 V (120 V) @ 40% Duty Cycle<br>240 A/19.6 V (230 V) @ 40% Duty Cycle | Stick (SMAW)<br>90 A/23.6 V (120 V) @ 40% Duty Cycle<br>210 A/28.4 V (230 V) @ 25% Duty Cycle | Mild Steel<br>Stainless<br>Aluminum/FCAW | .023 – .035 in. (0.6 – 0.9 mm)<br>.030 – .035 in. (0.8 – 0.9 mm)<br>.030 – .045 in. (0.8 – 1.2 mm) |                                             |                 |
| <b>Maximum Output</b>                                                                    | <b>Max Plate Thickness</b>                                                                   | <b>Supply Plug</b>                                                                            | <b>Lead Cord Length</b>                  | <b>Protection Class</b>                                                                            | <b>Dimensions L x W x H</b>                 | <b>Weight</b>   |
| 250 A/30 V                                                                               | 1/2 in. (12.7 mm)                                                                            | 230 V, NEMA 6-50P                                                                             | 10 ft. (3 m)                             | IP23S                                                                                              | 26.5 x 11.5 x 19.5 in. (673 x 292 x 495 mm) | 53 lbs. (24 kg) |

### Rebel EMP 285ic Specifications

| Input Voltage                                                                                                                                                                                                                                    | Current Range                                                                                                                                                                                                                                    | Wire Feed Speed                                                                                                                                                                                                                                    | Supply Voltage Range                              | MIG Voltage Range                                                                                                                    | Open Circuit Voltage                           |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------|
| 120 – 240 VAC 1 ph, 50/60 Hz<br>460 – 575 VAC 3 ph, 50/60 Hz                                                                                                                                                                                     | 5 – 300 A (1 ph)<br>5 – 350 A (3 ph)                                                                                                                                                                                                             | 60 – 800 ipm<br>(1.5 – 20.3 m/min)                                                                                                                                                                                                                 | 90 – 270 VAC                                      | 12 – 34 V                                                                                                                            | 68 VDC                                         |                 |
| <b>Welding Output</b>                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                    |                                                   | <b>Wire Diameter</b>                                                                                                                 |                                                |                 |
| MIG (GMAW)<br>285 A/28 V @ 40% Duty Cycle (1 ph)<br>220 A/25 V @ 60% Duty Cycle (1 ph)<br>160 A/22 V @ 100% Duty Cycle (1 ph)<br>285 A/28 V @ 50% Duty Cycle (3 ph)<br>265 A/27 V @ 60% Duty Cycle (3 ph)<br>200 A/24 V @ 100% Duty Cycle (3 ph) | TIG (GTAW)<br>285 A/21 V @ 40% Duty Cycle (1 ph)<br>240 A/19 V @ 60% Duty Cycle (1 ph)<br>185 A/17 V @ 100% Duty Cycle (1 ph)<br>285 A/21 V @ 50% Duty Cycle (3 ph)<br>265 A/21 V @ 60% Duty Cycle (3 ph)<br>220 A/19 V @ 100% Duty Cycle (3 ph) | Stick (SMAW)<br>260 A/30 V @ 40% Duty Cycle (1 ph)<br>210 A/28 V @ 60% Duty Cycle (1 ph)<br>135 A/25 V @ 100% Duty Cycle (1 ph)<br>285 A/31 V @ 50% Duty Cycle (3 ph)<br>255 A/30 V @ 60% Duty Cycle (3 ph)<br>180 A/27 V @ 100% Duty Cycle (3 ph) | Mild Steel<br>Stainless<br>Aluminum<br>Flux-Cored | .023 – .052 in. (0.6 – 1.3 mm)<br>.030 – .052 in. (0.8 – 1.3 mm)<br>.030 – 1/16 in. (0.8 - 1.6 mm)<br>.030 – 1/16 in. (0.8 - 1.6 mm) |                                                |                 |
| <b>Maximum Output</b>                                                                                                                                                                                                                            | <b>Max Plate Thickness</b>                                                                                                                                                                                                                       | <b>Supply Plug</b>                                                                                                                                                                                                                                 | <b>Lead Cord Length</b>                           | <b>Protection Class</b>                                                                                                              | <b>Dimensions L x W x H</b>                    | <b>Weight</b>   |
| 300 A/34 V (1 ph)<br>350 A/34 V (3 ph)                                                                                                                                                                                                           | 1/2 in. (12.7 mm)                                                                                                                                                                                                                                | NEMA 6-50P<br>(230 V), no plug<br>for 3 ph unit                                                                                                                                                                                                    | 10 ft. (3 m)                                      | IP23S                                                                                                                                | 26.5 x 11.5 x 19.5 in.<br>(673 x 292 x 495 mm) | 70 lbs. (32 kg) |

MULTI-PROCESS MACHINES

## Rebel™ Series Accessories

| Options & Accessories |                                                            | EM 215ic | EM 235ic | EMP 205ic AC/DC<br>EMP 215ic | EMP 235ic | EMP 285ic |
|-----------------------|------------------------------------------------------------|----------|----------|------------------------------|-----------|-----------|
| W4014603              | TIG Torch 26 V & Accessories                               |          |          | ■                            | ■         | ■         |
| W4013802              | TIG Torch 17 V & Accessories, 13 ft (4 m) 25/50mm Dinse    |          |          | ■                            | ■         | ■         |
| 0558102493            | ESAB TXH 201 5/8 npt 12.5 ft (3.8 m) TIG Torch Outfit      |          |          |                              | ■         | ■         |
| 10271397              | Tweco Spool Gun 160 A, 12 ft (3.6 m)                       | ■        |          | ■                            |           |           |
| 10271398              | Tweco 200A 12 ft (3.6 m) Spool Gun                         |          | ■        |                              | ■         | ■         |
| 10271399              | Tweco 200A 25 ft (7.6 m) Spool Gun                         |          | ■        |                              | ■         |           |
| WS200E13              | Electrode Holder 200 A & Lead Assembly, 13 ft (4m), 50mm   |          |          | ■                            |           | ■         |
| 91101131              | Tweco T532 Electrode Holder                                |          |          |                              | ■         |           |
| 91101132              | Tweco T316 Electrode Holder                                |          |          |                              |           | ■         |
| 0781-9411             | Victor Argon Flow Regulator GF-250-50-580                  | ■        |          | ■                            |           |           |
| 0781-2743             | Victor HRF 1400 Argon Flowmeter Regulator                  | ■        | ■        |                              | ■         | ■         |
| W4013900              | Gas Hose, 12.5 ft (3.8 m), Male 5/8-18UNF                  | ■        |          | ■                            | ■         |           |
| W4014450              | Foot Control, 15 ft (4.6 m) cable & 8-pin Male Plug        |          |          | ■                            | ■         | ■         |
| W4014000              | Power Adaptor, 230 V to 120 V, 15 A                        | ■        |          | ■                            | ■         | ■         |
| 0558102325            | Rebel Utility Cart, max 7 in. (177.8 mm) diameter cylinder | ■        |          | ■                            |           |           |
| W4015001              | Single Cylinder Cart, max 9 in. (228.6 mm)                 | ■        |          | ■                            |           |           |
| 0558102491            | Rebel Single Cylinder Cart                                 | ■        | ■        | ■                            | ■         | ■         |
| 10231277              | Tweco SprayMaster VELOCITY2 V250 15 ft (4.6 m)             |          |          |                              | ■         | ■         |
| 10361756              | Tweco SprayMaster VELOCITY2 V350 15 ft (4.6 m)             |          |          |                              |           | ■         |

MULTI-PROCESS MACHINES



# Warrior™ 300i CC/CV

Multi-process inverter power source



[esab.com/warrior](http://esab.com/warrior)



- Leading MiCOR Inverter Technology enables use of longer primary cables, reduces power consumption by up to 25% and reduces weight and size while delivering exceptional welding performance in all processes
- Adjustable inductance control for arc stability and spatter control plus optimized selection modes for CO<sub>2</sub> and mixed gases for MIG welding
- Adjustable hot start control, adjustable arc force control and optimized selection modes for E6010 vertical-up, vertical-down and E7018 electrodes for optimum Stick welding
- Lift TIG start provides TIG arc starting without the use of high frequency
- Special arc gouging mode for optimum air carbon arc gouging
- Weighs less than 54 lbs. (24.5 kg), ideal for on-site and portable welding applications
- For use with UltraFeed 404HD, MobileFeed 201AVS or 301AVS wire feeders
- Suitable for use with other standard OEM wire feeders

MULTI-PROCESS MACHINES

| Specifications                                                                                                                                                                                                                                              |                                        |                                                                                                                                                                                                                                                                 |                      |                                                                                                                                                                                                                              |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Input Voltage                                                                                                                                                                                                                                               | Current Range                          | Rated kVA                                                                                                                                                                                                                                                       | Supply Voltage Range | Input Current                                                                                                                                                                                                                | Open Circuit Voltage |
| 208-230/400/460 VAC<br>1/3 ph, 50/60 Hz                                                                                                                                                                                                                     | 10 – 300 A (1 ph)<br>10 – 400 A (3 ph) | 14.4 kVa @ 400 A                                                                                                                                                                                                                                                | 177-529 VAC          | 53.2 A (280 V/3 ph)<br>49.1 A (230 V/3ph)<br>28.6 A (460 V/3ph)                                                                                                                                                              | 80 VDC               |
| Welding Output                                                                                                                                                                                                                                              |                                        |                                                                                                                                                                                                                                                                 |                      |                                                                                                                                                                                                                              |                      |
| MIG (GMAW) @ 104°F (40°C)<br>300 A/29 V @ 25% Duty Cycle, 1 ph<br>230 A/25.5 V @ 60% Duty Cycle, 1 ph<br>180 A/23 V @ 100% Duty Cycle, 1 ph<br>400 A/34 V @ 25% Duty Cycle, 3 ph<br>300 A/29 V @ 60% Duty Cycle, 3 ph<br>220 A/25 V @ 100% Duty Cycle, 3 ph |                                        | TIG (GTAW) @ 104°F (40°C)<br>300 A/22 V @ 25% Duty Cycle, 1 ph<br>230 A/19.2 V @ 60% Duty Cycle, 1 ph<br>180 A/17.2 V @ 100% Duty Cycle, 1 ph<br>400 A/26 V @ 25% Duty Cycle, 3 ph<br>300 A/22 V @ 60% Duty Cycle, 3 ph<br>220 A/18.8 V @ 100% Duty Cycle, 3 ph |                      | Stick (SMAW) @ 104°F (40°C)<br>300 A/32 V @ 22% Duty Cycle, 1 ph<br>230 A/29.2 V @ 60% Duty Cycle, 1 ph<br>180 A/27.2 V @ 100% Duty Cycle, 1 ph<br>300 A/32 V @ 60% Duty Cycle, 3 ph<br>220 A/28.8 V @ 100% Duty Cycle, 3 ph |                      |
| Maximum Output                                                                                                                                                                                                                                              | Protection Class                       | Dimensions L x W x H                                                                                                                                                                                                                                            |                      | Weight                                                                                                                                                                                                                       |                      |
| 400 A                                                                                                                                                                                                                                                       | IP23S                                  | 17.7 x 8.3 x 16.5 in. (450 x 210 x 420 mm)                                                                                                                                                                                                                      |                      | 54 lbs. (24.5 kg)                                                                                                                                                                                                            |                      |

| Ordering Information (not for sale in Canada) |            |                                                    |            |
|-----------------------------------------------|------------|----------------------------------------------------|------------|
| Warrior 300i Power Source                     | 0558102558 | Warrior 300i/Ultrafeed 4HD Wire Feeder MIG Package | 0558102559 |

Warrior 300i Power Source includes 10 ft. (3 m) input lead, two male Dinse connectors 50 mm and operator's manual.  
 Warrior 300i MIG Package includes Ultrafeed 4HD wire feeder, interconnection and power cable, 15 ft. (4.6 m) Spray Master 450 MIG gun, ground clamp with 10 ft. (3 m) lead, Victor ESS3-FG-580 argon flowgauge regulator, 12.5 ft. (3.8 m) gas hose, industrial cart and everything included with the power source package (W1009500).

| Options & Accessories                                      |            |                                                                                |           |
|------------------------------------------------------------|------------|--------------------------------------------------------------------------------|-----------|
| Ultrafeed 4HD Wire Feeder                                  | 0558102560 | Gas Hose                                                                       | W4013900  |
| MobileFeed 201AVS with Meters, Tweco Style                 | 0558102206 | Foot Control, 15 ft. (4.6 m)                                                   | 10-2008   |
| MobileFeed 201AVS with Meters remote, voltage Tweco style  | 0558101911 | Foot Control, 25 ft. (7.6 m)                                                   | 10-2007   |
| MobileFeed 301AVS with Meters, Tweco Style                 | 0558102195 | Hand Held Pendant                                                              | 10-2005   |
| MobileFeed 301AVS with Meters, Remote Voltage, Tweco Style | 0558101919 | TIG Torch Switch Control, 25 ft. 7.6 m, 14 Pin - On/Off                        | 10-2001   |
| Control Cable, 6 ft. (1.8 m)                               | 374878-006 | TIG Torch Switch Control, 25 ft. 7.6 m, 14 Pin - On/Off, Current Control, CK9  | 10-2002   |
| Control Cable, 15 ft. (4.6 m)                              | 374878-015 | TIG Torch Switch Control, 25 ft. 7.6 m, 14 Pin - On/Off, Current Control, CK17 | 10-2003   |
| Control Cable, 25 ft. (7.6 m)                              | 374878-025 | TIG Torch Switch Control, 25 ft. 7.6 m, 14 Pin - On/Off, Current Control, CK26 | 10-2004   |
| Control Cable, 50 ft. (15.2 m)                             | 374878-050 | Dinse Connector                                                                | 9425-1431 |
| Control Cable, 100 ft. (30.4 m)                            | 374878-100 | Industrial Cart                                                                | W4010004  |
| TIG Torch Kit                                              | 10-4080    | Power Cable, 6 ft. (1.8 m), 50 mm Maie - 50 mm Female                          | W4015850  |
| Tweco Electrode Holder                                     | 9110-1177  | K3000 Arc Gouging Torch, 600A, 7 ft. (2.1 m), 80 psi                           | 6106-5006 |
| Tweco 300A Ground Clamp                                    | W4009301   | Dust Filter                                                                    | W7006715  |
| Victor Flowgauge Regulator                                 | 0781-5120  |                                                                                |           |

## Warrior™ 400i MV & Warrior 500i Powerful, multi-process welder



[esab.com/warrior](http://esab.com/warrior)



Warrior 400i MV



Warrior 500i shown with cooling unit and trolley

MULTI-PROCESS MACHINES

- Warrior™ is a reliable multi-process welding machine designed for heavy-duty productivity with up to 500 Amps delivered with superb arc characteristics
- Inverter Technology – outstanding arc performance and energy savings expected from an inverter along with increased energy efficiency and more power from a lighter, smaller, and more portable unit
- High-Duty Cycle – for long runs across a variety of applications
- Durable and rugged – IP23 rating for outdoor and indoor use in rough environments along with handles built into frame for crane lifting
- Easy-to-use – clear and intuitive user interface to get started quickly with glove-friendly knobs for quick and easy adjustments
- Warrior 400i MV provides auto sense from 208-460V 3ph
- Parallel Kit available for Warrior 500i for extreme manual gouging operations with Arcair® AirPro™ X4000 torch – contact ESAB for more information
- RTW packages include everything needed for a mobile welding package (404HD & DualFeed 304 packages include 2-cyl cart)
- Basic Packages do not include connection cable set or cylinder cart – buy a package system and choose length of connection cable set you need (sets include control cable, welding cable, gas hose) and any accessories of your choice

| Specifications                            |                        | Warrior 400i MV                                                     | Warrior 500i                                                        |
|-------------------------------------------|------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| Input voltage                             |                        | 220/460 V, 3ph, 60Hz +/- 10%                                        | 460/575 V, 3ph, 60Hz +/- 10%                                        |
| Permitted load at:                        |                        | 400/34 V @ 60% duty cycle<br>300A/30 V @ 100% duty cycle            | 500A/39 V @ 60% duty cycle<br>400A/34 V @ 100% duty cycle           |
| Mains voltage primary current at:         |                        | 220/460 V, 3ph, 44/22 A                                             | 460/575 V, 28/24 A                                                  |
| Settings range DC                         | GMAW FCAW SMAW<br>GTAW | 16-400 A/8-34 V<br>5-400 A/8-36 V                                   | 16-500 A/15-40 V<br>5-500 A/10-30 V                                 |
| Open circuit voltage                      |                        | 56 V peak (without VRD activated)<br>28 V peak (with VRD activated) | 84 V peak (without VRD activated)<br>28 V peak (with VRD activated) |
| Energy Saving mode (6.5min after welding) |                        | 50 W                                                                | 40 W                                                                |
| Power factor at maximum current           |                        | 0.95                                                                | 0.87                                                                |
| Efficiency at maximum current             |                        | 85%                                                                 | 90%                                                                 |
| Control voltage                           |                        | 42 V, 50/60 Hz                                                      | 42 V, 50/60 Hz                                                      |
| Operating temperature                     |                        | 14 – 104°F (-10 – 40°C)                                             | 14 – 104°F (-10 – 40°C)                                             |
| Enclosure class                           |                        | IP 23                                                               | IP 23                                                               |
| Application class                         |                        | S                                                                   | S                                                                   |
| Dimensions, L x W x H, in. (mm)           |                        | 28.1 x 12.8 x 18.5 in. (712 x 325 x 470 mm)                         | 28.1 x 12.8 x 18.5 in. (712 x 325 x 470 mm)                         |
| Weight, lbs (kg)                          |                        | 115 lbs. (52 kg)                                                    | 115 lbs. (52 kg)                                                    |

### Recommended Parameters for Manual Air Carbon Arc Gouging

| Electrode         | Voltage Min             | Voltage Max             | Electrode Extension |
|-------------------|-------------------------|-------------------------|---------------------|
| 1/4 in. (6.0 mm)  | 36 V                    | 49 V                    | 2-3 in. (50-76 mm)  |
| 5/16 in. (8.0 mm) | 39 V                    | 52 V                    |                     |
| 3/8 in. (9.5 mm)  | 43 V                    | 52 V                    |                     |
| 1/2 in. (12.7 mm) | 48 V (500i in parallel) | 54 V (500i in parallel) |                     |

# Warrior™ 400i MV & Warrior 500i

MULTI-PROCESS MACHINES

| Warrior 400i MV - Ordering Information                    |            |                                                        |            |
|-----------------------------------------------------------|------------|--------------------------------------------------------|------------|
| Warrior 400i MV CC/CV, 220-460 V, 3 ph, Power Source Only | 0465885880 | Warrior 400i MV WF 304, SM V350 Gun Basic Package*     | 0558102270 |
| Warrior 400i MV WF 304 6.5 ft. (1.7 m), SM V350 Gun, RTW  | 0558102271 | Warrior 400i MV WF 404HD, SM V350 Basic Package*       | 0558102278 |
| Warrior 400i MV WF 404HD 6.5 ft. (1.7 m), SM V350, RTW    | 0558102281 | Warrior 400i MV WF Dual 304, SM V350 Basic Package*    | 0558102462 |
| Warrior 400i MV WF Dual 304 6.5 ft. (1.7 m), SM V350, RTW | 0558102463 | Warrior 400i MV MobileFeed 201AVS, SM V350 Gun Package | 0558102274 |
|                                                           |            | Warrior 400i MV MobileFeed 301AVS, SM V350 Gun Package | 0558102273 |

Warrior 400i MV RTW (Ready To Weld) packages include: wire feeder with .035-.045 V-groove feedrolls, 5.5 ft or 32 ft Connection set, V350 15 ft torches, 15' or 32' work cable with clamp, and regulator/flowmeter. Mig Racers include HD Cart.

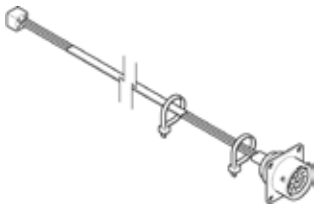

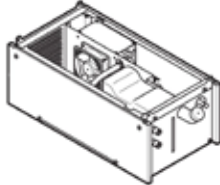



| Warrior 500i - Ordering Information                       |            |                                                     |            |
|-----------------------------------------------------------|------------|-----------------------------------------------------|------------|
| <b>USA</b>                                                |            |                                                     |            |
| Warrior 500i 380/460/575 V, 3 ph, Power Source Only       | 0465350881 | Warrior 500i WF 304 SM V350 15' Basic Package       | 0558101759 |
| Warrior 500i WF 304 6.5 ft. (2 m), SM V350 Gun 15', RTW   | 0558101760 | Warrior 500i WF 404HD SM V350 15' Basic Package     | 0558102282 |
| Warrior 500i WF 404HD 6.5 ft. (2 m), SM V350 Gun 15', RTW | 0558102283 | Warrior 500i WF DUAL 304 SM V350 15' Basic Package  | 0558102464 |
| Warrior 500i WF DUAL 304 6.5ft (2m), SM V350 Gun 15', RTW | 0558102465 | Warrior 500i MobileFeed 201AVS, SM V350 Gun Package | 0558102391 |
|                                                           |            | Warrior 500i MobileFeed 301AVS, SM V350 Gun Package | 0558101762 |
| <b>Canada</b>                                             |            |                                                     |            |
| Warrior 500i 380/460/575 V, 3 ph, Power Source Only       | 0465350887 | Warrior 500i WF 304 SM V350 15' Basic Package*      | 0561000160 |
| Warrior 500i WF 304 6.5 ft. (2 m), SM V350 Gun 15', RTW   | 0561000155 | Warrior 500i WF 404HD SM V350 15' Basic Package*    | 0561000161 |
| Warrior 500i WF 404HD 6.5 ft. (2 m), SM V350 Gun, RTW     | 0561000156 | Warrior 500i WF DUAL 304 SM V350 15' Basic Package* | 0561000162 |
| Warrior 500i WF DUAL 304 6.5ft (2m), SM V350 Gun, RTW     | 0561000157 | Warrior 500i WF MobileFeed 301AVS SM V350 15'       | 0558101762 |

Warrior 500i RTW - Ready-to-Weld packages include power source, wire feeder, connection set, regulator/flowmeter, .035/.045 in. (0.9-1.2 mm) feed rolls and 1-cylinder cart.

Basic packages require gun, connection cable set to be ordered separately.

Warrior 500i packages for US come set at 460V.

Warrior 500i packages for Canada come set at 575V

|                                                                                                                                                                                  |                                                                                                                                         |                                                                                                                                                                                                                                                                            |                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Remote Outlet Kit*</b><br/>Part Number: 0465424880</p>                                 |  <p><b>Wheel Kit</b><br/>Part Number: 0465427880</p> |  <p><b>Cooling Unit</b><br/>Part Number: 0465427880</p>                                                                                                                                |  <p><b>Foot Control FS002</b><br/>Part Number: 0349030886<br/>Requires Remote Outlet Kit</p> |
|  <p><b>Warrior Trolley</b><br/>Part Number: 0465510880<br/>Use with Warrior Feed 304 only</p> |                                                                                                                                         |  <p><b>HD Trolley</b><br/>Part Number: 0558102236<br/>(0558102310 WarriorBracket – order if Trolley purchased separately)<br/>(0349303362 Cable Holder Kit – order 2 for HD cart)</p> |                                                                                                                                                                                   |

## Warrior™ 400i MV & 500i Accessories

| Options & Accessories                                                            |            |
|----------------------------------------------------------------------------------|------------|
| Warrior Feed 304 Air-Cooled                                                      | 0465250880 |
| Warrior Feed 304w Water-Cooled                                                   | 0465250881 |
| Warrior Feed 404HD (Tweco Connection)                                            | 0558102235 |
| Warrior Feed Dual 304 (Euro Connection)                                          | 0558101946 |
| Warrior Feed Dual 304 (Tweco Connection)                                         | 0558101947 |
| Warrior YardFeed 200 Air-Cooled                                                  | 0459906900 |
| Warrior YardFeed 200w Water-Cooled                                               | 0459906901 |
| MobileFeed 201AVS w/meter (Euro Connection)                                      | 0558101910 |
| MobileFeed 201AVS w/meter (Tweco Connection)                                     | 0558102194 |
| MobileFeed 301AVS w/meter (Tweco Connection)                                     | 0558102195 |
| Tweco Spray Master V250 MIG Gun (Euro), up to .045 in. (1.2 mm), 15 ft. (4.6 m)  | 1023-1288  |
| Tweco Spray Master V350 MIG Gun (Tweco), up to 1/16 in. (1.6 mm), 15 ft. (4.6 m) | 1036-1756  |
| Tweco Spray Master V450 MIG Gun (Euro), up to 1/16 in. (1.6 mm), 15 ft. (4.6 m)  | 1040-1850  |
| Victor EDGE ESS3-40-580 Ar Single-Stage Regulator/Flowmeter                      | 0781-5120  |
| MiniBoom Counterbalance Device (Requires Bracket kit 0461310880)                 | 0458705880 |
| Stabilizer kit for Counterbalance Arm                                            | 0465509880 |
| Remote Adapter Kit Miggytrac/Railtrac                                            | 0465451881 |
| Remote Adapter Kit Miggytrac/Railtrac                                            | 0465451881 |
| Remote Cable AN 8-12 Pole 16.4 ft. (5 m)                                         | 0459552880 |
| Remote Cable AN 8-12 Pole 32.8 ft. (10 m)                                        | 0459552881 |
| Remote Cable AN 8-12 Pole 49.2 ft. (15 m)                                        | 0459552882 |
| Remote Cable AN 8-12 Pole 82 ft. (25 m)                                          | 0459552883 |
| Remote control AT1                                                               | 0459491896 |
| Remote control AT1 CoarseFine                                                    | 0459491897 |
| Remote control M1                                                                | 0459491895 |
| Remote Outlet Kit for Power Source                                               | 0465424880 |
| COOL 2 Water Cooler                                                              | 0465427880 |
| Female gas hose quick-connector                                                  | 0365803002 |
| Gas Meter (measures gas flow at the gun)                                         | 19043      |
| Guide pin extension kit, feeder                                                  | 0465508880 |
| Trolley - 4-wheel, 1-cylinder                                                    | 0465510880 |
| Heavy-Duty Cart, 2-cylinder                                                      | 0558102236 |
| Swivel Post for Heavy-Duty Cart (Warrior Feed only)                              | 34075      |
| Bracket Kit for Heavy-Duty Cart (0558102236)                                     | 0558102310 |
| Wheel kit, power source                                                          | 0465416880 |

# Warrior™ 500i Multiple Operator Systems

## 4 & 6 Packs

[esab.com/warrior](http://esab.com/warrior)



- These rack systems feature a rugged design with heavy-duty frame and roof, easily lifted by crane or forklift
- Warrior 500i power sources are reliable, multi-process welding machines designed for heavy-duty productivity with up to 500 Amps delivered with superb arc characteristics
- Choose from 4 or 6-pack racks to get the power you need in one convenient package
- The Multiple Operator Rack Systems are also available for Warrior 300i and Warrior 400i MV machines as well as Aristo Mig 4004i Pulse and Aristo Mig 5000i and Renegade ES 300i machines - contact ESAB for further details
- Easy maintenance with less components
- Hardwired components
- Convenient and reliable circuit breakers, no fuses to replace
- Electrical panel is easy to assemble with high safety standards
- Racks can be ordered alone for existing compatible machines

MULTI-PROCESS MACHINES

### Specifications

| Dimensions L x W x H                          | Weight - 4 Pack Rack Warrior 500i                                          | Weight - 6 Pack Rack Warrior 500i                                          |
|-----------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 42.2 x 37.5 x 60.5 in. (1071 x 953 x 1537 mm) | 1000 lbs. (453.5 kg) with machines<br>530 lbs. (240.4 kg) without machines | 1300 lbs. (589.7 kg) with machines<br>550 lbs. (249.5 kg) without machines |

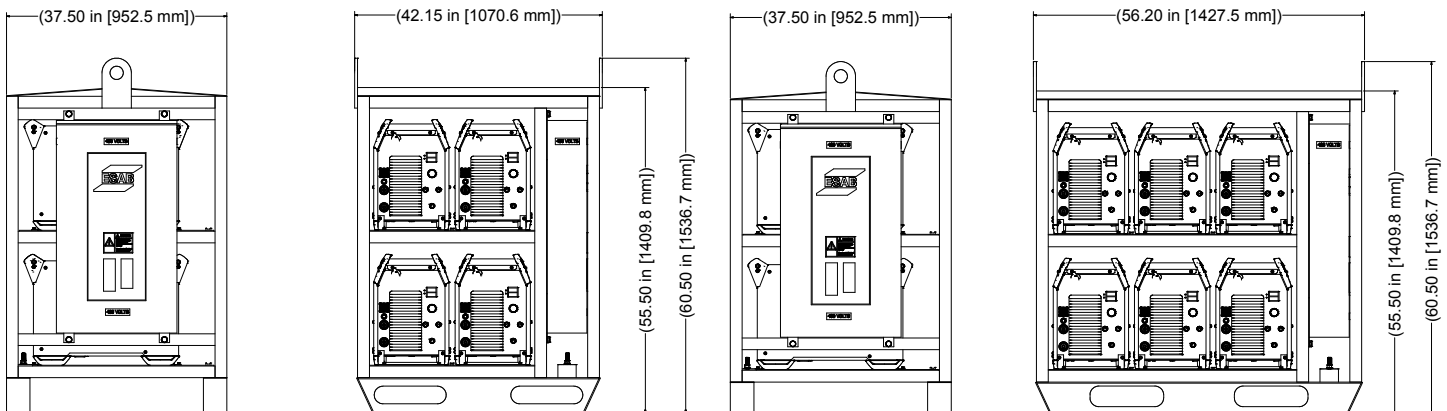
### Ordering Information

#### Warrior 500i Multiple Operator System Packages

|                                    |            |
|------------------------------------|------------|
| Warrior 500i cvcc 460V 4 Pack Rack | 0588002034 |
| Warrior 500i cvcc 460V 6 Pack Rack | 0588002036 |
| Warrior 500i cvcc 575V 4 Pack Rack | 0588002234 |
| Warrior 500i cvcc 575V 6 Pack Rack | 0588002236 |

#### Rack Only

|             |            |
|-------------|------------|
| 4-Pack Rack | 0588002232 |
| 6-Pack Rack | 0588002233 |



## Origo® Mig 4002c/5002cw/6502c Advanced Synergic Multi-Process System



[esab.com/weldcloud](http://esab.com/weldcloud)

WeldCloud



- The multi-process Origo® Mig power sources provide substantially improved arc welding performance and higher productivity for robotic and semi-automatic applications
- Origo Mig multi-voltage (230/460/575 V, 3 ph) power sources operate with all Origo Feed and Aristo® Feed wire feeders
- Platform allows for use with simple welding operations to advanced synergic systems – eliminating need for power source specific applications
- Large wheels, sturdy lifting eyelets, and undercarriage make the unit easy to move around
- Origo Mig 4002c, 5002cw, and 6502c are sturdy and robust switching converter (chopper) power sources intended for heavy-duty applications, with the energy efficiency of an inverter
- Auxiliary 115 VAC standard on select models (USA only)
- Modular design allows control panel to be moved to power source when feeder is out of reach or being subjected to harsh operations

| Specifications                             |                                   | 4002c                                                       | 5002cw                                                      | 6502c                                                       |
|--------------------------------------------|-----------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Input Voltage                              | USA<br>Canada                     | 230/460V, 3ph, 60Hz<br>230/460/575V, 3ph, 60Hz              | -<br>230/460/575V, 3ph, 60Hz                                | 230/460V, 3ph, 60Hz<br>230/460/575V, 3ph, 60Hz              |
| Permitted load at:                         |                                   | 400 A/34 V @ 60% duty cycle<br>310 A/30 V @ 100% duty cycle | 500 A/39 V @ 60% duty cycle<br>400 A/34 V @ 100% duty cycle | 650 A/44 V @ 60% duty cycle<br>500 A/39 V @ 100% duty cycle |
| Mains voltage<br>Primary current at:       | 60% duty cycle<br>100% duty cycle | 230/460/575 V<br>55/29(43)/22 A<br>43/25/20 A               | 230/460/575 V<br>75/39(50)/30 A<br>58/39/23 A               | 230/460/575 V<br>103/54(59)/52 A<br>80/50(63)/33 A          |
| Settings range DC                          | GMAW/FCAW<br>SMAW/GTAW            | 16-400 A/8-34 V<br>16-400 A/8-36 V                          | 16-500 A/8-39 V<br>16-500 A/8-40 V                          | 16-650 A/8-44 V<br>16-650 A/8-44 V                          |
| Open circuit voltage                       | GMAW/FCAW<br>SMAW/GTAW            | 70 V<br>61 V                                                | 70 V<br>61 V                                                | 70 V<br>61 V                                                |
| Open circuit power                         |                                   | 500 W                                                       | 550 W                                                       | 670 W                                                       |
| Energy saving mode (15 mins after welding) |                                   | 60 W                                                        | 60 W                                                        | 60 W                                                        |
| Power factor at maximum current            |                                   | 0.88                                                        | 0.90                                                        | 0.90                                                        |
| Efficiency at maximum current              |                                   | 70%                                                         | 72%                                                         | 76%                                                         |
| Control voltage                            |                                   | 42 V, 50/60 Hz                                              | 42 V, 50/60 Hz                                              | 42 V, 50/60 Hz                                              |
| Operating temperature                      |                                   | 14 – 104°F (-10 – 40°C)                                     | 14 – 104°F (-10 – 40°C)                                     | 14 – 104°F (-10 – 40°C)                                     |
| Enclosure class                            |                                   | IP 23                                                       | IP 23                                                       | IP 23                                                       |
| Dimensions, L x W x H, in. (mm)            |                                   | 32.6 x 25 x 32.8 in. (830 x 640 x 835 mm)                   | 32.6 x 25 x 32.8 in. (830 x 640 x 835 mm)                   | 32.6 x 25 x 32.8 in. (830 x 640 x 835 mm)                   |
| Weight, lbs (kg)                           |                                   | 328 lbs. (149 kg)                                           | 407 lbs (185 kg)<br>438 lbs. (198 kg) with cooling unit     | 489 lbs. (222 kg)                                           |

### Origo Mig 4002c - Ordering Information - USA

| USA                                                                         |            |                                                                     |            |
|-----------------------------------------------------------------------------|------------|---------------------------------------------------------------------|------------|
| Origo MIG 4002c CVCC, 230/460 V, 3 ph, 60 Hz Power Source*                  | 0349312390 | Origo MIG 4002cw CVCC, 230/460 V, 3 ph, 60 Hz Power Source          | 0349311320 |
| Origo MIG 4002c/Origo Feed 3004 MA23 Ready-to-Weld Package                  | 0558101332 | Origo MIG 4002c/Origo Feed 3004 MA23 Basic Package                  | 0558101333 |
| Origo MIG 4002c/Origo Feed 3004 MA24 Ready-to-Weld Package                  | 0558101338 | Origo MIG 4002c/Origo Feed 3004 MA24 Basic Package                  | 0558101339 |
| Origo MIG 4002c/Aristo Feed 3004 U6 Ready-to-Weld Package                   | 0558101344 | Origo MIG 4002c/Aristo Feed 3004 U6 Basic Package                   | 0558101345 |
| Origo MIG 4002c/Aristo Feed 3004 U8 <sub>2</sub> Plus Ready-to-Weld Package | 0558101354 | Origo MIG 4002c/Aristo Feed 3004 U8 <sub>2</sub> Plus Basic Package | 0558101355 |

\*Includes 115 VAC, 10 A outlet.

| Canada                                                              |            |                                                                             |            |
|---------------------------------------------------------------------|------------|-----------------------------------------------------------------------------|------------|
| Origo MIG 4002c CVCC, 230/460/575 V, 3 ph, 60 Hz Power Source       | 0349311780 | Origo MIG 4002c/Origo Feed 3004 MA23 Ready-to-Weld Package                  | 0561000060 |
| Origo MIG 4002c/Origo Feed 3004 MA23 Basic Package                  | 0561000061 | Origo MIG 4002c/Origo Feed 3004 MA24 Ready-to-Weld Package                  | 0561000062 |
| Origo MIG 4002c/Origo Feed 3004 MA24 Basic Package                  | 0561000063 | Origo MIG 4002c/Aristo Feed 3004 U6 Ready-to-Weld Package                   | 0561000064 |
| Origo MIG 4002c/Aristo Feed 3004 U6 Basic Package                   | 0561000065 | Origo MIG 4002c/Aristo Feed 3004 U8 <sub>2</sub> Plus Ready-to-Weld Package | 0561000066 |
| Origo MIG 4002c/Aristo Feed 3004 U8 <sub>2</sub> Plus Basic Package | 0561000067 |                                                                             |            |

# Origo® Mig 4002c/5002cw/6502c

MULTI-PROCESS MACHINES

## Origo Mig 5002cw - Ordering Information (not for sale in USA)

|                                                                     |            |                                                     |            |
|---------------------------------------------------------------------|------------|-----------------------------------------------------|------------|
| Origo MIG 5002cw CVCC, 230/460/575 V, 3 ph, 60 Hz Power Source      | 0349311820 | Origo MIG 5002cw/Origo Feed 3004 MA23 Basic Package | 0561000081 |
| Origo MIG 5002cw/Origo Feed 3004 MA24 Basic Package                 | 0561000083 | Origo MIG 5002cw/Aristo Feed 3004 U6 Basic Package  | 0561000085 |
| Origo MIG 5002cw/Aristo Feed 3004 U <sub>2</sub> Plus Basic Package | 0561000087 |                                                     |            |

## Origo Mig 6502c - Ordering Information

| USA                                                                        |            |                                                                            |            |
|----------------------------------------------------------------------------|------------|----------------------------------------------------------------------------|------------|
| Origo MIG 6502c CVCC, 230/460 V, 3 ph, 60 Hz Power Source*                 | 0349312410 | Origo MIG 6502cw CVCC, 230/460 V, 3 ph, 60 Hz Power Source                 | 0349311400 |
| Origo MIG 6502/Origo Feed 3004 MA23 Ready-to-Weld Package                  | 0558101336 | Origo MIG 6502c/Origo Feed 3004 MA23 Basic Package                         | 0558101337 |
| Origo MIG 6502c/Origo Feed 3004 MA24 Ready-to-Weld Package                 | 0558101342 | Origo MIG 6502c/Origo Feed 3004 MA24 Basic Package                         | 0558101343 |
| Origo MIG 6502c/Aristo Feed 3004 U6 Ready-to-Weld Package                  | 0558101348 | Origo MIG 6502c/Aristo Feed 3004 U6 Basic Package                          | 0558101349 |
| Origo MIG 6502c/Aristo Feed 3004 U <sub>2</sub> Plus Ready-to-Weld Package | 0558101358 | Origo MIG 6502c/Aristo Feed 3004 U <sub>2</sub> Plus Basic Package         | 0558101359 |
| *Includes 115 VAC, 10 A outlet.                                            |            |                                                                            |            |
| Canada                                                                     |            |                                                                            |            |
| Origo MIG 6502c CVCC, 230/460/575 V, 3 ph, 60 Hz Power Source              | 0349312740 | Origo MIG 6502/Origo Feed 3004 MA23 Ready-to-Weld Package                  | 0561000090 |
| Origo MIG 6502c/Origo Feed 3004 MA23 Basic Package                         | 0561000091 | Origo MIG 6502c/Origo Feed 3004 MA24 Ready-to-Weld Package                 | 0561000092 |
| Origo MIG 6502c/Origo Feed 3004 MA24 Basic Package                         | 0561000093 | Origo MIG 6502c/Aristo Feed 3004 U6 Ready-to-Weld Package                  | 0561000094 |
| Origo MIG 6502c/Aristo Feed 3004 U6 Basic Package                          | 0561000095 | Origo MIG 6502c/Aristo Feed 3004 U <sub>2</sub> Plus Ready-to-Weld Package | 0561000096 |
| Origo MIG 6502c/Aristo Feed 3004 U <sub>2</sub> Plus Basic Package         | 0561000097 |                                                                            |            |

For more information on WeldCloud online weld management platform, see separate factsheet or contact ESAB representative.

All Origo MIG machines come with installed wheel kit and single cylinder tray.

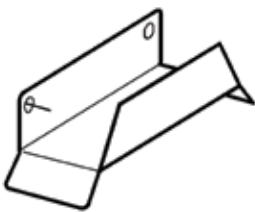
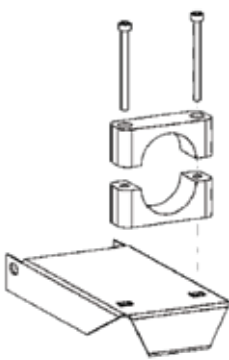
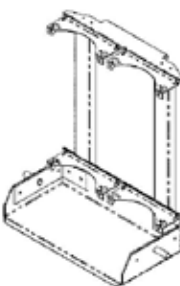
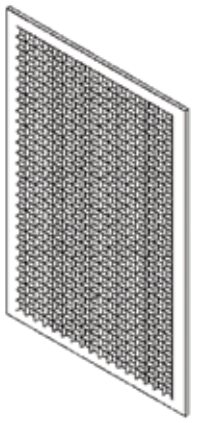
RTW (Ready To Weld) packages include power source, wire feeder with .035-.045 in. (0.9-1.2 mm) V-groove feedrolls, 5.5 ft. (1.7 m) connection set, Spraymaster V350 15 ft. (4.5 m), and Victor ESS32-80CFH-580 Flow regulator.

Basic packages include power source, wire feeder with .035-.045 in. (0.9-1.2 mm) V Feedrolls, 15 ft. (4.5 m) Spray Master Torch V350, and Victor ESS32-80CFH-580 Flow regulator.

Use Basic packages to make extended reach packages.

## Options and Accessories - Origo Mig 4002c, 5002cw, 6502c

|                                                  |            |
|--------------------------------------------------|------------|
| WeldCloud Mobile                                 | 0464550880 |
| Two cylinder shelf                               | 0349312790 |
| Electrode holder assembly, 300 A, 15 ft. (4.5 m) | 21226      |
| Remote control MTA1 CAN                          | 0459491880 |
| Remove control AT1 CAN                           | 0459491883 |

|                                                                                                                                                              |                                                                                                                                                                                                                                                                     |                                                                                                                                                   |                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Cable Holder</b><br/>Part Number: 0349303362<br/>One per side.</p> |  <p><b>Power Source Strain Relief for Connection Cables</b><br/>Part Number: 0349311700<br/>Recommended when moving power supply frequently and use of long connection sets.</p> |  <p><b>Two Cylinder Shelf</b><br/>Part Number: 0349312790</p> |  <p><b>Air Filter</b><br/>Part Number: 0349302252</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|

## Aristo® Mig 4004i Pulse

Light weight, multi-process inverter power source



[esab.com/weldcloud](http://esab.com/weldcloud)



Aristo Mig 4004i Pulse shown with U8<sub>2</sub> Plus, cooler & Trolley 11

- 400A @ 60%, 300A @ 100% duty cycle for handling
- Aristo® Mig 4004i Pulse is designed for high quality, high productivity welding applications
- Features the latest inverter technology to efficiently weld mild steel, stainless steel and aluminum using solid or flux cored wire
- Offers a considerably improved power factor, better than 0.94 and an efficiency of 88% providing minimized energy consumption and significant reductions in your energy cost under similar welding conditions
- Pulse functionality reduces heat input and minimizes spatter
- Available with WeldCloud data management system
- ESAB LogicPump prevents overheating of the torch
- TrueArcVoltage™ system measures the correct arc voltage at the contact tip (together with ESAB torches)

### Specifications

| Input Voltage                                               | Current Range DC                                                              | Rated kVA                   | Fuse Slow                                 | Efficiency @ Max Current | Power Factor @ Max Current |
|-------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------|-------------------------------------------|--------------------------|----------------------------|
| 380 – 460 V, 3 ph, 50/60 Hz                                 | MIG (GMAW/FCAW) 16 – 400 A<br>Stick (SMAW) 16 – 400 A<br>TIG (GTAW) 4 – 400 A | 25.2 kVA                    | 20 A                                      | 88%                      | 94%                        |
| Welding Output                                              | Open Circuit Voltage                                                          | Operating Temperature       | Energy Saving Mode                        |                          |                            |
| 400 A/34 V @ 60% Duty Cycle<br>300 A/29 V @ 100% Duty Cycle | 55 V or < 35 V VRD                                                            | 14 to 104 °F (-10 to 40 °C) | 40 W                                      |                          |                            |
| Protection Class                                            | Dimensions L x W x H                                                          | Weight                      |                                           |                          |                            |
| IP23S                                                       | 24 x 10 x 17.5 in. (610 x 250 x 445 mm)                                       | 98 lbs. (44.5 kg)           | 128 lbs. (58 kg) with COOL 1 water cooler |                          |                            |

### Ordering Information (not for sale in Canada)

|                                                                         |            |                                                        |            |
|-------------------------------------------------------------------------|------------|--------------------------------------------------------|------------|
| Aristo Mig 4004i Pulse, 460V                                            | 0465152882 | Aristo Mig 4004i Pulse/3004 U6 Ready-To-Weld           | 0558102268 |
| Aristo Mig 4004i Pulse/3004 U8 <sub>2</sub> Plus Ready-To-Weld          | 0558102269 | Aristo Mig 4004i Pulse/3004 U6 Basic                   | 0558102226 |
| Aristo Mig 4004i Pulse/3004w U6 Basic                                   | 0558102227 | Aristo Mig 4004i Pulse/3004 U8 <sub>2</sub> Plus Basic | 0558102228 |
| Aristo Mig 4004i Pulse/3004w U8 <sub>2</sub> Plus Basic                 | 0558102229 | Aristo Mig 4004i Pulse U6 for PPG 26 KD Push-Pull Gun  | 0558102264 |
| Aristo Mig 4004i Pulse U8 <sub>2</sub> Plus for PPG 26 KD Push-Pull Gun | 0558102265 | Aristo Mig 4004i Pulse, with WeldCloud Top Box*        | 0445301881 |

\*For more information on WeldCloud online weld management platform, see WeldCloud fact sheet or visit [esab.com](http://esab.com).

# Aristo® Mig 5000i/U5000i

Advanced synergic multi-process welder



[esab.com/weldcloud](http://esab.com/weldcloud)



- The multi-process Aristo® Mig 5000i power source provides substantially improved arc welding performance and higher productivity for robotic and semi-automatic applications
- Designed to integrate with ESAB's industry-leading WeldCloud™ online data management platform via Wi-Fi, mobile cellular or hard-wired Ethernet communication
- Proven, robust, heavy-duty industrial system that holds up in the most demanding welding environments
- Modular design allows connection of U6 or U8<sub>2</sub> Plus via mount to feeder or to power source – great for when feeder is boom mounted and hard to reach for normal operation
- U5000i model available for adding process capabilities such as DC TIG and DC Pulse TIG with ESAB TXH torches
- TrueArcVoltage™ system measures the correct arc voltage at the contact tip (together with ESAB torches)
- Contact ESAB for Robotic Welding Automation to see how the Aristo Mig 5000i model and U8<sub>2</sub> Plus Pendant can be integrated for robotic welding systems

MULTI-PROCESS MACHINES

## Specifications

| Input Voltage                                                          | Current Range DC                              |                                                                                                                                                                         | Rated kVA                                      | Fuse Slow                                                                                      | Efficiency @ Max Current | Power Factor @ Max Current |
|------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------|----------------------------|
| 3 x 460 V, 3 ph, 50/60 Hz<br>3 x 208/230/400/460/575 V, 3 ph, 50/60 Hz | MIG (GMAW/FCAW)<br>Stick (SMAW)<br>TIG (GTAW) | 16 – 500 A, 8 – 60 V<br>16 – 500 A<br>4 – 500 A                                                                                                                         | 25.2 kVA                                       | 32 A                                                                                           | 87%                      | 91%                        |
| Welding Output                                                         | Control Voltage                               | Open Circuit Voltage                                                                                                                                                    |                                                | Operating Temperature                                                                          | Energy Saving Mode       |                            |
| 500 A/40V at 100 % Duty Cycle<br>400 A/36 V at 60% Duty Cycle          | 42 V                                          | MIG (GMAW)<br>Stick (SMAW)                                                                                                                                              | 72 – 88 V (59 V VRD)<br>68 – 80 V (< 35 V VRD) | 14 to 104 °F (-10 to 40 °C)                                                                    | 50 W                     |                            |
| Mains Cable                                                            | Protection Class                              | Dimensions L x W x H                                                                                                                                                    |                                                | Weight                                                                                         |                          |                            |
| 4x8 AWG (4x6 mm <sup>2</sup> )                                         | IP23                                          | 24 x 10 x 17.5 in. (610 x 250 x 445 mm)<br>24.6 x 15.5 x 30.6 in. (625 x 394 x 776 mm) w/cooling unit<br>24.4 x 15.3 x 10.5 in. (621 x 389 x 266 mm) multi-voltage unit |                                                | 159 lbs. (72 kg)<br>203 lbs. (92.1 kg) w/cooling unit<br>165.4 lbs. (75 kg) multi-voltage unit |                          |                            |

## Ordering Information

|                                                    |              |                                                               |              |
|----------------------------------------------------|--------------|---------------------------------------------------------------|--------------|
| Aristo Mig 5000iDC CVCC 460V                       | 0459230884   | Aristo Mig 5000i DC CVCC 460V with WeldCloud                  | 0445400884   |
| Aristo Mig U5000i DC CVCC 460V                     | 0459230885   | Aristo Mig U5000i DC CVCC 460V with WeldCloud                 | 0445400885   |
| Aristo Mig U5000iw DC CVCC 460V                    | 0459230886   | Aristo Mig U5000iw DC 460V with WeldCloud                     | 0445400886   |
| Aristo Mig 5000i DC, 208-575V, 3 ph, 60Hz (Canada) | 0459230880MV | Aristo Mig U5000iw DC, 208-575V, 3ph, 60Hz (Canada)           | 0459230881MV |
| Aristo Mig 5000i / 4004HD U6 RTW Stationary        | 0558102467   | Aristo Mig 5000i / 4004HD U8 <sub>2</sub> Plus RTW Stationary | 0558102468   |
| Aristo Mig 5000i / 4004HD U6 RTW MIG Racer         | 0558102469   | Aristo Mig 5000i / 4004HD U8 <sub>2</sub> Plus RTW MIG Racer  | 0558102470   |
| Aristo Mig 5000i / 3004 U6 RTW Stationary          | 0558102266   | Aristo Mig 5000i / 3004 U8 <sub>2</sub> Plus RTW Stationary   | 0558102267   |
| Aristo Mig U5000i / 3004 U6 RTW Stationary         | 0558101378   | Aristo Mig U5000i / 3004 U8 <sub>2</sub> Plus RTW Stationary  | 0558101379   |

For more information on WeldCloud online weld management platform, see WeldCloud fact sheet or visit [esab.com](http://esab.com).

Power source includes: 16.4 ft. (5 m) mains cable. U5000iw include built-in-water cooler.

RTW (Ready To Weld) Stationary Packages: power source, wire feeder, .035/.045 in. (0.9/1.2 mm) V groove feedrolls, V450 15ft. (4.5 m) MIGgun, 5.5 ft. (1.7 m) connection set (gas hose, control cable, welding current cable), 15 ft. (4.5 m) work cable and clamp, regulator/flowmeter.




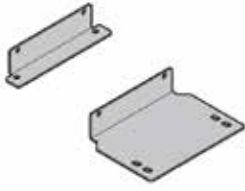
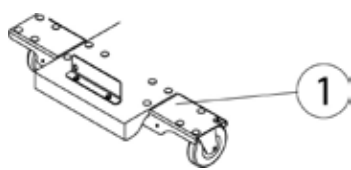
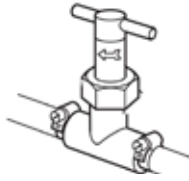

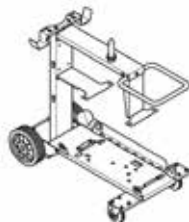
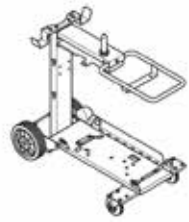
RTW MIGRacer Packages include: the above plus HD 2-Cylinder Cart.


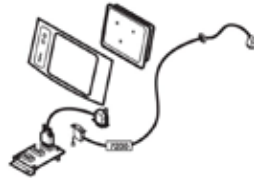
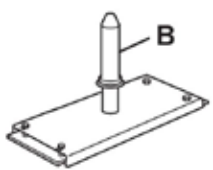
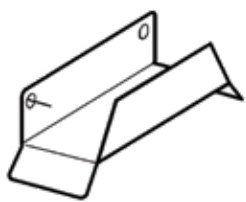



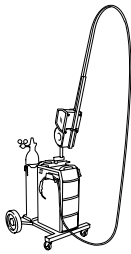
## Aristo<sup>®</sup> Mig 4004i Pulse & 5000i/U5000i Accessories

| Options & Accessories                                                                                                       |            |
|-----------------------------------------------------------------------------------------------------------------------------|------------|
| Aristo Feed 3004, U6 Encl. 10 pole, air-cooled                                                                              | 0460526486 |
| Aristo Feed 3004w, U6 Encl. 10 pole, water-cooled                                                                           | 0460526896 |
| Aristo Feed 3004, U8 <sub>2</sub> Plus Encl. 10 pole, air-cooled                                                            | 0460526481 |
| Aristo Feed 3004w, U8 <sub>2</sub> Plus Encl. 10 pole, water-cooled                                                         | 0460526891 |
| Aristo YardFeed 200w, U6 Encl. 10 pole, water-cooled                                                                        | 0459906896 |
| Aristo U8 <sub>2</sub> Plus                                                                                                 | 0460820881 |
| Aristo U8 <sub>2</sub> Plus control cable extension, 24.6 ft. (7.5 m)                                                       | 0460877891 |
| Strain relief for welding gun                                                                                               | 0457341881 |
| Lifting eye                                                                                                                 | 0458706880 |
| Quick connector for Marathon Pac                                                                                            | 899F50     |
| Inlet guide for Marathon Pac (use with 899F50)                                                                              | 0558002354 |
| Remote control MTA1 CAN                                                                                                     | 0459491880 |
| Remote interconnection cable, 16.4 ft. (5 m)                                                                                | 0459960880 |
| Remote adapter kit for Miggytrac/Railtrac                                                                                   | 0459681880 |
| Push-pull gun connection kit, basic                                                                                         | 0459020883 |
| Push-pull gun connection kit, remote WFS                                                                                    | 0459681881 |
| COOL 1 water cooler                                                                                                         | 0462300880 |
| COOL 1 flow guard                                                                                                           | 0456855881 |
| Adapter for 11 lbs. (5 kg) spool                                                                                            | 0455410001 |
| Spool cover, steel                                                                                                          | 0459431880 |
| Adapter for spool diameter 17 in. (440 mm)                                                                                  | 0459233880 |
| Wheel kit for wire feeder                                                                                                   | 0458707880 |
| Trolley 4-wheel - standard                                                                                                  | 0462151880 |
| Trolley 4-wheel - standard, bracket (without COOL 1)                                                                        | 0463125880 |
| Trolley 2-wheel                                                                                                             | 0460564880 |
| Trolley 4-wheel - for MiniBoom                                                                                              | 0460565880 |
| Bracket kit to assemble power source to 2/4-wheel trolley                                                                   | 0461310880 |
| Trolley 4-wheel stabilizer kit for counterbalance device                                                                    | 0460946880 |
| MiniBoom counterbalance device                                                                                              | 0458705880 |
| Multi Voltage unit, Wide body (208-575V, 3-ph transformer)                                                                  | 0459145880 |
| Heavy-Duty Dual Cylinder Cart (cannot be used with U5000iw + multi-voltage unit)                                            | 0558102236 |
| Guide pin (if no trolley) (3004 feeders only)                                                                               | 0458731880 |
| Remote control MTA1 CAN                                                                                                     | 0459491880 |
| Remote control AT1 CAN                                                                                                      | 0459491883 |
| Remote control AT1 CourseFine CAN                                                                                           | 0459491884 |
| Work Cable GC-500 15 ft. (4.5 m) 4/0                                                                                        | 0558102318 |
| Foot pedal T1 Foot CAN, incl. 16.4 ft. (5 m) cable with 10 pole plug, for connection to the feeder with U6 panel            | 0460315881 |
| Foot pedal T1 Foot CAN, incl. 16.4 ft. (5 m) cable with 12 pole plug, for connection to the feeder for U8 <sub>2</sub> Plus | 0460315880 |
| Trolley 2 for counter balance device and/or 2 gas bottles                                                                   | 0458603880 |
| Quick connector kit for current, water and shielding gas supply for 2x Aristo Feed                                          | 0459546880 |
| MMC kit for MMC panel mounted in the power source                                                                           | 0459579880 |
| Water Flow guard complete                                                                                                   | 0456855880 |

MULTI-PROCESS MACHINES

# Aristo® Mig 4004i Pulse & 5000i/U5000i Accessories

| Aristo Mig 4004i Pulse Accessories                                                                                                                                               |                                                                                                                                                                                                |                                                                                                                                                                                |                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
|  <p><b>COOL 1 Water Cooler</b><br/>Part Number: 0462300880</p>                                  |  <p><b>Trolley 11 4-wheel standard</b><br/>Part Number: 0462151880</p>                                        |  <p><b>Trolley 9 4-wheel</b><br/>Part Number: 0460565880, For use with MiniBoom.</p>        | <b>MULTI-PROCESS<br/>MACHINES</b> |
|  <p><b>Trolley 9 Adapter Kit</b><br/>Part Number: 0461310880, For use with MiniBoom.</p>        |  <p><b>Stabilizer Kit for Counter Balance Device</b><br/>Part Number: 0460946880, For use with Trolley 9.</p> |  <p><b>COOL 1 Flow Guard</b><br/>Part Number: 0456855881</p>                                |                                   |
|  <p><b>Bracket for Trolley 11</b><br/>Part Number: 0463125880, Not for use with WeldCloud.</p> |  <p><b>Trolley 4-wheel</b><br/>Part Number: 0445499880, For use with WeldCloud.</p>                          |  <p><b>Trolley 4-wheel</b><br/>Part Number: 0460565880, For use with WeldCloud COOL 1.</p> |                                   |

| Aristo Mig 5000i/U5000i Accessories                                                                                                                                            |                                                                                                                                                                                |                                                                                                                                                                                                   |                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Multi Voltage Unit, Wide Body</b><br/>Part Number: 0459145880</p>                    |  <p><b>MMC kit for MMC panel mounted in power source</b><br/>Part Number: 0459579880</p>    |  <p><b>Guide Pin (if no Trolley used)<br/>For use with Feed 3004 only</b><br/>Part Number: 0458731880</p>     |  <p><b>Cable Holder Kit</b><br/>Part Number: 0349302303</p>                                 |
|                                                                                                                                                                                |                                                                                                                                                                                | <p><b>Insulating Bushing (b), included in guide Pin</b><br/>Part Number: 0278300401</p>                                                                                                           |                                                                                                                                                                                  |
|  <p><b>Trolley 2</b><br/>Part Number: 0458603880<br/>For MiniBoom and/or 2 gas bottles.</p> |  <p><b>Trolley 2</b><br/>Part Number: 0458603880<br/>For MiniBoom and/or 2 gas bottles.</p> |  <p><b>Aristo W82</b><br/>Contact ESAB for more information for information on Robotic welding WeldCloud.</p> |  <p><b>Trolley 2</b><br/>Part Number: 0458603880<br/>For MiniBoom and/or 2 gas bottles.</p> |

## MobileFeed 201AVS & 301AVS

Versatile voltage-sensing wire feeders for use with any CV or CC welding power supply



- Portable, durable wire feeder, available with Tweco connect, built for the toughest welding conditions, with rugged case to stand up to demanding work environments and optimal protection for internal components
- Quick-change, four-roll drive reduces downtime and provides consistent feeding results; rolls are easily changed from one wire size to another without the need for tools
- Digital meters for both Voltage and WFS ensure more arc time, are labor-saving and beneficial for critical welds using specific welding procedures
- Rugged case withstands the harshest environments, keeping downtime for repairs to a minimum
- Robustly designed rubber-mounted internals prevents damage caused by drops and impacts.
- Remote control option, available when used with the Warrior™ power supply, allows voltage to be adjusted away from the power supply, reducing setup time and enabling long welds in difficult-to-reach areas

### Specifications

| Welding Output                                  | Wire Feed Speed                    | Wire Diameter                                                                                                                                                          | Max Spool Diameter                                  | Dimensions L x W x H                                                                                                 | Weight                                                                                           |
|-------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 450A @ 60% duty cycle<br>400A @ 100% duty cycle | 50 – 750 ipm<br>(1.3 – 19.0 m/min) | .045 – 1/16 in. (1.2 – 1.6 mm)<br>Knurled drive rolls as delivered<br><br>Range 201AVS: .023 – 1/16 in. (0.6 – 1.6 mm)<br>Range 301AVS: .023 – 5/64 in. (0.6 – 2.0 mm) | 201AVS: 8 in. (200 mm)<br>301AVS: 12 in. (304.8 mm) | 201AVS:<br>18.5 x 14.5 x 7.375 in.<br>(470 x 369 x 187 mm)<br><br>301AVS:<br>21 x 17 x 8 in.<br>(534 x 435 x 207 mm) | 201AVS:<br>28 lbs. (13 kg)<br>without spool<br><br>301AVS:<br>35 lbs. (15.9 kg)<br>without spool |

### Ordering Information

|                                        |            |
|----------------------------------------|------------|
| MobileFeed 201AVS w/Meters-Rem V TWECO | 0558101911 |
| MobileFeed 201AVS w/o Meters TWECO     | 0558102194 |
| MobileFeed 301AVS w/Meters-Rem V TWECO | 0558101919 |
| MobileFeed 301AVS w/o Meters TWECO     | 0558102195 |

## Warrior™ Feed 304

Simple functionality, multi-process wire feeder



- Economical wire feeder with the same benefits as Warrior 400i MV and 500i power supplies; simple functionality, rugged durability, and outstanding performance
- Sturdy design with galvanized metal casing for use in tough environments
- Electronically controlled feeding gives accurate and stable arc
- The 4-roll feeder mechanism with grooves in both feed roll and pressure roll gives stable feeding and low wear on the wire, all to avoid operational disturbance
- New drive motor offers more torque for improved arc starts, more consistent speed and less noise
- Easy-to-use controls (remote voltage, gas purge, inch wire, WFS) trigger lock, and slow run-in make configuration easy
- Short Circuit Termination (SCT) technology sharpens the wire at the end of each weld to promote better arc starts

### Specifications

| Input Voltage           | Operating Temperature                       | Wire Feed Speed                     | Max Spool Diameter                     | Wire Diameter   |                                |
|-------------------------|---------------------------------------------|-------------------------------------|----------------------------------------|-----------------|--------------------------------|
| 42 VAC, 1 ph, 50/60 Hz  | 14 – 104°F (-10 – 40°C)                     | 32 – 1000 ipm<br>(0.8 – 25.4 m/min) | 12 in. or 17 in.<br>(305 mm or 432 mm) | Mild Steel      | .023 – 1/16 in. (0.6 – 1.6 mm) |
| <b>Protection Class</b> | <b>Dimensions L x W x H</b>                 | <b>Weight</b>                       |                                        | Flux Cored      | .023 – 1/16 in. (0.6 – 1.6 mm) |
| IP23                    | 10.0 x 18.1 x 29.7 in. (255 x 460 x 755 mm) | 48 lbs. (21.5 kg)                   |                                        | Stainless Steel | .040 – 1/16 in. (1.0 – 1.6 mm) |
|                         |                                             |                                     |                                        | Aluminum        | .035 – 1/16 in. (0.9 – 1.6 mm) |

### Ordering Information

|                                       |            |
|---------------------------------------|------------|
| Warrior Feed 304 Air-Cooled           | 0465250880 |
| Warrior Feed 304w Water-Cooled        | 0465250881 |
| Warrior Feed 304, ST-16/21 Compatible | 0588002048 |

## Warrior™ Feed 404HD

Heavy-duty industrial wire feeder



- Heavy-duty wire feeder engineered for use with the Warrior 500i and Warrior 400i MV CC/CV systems
- Quick-change, heavy-duty drive roll design reduces downtime and provides consistent wire feeding performance for .030 to 3/32 in. (0.8 to 2.5 mm) wire in high-volume and heavy fabrication applications
- Increased productivity through a heavy-duty drive system that delivers high starting torque, rapid response, and reliable feedability in the most demanding applications
- Sun-friendly preset voltage, preset WFS and amperage digital meter displays
- Lower cost of drive roll replacement by 50% as compared to 4-roll driven system
- Upper idler drive system greatly reduces wire distortion and wear in MIG gun parts

### Specifications

| Input Voltage           | Welding Output                                    | Wire Feed Speed                  | Operating Temperature | Wire Diameter |                                |
|-------------------------|---------------------------------------------------|----------------------------------|-----------------------|---------------|--------------------------------|
| 42 VAC, 1 ph, 50/60 Hz  | 550 A @ 60% Duty Cycle<br>450 A @ 100% Duty Cycle | 60 – 750 ipm<br>(1.5 – 19 m/min) | 32 – 104°F (0 – 40°C) | Mild Steel    | .035 – 1/16 in. (0.9 – 1.6 mm) |
| <b>Protection Class</b> | <b>Dimensions L x W x H</b>                       | <b>Weight</b>                    |                       | Flux Cored    | .035 – 1/8 in. (0.9 – 3.2 mm)  |
| IP23S                   | 10.0 x 18.1 x 29.7 in. (255 x 460 x 755 mm)       | 48 lbs. (21.5 kg)                |                       | Aluminum      | .045 – 3/32 in. (1.2 – 2.4 mm) |

### Ordering Information

|                           |            |                                     |          |
|---------------------------|------------|-------------------------------------|----------|
| WarriorFeed 404HD (Tweco) | 0558102235 | Tweco #5 Adapter Kit for Large Wire | W4017601 |
|---------------------------|------------|-------------------------------------|----------|

## Warrior™ Feed Dual 304

Dual wire feeder solution



- Warrior™ Feed Dual 304 is compatible with Warrior 500i CC/CV and Warrior 400i MV CC/CV welding systems
- The dual wire feeder functionality provides flexibility in environments requiring dual applications with the use of a single power source
- Delivered with Euro or Tweco-style MIG gun connections
- Increased productivity through elimination of wire spool change out in demanding applications
- Activation of left or right drive selectable with torch trigger
- Sun-friendly, pre-settable voltage, pre-settable WFS and amperage digital meter displays
- Upper idler drive system greatly reduces operating cost by reducing wire scrubbing and wear in MIG gun parts, cutting feedroll costs by up to 50%
- Full functionality with trigger lock, slow-run-in, SCT/burn-back, inch and gas purge

### Specifications

| Input Voltage                         | Wire Feed Speed               | Max Spool Diameter | Operating Temperature | Wire Diameter |                                |
|---------------------------------------|-------------------------------|--------------------|-----------------------|---------------|--------------------------------|
| 42 VAC, 1 ph, 50/60 Hz                | 75 – 950 ipm (2.0 – 24 m/min) | 17.7 in. (450 mm)  | 32 – 104°F (0 – 40°C) | Mild Steel    | .023 – 1/16 in. (0.6 – 1.6 mm) |
| <b>Dimensions L x W x H</b>           |                               |                    | <b>Weight</b>         |               |                                |
| 24 x 16 x 14 in. (610 x 410 x 360 mm) |                               |                    | 53 lbs. (24 kg)       |               |                                |
|                                       |                               |                    |                       | Flux Cored    | .035 – 5/64 in. (0.9 – 2.0 mm) |
|                                       |                               |                    |                       | Aluminum      | .023 – 1/16 in. (0.6 – 1.6 mm) |

### Ordering Information

|                                          |            |
|------------------------------------------|------------|
| Warrior Feed Dual 304 (Tweco Connection) | 0558101947 |
| Warrior Feed Dual 304 (Euro Connection)  | 0558101946 |

WIRE FEEDERS

## Warrior™ YardFeed 200

Highly portable wire feeder



- Pre-settable wire feed speed and small footprint to conveniently fit through manholes and portals with the flexibility to weld in hard-to-reach areas
- Sturdy design features a high-strength steel casing and steel frame to protect controls and connectors
- Easy handling in cramped spaces
- 4-wheel feeder mechanism with encoder feedback for superior wire feeding
- Sun friendly digital V/A and wire feed speed displays
- Variant with water connectors for water-cooled torches available

### Specifications

| Input Voltage           | Welding Output         | Wire Feed Speed               | Operating Temperature                      | Wire Diameter     |                                |
|-------------------------|------------------------|-------------------------------|--------------------------------------------|-------------------|--------------------------------|
| 42 VAC, 1 ph, 50/60 Hz  | 365 A @ 60% Duty Cycle | 75 – 985 ipm (1.9 – 25 m/min) | 14 – 104°F (-10 – 40°C)                    | Mild Steel        | .023 – .045 in. (0.6 – 1.2 mm) |
| <b>Protection Class</b> |                        |                               | <b>Dimensions L x W x H</b>                |                   |                                |
| IP23S                   |                        |                               | 23.4 x 8.5 x 12.8 in. (595 x 215 x 325 mm) |                   |                                |
|                         |                        |                               |                                            | <b>Weight</b>     |                                |
|                         |                        |                               |                                            | 48 lbs. (21.5 kg) |                                |
|                         |                        |                               |                                            | Stainless Steel   | .023 – .045 in. (0.6 – 1.2 mm) |
|                         |                        |                               |                                            | Flux Cored        | .030 – 1/16 in. (0.8 – 1.6 mm) |
|                         |                        |                               |                                            | Aluminum          | .040 – .045 in. (1.0 – 1.2 mm) |

### Ordering Information

|                                    |            |
|------------------------------------|------------|
| Warrior YardFeed 200, air-cooled   | 0459906900 |
| Warrior YardFeed 200, water-cooled | 0459906901 |

## Ultrafeed 404HD

Heavy-duty 4-roll wire feeder



- Use with Warrior™ 300i power supply
- Advanced adjustable features for optimum welding performance; preflow, run in, ramp time, postflow, burnback, crater control, spot and stitch
- Heavy-duty 4-roll drive system for superior wire feeding
- Digital meters for voltage, amperage, wire feed speed; preview and hold capability
- Trigger and spot control: 4T (latch) eliminates operator fatigue, spot welding capability
- Weld schedules allow operator to store two optimized welding parameters then digitally recall them with perfect repeatability
- Inch and purge buttons for advancing wire or purging shielding gas
- Circuit breaker protection - no fuses required
- Indicator lights to identify power and faults; plus control settings over amps and wire feed speed for ipm or mpm

| Specifications                              |                                                   |                                      |                                         |                                |                                |
|---------------------------------------------|---------------------------------------------------|--------------------------------------|-----------------------------------------|--------------------------------|--------------------------------|
| Input Voltage                               | Welding Output                                    | Wire Feed Speed                      | Max Spool Diameter                      | Wire Diameter                  |                                |
| 42/115 VAC, 1 ph, 50/60 Hz                  | 550 A @ 60% Duty Cycle<br>450 A @ 100% Duty Cycle | 50 - 660 ipm<br>(1.35 - 16.75 m/min) | 8 in. and 12 in.<br>(200 mm and 300 mm) | Mild Steel                     | .035 - 1/16 in. (0.9 - 1.6 mm) |
| Dimensions L x W x H                        | Weight                                            |                                      |                                         | Flux Cored                     | .030 - 1/8 in. (0.8 - 3.2 mm)  |
| 10.0 x 18.1 x 29.7 in. (255 x 460 x 755 mm) | 48 lbs. (21.5 kg)                                 | Stainless Steel                      |                                         | .035 - 1/16 in. (0.9 - 1.6 mm) |                                |
|                                             |                                                   | Aluminum                             |                                         | .035 - 3/32 in. (1.0 - 2.4 mm) |                                |

| Ordering Information (not for sale in Canada) |          |
|-----------------------------------------------|----------|
| Ultrafeed 404HD                               | W3400003 |

WIRE FEEDERS

## Origo® Feed 3004 MA23/MA24

Advanced Multi-Process Functionality



Origo Feed 3004 MA23



Origo Feed 3004 MA24

- The MA23 is a sturdy, easy-to-use wire feeder with the features you need for reliable GMAW (MIG) and SMAW (Stick) applications with memory
- The MA24 has all the features of the MA23 plus creep start, crater filling, QSet™ and synergic lines for short-arc and spray-arc
- Sturdy design with galvanized metal casing for use in tough environments
- Electronically controlled feeding gives accurate and stable arc
- The 4-roll feeder mechanism with grooves in both feed roll and pressure roll gives stable feeding and low wear on the wire, all to avoid operational disturbance
- The feeders are available with 1.2 in. (30 mm) diameter rollers for wires .023-1/16 in. (0.6-1.6 mm) Steel, Stainless Steel, and .040 -1/16 in. (1.0-1.6 mm) Aluminum
- Short Circuit Termination (SCT) technology sharpens the wire at the end of each weld to promote better arc starts

| Specifications                              |                              |                                 |                 |                                |  |
|---------------------------------------------|------------------------------|---------------------------------|-----------------|--------------------------------|--|
| Input Voltage                               | Wire Feed Speed              | Max Spool Diameter              | Wire Diameter   |                                |  |
| 42 VAC, 1ph, 50/60 Hz                       | 32-1000 ipm (0.8-25.0 m/min) | 12 in. (300 mm) 17 in. (440 mm) | Mild Steel      | .023 - 1/16 in. (0.6 - 1.6 mm) |  |
| Dimensions L x W x H                        | Weight                       |                                 | Flux Cored      | .035 - 1/16 in. (0.9 - 1.6 mm) |  |
| 27.1 x 10.8 x 16.1 in. (690 x 275 x 420 mm) | 33 lbs. (15 kg)              |                                 | Stainless Steel | .023 - 1/16 in. (0.6 - 1.6 mm) |  |
|                                             |                              |                                 | Aluminum        | .035 - 1/16 in. (0.9 - 1.6 mm) |  |

| Ordering Information              |            |                                   |            |
|-----------------------------------|------------|-----------------------------------|------------|
| Origo Feed 3004 MA23 Air-Cooled   | 0460526487 | Origo Feed 3004 MA24 Air-Cooled   | 0460526489 |
| Origo Feed 3004 MA23 Water-Cooled | 0460526897 | Origo Feed 3004 MA24 Water-Cooled | 0460526899 |

## Aristo® Feed 3004

Advanced synergic multi-process wire feeders



- Multiple panel options with U6, U8<sub>2</sub> Plus and MA25 for specialized steel and aluminum applications
- The 4-roll feeder mechanism with grooves in both feed roll and pressure roll gives stable feeding and low wear on the wire, all to avoid operational disturbance
- Available with either 1.2 in. (30 mm) diameter rollers for wires .023 - 1/16 in. (0.6 - 1.6 mm) steel, stainless and .040 - 1/16 in. (1.0 - 1.6 mm) aluminum
- New drive motor offers more torque for improved arc starts, more consistent speed and less noise
- Short Circuit Termination (SCT) technology sharpens the wire at the end of each weld to promote better arc starts
- Can be equipped with a counter balance arm, lifting eye or a wheel kit for increased mobility

### Specifications

| Input Voltage                               | Wire Feed Speed                  | Max Spool Diameter | Wire Diameter   |                                |
|---------------------------------------------|----------------------------------|--------------------|-----------------|--------------------------------|
| 42 VAC, 50/60 Hz                            | 32 – 1000 ipm (0.8 – 25.0 m/min) | 12 in. (300 mm)    | Mild Steel      | .023 – 1/16 in. (0.6 – 1.6 mm) |
| <b>Dimensions L x W x H</b>                 |                                  | <b>Weight</b>      | Flux Cored      | .035 – 1/16 in. (0.9 – 1.6 mm) |
| 27.1 x 10.8 x 16.1 in. (690 x 275 x 420 mm) |                                  | 33 lbs. (15 kg)    | Stainless Steel | .023 – 1/16 in. (0.6 – 1.6 mm) |
|                                             |                                  |                    | Aluminum        | .035 – 1/16 in. (0.9 – 1.6 mm) |

### Ordering Information

|                                                         |            |                                    |            |                                                       |            |
|---------------------------------------------------------|------------|------------------------------------|------------|-------------------------------------------------------|------------|
| Aristo Feed 3004 (MA25 Steel)                           | 0460526682 | Aristo Feed 3004 (MA25 Aluminum)   | 0460526680 | Aristo Feed 3004 for U8 <sub>2</sub> Plus, Air-Cooled | 0460526481 |
| Aristo Feed 3004, U6, Air-Cooled                        | 0460526486 | Aristo Feed 3004w (MA25 Steel)     | 0460526683 | Aristo Feed 3004w (MA25 Aluminum)                     | 0460526681 |
| Aristo Feed 3004 for U8 <sub>2</sub> Plus, Water-Cooled | 0460526891 | Aristo Feed 3004, U6, Water-Cooled | 0460526896 | Aristo U8 <sub>2</sub> Plus Pendant Complete          | 0460820881 |

## Aristo® Feed 4004HD

Advanced heavy-duty industrial wire feeder



- This advanced heavy-duty wire feeder is compatible with Aristo 5000i and Aristo 4004i Pulse welding systems
- Multiple panel options are available with U6 and U8<sub>2</sub> Plus, choose your level of control
- Upper idler drive system greatly reduces wire distortion and wear in MIG gun parts cutting feedroll cost by 50% offering a huge cost benefit
- Increased productivity through a heavy-duty drive system that delivers reliable feedability in the most demanding applications
- Pre-programmed synergic lines, memory for parameter sets, QSet™ and the ability to create synergic lines with the U6 & U8<sub>2</sub> Plus (requires ESAT software)
- Crater filling, adjustable burnback time and post gas, creep start, gas pre-flow and hot start

### Specifications

| Input Voltage                             | Wire Feed Speed                 | Max Spool Diameter | Wire Diameter   |                                |
|-------------------------------------------|---------------------------------|--------------------|-----------------|--------------------------------|
| 42 VAC, 1 ph, 50/60 Hz                    | 50 – 800 ipm (1.3 – 18.0 m/min) | 18 in. (440 mm)    | Mild Steel      | .030 – 1/16 in. (0.8 – 1.6 mm) |
| <b>Dimensions L x W x H</b>               |                                 | <b>Weight</b>      | Flux Cored      | .035 – 1/8 in. (0.9 – 3.2 mm)  |
| 29.7 x 18.1 x 10 in. (755 x 460 x 255 mm) |                                 | 51 lbs. (23 kg)    | Stainless Steel | .030 – 1/16 in. (0.8 – 1.6 mm) |
|                                           |                                 |                    | Aluminum        | .035 – 1/16 in. (0.9 – 1.6 mm) |

### Ordering Information (not for sale in Canada)

|                                      |            |                                                     |            |
|--------------------------------------|------------|-----------------------------------------------------|------------|
| Aristo Feed 4004HD, U6 Encl. 10 Pole | 0558102234 | Aristo Feed 3004 with U8 <sub>2</sub> Plus Complete | 0558102480 |
|--------------------------------------|------------|-----------------------------------------------------|------------|

# Wire Feeder Control Panels

| MMC Panel Function                    | MA23                                                                              | MA24                                                                              | MA25                                                                               | U6                                                                                  | U8 <sub>2</sub> Plus                                                                |
|---------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                       |  |  |  |  |  |
| SMAW/GMAW                             | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| GMAW-PULSE (synergic)                 |                                                                                   |                                                                                   | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| CAG (GOUGING)                         |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| GTAW                                  |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| GTAW-PULSE (U5000i only)              |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| Unit of Measurement (Imperial/Metric) | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Trigger Latch                         | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Memory Presets                        | 3                                                                                 | 3                                                                                 | 3                                                                                  | 10                                                                                  | 255                                                                                 |
| Gas Purge/Wire Inch                   | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Arc Force adjustment                  |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| Hot Start adjustemnt                  |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| Gas preflow/post flow                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| Creep Start                           | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Crater Filling                        |                                                                                   | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Burnback adjustment                   | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Adjustable Inductance                 | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Hidden functions menu1)               | ■                                                                                 | ■                                                                                 | ■                                                                                  |                                                                                     |                                                                                     |
| Weld Schedule trigger toggle          | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| External remote control               | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| Synergic Control/programs             |                                                                                   | 35                                                                                | 55/292                                                                             | 60                                                                                  | 230                                                                                 |
| Qset                                  |                                                                                   | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| SuperPulse                            |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Trigger Control Hot start             |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Time control Hot Start                |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| Setiings Limit Editor                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Code Lock (password access)           |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| User Accounts                         |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Create Customized Synergic lines      |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Production Data                       |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ■                                                                                   |
| Weld Data recording                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | up to 100                                                                           |
| Language Options                      |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |
| VRD                                   | ■                                                                                 | ■                                                                                 | ■                                                                                  | ■                                                                                   | ■                                                                                   |
| WeldCloud compatible                  |                                                                                   |                                                                                   |                                                                                    | ■                                                                                   | ■                                                                                   |

WIRE FEEDERS

## Aristo® U8<sub>2</sub> Plus Controller

Developed for durability and usability



**QSet™** is the best single parameter automatic arc system on the market for the perfect short arc. The advantages are enormous! You set up the machine with the appropriate gas/wire combination, press the torch switch and start welding within seconds.

The machine determines the optimum parameters and makes any changes as required in a fraction of a second. The wire stick out which is normally a constant length in MIG/MAG welding, can be varied with QSet™.

Whether you are close to the work piece with the torch or so far away that the gas protection almost ceases, the welding arc remains unchanged - always perfect. Unbeatable in deep seams, if you have to weld around corners or are welding upwards coming out of the downhand position.

Utilized with CO<sub>2</sub> gas you can weld with QSet with extremely low levels of spatter and can drastically reduce the gas costs, compared with mixed gas, without any loss of quality.

QSet is ideal for welding in restricted positions, root welding, GMA brazing and for reproducible results in the series production of parts. QSet is also available in many other ESAB controller / machine combinations.

### Synergic Lines

In the Aristo U8<sub>2</sub> Plus you have more than 230 synergic lines available to you for your welding applications. From construction steel to Super Duplex, from aluminium to Ni basic alloys or for applications of hard metal. You can create customized synergic lines yourself for any desired material and any combination of protective gas and save them as new synergic lines. You can transfer data via the USB connection, to another Aristo U8<sub>2</sub> or to your computer for data backup or exchange by e-mail.

- ESAB introduced the second generation of Aristo U8<sub>2</sub> digital controllers offering improved welding capacity and operator convenience
- The new U8<sub>2</sub> Plus has been developed as an addition to our Origo® and Aristo® power sources and wire feeder devices as users demanded more functionality and functions
- Designed for advanced manual and mechanized MIG/MAG welding, Pulsed MIG/MAG, TIG, Pulse TIG, STICK welding, as well as carbon arc gouging
- User-friendly design and interface
- Complex controllers are often impossible to understand without an in-depth knowledge of the product - not so with the U8<sub>2</sub> Plus
- The few controls that it has to guide the welder intuitively are ergonomically very easy to use even when wearing protective gloves
- The large, bright display is clear and easy to read, with full text in English and 16 other languages
- It does not have a multitude of tiny knobs or buttons, nor does it use incomprehensible abbreviations

### SAT – Swift Arc Transfer™ (Robotic Welding Only)

Swift Arc Transfer (SAT) is a high productivity GMAW process using AristoRod™ non-copper coated wires with Advanced Surface Characteristics at travel speeds well beyond the limits of normal spray arc welding.

The advantage AristoRod non-copper-coated wire over copper-coated wires is that it does not contaminate the feed system with copper particles. Synergic lines are available for three AristoRod wire sizes and various shielding gases.

SAT produces flat welds with good penetration and without undercut. An additional advantage is the low heat input, resulting in less deformation. SAT is developed for robotic, automated and mechanized welding, and suited for fillet and overlap welds in thin to thick plate, in downhand positions.

SAT uses ESAB inverter power sources together with the Robofeed 3004 wire feeder for wire feed speeds up to 1200 ipm (30 m/min) in conjunction with U8<sub>2</sub> Plus control unit. ESAB provides a complete package of equipment, consumables, and synergic lines as well as the expertise to successfully implement the SAT process.

### Quality Control

For storage of the measured values you are offered two options in the form of the setting limits and measuring limits. The setting limits prevent the operator from inputting excessively high values for the welding process. The measuring limits ensure that the power source does not exceed the input values. Up to 16 User Accounts on three levels with various access rights and blocking codes can be used to prevent unauthorized persons from making changes.

### Production Statistics

The total arc time, total quantity of material and the number of welding processes can be logged per production statistics item. In addition, the arc time and amount of material for the last welding process are recorded, the total weld metal deposited can be recorded – and collected by WeldCloud™.

# Aristo® SuperPulse™

Innovative process for heat input control

An additional feature of the Aristo U8<sub>2</sub> Plus control is Aristo SuperPulse - a further development of the Pulse/Pulse concept, giving full control over the heat input and thereby expanding the scope of application of the GMAW process resulting in better gap bridging, reduction in distortion, and better balance of the weld penetration and its profile.

SuperPulse combines the relevant advantages of the various types of arc. For example, the quality of the pulsed arc with the productivity of the spray arc. Or pulse arc with short arc, to introduce the least amount of heat into the thinnest sheets of metal. Or the combination of two pulsed arcs with different frequencies, for example, for the MIG welding of aluminium with a TIG look. It also allows the working range of larger wires to be expanded increasing productivity.

| <p style="text-align: center;"><b>Pulse/Pulse</b></p> <ul style="list-style-type: none"> <li>■ All position weldability</li> <li>■ Thicknesses from 0.1 to 0.5 in. (3 to 12 mm)</li> <li>■ Exceptional results on aluminum and stainless steel</li> <li>■ Aesthetically pleasing welds with uniform bead</li> </ul> | <p style="text-align: center;"><b>Pulse/Short Arc</b></p> <ul style="list-style-type: none"> <li>■ Excellent performance on thin stainless and aluminum 0.4 to 0.2 in. (1 to 5 mm)</li> <li>■ Higher travel speeds compared to TIG</li> </ul> | <p style="text-align: center;"><b>Spray/Pulse</b></p> <ul style="list-style-type: none"> <li>■ Better overall results on thicker weldments [0.2 in. (6 mm) and over]</li> <li>■ Better control of fusion and penetration</li> <li>■ Ability to weld thick aluminum vertical up with no weaving</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

WIRE FEEDERS

## Aristo SuperPulse Benefits:

- Easier positional welding
- Uniform penetration
- Less sensitive for root gap variations and unequal heat transfer
- GTAW weld appearance with the GMAW process
- Suitable for automated welding, e.g./with ESAB Railtrac and Miggytrac automated welding tractors
- Extends the working range for larger wire sizes
- With its precisely adjustable heat input and depth of penetration, Aristo SuperPulse can solve difficult welding tasks and increase productivity



## Wire Feeder Connection Cable Sets

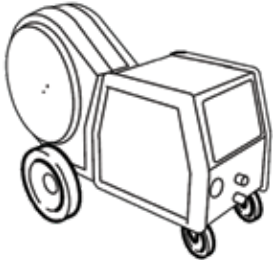

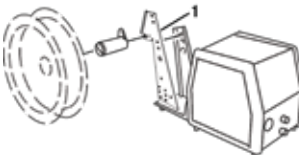



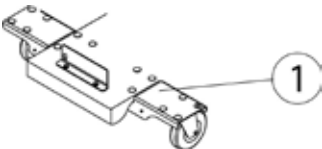


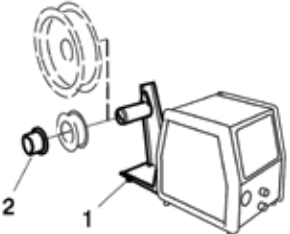
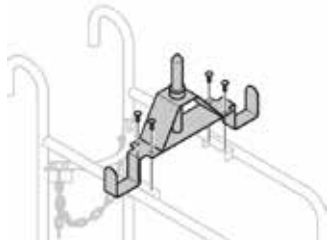


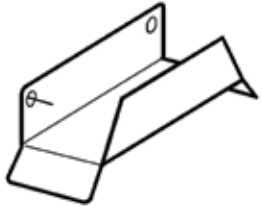
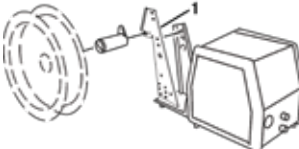

| Warrior 400i/500i Connection Cable Sets for Warrior Feed Wire Feeders |                             |
|-----------------------------------------------------------------------|-----------------------------|
| Air-Cooled                                                            | Water-Cooled                |
| 0459836880 – 6 ft (2 m)                                               | 0459836890 – 6 ft (2 m)     |
| 0459836881 – 16 ft (5 m)                                              | 0459836891 – 16 ft (5 m)*   |
| 0459836882 – 33 ft (10 m)                                             | 0459836892 – 33 ft (10 m)*  |
| 0459836883 – 50 ft (15 m)                                             | 0459836893 – 50 ft (15 m)*  |
| 0459836884 – 82 ft (25 m)*                                            | 0459836894 – 82 ft (25 m)*  |
| 0459836885 – 115 ft (35 m)*                                           | 0459836895 – 115 ft (35 m)* |

| Origo Mig 4002c/5002cw/6502c Connection Cable Sets for Origo Feed Wire Feeders |                            |
|--------------------------------------------------------------------------------|----------------------------|
| Air-Cooled - US Only                                                           | Water-Cooled               |
| 0349312450 – 6 ft (2 m)                                                        | 0459528990 – 6 ft (2 m)    |
| 0349312451 – 16 ft (5 m)                                                       | 0459528991 – 16 ft (5 m)   |
| 0349312452 – 33 ft (10 m)                                                      | 0459528992 – 33 ft (10 m)  |
| 0349312453 – 50 ft (15 m)                                                      | 0459528993 – 50 ft (15 m)* |
| 0349312454 – 82 ft (25 m)*                                                     | 0459528994 – 82 ft (25 m)* |
| 0349312455 – 115 ft (35 m)*                                                    |                            |

| Aristo Mig 4004i/5000i/U5000i Connection Cable Sets for Aristo Feed Wire Feeders |                             |
|----------------------------------------------------------------------------------|-----------------------------|
| Air-Cooled - 4004i                                                               | Water-Cooled - 4004i        |
| 0349312450 – 6 ft (2 m)                                                          | 0459528790 – 6 ft (2 m)     |
| 0349312451 – 16 ft (5 m)                                                         | 0459528791 – 16 ft (5 m)    |
| 0349312452 – 33 ft (10 m)                                                        | 0459528792 – 33 ft (10 m)   |
| 0349312453 – 50 ft (15 m)                                                        | 0459528793 – 50 ft (15 m)   |
| 0349312454 – 82 ft (25 m)*                                                       | 0459528794 – 82 ft (25 m)*  |
| 0349312455 – 115 ft (35 m)*                                                      | 0459528795 – 115 ft (35 m)* |
| Air-Cooled - 5000i/U5000i                                                        | Water-Cooled - 5000i/U5000i |
| 0459528901 – 6 ft (2 m)                                                          | 0459528970 – 6 ft (2 m)     |
| 0459528961 – 16 ft (5 m)                                                         | 0459528971 – 16 ft (5 m)    |
| 0459528962 – 33 ft (10 m)                                                        | 0459528972 – 33 ft (10 m)   |
|                                                                                  | 0459528973 – 50 ft (15 m)   |

\* Special order lengths, contact ESAB for more information.


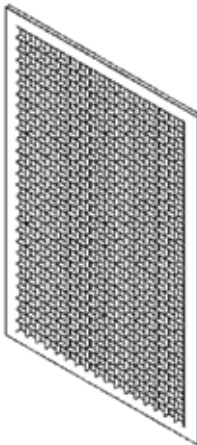
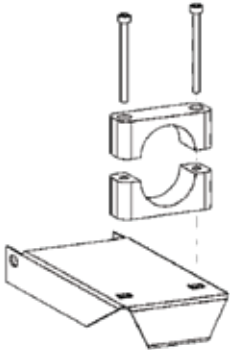
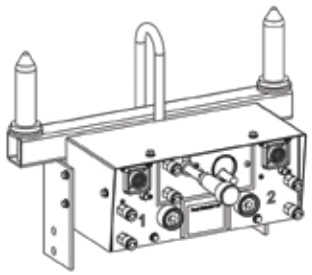
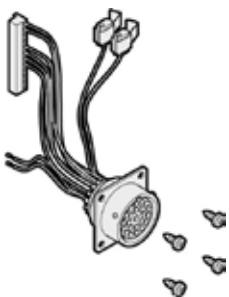
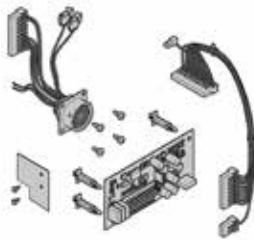

# Wire Feeder Accessories

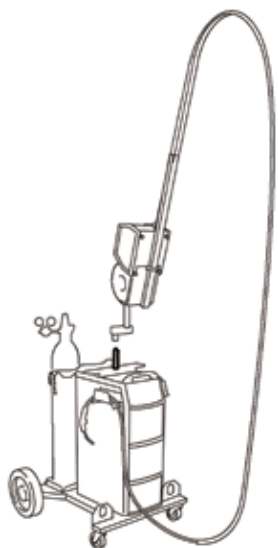
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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Wheel Kit</b><br/>Part Number: 0458707880<br/>Increases the working radius from the power source. The wheel kit has four wheels and can also be placed to pivot on the power source.</p> |  <p><b>Lifting Eye</b><br/>Part Number: 0458706880<br/>Using this device, the feeder unit can be suspended in a swinging arm.</p>      |  <p><b>60 lb Coil Extension Bracket</b><br/>Part Number: 0459233880w<br/>For use with coil adaptor.</p>             |  <p><b>Coil Adaptor</b><br/>Part Number: 34323</p>                                                                                                               |
|  <p><b>Strain Relief for Welding Torch</b><br/>Part Number: 0457341881<br/>Recommended in combination with wheel kit.</p>                                                                       |  <p><b>Feeder Strain Relief for Connection Cables</b><br/>Part Number: 0459234880</p>                                                  |  <p><b>Stabilizer Kit</b><br/>Part Number: 0465509880<br/>Warrior Trolley 1 Cylinder Must be used when MiniBoom</p> |  <p><b>Miggytrac/Railtrac Remote Adaptor for CAN feeders MA23, MA24, U6, U8, Plus</b><br/>Part Number: 0459681880</p>                                            |
|  <p><b>Steel Spool Cover</b><br/>Part Number: 0459431880<br/>12 in. (305 mm) spools.</p>                                                                                                      |  <p><b>1 - Spool Holder</b><br/>Part Number: 0458704880<br/><b>2- Adaptor for 11-lb (5 kg) Spool</b><br/>Part Number: 0455410001</p> |  <p><b>Warrior Trolley Guide Pin Extension</b><br/>Part Number: 0465508880<br/>For use with Wheel Kit.</p>        |  <p><b>Electrode Holder Assembly QD</b><br/>Part Number: 21226</p>                                                                                             |
|  <p><b>Quick Connector Marathon Pac</b><br/>Part Number: 0558002354<br/>Allows connection of QCA Adaptor to Aristo Feed inlet.</p>                                                            |  <p><b>Cable and Torch Holder</b><br/>Part Number: 0349303362</p>                                                                    |  <p><b>60 lb Coil Extension Bracket</b><br/>Part Number: 0459233880<br/>For use with coil adaptor.</p>            |  <p><b>Remote Connection Cable for CAN</b><br/>Part Number: 0459960880<br/>(Requires MTA or M1 10Prog CAN remote)<br/>CAN 4 pole - 10 pole 16.4 ft. (5 m).</p> |

WIRE FEEDERS

## Wire Feeder Accessories

WIRE FEEDERS

|                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Foot pedal T1 Foot CAN</b><br/>Part Number: 0460315881<br/>incl. 16.4 ft. (5 m) cable with 10 pole plug, for connection to the feeder with U6 panel.</p> <p>Part Number: 0460315880<br/>incl. 16.4 ft. (5 m) cable with 12 pole plug, for connection to the feeder for U8<sub>2</sub> Plus.</p> |  <p><b>Air Filter</b><br/>Part Number: 0349302252<br/>Cleanable/reusable, optional filter. Extends time between required maintenance and protects components in harsh environments. For use with Origo Mig 4002c/5002cw/6502c.</p> |  <p><b>Power Source Strain Relief for Connection Cables</b><br/>Part Number: 0349311700<br/>Recommended when moving power supply frequently and use of long connection sets.</p> |  <p><b>Feed Selector</b><br/>Part Number: 0349301152<br/>Allows the use of the two 3004 feeds M0 with a U82 Plus on MIG 4002c/5002c/6502c.</p> |
|  <p><b>Remote Kit – WarriorFeed 304</b><br/>Part Number: 0465451880<br/>For use with Handheld Remote Unit M1</p>                                                                                                                                                                                      |  <p><b>Remote Kit Miggrac/Railtrac WarriorFeed 304</b><br/>Part Number: 0465451881</p>                                                                                                                                           |  <p><b>Quick Connector Bushing Marathon Pac</b><br/>Part Number: 0558002354<br/>Allows use of p/n 899F50 QCA Fitting.</p>                                                      |                                                                                                                                                                                                                                   |



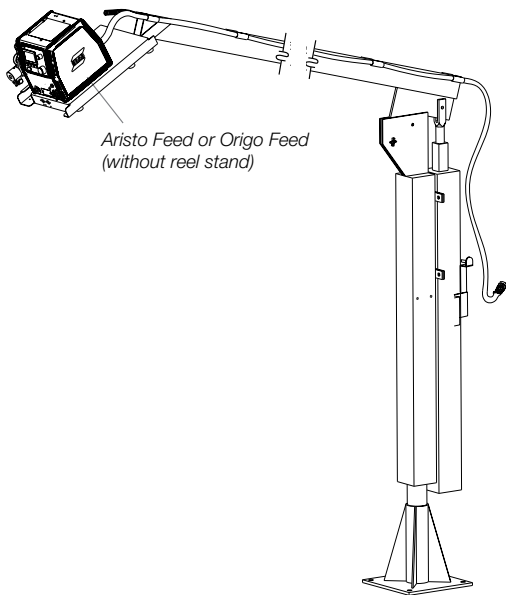
### MiniBoom Assembly

- Up to 25 ft. (7.6 m) working radius – effective area of over 1900 sqft. (579 m<sup>2</sup>)
- 350° working envelope
- Mounts easily to power source, inverter cart or stationary pedestal
- Adjustable boom length
- Adjustable counterbalance spring
- Feed 304/3004 only

| Ordering Information      |            |
|---------------------------|------------|
| MiniBoom for Spools (12") | 0458705880 |
| MiniBoom for Coils (18")  | 0458705882 |

*\*Use with accessories listed for Trolley/power source used.*

## Balanced Boom Assembly



- Extends a 12 ft. (4 m) or 15 ft. (4.5 m) torch's reach from a 20 ft. (6 m) radius up to a 31 ft. (9.5 m) radius
- 350° envelope of operation in most uses
- Boom adjusts from 50° up to 6° down from horizontal position, can be used for tall weldments
- Fully balances feeder weight for fingertip control of feeder height, no lever jacking
- Mast has 6.5 ft. (2 m) clearance from floor to boom support pin
- Standard mounting directly to concrete floor
- Pallet and cart mounting options available
- Extremely rugged steel construction for years of continuous use
- Weld parameters easily adjustable on the standard feeder at the end of boom
- Wire spools mountable to mast or feed wire from Marathon Pac

### Ordering Information

|                          |            |                          |            |
|--------------------------|------------|--------------------------|------------|
| 8 ft. (2.4 m), B-8/FHD   | 0558004002 | 10 ft. (3 m), B-10/FHD   | 0558004006 |
| 12 ft. (3.6 m), B-12/FHD | 0558003734 | 16.4 ft. (5 m), B-16/FHD | 0558003737 |

### Options & Accessories

|                                                  |            |                                                             |            |
|--------------------------------------------------|------------|-------------------------------------------------------------|------------|
| 8 ft. (2.4 m), Plastic Trough                    | 0558004004 | 10 ft. (3 m), Plastic Trough                                | 0558004008 |
| 12 ft. (3.6 m), Plastic Trough                   | 0558003447 | 16.4 ft. (5 m), Plastic Trough                              | 0558003732 |
| Boom mounting bracket <sup>1</sup>               | 0558005581 | Feeder strain relief for torch <sup>1</sup>                 | 0457341881 |
| ERS conduit bushing support bracket <sup>2</sup> | 37770      | Spindle assembly <sup>3</sup>                               | 948259     |
| Coil adapter for 60-lb (27-kg) coils             | 34323      | Pallet base <sup>4</sup>                                    | 37776      |
| Welding cart with wheels <sup>5</sup>            | 37777      | Inlet guide, 0.2-1 in. (4-30 mm), Marathon Pac <sup>6</sup> | 0558002354 |

<sup>1</sup>For Origo Feed and Aristo Feed wire feeders.

<sup>2</sup>Used with spindle assembly #948259 (holds conduit inlet inline with spool).

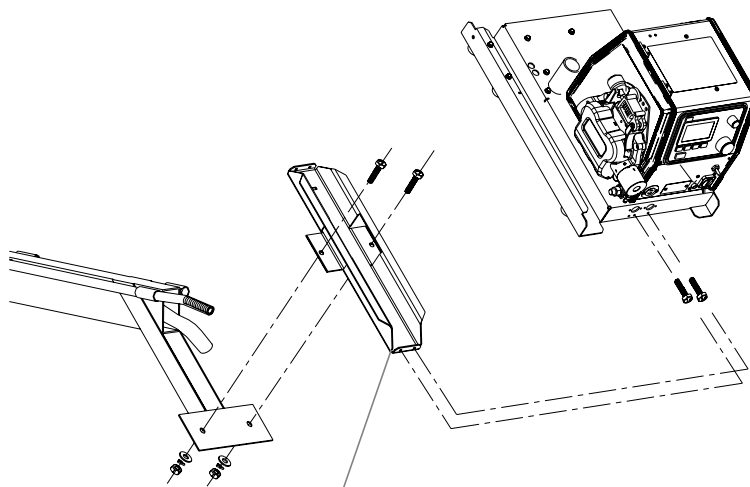
<sup>3</sup>For mast mounted spools - requires 1/4 in. hardware.

<sup>4</sup>Requires anchoring to floor in-use.

<sup>5</sup>Use with 12 ft. maximum boom and 300+ lbs. power source.

<sup>6</sup>Accepts QCA adaptor #899F50.

Typical wire feeder



Typical wire feeder mounting bracket

## ES 95i

Portable DC Stick and Stick/TIG Welding Systems



- DC output for TIG welding stainless, mild steel, and chrome molys
- Lift TIG Start provides optimized TIG arc starting without the use of high frequency
- 90 A of output capable of welding 3/32 in. (2.4 mm) electrodes
- Fixed Hot Start & Arc Force for optimum Stick electrode performance
- Overload Protection shuts down the power source to protect the internal electrical components

### Specifications

| Input Voltage           | Welding Output TIG                                                                     | Welding Output Stick                                                                   | Current Range                         |                   |
|-------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------|-------------------|
| 120 VAC, 1 ph, 50/60 Hz | 85 A/13.4 V @ 25% Duty Cycle, 115 V, 15 A<br>95 A/13.8 V @ 20% Duty Cycle, 115 V, 20 A | 60 A/22.4 V @ 45% Duty Cycle, 115 V, 15 A<br>90 A/23.6 V @ 20% Duty Cycle, 115 V, 20 A | 10 – 95 A (TIG)<br>10 – 90 A (Stick)  |                   |
| Supply Plug             | Lead Cord Length                                                                       | Open Circuit Voltage                                                                   | Dimensions                            | Weight            |
| NEMA 5-20P              | 10 ft. (3 m)                                                                           | 60 VDC                                                                                 | 13 x 5.1 x 9 in. (330 x 130 x 230 mm) | 9.7 lbs. (4.4 kg) |

### Ordering Information

|                                      |          |
|--------------------------------------|----------|
| ES 95i Portable DC Stick Package     | W1003209 |
| ES 95i Portable DC Stick/TIG Package | W1003210 |

W1003210 Includes: all components from W1003209 plus 17V style TIG torch 3 m (10 ft.) and accessory kit with Victor Argon Flowgauge Regulator.

W1003209 Includes: ES 95i power supply, electrode holder with 4 m (13 ft.) lead, ground clamp with 3 m (10 ft.) lead, 15-20 A power adapter plug and cable, operator's manual and CD, 4 general purpose Stick electrodes (E6013), carry case.

### Options & Accessories

|                                                         |           |
|---------------------------------------------------------|-----------|
| TIG Torch and Accessories, 17V Style, 10 ft. (3 m)      | W4012500  |
| Electrode Holder and Lead Assembly, 13 ft. (4 m), 25 mm | W7003106  |
| Ground Clamp and Lead Assembly, 10 ft. (3 m), 25 mm     | W7003105  |
| Victor Argon Flow Gauge Regulator GF-250-50-580         | 0781-9411 |
| Dinse Adapter, 50 mm Female to 25 mm Male               | W4017500  |
| Power Adapter, 120V 20A to 15A                          | W4013300  |
| Small Toolbox Case                                      | W4012801  |

# MiniArc 161LTS

The welder's choice for Stick/TIG welding



- Automatic Primary Select operates on either 115 V or 230 V and automatically configures to the primary input supplied
- Able to use cellulosic 6010 electrodes with ease
- 18 lbs. (13.6 kg) weight with adjustable shoulder strap and carrying case makes this unit portable and easy to carry directly to the job
- 5 A to 160 A current range for DC welding
- Hot Start, Arc Force and Lift Arc TIG are standard on all models

| Specifications                                 |                                                                                                                                                                  |                                                                                                                                                                  |                                            |                          |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|
| Input Voltage                                  | Welding Output TIG                                                                                                                                               | Welding Output Stick                                                                                                                                             | Current Range                              | Efficiency @ Max Current |
| 115 V, 1 ph, 50/60 Hz<br>230 V, 1 ph, 50/60 Hz | 110 A/14.4 V @ 35% Duty Cycle (115 V)<br>60 A/12.4 V @ 100% Duty Cycle (115 V)<br>160 A/16.4 V @ 35% Duty Cycle (230 V)<br>88 A/16.4 V @ 100% Duty Cycle (230 V) | 110 A/24.4 V @ 35% Duty Cycle (115 V)<br>60 A/22.4 V @ 100% Duty Cycle (115 V)<br>160 A/26.4 V @ 35% Duty Cycle (230 V)<br>88 A/23.5 V @ 100% Duty Cycle (230 V) | 5 A – 110 A (115 V)<br>5 A – 160 A (230 V) | 80%                      |
| Open Circuit Voltage                           | Power Factor @ Max Current                                                                                                                                       | Dimensions                                                                                                                                                       | Weight                                     |                          |
| 80 V                                           | 0.73                                                                                                                                                             | 15.75 x 5.75 x 10 in. (400 x 146 x 255 mm)                                                                                                                       | 18 lbs. (8 kg)                             |                          |

| Ordering Information                              |            |
|---------------------------------------------------|------------|
| MiniArc 161LTS, 115/230 V, 1 ph, Stick            | 0558101694 |
| MiniArc 161LTS, 115/230 V, 1 ph, Stick, w/case    | 0558011934 |
| MiniArc 161LTS, 115/230 V, 1ph, Stick/TIG         | 0558101699 |
| MiniArc 161LTS, 115/230 V, 1ph, Stick/TIG, w/case | 0558102202 |

*Includes: power source with 10 ft. (3 m) power cord, 115/230V input power adapter cable, 10 ft. (3 m) heavy-duty ground cable and clamp, 10 ft. (3 m), heavy-duty electrode holder and cable, and sample pack of ESAB electrodes.  
GTAW Package also includes HW-17FV torch, R33 reg./flowmeter, and GTAW accessory kit.*

| Options & Accessories                          |            |
|------------------------------------------------|------------|
| Plug adaptor 2ft 115V Miniarc                  | 0558007830 |
| Plug adaptor 2ft 230V Miniarc                  | 0558007829 |
| Welding cable 200A, 16.4 ft. (5 m) OKC25       | 0700006882 |
| Return cable 200A, 16.4 ft. (5 m) OKC25        | 0700006883 |
| GTAW torch, 17FV, 20 ft. (6 m) & accessory kit | 0558101723 |
| HRF1425-580 Reg-FM W/CGA-032 Hose ftgs         | 0781-2809  |
| GTAW torch accessory kit                       | 999126     |
| Carrying case                                  | 0558011935 |

STICK/TIG  
MACHINES

## ET 201i DC

Portable DC HF Stick/TIG system



- Stick, HF (high frequency) TIG, and Lift TIG welding capabilities in one integrated portable package with 200 A welding output
- DC output for TIG welding stainless, mild steel and chrome molys
- Preflow and postflow - preset values over shielding gas before and after the weld
- Downslope control eliminates cracking at the end of the weld and HF arc start provides non-contact TIG starting eliminating tungsten or material contamination
- Gas solenoid valve eliminates manual gas control on the torch
- 200 A of output capable of welding 3/32 - 5/32 in. (2.4 - 4.0 mm) electrodes and fixed hot start and adjustable arc force control for optimum Stick electrode performance

### Specifications

| Input Voltage                                                                                                                                                        | Supply Voltage                                   | Current Range                                                                                                                                                           | Max. Output                             | Rated kVA                        | Supply Plug        | Lead Cord Length |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------|--------------------|------------------|
| 120 VAC, 208/230 VAC<br>1 ph, 50/60 Hz                                                                                                                               | 104 – 127 VAC, 115 V<br>187 – 253 VAC, 208/230 V | 10 - 160 A (TIG)<br>10 - 125 A (Stick)<br>10 - 200 A (TIG/Stick)                                                                                                        | 200 A                                   | 5 kVA, 115 V<br>6 kVA, 208/230 V | NEMA 6-50P         | 10 ft. (3 m)     |
| Welding Output                                                                                                                                                       |                                                  |                                                                                                                                                                         | Open Circuit Voltage                    |                                  | Protection Class   |                  |
| TIG (GTAW) welding output 40°C (104°F)<br>100 A/14 V @ 60% Duty Cycle, 115 V, 15 A<br>150 A/16 V @ 34% Duty Cycle, 115 V, 20 A<br>200 A/18 V @ 25% Duty Cycle, 230 V |                                                  | Stick (SMAW) welding output 40°C (104°F)<br>70 A/22.8 V @ 70% Duty Cycle, 115 V, 15 A<br>100 A/24 V @ 25% Duty Cycle, 115 V, 20 A<br>200 A/28 V @ 20% Duty Cycle, 230 V |                                         | 71 V                             |                    | IP23S            |
|                                                                                                                                                                      |                                                  |                                                                                                                                                                         | Dimensions L x W x H                    |                                  | Weight             |                  |
|                                                                                                                                                                      |                                                  |                                                                                                                                                                         | 17.7 x 5.3 x 9 in. (450 x 135 x 230 mm) |                                  | 21.6 lbs. (9.7 kg) |                  |

### Ordering Information

|                              |          |
|------------------------------|----------|
| ET 201i DC TIG/Stick Package | W1003807 |
|------------------------------|----------|

*Includes: ET 201i DC power supply, 200 A electrode holder with 13 ft (4 m) lead, 200 A ground clamp with 10 ft (3 m) lead, 26 style TIG torch 12.5 ft (3.8 m) and accessory kit, Victor argon flowgauge regulator, gas hose, adapter plug from 230 V 50 A to 120 V 15 A circuits, operator's manual and CD, 4 general purpose stick electrodes (E6013), and carry case.*

### Options & Accessories

|                                                                                            |           |
|--------------------------------------------------------------------------------------------|-----------|
| TIG Torch, 26 w/8 pin hand remotes, 12.5 ft. (3.8 m), 50 mm (2 in.) & accessory kit        | W4013600  |
| Electrode Holder 200A and Lead Assembly, 13 ft. (4 m), 25 mm                               | 9110-1177 |
| Ground Clamp 200 A and Lead Assembly, 10 ft. (3 m), 25 mm                                  | 9255-1140 |
| Victor Argon Flow Gauge Regulator GF-250-50-580                                            | 0781-9411 |
| Gas Hose, 3.8 m (12.5 ft.), Male 5/8-18UNF                                                 | W4013900  |
| Foot control contactor on/off & current control w/8-pin male plug and 15 ft. (4.6 m) cable | 600285    |
| Power Adapter 230 V to 120 V, 15 A                                                         | W4014000  |
| Large Toolbox Case                                                                         | W4012802  |

# Renegade™ ES 300i & ET 300iP

## Multi-voltage, industrial Stick/TIG machines



[esab.com/renegade](http://esab.com/renegade)



- ES 300i has highest power-to-weight ratio in its class weighing in at 33 lbs. (15 kg) and producing 300 A at 40% duty cycle (3 ph)
- Small, lightweight system can virtually go anywhere on the jobsite; its three handle design makes it easy for transportation and maneuvering through manholes and other hard to reach areas
- ES 300i incorporates excellent performance with 6010 (cellulosic) electrodes and additional functionality to tailor Arc Force for a softer or crisper arc through a 6010 mode
- With an excellent TIG operational range from 5 to 300 A, you'll have the confidence to tackle a broad range of material thicknesses
- Intuitive Interface – the machine's digital readout display, along with large buttons with excellent feedback and controls, make it easy to set parameters and read them from a distance
- Cable Management – an integrated latch system helps control cables so they can be secured to the machine, making it easy to pack up and go
- ET300iP - Pulse HF TIG. 0.1 - 1000 pulse frequency range, the widest range in its category giving you maximum precision TIG welding capability including better arc control, penetration and increased travel speeds
- Air- and water-cooled packages available with easy, intuitive set-up for ET 300iP

### Specifications

| Input Voltage                                | Welding Output TIG                                                                                             |                          | Welding Output Stick                                                                                           |                  | Current Range                                                                                                               | Input Current Draw                                                                                                   | Rated kVA |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|
| 230 – 460 VAC 1 ph, 3 ph<br>+/- 10% 50/60 Hz | 300 A/20 V @ 40% Duty Cycle, 3 ph<br>250 A/20 V @ 60% Duty Cycle, 3 ph<br>200 A/18 V @ 100% Duty Cycle, 1/3 ph |                          | 300 A/30 V @ 40% Duty Cycle, 3 ph<br>250 A/30 V @ 60% Duty Cycle, 3 ph<br>200 A/28 V @ 100% Duty Cycle, 1/3 ph |                  | 5 – 200 A, 1 ph<br>5 – 300 A, 3 ph                                                                                          | 10 A, 400 – 460 V<br>11 A, 380 V<br>20 A, 230 V                                                                      | 11.3 kVA  |
| Open Circuit Voltage                         | Power Factor @ Max Current                                                                                     | Efficiency @ Max Current | Energy Save Mode                                                                                               | Lead Cord Length | Dimensions L x W x H                                                                                                        | Weight                                                                                                               |           |
| 48 V (32 V - VRD)                            | 0.96                                                                                                           | 85% (TIG)<br>89% (Stick) | 91 W                                                                                                           | 10 ft. (3 m)     | ES 300i:<br>15.75 x 5.75 x 10 in.<br>(400 x 146 x 255 mm)<br><br>ET 300iP:<br>18.1 x 7.9 x 12.6 in.<br>(460 x 200 x 320 mm) | ES 300i:<br>18 lbs. (8 kg)<br><br>ET 300iP:<br>37.3 lbs. (16.9 kg) without cooler<br>59.3 lbs. (59.3 kg) with cooler |           |

STICK/TIG MACHINES

### Ordering Information

|                                                                                   |            |
|-----------------------------------------------------------------------------------|------------|
| Renegade ES 300i                                                                  | 0445100881 |
| Renegade ET 300iP Std Pkg                                                         | 0445100921 |
| Renegade ET 300iP TXH 201 13 ft. (4 m)                                            | 0558102564 |
| Renegade ET 300iP TXH 201 26 ft. (7.9 m)                                          | 0558102565 |
| Renegade ET 300iP TXH 201 13 ft. (4 m), Foot Control 16.5 ft. (5 m)               | 0558102566 |
| Renegade ET 300iP TXH 201 26 ft. (7.9 m), Foot Control 32 ft. (9.8 m)             | 0558102567 |
| Renegade ET 300iP TXH 252w 13 ft. (4 m), Foot Control 16.5 ft. (5 m) Water-Cooled | 0558102568 |

Standard package includes power supply, shoulder strap, 10 ft. (3 m) input cable, 2 x OKC 50mm connectors (packages do not contain work cables or electrode cables). All TXH 201 packages include everything in the standard package plus TXH 201 TIG torch with on/off switch, GTAW Accessory regulator/flowmeter w/gas hose. Foot control packages include everything in the TXH 201 package plus ER1F foot control 16.5 ft. (5 m). TXH 252w package includes power supply, shoulder strap, 10 ft. (3 m) input cable, 2 x OKC 50mm connectors, EC 1000 water cooler, TIG torch with on/off switch, ER1F foot control, GTAW Accessory kit, regulator/flowmeter w/gas hose and two-wheeled trolley.

## Renegade™ ES 300i & ET 300iP Accessories

| Options & Accessories                                              |            |
|--------------------------------------------------------------------|------------|
| <b>Renegade ES 300i</b>                                            |            |
| Electrode Cable T316 15 ft. (5 m) 2/0                              | 0558102319 |
| Work Cable GC-500 15 ft. (5 m) 4/0                                 | 0558102318 |
| OKC 50 male cable plug                                             | 13733936   |
| ER 1 Remote control. 16.4 ft (5 m) interconnection cable, 6 pin,   | 0445536881 |
| ER 1 F Foot pedal 16.4 ft (5 m) interconnection cable, 6 pin,      | 0445550881 |
| 26V-12R TIG Torch 12.5 ft. (3.8 m)                                 | Q26V-12R   |
| TIG Torch Adapter                                                  | QDA-26R    |
| Interconnection cable, 6 pin, 16.4 ft (5 m) for ER 1               | 0445280880 |
| Interconnection cable, 6 pin, 32.8 ft (10 m) for ER 1              | 0445280881 |
| Interconnection cable, 6 pin, 16.4 ft (5 m) for ER 1 F             | 0445254880 |
| Interconnection cable, 6 pin, 32.8 ft (10 m) for ER 1 F            | 0445254881 |
| <b>Renegade ET 300iP</b>                                           |            |
| Shoulder strap                                                     | 0445197880 |
| Trolley 2-wheel for Renegade                                       | 0460330881 |
| TXH 201 TIG Torch 13 ft. (4 m)                                     | 0700300552 |
| TXH 201 TIG Torch 26 ft. (8 m)                                     | 0700300555 |
| TXH 252w TIG Torch 13 ft. (4 m)                                    | 0700300855 |
| TXH 252w TIG Torch 26 ft. (8 m)                                    | 0700300856 |
| EC 1000 Water-Cooler                                               | 0445045880 |
| ER 1 Remote Control incl. 16.4 ft. (5 m) cable and 6-pin connector | 0445536881 |
| ER 1 Remote Control incl. 33 ft. (10 m) cable and 6-pin connector  | 0445536882 |
| ER 1 Remote Control incl. 82 ft. (25 m) cable and 6-pin connector  | 0445536883 |
| ER 1F Foot Control incl. 16.4 ft. (5 m) cable and 6-pin connector  | 0445550881 |
| ER 1F Remote Control incl. 33 ft. (10 m) cable and 6-pin connector | 0445550882 |

STICK/TIG  
MACHINES



Trolley 2-wheel (0460330881)

# ET 141i AC/DC

Portable AC/DC HF TIG/Stick welding system



- AC and DC output for aluminum and non-ferrous alloys, stainless, mild steel and chrome moly
- AC Frequency preset sets the frequency of the AC square wave and Wave Balance sets the penetration to cleaning ratio when welding on aluminum
- Lift TIG Start provides optimized TIG arc starting without the use of high frequency
- Preflow and postflow presets controls the shielding gas before and after the weld
- Hot Start ensures good arc starting when Stick welding

| Specifications                                                                                                                         |                |                                                                          |                                            |                   |             |                  |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------|--------------------------------------------|-------------------|-------------|------------------|
| Input Voltage                                                                                                                          | Supply Voltage | Current Range                                                            | Max. Output                                | Rated kVA         | Supply Plug | Lead Cord Length |
| Nominal 120 VAC<br>1 ph, 50/60 Hz                                                                                                      | 108-132 VAC    | 10-140 A                                                                 | 140 A                                      | 5 kVA @ 180 A     | NEMA 5-20P  | 10 ft. (3 m)     |
| Welding Output                                                                                                                         |                |                                                                          | Open Circuit Voltage                       | Protection Class  |             |                  |
| TIG (GTAW) welding output 40°C (104°F)<br>140 A/15.6 V @ 20% Duty Cycle<br>75 A/13 V @ 60% Duty Cycle<br>60 A/12.4 V @ 100% Duty Cycle |                | Stick (SMAW) welding output 40°C (104°F)<br>90 A/23.6 V @ 20% Duty Cycle | 77.6 VDC/92.8 VAC                          | IP23S             |             |                  |
|                                                                                                                                        |                |                                                                          | Dimensions L x W x H                       | Weight            |             |                  |
|                                                                                                                                        |                |                                                                          | 17 x 9.45 x 15.75 in. (432 x 240 x 400 mm) | 48.4 lbs. (22 kg) |             |                  |

| Ordering Information                                                  |          |
|-----------------------------------------------------------------------|----------|
| ET 141i AC/DC TIG/Stick System                                        | W1006311 |
| ET 141i AC/DC TIG/Stick System with Foot Control                      | W1006313 |
| ET 141i AC/DC TIG/Stick System with Foot Control & Basic Utility Cart | W1006314 |

W1006311 Includes: ET 141i AC/DC power supply, argon flow gauge regulator and 12.5 ft. (3.8 m) hose, TIG torch and accessories, 17 Style, 13 ft. (4 m), 4 general purpose stick electrodes (E6013), power adapter 120V 20A to 15A, 10 ft. (3 m) power cord and NEMA 5-20P 120 VAC plug, 150A electrode holder with 13 ft. (4 m) lead, 150A ground clamp with 3 m (10 ft.) lead, operator's manual.

W1006313 Includes: all components from W1006311 plus foot control with 15 ft. (4.6 m) cable.

W1006314 Includes: all components from W1006311 plus foot control with 15 ft. (4.6 m) cable and basic utility cart.

| Options & Accessories                                        |           |
|--------------------------------------------------------------|-----------|
| TIG Torch and Accessories, 17 Style, 13 ft. (4 m)            | W4012701  |
| Electrode Holder 200A and Lead Assembly, 13 ft. (4 m), 50 mm | 1201-9577 |
| Ground Clamp 200 A and Lead Assembly, 10 ft. (3 m), 50 mm    | 1201-9585 |
| Victor Argon Flow Gauge Regulator GF-250-50-580              | 0781-9411 |
| Gas Hose, 12.5 ft. (3.8 m), Male 5/8-18UNF                   | W4013900  |
| Foot Control, 15 ft. (4.6 m) cable and 8-pin Male Plug       | W4013200  |
| Power adapter, 120V 20A to 15A                               | W4013300  |
| Basic Utility Cart, max 7 in. (177.8 mm) diameter cylinder   | W4014700  |

## ET 186i AC/DC

Portable AC/DC HF TIG/Stick welding system



- AC and DC output for aluminum and non-ferrous alloys, stainless, mild steel and chrome moly
- HF Arc Start: provides non-contact arc starting that eliminates tungsten or material contamination
- Pulse: changes the weld current from high to low at a specified frequency, reduces heat input on thin material (0.5 Hz - 200 Hz)
- AC Frequency: adjustable frequency of the AC square wave when welding on aluminum for optimized set up (15 Hz - 150 Hz)
- Wave Balance: adjustable for optimized penetration or cleaning action when welding on aluminum

### Specifications

| Input Voltage                                                                                                                           | Supply Voltage | Current Range                                                                                                                             | Max. Output                                | Rated kVA         | Supply Plug | Lead Cord Length |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------|-------------|------------------|
| 208/230 VAC<br>1 ph, 50/60 Hz                                                                                                           | 187 - 253 VAC  | 10 - 200 A (TIG)<br>10 - 170 A (Stick)                                                                                                    | 200 A                                      | 9.5 kVA @ 200 A   | NEMA 6-50P  | 10 ft. (3 m)     |
| Welding Output                                                                                                                          |                |                                                                                                                                           | Open Circuit Voltage                       | Protection Class  |             |                  |
| TIG (GTAW) welding output 40°C (104°F)<br>200 A/18 V @ 20% Duty Cycle<br>116 A/14.6 V @ 60% Duty Cycle<br>90 A/13.6 V @ 100% Duty Cycle |                | Stick (SMAW) welding output 40°C (104°F)<br>170 A/26.8 V @ 15% Duty Cycle<br>100 A/24 V @ 60% Duty Cycle<br>80 A/23.2 V @ 100% Duty Cycle | 70.3 VDC/50 VAC                            | IP23S             |             |                  |
|                                                                                                                                         |                |                                                                                                                                           | Dimensions L x W x H                       | Weight            |             |                  |
|                                                                                                                                         |                |                                                                                                                                           | 18.7 x 9.5 x 15.8 in. (475 x 240 x 400 mm) | 48.4 lbs. (22 kg) |             |                  |

### Ordering Information

|                                                                       |          |
|-----------------------------------------------------------------------|----------|
| ET 186i AC/DC TIG/Stick System                                        | W1006301 |
| ET 186i AC/DC TIG/Stick System with Foot Control                      | W1006303 |
| ET 186i AC/DC TIG/Stick System with Foot Control & Basic Utility Cart | W1006304 |

*Includes: ET 186i AC/DC inverter power supply, electrode holder with 13 ft. (4 m) lead, work clamp with 10 ft. (3 m) lead, 26 TIG torch 12.5 ft. (3.8 m) lead with integrated controls and accessories, input power cable/plug 9 ft. (2.75 m), Victor argon flowgauge regulator, 12.5 ft. (3.8 m) hose, electrode bonus, shoulder strap and operating manual/CD.  
Foot Control package includes: all components from W1006301 plus foot control with 15 ft. (4.6 m) cable.  
Foot Control/Utility Card package includes: all components from W1006301 plus foot control with 15 ft. (4.6 m) cable and basic utility cart.*

### Options & Accessories

|                                                             |           |
|-------------------------------------------------------------|-----------|
| TIG Torch and Accessories (required for TIG welding)        | W4013600  |
| Electrode Holder 200A and Lead Assembly, 13 ft (4 m), 25 mm | 9110-1177 |
| Ground Clamp 200 A and Lead Assembly, 10 ft (3 m), 25 mm    | 9255-1140 |
| Victor Argon Flow Gauge Regulator GF-250-50-580             | 0781-9411 |
| Gas Hose, 12.5 ft (3.8 m), Male 5/8-18UNF                   | W4013900  |
| Foot Control, 15 ft (4.6 m) cable and 8-pin Male Plug       | W4013200  |
| Basic Utility Cart, max 7 in. (177.8 mm) diameter cylinder  | W4014700  |

# ET 220i AC/DC

## HF TIG inverter power supply



- High output, full digital control, AC/DC, inverter power supply for precision TIG and Stick welding with expanded input voltage capabilities for maximum flexibility
- HF TIG and Liftarc TIG start with rapid pulse output
- Superior, true square wave output combined with advanced balance and cleaning features to deliver unbeatable welding performance with extended tungsten life on aluminum and magnesium alloys without the need for continuous high frequency
- Automatic downslope, pulse, repeat (latch) function, memory function and automatic gas management
- Embedded microprocessor with digital controls, tiptronic memory functions and robust aluminum metal case

### Specifications

| Input Voltage                                                                                                                                                                                       | Current Range                              |                                                                                                                                                               | Effective Input Current                                                                   | Max. Input Current                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 208-230/460 VAC +/-15%<br>1/3 ph, 50/60 Hz                                                                                                                                                          | TIG 1 ph: 5 - 200 A<br>TIG 3 ph: 5 - 220 A | Stick 1 ph: 10 - 150 A<br>Stick 3 ph: 10 - 170 A                                                                                                              | 1ph: 37.3 A (208 V), 33.7 A (230 V)<br>3ph: 16.8 A (208 V), 15.2 A (230 V), 8.2 A (460 V) | 1ph: 37.3 A (208 V), 33.7 A (230 V), 18.1 A (460 V)<br>3ph: 24.5 A (208 V), 22.1 A (230 V), 11.9 A (460 V) |
| Welding Output                                                                                                                                                                                      |                                            |                                                                                                                                                               | Open Circuit Voltage                                                                      | Protection Class                                                                                           |
| TIG (GTAW) welding output 40°C (104°F)<br>200 A/18.8 V @ 45% Duty Cycle, 1 ph<br>180 A/17.2 V @ 60% Duty Cycle, 1 ph<br>220 A/18.8 V @ 40% Duty Cycle, 3 ph<br>160 A/16.4 V @ 100% Duty Cycle, 3 ph |                                            | Stick (SMAW) welding output 40°C (104°F)<br>150 A/26 V @ 40% Duty Cycle, 1 ph<br>170 A/26.8 V @ 40% Duty Cycle, 3 ph<br>140 A/25.6 V @ 60% Duty Cycle, 1/3 ph | <113 V (VRD active)                                                                       | IP23S                                                                                                      |
|                                                                                                                                                                                                     |                                            |                                                                                                                                                               | Dimensions L x W x H                                                                      | Weight                                                                                                     |
|                                                                                                                                                                                                     |                                            |                                                                                                                                                               | 19 x 7.25 x 13 in. (483 x 185 x 326 mm)                                                   | 29.5 lbs. (13.4 kg)                                                                                        |

### Ordering Information

|                                   |          |
|-----------------------------------|----------|
| ET 220i AC/DC power source        | W1009300 |
| ET 220i AC/DC HF TIG              | W1009301 |
| ET 220i AC/DC HF TIG with trolley | W1009302 |

HF TIG package includes: inverter power source, 200A air cooled TIG torch with accy's., work and electrode lead, gas hose and flowmeter/regulator, operator's manual and set-up DVD, primary cable and Dinse plugs.

HF TIG with trolley package includes: inverter power source, 200A air cooled TIG torch with accy's., work and electrode lead, gas hose and flowmeter/regulator, industrial trolley, operator's manual and set-up DVD, primary cable and Dinse plugs.

## ET 301i AC/DC

HF TIG Inverter Power Supply



- High output, full digital control, AC/DC, inverter power supply for precision TIG and Stick welding with expanded input voltage capabilities for maximum flexibility
- High frequency start, Lift Arc TIG start, automatic downslope, pulse, repeat (latch) function, memory function and automatic gas management
- Automatic input voltage selection – operates on 208-230/460V single or three phase
- Lightweight and portable at 35.9 lbs. (16.3 kg)
- Tiptronic - 100 memory functions
- Robust aluminum metal case

### Specifications

| Input Voltage                                                                                                                                               | Current Range                              | Effective Input Current                          | Max. Input Current                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 208 – 230/460 VAC<br>+/-15%, 1/3 ph, 50/60 Hz                                                                                                               | TIG 1 ph: 5 – 200 A<br>TIG 3 ph: 5 – 300 A | Stick 1 ph: 10 – 150 A<br>Stick 3 ph: 10 – 200 A | 1 ph: 37.3 A (208 V), 33.7 A (230 V), 18.1 A (460 V)<br>3 ph: 23.8 A (208 V), 21.6 A (230 V), 11.6 A (460 V) |
| <b>Welding Output</b>                                                                                                                                       |                                            | <b>Open Circuit Voltage</b>                      | <b>Protection Class</b>                                                                                      |
| TIG (GTAW) welding output 40°C (104°F)<br>200 A/18 V @ 60% Duty Cycle, 1 ph<br>300 A/22 V @ 30% Duty Cycle, 3 ph<br>170 A/16.8 V @ 100% Duty Cycle, 1/3 ph  |                                            | <113 V (VRD active)                              | IP23S                                                                                                        |
| Stick (SMAW) welding output 40°C (104°F)<br>150 A/26 V @ 100% Duty Cycle, 1 ph<br>200 A/28 V @ 60% Duty Cycle, 3 ph<br>165 A/26.6 V @ 100% Duty Cycle, 3 ph |                                            | <b>Dimensions L x W x H</b>                      | <b>Weight</b>                                                                                                |
|                                                                                                                                                             |                                            | 19 x 7.25 x 13 in. (483 x 185 x 326 mm)          | 35.9 lbs. (16.3 kg)                                                                                          |

### Ordering Information

|                                   |          |
|-----------------------------------|----------|
| ET 301i AC/DC power source        | W1009400 |
| ET 301i AC/DC HF TIG Water-Cooled | W1009401 |

HF TIG package includes: inverter power source, 300A WC TIG torch w/Accy's., water recirculator, work and electrode lead, gas hose and flowmeter / regulator, industrial cart, operator's manual & set-up DVD, primary cable and Dinse plugs.



## ET 220i & 301i AC/DC Accessories

| Options & Accessories                                                                                             |           |
|-------------------------------------------------------------------------------------------------------------------|-----------|
| TIG Torch, 26 w/8 pin hand remotes, 12.5 ft. (3.8 m), 2 in. (50 mm) & accessory kit                               | W4013600  |
| TIG Torch, 18, 25 ft. (7.6 m), water-cooled, 2 in. (50 mm) & accessory kit                                        | W4013604  |
| Tweco 200A electrode holder & lead assy. 13 ft. (4 m) length, 2 in. (50 mm) Dinse                                 | 91101177  |
| Tweco 200A ground clamp & lead assy. 10 ft. (3 m) length, 2 in. (50 mm) Dinse                                     | 92551140  |
| Victor ESS3-RG-580 EDGE Argon flowgauge regulator                                                                 | 0781-5120 |
| Gas hose, 12.5 ft. (3.8 m) length, male 5/8 in. -18unf gas fittings                                               | W4013900  |
| Foot control contactor on/off & current control w/8-pin male plug and 15 ft. (4.6 m) cable                        | 600285    |
| Foot control contactor on/off & current control w/8-pin male plug and 25 ft. (7.6 m) cable                        | 10-4016   |
| HP-100 hand held remote control pendant                                                                           | 10-4014   |
| Torch mounted contactor on/off w/8-pin male plug and 15 ft. (4.6 m) cable                                         | 10-4006   |
| Torch mounted contactor on/off w/8-pin male plug and 25 ft. (7.6 m) cable                                         | 10-4007   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 15 ft. (4.6 m) cable, fits CK9 style handle  | 10-4008   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 15 ft. (4.6 m) cable, fits CK17 style handle | 10-4009   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 15 ft. (4.6 m) cable, fits CK26 style handle | 10-4010   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 25 ft. (7.6 m) cable, fits CK9 style handle  | 10-4011   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 25 ft. (7.6 m) cable, fits CK17 style handle | 10-4012   |
| Torch mounted contactor on/off & current control w/8-pin male plug & 25 ft. (7.6 m) cable, fits CK26 style handle | 10-4013   |
| Torch mounted contactor on/off & current control w/8-pin plug & 15 ft. (4.6 m) cable                              | 600296    |
| Torch mounted contactor on/off & current control w/8-pin plug & 25 ft. (7.6 m) cable                              | 600297    |
| 110VAC water recirculator                                                                                         | W4001303  |
| Water recirculator to power supply interface cable                                                                | W4001350  |
| Industrial trolley (running gear/cylinder rack)                                                                   | W4010003  |



## Heliarc® 281i & 353i AC/DC

For quality TIG/Stick applications.



- Designed for quality TIG (GTAW) and Stick (SMAW) applications in all types of material
- Cost effective inverter technology means increased energy efficiency and more power from a lighter, smaller, and more portable unit
- Easy-to-control arc heat input provides high quality welds with an intuitive interface for easy setup and adjustment
- Digital controls ensure high accuracy and repeatability
- Live TIG is ideal in places where high-frequency (HF) is not allowed
- AC Pulsing up to 2 Hz makes Heliarc® ideal for welding thin aluminum material
- Easily store up to 60 parameter sets for quick changes while working

### Specifications - Heliarc 281i AC/DC

| Input Voltage                                                                                   | Current Range        |                                                                                                               | Amps Input at Rated Load TIG | Amps Input at 250 A TIG                     | Power Factor @ Max Current TIG | Rated kVA                       |
|-------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------|--------------------------------|---------------------------------|
| 208 – 230 V, 1 ph, 50/60 Hz                                                                     | TIG AC/DC: 4 – 280 A | Stick AC/DC: 4 – 250 A                                                                                        | 47 A                         | 38 A                                        | 0.80                           | 10.5 kVA (TIG) / 12 kVA (Stick) |
| Gas Pre-Flow                                                                                    | Gas-Post Flow        | Slope Down                                                                                                    | Frequency AC                 | AC Balance                                  | DC Pulse Mode Frequency        | AC Pulse Mode Frequency         |
| 0.1 – 25 sec                                                                                    | 0.1 – 30 sec         | 0.1 – 10 sec                                                                                                  | 20 – 200 Hz                  | 10 – 90%                                    | 0.4 – 300 Hz                   | 0.4 – 2 Hz                      |
| Pulse Duty (pulse time/background time)                                                         |                      | Background Current % of Main                                                                                  |                              | Start/Crater Current (4 stroke) % of Main   |                                | Protection Class                |
| 30 – 65%                                                                                        |                      | 10 – 90 A                                                                                                     |                              | 10 – 90 A                                   |                                | IP21S                           |
| Welding Output                                                                                  |                      |                                                                                                               | Dimensions L x W x H         |                                             | Weight                         |                                 |
| TIG (GTAW) AC/DC<br>250 A @ 100% Duty Cycle<br>270 A @ 60% Duty Cycle<br>280 A @ 50% Duty Cycle |                      | Stick (SMAW) AC/DC<br>200 A @ 100% Duty Cycle<br>220 A @ 60% Duty Cycle, 3 ph<br>250 A @ 40% Duty Cycle, 3 ph |                              | 23.6 x 11.8 x 24.4 in. (600 x 300 x 620 mm) |                                | 110 lbs. (50 kg)                |

### Specifications - Heliarc 353i AC/DC

| Input Voltage                                                                                   | Current Range        |                                                                                                               | Amps Input at Rated Load TIG | Amps Input at 250 A TIG                     | Power Factor @ Max Current TIG | Rated kVA                        |
|-------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------|--------------------------------|----------------------------------|
| 460 V, 3 ph, 50/60 Hz                                                                           | TIG AC/DC: 4 – 350 A | Stick AC/DC: 4 – 350 A                                                                                        | 16.6 A                       | 12.5 A                                      | 0.80                           | 14.5 kVA (TIG)<br>19 kVA (Stick) |
| Gas Pre-Flow                                                                                    | Gas-Post Flow        | Slope Down                                                                                                    | Frequency AC                 | AC Balance                                  | DC Pulse Mode Frequency        | AC Pulse Mode Frequency          |
| 0.1 – 25 sec                                                                                    | 0.1 – 30 sec         | 0.1 – 10 sec                                                                                                  | 20 – 200 Hz                  | 10 – 90%                                    | 0.4 – 300 Hz                   | 0.4 – 2 Hz                       |
| Pulse Duty (pulse time/background time)                                                         |                      | Background Current % of Main                                                                                  |                              | Start/Crater Current (4 stroke) % of Main   |                                | Protection Class                 |
| 30 – 65%                                                                                        |                      | 10 – 90 A                                                                                                     |                              | 10 – 90 A                                   |                                | IP21S                            |
| Welding Output                                                                                  |                      |                                                                                                               | Dimensions L x W x H         |                                             | Weight                         |                                  |
| TIG (GTAW) AC/DC<br>280 A @ 100% Duty Cycle<br>300 A @ 60% Duty Cycle<br>350 A @ 45% Duty Cycle |                      | Stick (SMAW) AC/DC<br>220 A @ 100% Duty Cycle<br>240 A @ 60% Duty Cycle, 3 ph<br>350 A @ 20% Duty Cycle, 3 ph |                              | 23.6 x 11.8 x 24.4 in. (600 x 300 x 620 mm) |                                | 110 lbs. (50 kg)                 |

### Ordering Information

|                                                           |            |                                                           |            |
|-----------------------------------------------------------|------------|-----------------------------------------------------------|------------|
| Heliarc 281i, 208-230V, Power Source Only                 | 0558101696 | Heliarc 281i, 230V, Basic Pkg                             | 0558101704 |
| Heliarc 281i, 230V, Air Cooled, TXH 151F, Ready-to-Weld   | 0558101706 | Heliarc 281i, 230V, Air Cooled, TXH 201F, Ready-to-Weld   | 0558101707 |
| Heliarc 281i, 230V, Water Cooled, TXH 251F, Ready-to-Weld | 0558101708 | Heliarc 281i, 230V, Water Cooled, TXH 401F, Ready-to-Weld | 0558101709 |
| Heliarc 353i, 460V, Power Source Only                     | 0558101697 | Heliarc 353i, 460V, Basic Pkg                             | 0558101705 |
| Heliarc 353i, 460V, Water Cooled, TXH 251F, RTW           | 0558101710 | Heliarc 353i, 460V, Water Cooled, TXH 401F, Ready-to-Weld | 0558101711 |

RTW - Ready-to-Weld Packages include: power source, 26 ft. (8 m) torch, foot control, work cable, regulator/flowmeter Ar/CO<sub>2</sub>, and cart.  
Basic Packages include: power source, cooler, 2x-cable plugs, and coolant.

# Heliarc® 281i & 353i AC/DC Accessories

## Options & Accessories

### TIG Torches

|                                                             |            |
|-------------------------------------------------------------|------------|
| TXH 151F, 26 ft. (8 m) OKC50                                | 0700300547 |
| TXH 201F, 26 ft. (8 m) OKC50                                | 0700300557 |
| TXH 251wF, 26 ft. (8 m) OKC50                               | 0700300564 |
| TXH 401w, 26 ft. (8 m) OKC50                                | 0700300567 |
| TXH 151, Air-Cooled, OKC50, 26 ft. (8 m), wheel remote      | 0700300657 |
| TXH 201, Air-Cooled, OKC50, 26 ft. (8 m), wheel remote      | 0700300658 |
| TXH 251w, 26 ft. (8 m), wheel remote                        | 0700300659 |
| TXH 401w, 26 ft. (8 m), wheel remote                        | 0700300660 |
| TXH 151, Air-Cooled, OKC50, 26 ft. (8 m), flex wheel remote | 0700300661 |
| TXH 201, Air-Cooled, OKC50, 26 ft. (8 m), flex wheel remote | 0700300662 |
| TXH 251w Flex, 26 ft. (8 m), wheel remote                   | 0700300663 |

### TIG Torch Accessory Kits

|             |            |
|-------------|------------|
| TXH-151/201 | 999126     |
| TXH-251w    | 999127     |
| TXH-401w    | 0558101886 |

### Additional Options & Accessories

|                                                         |            |
|---------------------------------------------------------|------------|
| Water cooler module                                     | 0558101703 |
| Coolant, 1 gal. (3.8 L)                                 | 0560950312 |
| Cart kit (required with water cooler module 0558101703) | 0558101702 |
| Foot control FC-5C, 30 ft. (9 m)                        | 0558004234 |
| Electrode Cable T316 15 ft. (5 m) 2/0                   | 0558102319 |
| Quick connect "T", 1 male/2 female fittings             | 0365557001 |
| Quick lock connector male, 1/0 to 2/0 cable             | 0160360881 |
| Quick lock connector female, 1/0 to 2/0 cable           | 13735632   |
| Quick lock connector male, 1/0 to 4/0 cable             | 0160360882 |
| Quick lock connector female, 1/0 to 4/0 cable           | 13735631   |
| Work Cable GC-500 15 ft. (4.5 m) 4/0                    | 0558102318 |

STICK/TIG MACHINES



## EASY FIND GUIDE - MIG Gun Selection Guide



| Wire Diameter                               | Amperage Range               |     |     |                 |     |     |     |     |     |     |     |     | Recommended | Alternate |                                                                                         |                                                                                  |
|---------------------------------------------|------------------------------|-----|-----|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                                             | 30                           | 100 | 150 | 200             | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |             |           | 650                                                                                     |                                                                                  |
| Solid Wire - Mild Steel and Stainless Steel | .023" - .030" (0.6 - 0.8 mm) |     |     | CO <sub>2</sub> |     |     |     |     |     |     |     |     |             |           | Fusion 180, Mini-MIG 160, VELOCITY2 Mini-MIG 160                                        | VELOCITY2 Classic No. 1, Classic No. 1                                           |
|                                             | .035" (0.9 mm)               |     |     | CO <sub>2</sub> |     |     |     |     |     |     |     |     |             |           | Fusion 180, VELOCITY2 Spray Master SMV250, Spray Master 250                             | VELOCITY2 Classic No. 2, Classic No. 2, Smoke Master 250, Compact Eliminator 250 |
|                                             | .045" (1.2 mm)               |     |     | CO <sub>2</sub> |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV350, Spray Master 350, VELOCITY2 Classic No. 4, Classic No. 4 | VELOCITY2 Supra XT 400, Supra XT 400, Smoke Master 450                           |
|                                             | .052" (1.3 mm)               |     |     |                 |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV450, Spray Master 450, VELOCITY2 Classic No. 4, Classic No. 4 | VELOCITY2 Supra XT 400, Supra XT 400, Smoke Master 450                           |
|                                             | 1/16" (1.6 mm)               |     |     |                 |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV450, Spray Master 450, VELOCITY2 Classic No. 5, Classic No. 5 | PulseMaster 500 Water-Cooled, Standard Water-Cooled 600                          |

| Wire Diameter   | Amperage Range               |     |     |     |     |     |     |     |     |     |     |     | Recommended | Alternate |                                                                                         |                                                                                  |
|-----------------|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|                 | 30                           | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |             |           | 650                                                                                     |                                                                                  |
| Flux Cored Wire | .030" (0.8 mm)               |     |     |     |     |     |     |     |     |     |     |     |             |           | Fusion 180, Mini-MIG 160, VELOCITY2 Mini-MIG 160                                        | VELOCITY2 Classic No. 1, Classic No. 1                                           |
|                 | .035" (0.9 mm)               |     |     |     |     |     |     |     |     |     |     |     |             |           | Fusion 180, VELOCITY2 Spray Master SMV250, Spray Master 250                             | VELOCITY2 Classic No. 2, Classic No. 2, Smoke Master 250, Compact Eliminator 250 |
|                 | .045" (1.2 mm)               |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV350, Spray Master 350, VELOCITY2 Classic No. 4, Classic No. 4 | VELOCITY2 Supra XT 400, Supra XT 400, Smoke Master 450                           |
|                 | .052" (1.3 mm)               |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV450, Spray Master 450, VELOCITY2 Classic No. 4, Classic No. 4 | VELOCITY2 Supra XT 400, Supra XT 400, Smoke Master 450                           |
|                 | 1/16" - 5/64" (1.6 - 2.0 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV450, Spray Master 450, VELOCITY2 Classic No. 5, Classic No. 5 | PulseMaster 500 Water-Cooled, Standard Water-Cooled 600                          |
|                 | 3/32" (2.4 mm)               |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Classic No. 6, Classic No. 6                                                  | VELOCITY2 Classic No. 5, Classic No. 5                                           |

\*Flux Cored SEFC Series MIG Guns are to be used only with Self-Shielded wire

| Wire Diameter         | Amperage Range |     |     |     |     |     |     |     |     |     |     |     | Recommended | Alternate |                                                                                         |                                                                      |
|-----------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------|
|                       | 30             | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |             |           | 650                                                                                     |                                                                      |
| Solid Wire - Aluminum | .030" (0.8 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           | Spool Gun 160 & 200, Fusion 180                                                         | VELOCITY2 Classic No. 1, Classic No. 1                               |
|                       | .035" (0.9 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           | Spool Gun 200, VELOCITY2 Spray Master 250, Spray Master 250                             | VELOCITY2 Classic No. 2, Classic No. 2                               |
|                       | 3/64" (1.2 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV350, Spray Master 350, VELOCITY2 Classic No. 3, Classic No. 3 | VELOCITY Spray Master SMV450, VELOCITY2 Classic No. 4, Classic No. 4 |
|                       | 1/16" (1.6 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           | VELOCITY2 Spray Master SMV450, Spray Master 450                                         | PulseMaster 500 Water-Cooled                                         |
|                       | 3/32" (2.4 mm) |     |     |     |     |     |     |     |     |     |     |     |             |           |                                                                                         |                                                                      |

When welding with aluminum wire, standard MIG gun length of 12 ft should not be exceeded and conduit liners/contact tips made specifically for aluminum wires should be used.

# EASY FIND GUIDE - MIG Gun Selection Guide



| Tweco MIG Gun                   | Amperage Range               | Available Lengths ft (m)                           | Handle Design       | Cablehoz Connection | Rear End Connector Options          | Air-Cooled/<br>Water-Cooled | Special Features                                                     |
|---------------------------------|------------------------------|----------------------------------------------------|---------------------|---------------------|-------------------------------------|-----------------------------|----------------------------------------------------------------------|
| Spray Master® Series            | 250, 350, 450                | 10, 12, 15, 20, 25 ft<br>(3, 3.7, 4.6, 6.1, 7.6 m) | Small & Ergonomic   | Crimped             | Tweco, Miller®, Lincoln®, Euro-Kwik | Air                         | Heavy Duty Front End Consumables                                     |
| VELOCITY2™ Spray Master® Series | 250, 350, 450                | 10, 12, 15, 20, 25 ft<br>(3, 3.7, 4.6, 6.1, 7.6 m) | Small & Ergonomic   | Crimped             | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Heavy Duty Front End Consumables                                     |
| Classic® No. Series             | 180, 200, 300, 400, 500, 600 | 10, 12, 15, 20, 25 ft<br>(3, 3.7, 4.6, 6.1, 7.6 m) | Oval/Paddle Contour | Mechanical          | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Wide Range of Front End Consumables                                  |
| VELOCITY2™ Classic® No. Series  | 180, 200, 300, 400, 500      | 10, 12, 15, 20, 25 ft<br>(3, 3.7, 4.6, 6.1, 7.6 m) | Oval/Paddle Contour | Mechanical          | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Wide Range of Front End Consumables                                  |
| Fusion® Series                  | 180                          | 10, 12, 15 ft<br>(3, 3.7, 4.6 m)                   | Small & Ergonomic   | Crimped             | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Longer Life Velocity Consumables                                     |
| Compact Eliminator®             | 250, 450                     | 10, 12, 15, 20, 25 ft<br>(3, 3.7, 4.6, 6.1, 7.6 m) | Small & Ergonomic   | Crimped             | Tweco, Miller, Euro-Kwik            | Air                         | Ball & Socket design conductor tube & cam style locking contact tips |
| Mini-MIG                        | 160                          | 10, 12, 15 ft<br>(3, 3.7, 4.6 m)                   | Straight            | Mechanical          | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Wide Selection of Front End Consumables Available                    |
| VELOCITY2™ Mini-MIG             | 160                          | 10, 12, 15 ft<br>(3, 3.7, 4.6 m)                   | Straight            | Mechanical          | Tweco, Miller, Lincoln, Euro-Kwik   | Air                         | Wide Selection of Front End Consumables Available                    |
| Supra® XT                       | 400                          | 15 ft<br>(4.6 m)                                   | Straight            | Mechanical          | Tweco, Miller, Lincoln              | Air                         | Top Trigger Capability                                               |
| VELOCITY2™ Supra® XT            | 400                          | 15, 25 ft<br>(4.6, 7.6 m)                          | Straight            | Mechanical          | Tweco, Miller, Lincoln              | Air                         | Top Trigger Capability                                               |
| Smoke Master® Series            | 250, 450                     | 15 ft<br>(4.6 m)                                   | Ergonomic           | Crimped             | Tweco, Miller, Lincoln              | Air                         | Fume Extraction Cam-Style Contact Tips                               |
| Flux Cored SEFC Series          | 450                          | 10, 15 ft<br>(3, 4.6 m)                            | Straight            | Crimped             | Tweco, Miller, Lincoln              | Air                         | Galvanized Steel Inner Core Tube Cablehoz Design                     |
| Spool Gun Series                | 160, 200                     | 12, 25 ft<br>(3.7, 7.6 m)                          | Pistol Grip         | Mechanical          | Dinse Lug                           | Air                         | Accepts Standard 4" Spools Rotatable Wire Spool Housing              |
| PulseMaster® Series             | 400, 500                     | 12, 25 ft<br>(3.7, 7.6 m)                          | Ergonomic           | Crimped             | Tweco                               | Water                       | Smart Option or Standard                                             |
| Standard Water-Cooled           | 600                          | 15 ft<br>(4.6 m)                                   | Ergonomic           | Crimped             | Tweco                               | Water                       | Inert Gas Style Fitting                                              |

For Special MIG gun configurations, including special consumables, please contact Tech Service and Support.

Adapter kits are available to fit Tweco rear connection to most wire feeders.

Some Lincoln wire feeders are assembled with their K1500-2 gun receiving bushing that will accept Tweco Style MIG Guns direct from the factory. Control wire (2060-2137) must be ordered separately.

Miller is a registered trademark of Illinois Tool Works, Inc. Lincoln is a registered trademark of Lincoln Electric Co. The aforementioned registered trademarks are in no way affiliated with Tweco. Tweco is registered trademark of ESAB.

## Tweco Spray Master 250 Amp MIG Gun

For light/medium-duty fabrication



Standard Options Include:

- Rear Connector and Knucklehead Flexible Conductor Tube
- Standard Conductor Tube – (1630-1189) on all guns up to 15 ft. (4.6 m), (1630-1188) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |       |                         |        |                |                               |
|------------------------|-------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage             |
| 250 A @ 80% duty cycle | Mixed | up to .045 in. (1.2 mm) | Air    | GMAW, AI, FCAW | light/medium-duty fabrication |

| Ordering Information               |           |                                   |           |                                   |           |  |
|------------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|--|
| Tweco Style Rear Connector         |           | Miller Style Rear Connector       |           | Euro-Kwik Style Rear Connector    |           |  |
| 12 ft. (3.6 m), .045 in. (1.2 mm)  | 1023-1101 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1023-1110 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1126 |  |
| 15 ft. (4.6 m), .045 in. (1.2 mm)  | 1023-1102 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1111 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1127 |  |
| 20 ft. (6.1 m), .045 in. (1.2 mm)  | 1023-1103 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1112 | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1133 |  |
| 25 ft. (7.6 m), .045 in. (1.2 mm)  | 1023-1108 | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1023-1113 | Lincoln Style Rear Connector      |           |  |
| Tweco Style (8-pin) Rear Connector |           | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1118 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1136 |  |
| 12 ft. (3.6 m), .045 in. (1.2 mm)  | 1023-1141 |                                   |           |                                   |           |  |
| 15 ft. (4.6 m), .045 in. (1.2 mm)  | 1023-1140 |                                   |           |                                   |           |  |

## Tweco Spray Master 350 Amp MIG Gun

For medium/heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Rear Connector and Knucklehead
- Flexible Conductor Tube
- Standard Conductor Tube – (1630-1189) on all guns up to 15 ft. (4.6 m), (1630-1188) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |       |                         |        |                |                               |
|------------------------|-------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage             |
| 350 A @ 80% duty cycle | Mixed | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1610 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1635 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1646 |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1613 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1638 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1647 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1615 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1640 |                                   |           |
| Euro-Kwik Style Rear Connector    |           | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1036-1642 |                                   |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1623 |                                   |           |                                   |           |

MIG GUNS & TIG TORCHES

## Tweco Spray Master 450 Amp MIG Gun

For heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Locking Trigger, Rear Connector and
- Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1640-1319) on all guns up to 15 ft. (4.6 m), (1630-1318) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |       |                         |        |                |                        |
|------------------------|-------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage      |
| 450 A @ 80% duty cycle | Mixed | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1050 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1060 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1070 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1075 |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1051 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1061 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1072 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1076 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1052 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1062 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1071 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1077 |
| 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1059 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1064 |                                   |           |                                   |           |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1058 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1068 |                                   |           |                                   |           |

## Tweco Spray Master Velocity2 V250 Amp MIG Gun

For light - medium-duty fabrication



Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1240-1374) on all guns up to 15 ft. (4.6 m), (1240-1373) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |       |                         |        |                |                               |
|------------------------|-------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage             |
| 250 A @ 80% duty cycle | Mixed | up to .045 in. (1.2 mm) | Air    | GMAW, AI, FCAW | light/medium-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco® Style Rear Connector       |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1023-1290 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1023-1280 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1023-1292 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1023-1286 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1276 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1281 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1285 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1023-1287 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1277 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1282 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1293 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1023-1288 |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1023-1278 | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1023-1283 | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1023-1294 | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1023-1291 |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1279 | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1289 | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1295 | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1023-1284 |

## Tweco Spray Master Velocity2 V350 Amp MIG Gun

For medium/heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Rear Connector and Knucklehead™
- Flexible Conductor Tube
- Standard Conductor Tube – Part No. SMVCT-60 (Stock No.1240-1374) on all guns up to 15ft (4.6 m)
- Part No. SMVCT-45 (Stock No. 1240-1373) on all guns over 15 ft (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |       |                         |        |                |                               |
|------------------------|-------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage             |
| 350 A @ 80% duty cycle | Mixed | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1750 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1751 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1785 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1036-1784 |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1752 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1754 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1753 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1036-1779 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1756 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1765 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1762 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1036-1770 |
| 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1036-1789 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1036-1780 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1036-1781 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1036-1782 |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1036-1787 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1036-1775 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1036-1786 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1036-1790 |

## Tweco Spray Master Velocity2 V450 Amp MIG Gun

For heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Locking Trigger, Rear Connector and Knucklehead Flexible Conductor Tube
- Standard Conductor Tube – (1240-1374) on all guns up to 15 ft. (4.6 m), (1240-1373) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |       |                         |        |                |                        |
|------------------------|-------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process        | Application Usage      |
| 450 A @ 80% duty cycle | Mixed | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1825 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1827 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1826 | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1828 |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1829 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1830 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1866 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1832 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1833 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1844 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1839 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1850 |
| 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1854 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1855 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1869 | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1867 |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1859 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1861 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1860 | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1868 |

MIG GUNS & TIG TORCHES

## Tweco Classic No. 1 180 Amp MIG Gun

Suitable for light-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1610-1102) on all guns up to 15 ft. (4.6 m), (1610-1101) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |                 |                         |        |          |                        |
|------------------------|-----------------|-------------------------|--------|----------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage      |
| 180 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI | light-duty fabrication |

| Ordering Information              |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1010-1111 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1010-1131 |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1010-1112 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1010-1133 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1113 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1135 |
| 20 ft. (6.1 m), .035 in. (0.9 mm) | 1010-1114 | Lincoln Style Rear Connector      |           |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1010-1121 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1145 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1010-1122 | Euro-Kwik Style Rear Connector    |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1010-1123 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1010-1621 |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1010-1124 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1010-1622 |

## Tweco Classic No. 2 200 Amp MIG Gun

Suitable for medium-duty fabrication



Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1620-1301) on all guns up to 15 ft. (4.6 m), (1620-1300) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |                 |                         |        |          |                         |
|------------------------|-----------------|-------------------------|--------|----------|-------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage       |
| 200 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI | medium-duty fabrication |

| Ordering Information              |           |                                         |            |                                   |           |
|-----------------------------------|-----------|-----------------------------------------|------------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector             |            | Lincoln Style Rear Connector      |           |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1020-1111 | 10 ft. (3 m), .035 in. (0.9 mm)         | 1020-1130  | 10 ft. (3 m), .035 in. (0.9 mm)   | 1020-1140 |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1112 | 12 ft. (3.6 m), .035 in. (0.9 mm)       | 1020-1132  | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1142 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1020-1113 | 15 ft. (4.6 m), .035 in. (0.9 mm)       | 1020-1134  | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1020-1144 |
| 20 ft. (6.1 m), .035 in. (0.9 mm) | 1020-1114 | 10 ft. (3 m), .045 in. (1.2 mm)         | 1020-1131  | Euro-Kwik Style Rear Connector    |           |
| 25 ft. (7.6 m), .035 in. (0.9 mm) | 1020-1115 | 12 ft. (3.6 m), .045 in. (1.2 mm)       | 1020-1133  | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1020-1622 |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1020-1121 | 15 ft. (4.6 m), .045 in. (1.2 mm)       | 1020-1135  | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1020-1623 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1020-1322 | 15 ft. (4.6 m), .045 in. (1.2 mm)       | 1020-1661* |                                   |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1020-1123 | *Knucklehead Conductor Tube (1620-1106) |            |                                   |           |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1020-1660 |                                         |            |                                   |           |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1020-1125 |                                         |            |                                   |           |

MIG GUNS & TIG TORCHES

## Tweco Classic No. 3 300 Amp MIG Gun

Suitable for medium/heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – Part No. 63J-60 (Stock No. 1630-1111) on all guns up to 15 ft. (4.6 m)
- Part No. 63J-45 (Stock No. 1630-1110) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |          |                               |
|------------------------|-----------------|-------------------------|--------|----------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage             |
| 300 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1101 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1130 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1140 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1601 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1102 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1133 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1143 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1602 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1103 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1136 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1146 |                                   |           |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1030-1104 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1030-1137 |                                   |           |                                   |           |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1030-1105 |                                   |           |                                   |           |                                   |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1030-1113 |                                   |           |                                   |           |                                   |           |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1030-1115 |                                   |           |                                   |           |                                   |           |

## Tweco Classic No. 4 400 Amp MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Rear Connector and Knucklehead
- Flexible Conductor Tube
- Standard Conductor Tube – (1640-1106) on all guns up to 15 ft. (4.6 m), (1640-1105) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 400 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |                        |                                   |                        |                                       |                        |
|-----------------------------------|------------------------|-----------------------------------|------------------------|---------------------------------------|------------------------|
| Tweco Style Rear Connector        |                        | Miller Style Rear Connector       |                        | Lincoln Style Rear Connector          |                        |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1040-1101              | 10 ft. (3 m), .035 in. (0.9 mm)   | 1040-1130              | 10 ft. (3 m), .035 in. (0.9 mm)       | 1040-1140              |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1040-1102              | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1040-1133              | 12 ft. (3.6 m), .035 in. (0.9 mm)     | 1040-1143              |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1040-1103              | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1040-1136              | 15 ft. (4.6 m), .035 in. (0.9 mm)     | 1040-1146              |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1040-1503 <sup>1</sup> | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1040-1688 <sup>2</sup> | 15 ft. (4.6 m), .035 in. (0.9 mm)     | 1040-1689 <sup>2</sup> |
| 20 ft. (6.1 m), .035 in. (0.9 mm) | 1040-1104              | 20 ft. (6.1 m), .035 in. (0.9 mm) | 1040-1126              | 10 ft. (3 m), .045 in. (1.2 mm)       | 1040-1141              |
| 25 ft. (7.6 m), .035 in. (0.9 mm) | 1040-1105              | 25 ft. (7.6 m), .035 in. (0.9 mm) | 1040-1129              | 12 ft. (3.6 m), .045 in. (1.2 mm)     | 1040-1144              |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1111              | 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1131              | 15 ft. (4.6 m), .045 in. (1.2 mm)     | 1040-1147              |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1112              | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1134              | <b>Euro-Kwik Style Rear Connector</b> |                        |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1113              | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1137              | 12 ft. (3.6 m), .035 in. (0.9 mm)     | 1040-1602              |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1040-1114              | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1040-1127              | 15 ft. (4.6 m), .035 in. (0.9 mm)     | 1040-1603              |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1040-1115              | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1040-1128              | 25 ft. (7.6 m), .035 in. (0.9 mm)     | 1040-1605              |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1514 <sup>1</sup> | 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1040-1138              | 15 ft. (4.6 m), .045 in. (1.2 mm)     | 1040-1613              |
| 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1040-1123              |                                   |                        |                                       |                        |

1 = Dual Schedule 2 = Knucklehead Conductor Tube – 1640-1113

## Tweco Classic No. 5 500 Amp MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Locking Trigger & Rear Connector
- Standard Conductor Tube – (1650-1111) on all guns up to 15 ft. (4.6 m), (1650-1110) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 45 Series

| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 500 A @ 60% duty cycle | CO <sub>2</sub> | up to 3/32 in. (2.4 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1113 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1173 | 15 ft. (4.6 m), 3/32 in. (2.4 mm) | 1050-1642 |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1050-1115 | 15 ft. (4.6 m), 3/32 in. (2.4 mm) | 1050-1175 |                                   |           |
| 10 ft. (3 m), 3/32 in. (2.4 mm)   | 1050-1131 |                                   |           |                                   |           |
| 15 ft. (4.6 m), 3/32 in. (2.4 mm) | 1050-1133 |                                   |           |                                   |           |

## Tweco Velocity2 Classic No. 1 180 Amp MIG Gun

Suitable for light-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1610-1102) on all guns over 15 ft. (4.6 m)
- Light-duty VELOCITY2 Adapter must be ordered separately (1010-1105)
- Conduit Liner – 42 Series

| Specifications         |                 |                         |        |          |                        |
|------------------------|-----------------|-------------------------|--------|----------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage      |
| 180 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI | light-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Euro-Kwik Style Rear Connector    |           |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1010-1115 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1010-1125 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1010-1147 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1116 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1010-1126 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1010-1148 |
| 20 ft. (6.1 m), .035 in. (0.9 mm) | 1010-1117 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1127 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1149 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1010-1118 | Lincoln Style Rear Connector      |           |                                   |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1010-1119 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1010-1138 |                                   |           |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1010-1120 |                                   |           |                                   |           |

MIG GUNS & TIG TORCHES

## Tweco Velocity2 Classic No. 2 200 Amp MIG Gun

Suitable for medium-duty fabrication



Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1620-1375) on all guns up to 15 ft. (4.6 m), (1620-1376) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |                 |                         |        |          |                         |
|------------------------|-----------------|-------------------------|--------|----------|-------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage       |
| 200 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI | medium-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Euro-Kwik Style Rear Connector    |           | Lincoln Style Rear Connector      |           |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1020-1105 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1020-1128 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1305 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1020-1147 |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1106 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1129 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1020-1306 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1020-1148 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1020-1107 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1020-1136 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1020-1307 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1020-1149 |
| 20 ft. (6.1 m), .035 in. (0.9 mm) | 1020-1108 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1020-1137 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1020-1308 |                                   |           |
| 25 ft. (7.6 m), .035 in. (0.9 mm) | 1020-1109 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1020-1138 |                                   |           |                                   |           |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1020-1117 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1020-1139 |                                   |           |                                   |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1020-1118 |                                   |           |                                   |           |                                   |           |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1020-1119 |                                   |           |                                   |           |                                   |           |

## Tweco Velocity2 Classic No. 3 300 Amp MIG Gun

Suitable for medium/heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1630-1229) on all guns up to 15 ft. (4.6 m), (1630-1230) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |          |                               |
|------------------------|-----------------|-------------------------|--------|----------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process  | Application Usage             |
| 300 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Euro-Kwik Style Rear Connector    |           |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1003 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1013 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1020 |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1004 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1014 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1021 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1005 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1015 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1022 |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1030-1006 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1030-1016 | 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1030-1023 |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1030-1007 | Lincoln Style Rear Connector      |           |                                   |           |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1030-1008 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1030-1017 |                                   |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1030-1009 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1030-1018 |                                   |           |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1030-1010 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1030-1019 |                                   |           |

## Tweco Velocity2 Classic No. 4 400 Amp MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1640-1400) on all guns up to 15 ft. (4.6 m), (1640-1401) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 400 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |                        |                                   |                        |                                   |           |                                   |                        |
|-----------------------------------|------------------------|-----------------------------------|------------------------|-----------------------------------|-----------|-----------------------------------|------------------------|
| Tweco Style Rear Connector        |                        | Miller Style Rear Connector       |                        | Euro-Kwik Style Rear Connector    |           | Lincoln Style Rear Connector      |                        |
| 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1901              | 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1914              | 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1934 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1040-1927              |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1902              | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1915              | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1935 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1040-1928              |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1903              | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1916              | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1936 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1929              |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1904              | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1917 <sup>2</sup> | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1040-1937 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1930 <sup>2</sup> |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1040-1905 <sup>2</sup> | 20 ft. (6.1 m), .045 in. (1.2 mm) | 1040-1918              | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1938 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1931              |
| 20 ft. (6.1 m), .045 in. (1.2 mm) | 1040-1906              | 25 ft. (7.6 m), .045 in. (1.2 mm) | 1040-1919              | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1939 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1932              |
| 25 ft. (7.6 m), .045 in. (1.2 mm) | 1040-1907              | 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1920              | 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1040-1940 |                                   |                        |
| 10 ft. (3 m), 1/16 in. (1.6 mm)   | 1040-1908              | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1921              |                                   |           |                                   |                        |
| 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1040-1909              | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1922              |                                   |           |                                   |                        |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1900              | 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1923              |                                   |           |                                   |                        |
| 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1040-1911              | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1924              |                                   |           |                                   |                        |
| 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1040-1912              | 15 ft. (4.6 m), 5/64 in. (2.0 mm) | 1040-1925              |                                   |           |                                   |                        |

1 = Dual Schedule  
2 = Knucklehead Conductor Tube – 1640-1113

## Tweco Velocity2 Classic No. 5 500 Amp MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Dual Schedule On/Off Control, Locking Trigger & Rear Connector
- Standard Conductor Tube – (1660-1251) on all guns up to 15 ft. (4.6 m), (1660-1252) on all guns over 15 ft. (4.6 m)
- Conduit Liner – 45 Series

| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 500 A @ 60% duty cycle | CO <sub>2</sub> | up to 3/32 in. (2.4 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           |
| 12 ft. (3.6 m), .045 in. (1.2 mm) | 1050-1084 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1091 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1050-1085 | 15 ft. (4.6 m), 3/32 in. (2.4 mm) | 1050-1092 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1086 | Lincoln Style Rear Connector      |           |
| 25 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1087 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1094 |
| 10 ft. (3 m), 3/32 in. (2.4 mm)   | 1050-1088 | Euro-Kwik Style Rear Connector    |           |
| 15 ft. (4.6 m), 3/32 in. (2.4 mm) | 1050-1089 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1050-1096 |

MIG GUNS & TIG TORCHES

## Tweco Fusion 180 Amp MIG Gun

Suitable for light-duty fabrication



Standard Options Include:

- High Performance Velocity Consumables and Rear Connector
- Conduit Liner – WS42 Series

| Specifications                     |                 |                         |                                   |           |                        |
|------------------------------------|-----------------|-------------------------|-----------------------------------|-----------|------------------------|
| Rated Output                       | Gas             | Wire Size               | Cooled                            | Process   | Application Usage      |
| 180 A @ 40% duty cycle             | CO <sub>2</sub> | up to .035 in. (0.9 mm) | Air                               | GMAW, AI  | light-duty fabrication |
| Ordering Information               |                 |                         |                                   |           |                        |
| Tweco Style (4 Pin) Rear Connector |                 |                         | Miller Style Rear Connector       |           |                        |
| 12 ft. (3.6 m), .035 in. (0.9 mm)  | 1017-1331       |                         | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1017-1330 |                        |
| Tweco Style (8 Pin) Rear Connector |                 |                         | Euro-Kwik Style Rear Connector    |           |                        |
| 10 ft. (3 m), .035 in. (0.9 mm)    | 1017-1338       |                         | 10 ft. (3 m), .035 in. (0.9 mm)   | 1017-1335 |                        |
| 12 ft. (3.6 m), .035 in. (0.9 mm)  | 1017-1332       |                         | Lincoln Style Rear Connector      |           |                        |
|                                    |                 |                         | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1017-1329 |                        |

*Note: Gun length is measured from the front case to the rear case +/-3".*

## Tweco PulseMaster 450 Amp MIG Gun

Suitable for heavy-duty fabrication



- Smart capability
- Heavy-duty design
- Ergonomic impact resistant handle
- Multiple-position conductor tube

| Specifications                     |           |                                       |           |                                        |                        |
|------------------------------------|-----------|---------------------------------------|-----------|----------------------------------------|------------------------|
| Rated Output                       | Gas       | Wire Size                             | Cooled    | Process                                | Application Usage      |
| 450 A @ 60% duty cycle             | Mixed     | up to .045 in. (1.2 mm)               | Air       | GMAW, AI                               | heavy-duty fabrication |
| Ordering Information               |           |                                       |           |                                        |                        |
| Tweco Style Rear Connector - Smart |           | Tweco Style Rear Connector - Standard |           | Euro-Kwik Style Rear Connector - Smart |                        |
| 12 ft. (3.6 m), .045 in. (1.2 mm)  | 1041-1510 | 12 ft. (3.6 m), .045 in. (1.2 mm)     | 1041-1500 | 12 ft. (3.6 m), .045 in. (1.2 mm)      | 1041-1515              |
| 15 ft. (4.6 m), .045 in. (1.2 mm)  | 1041-1511 | 15 ft. (4.6 m), .045 in. (1.2 mm)     | 1041-1501 | 15 ft. (4.6 m), .045 in. (1.2 mm)      | 1041-1516              |

*PulseMaster Smart MIG Guns are used only with Tweco PowerMaster SP machines and are available with "Smart" Capability. PulseMaster MIG Guns are Standard without "Smart" Capability.*

MIG GUNS & TIG TORCHES

## Tweco Compact Eliminator 250 Amp MIG Gun

Suitable for light/medium-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1630-1136)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |                |                               |
|------------------------|-----------------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage             |
| 250 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI, FCAW | light/medium-duty fabrication |

| Ordering Information              |  |           |                                   |  |           |
|-----------------------------------|--|-----------|-----------------------------------|--|-----------|
| Tweco Style Rear Connector        |  |           | Miller Style Rear Connector       |  |           |
| 12 ft. (3.6 m), .045 in. (1.2 mm) |  | 1028-1108 | 12 ft. (3.6 m), .045 in. (1.2 mm) |  | 1028-1158 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) |  | 1028-1112 | 15 ft. (4.6 m), .045 in. (1.2 mm) |  | 1028-1162 |
| Lincoln Style Rear Connector      |  |           | 25 ft. (7.6 m), .045 in. (1.2 mm) |  | 1028-1170 |
| 15 ft. (4.6 m), .045 in. (1.2 mm) |  | 1028-1186 |                                   |  |           |

## Tweco Compact Eliminator 450 Amp MIG Gun

Suitable for light/medium-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1640-1137)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 450 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco® Style Rear Connector       |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1048-1210 | 10 ft. (3 m), .045 in. (1.2 mm)   | 1048-1250 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1048-1285 |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1048-1211 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1048-1255 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1048-1286 |
| 20 ft. (6.1 m), 1/16 in. (1.6 mm) | 1048-1216 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1048-1260 | Euro-Kwik Style Rear Connector    |           |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1048-1221 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1048-1261 | 12 ft. (3.6 m), .045 in. (1.2 mm) | 1048-1230 |
|                                   |           | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1048-1271 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1048-1235 |

MIG GUNS & TIG TORCHES

## Tweco Velocity2 Mini-MIG 160 Amp MIG Gun

Suitable for light-duty fabrication

Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube (1600-1106) on all guns
- Conduit Liner - 23 & 35 Series



| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 160 A @ 60% duty cycle | CO <sub>2</sub> | up to .035 in. (0.9 mm) | Air    | GMAW, AI, FCAW | light-duty fabrication |

| Ordering Information              |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector 6      |           | Miller Style Rear Connector       |           |
| 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1800 | 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1804 |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1801 | 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1805 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1802 | 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1806 |
| Euro-Kwik Style Rear Connector    |           | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1807 |
| 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1816 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1808 |
| 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1817 | Lincoln Style Rear Connector      |           |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1818 | 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1810 |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1819 | 10 ft. (3.0 m), .035 in. (0.9 mm) | 1000-1811 |
|                                   |           | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1812 |
|                                   |           | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1813 |
|                                   |           | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1814 |

## Tweco Mini-MIG 160 Amp MIG Gun

Suitable for light-duty fabrication

Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1600-1102) on all guns
- Conduit Liner – 23 & 35 Series



| Specifications         |                 |                         |        |                |                        |
|------------------------|-----------------|-------------------------|--------|----------------|------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage      |
| 160 A @ 60% duty cycle | CO <sub>2</sub> | up to .035 in. (0.9 mm) | Air    | GMAW, AI, FCAW | light-duty fabrication |

| Ordering Information              |           |                                   |                        |
|-----------------------------------|-----------|-----------------------------------|------------------------|
| Tweco Style Rear Connector        |           | Lincoln Style Rear Connector      |                        |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1131 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1231              |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1132 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1231              |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1133 | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1232              |
| Miller Style Rear Connector       |           | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1236 <sup>1</sup> |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1210 | Euro-Kwik Style Rear Connector    |                        |
| 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1211 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1621              |
| 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1213 | 10 ft. (3 m), .035 in. (0.9 mm)   | 1000-1631              |
| 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1215 | 12 ft. (3.6 m), .035 in. (0.9 mm) | 1000-1632              |
|                                   |           | 15 ft. (4.6 m), .035 in. (0.9 mm) | 1000-1633              |

<sup>1</sup>Fits Lincoln Power MIG 140/180 machines.

## Tweco Supra XT SEHD 400 Amp MIG Gun

Suitable for medium/heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Available with Heavy Duty Front End Consumables
- Standard Conductor Tube – (1640-1347) on all guns up to 15 ft. (4.6 m)
- Conduit Liner – 44 Series

| Specifications         |                 |                         |        |                |                               |
|------------------------|-----------------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage             |
| 400 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Euro-Kwik Style Rear Connector    |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1332 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1442 |
| Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1342 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1432 |

## Tweco Velocity2 Supra XT VSEHD 400 Amp MIG Gun

Suitable for medium/heavy-duty fabrication



Standard Options Include:

- Rear connector
- Heavy-duty VELOCITY2 front end consumables
- Standard conductor tubes (1640-1160) on all guns up to 15 ft. (4.6 m), (1640-1161) on all guns over 15 ft. (4.6 m)
- "LM" long reach conductor tubes are available

| Specifications         |                 |                         |        |                |                               |
|------------------------|-----------------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage             |
| 400 A @ 60% duty cycle | CO <sub>2</sub> | up to .035 in. (0.9 mm) | Air    | GMAW, AI, FCAW | medium/heavy-duty fabrication |

| Ordering Information              |            |                                   |            |
|-----------------------------------|------------|-----------------------------------|------------|
| Tweco Style Rear Connector        |            | Lincoln Style Rear Connector      |            |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1880  | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1888  |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1881  | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1889  |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1882* | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1890* |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1883* | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1891* |
| Euro-Kwik Style Rear Connector    |            | Miller Style Rear Connector       |            |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1892  | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1884  |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1893  | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1885  |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1894* | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1040-1886* |
| 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1895* | 25 ft. (7.6 m), 1/16 in. (1.6 mm) | 1040-1887* |

\*LM - long reach conductor tube.

## Tweco Smoke Master 250 Amp Fume Extraction Air-Cooled MIG Gun

Suitable for light/medium-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (2020-2006) on all guns up to 15 ft. (4.6 m)
- Conduit Liner – 42 Series

| Specifications         |                 |                         |        |                |                         |
|------------------------|-----------------|-------------------------|--------|----------------|-------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage       |
| 250 A @ 60% duty cycle | CO <sub>2</sub> | up to .045 in. (1.2 mm) | Air    | GMAW, AI, FCAW | medium-duty fabrication |

| Ordering Information              |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1026-1102 | 15 ft. (4.6 m), .045 in. (1.2 mm) | 1026-1107 |
| Euro-Kwik Style Rear Connector    |           |                                   |           |
| 15 ft. (4.6 m), .045 in. (1.2 mm) | 1026-1127 |                                   |           |

## Tweco Smoke Master 450 Amp Fume Extraction Air-Cooled MIG Gun

Suitable for medium/heavy-duty fabrication



Standard Options Include:

- Rear Connector and Knucklehead™ Flexible Conductor Tube
- Standard Conductor Tube – (1600-1102) on all guns
- Conduit Liner – 23 & 35 Series

| Specifications         |                 |                         |        |                |                               |
|------------------------|-----------------|-------------------------|--------|----------------|-------------------------------|
| Rated Output           | Gas             | Wire Size               | Cooled | Process        | Application Usage             |
| 450 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI, FCAW | medium/heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1046-1108 | 12 ft. (3.6 m), 1/16 in. (1.6 mm) | 1046-1125 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1046-1138 |
|                                   |           | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1046-1128 |                                   |           |

MIG GUNS & TIG TORCHES

## Tweco PullMaster 300 Amp MIG Gun

Suitable for light to heavy-duty fabrication

Standard Options Include:

- Rear Connector
- Standard without “Smart” capability
- Available with Smart Capability
- Standard Conductor Tube – (1642-1140)
- Available with Optional 30° Rigid or Knucklehead
- Flexible Conductor Tube

Tweco PullMaster Standard MIG Gun

Tweco PullMaster Smart MIG Gun with digital display



| Specifications         |       |                         |        |          |                                |
|------------------------|-------|-------------------------|--------|----------|--------------------------------|
| Rated Output           | Gas   | Wire Size               | Cooled | Process  | Application Usage              |
| 200 A @ 60% duty cycle | Mixed | up to .045 in. (1.2 mm) | Air    | GMAW, AI | light - heavy-duty fabrication |

| Ordering Information                  |           |                                    |           |
|---------------------------------------|-----------|------------------------------------|-----------|
| Tweco Style Rear Connector - Standard |           | Tweco Style Rear Connector - Smart |           |
| 33 ft. (10.1 m), .045 in. (1.2 mm)    | 1027-1401 | 33 ft. (10.1 m), .045 in. (1.2 mm) | 1027-1407 |

*PullMaster Smart MIG Guns are used only with Tweco PowerMaster SP machines and are available with “Smart” Capability.*

## Tweco Flux-Cored SEFC 450 Amp MIG Gun

Suitable for heavy-duty fabrication

Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1641-1127) on all guns up to 15 ft. (4.6 m)
- Conduit Liner – 44 Series



| Specifications         |                 |                        |        |            |                        |
|------------------------|-----------------|------------------------|--------|------------|------------------------|
| Rated Output           | Gas             | Wire Size              | Cooled | Process    | Application Usage      |
| 450 A @ 60% duty cycle | CO <sub>2</sub> | up to 1/8 in. (3.2 mm) | Air    | GMAW, FCAW | heavy-duty fabrication |

| Ordering Information              |           |                                   |           |                                   |           |
|-----------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector        |           | Miller Style Rear Connector       |           | Lincoln Style Rear Connector      |           |
| 15 ft. (4.6 m), 3/32 in. (2.5 mm) | 1041-1120 | 15 ft. (4.6 m), 3/32 in. (2.5 mm) | 1041-1139 | 15 ft. (4.6 m), 3/32 in. (2.5 mm) | 1041-1113 |

MIG GUNS & TIG TORCHES

# TWECO® VELOCITY2™ – LESS DOWNTIME, MORE WELD TIME.

Introducing VELOCITY2, the longest-lasting MIG consumables on the market. These groundbreaking consumables deliver superior welding performance and a better operator experience.



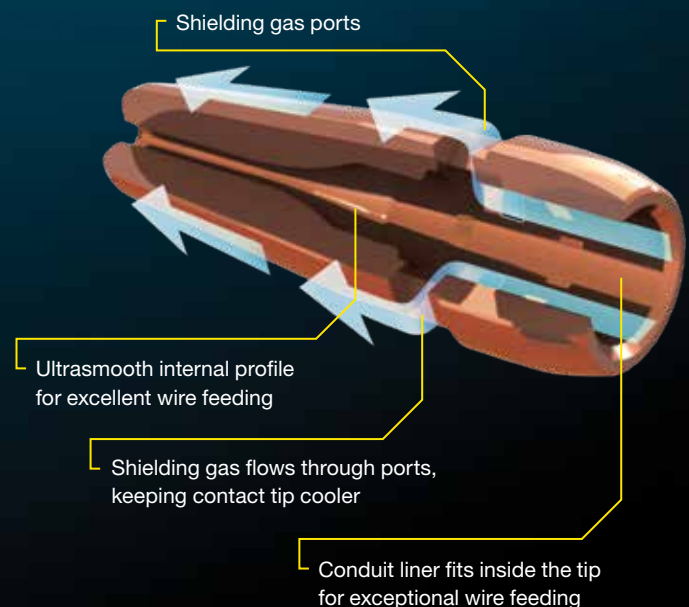
## SPEED AND EFFICIENCY.

The threadless contact tip design eliminates problems with threads, so tip changes take seconds and require no tools.



Updated VELOCITY2 consumables feature a simpler, more robust design. The large copper-to-copper contact surface promotes superior thermal and electrical efficiency. As a result, consumables stay cooler, last longer and produce a smoother arc with reduced spatter. A silicone sleeve over the copper conductor tube minimizes radiant heat and improves impact resistance.

## INNOVATION.



**VELOCITY2™**

Learn more at [esab.com/velocity2](https://esab.com/velocity2)

## ESAB PPG 26 KD Air-Cooled Electric Push-Pull MIG Gun

Suitable for light/medium-duty fabrication



- Air-cooled pistol grip guns with straight and curved 45 degrees swan necks
- Allows 360 degrees rotation of the curved swan neck to fit various welding positions
- Couples with ESAB feeding mechanisms to perform a high performance push-pull feeding system
- Ideal for feeding aluminum and other small diameter wires long distances up to 25 ft. from the main wire feed unit
- Wire feed speed control by potentiometer located in the gun handle

| Specifications                                            |                        |                         |                         |            |          |                               |
|-----------------------------------------------------------|------------------------|-------------------------|-------------------------|------------|----------|-------------------------------|
| Rated Output                                              |                        | Gas                     | Wire Size               | Cooled     | Process  | Application Usage             |
| CO <sub>2</sub>                                           | 290 A @ 60% duty cycle | CO <sub>2</sub> , Mixed | up to .045 in. (1.2 mm) | Air        | GMAW, AI | light/medium-duty fabrication |
| Mixed                                                     | 260 A @ 60% duty cycle |                         |                         |            |          |                               |
| Ordering Information                                      |                        |                         |                         |            |          |                               |
| PPG 26 KD Push-Pull Welding Gun, 25 ft. (7.6 m), 180 deg. |                        |                         |                         | 0558101935 |          |                               |
| PPG 26 KD Push-Pull Welding Gun, 25 ft. (7.6 m), 45 deg.  |                        |                         |                         | 0558101936 |          |                               |
| PPG 26 KD Push-Pull Welding Gun, 15 ft. (4.6 m), 180 deg. |                        |                         |                         | 0558101937 |          |                               |
| PPG 26 KD Push-Pull Welding Gun, 15 ft. (4.6 m), 45 deg.  |                        |                         |                         | 0558101938 |          |                               |

## ESAB PPW 401D Water-Cooled Electric Push-Pull MIG Gun

Suitable for medium/heavy-duty fabrication



- Water-cooled pistol grip guns with straight and curved 45 degrees swan necks
- Allows 360 degrees rotation of the curved swan neck to fit various welding positions
- Couples with ESAB feeding mechanisms to perform a high performance push-pull feeding system
- Ideal for feeding aluminium and other small diameter wires long distances up to 25 ft. (7.6 m) from the main wire feed unit
- Wire feed speed control by potentiometer located in the gun handle

| Specifications                                           |                        |                         |                         |            |          |                               |
|----------------------------------------------------------|------------------------|-------------------------|-------------------------|------------|----------|-------------------------------|
| Rated Output                                             |                        | Gas                     | Wire Size               | Cooled     | Process  | Application Usage             |
| CO <sub>2</sub>                                          | 420 A @ 60% duty cycle | CO <sub>2</sub> , Mixed | up to 1/16 in. (1.6 mm) | Water      | GMAW, AI | medium/heavy-duty fabrication |
| Mixed                                                    | 380 A @ 60% duty cycle |                         |                         |            |          |                               |
| Ordering Information                                     |                        |                         |                         |            |          |                               |
| PPW 401D Push-Pull Welding Gun, 25 ft. (7.6 m), 180 deg. |                        |                         |                         | 0558101892 |          |                               |
| PPW 401D Push-Pull Welding Gun, 25 ft. (7.6 m), 45 deg.  |                        |                         |                         | 0558101893 |          |                               |
| PPW 401D Push-Pull Welding Gun, 15 ft. (4.6 m), 180 deg. |                        |                         |                         | 0558101920 |          |                               |
| PPW 401D Push-Pull Welding Gun, 15 ft. (4.6 m), 45 deg.  |                        |                         |                         | 0558101921 |          |                               |

## Tweco PulseMaster 400 Amp Water-Cooled MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Standard without “Smart” Capability, but available with “Smart” Capability
- Standard Conductor Tube – (1642-1130)
- Conduit Liner – 44 Series

| Specifications          |       |                         |        |          |                        |
|-------------------------|-------|-------------------------|--------|----------|------------------------|
| Rated Output            | Gas   | Wire Size               | Cooled | Process  | Application Usage      |
| 400 A @ 100% duty cycle | Mixed | up to .045 in. (1.2 mm) | Water  | GMAW, AI | heavy-duty fabrication |

| Ordering Information                  |           |                                           |           |
|---------------------------------------|-----------|-------------------------------------------|-----------|
| Tweco Style Rear Connector - Smart    |           | Euro-Kwik Style Rear Connector - Smart    |           |
| 12 ft. (3.6 m), .045 in. (1.2 mm)     | 1042-1510 | 12 ft. (3.6 m), .045 in. (1.2 mm)         | 1042-1515 |
| 15 ft. (4.6 m), .045 in. (1.2 mm)     | 1042-1511 | Euro-Kwik Style Rear Connector - Standard |           |
| Tweco Style Rear Connector - Standard |           | 12 ft. (3.6 m), .045 in. (1.2 mm)         | 1042-1505 |
| 12 ft. (3.6 m), .045 in. (1.2 mm)     | 1042-1500 |                                           |           |

PulseMaster Smart MIG Guns are used only with Tweco PowerMaster SP machines and are available with “Smart” Capability. PulseMaster MIG Guns are Standard without “Smart” Capability.

## Tweco PulseMaster 500 Amp Water-Cooled MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Standard without “Smart” Capability
- Available with “Smart” Capability
- Standard Conductor Tube – (1642-1140)
- Conduit Liner – 44 Series

| Specifications          |       |                         |        |          |                        |
|-------------------------|-------|-------------------------|--------|----------|------------------------|
| Rated Output            | Gas   | Wire Size               | Cooled | Process  | Application Usage      |
| 500 A @ 100% duty cycle | Mixed | up to .045 in. (1.2 mm) | Water  | GMAW, AI | heavy-duty fabrication |

| Ordering Information               |           |                                        |           |                                           |           |
|------------------------------------|-----------|----------------------------------------|-----------|-------------------------------------------|-----------|
| Tweco Style Rear Connector - Smart |           | Euro-Kwik Style Rear Connector - Smart |           | Euro-Kwik Style Rear Connector - Standard |           |
| 12 ft. (3.6 m), .045 in. (1.2 mm)  | 1042-1535 | 12 ft. (3.6 m), .045 in. (1.2 mm)      | 1042-1540 | 15 ft. (4.6 m), .045 in. (1.2 mm)         | 1042-1531 |

PulseMaster Smart MIG Guns are used only with Tweco PowerMaster SP machines and are available with “Smart” Capability. PulseMaster MIG Guns are Standard without “Smart” Capability.

MIG GUNS & TIG TORCHES

## Tweco Standard 600 Amp Water-Cooled MIG Gun

Suitable for heavy-duty fabrication



Standard Options Include:

- Rear Connector
- Standard Conductor Tube – (1664-1106)
- Conduit Liner – 45 Series
- Ergonomic Handle
- Low Bench Weight for easy to handle gun
- Cooling benefits
- Large water lines, threaded water line connections and high water flow rates

| Specifications          |                 |                         |        |          |                        |
|-------------------------|-----------------|-------------------------|--------|----------|------------------------|
| Rated Output            | Gas             | Wire Size               | Cooled | Process  | Application Usage      |
| 600 A @ 100% duty cycle | CO <sub>2</sub> | up to 7/64 in. (2.8 mm) | Water  | GMAW, AI | heavy-duty fabrication |

| Ordering Information               |           |                                   |           |
|------------------------------------|-----------|-----------------------------------|-----------|
| Tweco Style Rear Connector - Smart |           |                                   |           |
| 10 ft. (3 m), 1/16 in. (1.6 mm)    | 1064-1114 | 15 ft. (4.6 m), 1/16 in. (1.6 mm) | 1064-1116 |
| 15 ft. (4.6 m), .045 in. (1.2 mm)  | 1064-1106 |                                   |           |

Adapter kits are available to fit Tweco rear connection to most wire feeders.

## ESAB ST Water-Cooled MIG Guns

Suitable for medium/heavy-duty fabrication



- Rated at 600A with any shielding gas
- Handles flux cored wires to 7/64 in. (2.8 mm)
- ST-21M has an in-line body style designed for mechanized applications



| Specifications               |                                   |                                |                                |
|------------------------------|-----------------------------------|--------------------------------|--------------------------------|
|                              | ST-16                             | ST-21                          | ST-21M                         |
| Gun capacity                 | 600A @ 100% duty cycle            | 600A @ 100% duty cycle         | 600A @ 100% duty cycle         |
| Dimensions, LxH              | 13-3/4 x 4-1/4 in. (350 x 110 mm) | 12-1/2x7-1/16 (315x180)        | 10.25 (260) (length only)      |
| Handle diameter)             | 1-3/8 in. (35 mm)                 | 1-3/8 in. (35 mm)              | 1-3/8 (35)                     |
| Gun angle                    | 55°                               | 180°                           | 180°                           |
| Weight, (less service lines) | 28 oz. (794 g)                    | 38 oz. (1077 g)                | 28 (794)                       |
| Cooling requirements         | 1.6 qt/min (1.5 L/min) minimum    | 1.6 qt/min (1.5 L/min) minimum | 1.6 qt/min (1.5 L/min) minimum |
| Wires accommodated:          |                                   |                                |                                |
| Hard                         | .030-3/32 in. (0.8-2.4 mm)        | .030-3/32 in. (0.8-2.4 mm)     | .030-3/32 in. (0.8-2.4 mm)     |
| Soft                         | .035-3/32 in. (0.9-2.4 mm)        | .035-3/32 in. (0.9-2.4 mm)     | .035-3/32 in. (0.9-2.4 mm)     |
| Cored                        | .030-7/64 in. (0.8-2.8 mm)        | .030-7/64 in. (0.8-2.8 mm)     | .030-7/64 in. (0.8-2.8 mm)     |

| Ordering Information  |        |
|-----------------------|--------|
| ST-16, 10 ft. (3 m)   | 997498 |
| ST-21, 12 ft. (3.6 m) | 995950 |
| ST-21M, 2 ft. (0.6 m) | 690509 |

Does not include liner/conduits, contact tips/tubes or nozzles.

MIG GUNS & TIG TORCHES

## Tweco Spool Guns

Suitable for light to medium-duty fabrication



Standard Options Include:

- 8-pin Amphenol Style Connector
- Standard Straight (180°) Conductor Tube
- Holds standard 4" (102 mm) diameter spools
- Optional 30° Rigid Conductor Tube or Knucklehead Flexible Conductor Tube
- Use for aluminum, stainless steel and mild steel applications
- Comfortable pistol-grip handle design
- Three-layer conductor tube construction
- 3-turn potentiometer

### Specifications - Light-Duty 160 Amp

| Rated Output           | Gas   | Wire Size               | Cooled | Process  | Application Usage      |
|------------------------|-------|-------------------------|--------|----------|------------------------|
| 180 A @ 20% duty cycle | Mixed | up to .035 in. (0.9 mm) | Air    | GMAW, AI | light-duty fabrication |

### Specifications - Medium-Duty 200 Amp

| Rated Output           | Gas   | Wire Size               | Cooled | Process  | Application Usage       |
|------------------------|-------|-------------------------|--------|----------|-------------------------|
| 200 A @ 60% duty cycle | Mixed | up to .045 in. (1.2 mm) | Air    | GMAW, AI | medium-duty fabrication |

### Ordering Information

| Tweco Style Rear Connector                                |           |                                                                            |           |  |  |
|-----------------------------------------------------------|-----------|----------------------------------------------------------------------------|-----------|--|--|
| 160 Amp - 12 ft. (3.6 m), .035 in. (0.9 mm) (Thermal Arc) | 1027-1390 | 160 Amp - 12 ft. (3.6 m), .035 in. (0.9 mm) (Rebel)                        | 1027-1397 |  |  |
| 200 Amp - 12 ft. (3.6 m), .045 in. (1.2 mm)               | 1027-1398 | 200 Amp - 25 ft. (7.6 m), .045 in. (1.2 mm) (standard offering with 4-pin) | 1027-1392 |  |  |
| 200 Amp - 25 ft. (7.6 m), .045 in. (1.2 mm) (Rebel)       | 1027-1399 | 200 Amp - 25 ft. (7.6 m), .045 in. (1.2 mm) (Thermal Arc)                  | 1027-1391 |  |  |

## ESAB ST-23A Spool Gun

Suitable for medium/heavy-duty fabrication



- Service lines enter the rear of gun instead of handle for improved balance and accessibility
- Inching push button mounted on bottom of handle
- 30 ft. (9 m) service lines
- Uses durable contact tips and nozzles
- Powerful gear motor in handle pulls welding wire from 4 in. (101.5 mm) diameter spool in the molded gun case
- Partial depression of the torch trigger controls gas pre- and post-flow operations - full depression provides wire feeding as well as gas flow
- Wire feed control mounted on gun provides precise adjustment of wire feed rate at torch

### Specifications

| Rated Output            | Gas   | Wire Size               | Cooled | Process  | Application Usage             |
|-------------------------|-------|-------------------------|--------|----------|-------------------------------|
| 250 A @ 100% duty cycle | Mixed | up to 1/16 in. (1.6 mm) | Air    | GMAW, AI | medium/heavy-duty fabrication |

### Ordering Information

|                  |       |
|------------------|-------|
| ST-23A Spool Gun | 19164 |
|------------------|-------|

Includes: one 3/64 in. (1.2 mm) contact tip, drive roll, liner, control cable, gas hose and #10 nozzle and 30 ft. (9 m) service lines.

# TXH GTAW Torches

TXH-121, 151, 201, 251, 401



- TXH torches are designed to provide the utmost in convenience, versatility, and ergonomics to the welder
- Choose between air-cooled and water-cooled versions, with or without gas valve, and with or without a flexible neck to suit specific applications
- The torch heads are manufactured with high temperature resistant silicone rubber insulation
- All copper components ensure cooler running temperatures and maximum current capacity
- Integrated dual soft grips ensure the handle remains in place with minimal grip pressure
- Positioning of the torch is made easier by the combination of knuckle joints and a flexible leather section covering the first 31.5 in. (800 mm) of the torch immediately behind the handle

## Specifications

|                                                                           | TXH-121                      | TXH-151                      | TXH-201                       | TXH-251w                     | TXH-401w                      | TXH-401w HD                   |
|---------------------------------------------------------------------------|------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|
| Permitted load at:<br>35% duty cycle<br>60% duty cycle<br>100% duty cycle | -<br>120A<br>100A            | 150A<br>120A<br>100A         | 200A<br>150A<br>140A          | -<br>250A<br>200A            | 400A<br>350A<br>300A          | 430A<br>400A<br>-             |
| ◀<br>Ø in. (mm)                                                           | .040-1/8 in.<br>(1.0-3.2 mm) | .040-1/8 in.<br>(1.0-3.2 mm) | .040-5/32 in.<br>(1.0-4.0 mm) | .040-1/8 in.<br>(1.0-3.2 mm) | .040-3/16 in.<br>(1.0-4.8 mm) | .040-3/16 in.<br>(1.0-4.8 mm) |

## Ordering Information

| Air-Cooled Torches – OKC25 Connector [1 in. (25 mm)]     |            | Air-Cooled Torches – OKC50 Connector [2 in. (50 mm)] |            |
|----------------------------------------------------------|------------|------------------------------------------------------|------------|
| TXH-121, 13 ft. (4 m) <sup>1</sup>                       | 0700300522 | TXH-121, 13 ft. (4 m)                                | 0700300524 |
| TXH-121, 13 ft. (4 m)                                    | 0700300532 | TXH-121, 26 ft. (8 m)                                | 0700300529 |
| TXH-121, 26 ft. (8 m) <sup>1</sup>                       | 0700300527 | TXH-121F, 13 ft. (4 m)                               | 0700300526 |
| TXH-121, 26 ft. (8 m)                                    | 0700300534 | TXH-121F, 26 ft. (8 m)                               | 0700300531 |
| TXH-121V, 13 ft. (4 m)                                   | 0700300523 | TXH-151, 13 ft. (4 m)                                | 0700300538 |
| TXH-121V, 26 ft. (8 m)                                   | 0700300528 | TXH-151, 26 ft. (8 m)                                | 0700300544 |
| TXH-121F, 13 ft. (4 m)                                   | 0700300525 | TXH-151V, 13 ft. (4 m)                               | 0700300539 |
| TXH-121F, 26 ft. (8 m)                                   | 0700300530 | TXH-151V, 26 ft. (8 m)                               | 0700300545 |
| TXH-151, 13 ft. (4 m) <sup>1</sup>                       | 0700300538 | TXH-151F, 13 ft. (4 m)                               | 0700300541 |
| TXH-151, 13 ft. (4 m)                                    | 0700300548 | TXH-151F, 26 ft. (8 m)                               | 0700300547 |
| TXH-151, 26 ft. (8 m)                                    | 0700300550 | TXH-201, 13 ft. (4 m)                                | 0700300552 |
| TXH-151, 26 ft. (8 m) <sup>1</sup>                       | 0700300542 | TXH-201, 26 ft. (8 m)                                | 0700300555 |
| TXH-151V, 13 ft. (4 m)                                   | 0700300537 | TXH-201V, 13 ft. (4 m)                               | 0700300553 |
| TXH-151V, 26 ft. (8 m)                                   | 0700300543 | TXH-201V, 26 ft. (8 m)                               | 0700300556 |
| TXH-151F, 13 ft. (4 m)                                   | 0700300540 | TXH-201F, 13 ft. (4 m)                               | 0700300554 |
| TXH-151F, 26 ft. (8 m)                                   | 0700300546 | TXH-201F, 26 ft. (8 m)                               | 0700300557 |
| TXH-201, 13 ft. (4 m)                                    | 0700300588 |                                                      |            |
| TXH-201, 26 ft. (8 m)                                    | 0700300560 |                                                      |            |
| TXH-201F, 13 ft. (4 m)                                   | 0700300599 |                                                      |            |
| Water-Cooled Torches – OKC50 Connector [2 in. (50 mm)]   |            |                                                      |            |
| TXH-251w, 13 ft. (4 m)                                   | 0700300561 | TXH-401w, 13 ft. (4 m)                               | 0700300565 |
| TXH-251w, 26 ft. (8 m)                                   | 0700300563 | TXH-401w, 26 ft. (8 m)                               | 0700300567 |
| TXH-251wF, 13 ft. (4 m)                                  | 0700300562 | TXH-401w HD, 13 ft. (4 m)                            | 0700300566 |
| TXH-251wF, 26 ft. (8 m)                                  | 0700300564 | TXH-401w HD, 26 ft. (8 m)                            | 0700300568 |
| Remote Control Torches – OKC50 Connector [2 in. (50 mm)] |            |                                                      |            |
| TXH-121r, 13 ft. (4 m)                                   | 0700300620 | TXH-201Fr, 26 ft. (8 m)                              | 0700300631 |
| TXH-121r, 26 ft. (8 m)                                   | 0700300622 | TXH-251wr, 13 ft. (4 m)                              | 0700300632 |
| TXH-121Fr, 13 ft. (4 m)                                  | 0700300621 | TXH-251wr, 26 ft. (8 m)                              | 0700300634 |
| TXH-151r, 13 ft. (4 m)                                   | 0700300624 | TXH-251wFr, 13 ft. (4 m)                             | 0700300633 |
| TXH-151r, 26 ft. (8 m)                                   | 0700300626 | TXH-251wFr, 26 ft. (8 m)                             | 0700300635 |
| TXH-151Fr, 13 ft. (4 m)                                  | 0700300625 | TXH-401wr, 13 ft. (4 m)                              | 0700300636 |
| TXH-151Fr, 26 ft. (8 m)                                  | 0700300627 | TXH-401wr, 26 ft. (8 m)                              | 0700300638 |
| TXH-201r, 13 ft. (4 m)                                   | 0700300628 | TXH-401wr HD, 13 ft. (4 m)                           | 0700300637 |
| TXH-201r, 26 ft. (8 m)                                   | 0700300630 | TXH-401wr HD, 26 ft. (8 m)                           | 0700300639 |
| TXH-201Fr, 13 ft. (4 m)                                  | 0700300629 |                                                      |            |

<sup>1</sup>OKC25C F = Flexible. V = Gas Valve.

## Remote Controls



### MTA1 CAN

- CAN based remote control for control panels A2, A4, T4, T6, M2, MA4, MA6, U6, and Aristo U8<sub>2</sub> Plus

| Ordering Information |            |
|----------------------|------------|
| MTA1 CAN             | 0459491880 |



### M1

- Analogue standard MIG for control panels M10, M12, M13, M13i, M14 and Warrior Feed
- Stick/TIG: Wire feed and voltage control

| Ordering Information |            |
|----------------------|------------|
| M1                   | 0459491895 |



### M1 10Prog CAN

- CAN based Synergic MIG for control panels MA6, U6 and AristoPendant U8<sub>2</sub> Plus
- Stick/TIG: Memory 1-10 and voltage trim =/-

| Ordering Information |            |
|----------------------|------------|
| M1 10Prog CAN        | 0459491882 |



### AT1 Coarse

- Analogue standard Stick and TIG for power sources with remote outlet - Warrior 400i MV/500i
- Stick/TIG: Current control

| Ordering Information |            |
|----------------------|------------|
| AT1 Coarse           | 0459491896 |



### AT1 CAN

- CAN based standard Stick and TIG for control panels A2, A4, T4, T6, U6, U8<sub>2</sub> Plus
- Stick/TIG: Current control

| Ordering Information |            |
|----------------------|------------|
| AT1 CAN              | 0459491883 |



### AT1 Coarse/Fine

- Analogue standard Stick and TIG for power sources with remote outlet - Warrior 400i MV/500i
- Stick/TIG: Current control, coarse/fine

| Ordering Information |            |
|----------------------|------------|
| AT1 Coarse/Fine      | 0459491897 |



### AT1 Coarse/Fine CAN

- CAN based standard Stick and TIG for control panels A2, A4, T4, T6, U6, U8<sub>2</sub> Plus
- Stick/TIG: Current control, coarse/fine

| Ordering Information |            |
|----------------------|------------|
| AT1 Coarse/Fine CAN  | 0459491884 |



### Remote Adaptors for CAN Based Systems

- For analog Stick and TIG remote controls. For analog MIG remote controls and 3-step program switch RS3

| Ordering Information                        |            |
|---------------------------------------------|------------|
| RA 12 for Stick and TIG                     | 0459491910 |
| RA T1 TIG remote torch 12 pole <sup>1</sup> | 0459491912 |
| RA T1 TIG remote torch 10 pole <sup>1</sup> | 0459491913 |

<sup>1</sup>Includes holder and cable.

## Remote Controls



### Foot Control - GTAW

- Complete with 16.5 ft (5 m) rubber cable and equipped with 12-pole Burndy



### Remote Control MMA1

- MMA 1 is equipped with 1 potentiometers for current setting
- Includes 33 ft. (10 m) rubber cable equipped with a 12-pole Burndy and a metal hook

#### Ordering Information

|                                      |            |
|--------------------------------------|------------|
| FS003-B analog remote 25 ft. (7.6 m) | 0558008905 |
|--------------------------------------|------------|

#### Ordering Information

|      |            |
|------|------------|
| MMA1 | 0349501024 |
|------|------------|

#### Ordering Information

##### Additional Remote Controls

|                                               |            |
|-----------------------------------------------|------------|
| HC-3B hand pendant control (cc-Amps/cv-Volts) | 33838      |
| TC-2B torch control                           | 33839      |
| FC-5C foot control                            | 0558004234 |
| FC-5B EHD foot control                        | 33841      |

## Twist Lock Connectors

#### Ordering Information

##### OKC50 Connectors [2 in. (50 mm)]

|                                            |          |
|--------------------------------------------|----------|
| Male for 1/0 to 4/0 cable                  | 13792513 |
| Female for 1/0 to 4/0 cable                | 13735631 |
| Male for #2 AWG to 1/0 cable               | 13733936 |
| Female for #2 AWG to 1/0 cable             | 13735632 |
| Quick connector with 1/2 in. threaded stud | 13735501 |
| Tee connector (1 male, 2 female)           | 13792804 |

## Interconnection Cables

#### Ordering Information

##### 10 Pole

|                   |            |
|-------------------|------------|
| 0.8 ft. (0.25 m)  | 0459960883 |
| 16.4 ft. (5 m)    | 0459960880 |
| 33 ft. (10 m)     | 0459960881 |
| 82 ft. (25 m)     | 0459960882 |
| 16.4 ft. (5 m) HD | 0459960880 |
| 33 ft. (10 m) HD  | 0459960881 |
| 82 ft. (25 m) HD  | 0459960882 |

##### 12 Pole

|                            |            |
|----------------------------|------------|
| 0.8 ft. (0.25 m) CAN       | 0459554884 |
| 16.4 ft. (5 m) CAN         | 0459554880 |
| 33 ft. (10 m)              | 0459554881 |
| 49 ft. (15 m) CAN          | 0459554882 |
| 66 ft. (20 m) CAN          | 0459554883 |
| 16.4 ft. (5 m) ANALOG 23 p | 0459553880 |
| 16.4 ft. (5 m) ANALOG 12 p | 0459552880 |
| 33 ft. (10 m) ANALOG 12 p  | 0459552881 |
| 49 ft. (15 m) ANALOG 12 p  | 0459552882 |
| 82 ft. (25 m) ANALOG 12 p  | 0459552883 |

## Electrode Holders



A-316

A-732

A-14

### TwecoTong A-Series

- TwecoTong Electrode Holders are designed to mechanically hold a welding electrode in position
- Reversible Top & Bottom Insulators are easy to replace
- Efficient 6-Position Jaw Patterns
- Ball Point Cable Connections
- Fully Insulated & Protected Springs
- Heavy Duty Copper Alloy

### Ordering Information

| Amperage | Body Alloy   | Electrode      | Cable         | Length           | Stock No. |
|----------|--------------|----------------|---------------|------------------|-----------|
| 200      | Copper Alloy | 5/32" (4.0 mm) | 2/0 (67.4 mm) | 8-1/2" (216 mm)  | 9110-1101 |
| 200      | Copper Alloy | 5/32" (4.0 mm) | 2/0 (67.4 mm) | 8-1/2" (216 mm)  | 9110-1109 |
| 250      | Copper Alloy | 3/16" (4.8 mm) | 2/0 (67.4 mm) | 9-1/4" (235 mm)  | 9110-1102 |
| 250      | Copper Alloy | 3/16" (4.8 mm) | 2/0 (67.4 mm) | 9-1/4" (235 mm)  | 9110-1110 |
| 300      | Copper Alloy | 7/32" (5.6 mm) | 2/0 (67.4 mm) | 10" (254 mm)     | 9110-1103 |
| 300      | Copper Alloy | 7/32" (5.6 mm) | 2/0 (67.4 mm) | 10" (254 mm)     | 9110-1111 |
| 350      | Copper Alloy | 1/4" (6.4 mm)  | 4/0 (107 mm)  | 11" (279 mm)     | 9110-1104 |
| 400      | Copper Alloy | 1/4" (6.4 mm)  | 4/0 (107 mm)  | 12" (305 mm)     | 9110-1105 |
| 500      | Copper Alloy | 3/8" (9.5 mm)  | 4/0 (107 mm)  | 13-1/4" (336 mm) | 9110-1106 |

\* Clamshell packaging. Sold individually or master packed in quantities of 12 each.

\*\* Sold in Master Pack Boxed Quantities of 24.



T-532

T-316

T-732

### TwecoTong T-Series

- Ergonomic Handle has 12-degree angle
- Efficient 6-Position Jaw Patterns to hold the welding electrode in position
- Double Ball Point Cable Connections accept up to 2/0 welding cable
- Rugged & Reliable Design with operator appeal
- Designed to meet IEC 60974-11
- Fully Insulated & Protected Springs

### Ordering Information

| Amperage | Body Alloy   | Electrode      | Cable         | Length          | Stock No. |
|----------|--------------|----------------|---------------|-----------------|-----------|
| 200      | Copper Alloy | 5/32" (4.0 mm) | 2/0 (67.4 mm) | 9-1/2" (241 mm) | 9110-1122 |
| 200      | Copper Alloy | 5/32" (4.0 mm) | 2/0 (67.4 mm) | 9-1/2" (241 mm) | 9110-1131 |
| 250      | Copper Alloy | 3/16" (4.8 mm) | 2/0 (67.4 mm) | 9-1/2" (241 mm) | 9110-1123 |
| 250      | Copper Alloy | 3/16" (4.8 mm) | 2/0 (67.4 mm) | 9-1/2" (241 mm) | 9110-1132 |
| 300      | Copper Alloy | 7/32" (5.6 mm) | 2/0 (67.4 mm) | 10" (254 mm)    | 9110-1124 |
| 300      | Copper Alloy | 7/32" (5.6 mm) | 2/0 (67.4 mm) | 10" (254 mm)    | 9110-1133 |

\* Sold in Master Pack Boxed Quantities of 24.

\*\* Sold Individually



4TT

### TwecoTite

- Tweco-Tite Electrode Holders with Fully Insulated Body designed for effortless installation of electrodes
- 45 Degree Angled Head holds the welding electrode in place

### Ordering Information

| Amperage | Electrode     | Cable        | Stock No. |
|----------|---------------|--------------|-----------|
| 400      | 1/4" (6.4 mm) | 4/0 (107 mm) | 9110-1105 |

# Ground Clamps

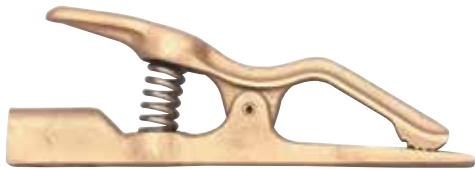
| EASY FIND GUIDE |                                                             |     |     |     |     |     |     |      |      |                   |
|-----------------|-------------------------------------------------------------|-----|-----|-----|-----|-----|-----|------|------|-------------------|
| Application     | Amperage Range                                              |     |     |     |     |     |     |      |      | Recommended Model |
|                 | 200                                                         | 300 | 400 | 500 | 600 | 700 | 800 | 1500 | 2000 |                   |
| Plate           | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | FGC 200           |
|                 | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | FGC 300           |
|                 | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | FGC 500           |
|                 | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | SGC 300           |
|                 | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | SGC 500           |
|                 | [Bar chart showing amperage ranges for Plate applications]  |     |     |     |     |     |     |      |      | GC 200            |
| Pipe            | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | GC 300            |
|                 | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | GC 500            |
|                 | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | SMGC 200          |
|                 | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | SMGC 300          |
|                 | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | SMGC 600          |
|                 | [Bar chart showing amperage ranges for Pipe applications]   |     |     |     |     |     |     |      |      | GCRG 140          |
| Rotary          | [Bar chart showing amperage ranges for Rotary applications] |     |     |     |     |     |     |      |      | RG 140            |
|                 | [Bar chart showing amperage ranges for Rotary applications] |     |     |     |     |     |     |      |      | RG 230            |
|                 | [Bar chart showing amperage ranges for Rotary applications] |     |     |     |     |     |     |      |      | RG 240            |
|                 | [Bar chart showing amperage ranges for Rotary applications] |     |     |     |     |     |     |      |      | RG 440            |
|                 | [Bar chart showing amperage ranges for Rotary applications] |     |     |     |     |     |     |      |      | RG 640            |

| Model           | Output         |                   |              | Cable Connection    | Process |      |        | Application    |               |                |                      |
|-----------------|----------------|-------------------|--------------|---------------------|---------|------|--------|----------------|---------------|----------------|----------------------|
|                 | Current (Amps) | Jaw Opening       | No. of Heads |                     | Plate   | Pipe | Rotary | Light Duty Fab | Med. Duty Fab | Heavy Duty Fab | Extra Heavy Duty Fab |
| <b>FGC 200</b>  | 200            | 2" (50.8 mm)      | --           | Ball-Point thru 1/0 | ■       |      |        | ■              |               |                |                      |
| <b>FGC 300</b>  | 300            | 3-1/2" (88.9 mm)  | --           | Ball-Point thru 3/0 | ■       |      |        | ■              | ■             |                |                      |
| <b>FGC 500</b>  | 500            | 3-3/4" (95.3 mm)  | --           | Ball-Point thru 4/0 | ■       |      |        |                | ■             | ■              |                      |
| <b>SGC 300</b>  | 300            | 2" (50.8 mm)      | --           | 1/2" Stud           | ■       |      |        | ■              | ■             |                |                      |
| <b>SGC 500</b>  | 500            | 2" (50.8 mm)      | --           | 1/2" Stud           | ■       |      |        |                | ■             | ■              |                      |
| <b>GC 200</b>   | 200            | 3" (76.2 mm)      | --           | Ball-Point thru 1/0 |         | ■    |        | ■              |               |                |                      |
| <b>GC 300</b>   | 300            | 4" (101.0 mm)     | --           | Ball-Point thru 3/0 |         | ■    |        | ■              | ■             |                |                      |
| <b>GC 500</b>   | 500            | 5-1/4" (133.0 mm) | --           | Ball-Point thru 4/0 |         | ■    |        |                | ■             | ■              |                      |
| <b>SMGC 200</b> | 200            | --                | --           | Ball-Point thru 1/0 |         | ■    |        | ■              |               |                |                      |
| <b>SMGC 300</b> | 300            | --                | --           | Ball-Point thru 3/0 |         | ■    |        | ■              | ■             |                |                      |
| <b>SMGC 600</b> | 600            | --                | --           | Ball-Point thru 4/0 |         | ■    |        |                |               | ■              |                      |
| <b>GCRG 140</b> | 400            | --                | 1            | 1 thru 4/0          |         |      | ■      |                | ■             | ■              |                      |
| <b>RG 140</b>   | 400            | --                | 1            | 1 thru 4/0          |         |      | ■      |                | ■             | ■              |                      |
| <b>RG 230</b>   | 600            | --                | 1            | 2 thru 3/0          |         |      | ■      |                |               | ■              |                      |
| <b>RG 240</b>   | 800            | --                | 1            | 2 thru 4/0          |         |      | ■      |                |               | ■              | ■                    |
| <b>RG 440</b>   | 1500           | --                | 2            | 4 thru 4/0          |         |      | ■      |                |               |                | ■                    |
| <b>RG 640</b>   | 2000           | --                | 3            | 6 thru 4/0          |         |      | ■      |                |               |                | ■                    |

ARC ACCESSORIES

## Ground Clamps

Ideal for most Light to Medium Duty fabrication needs



Flat Jaw Copper Ground Clamps

- Ideal for plate grounding

| Ordering Information |                                           |                     |                 |           |
|----------------------|-------------------------------------------|---------------------|-----------------|-----------|
| Amperage             | Jaw Opening                               | Cable               | Length          | Stock No. |
| 200                  | 5/8" - Depth 2" (15.9 mm - 50.8 mm)       | Ball-Point thru 1/0 | 5" (127 mm)     | 9205-1320 |
| 300                  | 1" - Depth 3-1/2" (25.4 mm - 88.9 mm)     | Ball-Point thru 3/0 | 7-14" (184 mm)  | 9205-1330 |
| 500                  | 1-1/4" - Depth 3-3/4" (31.8 mm - 95.3 mm) | Ball-Point thru 4/0 | 9-1/4" (234 mm) | 9205-1350 |



Steel Ground Clamps

- Ideal for plate grounding and lower amperage needs

| Ordering Information |                                       |                      |             |           |
|----------------------|---------------------------------------|----------------------|-------------|-----------|
| Amperage             | Jaw Opening                           | Cable                | Length      | Stock No. |
| 300                  | 2" - Depth 1-3/4" (50.8 mm - 44.4 mm) | 1/2" Stud Connection | 9" (228 mm) | 9205-1230 |
| 500                  | 2" - Depth 1-3/4" (50.8 mm - 44.4 mm) | 1/2" Stud Connection | 9" (228 mm) | 9205-1250 |



Copper Ground Clamps

- Ideal for pipe grounding

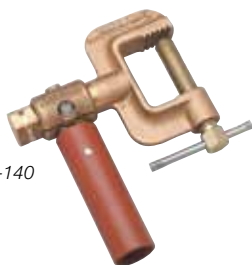
| Ordering Information |                                        |                     |                 |           |
|----------------------|----------------------------------------|---------------------|-----------------|-----------|
| Amperage             | Jaw Opening                            | Cable               | Length          | Stock No. |
| 200                  | 1" - Depth 3" (25.4 mm - 76.2 mm)      | Ball-Point thru 1/0 | 6" (157 mm)     | 9205-1120 |
| 300                  | 1-1/2" - Depth 4" (38.1 mm - 101.0 mm) | Ball-Point thru 3/0 | 8-1/2" (216 mm) | 9205-1130 |
| 300                  | 2" - Depth 1-3/4" (50.8 mm - 44.4 mm)  | Ball-Point thru 3/0 | 8-1/2" (216 mm) | 9205-1131 |
| 500                  | 2" - Depth 1-3/4" (50.8 mm - 44.4 mm)  | Ball-Point thru 4/0 | 10" (254 mm)    | 9205-1150 |

## Ground Clamps

Ideal for most heavy-duty fabrication needs



RG-440



GCRG-140

### Tweco Roto-Ground Clamps

- Ideal for high amperage grounding
- Highly efficient device for grounding weldments while being rotated on turning rolls or positioners
- The 2" shaft shoulders up to a steel nut which the user welds to the rotating work or fixture
- Tweco Roto-Grounds have no brushes, springs or mercury
- A simple tension adjusting bolt provides maximum efficiency

| Ordering Information |         |                 |            |                  |           |
|----------------------|---------|-----------------|------------|------------------|-----------|
| Amperage             | Cable   | Number of Heads | Shaft Stud | Length           | Stock No. |
| 400                  | 1 - 4/0 | 1               | 3/4" NC    | --               | 9210-1314 |
| 400                  | 1 - 4/0 | 1               | 3/4" NC    | 8" (203 mm)      | 9250-1114 |
| 600                  | 2 - 3/0 | 1               | 1-1/8" NC  | 10-1/4" (260 mm) | 9250-1123 |
| 800                  | 2 - 4/0 | 1               | 1-3/8" NC  | 10-5/8" (270 mm) | 9250-1124 |
| 1500                 | 4 - 4/0 | 2               | 1-3/8" NC  | 10-5/8" (270 mm) | 9250-1144 |
| 2000                 | 6 - 4/0 | 3               | 1-3/8" NC  | 10-5/8" (270 mm) | 9250-1164 |



WCRG-1200



GC-600-75

### Tweco Roto-Work Clamps

- Tweco Roto-Work Ground Clamps are designed primarily to work in conjunction with the Tweco Roto-Ground Device, however they may also be used for other high amperage grounding applications
- The Roto-Ground shaft screws into the tapped back of the Roto-Work Clamp
- The clamp is quickly attached or moved from one rotation weldment or fixture to the other without removing the Roto-Ground from it, saving on welding down time
- Roto-Work Clamps are made from a copper alloy
- They come in 600, 1200 and 2000 ampere capacity
- Number WCRG-2000 has two tightening screws
- Number WCRG-600 works only with No. RG-230 due to its smaller shaft size
- Large tightening screws and ample contact surface area provide cool, efficient operation

| Ordering Information - Tweco Roto-Work Ground Clamps |                  |               |                  |                  |                   |                  |            |           |
|------------------------------------------------------|------------------|---------------|------------------|------------------|-------------------|------------------|------------|-----------|
| Amperage                                             | Fits Roto-Ground | Clamp Contact | Throat Height    | Throat Depth     | Overall Height    | Overall Width    | Tapped For | Stock No. |
| 600                                                  | RG-230           | 6-1/4 sq in   | 2-1/2" (63.5 mm) | 2-1/2" (63.5 mm) | 5-3/4" (146.0 mm) | 2-1/2" (63.5 mm) | 1-1/8" NC  | 9255-1106 |
| 1200                                                 | RG-240/440       | 9 sq in       | 3" (76.2 mm)     | 3" (76.2 mm)     | 6-3/4" (171.0 mm) | 3" (76.2 mm)     | 1-3/8" NC  | 9255-1112 |
| 2000                                                 | RG-440/640       | 12 sq in      | 3" (76.2 mm)     | 3" (76.2 mm)     | 6-3/4" (171.0 mm) | 4" (102.0 mm)    | 1-3/8" NC  | 9255-1120 |

| Ordering Information - Tweco Ground Clamps with Cap Screws |                                           |                   |           |
|------------------------------------------------------------|-------------------------------------------|-------------------|-----------|
| Amperage                                                   | Jaw Opening                               | Cable             | Stock No. |
| 500                                                        | 2-1/2" - Depth 1-3/8" (63.5 mm - 34.9 mm) | 1/2" Cap Screw    | 9210-1150 |
| 600                                                        | 2-1/2" - Depth 1-3/8" (63.5 mm - 34.9 mm) | 3/4" Cap Screw    | 9255-1075 |
| 600                                                        | 2-1/2" - Depth 1-3/8" (63.5 mm - 34.9 mm) | Double Ball-Point | 9210-1201 |
| 600                                                        | 2-1/2" - Depth 1-3/8" (63.5 mm - 34.9 mm) | Tweco Male Plug   | 9210-1202 |

ARC  
ACCESSORIES

## Ground Clamp Accessories



RG-240-11

A-14-24

2-5



8Z-L



138

### Roto-Ground Accessories

#### Ordering Information

|                                   |           |
|-----------------------------------|-----------|
| Lubricating Cup                   | 9922-2129 |
| Ball-Point Cable Connection Screw | 9910-2424 |
| Special Shaft Lubricant           | 9900-1123 |
| Fibre Cover Screw                 | 9940-2125 |

### Tweco Shaft Lubricant

- An electrical conductive grease to be used as a lubricant for roto-grounds and may be used when making mechanical connections with copper or aluminum cables
- Effective as a lubricant on sliding or moving electrical contacts such as switches and rotating grounding devices
- Apply generously to contact area from 1 oz (29.6 mL) or 8 oz (237.0 mL) plastic bottles. Reduce electrical resistance by as much as 40 to 50%

#### Ordering Information

|                                        |           |
|----------------------------------------|-----------|
| 1 oz (29.6 mL) Plastic Squeeze Bottle  | 9900-1123 |
| 8 oz (237.0 mL) Plastic Squeeze Bottle | 9900-1124 |

### Work Clamp Adapter

#### Ordering Information

|                                                                                                                          |           |
|--------------------------------------------------------------------------------------------------------------------------|-----------|
| Work Clamp Adapter W/ 1-1/8"-7 UNC 2A OD Thread & 5/8"-11 UNC-2A ID Thread - Fits WCRG-600 Roto-Work Clamp               | 9922-2018 |
| Work Clamp Adapter W/ 1-3/8"-6 UNC 2A OD Thread & 5/8"-11 UNC-2A ID Thread - Fits WCRG-1200 & WCRG-2000 Roto-Work Clamps | 9922-2038 |

### "C" Type Clamp Parts

#### Ordering Information

|                                             |           |
|---------------------------------------------|-----------|
| Cap Screw - 1/2" x 3/4" NC                  | 9920-2100 |
| Fitting-No.2 Male Plug (threaded 1/2" NC)   | 9920-2102 |
| Fitting-Double Ball-Point (threaded 1/2"NC) | 9920-2103 |
| Cover                                       | 9940-2124 |

## Switchable Magnetic Work Holding Products

### Switchable Magnetic Ground Clamps



Easy Connect & Easy Release On/Off Knob

9255-1060



Just Turn Off & Wipe Away Debris

9255-1061



Cuts Set Up Time

9255-1062

#### Ordering Information

| Amperage | Height          | Width           | Length           | Weight   | Std. Pkg. | Stock No. |
|----------|-----------------|-----------------|------------------|----------|-----------|-----------|
| 200      | 2.5" (63.5 mm)  | 1.58" (40.1 mm) | 2.19" (55.6 mm)  | 0.38 lbs | 10        | 9255-1060 |
| 300      | 2.26" (57.4 mm) | 1.58" (40.1 mm) | 2.7" (68.6 mm)   | 0.61 lbs | 10        | 9255-1061 |
| 600      | 2.6" (66.0 mm)  | 2.83" (71.9 mm) | 4.09" (103.9 mm) | 2.0 lbs  | 5         | 9255-1062 |

### Switchable Magnetic Multi-Angle Clamps



9255-1064



9255-1063

- Work-holding switchable magnetic products
- Holds flat, round, odd shaped products
- Perfect for cutting, drilling, grinding, beveling

#### Ordering Information

| Description                         | Capacity/Power         | Stock No. |
|-------------------------------------|------------------------|-----------|
| Switchable Magnetic Multi Angle 300 | Magnetic Power 150 lbs | 9255-1064 |
| Switchable Magnetic Multi Angle 400 | Holding Power 400 lbs  | 9255-1063 |

### Switchable Magnetic Pick & Pack Lifters & Hooks



9255-1065



9255-1066

- Products to pick, place, slide and reposition steel base metals
- Ideal for small steel handling, dragging sheet, picking and pulling parts out of burn table or handling scrap

#### Ordering Information

| Description                          | Capacity/Power                   | Stock No. |
|--------------------------------------|----------------------------------|-----------|
| Switchable Magnetic Lifter Manual 60 | Recommended Lift Capacity 60 lbs | 9255-1065 |
| Switchable Magnetic Lifter Hook 600  | Lift Capacity 200 lbs            | 9255-1066 |

### Switchable Magnetic Right-Angle (90°) Clamp



9255-1067

- Holds base plate – flat or round – at 90-degree angles for perfect positioning for code work and precision welding or cutting
- Ideal for automated tables used in plasma cutting

#### Ordering Information

| Description                         | Capacity/Power        | Stock No. |
|-------------------------------------|-----------------------|-----------|
| Switchable Magnetic Right Angle 400 | Holding Power 400 lbs | 9255-1067 |

## Cable Lugs

| EASY FIND GUIDE |                                         |                |    |              |              |              |              |             |        |
|-----------------|-----------------------------------------|----------------|----|--------------|--------------|--------------|--------------|-------------|--------|
| Cable Lugs      | Style                                   | Amperage Range |    |              |              |              | Recommended  |             |        |
|                 |                                         | 50             | 75 | 150          | 225          | 250          |              | 325         |        |
| Cable Lugs      | Crimp Lugs for Welding Cable            | [Yellow bar]   |    | [Yellow bar] |              |              | T-62         |             |        |
|                 |                                         | [Yellow bar]   |    |              | [Yellow bar] |              |              | T-120       |        |
|                 |                                         | [Yellow bar]   |    |              |              | [Yellow bar] |              |             | T-3040 |
|                 |                                         | [Yellow bar]   |    |              |              |              | [Yellow bar] |             | T-40HD |
|                 | Crimp Lugs for Power Cable              | [Blue bar]     |    | [Blue bar]   |              |              |              | T-810       |        |
|                 |                                         | [Blue bar]     |    | [Blue bar]   |              |              |              | T-68        |        |
|                 |                                         | [Blue bar]     |    | [Blue bar]   |              |              |              | T-46        |        |
|                 | Ball-Point Lugs without Insulated Cover | [Black bar]    |    | [Black bar]  |              |              |              | 10-45       |        |
|                 |                                         | [Black bar]    |    | [Black bar]  |              |              |              | 10-180      |        |
|                 |                                         | [Black bar]    |    |              |              |              | [Black bar]  |             | 40-45  |
|                 |                                         | [Black bar]    |    |              |              |              | [Black bar]  |             | 40-180 |
|                 | Ball-Point Lugs with Insulated Cover    | [Yellow bar]   |    | [Yellow bar] |              |              |              | 10-45C      |        |
| [Yellow bar]    |                                         | [Yellow bar]   |    |              |              | 10-180C      |              |             |        |
| [Yellow bar]    |                                         |                |    |              | [Yellow bar] |              | 40-45C       |             |        |
| [Yellow bar]    |                                         |                |    |              | [Yellow bar] |              | 40-180C      |             |        |
| Heavy Duty Lugs | [Grey bar]                              |                |    |              |              | [Grey bar]   |              | 140-HD-180  |        |
|                 | [Grey bar]                              |                |    |              |              | [Grey bar]   |              | 140-HD-180C |        |
|                 | [Grey bar]                              |                |    |              |              | [Grey bar]   |              | 240-HD-180  |        |

Crimp Lugs



Ball-Point Lugs



Heavy Duty Lugs



## Cable Lugs

TwecoLugs - Crimp or Solder Type Lugs (Use Tweco "Lug-Set")



TwecoLugs (Crimp Lugs) for Welding Cable

| Ordering Information |            |                  |                    |         |           |
|----------------------|------------|------------------|--------------------|---------|-----------|
| Cable                | Amp Rating | Stud Hole        | I.D. Solder Socket | Std Pkg | Stock No. |
| 6 thru 2             | 150        | 17/32" (13.5 mm) | .461" (11.7 mm)    | 50      | 9520-1115 |
| 6 thru 2             | 150        | 17/32" (13.5 mm) | .461" (11.7 mm)    | 5       | 9520-1104 |
| 1 thru 2/0           | 225        | 17/32" (13.5 mm) | .559" (14.2 mm)    | 50      | 9520-1116 |
| 1 thru 2/0           | 225        | 17/32" (13.5 mm) | .559" (14.2 mm)    | 5       | 9520-1105 |
| 3/0 & 4/0            | 250        | 17/32" (13.5 mm) | .660" (16.7 mm)    | 25      | 9520-1117 |
| 3/0 & 4/0            | 250        | 17/32" (13.5 mm) | .660" (16.7 mm)    | 5       | 9520-1107 |
| 4/0 Heavy Duty       | 325        | 21/32" (17.7 mm) | .776" (19.7 mm)    | 25      | 9520-1118 |
| 4/0 Heavy Duty       | 325        | 21/32" (17.7 mm) | .776" (19.7 mm)    | 5       | 9520-1109 |



TwecoLugs (Crimp Lugs) for Power Cable

| Ordering Information |            |                 |                    |         |           |
|----------------------|------------|-----------------|--------------------|---------|-----------|
| Cable                | Amp Rating | Stud Hole       | I.D. Solder Socket | Std Pkg | Stock No. |
| 8 thru 10            | 50         | 13/64" (5.2 mm) | .238" (6.1 mm)     | 10      | 9520-1101 |
| 6 thru 8             | 70         | 21/64" (8.3 mm) | .289" (7.3 mm)     | 10      | 9520-1102 |
| 4 thru 6             | 90         | 21/64" (8.3 mm) | .347" (8.8 mm)     | 10      | 9520-1103 |



Ball-Point Lugs without Insulated Cover

| Ordering Information |          |            |                  |         |           |
|----------------------|----------|------------|------------------|---------|-----------|
| Description          | Cable    | Amp Rating | Stud Hole        | Std Pkg | Stock No. |
| 45° Angle            | thru 1/0 | 150        | 17/32" (13.5 mm) | 1       | 9515-1100 |
| 180° Offset          | thru 1/0 | 150        | 17/32" (13.5 mm) | 1       | 9515-1102 |
| 45° Angle            | thru 4/0 | 325        | 17/32" (13.5 mm) | 1       | 9515-1110 |
| 180° Offset          | thru 4/0 | 325        | 17/32" (13.5 mm) | 1       | 9515-1112 |



Ball-Point Lugs with Insulated Cover

| Ordering Information |          |            |                  |         |           |
|----------------------|----------|------------|------------------|---------|-----------|
| Description          | Cable    | Amp Rating | Stud Hole        | Std Pkg | Stock No. |
| 45° Angle            | thru 1/0 | 150        | 17/32" (13.5 mm) | 1       | 9515-1101 |
| 180° Offset          | thru 1/0 | 150        | 17/32" (13.5 mm) | 1       | 9515-1103 |
| 45° Angle            | thru 4/0 | 325        | 17/32" (13.5 mm) | 1       | 9515-1111 |
| 180° Offset          | thru 4/0 | 325        | 17/32" (13.5 mm) | 1       | 9515-1113 |



Heavy Duty Mechanical Ball-Point Lugs

| Ordering Information               |           |            |                  |                 |           |
|------------------------------------|-----------|------------|------------------|-----------------|-----------|
| Description                        | Cable     | Amp Rating | Stud Hole        | Length          | Stock No. |
| 180° Offset                        | 3/0 & 4/0 | 325        | 21/32" (16.7 mm) | 4-3/8" (111 mm) | 9515-1120 |
| With Insulated Cover - 180° Offset | 3/0 & 4/0 | 325        | 21/32" (16.7 mm) | 5-1/2" (140 mm) | 9515-1121 |
| 180° Offset                        | 3/0 & 4/0 | 325        | 21/32" (16.7 mm) | 4-5/8" (131 mm) | 9515-1122 |

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ACCESSORIES

## Cable Connectors



### MPC Series

Positive-CAM Mechanical Connection - zinc plated type cable & cover screws

### MPC Connectors

- Tweco MPC connectors provide a positive cam action, which optimizes interface between connector halves
- Equipped with heat and oil resistant covers
- Furnished with zinc plated cover and ball-point cable screws
- Interchangeable with older Tweco MBP Connectors
- The Whip Cable Connector is used when down sizing cable to an electrode holder
- It is a No. 2 male connector with cable hole sized to fit 4, 2, 1 or 1/0 cable
- The 2-1-MPC will fit any No. 2 or No. 4 female connector

### Ordering Information

| Description         | Type Cable Connection | Cable Capacity | Standard Package         | Stock No. |
|---------------------|-----------------------|----------------|--------------------------|-----------|
| Complete Connection | Single Ball-Point     | 4, 2, 1        | Pkg. 1 ea. Male & Female | 9425-1100 |
| Male Half           | Single Ball-Point     | 4, 2, 1        | Pkg. 2 ea. Male Only     | 9425-1110 |
| Female Half         | Single Ball-Point     | 4, 2, 1        | Pkg. 2 ea. Female Only   | 9425-1120 |
| Complete Connection | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 1 ea. Male & Female | 9425-1200 |
| Complete Connection | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 1 ea. Male & Female | 9425-1201 |
| Male Half           | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 2 ea. Male Only     | 9425-1210 |
| Male Half           | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 2 ea. Male Only     | 9425-1211 |
| Female Half         | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 2 ea. Female Only   | 9425-1220 |
| Female Half         | Single Ball-Point     | 1/0, 2/0, 3/0  | Pkg. 2 ea. Female Only   | 9425-1221 |
| Complete Connection | Double Ball-Point     | 3/0 or 4/0     | Pkg. 1 ea. Male & Female | 9425-1400 |
| Complete Connection | Double Ball-Point     | 3/0 or 4/0     | Pkg. 1 ea. Male & Female | 9425-1401 |
| Male Half           | Double Ball-Point     | 3/0 or 4/0     | Pkg. 2 ea. Male Only     | 9425-1410 |
| Male Half           | Double Ball-Point     | 3/0 or 4/0     | Pkg. 2 ea. Male Only     | 9425-1411 |
| Female Half         | Double Ball-Point     | 3/0 or 4/0     | Pkg. 2 ea. Female Only   | 9425-1420 |
| Female Half         | Double Ball-Point     | 3/0 or 4/0     | Pkg. 2 ea. Female Only   | 9425-1422 |
| Whip Connection     | Single Ball-Point     | 4, 2, 1, 1/0   | Pkg. 2 ea.               | 9425-1140 |

\*Sold in Master Pack Boxed Quantities of 48.

\*\*Sold in Master Pack Quantities of 24.

† Clamshell packaging. Sold individually or master packed in quantities of 24 each.

‡ Clamshell packaging. Sold individually or master packed in quantities of 12 each.

### Replacement Tapered Machine Plugs Ball-Point Connection



### Ordering Information

| Taper Length     | Taper Dimensions                   | Cable        | Stock No. |
|------------------|------------------------------------|--------------|-----------|
| 1-1/8" (28.6 mm) | 21/64" to 23/64" (8.3 mm x 9.1 mm) | 4 thru 1     | 9505-1800 |
| 1-1/8" (28.6 mm) | 21.64" to 23/64" (8.3 mm x 9.1 mm) | 1/0 thru 3/0 | 9505-1801 |

### Cable Connector Replacement Parts

MPC Series Positive-CAM - Zinc plated type cable & cover screws

### Ordering Information

| Description                                    | Stock No. |
|------------------------------------------------|-----------|
| Insulating Cover Only, All 1-MPC               | 9940-2103 |
| Insulating Cover Only, All 2 & 4 MPC           | 9940-2124 |
| Cable Connection Screw, Zinc Plated, All 2-MPC | 9910-2124 |
| Cable Connection Screw, Zinc Plated, All 4-MPC | 9910-2424 |
| Cover Screw, Zinc Plated, All MPC Connectors   | 9940-2125 |



### Panel Receptacles

For use with MPC Connectors

### Ordering Information

| Cable Fitting Type | Fits Tweco Connector | For Cable Size | Cable Attachment                 | Stock No. |
|--------------------|----------------------|----------------|----------------------------------|-----------|
| Ball-Point         | No. 1                | 4, 2, 1        | 5/16" Ball-Point (7.9 mm)        | 9580-1100 |
| Threaded           | No. 1                | 4, 2, 1, 1/0   | 5/16" Thread. Stud (7.9 mm)      | 9580-1101 |
| Threaded           | No. 2, 4             | 1/0, 2/0, 3/0  | 3/8" Thread. Stud (9.5 mm)       | 9580-1102 |
| Ball-Point         | No. 2, 4             | 1/0, 2/0, 3/0  | 9/16" Ball-Point (14.3 mm)       | 9580-1103 |
| Threaded           | No. 2, 4             | 1/0, 2/0, 3/0  | 1/2" - 20 Thread. Stud (12.7 mm) | 9580-1104 |

## Splicers, Terminals and Accessories

### Copper Cable Splicers



9610-1103

| Ordering Information |            |                 |                  |           |
|----------------------|------------|-----------------|------------------|-----------|
| Cable                | Amp Rating | Tube I.D.       | Standard Package | Stock No. |
| 6 thru 2             | 150        | .461" (11.7 mm) | 50               | 9610-1105 |
| 6 thru 2             | 150        | .461" (11.7 mm) | 5                | 9610-1101 |
| 1 thru 2/0           | 225        | .599" (15.2 mm) | 5                | 9610-1102 |
| 3/0 thru 4/0         | 250        | .660" (16.8 mm) | 5                | 9610-1103 |
| 4/0 Heavy Duty       | 325        | .776" (19.7 mm) | 5                | 9610-1104 |

### Ball-Point Cable Splicers



9605-1103

| Ordering Information |            |                    |                  |           |
|----------------------|------------|--------------------|------------------|-----------|
| Cable                | Amp Rating | Cable Fitting Type | Standard Package | Stock No. |
| 4 thru 1/0           |            | Ball-Point         | 1                | 9605-1101 |
| 1/0 thru 3/0         |            | Ball-Point         | 1                | 9605-1103 |
| 2/0 thru 4/0         |            | Double Ball-Point  | 1                | 9605-1105 |

### Tweco Terminals

9505-1152



9505-1811



### Tweco Terminals and TwecoLugs

Tweco Screw-On Terminals Fits Terminal Size 1/2" (12.7 mm) NC

| Ordering Information           |           |
|--------------------------------|-----------|
| Accepts Tweco Connector Number | Stock No. |
| No. 2 & No. 4 Male Half        | 9505-1152 |

### Receptacle Conversion Adapters

| Ordering Information                |                           |           |
|-------------------------------------|---------------------------|-----------|
| Fits Cam Locking Machine Receptacle | Fits Tweco Male Plug Ends | Stock No. |
| Large - 11/16" I.D. (17.5 mm)       | No. 2-MPC, 4-MPC          | 9505-1811 |

### Tweco Female Terminals

Stud Hole Size 17/32" (13.5 mm)



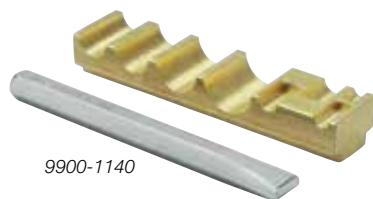
9510-1100



9510-1101

| Ordering Information |                   |                  |           |
|----------------------|-------------------|------------------|-----------|
| Description          | Accepts Male Ends | Standard Package | Stock No. |
| 45° Angle            | 1-MPC             | 1                | 9510-1100 |
| 180° Offset          | 1-MPC             | 1                | 9510-1101 |
| 45° Angle            | 2-MPC, 4-MPC      | 1                | 9510-1110 |
| 180° Offset          | 2-MPC, 4-MPC      | 1                | 9510-1111 |

### Accessories



9900-1140

### Tweco "Lug-Set"

#### Block & Punch

For use with TwecoLugs

| Ordering Information |           |
|----------------------|-----------|
| Description          | Stock No. |
| Block & Punch        | 9900-1140 |

### Jacket Stripping Cable

#### Cutting Hand Tool

For use with lugs with an insulated cover



9900-1190

| Ordering Information          |           |
|-------------------------------|-----------|
| Description                   | Stock No. |
| Tweco Cable Cutting Hand Tool | 9900-1190 |

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ACCESSORIES

# // GAS EQUIPMENT





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**1913**

The history of Victor begins in 1913 in San Francisco. The founder of Victor, Mr L.W. Stettner suffered a serious injury. A welder by trade, Stettner lost an eye during a welding accident, and following recovery, he was determined to design safer welding equipment and accessories – the birth of the Victor Torch.



**1941–1945**

Victor torches are integral to the war effort in World War II.



**1918**

The Victor handle was the first to feature a tube within a tube design to create a smaller diameter handle.

Victor was the first to design and invent the cutting attachment which included spiral mixers.

**1940s**

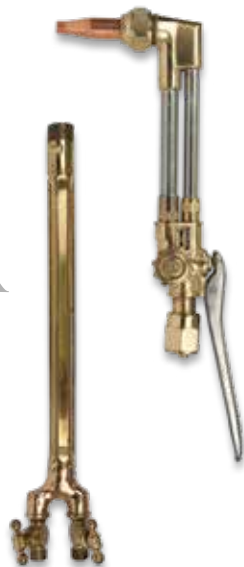
The SR 40 Oxygen Safety Regulator was a single stage reduction regulator. It featured a simplified seat mechanism which eliminated the ball housing.

**1937**

Mayor Angelo Rossi uses a Victor cutting torch to cut the chain opening the Golden Gate Bridge.



VICTOR



# EVOLUTION. INNOVATION. INSPIRATION.

**1980**

Victor began to manufacture the 315 welding handle with built-in check valves.



**1995**

Victor patents built-in flashback arrestors into their torches for added operator safety.



**2013**

Victor 400 series cutting torches with ergonomic handle and G Series regulators released.



**1966**

Victor Equipment Company moved to Denton, Texas.



**2009**

Victor introduced the EDGE™ regulator changing the landscape of gas regulation.



Victor manufacturing team worked overtime to produce over 5,000 pieces of equipment including special 15 and 20 foot length cutting torches to help with 9/11 clean-up efforts.



**2012**

The Golden Gate Bridge has its 75th Anniversary, Governor Schwarzenegger uses a Victor torch to recreate the original chain cutting ceremony.

**2014**

Victor becomes An ESAB Brand



## Journeyman® EDGE 2.0

Cutting, Heating and Welding Outfit

- Cuts up to 8 in. (203.2 mm), welds up to 3 in. (76.2 mm) with accessories
- Up to 1,118,000 BTUs/hour heating
- ESS42 Series regulators
- WH 315FC+ torch handle with built-in flash arrestors and check valves
- CA 2460+ cutting attachment
- Also includes cutting tip, tip cleaner, heating nozzle, striker, goggles, hose, welding nozzles and two EDGE 2.0 regulators



## Journeyman® II EDGE 2.0

Cutting and Welding Outfit

- Cuts up to 8 in. (203.2 mm), welds up to 3 in. (76.2 mm) with accessories
- ESS42 Series regulators
- WH 315FC+ torch handle with built-in flash arrestors and check valves
- CA 2460+ cutting attachment
- Also includes cutting tip, tip cleaner, heating nozzle, striker, goggles, hose, welding nozzles and two EDGE 2.0 regulators



### Ordering Information

|                                              |           |
|----------------------------------------------|-----------|
| Journeyman EDGE 2.0 540/300, 90° Plus Outfit | 0384-2100 |
| Journeyman EDGE 2.0 540/510, 90° Plus Outfit | 0384-2101 |

### Ordering Information

|                                                                  |           |
|------------------------------------------------------------------|-----------|
| Journeyman II EDGE 2.0 540/300, 90° Plus Outfit                  | 0384-2110 |
| Journeyman II EDGE 2.0 540/510, 90° Plus Outfit                  | 0384-2111 |
| Journeyman II AF EDGE 2.0 540/510LP, 90° Plus Outfit (propane)   | 0384-2112 |
| Journeyman II AF EDGE 2.0 540/510LP, 90° Plus Outfit (propylene) | 0384-2113 |

## Contender® EDGE 2.0

Cutting, Heating and Welding Outfit

- Cuts up to 8 in. (203.2 mm) and welds up to 3 in. (76.2 mm) with accessories
- ESS32 Series regulators
- WH 315FC+ torch handle with built-in flash arrestors and check valves
- CA 2460+ cutting attachment
- Also includes cutting tip, tip cleaner, striker, goggles, hose, welding nozzle, heating nozzle and two EDGE 2.0 regulators



## Performer® EDGE 2.0

Cutting, Heating and Welding Outfit

- Cuts up to 6 in. (152.4 mm) and welds up to 1/4 in. (6.4 mm) with accessories
- ESS32 Series regulators
- CA1350 cutting attachment
- WH100FC torch handle with built-in flashback arrestors and check valves
- Also includes cutting tip, tip cleaner, striker, goggles, hose, welding nozzle, heating nozzle and two EDGE 2.0 regulators



### Ordering Information

|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| Contender 540/510 EDGE 2.0 Outfit                                 | 0384-2130 |
| Contender 540/300 EDGE 2.0 Outfit                                 | 0384-2131 |
| Contender AF 540/510LP EDGE 2.0 Outfit (propane & propylene tips) | 0384-2132 |

### Ordering Information

|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| Performer 540/510 EDGE 2.0 Outfit                                 | 0384-2125 |
| Performer 540/300 EDGE 2.0 Outfit                                 | 0384-2126 |
| Performer AF 540/510LP EDGE 2.0 Outfit (propane & propylene tips) | 0384-2127 |
| Journeyman II AF EDGE 2.0 540/510LP, 90° Plus Outfit (propylene)  | 0384-2113 |

## Medalist® 350

### Heavy-Duty Cutting and Welding Outfit

- Cuts up to 3/4in. (19.1 mm) or 6 in. (152.4 mm) with optional tips
- Welds up to 1/8 in. (3.2 mm) or 3in. (76.2 mm) with optional nozzles
- Heavy-duty construction
- G350 Series regulators
- WH411C torch handle with built-in check valves
- CA411-1 cutting attachment
- Also includes welding nozzle, cutting tip, RM-grade hose 25 ft. x 1/4in. (7.6 m x 6.4 mm), striker and soft-sided goggles



## Medalist® 250

### Medium-Duty Cutting and Welding Outfit

- Cuts up to 1/2 in. (12.7 mm) or 5 in. (127.0 mm) with optional tips
- Welds up to 5/64 in. (2.0 mm) or 1.25 in. (31.8 mm) with optional nozzles
- Medium duty construction
- G250 Series regulators
- WH411C torch handle with built-in check valves
- CA411-3 cutting attachment
- Also includes welding nozzle, cutting tip, RM-grade hose 25 ft. x 1/4in. (7.6 m x 6.4 mm), striker and soft-sided goggles



GAS OUTFITS

#### Ordering Information

|                                        |           |
|----------------------------------------|-----------|
| Medalist 350 G350-540/300              | 0384-2691 |
| Medalist 350 G350-540/510 Medalist 250 | 0384-2690 |
| Medalist 350G350AF-510LP Propane/NG    | 0384-2692 |

#### Ordering Information

|                                          |           |
|------------------------------------------|-----------|
| Medalist 250 G250-540/510                | 0384-2540 |
| Medalist 250 G250-540/300                | 0384-2541 |
| Medalist 250 G250AF-540/510LP Propane/NG | 0384-2544 |
| Medalist 250 G250AF-540/510LP Propylene  | 0384-2545 |

## Journeyman® Select EDGE 2.0

### Heavy-Duty Cutting Outfit

- Cuts up to 8 in. (203.2 mm) with optional tips
- WH 315FC torch handle with built-in flashback arrestors and check valves
- ESS42 Series regulators
- WH 315FC+ torch handle with built-in flash arrestors and check valves
- CA 2460+ cutting attachment



## Cutter™ Select ST2600FC EDGE 2.0

### Heavy-Duty Cutting Outfit

- Cuts up to 8 in. (203.2 mm) with accessories
- ST 2600FC cutting torch with built-in flashback arrestors and check valves
- ESS42 Series regulators
- Available with 90° head angle



#### Ordering Information

|                                                          |           |
|----------------------------------------------------------|-----------|
| Journeyman Select EDGE 2.0 540/510, 90° Plus Outfit      | 0384-2081 |
| Journeyman Select EDGE 2.0 540/510, 75° Plus Outfit      | 0384-2082 |
| Journeyman Select EDGE 2.0 540/300, 90° Plus Outfit      | 0384-2083 |
| Journeyman Select AF EDGE 2.0 540/510LP, 90° Plus Outfit | 0384-2088 |

#### Ordering Information

|                                                   |           |
|---------------------------------------------------|-----------|
| Cutter EDGE 2.0 ST2600FC 540/510, 90° Outfit      | 0384-2120 |
| Cutter EDGE 2.0 ST2600FC 540/300, 90° Outfit      | 0384-2121 |
| Cutter AF EDGE 2.0 ST2600FC 540/510LP, 90° Outfit | 0384-2122 |

## Cutter™ Select ST1000FC Heavy-Duty Cutting Outfit

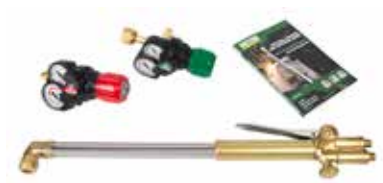
- Cuts up to 5 in. (127 mm) with accessories
- Regulator for acetylene
- Cutting torch will operate on any fuel gas with proper tip
- Capable cutting from 1/8 in. (3 mm) up to 5 in. (127mm) with appropriate cutting tip
- CSR 350 Series Regulator
- ST1000FC 21" 90 degree Torch



| Ordering Information                     |           |
|------------------------------------------|-----------|
| Cutter Select ST1000FC w/ CGA 510 outfit | 0384-0859 |
| Cutter Select ST1000FC w/CGA 300 outfit  | 0384-0860 |

## Cutter™ Select ST900FC EDGE 2.0 Heavy-Duty Cutting Outfit

- Cuts up to 8 in. (203.2 mm) and welding up to 1/4 in. (6.4 mm) with accessories
- ESS32 Series regulators
- ST900FC Straight Cutting Torch with built-in flashback arrestors



| Ordering Information                        |           |
|---------------------------------------------|-----------|
| Cutter 540/300 ST900FC EDGE 2.0 Outfit      | 0384-2140 |
| Cutter 540/510 ST900FC EDGE 2.0 Outfit      | 0384-2141 |
| Cutter AF 540/510LP ST900FC EDGE 2.0 Outfit | 0384-2142 |

## Portable Tote Kit - 100FC Torch Handle/CA 1350 Cutting Attachment Medium-Duty Portable Outfit

- Cuts up to 1/2 in. (12.7 mm) or 4 in. (101.6 mm) with optional tips
- Welds up to 1/4 in. (6.4 mm) or 1.25 in. (31.8 mm) with optional nozzles
- CSR 150 Series regulators
- 100FC torch handle with built-in flashback arrestors and check valves
- CA 1350 cutting attachment
- Welding nozzle
- Also includes cutting tip, T-grade hose 10' x 3/16" (3.1 m x 4.8 mm), striker and goggles



### Optional

- 10 cu ft CGA 200 acetylene cylinder
- 20 cu ft CGA 540 oxygen cylinder

| Ordering Information                                                                                      |           |
|-----------------------------------------------------------------------------------------------------------|-----------|
| Tote - Medium Duty Portable Outfit<br>100FC Torch Handle, CA 1350 Cutting Attachment,<br>540/MC CSR 150 R | 0384-0935 |
| Tote - Medium Duty Portable Outfit<br>100FC Torch Handle, CA 1350 Cutting Attachment,<br>540/MC CSR 150 R | 0384-0936 |

## Portable Tote Kit - W 270FC-V Torch Handle/CA 270-V Cutting Attachment Medium-Duty Portable Outfit

- Rugged patented design with a molded plastic carrying case
- Cuts up to 1.25 in. (31.8 mm) or welds up to 3/32 in. (2.4 mm)
- D 150 CR regulator
- D 160 AR regulator
- WH 270FC-V welding torch with built-in flashback arrestors and check valves
- CA 270-V cutting attachment
- Also includes welding nozzle, cutting tip, Twin RM-grade hose 12.5 ft. x 3/16 in. (3.81 m x 4.8 mm)



### Optional

- 10 cu ft CGA 200 acetylene cylinder
- 20 cu ft CGA 540 oxygen cylinder

| Ordering Information                                                                                       |           |
|------------------------------------------------------------------------------------------------------------|-----------|
| Tote - Medium Duty Portable Outfit,<br>WH 270FC-V Torch Handle,<br>CA 270-V Cutting Attachment, 540/200 FP | 0384-0938 |
| Tote - Medium Duty Portable Outfit,<br>WH 270FC-V Torch Handle,<br>CA 270-V Cutting Attachment, 540/200 FP | 0384-0939 |

## G150 Portable Tote Light-Duty Portable Outfit

- Designed with a patented, molded, plastic carrying case
- Ergonomic handle
- Patented balance design with small footprint
- Built-in storage compartments
- Includes G-150 regulators



## Fire-Stick Torch Kit Torch Kit

- This heating system can deliver up to 500,000 btu's avg./hr.
- Two models available – with or without regulator
- For propane – (hose approved for LP)



GAS OUTFITS

| Ordering Information       |           |
|----------------------------|-----------|
| G150-100-CP Tote w/o tanks | 0384-0943 |
| G150-100-CPT Tote w/ tanks | 0384-0944 |
| G150-J-P Tote w/o tanks    | 0384-0945 |
| G150-J-PT Tote w/ tanks    | 0384-0946 |
| G150-J-CP Tote w/o tanks   | 0384-0947 |
| G150-J-CPT Tote w/ tanks   | 0384-0948 |
| G150-J-AFP Tote w/o tanks  | 0384-0954 |
| G150-J-AP Tote w/o tanks   | 0384-0955 |
| G150-J-APT Tote w/ tanks   | 0384-0956 |
| G150-J-ACP Tote w/o tanks  | 0384-0957 |
| G150-J-ACPT Tote w/ tanks  | 0384-0958 |

| Ordering Information                        |           |
|---------------------------------------------|-----------|
| HT-500 Torch Kit, Fire-Stick, 500,000 BTU's | 0384-1261 |
| HS 101 Torch Kit, Fire-Stick, 350,000 BTU's | 0384-1251 |

## Powder Spray Torch Kit Medium-Duty Torch Kit

- The Victor VPT-100 provides powder feed into the gas mixture
- Deposit thickness is controlled by the powder flow rate of the torch
- 100 FC Torch Handle
- TE tips: size 3, 4
- TEMF tip: size 6
- 1 lb of Tungsten Carbide #600
- 1 lb of Nickel base #22
- Elbow assembly
- Hopper assembly



| Ordering Information                                        |           |
|-------------------------------------------------------------|-----------|
| VPT-100 Kit, 100FC Torch Handle, VPT Powder Torch, (3) Tips | 0384-1265 |

## Model Numbering Explanation

Single or Two Stage model designations as well as those identifying delivery range are common to all regulators unless otherwise noted on individual ordering charts. When ordering be certain to specify delivery range, CGA inlet connections, and regulator part number.

### Regulator Ordering Matrix

XX  
↓

XXX  
↓

X  
↓

XXX  
↓

| Single Stage Model |                                     | Series |                  | Delivery Range |               | CGA Connection* |                                 |         |                             |
|--------------------|-------------------------------------|--------|------------------|----------------|---------------|-----------------|---------------------------------|---------|-----------------------------|
| SR                 | Single Stage                        | 150    | Light Duty       | A              | 2-15 psig     | CGA 200         | Acetylene (MC)                  | CGA 580 | Nitrogen, Argon, Helium     |
| HSR                | Single Stage with Flow Meter        | 250    | Medium Duty      | B              | 2-40 psig     | CGA 300         | Acetylene (Commercial)          | CGA 590 | Air (Industrial)            |
| VTS                | Two Stage Design                    | 350    | Heavy Duty       | C              | 4-80 psig     | CGA 320         | Carbon Dioxide                  | CGA 660 | Corrosive                   |
| HVTS               | Two Stage with Flow Meter           | 450    | Extra Heavy Duty | D              | 5-125 psig    | CGA 326         | Nitrous Oxide                   | CGA 677 | Nitrogen, Argon & Helium    |
| AR                 | Air Relieving                       |        |                  | E              | 10-200 psig   | CGA 346         | Air (Formerly 1340)             | CGA 680 | Nitrogen, Argon             |
| S                  | Station                             |        |                  | F              | 50-750 psig   | CGA 347         | Air                             | CGA 701 | Oxygen                      |
| L                  | Line                                |        |                  | G              | 100-1500 psig | CGA 350         | Fuel Gas, Hydrogen              | CGA 992 | British Oxygen & Inert Gas  |
| HRF                | Single Stage w/ Internal Flow Meter |        |                  | J              | 200-3000 psig | CGA 500         | Medical Mixtures                | CGA 993 | British Fuel Gas            |
| AF                 | Argon Flow Gauge                    |        |                  | K              | 300-4500 psig | CGA 510         | Acetylene (POL)                 | CGA 996 | Manifold Oxygen & Inert Gas |
| CF                 | CO2 Flow Gauge                      |        |                  |                |               | CGA 510LP       | Propane, Natural Gas, Propylene | CGA 997 | Manifold Fuel Gas           |
| DL                 | Dome Loaded                         |        |                  |                |               | CGA 520         | Acetylene (B)                   | CGA 024 | Station Oxygen              |
| BSL                | Bulk System Line                    |        |                  |                |               | CGA 540         | Oxygen                          | CGA 025 | Station Fuel Gas            |
| DFM                | Dual Flow Meter                     |        |                  |                |               | CGA 555         | Propane, Butane                 | CGA 034 | Station Inert Gas           |
|                    |                                     |        |                  |                |               | CGA 577         | Oxygen                          |         |                             |

Ordering Example: **SR-250-D-540**

Single Stage, 250 Series, with 5-125 Delivery Range, for Oxygen Service CGA 540 Inlet

### Edge Series Regulator Ordering Matrix

X  
↓

XX  
↓

X  
↓

XXX  
↓

XXX  
↓

XX  
↓

| Series | Type        | Capacity                    | Max Delivery Pressure | CGA Connection*                             | Suffix                 |
|--------|-------------|-----------------------------|-----------------------|---------------------------------------------|------------------------|
| E      | EDGE Series | SS Single Stage, Side Inlet | 7 High Flow           | 15, 40, 80, 125, 200, 750, 1500, 3000, 4500 | *Same as above Chart   |
|        | LC          | Liquid Cylinder             | 4 High Capacity       |                                             |                        |
|        | ST          | Station                     | 3 Medium Capacity     |                                             |                        |
|        | SL          | Line                        |                       |                                             |                        |
|        | TS          | Two Stage                   |                       |                                             |                        |
|        |             |                             |                       |                                             | R Rear Entry           |
|        |             |                             |                       |                                             | A Acetylene            |
|        |             |                             |                       |                                             | F Fuel Gas             |
|        |             |                             |                       |                                             | X Oxygen               |
|        |             |                             |                       |                                             | LP Liquefied Petroleum |

Ordering Example: **ESS4-125-510LP**

Edge Series Single Stage, High Capacity w/ up to 125 Delivery Range, for Liquid Petroleum Service CGA 510 Inlet

### Regulator Delivery Ranges

|   |             |   |               |
|---|-------------|---|---------------|
| A | 2-15 psig   | F | 50-750 psig   |
| B | 2-40 psig   | G | 100-1500 psig |
| C | 4-80 psig   | J | 200-3000 psig |
| D | 5-125 psig  | K | 300-4500 psig |
| E | 10-200 psig |   |               |

Outlet pressure delivery ranges are not minimum or maximum outlet pressure limits. Regulators can be adjusted to zero psig outlet pressure and generally, to pressures in excess of those specified. The use of these regulators to control pressures outside of the specified ranges is not recommended.

### Regulator Gauges

|         |             |         |               |
|---------|-------------|---------|---------------|
| A Range | 2-30 psig   | F Range | 50-1000 psig  |
| B Range | 2-60 psig   | G Range | 100-2000 psig |
| C Range | 4-100 psig  | J Range | 200-4000 psig |
| D Range | 5-200 psig  | K Range | 200-6000 psig |
| E Range | 10-400 psig |         |               |

When ordering regulators, specify part numbers. Regulators should not be used as a shut-off valve nor should they be used to protect downstream equipment. Unless otherwise noted, high pressure gauges for all oxygen, inert gas, CO<sub>2</sub> and N<sub>2</sub>O, and hydrogen models are graduated 200-4000 psig. High pressure gauges for fuel gas models are graduated 10-400 psig. Low pressure or outlet gauge ranges are determined by the regulator delivery range selected.

## How to read the Flow Data Charts:

The regulator flow data is provided to assist in determining the proper regulator for the required application. The data is given for reference purposes only. If additional information is necessary contact your local distributor or the Customer Service Department at 1-800-426-1888

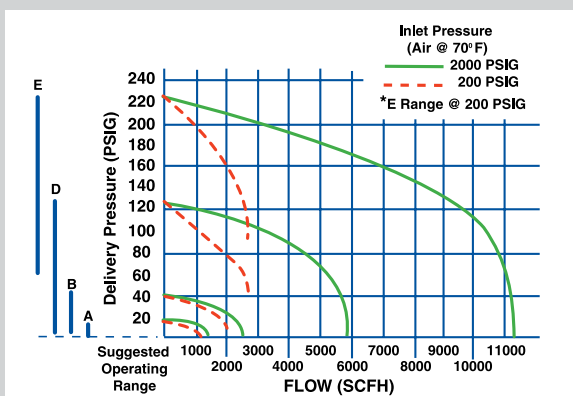
The regulator flow data was established by connecting a valve to the regulator outlet. The valve was opened and the flow rates measured. The amount of pressure drop is shown on the curves as the flow increases.

### Example

An SR 450D with an inlet of 2000 psig and an internal pressure setting of 125 psig (no flow) will flow 1000 SCFH, but the delivery pressure will drop to 115 lb As the flow increased to 2000 SCFH, the pressure will drop to 108 psig.

With an inlet pressure of 200 psig and an initial setting of 125 psig, the regulator will flow 1000 SCFH with a pressure drop to 98 psig. At 2000 SCFH flow, the pressure will drop to 78 psig. If a delivery pressure other than the ones shown on the flow charts is required, use an average curve rate between the upper and lower pressures shown.

Flow (SCFH)



### Delivery Pressure Rise

Single stage regulators have an increase in delivery pressure as the cylinder pressure decreases. Listed below is the amount of pressure increase per 100 psig decrease in cylinder (inlet) pressure.

|               |                      |
|---------------|----------------------|
| ESS7-125      | .95 psig             |
| ESS7-200      | 1.54 psig            |
| ESS4-125-540  | .59 psig             |
| ESS3-125-540  | .53 psig             |
| SR 4 Series   | J & K Range 4.8 psig |
| SR 5 Series   | 1.0 psig             |
| SR 250 Series | 0.5 psig             |
| SR 350 Series | 0.8 psig             |
| SR 450 Series | 0.6 psig             |
| SR 600 Series | 0.58 psig            |
| SR 700 Series | 1.2 psig             |

The change in delivery pressure of a Two Stage regulator from full to empty Cylinder (inlet pressure) is negligible.

### For Conversion to Other Gases

All flow capacity information is given in SCFH of free air (1.00). For conversion to other gases multiply the air flow by the correction factor listed below.

|                       |      |
|-----------------------|------|
| ■ Acetylene.....      | 1.05 |
| ■ Argon.....          | 0.85 |
| ■ Carbon Dioxide..... | 0.81 |
| ■ Helium.....         | 2.69 |
| ■ Hydrogen.....       | 3.79 |
| ■ Mapp®.....          | 0.82 |
| ■ Natural Gas.....    | 1.28 |
| ■ Nitrogen.....       | 1.02 |
| ■ Oxygen.....         | 0.95 |
| ■ Propane.....        | 0.80 |

**Pressure Drop Reference Charts**

**Oxygen Hose**

| Delivery Pressure Pounds Per Square Inch | Oxygen Flow SCFH | Pressure Drop Pound Per Square Inch |      |      |      |           |      |      |      |            |      |      |      |           |      |      |      |
|------------------------------------------|------------------|-------------------------------------|------|------|------|-----------|------|------|------|------------|------|------|------|-----------|------|------|------|
|                                          |                  | Hose Length in Feet                 |      |      |      |           |      |      |      |            |      |      |      |           |      |      |      |
|                                          |                  | 3/16" Hose                          |      |      |      | 1/4" Hose |      |      |      | 5/16" Hose |      |      |      | 3/8" Hose |      |      |      |
|                                          |                  | 12.5                                | 25   | 50   | 100  | 12.5      | 25   | 50   | 100  | 12.5       | 25   | 50   | 100  | 12.5      | 25   | 50   | 100  |
| 10                                       | 100              | 5.0                                 | 6.3  |      |      |           | 2.0  | 3.8  | 6.0  | *          | *    | *    | 2.3  | *         | *    | *    | 2.0  |
|                                          | 250              |                                     |      |      |      | 9.4       |      |      |      | 2.7        | 4.1  | 5.9  |      | *         | *    | 3.3  | 6.4  |
| 25                                       | 100              | 3.6                                 | 5.7  | 8.2  | 13.4 | *         | *    | 2.9  | 4.3  | *          | *    | *    | *    | *         | *    | *    | *    |
|                                          | 250              | 13.2                                | 18.3 |      |      | 6.3       | 7.9  | 11.7 | 16.8 | *          | 2.4  | 3.2  | 6.7  | *         | *    | *    | 3.7  |
| 50                                       | 500              |                                     |      |      |      | 21.5      |      |      |      | 6.3        | 8.7  | 12.1 | 19.9 | 2.7       | 4.6  | 6.9  | 11.9 |
|                                          | 100              | 2.0                                 | 3.4  | 5.9  | 9.3  | *         | *    | 2.0  | 2.7  | *          | *    | *    | *    | *         | *    | *    | *    |
|                                          | 250              | 8.0                                 | 12.6 | 19.4 |      | 2.7       | 5.0  | 7.9  | 11.0 | *          | *    | 2.2  | 3.9  | *         | *    | *    | 2.6  |
|                                          | 500              |                                     |      |      |      | 14.1      | 18.2 |      |      | 3.4        | 5.9  | 7.7  | 13.3 | *         | 2.9  | 4.7  | 8.0  |
| 75                                       | 100              | *                                   | 2.6  | 3.8  | 7.1  | *         | *    | *    | 2.8  | *          | *    | *    | *    | *         | *    | *    | *    |
|                                          | 250              | 6.0                                 | 9.4  | 13.3 | 23.1 | 3.0       | 3.8  | 6.0  | 8.2  | *          | *    | *    | 2.8  | *         | *    | *    | 2.0  |
|                                          | 500              | 19.7                                |      |      |      | 10.7      | 13.8 | 19.8 |      | 2.5        | 3.9  | 6.3  | 9.4  |           | 2.0  | 3.4  | 5.9  |
|                                          | 750              |                                     |      |      |      | 22.5      |      |      |      | 6.6        | 8.8  | 13.7 | 18.8 | 2.7       | 4.1  | 7.0  | 12.2 |
| 1000                                     | 1000             |                                     |      |      |      |           |      |      |      | 11.8       | 14.7 | 22.6 |      | 4.9       | 6.9  | 12.0 | 20.3 |
|                                          | 100              | *                                   | *    | 2.7  | 4    | *         | *    | *    | *    | *          | *    | *    | *    | *         | *    | *    | *    |
|                                          | 250              | 4.7                                 | 6.7  | 10.3 | 16.9 | 2.2       | 2.8  | 4.3  | 6.0  | *          | *    | *    | 2.2  | *         | *    | *    | *    |
|                                          | 500              | 14.1                                | 21.0 |      |      | 8.1       | 10.8 | 15.0 | 21.2 | 2.0        | 2.9  | 4.4  | 7.1  | *         | *    | 2.1  | 4.6  |
|                                          | 750              |                                     |      |      |      | 17.7      | 23.0 | 32.3 | 42.8 | 4.7        | 6.9  | 10.3 | 15.4 | *         | 2.9  | 4.9  | 8.7  |
|                                          | 1000             |                                     |      |      |      | 31.0      | 37.0 | 53.0 | 68.5 | 8.6        | 11.8 | 17.4 |      | 3.1       | 5.2  | 8.8  | 14.4 |
|                                          | 1500             |                                     |      |      |      | 65.5      | 82.0 |      |      | 19.1       |      |      |      | 7.7       | 11.8 | 19.4 |      |

GAS CONTROL

**Acetylene Hose**

| Delivery Pressure Pounds Per Square Inch | Acetylene Flow SCFH | Pressure Drop Pound Per Square Inch |     |     |      |           |     |     |     |            |      |     |     |           |     |      |     |
|------------------------------------------|---------------------|-------------------------------------|-----|-----|------|-----------|-----|-----|-----|------------|------|-----|-----|-----------|-----|------|-----|
|                                          |                     | Hose Length in Feet                 |     |     |      |           |     |     |     |            |      |     |     |           |     |      |     |
|                                          |                     | 3/16" Hose                          |     |     |      | 1/4" Hose |     |     |     | 5/16" Hose |      |     |     | 3/8" Hose |     |      |     |
|                                          |                     | 12.5                                | 25  | 50  | 100  | 12.5      | 25  | 50  | 100 | 12.5       | 25   | 50  | 100 | 12.5      | 25  | 50   | 100 |
| 5                                        | 25                  | 0.3                                 | 0.5 | 1.0 | 1.8  | **        | **  | 0.5 | 0.8 | **         | **   | **  | 0.3 | **        | **  | **   | **  |
|                                          | 50                  | 1.2                                 | 2.0 | 3.2 |      | 0.5       | 0.9 | 1.3 | 2.4 | **         | 0.3  | 0.4 | 0.7 | **        | **  | 0.3  | 0.4 |
|                                          | 75                  | 2.6                                 | 3.9 |     |      | 1.2       | 1.8 | 2.6 | 4.5 | 0.4        | 0.5  | 0.8 | 1.4 | **        | 0.3 | 0.5  | 0.8 |
|                                          | 100                 | 4.3                                 |     |     |      | 1.9       | 2.8 | 4.4 |     | 0.5        | 0.8  | 1.3 | 2.4 | 0.3       | 0.4 | 0.7  | 1.1 |
|                                          | 150                 |                                     |     |     |      | 4.0       |     |     |     | 1.2        | 1.7  | 2.7 | 4.8 | 0.5       | 0.8 | 1.2  | 2.2 |
| 10                                       | 25                  | 0.3                                 | 0.5 | 0.8 | 1.4  | **        | **  | 0.3 | 0.7 | **         | **   | **  | **  | **        | **  | **   | **  |
|                                          | 50                  | 0.9                                 | 1.6 | 2.5 | 4.9  | 0.5       | 0.7 | 1.1 | 2.0 | **         | **   | 0.3 | 0.6 | **        | **  | **   | 0.3 |
|                                          | 75                  | 2.0                                 | 3.1 | 6.3 |      | 0.9       | 1.4 | 2.2 | 3.7 | 0.3        | 0.4  | 0.5 | 0.6 | **        | **  | 0.3  | 0.6 |
|                                          | 100                 | 4.5                                 | 5.4 |     |      | 1.6       | 2.0 | 3.6 | 6.0 | 0.4        | 0.6  | 0.9 | 2.2 | **        | 0.3 | 0.5  | 1.9 |
|                                          | 150                 | 7.0                                 |     |     |      | 3.2       | 4.5 | 7.3 |     | 0.9        | 1.3  | 2.1 | 3.9 | 0.4       | 0.6 | 1.0  | 2.5 |
|                                          | 250                 |                                     |     |     |      | 8.1       |     |     |     | 2.3        | 3.5  | 5.2 | 9.8 | 0.9       | 1.4 | 2.5  | 4.4 |
| 14                                       | 500                 |                                     |     |     |      |           |     |     |     | 8.2        |      |     |     | 3.3       | 4.8 | 8.3  |     |
|                                          | 25                  | **                                  | 0.4 |     | 1.3  | **        | **  | 0.3 | 0.6 | **         | **   | **  | **  | **        | **  | **   | **  |
|                                          | 50                  | 0.8                                 | 1.4 |     | 4.6  | 0.4       | 0.6 | 0.9 | 1.6 | **         | **   | **  | 0.4 | **        | **  | **   | 0.3 |
|                                          | 75                  | 1.9                                 | 2.9 |     | 10.0 | 0.8       | 1.2 | 1.9 | 3.0 | **         | 0.3  | 0.5 | 1.0 | **        | **  | 0.3  | 0.5 |
|                                          | 100                 | 3.5                                 | 5.1 |     |      | 1.4       | 2.0 | 3.0 | 4.7 | 0.3        | 0.6  | 0.7 | 1.7 | **        | 0.3 | 0.4  | 0.8 |
|                                          | 150                 | 7.9                                 |     |     |      | 2.9       | 4.0 | 6.0 | 8.7 | 0.8        | 1.2  | 1.7 | 3.4 | 0.3       | 0.5 | 0.9  | 1.6 |
|                                          | 250                 |                                     |     |     |      | 7.4       | 9.5 |     |     | 2.0        | 3.1  | 4.5 | 8.1 | 0.7       | 1.2 | 2.3  | 3.8 |
|                                          | 500                 |                                     |     |     |      |           |     |     | 8.7 | 10.5       | 13.7 |     | 2.9 | 4.0       | 8.1 | 11.5 |     |

\*Indicates pressure drop of less than 2.0 per sq. in.

\*\*Indicates pressure drop of less than 0.2 per sq. in.

To obtain the recommended inlet pressure at the equipment, add the pressure drop figure (shown above) to the delivery pressure at the regulator. Do not exceed 15 psig for acetylene.

## Regulator Selection Guide - By Gas Service

### Oxygen

| Description                                 | Model         | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------------------|---------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS7 High Capacity Single Stage             | ESS7-125-540  | 0781-5181   | 5-125                 | 4000              | 200                | 540                  | 7/8" – 14 M RH    | 3000                      |
| ESS7 High Capacity Single Stage             | ESS7-200-540  | 0781-5183   | 10-200                | 4000              | 400                | 540                  | 7/8" – 14 M RH    | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-60-540  | 0781-3600   | 2-60                  | 4000              | 60                 | 540                  | 9/16" – 18 M RH   | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-540 | 0781-3601   | 5-150                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-60-540  | 0781-3627   | 0-60                  | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-150-540 | 0781-3626   | 0-150                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR-450D-540   | 0781-0527   | 5-125                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| SR 350 Heavy/Medium Single Stage            | SR-350D-540   | 0781-2341   | 5-125                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| VTS 700 Extra Heavy Duty Two Stage          | VTS700E-540   | 0780-0939   | 10-200                | 4000              | 400                | 540                  | 9/16" – 18 M RH   | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-40-540   | 0781-5217   | 2-40                  | 4000              | 60                 | 540                  | 9/16" – 18 M RH   | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-125-540  | 0781-5218   | 5-125                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-200-540  | 0781-5219   | 10-200                | 4000              | 400                | 540                  | 9/16" – 18 M RH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250A-540   | 0781-3503   | 2-15                  | 4000              | 30                 | 540                  | 9/16" – 18 M RH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250B-540   | 0781-3504   | 2-40                  | 4000              | 60                 | 540                  | 9/16" – 18 M RH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250C-540   | 0781-3505   | 4-80                  | 4000              | 100                | 540                  | 9/16" – 18 M RH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250D-540   | 0781-3506   | 5-125                 | 4000              | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| SR 4 High Pressure                          | SR4F-540      | 0781-1405   | 30-750                | 4000              | 1000               | 540                  | 1/4" Swaglok®     | 3000                      |
| SR 4 High Pressure                          | SR4G-540      | 0781-1425   | 100-1500              | 4000              | 2000               | 540                  | 1/4" Swaglok®     | 3000                      |
| SR 4 High Pressure                          | SR4J-540      | 0781-1445   | 200-3000              | 4000              | 4000               | 540                  | 1/4" Swaglok®     | 3000                      |
| SR 600 High Pressure                        | SR600-550-540 | 0781-1610   | 5-550                 | 6000              | 1000               | 540                  | 1/4" Swaglok®     | 3000                      |
| ELC4 High Capacity Liquid Cylinder          | ELC4-125-540R | 0781-5199   | 5-125                 | --                | 200                | 540                  | 9/16" – 18 M RH   | 3000                      |
| ESL4 High Capacity Line                     | ESL4-125-250  | 0781-5190   | 5-125                 | --                | 200                | 1/4" NPT             | 1/4" NPT F        | 3000                      |
| EST4 High Capacity Station                  | EST4-40-024   | 0781-5191   | 2-40                  | --                | 60                 | 024                  | 9/16" – 18 M RH   | 200                       |
| EST4 High Capacity Station                  | EST4-40-024R  | 0781-5204   | 2-40                  | --                | 60                 | 024                  | 9/16" – 18M RH    | 200                       |
| EST4 High Capacity Station                  | EST4-80-024   | 0781-5192   | 4-80                  | --                | 100                | 024                  | 9/16" – 18 M RH   | 200                       |
| EST4 High Capacity Station                  | EST4-80-024R  | 0781-5205   | 4-80                  | --                | 100                | 024                  | 9/16" – 18 M RH   | 200                       |
| EST4 High Capacity Station                  | EST4-125-024  | 0781-5193   | 5-125                 | --                | 200                | 024                  | 9/16" – 18 M RH   | 200                       |
| EST4 High Capacity Station                  | EST4-125-024R | 0781-5206   | 5-125                 | --                | 200                | 024                  | 9/16" – 18 M RH   | 200                       |
| L700 High Flow Line                         | L700C-500     | 0780-1229   | 4-80                  | --                | 100                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700C-750     | 0780-1220   | 4-80                  | --                | 100                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-500     | 0780-1207   | 5-125                 | --                | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-500PMT  | 0780-1236   | 5-125                 | --                | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-750     | 0780-1209   | 5-125                 | --                | 200                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| L700 High Flow Line                         | L700E-500     | 0780-1221   | 10-200                | --                | 400                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700E-750     | 0780-1222   | 10-200                | --                | 400                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| DL700 Dome Load                             | DL700         | 0780-1188   | 5-125                 | --                | --                 | 1/2" NPT F           | 1/2" NPT F        | 500                       |
| BSL Bulk System Line                        | BSL700        | 0780-1200   | 10-200                | --                | 400                | 1/2" NPT F           | 1/2" NPT F        | 350                       |

GAS CONTROL

## Regulator Selection Guide - By Gas Service

### Acetylene

| Description                                 | Model        | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------------------|--------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS7 High Capacity Single Stage             | ESS7-15-510  | 0781-5187   | 2-15                  | 400               | 30                 | 510                  | 7/8" – 14 LH      | 3000                      |
| ESS7 High Capacity Single Stage             | ESS7-200-350 | 0781-5186   | 10-200                | 4000              | 400                | 350                  | 7/8" – 14 M LH    | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-15-510 | 0781-3602   | 2-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-15-300 | 0781-3603   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-15-993 | 0781-3604   | 2-15                  | 400               | 30                 | 993                  | 9/16" – 18 M LH   | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-15-410 | 0781-3605   | 2-15                  | 400               | 30                 | 410                  | 9/16" – 18 M LH   | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-15-510 | 0781-3628   | 0-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-15-300 | 0781-3629   | 0-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR460A-300   | 0781-0583   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR460A-510   | 0781-0584   | 2-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| SR 350 Heavy/Medium Single Stage            | SR360A-300   | 0781-2400   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| SR 350 Heavy/Medium Single Stage            | SR360A-510   | 0781-2401   | 2-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| SR 250 Medium Duty Single Stage             | SR260A-300   | 0781-0085   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| SR 250 Medium Duty Single Stage             | SR260A-510   | 0781-0087   | 2-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| VTS 700 Extra Heavy Duty Two Stage          | VTS710A-510  | 0780-0984   | 2-15                  | 400               | 30                 | 510                  | 7/8" – 14 M LH    | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-15-300  | 0781-5229   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-15-510  | 0781-5230   | 2-15                  | 400               | 30                 | 510                  | 9/16" – 18 M LH   | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-15-993  | 07815-2122  | 2-15                  | 400               | 30                 | 993                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS260A-300  | 0781-3583   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS260A-510  | 0781-3484   | 2-15                  | 400               | 30                 | 300                  | 9/16" – 18 M LH   | 3000                      |
| ESL4 High Capacity Line                     | ESL4-15-250A | 0781-5208   | 2-15                  | --                | 30                 | 1/4" NPT F           | 1/4" NPT F        | 350                       |
| EST4 High Capacity Station                  | EST4-15-025  | 0781-5194   | 2-15                  | --                | 30                 | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                  | EST4-15-025R | 0781-5209   | 2-15                  | --                | 30                 | 025                  | 9/16" – 18 M LH   | 200                       |
| L700 High Flow Line                         | L710A-500    | 0780-1233   | 2-15                  | --                | 30                 | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L710A-750    | 0780-1201   | 2-15                  | --                | 30                 | 3/4" NPT F           | 3/4" NPT F        | 350                       |

GAS CONTROL

### EDGE Series Color Coding by Gas Type



|               |                  |               |                  |                       |               |
|---------------|------------------|---------------|------------------|-----------------------|---------------|
| <b>YELLOW</b> | <b>RED</b>       | <b>GREEN</b>  | <b>BLACK</b>     | <b>GRAY</b>           | <b>ORANGE</b> |
| <b>Air</b>    | <b>Acetylene</b> | <b>Oxygen</b> | <b>Inert Gas</b> | <b>Carbon Dioxide</b> | <b>LPG</b>    |

## Regulator Selection Guide - By Gas Service

### Air

| Description                                 | Model         | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------------------|---------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-346 | 0781-3613   | 5-150                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-590 | 0781-3614   | 5-150                 | 4000              | 400                | 590                  | 5/8" – 18 F LH    | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-150-346 | 0781-3637   | 0-150                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR450D-346    | 0781-0532   | 5-125                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-125-346  | 0781-5231   | 5-125                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-200-346  | 0781-5232   | 10-200                | 4000              | 400                | 346                  | 5/8" – 18 F LH    | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-125-590  | 0781-5224   | 5-125                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250C-346   | 0781-3510   | 4-80                  | 4000              | 100                | 346                  | 5/8" – 18 F LH    | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250D-346   | 0781-3512   | 5-125                 | 4000              | 200                | 346                  | 5/8" – 18 F LH    | 3000                      |
| SR 4 High Pressure                          | SR4F-347      | 0781-1403   | 50-750                | 6000              | 1000               | 347                  | 1/4" Swagelok®    | 5500                      |
| SR 4 High Pressure                          | SR4G-346      | 0781-1422   | 100-1500              | 4000              | 2000               | 346                  | 1/4" Swagelok     | 3000                      |
| SR 4 High Pressure                          | SR4J-346      | 0781-1442   | 200-3000              | 4000              | 4000               | 346                  | 1/4" Swagelok     | 3000                      |
| SR 4 High Pressure                          | SR4K-347      | 0781-1463   | 300-4500              | 6000              | 6000               | 347                  | 1/4" Swagelok     | 5500                      |
| SR 600 High Pressure                        | SR600-350-347 | 0781-1605   | 5-350                 | 6000              | 600                | 347                  | 1/4" Swagelok     | 5500                      |
| ESL4 High Capacity Line                     | ELS4-125-250  | 0781-5190   | 5-125                 | --                | 200                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| L700 High Flow Line                         | L700C-500     | 0780-1229   | 4-80                  | --                | 100                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700C-750     | 0780-1220   | 4-80                  | --                | 100                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-500     | 0780-1207   | 5-125                 | --                | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-500PMT  | 0780-1236   | 5-125                 | --                | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700D-750     | 0780-1209   | 5-125                 | --                | 200                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| L700 High Flow Line                         | L700E-500     | 0780-1221   | 10-200                | --                | 400                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| L700 High Flow Line                         | L700E-750     | 0780-1222   | 10-200                | --                | 400                | 3/4" NPT F           | 3/4" NPT F        | 350                       |
| DL700 Dome Load                             | DL700         | 0780-1188   | 5-125                 | --                | --                 | 1/2" NPT F           | 1/2" NPT F        | 500                       |

**Regulator Selection Guide - By Gas Service**

**Inert Gas - Nitrogen, Argon, Helium**

**GAS CONTROL**

| Description                                 | Model         | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection     | Max Inlet Pressure (psig) |
|---------------------------------------------|---------------|-------------|-----------------------|-------------------|--------------------|----------------------|-----------------------|---------------------------|
| ESS7 High Capacity Single Stage             | ESS7-125-580  | 0781-5182   | 5-125                 | 4000              | 200                | 580                  | 7/8" – 14 M RH        | 3000                      |
| ESS7 High Capacity Single Stage             | ESS7-200-580  | 0781-5185   | 10-200                | 4000              | 400                | 580                  | 7/8" – 14 M RH        | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-580 | 0781-3609   | 5-150                 | 4000              | 200                | 580                  | 5/8" – 15 F RH        | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-60-580  | 0781-3633   | 0-60                  | 4000              | 60                 | 580                  | 5/8" – 15 F RH        | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-150-580 | 0781-3634   | 0-150                 | 4000              | 200                | 580                  | 5/8" – 15 F RH        | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR450D-580    | 0781-0528   | 5-125                 | 4000              | 200                | 580                  | 5/8" – 18 F RH        | 3000                      |
| SR 450 Heavy Duty Single Stage              | SR450E-580    | 0781-0543   | 10-200                | 4000              | 400                | 580                  | 5/8" – 18 F RH        | 3000                      |
| VTS Extra Heavy Duty Two Stage              | VTS700D-580   | 0780-0928   | 5-125                 | 4000              | 200                | 580                  | 7/8" – 14 M RH        | 3000                      |
| VTS Extra Heavy Duty Two Stage              | VTS700E-580   | 0780-0943   | 10-200                | 4000              | 400                | 580                  | 7/8" – 14 M RH        | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-40-580   | 0781-5221   | 2-40                  | 4000              | 60                 | 580                  | 5/8" – 18 F RH        | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-125-580  | 0781-5222   | 5-125                 | 4000              | 200                | 580                  | 5/8" – 18 F RH        | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-200-580  | 0781-5223   | 10-200                | 4000              | 400                | 580                  | 5/8" – 18 F RH        | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250A-580   | 0781-3507   | 2-15                  | 4000              | 30                 | 580                  | 5/8" – 18 F RH        | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250B-580   | 0781-3508   | 2-40                  | 4000              | 60                 | 580                  | 5/8" – 18 F RH        | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250C-580   | 0781-3509   | 4-80                  | 4000              | 100                | 580                  | 5/8" – 18 F RH        | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS250D-580   | 0781-3513   | 5-125                 | 4000              | 200                | 580                  | 5/8" – 18 F RH        | 3000                      |
| SR 4 High Pressure                          | SR4F-580      | 0781-1408   | 50-750                | 4000              | 1000               | 580                  | 1/4" Swagelok®        | 3000                      |
| SR 4 High Pressure                          | SR4F-680      | 0781-1410   | 50-750                | 6000              | 1000               | 680                  | 1/4" Swagelok         | 5500                      |
| SR 4 High Pressure                          | SR4G-580      | 0781-1428   | 100-1500              | 4000              | 2000               | 580                  | 1/4" Swagelok         | 3000                      |
| SR 4 High Pressure                          | SR4G-680      | 0781-1430   | 100-1500              | 6000              | 2000               | 680                  | 1/4" Swagelok         | 5500                      |
| SR 4 High Pressure                          | SR4J-580      | 0781-1448   | 200-3000              | 4000              | 4000               | 580                  | 1/4" Swagelok         | 3000                      |
| SR 4 High Pressure                          | SR4J-680      | 0781-1450   | 200-3000              | 6000              | 4000               | 680                  | 1/4" Swagelok         | 5500                      |
| SR 4 High Pressure                          | SR4J-677      | 0781-1453   | 200-3000              | 7500              | 4000               | 677                  | 1/4" Swagelok         | 7500                      |
| SR 4 High Pressure                          | SR4K-680      | 0781-1470   | 300-4500              | 6000              | 6000               | 680                  | 1/4" Swagelok         | 5500                      |
| SR 4 High Pressure                          | SR4K-677      | 0781-1473   | 300-4500              | 7500              | 6000               | 677                  | 1/4" Swagelok         | 7500                      |
| SR 600 High Pressure                        | SR600-350-580 | 0781-1601   | 5-350                 | 6000              | 600                | 580                  | 1/4" Swagelok         | 5500                      |
| SR 600 High Pressure                        | SR600-350-680 | 0781-1604   | 5-350                 | 6000              | 600                | 680                  | 1/4" Swagelok         | 5500                      |
| SR 600 High Pressure                        | SR600-550-580 | 0781-1611   | 5-550                 | 6000              | 1000               | 580                  | 1/4" Swagelok         | 3000                      |
| ELC4 High Capacity Liquid Cylinder          | ELC4-125-580R | 0781-5200   | 5-125                 | –                 | 200                | 580                  | CGA 032 5/8" – 18 UNF | 3000                      |
| ELC4 High Capacity Liquid Cylinder          | ELC4-325-580R | 0781-5202   | 5-325                 | –                 | 400                | 580                  | CGA 032 5/8" – 18 UNF | 3000                      |
| EST4 High Capacity Station                  | EST4-125-034  | 0781-5189   | 5-125                 | –                 | 200                | 034                  | CGA 032 5/8" – 18 UNF | 200                       |
| EST4 High Capacity Station                  | EST4-125-034R | 0781-5207   | 5-125                 | –                 | 200                | 034                  | CGA 032 5/8" – 18 UNF | 200                       |
| L700 High Flow Line                         | L700C-500     | 0780-1229   | 4-80                  | –                 | 100                | 1/2" NPT F           | 1/2" NPT F            | 350                       |
| L700 High Flow Line                         | L700C-750     | 0780-1220   | 4-80                  | –                 | 100                | 3/4" NPT F           | 3/4" NPT F            | 350                       |
| L700 High Flow Line                         | L700D-500     | 0780-1207   | 5-125                 | –                 | 200                | 1/2" NPT F           | 1/2" NPT F            | 350                       |
| L700 High Flow Line                         | L700D-500PMT  | 0780-1236   | 5-125                 | –                 | 200                | 1/2" NPT F           | 1/2" NPT F            | 350                       |
| L700 High Flow Line                         | L700D-750     | 0780-1209   |                       | –                 | 200                | 3/4" NPT F           | 3/4" NPT F            | 350                       |
| L700 High Flow Line                         | L700E-500     | 0780-1221   | 10-200                | –                 | 400                | 1/2" NPT F           | 1/2" NPT F            | 350                       |
| L700 High Flow Line                         | L700E-750     | 0780-1222   | 10-200                | –                 | 400                | 3/4" NPT F           | 3/4" NPT F            | 350                       |
| DL700 Dome Load                             | DL700         | 0780-1188   | 5-125                 | –                 | –                  | 1/2" NPT F           | 1/2" NPT F            | 500                       |
| BSL Bulk System Line                        | BSL700        | 0780-1200   | 10-200                | –                 | –                  | 1/2" NPT F           | 1/2" NPT F            | 350                       |

## Regulator Selection Guide - By Gas Service

### Inert Gas - Nitrogen, Argon, Helium (continued)

| Description                                       | Model       | Part Number | Delivery Range (psig)          | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection     | Max Inlet Pressure (psig) |
|---------------------------------------------------|-------------|-------------|--------------------------------|-------------------|--------------------|----------------------|-----------------------|---------------------------|
| ESS3-FG Flow Gauge                                | ESS3-FG-580 | 0781-5120   | 0-40 psig                      | 4000              | 50 CFH             | 580                  | CGA 032 5/8" - 18 UNF | 3000                      |
| SLR 100 Surge Limiting Regulator                  | SLR100      | 0781-1197   |                                | --                | --                 | 030                  |                       | 200                       |
| FM150 Flow Meter Heavy Duty                       | FM150       | 1000-0268   | 10-60 Air*<br>10-30 Nit*       | --                | --                 | 1/4" NPT M           | 5/8"-18 RH F          | 25                        |
| FM135 Flow Meter Heavy Duty                       | FM135       | 1000-0255   | 4-18 Argon*<br>10-50 Helium*   | --                | --                 | 9/16"-18 RH F        | 5/8"-18 RH F          | 25                        |
| FM145 Flow Meter Heavy Duty                       | FM145       | 1000-0256   | 4-18 Argon*<br>10-50 Helium*   | --                | --                 | 5/8" RH M            | 5/8"-18 RH F          | 25                        |
| FM155 Flow Meter Heavy Duty                       | FM155       | 1000-0257   | 4-18 Argon*<br>10-50 Helium*   | --                | --                 | 5/8" NPT M           | 5/8"-18 RH F          | 25                        |
| FM137 Flow Meter Heavy Duty                       | FM137       | 1000-0261   | 15-65 Argon*<br>40-200 Helium* | --                | --                 | 9/16"-18 RH F        | 5/8"-18 RH F          | 25                        |
| FM147 Flow Meter Heavy Duty                       | FM147       | 1000-0262   | 15-70 Argon*<br>40-200 Helium* | --                | --                 | 5/8"-18 RH M         | 5/8"-18 RH F          | 25                        |
| FM157 Flow Meter Heavy Duty                       | FM157       | 1000-0263   | 15-65 Argon*<br>40-200 Helium* | --                | --                 | 1/4" NPT M           | 5/8"-18 RH F          | 25                        |
| FM370 Flow Meter Heavy Duty                       | FM370       | 1000-0258   | 5-50 Argon*<br>20-150 Helium*  | --                | --                 | 9/16"-18 RH F        | 5/8"-18 RH F          | 25                        |
| FM371 Flow Meter Heavy Duty                       | FM371       | 1000-0259   | 5-50 Argon*<br>20-150 Helium*  | --                | --                 | 5/8"-18 RH M         | 5/8"-18 RH F          | 25                        |
| FM372 Flow Meter Heavy Duty                       | FM372       | 1000-0182   | 5-50 Argon*<br>20-150 Helium*  | --                | --                 | 1/4" NPT M           | 5/8"-18 RH F          | 25                        |
| HRF 2425 Medium Duty Flow Meter Regulator         | HRF2425     | 0781-2731   | 10-50 Argon*<br>20-150 Helium* | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HRF2480 Medium Duty Flow Meter Regulator          | HRF2480     | 0781-2728   | 7.5-37.5 Argon*                | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| DFM 150 Medium Duty Flow Meter Regulator          | DFM150-580  | 0781-1153   | 5-50 Argon*<br>20-150 Helium*  | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2530     | 0781-3819   | 10-60 Nitrogen*                | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2535     | 0781-3867   | 4-18 Argon*<br>10-50 Helium*   | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HVTS Medium Duty Flow Meter Regulator Two Stage   | HVTS2535    | 0781-3775   | 4-18 Argon*<br>10-50 Helium*   | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2537     | 0781-3871   | 15-65 Argon*<br>40-200 Helium* | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HVTS Medium Duty Flow Meter Regulator Two Stage   | HVTS2537    | 0781-3772   | 15-65 Argon*<br>40-200 Helium* | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2570     | 0781-3873   | 5-50*                          | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2570     | 0781-3869   | 4-40*                          | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |
| HVTS Medium Duty Flow Meter Regulator Two Stage   | HVTS2570    | 0781-3774   | 20-150*                        | --                | --                 | 580                  | 5/8"-18 RH F          | 3000                      |

\*Delivery range measured in CFH

GAS CONTROL

## Regulator Selection Guide - By Gas Service

### British Oxygen

| Description                     | Model        | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------|--------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS7 High Capacity Single Stage | ESS7-200-992 | 0781-5220   | 10-200                | 4000              | 400                | 992                  | 7/8" – 14 M RH    | 3000                      |
| ESS4 High Capacity Single Stage | ESS4-200-992 | 0781-5155   | 10-200                | 4000              | 400                | 992                  | 9/16" – 18 M RH   | 3000                      |
| ESS4 High Capacity Single Stage | ESS4-125-992 | 0781-5128   | 5-125                 | 4000              | 200                | 992                  | 9/16" – 18 M RH   | 3000                      |
| ETS4 High Capacity Two Stage    | ETS4-125-992 | 0785-2120   | 5-125                 | 4000              | 200                | 992                  | 9/16" – 18 M RH   | 3000                      |
| ETS4 High Capacity Two Stage    | ETS4-200-992 | 0785-2121   | 10-200                | 4000              | 400                | 992                  | 9/16" – 18 M RH   | 3000                      |
| DL700 Dome Load                 | DL700        | 0780-1188   | 5-125                 | –                 | –                  | 1/2" NPT F           | 1/2" NPT F        | 500                       |

### Methane/Hydrogen

| Description                                       | Model         | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------------------------|---------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS7 High Capacity Single Stage                   | ESS7-200-350  | 0781-5186   | 10-200                | 4000              | 400                | 350                  | 7/8" – 14 M RH    | 3000                      |
| ESS42 EDGE 2.0 High Capacity Single Stage         | ESS42-150-350 | 0781-3612   | 5-150                 | 4000              | 200                | 350                  | 1/4" – 18 F       | 3000                      |
| ETS4 High Capacity Two Stage                      | ETS4-40-350   | 0781-5225   | 2-40                  | 4000              | 60                 | 350                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage                     | VTS252A-350   | 0781-3558   | 2-15                  | 4000              | 30                 | 350                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage                     | VTS252B-350   | 0781-3559   | 2-40                  | 4000              | 60                 | 350                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage                     | VTS252C-350   | 0781-3563   | 4-80                  | 4000              | 100                | 350                  | 9/16" – 18 M LH   | 3000                      |
| VTS 250 Medium Duty Two Stage                     | VTS252D-350   | 0781-3564   | 5-125                 | 4000              | 200                | 350                  | 9/16" – 18 M LH   | 3000                      |
| SR 4 High Pressure Manifold                       | SR4F-350      | 0781-1404   | 50-750                | 4000              | 1000               | 350                  | 1/4" Swagelok®    | 3000                      |
| SR 4 High Pressure Manifold                       | SR4G-350      | 0781-1424   | 100-1500              | 4000              | 2000               | 350                  | 1/4" Swagelok     | 3000                      |
| SR 4 High Pressure Manifold                       | SR4J-350      | 0781-1444   | 200-3000              | 4000              | 4000               | 350                  | 1/4" Swagelok     | 3000                      |
| ESL4 High Capacity Line                           | ESL4-80-250F  | 0781-5210   | 4-80                  | –                 | 100                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| ESL4 High Capacity Line                           | ESL4-125-250F | 0781-5211   | 5-125                 | –                 | 200                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| EST4 High Capacity Station                        | EST4-80-025   | 0781-5195   | 4-80                  | –                 | 100                | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                        | EST4-80-025R  | 0781-5212   | 4-80                  | –                 | 100                | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                        | EST4-125-025  | 0781-5196   | 5-125                 | –                 | 200                | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                        | EST4-125-025R | 0781-5213   | 5-125                 | –                 | 200                | 025                  | 9/16" – 18 M LH   | 200                       |
| L700 High Flow Line                               | L711D-500     | 0780-1199   | 5-125                 | –                 | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |
| HSR Medium Duty Flow Meter Regulator Single Stage | HSR2533       | 0781-3825   | 5-40*                 | –                 | –                  | 350                  | 9/16" – 18 M LH   | 3000                      |

### Nitrous Oxide

| Description             | Model        | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|-------------------------|--------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESL4 High Capacity Line | ESL4-125-250 | 0781-5190   | 5-125                 | –                 | 200                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| DL700 Dome Load         | DL700        | 0780-1188   | 5-125                 | –                 | –                  | 1/2" NPT F           | 1/2" NPT F        | 500                       |

GAS CONTROL

## Regulator Selection Guide - By Gas Service

### Carbon Dioxide

| Description                                 | Model         | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection      | Max Inlet Pressure (psig) |
|---------------------------------------------|---------------|-------------|-----------------------|-------------------|--------------------|----------------------|------------------------|---------------------------|
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-320 | 0781-3615   | 5-150                 | 4000              | 400                | 320                  | CGA 032 5/8" – 15 F RH | 3000                      |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-150-320 | 0781-3638   | 0-150                 | 4000              | 200                | 320                  | CGA 032 5/8" – 15 F RH | 3000                      |
| ETS4 High Capacity Two Stage                | ETS4-125-320  | 0781-5228   | 5-125                 | 4000              | 200                | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS253A-320   | 0781-3569   | 2-15                  | 4000              | 30                 | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS253B-320   | 0781-3573   | 2-40                  | 4000              | 60                 | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS253C-320   | 0781-3574   | 4-80                  | 4000              | 100                | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| VTS 250 Medium Duty Two Stage               | VTS253D-320   | 0781-3575   | 5-125                 | 4000              | 200                | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| SR 4 High Pressure Manifold                 | SR4F-320      | 0781-1401   | 50-750                | 4000              | 1000               | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| ELC4 High Capacity Liquid Cylinder          | ELC4-125-320R | 0781-5201   | 5-125                 | –                 | 200                | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| ESL4 High Capacity Line                     | ESL4-125-250  | 0781-5190   | 5-125                 | –                 | 200                | 1/4" NPT F           | 1/4" NPT F             | 3000                      |
| DL700 Dome Load                             | DL700         | 0780-1188   | 5-125                 | –                 | –                  | 1/2" NPT F           | 1/2" NPT F             | 500                       |
| ESS3-FG Flow Gauge                          | ESS3-FG-320   | 0781-5119   | 0-40*                 | 4000              | 50 CFH             | 320                  | CGA 032 5/8" – 18 UNF  | 3000                      |
| SR310 Regulator Adjustable Pressure         | SR310         | 0781-0355   | 10-150*               | 1500              | 200                | 320                  | CGA 032 5/8" – 18 UNF  | 1500                      |
| SR311 Flow Meter                            | SR311         | 0781-0353   | 25-100*               | 1500              | –                  | 320                  | CGA 032 5/8" – 18 UNF  | 1500                      |
| SR312 Flow Gauge                            | SR312         | 0781-0354   | 0-100*                | –                 | –                  | 320                  | CGA 032 5/8" – 18 UNF  | 1500                      |
| FM200 Heavy Duty Flow Meter                 | FM200         | 1000-0264   | 30-100*               | –                 | –                  | 1/4" NPT M           | 5/8"-18RH M            | 30                        |
| FM370 Flow Meter Heavy Duty                 | FM370         | 1000-0258   | 5-40*                 | –                 | –                  | 9/16"-18 RH F        | 5/8"-18 RH F           | 25                        |
| FM371 Flow Meter Heavy Duty                 | FM371         | 1000-0259   | 5-40*                 | –                 | –                  | 5/8"-18 RH M         | 5/8"-18 RH F           | 25                        |
| FM372 Flow Meter Heavy Duty                 | FM372         | 1000-0182   | 5-40*                 | –                 | –                  | 1/4" NPT M           | 5/8"-18 RH F           | 25                        |
| HRF2480 Medium Duty Flow Meter Regulator    | HRF2480       | 0781-2727   | 10-38*                | –                 | –                  | 320                  | 5/8"-18 RH F           | 3000                      |
| HRF2480 Medium Duty Flow Meter Regulator    | HRF2480       | 0781-2728   | 7.5-37.5*             | –                 | –                  | 320                  | 5/8"-18 RH F           | 3000                      |
| DMF150 Medium Duty Flow Meter Regulator     | DMF150S       | 0781-1206   | 5-40*                 | –                 | –                  | 1/4" NPT M           | 5/8"-18 RH F           | 3000                      |
| HSR Medium Duty Flow Meter Regulator        | HSR2530       | 0781-3819   | 10-60*                | –                 | –                  | 580                  | 5/8"-18 RH F           | 3000                      |

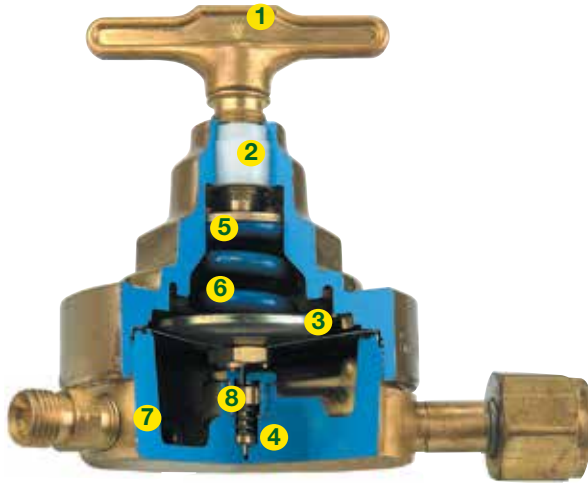
\*Delivery Range measured in CFH

### L.P. Gas

| Description                                 | Model           | Part Number | Delivery Range (psig) | Gauge Range Inlet | Gauge Range Outlet | CGA Inlet Connection | Outlet Connection | Max Inlet Pressure (psig) |
|---------------------------------------------|-----------------|-------------|-----------------------|-------------------|--------------------|----------------------|-------------------|---------------------------|
| ESS7 High Capacity Single Stage             | ESS7-125-510LP  | 0781-5188   | 5-125                 | 400               | 200                | 510                  | 7/8" – 14 M LH    | 350                       |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-60-510LP  | 0781-3606   | 2-60                  | 510               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| ESS42 EDGE 2.0 High Capacity Single Stage   | ESS42-150-510LP | 0781-3607   | 2-150                 | 510               | 200                | 510                  | 9/16" – 18 M LH   | 350                       |
| ESS32 EDGE 2.0 Medium Capacity Single Stage | ESS32-60-510LP  | 0781-3631   | 0-60                  | 510               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| SR450 Heavy Duty Single Stage               | SR461B-510      | 0781-0589   | 2-40                  | 400               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| SR450 Heavy Duty Single Stage               | SR461D-510      | 0781-0595   | 5-125                 | 400               | 200                | 510                  | 9/16" – 18 M LH   | 350                       |
| SR 250 Medium Duty Single Stage             | SR261B-510      | 0781-0095   | 2-40                  | 400               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| SR 250 Medium Duty Single Stage             | SR261C-510      | 0781-0098   | 4-80                  | 400               | 100                | 510                  | 9/16" – 18 M LH   | 350                       |
| VTS 250 Medium Duty Two Stage               | VTS261B-510     | 0781-3594   | 2-40                  | 400               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| VTS 250 Medium Duty Two Stage               | VTS250BL-555    | 0781-3525   | 2-40                  | 400               | 60                 | 510                  | 9/16" – 18 M LH   | 350                       |
| ESL4 High Capacity Line                     | ESL4-80-250F    | 0781-5210   | 4-80                  | –                 | 100                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| ESL4 High Capacity Line                     | ESL4-125-250F   | 0781-5211   | 5-125                 | –                 | 200                | 1/4" NPT F           | 1/4" NPT F        | 3000                      |
| EST4 High Capacity Station                  | EST4-80-025     | 0781-5195   | 4-80                  | –                 | 100                | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                  | EST4-80-025R    | 0781-5212   | 4-80                  | –                 | 100                | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                  | EST4-125-025    | 0781-5196   | 5-125                 | –                 | 20                 | 025                  | 9/16" – 18 M LH   | 200                       |
| EST4 High Capacity Station                  | EST4-125-025R   | 0781-5213   | 5-125                 | –                 | 200                | 025                  | 9/16" – 18 M LH   | 200                       |
| L700 High Flow Line                         | L711D-500       | 0780-1199   | 5-125                 | –                 | 200                | 1/2" NPT F           | 1/2" NPT F        | 350                       |

## Single Stage Regulators

Recommended for applications where slight delivery pressure increases (due to decreasing cylinder pressures) would not affect the performance characteristics of the work or test results.



Typical Single Stage Design SR 450 Series Shown  
2.5 in. (63.5 mm) Brass Gauges External Relief Valve System

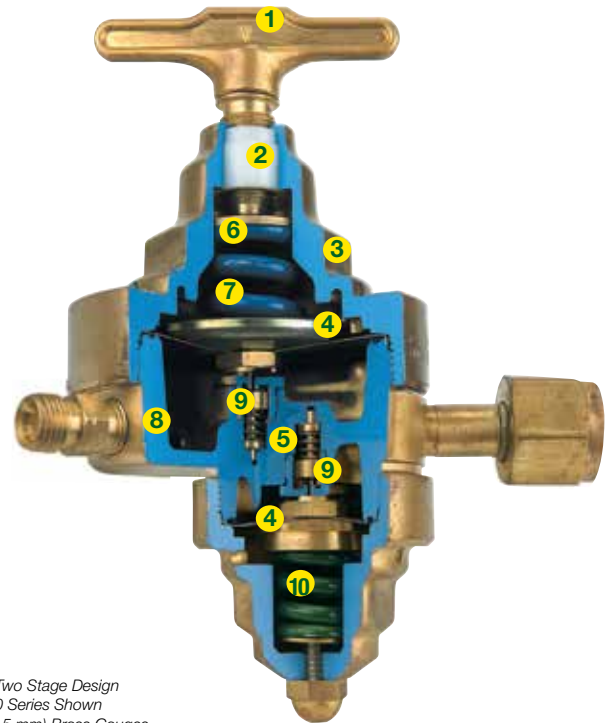
- 1 Brass Adjusting Screw with forged T-handle (SR 450 only)
- 2 Delrin Insert Bushing for durability, easier adjusting
- 3 Stainless Steel Diaphragm gives accurate long lasting service
- 4 Stem-Type Seat Mechanism inlet pressure aids in sealing
- 5 Stainless Ball in Key for easy adjustment
- 6 Adjusting Spring pretested for quality assurance
- 7 Die-Forged Brass Body for extra strength
- 8 Precision Machined Nozzle for optimum flow control

### Additional Features

- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter, electroless nickel plated bronze
- Regulators will deliver at least the stated upper range and in some cases may exceed the stated upper range

## Two Stage Regulators

Recommended for applications that require a constant delivery pressure over a range of decreasing inlet pressures. This precise two stage regulator provides superior operating characteristics for applications where change in delivery pressure would affect performance characteristics of work or test results.



Typical Two Stage Design  
VTS 450 Series Shown  
2.5" (63.5 mm) Brass Gauges  
External Relief Valve System

### Additional Features

- 1 Brass Adjusting Screw with forged T-handle (VTS 700 only)
- 2 Delrin Insert Bushing for durability, easier adjusting
- 3 Die-Forged Brass Spring Housing Cap provides greater strength and durability
- 4 Stainless Steel Diaphragm gives accurate long lasting service
- 5 Stem-Type Seat Mechanism inlet pressure aids in sealing
- 6 Stainless Ball in Key for easy adjustment
- 7 Adjusting Spring pretested for quality assurance
- 8 Die-Forged Brass Body for extra strength
- 9 Precision Machined Nozzle for optimum flow control
- 10 Adjusting Spring designed for precise preset

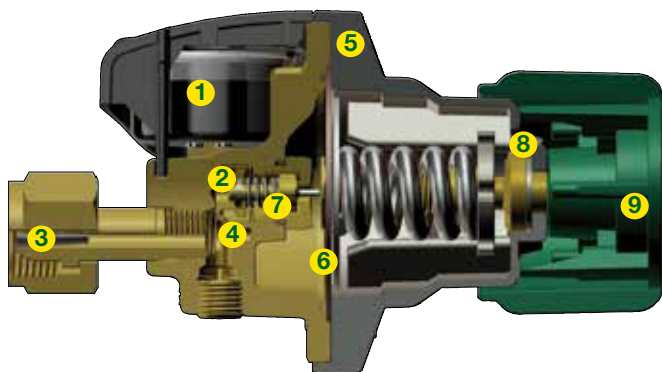
### Additional Features

- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter, electroless nickel plated bronze
- Regulators will deliver at least the stated upper range and in some cases may exceed the stated upper range

## EDGE™ Series

Innovative EDGE Series Regulators Offer Safety and Advanced Design

Victor has been the leader in gas equipment for one hundred years, and its tradition of unparalleled safety remains a cornerstone of the brand today. With the Victor Professional EDGE Series Regulators, Victor continues to offer the safest, most reliable and highest quality gas control technology, giving you more value for your purchase. In addition, standardized designs and components throughout the EDGE family greatly simplify regulator service and repair.



- 1 Gauges are recessed into the body for the highest level of safety and protection possible
- 2 More efficient internal flow paths translate to improved flow consistency from full to empty cylinder
- 3 Same sintered inlet filter used in all Victor industrial regulators
- 4 Innovative design elements enable the regulator to meet or exceed oxygen-related safety standards CGA E-4, UL 252, and the stringent ASTM G-175 Promoted Ignition Test
- 5 Housing cap is made from high strength zinc-aluminum alloy that has nearly twice the yield strength of forged brass
- 6 Time-tested fabric reinforced neoprene diaphragm provides superior sensitivity and control
- 7 Seat assembly and friction damper are the same tried and true components used for decades in SR 350 and SR 450
- 8 Internals remain protected from weather elements through an internal vent system protected under the knob, which is channeled to promote water run-off
- 9 SLAM™ Knob designed with multi-stage crumple zones which absorb impact energy in the event the cylinder falls over. Helps protect pressure integrity of both regulator and cylinder valve.

## EDGE 2.0 Series Regulators

High and medium capacity, single stage regulators

Victor EDGE™ Series 2.0 patented regulators are second generation, heavy-duty, high capacity single stage cylinder regulators that reset the standard for industrial regulators.

New and improved gauge designs incorporate larger faced delivery gauge (low pressure) with high contrasted colored face for easy setting. Enhanced color-coded knob designs provide more comfortable operations.

Air, Oxygen, Inert Gas, Methane, Hydrogen, Carbon Dioxide, Acetylene and LP Gas (see ordering information).

- Forged brass body
- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models).
- Fully enclosed, highly visible modular gauges for more clarity with robust metal gauge guard
- Extra large 2 1/2 in. (63.5 mm) delivery gauge and stainless steel diaphragm
- Robust seat gives optimum performance
- Consistent pressure and flow delivery
- High resistance to oxygen related fires and SLAM knob absorbs impact in the event of a cylinder fall



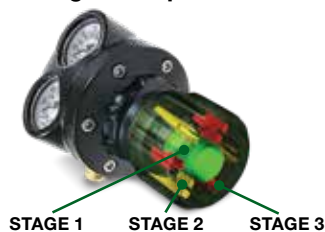
Watch the Victor EDGE™ Regulator SLAM Safety Video

[www.youtube.com/watch?v=35ejr42XFmM](http://www.youtube.com/watch?v=35ejr42XFmM)



Single Impact Point

### 3-Stage Crumple Zone



Shock Absorbing Knob

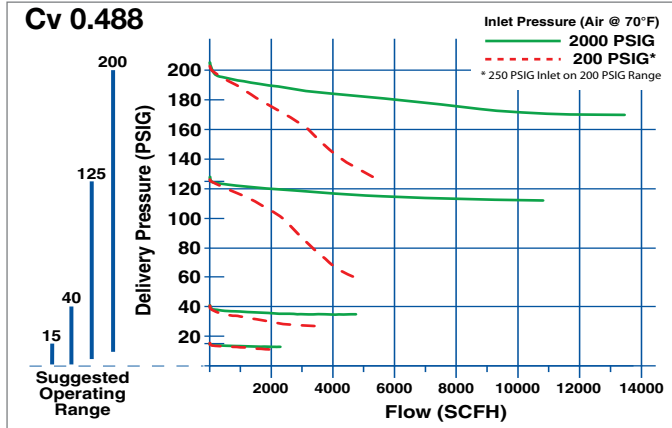
## ESS7 High Flow

### Design/Construction

- 2.5 in. (63.5 mm) gauges – brass
- 2.7 in. (68.6 mm) diaphragm – fabric reinforced neoprene



### ESS7 Flow Data - EDGE Series High-Flow



### Specifications

| Dimensions L x W x H                           | Weight           |
|------------------------------------------------|------------------|
| 5.4 x 6.8 x 6.9 in. (137.1 x 172.7 x 175.3 mm) | 4.9 lb (2.22 kg) |

### Ordering Information

| Gas Service            | Part No.  | Model No.      | Delivery Range |
|------------------------|-----------|----------------|----------------|
| Air, Oxygen, Inert Gas | 0781-5184 | ESS7-200-346   | 10-200         |
|                        | 0781-5181 | ESS7-125-540   | 5-125          |
|                        | 0781-5183 | ESS7-200-540   | 10-200         |
|                        | 0781-5220 | ESS7-200-992   | 10-200         |
|                        | 0781-5182 | ESS7-125-580   | 5-125          |
|                        | 0781-5185 | ESS7-200-580   | 10-200         |
| Methane/Hydrogen       | 0781-5186 | ESS7-200-350   | 10-200         |
| Acetylene              | 0781-5187 | ESS7-15-510    | 2-15           |
| L.P. Gas               | 0781-5188 | ESS7-125-510LP | 5-125          |

*Outlet Connection 7/8"-14(M) like other regulators*



### EDGE ADJUSTING LOCK

Ideal for setting pressures and avoiding tampering by others. Comes with three color decals - red, green, black.

Part No: 0750-0221 ● ● ●

## ESS42 EDGE 2.0 High capacity, single stage

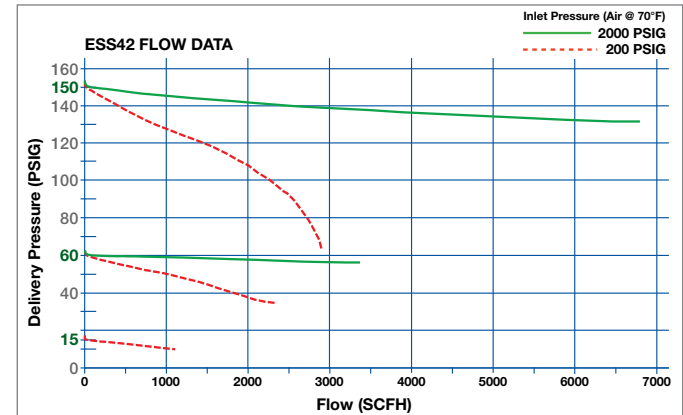
### Design/Construction

- Fully enclosed, highly visible modular gauges for more clarity with robust metal gauge guard
- Extra large 2 1/2 in. (63.5 mm) delivery gauge and stainless steel diaphragm
- Robust seat gives optimum performance
- Consistent pressure and flow delivery
- High resistance to oxygen related fires and SLAM knob absorbs impact in the event of a cylinder fall



[esab.com/edge2](http://esab.com/edge2)

### ESS42 Flow Data



### Specifications

| Dimensions L x W x H                     | Weight           |
|------------------------------------------|------------------|
| 4 x 6 x 4 in. (101.6 x 152.4 x 101.6 mm) | 4.0 lb (1.81 kg) |

### Ordering Information

| Gas Service            | Part No.  | Model No.               | Delivery Range (psig) |
|------------------------|-----------|-------------------------|-----------------------|
| Air, Oxygen, Inert Gas | 0781-3600 | ESS42-60-540 Oxygen     | 2-60                  |
|                        | 0781-3601 | ESS42-150-540 Oxygen    | 5-150                 |
|                        | 0781-3613 | ESS42-150-346 Air       | 5-150                 |
|                        | 0781-3614 | ESS42-150-590 Air       | 5-150                 |
|                        | 0781-3609 | ESS42-150-580 Inert Gas | 5-150                 |
| Methane/Hydrogen       | 0781-3612 | ESS42-150-350           | 5-150                 |
| Acetylene              | 0781-3602 | ESS42-15-510            | 2-15                  |
|                        | 0781-3603 | ESS42-15-300            | 2-15                  |
|                        | 0781-3604 | ESS42-15-993            | 2-15                  |
|                        | 0781-3605 | ESS42-15-410            | 2-15                  |
| L.P. Gas               | 0781-3606 | ESS42-60-510LP          | 2-60                  |
|                        | 0781-3607 | ESS42-150-510LP         | 2-150                 |
| Carbon Dioxide         | 0781-3615 | ESS42-150-320           | 5-150                 |

## ESS32 EDGE 2.0

Medium capacity, single stage

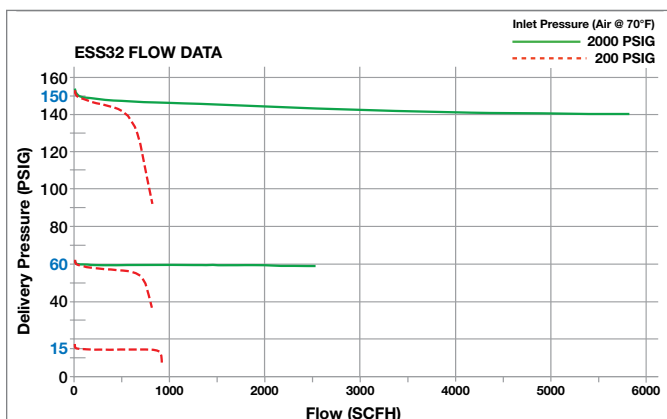
### Design/Construction

- Fully enclosed, highly visible modular gauges for more clarity with robust metal gauge guard
- Large 2 in. (50.8 mm) delivery gauge
- Robust seat gives optimum performance
- Consistent pressure and flow delivery
- High resistance to oxygen related fires and SLAM knob absorbs impact in the event of cylinder fall



esab.com/edge2

### ESS32 Flow Data



### Specifications

| Dimensions L x W x H                     | Weight          |
|------------------------------------------|-----------------|
| 4 x 6 x 4 in. (101.6 x 152.4 x 101.6 mm) | 4.0 lb (1.81kg) |

### Ordering Information

| Gas Service            | Part No.  | Model No.                        | Delivery Range |
|------------------------|-----------|----------------------------------|----------------|
| Air, Oxygen, Inert Gas | 0781-3627 | ESS32-60-540 S/S Oxygen          | 0-60 psig      |
|                        | 0781-3626 | ESS32-150-540 S/S Oxygen         | 0-150 psig     |
|                        | 0781-3633 | ESS32-60-580 Inert               | 0-60 psig      |
|                        | 0781-3634 | ESS32-60-580 Inert               | 0-150 psig     |
|                        | 0781-3637 | ESS32-150-346 S/S Air            | 0-150 psig     |
| Methane/Hydrogen       | 0781-3635 | ESS32-60-350 S/S Hydrogen        | 0-60 psig      |
|                        | 0781-3636 | ESS32-150-350 S/S Hydrogen       | 0-150 psig     |
| Acetylene              | 0781-3628 | ESS32-15-510 S/S Acetylene       | 0-15 psig      |
|                        | 0781-3629 | ESS32-15-300 S/S Acetylene       | 0-15 psig      |
| L.P. Gas               | 0781-3631 | ESS32-60-510LP S/S LP            | 0-60 psig      |
| Carbon Dioxide         | 0781-3638 | ESS32-150-320 S/S CO2            | 0-150 psig     |
| Ar-CO2                 | 0781-3641 | ESS32-80CFH-580 Ar-CO2 Flowgauge | 0-80 cfh       |
|                        | 0781-3642 | ESS32-80CFH-320 Ar-CO2 Flowgauge | 0-80 cfh       |

## ESS32-PFH-800

Pressure/flow hybrid regulator

### Design/Construction

- Nitrogen CGA-580 tool-less connection
- Fully enclosed, highly visible modular gauges for optimum clarity with robust metal gauge guard for maximum protection
- SLAM™ (Shock Limitation and Absorption Mechanism) technology built into the adjusting knob, provides additional strength, safety and protection of the regulator
- Up to 800 psi testing pressure



GAS CONTROL

### Specifications

| Maximum Inlet                                                              | Outlet Connection | Gas Service |
|----------------------------------------------------------------------------|-------------------|-------------|
| 3000 psig                                                                  | 1/4 in. SAE Flare | Nitrogen    |
| Controlled Pressure and Flow                                               |                   |             |
| 3 – 6 CFH (BRAZE)<br>20 – 50 CFH (PURGE)<br>200 – 800 PSIG (PRESSURE TEST) |                   |             |
| Operating Temperature                                                      |                   |             |
| 0° – 120° F (-17.9 – 48.9° C)                                              |                   |             |
| Storage Temperature                                                        |                   |             |
| -20° – 140° F (-28.9 – 60° C)                                              |                   |             |

### Ordering Information

|                                              |           |
|----------------------------------------------|-----------|
| ESS32-PFH-580 Pressure-Flow Hybrid Regulator | 0781-3652 |
|----------------------------------------------|-----------|

**SR 450**  
Heavy-duty

**Design/Construction**

- 2.5 in. (63.5 mm) gauges – brass
- 3.25 in. (82.6 mm) diaphragm – stainless steel

The shape of the SR450 Series regulator is a registered trademark of Victor.



**SR 350**  
Heavy/medium-duty

**Design/Construction**

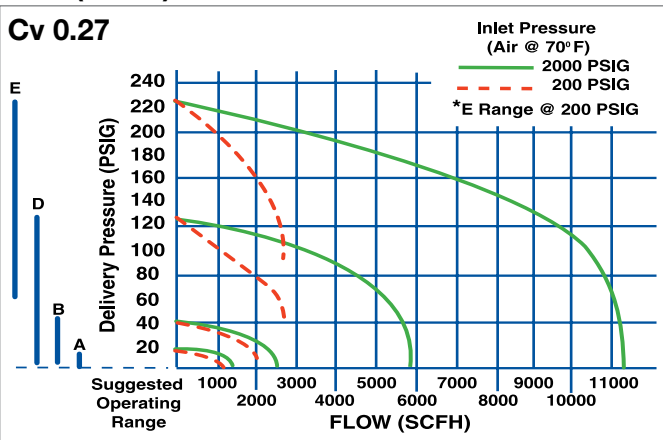
- High impact ABS gauge guard
- 1.5 in. (40 mm) gauges steel
- 2.7 in. (68.6 mm) diaphragm – fabric reinforced neoprene



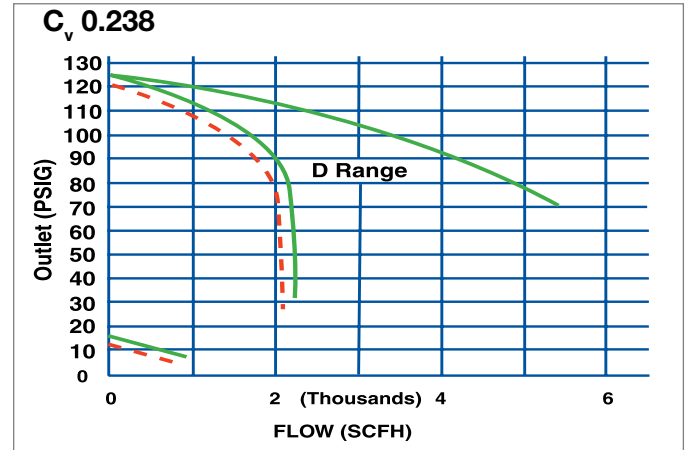
GAS CONTROL

**Flow (SCFH)**

**Cv 0.27**



**SR350 Flow Data - (Flowing Air at STD. Conditions)**



**Specifications**

| Maximum Inlet | Dimensions L x W x H                           | Weight              |
|---------------|------------------------------------------------|---------------------|
| 3000 psig     | 5.13 x 7.25 x 7 in. (130.3 x 184.2 x 177.8 mm) | 5 lb 2 oz (2.32 kg) |

**Specifications**

| Maximum Inlet | Dimensions L x W x H                           | Weight        |
|---------------|------------------------------------------------|---------------|
| 3000 psig     | 4.5 x 7.5 x 6.5 in. (114.3 x 190.5 x 165.1 mm) | 4 lb (1.8 kg) |

**Ordering Information**

| Gas Service            | Part No.  | Model No.    | Delivery Range (psig) |
|------------------------|-----------|--------------|-----------------------|
| Air, Oxygen, Inert Gas | 0781-0532 | SR 450D-346  | 5-125                 |
|                        | 0781-0527 | SR 450D-540  | 5-125                 |
|                        | 0781-0528 | SR 450D-580* | 5-125                 |
|                        | 0781-0543 | SR 450E-580* | 10-200                |
| Acetylene              | 0781-0583 | SR 460A-300  | 2-15                  |
|                        | 0781-0584 | SR 460A-510  | 2-15                  |
| L.P. Gas               | 0781-0589 | SR 461B-510  | 2-40                  |
|                        | 0781-0595 | SR 461D-510  | 5-125                 |

Outlet Connections: Cylinder Type – 9/16"-18 (M), \*9/16"-18 (F) RH

**Ordering Information**

| Gas Service | Part No.  | Model No.     | Delivery Range (psig) |
|-------------|-----------|---------------|-----------------------|
| Oxygen      | 0781-2341 | SR 350D-540   | 5-125                 |
| Acetylene   | 0781-2400 | SR 360A-300** | 2-15                  |
|             | 0781-2401 | SR 360A-510   | 2-15                  |

Outlet Connections: Cylinder Type – 9/16"-18 (M), \*\*9/16"-18 (M) LH

## SR 250

Medium-duty

### Design/Construction

- 2" (50.8 mm) gauges – brass
- 1.75" (44.5 mm) diaphragm – fabric reinforced neoprene



## G350

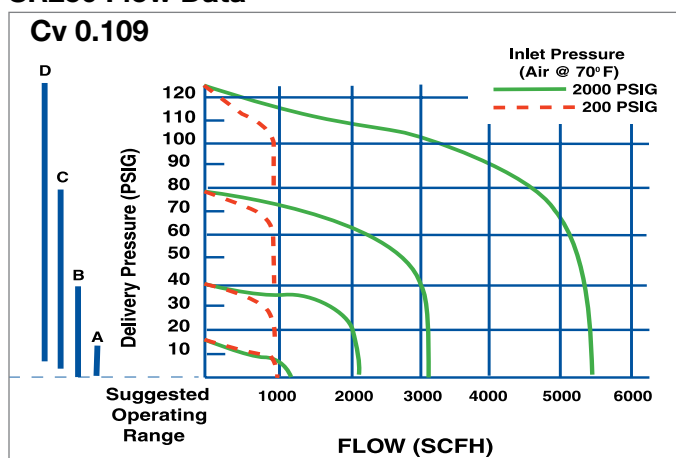
Heavy-duty

### Design/Construction

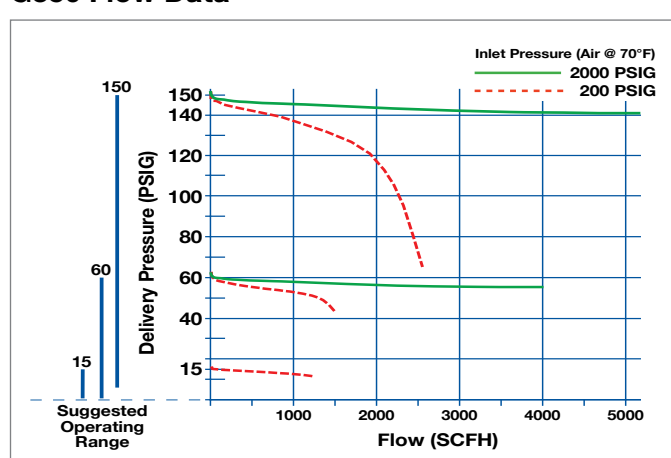
- Larger regulator body for heavy duty applications
- Color coded knobs
- Forged brass body and Zinc Aluminum housing cap
- 2 in. (50.8 mm) gauges
- 9/16"-18 outlet connection
- Internal relief



### SR250 Flow Data



### G350 Flow Data



### Specifications

| Maximum Inlet | Dimensions L x W x H                          | Weight              |
|---------------|-----------------------------------------------|---------------------|
| 3000 psig     | 4.25 x 6.38 x 5.13 in. (108 x 162 x 130.3 mm) | 2 lb 15 oz (1.3 kg) |

### Ordering Information

| Gas Service | Part No.  | Model No.      | Delivery Range (psig) |
|-------------|-----------|----------------|-----------------------|
| Oxygen      | 0781-0027 | SR 250C-540    | 4-80                  |
|             | 0781-0043 | SR 250D-540    | 5-125                 |
| Acetylene   | 0781-0085 | SR 260A-300    | 2-15                  |
|             | 0781-0087 | SR 260A-510    | 2-15                  |
|             | 0387-0115 | SR 260A-510 CS | 2-15                  |
| L.P. Gas    | 0781-0095 | SR 261B-510    | 2-40                  |
|             | 0781-0098 | SR 261C-510    | 4-80                  |

CS = Clamshell Packaging  
 Outlet Connections: Cylinder Type – 9/16"-18 (M)

### Ordering Information

| Gas Service | Part No.  | Model No.     | Delivery Range (psig) |
|-------------|-----------|---------------|-----------------------|
| Oxygen      | 0781-9415 | G350-150-540  | 150                   |
| Acetylene   | 0781-9421 | G350-15-300   | 15                    |
| Inert       | 0781-9416 | G350-150-580  | 150                   |
|             | 0781-9420 | G350-15-510   | 15                    |
| LP          | 0781-9422 | G350-60-510LP | 60                    |

## G250

Medium-duty

### Design/Construction

- Compact size for light to medium duty applications
- Acetylene, Oxygen and LP gas models
- Color coded knobs
- Single stage
- Forged brass body & Zinc Aluminum housing cap
- 2 in. (50.8 mm) gauges
- Delivery ranges vary based on model (see ordering information)
- 9/16"-18 outlet connection
- Internal relief



## G150

Light-duty, single stage, cylinder regulator

The G150 series, single stage, cylinder regulator is a compact, light weight regulator engineered for light duty applications.

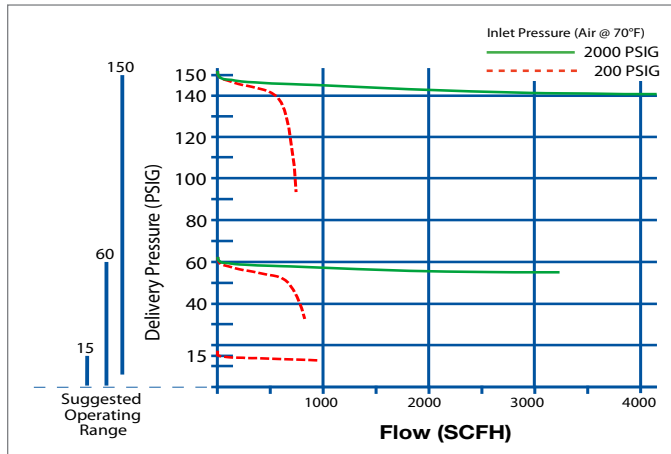
### Design/Construction

- Ergonomic color-coded adjustment knob
- High contrast gauge face
- High strength alloy bonnet
- Compact design



GAS CONTROL

### G250 Flow Data



### Ordering Information

| Gas Service | Part No.  | Model No.     | Delivery Range (psig) |
|-------------|-----------|---------------|-----------------------|
| Oxygen      | 0781-9400 | G250-150-540  | 150                   |
| Acetylene   | 0781-9405 | G250-15-510   | 15                    |
|             | 0781-9406 | G250-15-300   | 15                    |
| LP          | 0781-9410 | G250-60-510LP | 60                    |

### Ordering Information

|                        |           |
|------------------------|-----------|
| G150-60-540            | 0781-4227 |
| G150-60-540R           | 0781-4228 |
| G150-60-540R 020 "A"   | 0781-4241 |
| G150-15-510            | 0781-4233 |
| G150-15-200            | 0781-4231 |
| G150-15-200R           | 0781-4232 |
| G150-15-200R 021 "A"   | 0781-4240 |
| G150-15-520            | 0781-4235 |
| G150-60-510LP          | 0781-4234 |
| G150-60-580            | 0781-4229 |
| G150-60-580 w/ hose    | 0781-4236 |
| GF150-50-580 flowgauge | 0781-4226 |
| G150-60-320            | 0781-4230 |
| GF150-50-320 w/ hose   | 0781-4237 |
| GF150-50-320 flowgauge | 0781-4225 |
| SLR150 surge limiting  | 0781-1207 |

## VTS 700

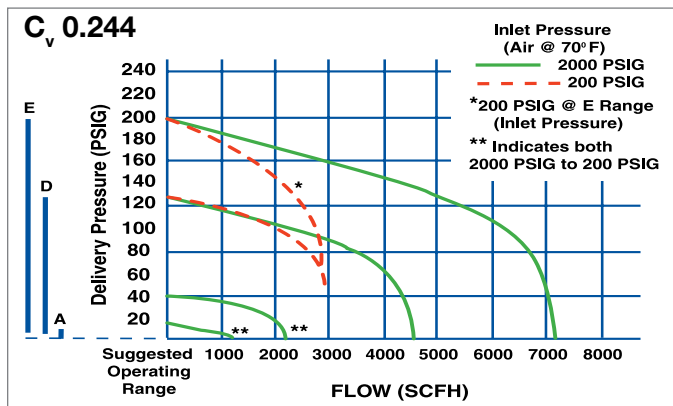
Extra heavy-duty,  
two stage, high flow

### Design/Construction

- 2.5 in. (63.5 mm) gauges – steel
- Diaphragms – 2 in. (50.8 mm) and 3.25 in. (82.6 mm) – stainless steel



### VTS 700 Flow Data



### Specifications

| Maximum Inlet | Dimensions L x W x H                           | Weight              |
|---------------|------------------------------------------------|---------------------|
| 3000 psig     | 8.63 x 6.75 x 7.5 in. (219 x 171.5 x 190.5 mm) | 8 lb 8 oz (3.86 kg) |

### Ordering Information

| Gas Service          | Part No.  | Model No.    | Delivery Range (psig) |
|----------------------|-----------|--------------|-----------------------|
| Oxygen,<br>Inert Gas | 0780-0928 | VTS 700D-580 | 5-125                 |
|                      | 0780-0939 | VTS 700E-540 | 10-200                |
|                      | 0780-0943 | VTS 700E-580 | 10-200                |
| Acetylene            | 0780-0984 | VTS 710A-510 | 2-15                  |

Outlet Connections: 7/8"-14(M)

## VTS 250

Medium-duty,  
two stage

### Design/Construction

- Delrin Insert Bushing for durability, easier adjusting
- Die-Forged Brass Spring Housing Cap provides greater strength and durability
- Fabric reinforced neoprene diaphragm gives long lasting service
- Stem-Type Seat Mechanism inlet pressure aides in sealing
- Stainless Ball in adjusting screw for easy adjustment
- Die-Forged Brass Body for extra strength
- Precision Machined Nozzle for optimum flow control
- Adjusting Spring designed for precise adjustment



### Additional Features

- External self reseating relief valve - Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter - electroless nickel plated bronze
- Regulators will deliver at least the stated upper range and in some cases may exceed the stated upper range

### Ordering Information

| Gas Service | Part No.  | Model No.   | Delivery Range (psig) |
|-------------|-----------|-------------|-----------------------|
| Oxygen,     | 0781-3503 | VTS250A-540 | 2-15                  |
|             | 0781-3504 | VTS250B-540 | 2-40                  |
|             | 0781-3505 | VTS250C-540 | 4-80                  |
|             | 0781-3506 | VTS250D-540 | 5-125                 |

Outlet Connections: 9/16"-18 (M RH)

## ETS4 Series

High capacity,  
two-stage design

### Design/Construction

- Forged brass body
- Zinc-aluminum housing caps
- High impact ABS gauge guard
- 1.5 in. UL listed/recognized gauges – brass
- Stem type seat mechanism: urethane seat material – air, oxygen, inerts, CO<sub>2</sub>, N<sub>2</sub>O, other high pressure gases; neoprene seat material – low pressure fuel gases
- 2.7 in. fabric reinforced neoprene diaphragm in 2nd stage, 0.75 in. diameter brass piston in 1st stage
- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter – nickel plated bronze
- SLAM impact absorbing safety knob
- Meets or exceeds CGA E-4, UL 252 and ASTM G-175 Promoted Ignition Test



## EHP Series

High pressure

Developed specifically for applications which require higher deliver pressure (400 or 800 PSIG maximum) Provides even higher deliver capability than the SR 600 it's replacing.

### Design/Construction

- Replaces SR 600 series
- Forged brass body
- High strength Zinc-Aluminum house cap
- High impact ABS gauge guard
- Color-coded SLAM impact absorbing safety knob



GAS CONTROL

### Specifications

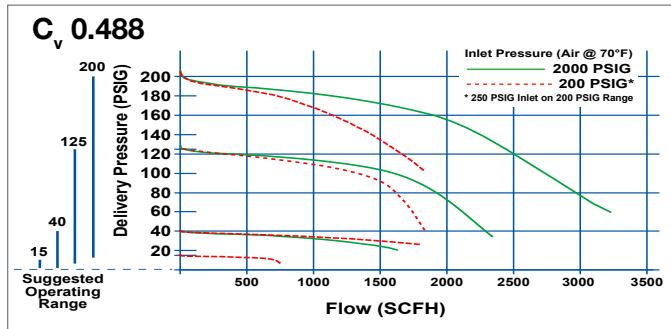
| Maximum Inlet | Dimensions L x W x H                        | Weight         |
|---------------|---------------------------------------------|----------------|
| 3000 psig     | 6.25 x 6 x 6.5 in. (158.8 x 152.4 x 165 mm) | 4 lb (1.81 kg) |

### Ordering Information

| Gas Service | Part No.  | Model No.    | Delivery Range (psig) |
|-------------|-----------|--------------|-----------------------|
| Oxygen      | 0781-5170 | EHP3-800-540 | 50-750                |
| Inert Gas   | 0781-5168 | EHP3-400-680 | 50-750                |
|             | 0781-5171 | EHP3-800-580 | 50-750                |
| Air         | 0781-5169 | EHP3-400-347 | 50-750                |

Inlet: \*1/4" NPT(F)  
Outlet Fitting: 1/4" Swagelok type stainless steel.  
+5/8"-20 UNF(M) inlet 1/8" NPT(F) outlet

### ETS4 Flow Data



### Specifications

| Dimensions L x W x H                         | Weight               |
|----------------------------------------------|----------------------|
| 4.72 x 6.85 x 4.4 in. (120 x 174 x 111.8 mm) | 4 lb 12 oz (2.15 kg) |

### Ordering Information

| Gas Service            | Part No.  | Model No.    | Delivery Range (psig) |
|------------------------|-----------|--------------|-----------------------|
| Air, Oxygen, Inert Gas | 0781-5231 | ETS4-125-346 | 5-125                 |
|                        | 0781-5232 | ETS4-200-346 | 10-200                |
|                        | 0781-5217 | ETS4-40-540  | 2-40                  |
|                        | 0781-5218 | ETS4-125-540 | 5-125                 |
|                        | 0781-5219 | ETS4-200-540 | 10-200                |
|                        | 0781-5221 | ETS4-40-580  | 20-40                 |
|                        | 0781-5222 | ETS4-125-580 | 5-125                 |
|                        | 0781-5223 | ETS4-200-580 | 10-200                |
| Industrial Air         | 0781-5224 | ETS4-125-590 | 5-125                 |
| British Oxygen/Fuel    | 0785-2120 | ETS4-125-992 | 5-125                 |
|                        | 0785-2121 | ETS4-200-992 | 10-200                |
|                        | 0785-2122 | ETS4-15-993  | 2-15                  |
| Hydrogen/Methane       | 0781-5225 | ETS4-40-350  | 2-40                  |
|                        | 0781-5226 | ETS4-125-350 | 5-125                 |
| Carbon Dioxide         | 0781-5227 | ETS4-200-350 | 10-200                |
|                        | 0781-5228 | ETS4-125-320 | 5-125                 |
| Acetylene              | 0781-5229 | ETS4-15-300  | 2-15                  |
|                        | 0781-5230 | ETS4-15-510  | 2-15                  |

## SR 4 High pressure

Heavy-duty, high pressure piston regulator. Ideally suited for pressure vessel and dead-end testing. Delivery pressures up to 4500 psig on some models.

### Design/Construction

- Machined brass body & housing cap
- 2.5 in. (63.5 mm) gauges – brass
- Cartridge type seat assembly with PCTFE seat
- Piston type actuation – brass
- Delrin cap bushing for smooth adjustments
- External adjustable relief valves on F and G range models
- Hydrogen models have ventable relief valves (J Series does not)
- Sintered inlet filter – bronze

### Panel Mounting Details

- All SR 4 Series regulator models may be panel mounted.
- 1.75 in. (44.5 mm) (hole required in panel for mounting).
- For a flush panel mount installation order one panel mount nut 1409-0093. For an adjustable panel mount installation order two panel mount nuts 1409-0093.



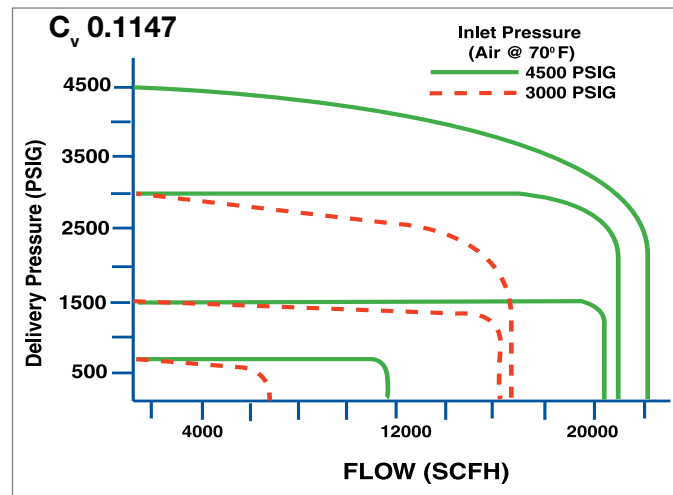
GAS CONTROL

| Specifications                                                                                                                                                   |                                                  |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------|
| Maximum Inlet                                                                                                                                                    | Dimensions L x W x H                             | Weight         |
| 7500 psig with CGA 677<br>6000 psig without inlet fitting<br>5500 psig with CGA 701, 680, 347<br>4000 psig with CGA 577<br>3000 psig with CGA 540, 580, 346, 350 | 6.25 x 6 x 6.5 in.<br>(158.8 x 152.4 x 165.1 mm) | 4 lb (1.81 kg) |

| Ordering Information       |           |             |                       |
|----------------------------|-----------|-------------|-----------------------|
| Gas Service                | Part No.  | Model No.   | Delivery Range (psig) |
| Oxygen                     | 0781-1405 | SR 4F-540   | 50-750                |
|                            | 0781-1425 | SR 4G-540   | 100-1500              |
|                            | 0781-1445 | SR 4J-540   | 200-3000              |
| Inert Gas                  | 0781-1408 | SR 4F-580   | 50-750                |
|                            | 0781-1410 | SR 4F-680   | 50-750                |
|                            | 0781-1428 | SR 4G-580   | 100-1500              |
|                            | 0781-1430 | SR 4G-680   | 100-1500              |
|                            | 0781-1448 | SR 4J-580   | 200-3000              |
|                            | 0781-1450 | SR 4J-680   | 200-3000              |
|                            | 0781-1453 | SR 4J-677   | 200-3000              |
|                            | 0781-1470 | SR 4K-680   | 300-4500              |
|                            | 0781-1473 | SR 4K-677   | 300-4500              |
|                            | Air       | 0781-1403   | SR 4F-347             |
| 0781-1422                  |           | SR 4G-346   | 100-1500              |
| 0781-1442                  |           | SR 4J-346   | 200-3000              |
| 0781-1463                  |           | SR 4K-347   | 300-4500              |
| Methane, Hydrogen          | 0781-1404 | SR 4F-350   | 50-750                |
|                            | 0781-1424 | SR 4G-350   | 100-1500              |
|                            | 0781-1444 | SR 4J-350   | 200-3000              |
| CO <sub>2</sub>            | 0781-1401 | SR 4F-320   | 50-750                |
| Panel Mount 1/4" NPT Inlet | 0781-1415 | *SR 4PF-250 | 50-750                |
|                            | 0781-1420 | *SR 4PG-250 | 100-1500              |
|                            | 0781-1455 | *SR 4PJ-250 | 200-3000              |
|                            | 0781-1475 | +SR 4PK-250 | 300-4500              |
|                            | 0781-1454 | SR 4TJ-996  | 200-3000              |

Inlet: \*1/4" NPT(F)  
Outlet Fitting: 1/4" Swagelok type stainless steel.  
+5/8"-20 UNF(M) inlet 1/8" NPT(F) outlet

### SR 4 FLOW DATA



## ELC4

Liquid cylinder

### Design/Construction

- Stainless diaphragm
- Rear entry design



## ESL4

Line regulator

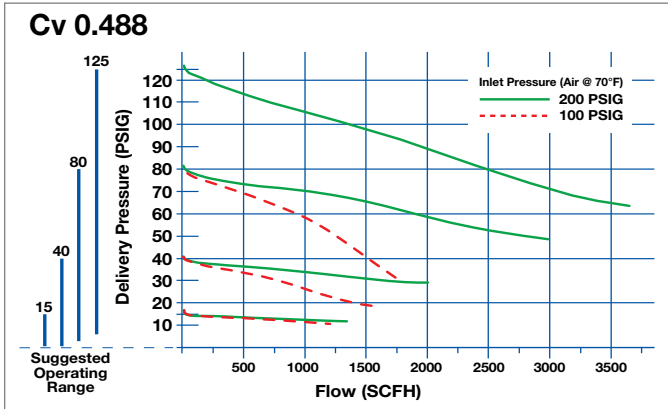
### Design/Construction

- Versatile – supports a variety of inlet pressures (up to 3000 psig)

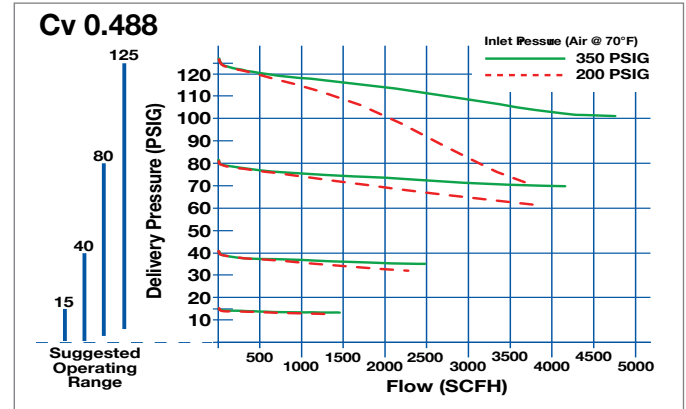


GAS CONTROL

**ELC4 Flow Data - EDGE Series-Liquid Cylinder**



**ESL4 Flow Data - EDGE Series-Line**



### Specifications

| Maximum Inlet | Dimensions L x W x H                        | Weight               |
|---------------|---------------------------------------------|----------------------|
| 3000 psig     | 8.2 x 3.8 x 7 in. (208.3 x 96.5 x 180.3 mm) | 4 lbs 5 oz (1.95 kg) |

### Ordering Information

| Gas Service                     | Part No.  | Model No.     | Delivery Range (psig) |
|---------------------------------|-----------|---------------|-----------------------|
| Oxygen                          | 0781-5199 | ELC4-125-540R | 5-125                 |
| Inert (Nitrogen, Argon, Helium) | 0781-5200 | ELC4-125-580R | 5-125                 |
|                                 | 0781-5202 | ELC4-325-580R | 5-325                 |
| Carbon Dioxide                  | 0781-5201 | ELC4-125-320R | 5-125                 |

### Specifications

| Maximum Inlet | Dimensions L x W x H                        | Weight               |
|---------------|---------------------------------------------|----------------------|
| 3000 psig     | 8.2 x 3.8 x 7 in. (208.3 x 96.5 x 180.3 mm) | 4 lbs 5 oz (1.95 kg) |

### Ordering Information

| Gas Service                                   | Part No.  | Model No.     | Delivery Range (psig) |
|-----------------------------------------------|-----------|---------------|-----------------------|
| Air, Inert Gas, Carbon Dioxide, Nitrous Oxide | 0781-5190 | ESL4-125-250  | 5-125                 |
| Oxygen                                        | 0781-5214 | ESL4-125-250X | 5-125                 |
| Hydrogen, Methane, Natural Gas, L.P. Gas      | 0781-5210 | ESL4-80-250F  | 4-80                  |
|                                               | 0781-5211 | ESL4-125-250F | 5-125                 |
| Acetylene                                     | 0781-5208 | ESL4-15-250A  | 2-15                  |

## EST4 Station regulator

### Design/Construction

- Side entry and rear entry inlet versions available



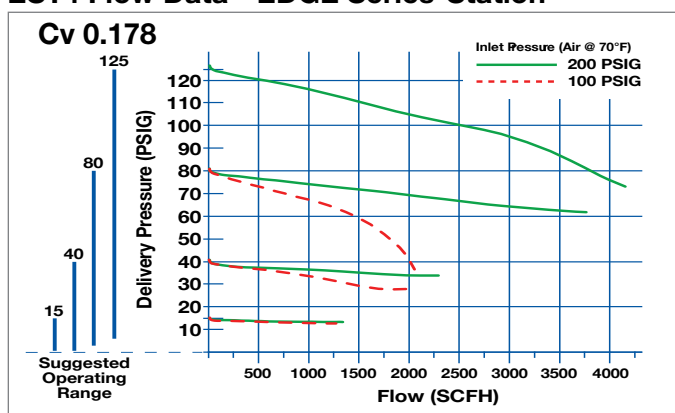
## SR 310/311/312 Flow Meter

### Design/Construction

- Designed for CO<sub>2</sub> application (non-siphoned tube cylinders)
- High flow CO<sub>2</sub> applications (SR 310 100 psig) with adequate supply or source
- Designed for core wire applications
- Machined aluminum body & housing cap
- 2 in. (50.8 mm) gauge
- Stem type seat mechanism
- 1.75 in. (44.5 mm) diaphragm - fabric reinforced neoprene
- Self reseating relief valve (not designed to protect downstream equipment)
- Sintered inlet filter - bronze



### EST4 Flow Data - EDGE Series-Station



### Specifications

| Maximum Inlet | Dimensions L x W x H                        | Weight               |
|---------------|---------------------------------------------|----------------------|
| 3000 psig     | 8.2 x 3.8 x 7 in. (208.3 x 96.5 x 180.3 mm) | 4 lbs 5 oz (1.95 kg) |

### Ordering Information

| Gas Service                              | Part No.  | Model No.     | Delivery Range (psig) |
|------------------------------------------|-----------|---------------|-----------------------|
| Oxygen                                   | 0781-5191 | EST4-40-024   | 2-40                  |
|                                          | 0781-5204 | EST4-40-024R  | 2-40                  |
|                                          | 0781-5192 | EST4-80-024   | 4-80                  |
|                                          | 0781-5205 | EST4-80-024R  | 4-80                  |
|                                          | 0781-5193 | EST4-125-024  | 5-125                 |
|                                          | 0781-5206 | EST4-125-024R | 5-125                 |
| Inert (Nitrogen, Argon, Helium)          | 0781-5189 | EST4-125-034  | 5-125                 |
|                                          | 0781-5207 | EST4-125-034R | 5-125                 |
| Acetylene                                | 0781-5194 | EST4-15-025   | 2-15                  |
|                                          | 0781-5209 | EST4-15-025R  | 2-15                  |
| Hydrogen, Methane, Natural Gas, L.P. Gas | 0781-5195 | EST4-80-025   | 4-80                  |
|                                          | 0781-5212 | EST4-80-025R  | 4-80                  |
|                                          | 0781-5196 | EST4-125-025  | 5-125                 |
|                                          | 0781-5213 | EST4-125-025R | 5-125                 |

A regulator equipped with a flow gauge is not accurate when a back pressure in excess of 2 psig exists at the outlet. Back pressure is caused by a restriction in the equipment downstream of the flow gauge. Metering valves, kinked hoses or even very long hoses are restrictions that can cause back pressure. In applications where back pressure in excess of 2 psig can be expected, a regulator equipped with a flow meter should be used.

### Specifications

| Maximum Inlet                                   | Delivery Range       |
|-------------------------------------------------|----------------------|
| 1500 psig                                       | 100 SCFH             |
| Dimensions L x W x H                            | Weight               |
| 2.5 x 8.38 x 7.25 in. (63.5 x 212.9 x 184.2 mm) | 2 lb 15 oz (1.33 kg) |

### Ordering Information

| Model                                | Diameter           | Part No.  |
|--------------------------------------|--------------------|-----------|
| SR 310 Adjustable Pressure Gauge     | 1.75 in. (44.5 mm) | 0781-0355 |
| SR 310 Adjustable Pressure Gauge     | 2 in. (50.8 mm)    | 0781-0355 |
| SR 311 (Preset @ 80 psig) Flow Meter | 1.75 in. (44.5 mm) | 0781-0353 |
| SR 311 (Preset @ 80 psig) Flow Meter | 2 in. (50.8 mm)    | 0781-0353 |
| SR 312 Flow Gauge                    | 1.75 in. (44.5 mm) | 0781-0354 |
| SR 312 Flow Gauge                    | 2 in. (50.8 mm)    | 0781-0354 |

**WARNING:** High gas withdrawal rates may cause regulator freeze up and will require cylinder manifold. Consult your gas supplier. See below for Gas Heater.

## Flow Meter

### Heavy-duty

#### Design/Construction

- Gas flow measurement in SCFH
- MIG / TIG applications
- Flowtube and outer tube are made of impact resistant lexan for severe applications
- Pressure compensated for low surge requirement
- Cover tube contains overpressure protection

All Victor flow meters are back pressure compensated to ensure accurate readings at all times, even if line restrictions are present. All flow meters are calibrated to operate at 25 psig inlet pressure to minimize surge, except the FM 200 which is calibrated to operate at 80 psig.



FM372

GAS CONTROL

**WARNING:** Not designed for cylinder use. Do not exceed calibrated inlet pressure.

#### Ordering Information

| Part No.                                 | Model No. | Flow Range (SCFH)                                | Inlet Fitting  | Outlet Fitting | Replacement Flow Tube | Inlet Pressure (psig) |
|------------------------------------------|-----------|--------------------------------------------------|----------------|----------------|-----------------------|-----------------------|
| <b>Units with single gas calibration</b> |           |                                                  |                |                |                       |                       |
| 1000-0264                                | FM 200    | 30-100 CO <sub>2</sub>                           | 1/4" NPT(M)    | 5/8"-18 RH(F)  | 1015-0066             | 80                    |
| <b>Units with 2 gas calibrations</b>     |           |                                                  |                |                |                       |                       |
| 1000-0268                                | FM 150    | 10-60 Air, 10-60 Nitrogen                        | 1/4" NPT(M)    | 5/8"-18 RH(F)  | 1015-0060             | 25                    |
| 1000-0255                                | FM 135    | 4-18 Argon, 10-50 Helium                         | 9/16"-18 RH(F) | 5/8"-18 RH(F)  | 1015-0063             | 25                    |
| 1000-0256                                | FM 145    | 4-18 Argon, 10-50 Helium                         | 5/8"-18 RH(M)  | 5/8"-18 RH(F)  | 1015-0063             | 25                    |
| 1000-0257                                | FM 155    | 4-18 Argon, 10-50 Helium                         | 1/4" NPT(M)    | 5/8"-18 RH(F)  | 1015-0063             | 25                    |
| 1000-0261                                | FM 137    | 15-65 Argon, 40-200 Helium                       | 9/16"-18 RH(F) | 5/8"-18 RH(F)  | 1015-0064             | 25                    |
| 1000-0262                                | FM 147    | 15-70 Argon, 40-200 Helium                       | 5/8"-18 RH(M)  | 5/8"-18 RH(F)  | 1015-0064             | 25                    |
| 1000-0263                                | FM 157    | 15-65 Argon, 40-200 Helium                       | 1/4" NPT(M)    | 5/8"-18 RH(F)  | 1015-0064             | 25                    |
| <b>Units with 3 gas calibrations</b>     |           |                                                  |                |                |                       |                       |
| 1000-0258                                | FM 370    | 5-40 CO <sub>2</sub> , 5-50 Argon, 20-150 Helium | 9/16"-18 RH(F) | 5/8"-18 RH(F)  | 1015-0057             | 25                    |
| 1000-0259                                | FM 371    | 5-40 CO <sub>2</sub> , 5-50 Argon, 20-150 Helium | 5/8"-18 RH(M)  | 5/8"-18 RH(F)  | 1015-0057             | 25                    |
| 1000-0182                                | FM 372    | 5-40 CO <sub>2</sub> , 5-50 Argon, 20-150 Helium | 1/4" NPT(M)    | 5/8"-18 RH(F)  | 1015-0057             | 25                    |

To ensure proper gas flow and to prevent tampering to your flowmeter use a Victor Locking Valve(Part No. 0662-0079).

## HRF 2400

Medium-duty, flow meter

### Design/Construction

- Regulator / flow meter combination in one compact unit
- MIG / TIG applications
- Ideal for all applications where dependability is needed
- Calibrated tube at 25 psig (not on HRF 2480)
- Machined brass body & housing cap
- Back pressure compensated
- Fabric reinforced neoprene diaphragm
- Internal self reseating relief valve – not designed to protect downstream equipment
- Sintered inlet filter – bronze
- Cover tube contains overpressure protection



**WARNING:** High gas withdrawal rates on carbon dioxide may require cylinder manifolding. Consult your gas supplier.

| Specifications                              |                        |
|---------------------------------------------|------------------------|
| <b>Maximum Inlet</b>                        | <b>Outlet Pressure</b> |
| 3000 psig                                   | Preset                 |
| <b>Dimensions L x W x H</b>                 | <b>Weight</b>          |
| 3 x 5.63 x 8.25 in. (76.2 x 143 x 209.6 mm) | 2 lb 8 oz (1.13 kg)    |

| Ordering Information                    |           |                           |                                |                              |                       |
|-----------------------------------------|-----------|---------------------------|--------------------------------|------------------------------|-----------------------|
| Gas Service                             | Part No.  | Model No.                 | Flow Range (SCFH)              | Specify CGA Inlet Connection | Replacement Flow Tube |
| Argon, Argon/Carbon Dioxide Mix, Helium | 0781-2731 | HRF 2425 Preset @ 25 psig | 10-50 (Argon), 20-150 (Helium) | 580                          | 1015-0057             |
| Carbon Dioxide, Carbon Dioxide Mix      | 0781-2727 | HRF 2480 Preset @ 80 psig | 10-38 (CO <sub>2</sub> )       | 320                          | 1015-0058             |
|                                         | 0781-2728 | HRF 2480 Preset @ 80 psig | 7.5-37.5 (Argon)               | 320, 580                     |                       |

*Outlet Connections: 5/8"-18 RH(F), CGA 032*

## DFM 150

Medium-duty

### Design/Construction

- Designed to monitor two separate processes or gas flows
- Ideal for applications where shielding gas and back purge requirements are needed
- Designed to offer convenience for the maintenance and fabrication industries
- Brass body
- Teflon seat mechanism
- Sintered inlet filter – bronze
- Music wire – spring
- Piston – brass
- Cover tube – lexan



| Specifications                             |                        |
|--------------------------------------------|------------------------|
| <b>Maximum Inlet</b>                       | <b>Outlet Pressure</b> |
| 3000 psig                                  | 25 psig (preset)       |
| <b>Dimensions L x W x H</b>                | <b>Weight</b>          |
| 5 x 5.5 x 6.5 in. (127 x 139.7 x 165.1 mm) | 2 lb 9 oz (1.16 kg)    |

| Ordering Information                               |           |             |                                                                |                      |                  |          |                       |
|----------------------------------------------------|-----------|-------------|----------------------------------------------------------------|----------------------|------------------|----------|-----------------------|
| Gas Service                                        | Part No.  | Model No.   | Flow Range (SCFH)                                              | CGA Inlet Connection | Max Inlet (psig) | HP Gauge | Replacement Flow Tube |
| Argon, Helium                                      | 0781-1153 | DFM 150-580 | 5-50 (Argon), 20-150 (Helium)                                  | 580                  | 3000             | 0-4000   | 1015-0057             |
| Argon, Argon / Carbon Dioxide, Helium Low Pressure | 0781-1206 | DFM 150S    | 5-50 (Argon), 5-40 (Argon/CO <sub>2</sub> )<br>20-150 (Helium) | 1/4" NPT (F)         | 75               | 0-100    | 1015-0057             |

*Outlet Connection: 5/8"-18 RH(F), CGA 032, Preset Pressure: 25 psig*

## HSR & HVTS

Medium-duty, flow meter

### HSR Models (Single Stage)

#### Design/Construction

- Single or two stage design
- Compact in size
- Accurate regulator for gas flow
- MIG / TIG applications
- Two stage version provides extremely accurate flow rates as cylinder pressure declines
- Low surge rates – 25 psi preset



### HVTS Models (Two Stage)

#### Design/Construction

- Forged brass body and housing cap
- 2 in. (50.8 mm) high pressure gauge
- Stem type seat mechanism
- Fabric reinforced neoprene diaphragm
- External self reseating relief valve (not designed to protect downstream equipment)
- Sintered inlet filter – bronze



**WARNING:** High gas withdrawal rates on carbon dioxide may require cylinder manifolding. Consult your gas supplier.

#### Specifications

| Model | Maximum Inlet | Outlet Pressure                  | Dimensions L x W x H                         | Weight              |
|-------|---------------|----------------------------------|----------------------------------------------|---------------------|
| HSR   | 3000 psig     | 25 psig (preset), 80 psig on CO2 | 4.25 x 7 x 6.25 in. (108 x 177.8 x 158.8 mm) | 3 lb 3 oz (1.45 kg) |
| HVTS  | 3000 psig     | 25 psig (preset), 80 psig on CO2 | 6.5 x 7 x 5.5 in. (165 x 177.8 x 139.7 mm)   | 4 lb 10 oz (2.1 kg) |

#### Ordering Information

| Gas Service                                                | Part No.  | Model No.    | Flow Range (SCFH)  | Specify CGA Inlet Connection | Replacement Flow Tube | Gas Calibrations |
|------------------------------------------------------------|-----------|--------------|--------------------|------------------------------|-----------------------|------------------|
| Nitrogen/Air                                               | 0781-3819 | *HSR 2530    | 10-60              | 580                          | 1015-0070             | 2                |
| Argon/Helium                                               | 0781-3867 | *HSR 2535    | 4-18 / 10-50       | 580                          | -                     | 2                |
|                                                            | 0781-3775 | *HVTS 2535   | 4-18 / 10-50       | 580                          | -                     | 2                |
|                                                            | 0781-3871 | *HSR 2537    | 15-65 / 40-200     | 580                          | 1015-0064             | 2                |
|                                                            | 0781-3772 | *HVTS 2537   | 15-65 / 40-200     | 580                          | 1015-0064             | 2                |
| Argon, Argon/Carbon Dioxide Mix, Helium                    | 0781-3873 | *HSR 2570    | 5-50               | 580                          | 1015-0057             | 3                |
|                                                            | 0781-3869 | *HSR 2570    | 5-40               | 580                          | 1015-0057             | 3                |
|                                                            | 0781-3774 | *HVTS 2570   | 20-150             | 580                          | 1015-0057             | 3                |
| Hydrogen                                                   | 0781-3825 | HSR 2533     | 5-40               | 350                          | 1015-0070             | 2                |
| Argon, Argon/Carbon Dioxide, Helium (Max Inlet – 200 psig) | 0781-1245 | S2570        | 5-50, 5-40, 20-140 | 034                          | 1015-0057             | 3                |
| Inert                                                      | 0781-3880 | HSR 1470-680 | 50-140-40          | 680                          | 1015-0057             | AR-HE-CO2        |

\*Outlet Connections: 5/8"-18 RH(F)

## GRF 400

Light-duty, flow meter

### Design/Construction

- Regulator / Flow meter
- Single stage piston design
- Argon, Argon/CO<sub>2</sub> mix & CO<sub>2</sub> models
- 25 psig or 80 psig pre-set pressure
- Up to 50 CFH for Argon and up to 38 CFH for CO<sub>2</sub> delivery
- Available in CGA 320 & 580 inlet connections
- Optional MIG kit available with 10 ft. (3.1 m) hose



| Specifications                              |                        |
|---------------------------------------------|------------------------|
| <b>Maximum Inlet</b>                        | <b>Outlet Pressure</b> |
| 3000 psig                                   | Preset                 |
| <b>Dimensions L x W x H</b>                 | <b>Weight</b>          |
| 6.25 x 6 x 6.5 in. (158.8 x 152.4 x 165 mm) | 2 lb (0.91 kg)         |

| Ordering Information |                                    |
|----------------------|------------------------------------|
| 0781-2701            | GRF400-580                         |
| 0781-2702            | GRF400-580 (with 10' (3.1 m) hose) |
| 0781-2703            | GRF400-320                         |
| 0781-2704            | GRF400-320 (with 10' (3.1 m) hose) |

*Outlet Connection: CGA 032*

## HRF 1400

Light-duty, flow meter

### Design/Construction

- Regulator / Flow meter
- Single stage piston design
- Argon, Argon/CO<sub>2</sub> mix and CO<sub>2</sub> models
- 25 psig or 80 psig pre-set pressure
- Up to 50 CFH for Argon and up to 38 CFH for CO<sub>2</sub> delivery
- Available in CGA 320 & 580 inlet connections
- Optional MIG kit available with 10 ft. (3.1 m) hose



| Specifications                                |                |
|-----------------------------------------------|----------------|
| <b>Maximum Inlet</b>                          | <b>Weight</b>  |
| 3000 psig                                     | 2 lb (0.91 kg) |
| <b>Outlet Pressure</b>                        |                |
| preset HRF 1425 – 25 psig, HRF 1480 – 80 psig |                |

| Ordering Information |                                      |
|----------------------|--------------------------------------|
| 0781-2723            | HRF 1425-580                         |
| 0387-0240            | HRF 1425-580 CS                      |
| 0781-2743            | HRF 1425-580 (with 10' (3.1 m) hose) |
| 0781-2725            | HRF 1480-320                         |
| 0781-2745            | HRF 1480-320 (with 10' (3.1 m) hose) |
| 0781-2724            | HRF 1480-580                         |
| 0781-2744            | HRF 1480-580 (with 10' (3.1 m) hose) |

*Outlet Connection: 5/8"-18 RH(F), CS = Clamshell Package*

## TPR 250 Purging Regulator

Light Duty

### Design/Construction

- Single stage design
- Forged brass body and housing cap
- 2 in. (50.8 mm) gauges
- Stem type seat mechanism
- Neoprene diaphragm



| Specifications       |                                              |                      |
|----------------------|----------------------------------------------|----------------------|
| <b>Maximum Inlet</b> | <b>Dimensions L x W x H</b>                  | <b>Weight</b>        |
| 3000 psig            | 4.25 x 6.38 x 5.1 in. (108 x 162 x 130.3 mm) | 2 lb 15 oz (1.33 kg) |

| Ordering Information |                    |                                 |
|----------------------|--------------------|---------------------------------|
| <b>Part No.</b>      | <b>Model No.</b>   | <b>Delivery Pressure (psig)</b> |
| 0781-9133            | TPR 250-125-580 CS | 5-125                           |
| 0781-9127            | TPR 250-125-320    | 5-125                           |
| 0781-9134            | TPR 250-200-580 CS | 10-250                          |
| 0781-9135            | TPR 250-500-580 CS | 10-250                          |

*Outlet Connection: 1/4"-37" flare. CS = Clamshell Package*

## MECO High Pressure

### Design/Construction

- Single-stage design
- Heavy-duty applications such as oil/gas industry
- Stainless steel diaphragm
- Positive pressure yoke type regulator
- Multi-seat 4 way seat block
- Available as a preset model or with adjusting T-screw



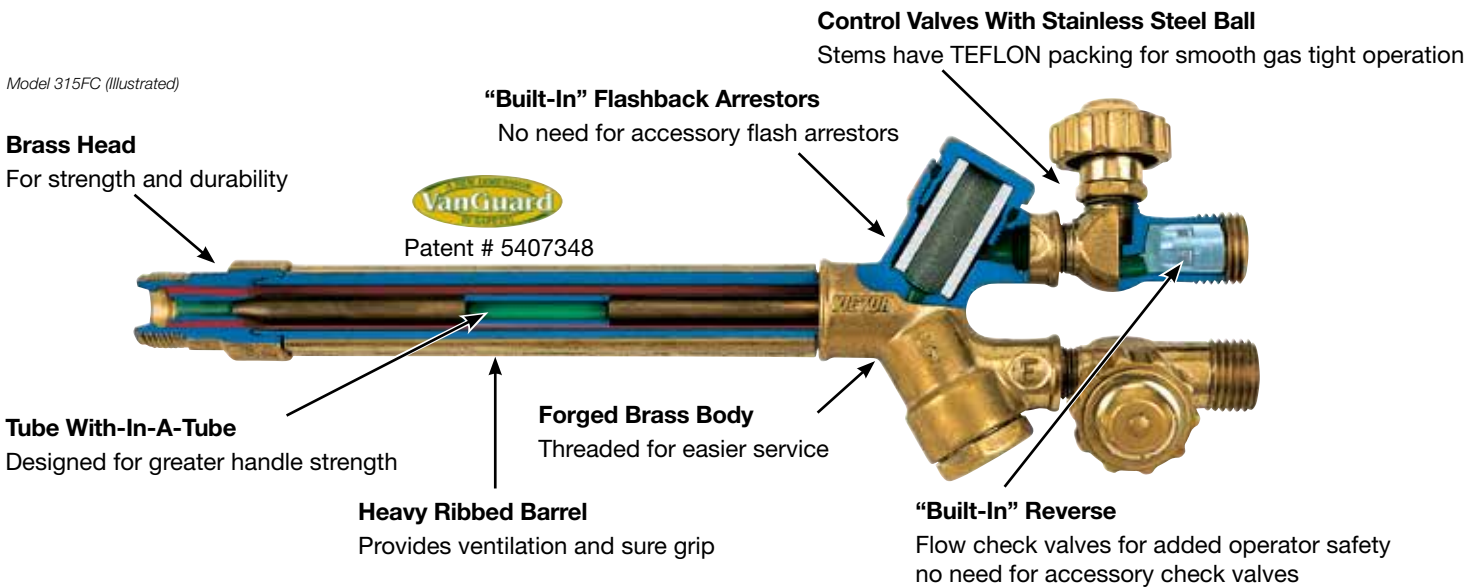
| Specifications       |                    |
|----------------------|--------------------|
| <b>Maximum Inlet</b> | <b>Weight</b>      |
| 5500 psig            | 4 lb 9 oz (2.2 kg) |

| Ordering Information |                     |                            |                 |              |
|----------------------|---------------------|----------------------------|-----------------|--------------|
| <b>Part No.</b>      | <b>Description</b>  | <b>Adjusting Mechanism</b> | <b>Pressure</b> | <b>Inlet</b> |
| 5641-8461            | P Regulator 125 psi | Cap nut                    | 125             | 1/4 -18 NPT  |
| 5641-8464            | P Regulator 150 psi | T screw                    | 150             | 1/4 -18 NPT  |
| 5641-8465            | P Regulator 150 psi | Cap nut                    | 150             | 1/4 -18 NPT  |
| 5641-8470            | P Regulator 225 psi | T screw                    | 225             | 1/4 -18 NPT  |
| 5641-8468            | P Regulator 225 psi | T screw                    | 225             | 1/4 -18 NPT  |

## Handles & Cutting Attachments

Design and Construction Features

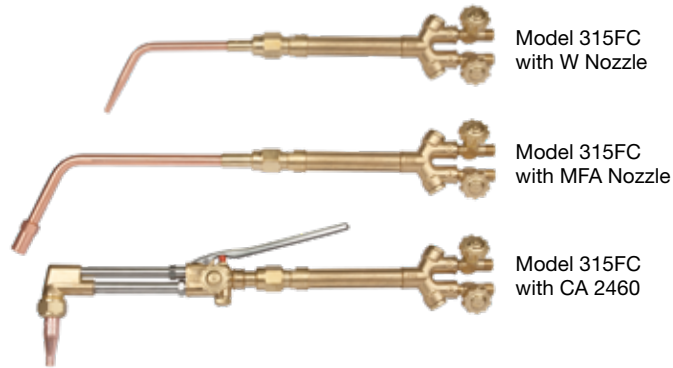
Model 315FC (Illustrated)



### Rugged, Efficient Design - Threaded Assembly for Ease of Service

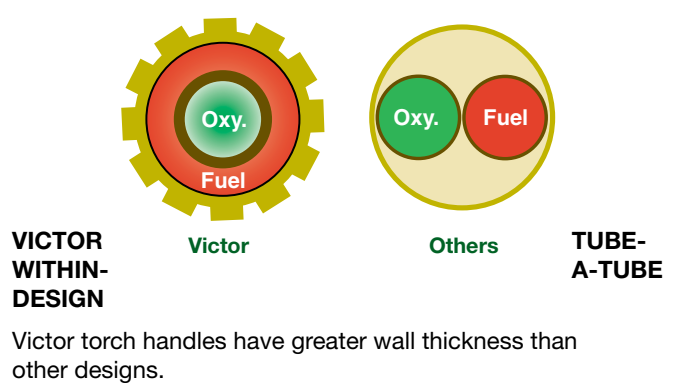
#### VICTOR TORCH HANDLES GIVE YOU TWICE THE VALUE

Each torch handle is designed and built to withstand rugged job site conditions. In case of damage, Victor's threaded assembly design lets you replace parts quickly and economically.



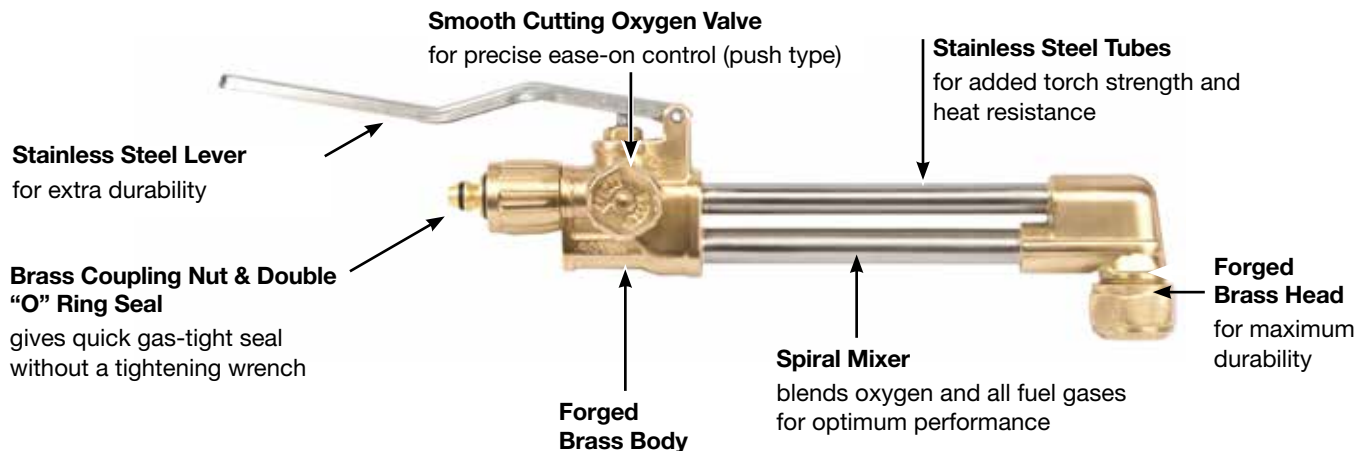
#### PERFORMANCE PROVEN TUBE-WITHIN-A-TUBE DESIGN

Victor torch handles include one oxygen tube within a massive, heavy ribbed handle which also serves as the gas tube. The result is greater strength and durability plus a reduction in overall size and weight for ease of operation.



### Compact Balanced Attachments:

For cutting or heating. Each torch handle is designed for optimal balance and feel with its own nozzles and attachments. With proper balance of length and weight, operator fatigue is minimized.



## 400 Series WH 411C Torch Handle

Heavy-duty



- Accepts CA411-3 & CA411-1 Cutting Attachments, W Series Welding Tips and MFA/MFN/Type55 Heating Assemblies
- 5 Year Warranty

### Special designed alloy material:

- 3x the tensile strength of Brass
- Ergonomic, textured, precision contoured handle is designed to reduce operator fatigue and provide better grip
- Durable to withstand tough use and prevention of dents and scratches

### Intuitive knobs:

- Color-coded
- Clearly marked lettering with increase/decrease label
- Understandable in any language

### Ordering Information

| Part No.  | Model No. | Hose Connection              | Gas |
|-----------|-----------|------------------------------|-----|
| 0382-0355 | WH 411C   | "B" 9/16"-18 (CGA 022 & 023) | All |

## CA 411-1 Cutting Attachment

Heavy-duty



(for use with all fuel gases)

## CA 411-3 Cutting Attachment

Medium-duty



(for use with all fuel gases with appropriate tip)

### Performance matched for each torch handle series.

- Efficient Universal Spiral Head Mixer
- 1 Cutting Attachment for All Fuel Gases
- Redesigned inlet nut increases grip for Hand Tightening
- Inline stainless tubes for better visibility
- Improved Stainless Lever provides increased comfort and reduced operator hand fatigue
- 5 Year Warranty

### Ordering Information

| Part No.  | Model No. | Cutting Range    | Tip Series | Head Angle |
|-----------|-----------|------------------|------------|------------|
| 0381-1940 | CA411-1   | 6 in. (152.4 mm) | 1          | 90°        |
| 0381-1939 | CA411-3   | 5 in. (127.0 mm) | 3          | 90°        |

Heavy and medium duty cutting attachments for use with acetylene, propane, butane, liquid air fuel gas, natural gas (2 PSI & above) and propylene. Cutting attachment accepts all Victor Style Tips.

## 300 Series HD 310C Torch Handle

Victor heavy industry



Built tough to withstand rugged job site conditions. Threaded assembly permits economical repair if service is necessary. The HD 310C has "B" hose connections with built-in reverse flow check valves for added safety.

The HD 310C is compatible with high capacity heating nozzles and all Victor 300 Series equipment.

### Welding & Cutting Equipment:

- MFA & MFN heating nozzles
- Type 55 high capacity heating nozzles
- CA 2460 cutting attachment
- W Series welding nozzles

### Ordering Information

| Part No.  | Model No. | Hose Connection              | Gas | Weight | Length            |
|-----------|-----------|------------------------------|-----|--------|-------------------|
| 0382-0015 | HD 310C   | "B" 9/16"-18 (CGA 022 & 023) | All | 28 oz  | 11 in. (279.4 mm) |

### WARNING: USE FLASHBACK ARRESTORS

Although built to Victor's quality and safety standards, due to the flow capacity requirements, flashback arrestors are not manufactured into this Victor heavy industry torch handle. To reduce the risk of personal injury, death and/or property damage, use sufficient capacity flashback arrestors with all Victor heavy industry torch products.

### Recommended For Best Performance:

#### Flashback Arrestors

| Part No.                                     | Model | Type                     |
|----------------------------------------------|-------|--------------------------|
| <b>Oxygen: (Select one of the following)</b> |       |                          |
| 0657-0010                                    | *FB-0 | Torch Mount              |
| 0657-0014                                    | FB-OR | Regulator Mount          |
| <b>Fuel: (Select one of the following)</b>   |       |                          |
| 0657-0011                                    | *FB-F | Torch Mount              |
| 0657-0015                                    | FB-FR | Regulator Mount          |
| <b>Pair Packs</b>                            |       |                          |
| 0656-0001                                    | *FB-1 | Oxy/Fuel Torch Mount     |
| 0656-0004                                    | FBR-1 | Oxy/Fuel Regulator Mount |

\*Torch mount models also protect the hose.

### 300 Series WH 315FC+ Torch Handle

Heavy-duty



- Improved head durability, preheat control valve flow and reduced user fatigue due to improved balance
- Improved access and reparability of mixer with single nut removal
- No wrench flats on connection nut indicates hand tightening only for safer operation
- Internal connection snap ring prevents coupling nut sliding and exposure to o-rings for reduced damage
- Use with CA 2460+ cutting attachment

### 100 Series 100FC Torch Handle

Medium-duty



**Victor torch handles are available with VanGuard™ safety features:**

- Built-in flashback arrestors - no need for accessory flash arrestors
- Built-in reverse flow check valves - no need for accessory check valves
- Works with all fuel gases (pressure restrictions for different gases)

| Ordering Information                                    |           |
|---------------------------------------------------------|-----------|
| WH 315FC+ Welding Handle                                | 0382-0093 |
| Plus Torch Replacement Pack - WH 315FC+/CA 2460+ 90 deg | 0381-1937 |

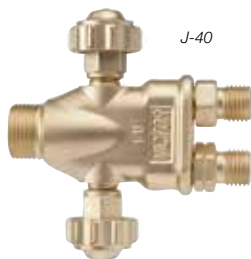
| Ordering Information |                                    |                 |     |        |                    |
|----------------------|------------------------------------|-----------------|-----|--------|--------------------|
| Part No.             | Description                        | Hose Connection | Gas | Weight | Length             |
| 0382-0032            | "VanGuard" Medium Duty             | 9/16 in.-18     | All | 14 oz  | 8.5 in. (215.9 mm) |
| 0387-0011            | "VanGuard" Medium Duty (Clamshell) | 9/16"-18        | All | 14 oz  | 8.5 in. (215.9 mm) |

VanGuard torch handles are offered in extra heavy duty (H 315FC) and medium duty (100FC) models, and available in Victor's most popular system models. VanGuard torch handles also feature Victor traditional threaded assemblies for economical repair if service is necessary.

### J Series - J-28 & J-40 Torch Handles

Light-duty

Victor torch handles cover the full range of welding, cutting and heating needs. Choose from patented standard models. Performance matched cutting attachments are available for each torch handle series.



| Ordering Information |           |                      |                      |     |        |                    |
|----------------------|-----------|----------------------|----------------------|-----|--------|--------------------|
| Part No.             | Model No. | Description          | Hose Connection      | Gas | Weight | Length             |
| 0382-0006            | J-40      | Standard, Light-Duty | "A" Hose CGA 021/022 | All | 5.5 oz | 3.75 in. (95.3 mm) |
| 0382-0127            | J-28      | Light-Duty           | "A" Hose CGA 021/022 | All | 8.5 oz | 6 in. (152.4 mm)   |

*J-40 handle does not have check valves or flashback arrestors included. J-28 handle includes accessory reverse flow check valves for regulator use*

HANDLES & ATTACHMENTS

## CA 2460+ Cutting Attachment

Heavy-duty

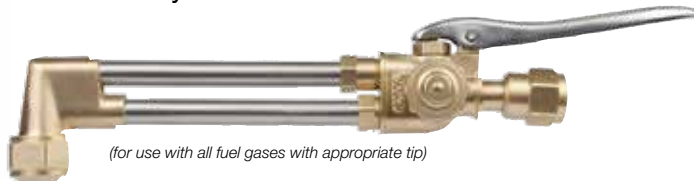


- Improved head durability, preheat control valve flow and reduced user fatigue due to improved balance
- Improved access and reparability of mixer with single nut removal
- Superior cutting oxygen valve with improved Feathering/Ease-On control
- No wrench flats on connection nut indicates hand tightening only for safer operation
- Internal connection snap ring prevents coupling nut sliding and exposure to o-rings for reduced damage
- Use with WH 315FC+ torch handle

| Ordering Information                                    |           |
|---------------------------------------------------------|-----------|
| CA 2460+ Cutting Attachment, 90 Deg                     | 0381-1928 |
| CA 2460+ Cutting Attachment, 75 Deg                     | 0381-1930 |
| CA 2460+ Cutting Attachment, 180 Deg                    | 0381-1932 |
| Plus Torch Replacement Pack - WH 315FC+/CA 2460+ 90 deg | 0381-1937 |

## CA 1350 Cutting Attachment

Medium-duty



(for use with all fuel gases with appropriate tip)

### Performance matched for each torch handle series.

- Forged brass head
- Spiral mixer blends oxygen and fuel
- Smooth cutting valve (pull type)
- Stainless steel tubes
- Brass coupling nut and double "O" ring seal gives quick gas-tight seal tightening with out wrench
- Length 8 in. (203.2 mm)
- Weight 13 oz (0.37 kg)

| Ordering Information |            |               |            |            |
|----------------------|------------|---------------|------------|------------|
| Part No.             | Model No.  | Cutting Range | Tip Series | Head Angle |
| 0381-0418            | CA 1350    | 6" (152.4 mm) | 3          | 90°        |
| 0387-0005            | CA 1350 CS | 6" (152.4 mm) | 3          | 90°        |
| 0381-0420            | CA 1351    | 6" (152.4 mm) | 3          | 75°        |
| 0381-0421            | CA 1352    | 6" (152.4 mm) | 3          | 180°       |

CS = Clamshell Package

HANDLES & ATTACHMENTS

## CA 1260 Cutting Attachment

Light-duty



(for use with all fuel gases with appropriate tip)

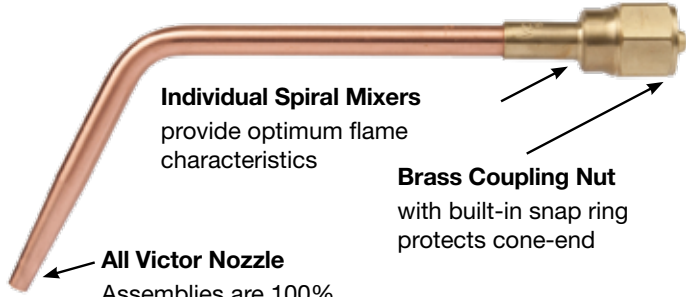
### Performance matched for each torch handle series.

- Forged brass head
- Spiral mixer blends oxygen & fuel
- Smooth cutting valve (pull type)
- Stainless steel tubes
- Brass coupling nut & double "O" ring seal gives quick gas-tight seal tightening without wrench
- Length 8 in. (203.2 mm)
- Weight 13 oz (0.37 kg)

| Ordering Information |            |               |            |            |
|----------------------|------------|---------------|------------|------------|
| Part No.             | Model No.  | Cutting Range | Tip Series | Head Angle |
| 0381-0162            | CA 1260    | 3" (76.2 mm)  | 3          | 90°        |
| 0387-0003            | CA 1260 CS | 3" (76.2 mm)  | 3          | 90°        |

CS = Clamshell Package

Exclusive "OPTIMIZED" nozzles with a large choice of types and sizes, plus uniformity of tip orifice and size for all series



**Individual Spiral Mixers** provide optimum flame characteristics

**Brass Coupling Nut** with built-in snap ring protects cone-end

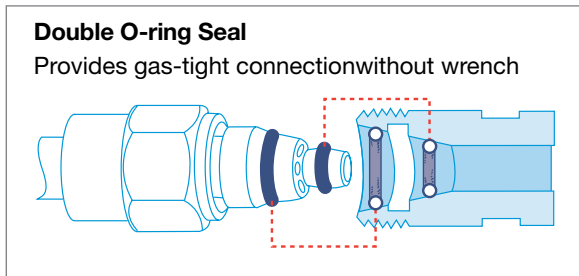
**All Victor Nozzle**

Assemblies are 100% flame tested to insure peak performance

Victor offers a complete range of nozzles, tips and elbows with a size for every application including: welding, brazing, heating, descaling, hard facing, flame priming, etc.

**Nozzles Designed for "Optimum" Performance**

Each complete nozzle has its own built-in spiral mixer, individually designed for each tip size and flame characteristic. Each nozzle is individually swaged to insure proper alignment for uniform flame, sizing and free-flow contour.



**Double O-ring Seal**

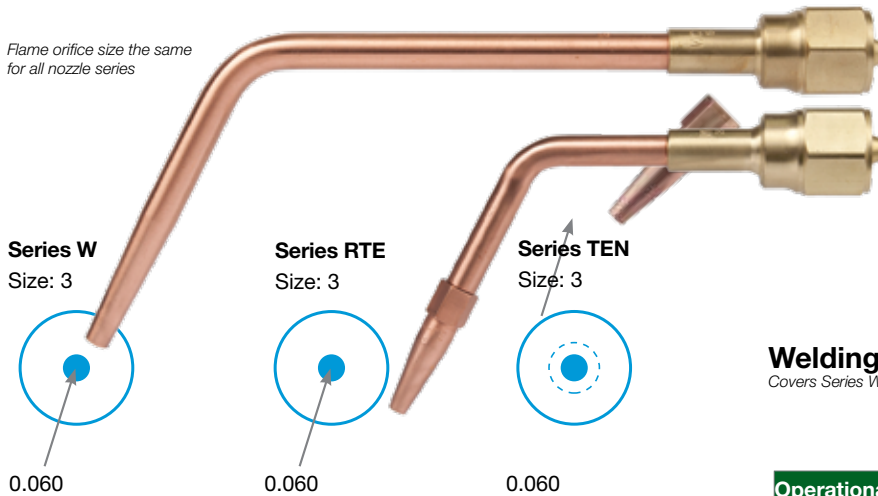
Provides gas-tight connection without wrench

**Orifice Sizes are Common for All Series**

Regardless of nozzle series (W, W-1, W-J), flame characteristic or fuel gas used. The uniformity of orifice sizes simplifies nozzle selection, eliminates chances of ordering and wrong size when changing from one type of nozzle to another.

NOZZLES

Flame orifice size the same for all nozzle series



**Series W**  
Size: 3

**Series RTE**  
Size: 3

**Series TEN**  
Size: 3

0.060

0.060

0.060



**Welding Nozzle Operational Data/Acetylene**

Covers Series W (Heavy Duty), W-1 (Medium Duty) And W-J (Light Duty) Series

| Oxy-Acetylene & Oxy-Hydrogen                                                                          |                  |             |                    |                                                                        |
|-------------------------------------------------------------------------------------------------------|------------------|-------------|--------------------|------------------------------------------------------------------------|
| Application                                                                                           | Torch Series     | Nozzle Type | Available Sizes    | Illustration                                                           |
| General purpose welding & heating. Uses replaceable tip ends. Flame characteristic – Long cone        | 315FC<br>H 315FC | RTE         | 000-6, 8, 10       | <p>65°<br/>Sizes: 000-6, 8 (Length 4.5")<br/>Size: 10 (Length 14")</p> |
| General purpose welding & preheating. Swaged one-piece copper elbow. Flame characteristic – Long cone | 315FC<br>100FC   | W<br>W-1    | 000-8, 10<br>000-7 | <p>65°<br/>Sizes: 000-8 (Length 4.5")<br/>Size: 10 (Length 14")</p>    |
|                                                                                                       | J-28<br>J-40     | W-J         | 000-4              |                                                                        |

| Operational & Performance Data |          |            |               |                  |                  |
|--------------------------------|----------|------------|---------------|------------------|------------------|
| Metal Thickness                | Tip Size | Drill Size | Oxygen (psig) | Acetylene (psig) | Acetylene (Scfh) |
| 1/32" (0.8 mm)                 | 000      | 75 (0.022) | 3/5           | 3/5              | 1/2              |
| 3/64" (1.2 mm)                 | 00       | 70 (0.028) | 3/5           | 3/5              | 1.5/3            |
| 5/64" (1.9 mm)                 | 0        | 65 (0.035) | 3/5           | 3/5              | 2/4              |
| 3/32" (2.4 mm)                 | 1        | 60 (0.040) | 3/5           | 3/5              | 3/6              |
| 1/8" (3.2 mm)                  | 2        | 56 (0.046) | 3/5           | 3/5              | 5/10             |
| 3/16" (4.8 mm)                 | 3        | 53 (0.060) | 4/7           | 3/6              | 8/18             |
| 1/4" (6.4 mm)                  | 4        | 49 (0.073) | 5/10          | 4/7              | 10/25            |
| 1/2" (12.7 mm)                 | 5        | 43 (0.089) | 6/12          | 5/8              | 15/35            |
| 3/4" (19.0 mm)                 | 6        | 36 (0.106) | 7/14          | 6/9              | 25/45            |
| 1 1/4" (32.0 mm)               | 7        | 30 (0.128) | 8/16          | 8/10             | 30/60            |
| 2" (51.0 mm)                   | 8        | 29 (0.136) | 10/19         | 9/12             | 35/75            |
| 3" (76.2 mm)                   | 10       | 27 (0.144) | 12/24         | 12/15            | 50/100           |

WARNING: At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.

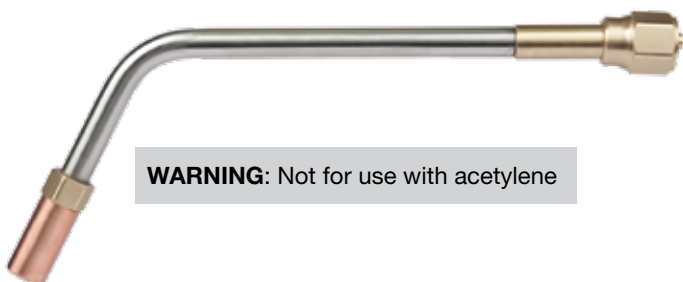
Oxygen consumption (SCFH) is 1.1 times the acetylene under neutral flame conditions.

## Type 55/55-1 Multi-Flame Heating Nozzles

Use with 300, HD 310C Series Torch Handles  
Victor Heavy Industry

The Type 55 Series multi-flame heating nozzles feature a raised center point on the head to prevent bumping the plate and compressing the flame. The center point and improved mixer design combine to provide greater resistance to sustained backfire and improved flow performance. Type 55s can be ordered as a complete assembly or as individual components.

- High capacity heating head for heat treating, straightening, and priming
- LP Gases



**WARNING:** Not for use with acetylene

| Ordering Information |      |                |                   |             |
|----------------------|------|----------------|-------------------|-------------|
| Part No.             | Type | Available size | Available Length  | Series      |
| 0323-0326            | 55   | 20*            | 28 in. (711.2 mm) | HD 310C     |
| 0323-0325            | 55   | 15*            | 28 in. (711.2 mm) | HD 310C     |
| 0323-0324            | 55   | 10*            | 28 in. (711.2 mm) | HD 310C     |
| 0323-0328            | 55   | 8              | 11 in. (279.4 mm) | HD 310C/300 |
| 0323-0327            | 55   | 6              | 11 in. (279.4 mm) | 300         |
| 0324-0188            | 55-1 | 6              | 11 in. (279.4 mm) | 100         |

\*Size 10, 15 and 20 Type 55 heating nozzles must be used with HD 310C torch handle and 3/8" (9.5 mm) hose.

### Type 55 – for use with Propylene based fuel gases, Methane, Propane, Butane, & pressurized Natural Gas

| Tip Size | Oxygen Pressure (psig) | Fuel Pressure (psig) | Oxygen Consumption (SCFH) | Fuel Consumption (SCFH) | BTU/h     |
|----------|------------------------|----------------------|---------------------------|-------------------------|-----------|
| 20       | 100/150                | 30/50                | 900/1150                  | 400/500                 | See Chart |
| 15       | 90/120                 | 20/35                | 600/800                   | 250/350                 |           |
| 10       | 70/100                 | 15/25                | 356/460                   | 150/200                 |           |
| 8        | 70/85                  | 15/25                | 220                       | 85                      |           |
| 6        | 70/80                  | 15/20                | 160                       | 65                      |           |

#### BTU Per Hour

To approximate gross BTU output, multiply flow rate by BTU value listed below:

|             |      |
|-------------|------|
| Propane     | 2498 |
| Natural Gas | 1000 |
| Butane      | 3374 |
| Propylene   | 2371 |

#### Warning:

- Use flashback arrestors
- Although built to Victor's quality and safety standards, due to the cutting capacity and/or design of each torch, flashback arrestors are not manufactured into the 310C Series Victor heavy industry torches
- To reduce the risk of personal injury, death and/or property damage, use sufficient capacity flashback arrestors with all Victor heavy industry torch products
- Alternative fuel gas only refers to propane, natural gas, propylene gases. Acetylene, hydrogen and gasoline are NOT included as an alternative gas

## Type 55 Components

### 300 Series

Type 55 Series multi-flames are available as components. Threaded elbows give you the flexibility to easily service or extend the length of the nozzles. Use the special extensions adapter to extend the tip tube to the required length.



**0328-0012 & 0328-0013**  
Mixer and Nut Assembly

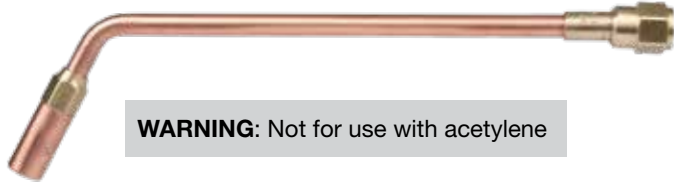
| Ordering Information |                                                                               |                         |                  |                  |             |
|----------------------|-------------------------------------------------------------------------------|-------------------------|------------------|------------------|-------------|
| Part No.             | Available Size                                                                | Application/Description | Available Length | Available Angles | Series      |
| 0311-0232            | 20*                                                                           | Multi-Flame Heads       | –                | –                | HD 310C     |
| 0311-0231            | 15*                                                                           | Multi-Flame Heads       | –                | –                | HD 310C     |
| 0311-0230            | 10*                                                                           | Multi-Flame Heads       | –                | –                | HD 310C     |
| 0311-0241            | 8                                                                             | Multi-Flame Heads       | –                | –                | HD 310C/300 |
| 0311-0240            | 6                                                                             | Multi-Flame Heads       | –                | –                | 300         |
| 0304-0002            | –                                                                             | Multi-Flame Elbows      | 14" (355.6 mm)   | 65°              | HD 310C/300 |
| 0304-0095            | –                                                                             | Multi-Flame Elbows      | 16" (406.4 mm)   | 180°             | HD 310C/300 |
| 0304-0011            | –                                                                             | Multi-Flame Elbows      | 26" (660.4 mm)   | 65°              | HD 310C/300 |
| 0328-0012            | Mixer and nut assembly, for use with pressures from 10 psig and up.           |                         |                  |                  | HD 310C/300 |
| 0328-0013            | Mixer and nut assembly, for use with pressures from 2 - 10 psig.              |                         |                  |                  | HD 310C/300 |
| 0312-0064            | Extension Adapter - Thread specifications: 1/4"- 18 NPT(F) X 1/2"- 27 UNS(F)" |                         |                  |                  | HD 310C/300 |

\*Size 10, 15 and 20 Type 55 heating nozzles must be used with HD 310C torch handle and 3/8" (9.5 mm) hose.

## MFN/MFN-1 Heating Nozzles

Use with 100, 300 & HD310C Series Torch Handles  
Victor Heavy Industry

- Multi-flame heating head for preheating, priming and straightening
- LP Gases



**WARNING:** Not for use with acetylene

| Ordering Information |       |      |                     |                  |         |
|----------------------|-------|------|---------------------|------------------|---------|
| Part No.             | Type  | Size | Tip End Replacement | Length           | Series  |
| 0323-0303            | MFN   | 12*  | –                   | 17.5" (444.5 mm) | HD 310C |
| 0323-0304            | MFN   | 15*  | –                   | 17.5" (444.5 mm) | HD 310C |
| 0323-0305            | MFN   | 20*  | –                   | 17.5" (444.5 mm) | HD 310C |
| 0323-0292            | MFN   | 8    | –                   | 12.0" (304.8 mm) | 300     |
| 0323-0302            | MFN   | 10   | –                   | 17.5" (444.5 mm) | 300     |
| 0324-0117            | MFN-1 | 6    | 0311-0611           | 12.0" (304.8 mm) | 100     |
| 0324-0118            | MFN-1 | 8    | 0311-0612           | 12.0" (304.8 mm) | 100     |

\*Size 12, 15 and 20 MFN heating nozzles must be used with HD 310C torch handle and 3/8" (9.5 mm) hose.

### Type MFN, MFN-1 – for use with Propane & Natural Gas

| Tip Size | Oxygen Pressure (psig) | Fuel Pressure (psig) | Oxygen Consumption (SCFH) | Fuel Consumption (SCFH) | BTU Per Hour |
|----------|------------------------|----------------------|---------------------------|-------------------------|--------------|
| 6        | 8/20                   | 2/10                 | 20/80                     | 5.5/20                  | See Chart    |
| 8        | 10/20                  | 10/15                | 40/140                    | 10/35                   |              |
| 10       | 10/30                  | 12/20                | 80/320                    | 20/80                   |              |
| 12       | 30/125                 | 15/25                | 120/640                   | 30/160                  |              |
| 15       | 30/125                 | 15/25                | 200/800                   | 50/200                  |              |
| 20       | 40/135                 | 15/25                | 300/1000                  | 75/250                  |              |

### BTU Per Hour

To approximate gross BTU output, multiply flow rate by BTU value listed below:

|             |      |
|-------------|------|
| Propane     | 2498 |
| Natural Gas | 1000 |
| Butane      | 3374 |
| Propylene   | 2371 |

### Warning:

- Use flashback arrestors
- Although built to Victor's quality and safety standards, due to the cutting capacity and/or design of each torch, flashback arrestors are not manufactured into the 310C Series Victor heavy industry torches
- To reduce the risk of personal injury, death and/or property damage, use sufficient capacity flashback arrestors with all Victor heavy industry torch products
- Alternative fuel gas only refers to propane, natural gas, propylene gases. Acetylene, hydrogen and gasoline are NOT included as an alternative gas

## MFA/MFA-1 Heating Nozzles

Use with J, 100, 300 & HD310C Series Torch Handles  
Victor Heavy Industry

- Multi-flame heating head for heat treating, straightening and priming
- Acetylene / Hydrogen



| Ordering Information |                    |       |      |                     |                  |         |
|----------------------|--------------------|-------|------|---------------------|------------------|---------|
| Part No. Boxed       | Part No. Clamshell | Type  | Size | Tip End Replacement | Length           | Series  |
| 0323-0261            | 0387-0064          | MFA   | 12   | 0311-0540           | 17.5" (444.5 mm) | HD 310C |
| 0323-0262            | 0387-0065          | MFA   | 15   | –                   | 17.5" (444.5 mm) | HD 310C |
| 0323-0250            | 0387-0060          | MFA   | 4    | 0311-0536           | 12.0" (304.8 mm) | 300     |
| 0323-0251            | 0387-0061          | MFA   | 6    | 0311-0537           | 12.0" (304.8 mm) | 300     |
| 0323-0252            | 0387-0062          | MFA   | 8    | 0311-0538           | 12.0" (304.8 mm) | 300     |
| 0323-0260            | 0387-0063          | MFA   | 10   | 0311-0539*          | 12.0" (304.8 mm) | 300     |
| 0324-0108            | –                  | MFA-1 | 2    | 0311-0598           | 12.0" (304.8 mm) | 100     |
| 0324-0109            | 0387-0071          | MFA-1 | 4    | 0311-0599           | 12.0" (304.8 mm) | 100     |
| 0324-0110            | 0387-0072          | MFA-1 | 6    | 0311-0600           | 12.0" (304.8 mm) | 100     |
| 0324-0111            | 0387-0073          | MFA-1 | 8    | 0311-0601           | 12.0" (304.8 mm) | 100     |
| 0325-0104            | –                  | MFA-J | 2    | –                   | –                | J       |
| 0325-0105            | –                  | MFA-J | 4    | –                   | –                | J       |
| 0325-0106            | 0387-0077          | MFA-J | 6    | –                   | –                | J       |

\*Size 12, 20 and MFA heating nozzles must be used with HD 310C torch handle and 3/8" (9.5 mm) hose.

### Type MFA, MFA-1 – for use with Acetylene

| Tip Size | Oxygen Pressure (psig) | Acetylene Pressure (psig) | Oxygen Consumption (SCFH) | Acetylene Consumption (SCFH) | BTU Per Hour |
|----------|------------------------|---------------------------|---------------------------|------------------------------|--------------|
| 2        | 4/8                    | 4/8                       | 3/10                      | 3/9                          | See Chart    |
| 4        | 8/12                   | 6/10                      | 7/22                      | 6/20                         |              |
| 6        | 10/15                  | 8/12                      | 15/44                     | 14/40                        |              |
| 8        | 20/30                  | 10/15                     | 33/88                     | 30/80                        |              |
| 10       | 30/40                  | 12/15                     | 44/110                    | 40/100                       |              |
| 12       | 50/60                  | 12/15                     | 66/165                    | 60/150                       |              |
| 15       | 50/60                  | 12/15                     | 99/244                    | 90/220                       |              |

### BTU Per Hour

To approximate gross BTU output, multiply flow rate by BTU value listed below:

|           |      |
|-----------|------|
| Acetylene | 1470 |
| Methane   | 1000 |

### Warning:

At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.

## Series 1 Heating Tips Type MFTA – Acetylene



For preheating before welding, descaling and paint burning, etc.



### Ordering Information

| Size | Part No.  |
|------|-----------|
| 6    | 0330-0527 |
| 8    | 0330-0528 |
| *10  | 0330-0523 |
| *12  | 0330-0524 |

*\*Use 3/8" (9.5 m) hose and straight torch  
Required pressures: 12/15 Acetylene; 70/80 psig Oxygen  
Size 8 is maximum size for use with cutting attachments*

## Type MFTN – LP (Propane/Natural Gas)



For preheating before welding, descaling and paint burning, etc.



### Ordering Information

| Size | Part No.  |
|------|-----------|
| 10   | 0330-0521 |
| 12   | 0330-0522 |

*Not for use with cutting attachments*

## CHT Adaptor

- Concentrated Heating Tip Adaptor for straightening, bending and forming of plate
- For Use with Alternate Fuels
- Use with HPP or HPN size 5 cutting tip, multi-flame elbow, or mixer and nut assembly



### Ordering Information

|             |           |
|-------------|-----------|
| CHT Adaptor | 0312-0089 |
|-------------|-----------|

## Welding Nozzles W Series

For use with  
300 Series torch handles



### W-1 Series

For use with  
100 Series torch handles



### W-J Series

For use with  
J Series torch handles



- General purpose welding & preheating
- Fuel gas usage - acetylene, hydrogen
- 65° tip angle
- Long cone flame
- One piece copper elbow tip

### Ordering Information

| Model | Size      | Part No.  |           | Series |
|-------|-----------|-----------|-----------|--------|
|       |           | Boxed     | Clamshell |        |
| W     | 000       | 0323-0110 | –         | 300    |
|       | 00        | 0323-0111 | 0387-0019 | 300    |
|       | 0         | 0323-0112 | 0387-0020 | 300    |
|       | 1         | 0323-0120 | 0387-0021 | 300    |
|       | 2         | 0323-0121 | 0387-0022 | 300    |
|       | 3         | 0323-0122 | 0387-0023 | 300    |
|       | 4         | 0323-0130 | 0387-0024 | 300    |
|       | 5         | 0323-0131 | –         | 300    |
|       | 6         | 0323-0132 | –         | 300    |
|       | 7         | 0323-0140 | –         | 300    |
| W-1   | 000       | 0324-0068 | 0387-0028 | 100    |
|       | 00        | 0324-0069 | 0387-0029 | 100    |
|       | 0         | 0324-0070 | 0387-0030 | 100    |
|       | 1         | 0324-0071 | 0387-0031 | 100    |
|       | 2         | 0324-0072 | 0387-0032 | 100    |
|       | 3         | 0324-0073 | 0387-0033 | 100    |
|       | 4         | 0324-0074 | 0387-0034 | 100    |
|       | 5         | 0324-0075 | –         | 100    |
|       | 6         | 0324-0076 | –         | 100    |
|       | W-J       | 000       | 0325-0081 | –      |
| 00    |           | 0325-0082 | 0387-0039 | J      |
| 0     |           | 0325-0083 | 0387-0040 | J      |
| 1     |           | 0325-0084 | 0387-0041 | J      |
| 2     |           | 0325-0085 | 0387-0042 | J      |
| 3     |           | 0325-0086 | 0387-0043 | J      |
| 5     |           | 0325-0088 | –         | J      |
| 6     |           | 0325-0089 | –         | J      |
| 7     | 0325-0090 | –         | J         |        |

## Elbow Tips

### ET Series

For use with  
300 Series torch handles



### ET-1 Series

For use with  
100 Series torch handles



### ET-J Series

For use with  
J Series torch handles



- One piece copper elbow tip
- Long cone flame
- Fuel gas usage - acetylene, hydrogen

| Ordering Information |           |           |        |
|----------------------|-----------|-----------|--------|
| Model                | Size      | Part No.  | Series |
| ET                   | 000       | 0311-0055 | 300    |
|                      | 00        | 0311-0056 | 300    |
|                      | 0         | 0311-0057 | 300    |
|                      | 1         | 0311-0058 | 300    |
|                      | 2         | 0311-0059 | 300    |
|                      | 3         | 0311-0572 | 300    |
|                      | 4         | 0311-0573 | 300    |
|                      | 5         | 0311-0574 | 300    |
|                      | 6         | 0311-0575 | 300    |
|                      | 7         | 0311-0576 | 300    |
| ET-1                 | 3         | 0311-0345 | 100    |
|                      | 4         | 0311-0340 | 100    |
|                      | 5         | 0311-0602 | 100    |
|                      | 6         | 0311-0603 | 100    |
| ET-J                 | 000       | 0311-0123 | J      |
|                      | 00        | 0311-0124 | J      |
|                      | 0         | 0311-0125 | J      |
|                      | 1         | 0311-0126 | J      |
|                      | 2         | 0311-0127 | J      |
|                      | 3         | 0311-0128 | J      |
| 4                    | 0311-0129 | J         |        |

## UM Series Universal Mixers

Oxy-Acetylene universal mixers used when exact performance & Individual nozzles are not needed.



| Ordering Information |           |                |                          |                 |        |
|----------------------|-----------|----------------|--------------------------|-----------------|--------|
| Type                 | Part No.  | Fuel Gas Usage | Elbow Tips               | Length          | Series |
| 4-UM-1               | 0328-0005 | Oxy-Acetylene  | 000-2 ET, 3 ET-1, 4 ET-1 | 1.75" (44.5 mm) | 100    |
| 7-UM-1               | 0328-0009 | Oxy-Acetylene  | 5 ET-1, 6 ET-1           | 1.75" (44.5 mm) | 100    |

## RTE Series Replaceable Tip Ends

For use with 300 Series torch handles

- General purpose welding & preheating
- Uses replacement tip ends (TE Series)
- 65° tip angle



## RTEN Series

- General purpose brazing & preheating
- Long cone flame
- Uses TEN tip ends

| Ordering Information |      |           |                      |        |
|----------------------|------|-----------|----------------------|--------|
| Model                | Size | Part No.  | Fuel Gas Usage       | Series |
| RTE                  | 00   | 0323-0307 | Acetylene, Hydrogen  | 300    |
|                      | 0    | 0323-0308 | Acetylene, Hydrogen  | 300    |
|                      | 1    | 0323-0309 | Acetylene, Hydrogen  | 300    |
|                      | 2    | 0323-0310 | Acetylene, Hydrogen  | 300    |
|                      | 3    | 0323-0311 | Acetylene, Hydrogen  | 300    |
|                      | 4    | 0323-0312 | Acetylene, Hydrogen  | 300    |
|                      | 5    | 0323-0313 | Acetylene, Hydrogen  | 300    |
|                      | 6    | 0323-0314 | Acetylene, Hydrogen  | 300    |
|                      | 8    | 0323-0316 | Acetylene, Hydrogen  | 300    |
|                      | 10   | 0323-0317 | Acetylene, Hydrogen  | 300    |
| RTEN                 | 6    | 0323-0284 | Natural Gas, Propane | 300    |

## FE Series Flexible Elbow

- Flexible elbow for special welding, brazing, and heating needs
- Multi-fuel gas service
- Uses replaceable tip ends
- Thread: 5/16"-27



### Ordering Information

| Type | Part No.  | Fuel Gas Usage         | Tip End Replacements        | Length              | Series |
|------|-----------|------------------------|-----------------------------|---------------------|--------|
| FE   | 0323-0191 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 11.5 in. (292.1 mm) | 300    |
| FE-1 | 0324-0066 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 11.5 in. (292.1 mm) | 100    |
| FE-J | 0325-0102 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 11.5 in. (292.1 mm) | J      |

## UN Series Universal Nozzle

- Standard bend nozzle for welding, brazing and heating
- Uses replaceable tip ends
- 65° tip angle
- Thread: 5/16"-27

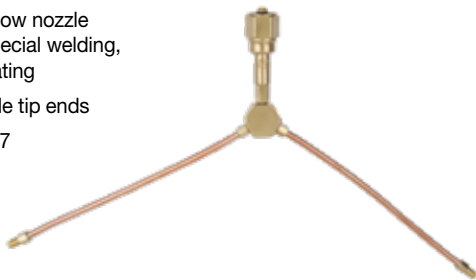


### Ordering Information

| Type | Part No.  | Fuel Gas Usage         | Tip End Replacements        | Length           | Series |
|------|-----------|------------------------|-----------------------------|------------------|--------|
| UN   | 0323-0242 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 5 in. (127.0 mm) | 300    |
| UN-1 | 0324-0094 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 5 in. (127.0 mm) | 100    |
| UN-J | 0325-0101 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 5 in. (127.0 mm) | J      |

## DFE Series Dual Flexible Elbows

- Dual flexible elbow nozzle assembly for special welding, brazing and heating
- Uses replaceable tip ends
- Thread: 5/16"-27



### Ordering Information

| Type  | Part No.  | Fuel Gas Usage         | Tip End Replacements        | Series |
|-------|-----------|------------------------|-----------------------------|--------|
| DFE   | 0323-0192 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 300    |
| DFE-1 | 0324-0092 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | 100    |
| DFE-J | 0325-0108 | Multi-Gas Fuel Service | TE, TEN, TEMFA, TEMFN, TEMF | J      |

## Replaceable Tip Ends

TE, TEN, TEMFA, TEMFN & TEMF 300, 100 & J Series

### For All Nozzles Using Replaceable Tip Ends

| Type  | Application, Description                                             | Fuel Gas                        | Illustration |
|-------|----------------------------------------------------------------------|---------------------------------|--------------|
| TE    | Welding, brazing<br>Flame – long Cone<br>One piece                   | Acetylene                       |              |
| TEN   | Brazing, silver brazing<br>Flame – long Cone<br>One piece            | Natural Gas, Propane            |              |
| TEMFA | Brazing, silver brazing, heating<br>Flame – multi-flame<br>One piece | Acetylene                       |              |
| TEMFN | Brazing, silver brazing, heating<br>Flame – multi-flame<br>One piece | All Fuel Gases Except Acetylene |              |
| TEMF  | Brazing, soldering, heating<br>Flame – multi-flame<br>Two piece      | All Fuel Gases Except Acetylene |              |

### Tip Size, Length, Thread Size

| Type  | Size(s) | Length             | Thread   | Part No.   |
|-------|---------|--------------------|----------|------------|
| TE    | 000     | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0471  |
|       | 00      | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0472  |
|       | 0       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0473  |
|       | 1       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0474  |
|       | 2       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0475  |
|       | 3       | 1.63 in. (41.4 mm) | 5/16-27  | 0311-0587  |
|       | 4       | 1.88 in. (47.8 mm) | 5/16-27  | 0311-0588  |
|       | 5       | 2 in. (50.8 mm)    | 5/16-27  | 0311-0589  |
|       | 6       | 2.25 in. (57.2 mm) | 0.393-27 | *0311-0590 |
|       | 8       | 2.75" (69.9 mm)    | 0.393-27 | *0311-0592 |
| TEN   | 10      | 3" (76.2 mm)       | 0.440-27 | *0311-0593 |
|       | 0       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0483  |
|       | 2       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0485  |
|       | 3       | 1.63 in. (41.4 mm) | 5/16-27  | 0311-0486  |
|       | 4       | 1.88 in. (47.8 mm) | 5/16-27  | 0311-0487  |
|       | 5       | 2 in. (50.8 mm)    | 5/16"-27 | 0311-0488  |
|       | 6       | 2.25 in. (57.2 mm) | 0.393-27 | *0311-0585 |
| TEMFA | 1       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0215  |
|       | 2       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0216  |
|       | 3       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0217  |
|       | 4       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0218  |
|       | 5       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0219  |
| TEMFN | 3       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0306  |
|       | 4       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0307  |
|       | 5       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0308  |
| TEMF  | 6       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0676  |
|       | 7       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0677  |
|       | 8       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0678  |
|       | 9       | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0679  |
|       | 10      | 1.5 in. (38.1 mm)  | 5/16-27  | 0311-0680  |

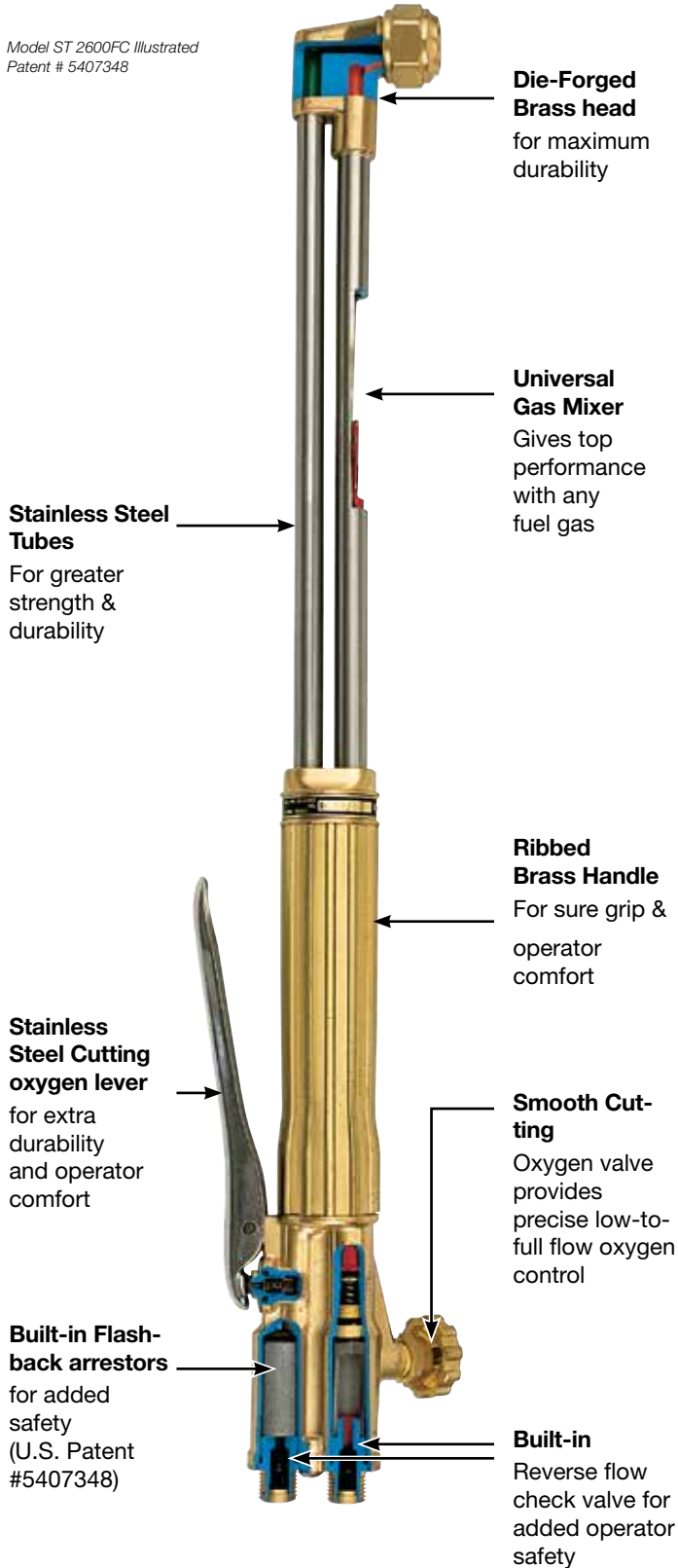
Adapter for tip ends to fit tip tube: 5/16"-27(F) x 1/8"-27(M) 0312-0071 \*Fit nozzles RTE only

## Victor “Universal Torches”

They combine the spiral and injector mixer principles. The result is a high performance torch that operates on any fuel gas.

Universal torch cutting capacity from 1/8 in. (3.2 mm) to 8 in. (203.2 mm).

*Model ST 2600FC Illustrated  
Patent # 5407348*



GAS TORCHES

The high capacity straight torches in this section are designed for heavy cutting applications found in such industries as scrapping, demolition and foundries.

Although built to Victor’s quality and safety standards, due to the cutting capacity and/or design of each torch, flashback arrestors are not manufactured into these Victor Heavy Industry torches.

**WARNING:** Use add-on flashback arrestors

To reduce the risk of personal injury, death and/or property damage, use sufficient capacity flashback arrestors with all Victor Heavy Industry torch products.

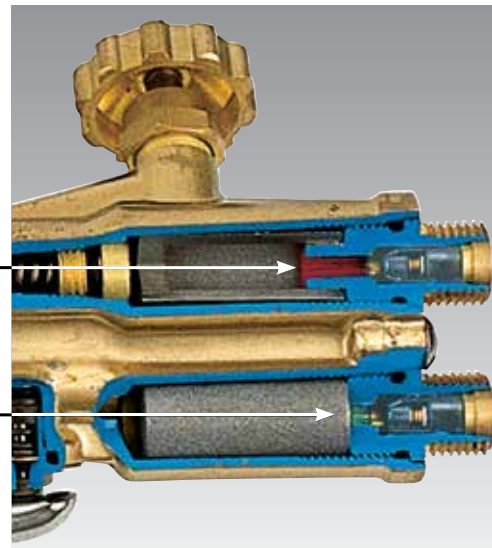
Alternative fuel gas only refers to propane, natural gas, propylene gases. **Acetylene, hydrogen and gasoline** are **NOT** included as an alternative gas.

**Do you need special length torches?  
If you don't see what you need contact  
Technical Services**

**1-800-569-0547**

**Reference Heavy Industry Products**  
Victor welcomes your request for special length torches.

**Built-in Reverse flow check valve**  
for added operator safety



**Most Victor Hand Cutting Torches**  
are equipped with built-in reverse flow check valves and flash arrestors

## HC 1500C

Victor heavy industry

### Three hose scrap straight cutting torches



The HC 1500C Series is a three hose design with a 48 in. cutting capacity and is ideal for heavy steel, scrap cutting. The torch has "C" 7/16"-14 (RH) oxygen connection and standard "B" 9/16"-18 oxygen/fuel preheat connections.

The HC 1500C is manufactured without built-in flashback arrestors. Reverse flow check valves are installed at the inlet connection.

- Three hose connection
- Extra heavy-duty
- Cutting capacity 48 in. (121.9 cm)
- Length: 56 in. (142.2 cm)
- For use with propane or natural gas
- Not for use with acetylene
- Uses Series 2-285N (two piece) cutting tips
- Special lengths available on request

**WARNING:** Use add-on flashback arrestors.  
Not for use with acetylene.

#### Ordering Information

| Part No.  | Model No. | Head Angle | Hose Connection Preheat | Hose Connection Cutting (Oxygen) | Length            | Fuel Gas              | Cutting Capacity  |
|-----------|-----------|------------|-------------------------|----------------------------------|-------------------|-----------------------|-------------------|
| 0381-0444 | HC 1500C  | 180°       | "B" 9/16" -18 LH & RH   | "C" 7/8 in. -14 RH               | 48 in. (121.9 cm) | Natural Gas & Propane | 48 in. (121.9 cm) |
| 0381-0509 | HC 1500C  | 90°        | "B" 9/16" -18 LH & RH   | "C" 7/8 in. -14 RH               | 84 in. (213.4 cm) | Natural Gas & Propane | 48 in. (121.9 cm) |
| 0381-0515 | HC 1500C  | 90°        | "B" 9/16" -18 LH & RH   | "C" 7/8 in. -14 RH               | 96 in. (243.8 cm) | Natural Gas & Propane | 48 in. (121.9 cm) |

Uses Series 2-285N (two piece) cutting tips. See chart below

**For best performance, use the following recommended equipment:**

#### Flashback Arrestors

| Gas Service    | Part No.     | Model   | Type            |
|----------------|--------------|---------|-----------------|
| Cutting Oxygen | Not required |         |                 |
| Preheat Oxygen | 0657-0076    | *FBHC-O | Torch Mount     |
|                | 0657-0078    | FBHC-OR | Regulator Mount |

\*Torch mount models also protect the hose

#### Hoses

(Contact local distributor for hose information)

- Cutting Oxygen:
  - 1/2" I.D. with "C" hose (7/16"-14 RH) connections
  - Use T-grade or RM-grade hose
- Preheat Oxygen:
  - 3/8" I.D. with "B" hose (9/16"-18 RH) connections
  - Use T-grade hose
- Preheat Fuel:
  - 3/8" I.D. with "B" hose (9/16"-18 LH) connections
  - Use T-grade hose

#### Regulators

- Cutting Oxygen:
  - ELC4, ESS4-125-540R, ESS7-125-540, SR 700D- 540, or S or L 700D-500/750 line supply
- Preheat Oxygen:
  - ESS4-125-540, SR 450D-540, or S or L 700D-500/750 line supply
- Preheat Fuel:
  - ESS4-125-510LP, SR 461D-510, or S or L 711D-500/750 line supply

#### 2-285N Two Piece Tips – for use with HC 1500C torches

| Part No.  | Model No. | Size  | Cutting Range | Cutting Orifice Dia. | *Cutting Oxygen (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) | Preheat Oxygen (SCFH) | *Fuel (psig) | Fuel (SCFH) |
|-----------|-----------|-------|---------------|----------------------|------------------------|-----------------------|-----------------------|-----------------------|--------------|-------------|
| 0336-0041 | 2-285N    | 0.25  | 14" to 20"    | 0.25                 | 25/45                  | 1500/2400             | 25/50                 | 250/400               | 15/20        | 60/120      |
| 0336-0042 | 2-285N    | 0.312 | 20" to 26"    | 0.312                | 25/45                  | 2300/3500             | 25/50                 | 250/400               | 15/20        | 60/120      |
| 0336-0043 | 2-285N    | 0.375 | 26" to 34"    | 0.375                | 20/40                  | 2300/3900             | 25/50                 | 250/400               | 15/20        | 60/120      |
| 0336-0044 | 2-285N    | 0.437 | 34" Over      | 0.437                | 20/40                  | 2400/4500             | 25/50                 | 250/400               | 15/20        | 60/120      |

\*Pressure is measured at back of torch when torch is flowing

Oxygen Consumption:

1. Adequate volume required. Dual supplies recommended when using cylinders.

2. When operating from bulk oxygen supply it is recommended that separate oxygen drop stations are used.

## HC 1200C Series

Victor heavy industry

High capacity/heavy-duty



**WARNING:** Use add-on flashback arrestors.  
Not for use with acetylene.

The HC 1200C Series torches are high capacity, heavy duty cutting torches that have a cutting capacity up to 18" (45.7 cm). These torches are used in a wide variety of heavy industrial applications that include scrapping and demolition.

The HC 1200C is manufactured without built-in flashback arrestors. Revers flow check valves are installed at the inlet connection.

- For use with any fuel gas, 2 psig and above
- Universal mixer
- Cutting capacity 18" (45.7 cm)
- Standard Lengths: 21" (53.3 cm) - 96" (243.8 cm)
- Uses Series 1 cutting tips
- "B" 9/16"-18 hose connections
- Extra length models available upon request
- Lock down lever kit available. Part number: 0307-0062

| Ordering Information |            |            |                   |
|----------------------|------------|------------|-------------------|
| Torch Part No.       | Model No.  | Head Angle | Length            |
| 0381-1402            | HC 1200C   | 90°        | 21 in. (53.3 cm)  |
| 0381-1403            | HC 1201C   | 75°        | 21 in. (53.3 cm)  |
| 0381-1404            | HC 1202C   | 180°       | 21 in. (53.3 cm)  |
| 0381-1405            | HC 1230C   | 90°        | 36 in. (91.4 cm)  |
| 0381-1406            | HC 1231C   | 75°        | 36 in. (91.4 cm)  |
| 0381-1407            | HC 1232C   | 180°       | 36 in. (91.4 cm)  |
| 0381-1408            | HC 1250C   | 90°        | 48 in. (121.9 cm) |
| 0381-1432            | HC 1250LC* | 90°        | 48 in. (121.9 cm) |
| 0381-1409            | HC 1251C   | 75°        | 48 in. (121.9 cm) |
| 0381-1415            | HC 1252C   | 180°       | 48 in. (121.9 cm) |
| 0381-1419            | HC 1262C   | 180°       | 60 in. (152.4 cm) |
| 0381-1412            | HC 1270C   | 90°        | 72 in. (182.9 cm) |
| 0381-1413            | HC 1271C   | 75°        | 72 in. (182.9 cm) |
| 0381-1414            | HC 1272C   | 180°       | 72 in. (182.9 cm) |
| 0381-1424            | HC 1280C   | 90°        | 84 in. (213.4 cm) |
| 0381-1418            | HC 1290C   | 90°        | 96 in. (243.8 cm) |

\*Locking Lever

For best performance, use the following recommended equipment:

### Flashback Arrestors

| Gas Service | Part No.  | Model   | Type                      | Recommended Tip Size |
|-------------|-----------|---------|---------------------------|----------------------|
| Oxygen      | 0657-0010 | *FB-O   | Torch Mount               | Up to size: 8        |
|             | 0657-0014 | FB-OR   | Regulator Mount           | Up to size: 8        |
|             | 0657-0076 | *FBHC-O | Torch Mount/High Flow     | 10 and larger        |
|             | 0657-0078 | FBHC-OR | Regulator Mount/High Flow | 10 and larger        |
| Fuel        | 0657-0011 | *FB-F   | Torch Mount               | -                    |
|             | 0657-0015 | FB-FR   | Regulator Mount           | -                    |

\* Torch mount models also protect the hose

### Hoses

(Contact local distributor for hose information)

- Oxygen:
  - 3/8" (9.5 mm) I.D. with "B" hose (9/16"-18 LH) connections
  - Use T-grade hose
- Fuel:
  - 3/8" (9.5 mm) I.D. with "B" hose (9/16"-18 LH) connections
  - Use T-grade hose

### Regulators

- Oxygen:
  - ELC4, ESS4-125-540R, ESS7-125-540, SR 450D- 540 Cylinder, SR 700D-540 cylinder or L 700D/E-500/750 line supply
- Fuel:
  - ESS4-125-510, SR 461D-510 cylinder, SR 711B/C/D-510 or L 711B/C/D-500/750 line supply

## Bulldog™ - HC 1100C

Victor Heavy Industry  
Scrap Straight Cutting Torch



With Bulldog torches, superior performance and productivity are assured. The low profile head and lightweight design, strength and durability put Bulldog in a class by itself.

The HC 1100C is manufactured without built-in flashback arrestors. Revers flow check valves are installed at the inlet connection

- Patented head and mixer
- Bottom rear lever with pin/clip design
- Specially designed 'supercharged' preheat oxygen valve
- Reduces flame blow-off
- Bottom located valves for right or left hand use
- Threaded inlet connections with integral check valve for ease of repair
- Body designed for high flow applications
- 3 heavy duty tube supports for ultra strength and durability on extra length models
- UltraMix low-pressure mixer specially designed for LP gas
- Sleek low profile head with no protrusions to hinder cutting
- For use with propane and natural gas

### Bulldog tips by Victor offer a cost effective alternative for efficient scrap cutting

- For scrap cutting
- Heavy wall - two piece design
- Resists slag build-up
- Available in Victor and Harris® styles

| Ordering Information                                           |             |                |            |            |                   |
|----------------------------------------------------------------|-------------|----------------|------------|------------|-------------------|
| Part No.                                                       | Model No.   | Lever Position | Tip Series | Head Angle | Overall Length    |
| <b>Victor Bulldog with Victor Head</b>                         |             |                |            |            |                   |
| 0381-1703                                                      | HC 1100C    | Bottom Rear    | 1          | 90°        | 21 in. (53.3 cm)  |
| 0381-1704                                                      | HC 1101C    | Bottom Rear    | 1          | 75°        | 21 in. (53.3 cm)  |
| 0381-1709                                                      | HC 1130C    | Bottom Rear    | 1          | 90°        | 36 in. (91.4 cm)  |
| 0381-1710                                                      | HC 1131C    | Bottom Rear    | 1          | 75°        | 36 in. (91.4 cm)  |
| 0381-1711                                                      | HC 1132C    | Bottom Rear    | 1          | 180°       | 36 in. (91.4 cm)  |
| 0381-1712                                                      | HC 1150C    | Bottom Rear    | 1          | 90°        | 48 in. (121.9 cm) |
| 0381-1713                                                      | HC 1151C    | Bottom Rear    | 1          | 75°        | 48 in. (121.9 cm) |
| 0381-1714                                                      | HC 1152C    | Bottom Rear    | 1          | 180°       | 48 in. (121.9 cm) |
| 0381-1716                                                      | HC 1161C    | Bottom Rear    | 1          | 75°        | 60 in. (152.4 cm) |
| 0381-1717                                                      | HC 1162C    | Bottom Rear    | 1          | 180°       | 60 in. (152.4 cm) |
| 0381-1718                                                      | HC 1170C    | Bottom Rear    | 1          | 90°        | 72 in. (182.9 cm) |
| 0381-1719                                                      | HC 1171C    | Bottom Rear    | 1          | 75°        | 72 in. (182.9 cm) |
| 0381-1720                                                      | HC 1172C    | Bottom Rear    | 1          | 180°       | 72 in. (182.9 cm) |
| <b>Victor Bulldog with Seat Designed for Harris® Style Tip</b> |             |                |            |            |                   |
| 0381-1698                                                      | HC 1100C H1 | Bottom Rear    | 1          | 90°        | 21" (53.3 cm)     |
| 0381-1721                                                      | HC 1131C H1 | Bottom Rear    | 1          | 75°        | 36" (91.4 cm)     |
| 0381-1722                                                      | HC 1151C H1 | Bottom Rear    | 1          | 75°        | 48" (121.9 cm)    |
| 0381-1745                                                      | HC 1171C H1 | Bottom Rear    | 1          | 75°        | 72" (182.9 cm)    |

Harris® is a registered trademark of the Lincoln Electric Company.

**WARNING:** Use add-on flashback arrestors.  
Not for use with acetylene.

For best performance, use the following recommended equipment:

### Flashback Arrestors

| Gas Service | Part No.  | Model   | Type                      | Recommended Tip Size |
|-------------|-----------|---------|---------------------------|----------------------|
| Oxygen      | 0657-0010 | *FB-O   | Torch Mount               | Up to size: 8        |
|             | 0657-0014 | FB-OR   | Regulator Mount           | Up to size: 8        |
|             | 0657-0076 | *FBHC-O | Torch Mount/High Flow     | Size: 10 and larger  |
|             | 0657-0078 | FBHC-OR | Regulator Mount/High Flow | Size: 10 and larger  |
| Fuel        | 0657-0011 | *FB-F   | Torch Mount               | –                    |
|             | 0657-0015 | FB-FR   | Regulator Mount           | –                    |

\*Torch mount models also protect the hose

### Hoses

(Contact local distributor for hose information)

- Oxygen:
  - 3/8" (9.53 mm) I.D. with "B" hose (9/16"-18 LH) connections.
  - Use T-grade hose
- Fuel:
  - 3/8" (9.53 mm) I.D. with "B" hose (9/16"-18 LH) connections.
  - Use T-grade hose

### Regulators

- Oxygen:
  - ELC4, ESS4-125-540R, ESS7-125-540, SR 450D-540, SR 700D-540 cylinder, SR 700E-540 cylinder or L 700D/E-500/750 line supply, LC 350DR 540 liquid cylinder
- Fuel:
  - ESS4-125-510LP, SR 461D-510 cylinder, SR 711B/C/D-510, L 711B/C/D-500/750 line supply

## ST 2600FC Series

Heavy-duty straight cutting torch



For use with all fuel gases with appropriate tip.

- Cutting capacity 1/8" (3.2 mm) to 8" (203.2 mm)
- Includes built-in patented flashback arrestors and reverse flow check valves for added safety

### Ordering Information

| Part No.  | Model No.   | Lever Position | Tip Series | Head Angle | Length            |
|-----------|-------------|----------------|------------|------------|-------------------|
| 0381-1486 | SST 2600FC  | Top Rear       | 1          | 90°        | 17 in. (43.2 cm)  |
| 0381-1487 | SST 2601FC  | Top Rear       | 1          | 75°        | 17 in. (43.2 cm)  |
| 0381-1480 | ST 2600FC   | Top Rear       | 1          | 90°        | 21 in. (53.3 cm)  |
| 0381-1482 | ST 2601FC   | Top Rear       | 1          | 75°        | 21 in. (53.3 cm)  |
| 0381-1483 | ST 2601FCL* | Top Rear       | 1          | 75°        | 21 in. (53.3 cm)  |
| 0381-1484 | ST 2602FC   | Top Rear       | 1          | 180°       | 21 in. (53.3 cm)  |
| 0381-1490 | ST 2610FC   | Top Rear       | 1          | 90°        | 27 in. (68.6 cm)  |
| 0381-1491 | ST 2611FC   | Top Rear       | 1          | 75°        | 27 in. (68.6 cm)  |
| 0381-1492 | ST 2612FC   | Top Rear       | 1          | 180°       | 27 in. (68.6 cm)  |
| 0381-1496 | ST 2630FC   | Top Rear       | 1          | 90°        | 36 in. (91.4 cm)  |
| 0381-1498 | ST 2631FC   | Top Rear       | 1          | 75°        | 36 in. (91.4 cm)  |
| 0381-1500 | ST 2632FC   | Top Rear       | 1          | 180°       | 36 in. (91.4 cm)  |
| 0381-1502 | ST 2650FC   | Top Rear       | 1          | 90°        | 48 in. (121.9 cm) |
| 0381-1503 | ST 2651FC   | Top Rear       | 1          | 75°        | 48 in. (121.9 cm) |
| 0381-1514 | ST 2651FCL* | Top Rear       | 1          | 75°        | 48 in. (121.9 cm) |
| 0381-1504 | ST 2652FC   | Top Rear       | 1          | 180°       | 48 in. (121.9 cm) |
| 0381-1515 | ST 2652FCL* | Top Rear       | 1          | 180°       | 48 in. (121.9 cm) |
| 0381-1506 | ST 2670FC   | Top Rear       | 1          | 90°        | 72 in. (182.9 cm) |
| 0381-1508 | ST 2671FC   | Top Rear       | 1          | 75°        | 72 in. (182.9 cm) |
| 0381-1510 | ST 2672FC   | Top Rear       | 1          | 180°       | 72 in. (182.9 cm) |

\*Locking lever

## ST 1000FC Series

Heavy-duty straight cutting torch



For use with all fuel gases with appropriate tip.

- Cutting capacity 1/8" (3.2 mm) to 5" (127.0 mm)
- Includes built-in patented flashback arrestors and reverse flow check valves for added safety
- Built-in flashback arrestors no need for accessory flash arrestors
- Built-in reverse flow check valves no need for accessory check valves

### Ordering Information

| Part No.  | Model No.  | Lever Position | Tip Series | Head Angle | Length         |
|-----------|------------|----------------|------------|------------|----------------|
| 0381-1640 | SST 1000FC | Bottom Rear    | 1          | 90°        | 17" (43.2 cm)  |
| 0381-1642 | SST 1001FC | Bottom Rear    | 1          | 75°        | 17" (43.2 cm)  |
| 0381-1641 | ST 1000FC  | Bottom Rear    | 1          | 90°        | 21" (53.3 cm)  |
| 0381-1643 | ST 1001FC  | Bottom Rear    | 1          | 75°        | 21" (53.3 cm)  |
| 0381-1644 | ST 1030FC  | Bottom Rear    | 1          | 90°        | 36" (91.4 cm)  |
| 0381-1645 | ST 1031FC  | Bottom Rear    | 1          | 75°        | 36" (91.4 cm)  |
| 0381-1646 | ST 1032FC  | Bottom Rear    | 1          | 180°       | 36" (91.4 cm)  |
| 0381-1647 | ST 1050FC  | Bottom Rear    | 1          | 90°        | 48" (121.9 cm) |
| 0381-1648 | ST 1051FC  | Bottom Rear    | 1          | 75°        | 48" (121.9 cm) |
| 0381-1649 | ST 1052FC  | Bottom Rear    | 1          | 180°       | 48" (121.9 cm) |

## ST 900FC Series

Heavy duty straight cutting torch



For use with all fuel gases with appropriate tip.

- Cutting capacity: 1/8 in. (3.2 mm) to 5 in. (127.0 mm)
- Hose connections are 9/16 in. -18 unless noted
- Includes built-in patented flashback arrestors and reverse flow check valves for added safety
- Built-in flashback arrestors no need for accessory flash arrestors
- Built-in reverse flow check valves no need for accessory check valves

### Ordering Information

| Part No.  | Model No. | Lever Position | Tip Series | Head Angle | Length            |
|-----------|-----------|----------------|------------|------------|-------------------|
| 0381-1620 | SST 900FC | Top Rear       | 1          | 90°        | 17 in. (43.2 cm)  |
| 0381-1622 | SST 901FC | Top Rear       | 1          | 75°        | 17 in. (43.2 cm)  |
| 0381-1621 | ST 900FC  | Top Rear       | 1          | 90°        | 21 in. (53.3 cm)  |
| 0381-1623 | ST 901FC  | Top Rear       | 1          | 75°        | 21 in. (53.3 cm)  |
| 0381-1628 | ST 912FC  | Top Rear       | 1          | 180°       | 27 in. (68.6 cm)  |
| 0381-1624 | ST 930FC  | Top Rear       | 1          | 90°        | 36 in. (91.4 cm)  |
| 0381-1625 | ST 931FC  | Top Rear       | 1          | 75°        | 36 in. (91.4 cm)  |
| 0381-1626 | ST 932FC  | Top Rear       | 1          | 180°       | 36 in. (91.4 cm)  |
| 0381-1629 | ST 950FC  | Top Rear       | 1          | 90°        | 48 in. (121.9 cm) |
| 0381-1630 | ST 951FC  | Top Rear       | 1          | 75°        | 48 in. (121.9 cm) |
| 0381-1631 | ST 952FC  | Top Rear       | 1          | 180°       | 48 in. (121.9 cm) |
| 0381-1654 | ST 972FC  | Top Rear       | 1          | 180°       | 72 in. (182.9 cm) |
| 0381-1685 | ST 991FC  | Top Rear       | 1          | 75°        | 96 in. (243.8 cm) |

## ST 400C Series

Heavy-duty



For use with all fuel gases 5 psig and above.

- Cutting capacity up to 6 in. (300.0 mm)
- Hose connections are 9/16in.-18 unless noted
- Built-in reverse flow check valves no need for accessory check valves

### Special designed alloy Material:

- 3x the tensile strength of Brass
- Ergonomic, textured, precision contoured handle is designed to reduce operator fatigue and provide better grip
- Durable to withstand tough use and prevention of dents and scratches

### Intuitive knobs:

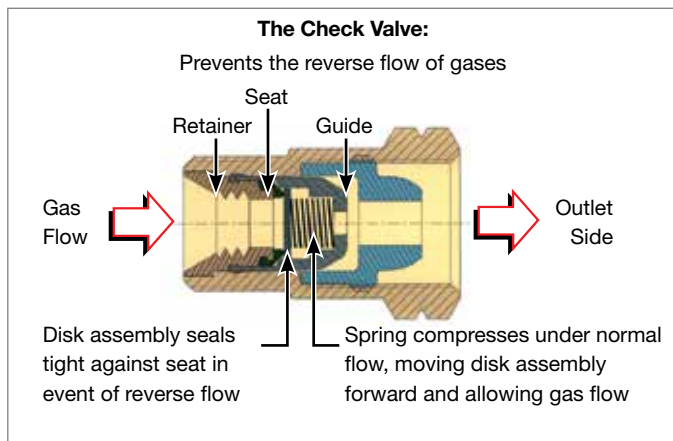
- Color-coded
- Clearly marked lettering with increase/decrease label
- Understandable in any language

### Ordering Information

| Part No.  | Model No. | Lever Position | Tip Series | Head Angle | Length           |
|-----------|-----------|----------------|------------|------------|------------------|
| 0381-1987 | ST 400C   | Top Rear       | 1          | 90°        | 21 in. (53.3 cm) |

## Victor Machine Torches

Available in two and three hose versions. Two hose torches are available in 4.5 in. (114.3 mm), 10 in. (254.0 mm) and 18 in. (457.2 mm) models, and three hose torches are available in 10 in. (254.0 mm) and 18 in. (457.2 mm) models.



## Straight Cutting Torches & Cutting Machine Reference Guide

| Torch Model            | Tip Series | Fuel Gas Usage | Cut Capacity                       |
|------------------------|------------|----------------|------------------------------------|
| <b>"FC" Models</b>     |            |                |                                    |
| ST 2600FC VanGuard     | 1          | Any Fuel Gas   | 1/8 in. to 8 in. (3.2 to 203.2 mm) |
| ST 1000FC VanGuard     | 1          | Any Fuel Gas   | 1/8 in. to 5 in. (3.2 to 127.0 mm) |
| ST 900FC VanGuard      | 1          | Any Fuel Gas   | 1/8 in. to 5 in. (3.2 to 127.0 mm) |
| <b>Machine Torches</b> |            |                |                                    |
| MT 200 (2 Hose)        | 1          | Any Fuel Gas   | 7 in. (177.8 mm)                   |
| MT 300 (3 Hose)        | 1          | Any Fuel Gas   | 12" (304.8 mm)                     |
| MT 1065 (3 Hose)       | 1          | Any Fuel Gas   | 7 in. (177.8 mm)                   |
| MT 5 (3 Hose)          | 1          | Any Fuel Gas   | 7 in. (177.8 mm)                   |

### Tip Type

**BTN** for use with Natural Gas & Propane.

**BTMP** for use with Propylene Gases

(For use with MT200, MT300 Series Machine Cutting Torches)

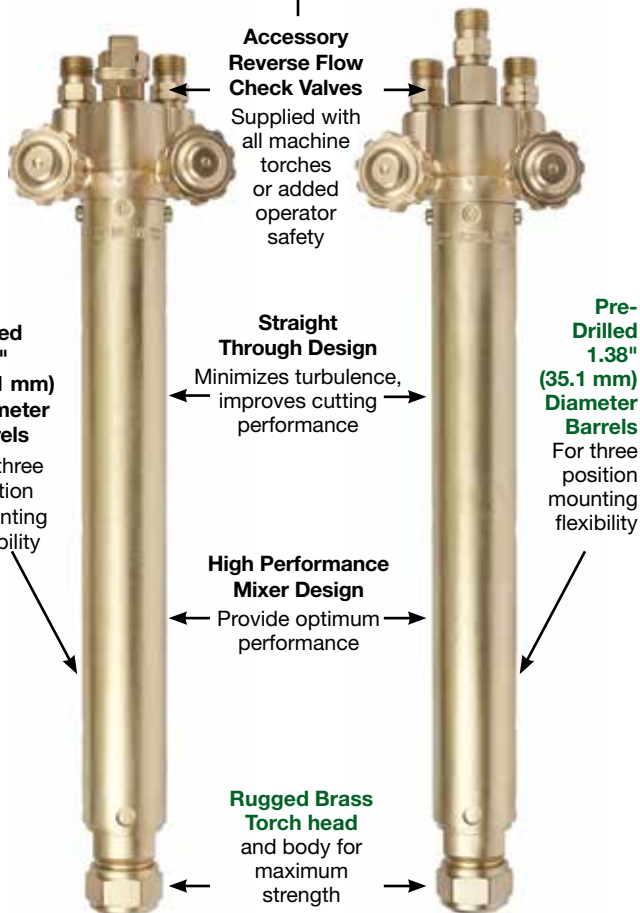
| Length of Bevel       | Tip Size | Speed IPM | Oxygen Pressure | Fuel Pressure | Cutting Oxygen Pressure |
|-----------------------|----------|-----------|-----------------|---------------|-------------------------|
| <b>MT 200 Series</b>  |          |           |                 |               |                         |
| 1                     | 4        | 10/18     | 60/75           | 8/10          | —                       |
| 1.5                   | 4        | 8/16      | 60/75           | 8/10          | —                       |
| 2                     | 4        | 6/14      | 60/75           | 8/10          | —                       |
| 2.5                   | 4        | 5/12      | 60/75           | 8/10          | —                       |
| 3                     | 5        | 6/11      | 60/75           | 8/12          | —                       |
| 3.5                   | 5        | 5/10      | 60/75           | 8/12          | —                       |
| 4                     | 5        | 4/9       | 60/75           | 8/12          | —                       |
| 4.5                   | 5        | 4/8       | 60/75           | 8/12          | —                       |
| 5                     | 6        | 3/8       | 65/85           | 8/15          | —                       |
| 5.5                   | 6        | 3/7       | 65/85           | 8/15          | —                       |
| 6                     | 6        | 3/6       | 65/85           | 8/15          | —                       |
| <b>MT 300N Series</b> |          |           |                 |               |                         |
| 1                     | 4        | 10/18     | 35/65           | 10/12         | 40/60                   |
| 1.5                   | 4        | 8/16      | 35/65           | 10/12         | 40/60                   |
| 2                     | 4        | 6/14      | 35/65           | 10/12         | 40/60                   |
| 2.5                   | 4        | 5/12      | 35/65           | 10/12         | 40/60                   |
| 3                     | 5        | 6/11      | 35/65           | 10/12         | 40/65                   |
| 3.5                   | 5        | 5/10      | 35/65           | 10/12         | 40/65                   |
| 4                     | 5        | 4/9       | 35/65           | 10/12         | 40/65                   |
| 4.5                   | 5        | 4/8       | 35/65           | 10/12         | 40/65                   |
| 5                     | 6        | 3/8       | 35/65           | 10/12         | 40/75                   |
| 5.5                   | 6        | 3/7       | 35/65           | 10/12         | 40/75                   |
| 6                     | 6        | 3/6       | 35/65           | 10/12         | 40/75                   |

*Bevels of 30° to 70° are possible on mild steel and most alloy steel without a preheat attachment. High gas withdrawal rates will require manifolding. Consult your gas supplier.*

Check Valve  
Pair Pack



Accessory  
Reverse Flow  
Check Valves  
Supplied with  
all machine  
torches  
or added  
operator  
safety



**MT 200 Series**  
Two hose model

**MT 300 Series**  
Three hose model

**Pre-Drilled 1.38" (35.1 mm) Diameter Barrels**  
For three position mounting flexibility

**Straight Through Design**  
Minimizes turbulence, improves cutting performance

**Pre-Drilled 1.38" (35.1 mm) Diameter Barrels**  
For three position mounting flexibility

**High Performance Mixer Design**  
Provide optimum performance

**Rugged Brass Torch head and body** for maximum strength

Victor machine cutting torches are available in two and three hose models. Three hose torches are high performance “straight through” design that minimizes turbulence and improves cut quality. Accessory reverse flow check valves are supplied for use at the torches inlet connection. All machine torches use Series 1 cutting tips and are supplied with accessory reverse flow check valves to be used on the torch inlet connections.

## MT 300 Series Three Hose



- Cut capacity: 12 in. (304.8 mm)
- Series 1 cutting tips

| Ordering Information |           |                     |                   |                   |                  |
|----------------------|-----------|---------------------|-------------------|-------------------|------------------|
| Part No.             | Model No. | Total Length        | Barrel Length     | Racking Length    | Gas              |
| 0380-0222            | MT 310A   | 14 in. (355.6 mm)   | 10 in. (254.0 mm) | 7 in. (177.8 mm)  | Acetylene*       |
| 0380-0220            | MT 310N   | 14 in. (355.6 mm)   | 10 in. (254.0 mm) | 7 in. (177.8 mm)  | LP/Natural Gas** |
| 0380-0221            | MT 310NV  | 14 in. (355.6 mm)   | 10 in. (254.0 mm) | 7 in. (177.8 mm)  | LP/Natural Gas** |
| 0380-0223            | MT 310AV  | 14 in. (355.6 mm)   | 10 in. (254.0 mm) | 7 in. (177.8 mm)  | Acetylene*       |
| 0380-0227            | MT 318A   | 22.5 in. (571.5 mm) | 18 in. (457.2 mm) | 15 in. (381.0 mm) | Acetylene*       |
| 0380-0228            | MT 318AV  | 22.5 in. (571.5 mm) | 18 in. (457.2 mm) | 15 in. (381.0 mm) | Acetylene*       |
| 0380-0225            | MT 318N   | 22.5 in. (571.5 mm) | 18 in. (457.2 mm) | 15 in. (381.0 mm) | LP/Natural Gas** |
| 0380-0226            | MT 318NV  | 22.5 in. (571.5 mm) | 18 in. (457.2 mm) | 15 in. (381.0 mm) | LP/Natural Gas** |

*\*May also be used on other pressurized fuel gases.  
\*\*May also be used on other fuel gases except acetylene.  
\*\*\*Supplied with rack soldered to barrel.  
Other machine torch models available. Ask for details.  
Gear racks: Must be ordered separately.*

## MT 5 Three Hose



- Cutting capacity - 7" (177.8 mm)
- For use with any fuel gas 2 PSI and above
- Series 1 cutting tips
- Supplied with rack soldered to barrel

| Ordering Information |           |                    |                    |                     |                     |     |
|----------------------|-----------|--------------------|--------------------|---------------------|---------------------|-----|
| Part No.             | Model No. | Total Length       | Barrel Diameter    | Barrel Length       | Racking Length      | Gas |
| 0380-0208            | MT 5      | 8.5 in. (215.9 mm) | 1.38 in. (35.1 mm) | 5.38 in. (136.7 mm) | 5.38 in. (136.7 mm) | All |

## MT 200 Series Two Hose



- Cut capacity: 7 in. (177.8 mm)
- Series 1 cutting tips

| Ordering Information |            |                    |                    |                  |                  |
|----------------------|------------|--------------------|--------------------|------------------|------------------|
| Part No.             | Model No.  | Total Length       | Barrel Length      | Racking Length   | Gas              |
| 0380-0215            | MT 204A    | 8.5 in. (215.9 mm) | 4.5 in. (114.3 mm) | –                | Acetylene*       |
| 0397-0217            | MT 204A*** | 8.5 in. (215.9 mm) | 4.5 in. (114.3 mm) | –                | Acetylene*       |
| 0380-0217            | MT 210A    | 14 in. (355.6 mm)  | 10 in. (254.0 mm)  | 7 in. (177.8 mm) | Acetylene*       |
| 0380-0216            | MT 210N    | 14 in. (355.6 mm)  | 10 in. (254.0 mm)  | 7 in. (177.8 mm) | LP/Natural Gas** |

*\*May also be used on other pressurized fuel gases.  
\*\*May also be used on other fuel gases except acetylene.  
\*\*\*Supplied with rack soldered to barrel.  
Other machine torch models available. Ask for details.  
Gear racks: Must be ordered separately.*

## MT 1065 Three Hose



- Cut capacity: 7 in. (177.8 mm)
- For use with all fuel gases
- Series 1 cutting tips
- Multi-torch beveling

| Ordering Information |           |                  |                    |                  |           |
|----------------------|-----------|------------------|--------------------|------------------|-----------|
| Part No.             | Model No. | Total Length     | Barrel Diameter    | Barrel Length    | Gas       |
| 0399-1065            | MT 1065N  | 8 in. (203.2 mm) | 1.25 in. (31.8 mm) | 4 in. (101.6 mm) | All       |
| 0399-1121            | MT 1065A  | 8 in. (203.2 mm) | 1.25 in. (31.8 mm) | 4 in. (101.6 mm) | Acetylene |

## Gear Racks

- For use with MT 200 and MT 300 Series cutting torches
- Must be ordered separately
















| Ordering Information |                            |       |                 |                     |
|----------------------|----------------------------|-------|-----------------|---------------------|
| Part No.             | Length                     | Pitch | Cutting Machine | Actual Length       |
| 0319-0054            | 10 in. (254.0 mm) Rack Kit | 32    | MT 210 & MT 310 | 7.8 in. (198.1 mm)  |
| 0319-0055            | 18 in. (457.2 mm) Rack Kit | 32    | MT 318          | 14.5 in. (368.3 mm) |

Section & Reference Information

**Cutting Orifice Reference Chart - Cutting Tip Size**

For all standard cutting tips except Series MTH high speed models

| 000                                                                               | 00                                                                                | 0                                                                                 | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   | 10                                                                                  | 12                                                                                  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0.027                                                                             | 0.033                                                                             | 0.041                                                                             | 0.047                                                                             | 0.060                                                                             | 0.071                                                                             | 0.083                                                                             | 0.100                                                                             | 0.121                                                                             | 0.141                                                                               | 0.162                                                                               | 0.185                                                                               | 0.221                                                                               |

**Orifice Diameter** - inches (Orifice diameters shown actual size)

**Code for Fuel Gases**

|           |                            |
|-----------|----------------------------|
| <b>A</b>  | <b>Acetylene</b>           |
| <b>LP</b> | <b>Propane/Natural Gas</b> |
| <b>P</b>  | <b>Propylene</b>           |

**Material Thickness – Tip Size**

| Material Thickness |                | Tip Size |
|--------------------|----------------|----------|
| Inches             | mm             |          |
| 1/8 in.            | 3.2 mm         | 000      |
| 1/4 in.            | 6.4 mm         | 00       |
| 3/8 – 1/2 in.      | 9.5 - 12.7 mm  | 0        |
| 3/4 in.            | 19.1 mm        | 1        |
| 1 – 1 1/2 in.      | 25.4 - 38.1 mm | 2        |
| 2 – 2 1/2 in.      | 50.8 - 63.5 mm | 3        |
| 3 in.              | 76.2 mm        | 4        |
| 4 – 5 in.          | 102 - 127 mm   | 5        |
| 6 – 8 in.          | 152 - 203 mm   | 6*       |
| 10 in.             | 254 mm         | 7*       |
| 12 in.             | 305 mm         | 8*       |

\*For best results, use "High Flow Handles" and 3/8" hose

**Preheat Chart for Propylene & LP Tips**

| Torch Series | Preheat Oxygen (psig) | Preheat Fuel (psig) |
|--------------|-----------------------|---------------------|
| MT 200       | --                    | 8 oz and up         |
| MT 300       | 30/35                 | 8 oz and up         |
| ST 2600FC    | --                    | 1 psig and up       |
| ST 900FC     | --                    | 5 psig and up       |
| ST 1000FC    | --                    | 5 psig and up       |

**Cutting Torches**

| Handle                  | Cutting Attachment | Fuel Gas |
|-------------------------|--------------------|----------|
| <b>Cutting Torches</b>  |                    |          |
| 315FC, H 315FC          | CA 2460-90°        | All      |
| 315FC, H 315FC          | CA 2461-75°        | All      |
| 315FC, H 315FC          | CA 2462-180°       | All      |
| <b>Straight Torches</b> |                    |          |
| ST 2600FC               | –                  | All      |
| ST 1000FC               | –                  | All      |
| ST 900FC                | –                  | All      |
| *HC 1200C               | –                  | All      |
| <b>Machine Torches</b>  |                    |          |
| MT 200                  | –                  | A, LP    |
| MT 300                  | –                  | A, LP    |

**Gouging Depth Tip Chart**

| Approximate Gouge Depth                                            |          |                   |                    |                                   |
|--------------------------------------------------------------------|----------|-------------------|--------------------|-----------------------------------|
| Depth of gouge will vary due to angle of tip and cutting pressure. |          |                   |                    |                                   |
| Type                                                               | Tip Size | Depth of Gouge    | O <sub>2</sub> psi | C <sub>2</sub> H <sub>2</sub> psi |
| 118                                                                | 0        | 1/8 in. - 1/4 in. | 30-45              | 5-7                               |
|                                                                    | 2        | 1/4 in. - 3/8 in. | 30-45              | 5-7                               |
|                                                                    | 8        | 1/4 in. - 1/2 in. | 30-55              | 6-8                               |
| 218                                                                | 4        | 1/4 in. - 3/4 in. | 30-65              | 8-10                              |
|                                                                    | 6        | 3/8 in. - 1 in.   | 30-65              | 10-12                             |

CUTTING TIPS

**Tip Nut**

**0309-0018**

For Series 1 cutting tips










**0309-0003**

For Series 3 cutting tips

## Series 1 – Acetylene Cutting Tips

### Acetylene

Series 1 tip style, fuel gas usage and Victor equipment compatibility shown below

| Type                       |                                                                                     | Fuel Gas | Application                                                                                                                                |
|----------------------------|-------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 101                        |    | A        | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting</li> </ul>                                  |
| 101 30°                    |    | A        | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting 30°, with torch perpendicular</li> </ul>    |
| 101-L                      |   | A        | <ul style="list-style-type: none"> <li>General purpose, extra length tips</li> </ul>                                                       |
| 108                        |    | A        | <ul style="list-style-type: none"> <li>Boiler tube removal</li> <li>Tips are short to insert head and tip inside tube</li> </ul>           |
| 112                        |   | A        | <ul style="list-style-type: none"> <li>Cutting close to bulk heads</li> <li>Hand cutting of rivet heads</li> </ul>                         |
| 118<br>Tip (Round)         |  | A        | <ul style="list-style-type: none"> <li>Deseaming, scarfing, gouging, weld preparation, removing defective welds, washing rivets</li> </ul> |
| 118<br>Tip (Sides Cutaway) |  | A        | <ul style="list-style-type: none"> <li>Deseaming, scarfing, gouging, weld preparation, removing defective welds, washing rivets</li> </ul> |

Tip packaging is color coded with reference to fuel gas usage. Other special application tips available. Contact Technical Services at 1-800-426-1888



Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

**WARNING:** At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.

## Victor Series 1 Type 101 30°



- General purpose
- Hand and machine torch cutting 30°, with torch perpendicular

| Metal Thickness  | Size | Part No.  | Cutting Oxygen*** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen *(psig) | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|------------------|------|-----------|--------------------------|-----------------------|------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3/8 in. (0.9 mm) | 0    | 0330-0198 | 25 / 30                  | 55 / 60               | 3 / 5                  | 5 / 9                 | 3 / 5            | 5 / 8                | 24 / 28   | .06        |
| 1/2 in. (1.2 mm) | 0    | 0330-0198 | 30 / 35                  | 60 / 65               | 3 / 6                  | 7 / 11                | 3 / 5            | 6 / 10               | 20 / 24   | .06        |
| 3/4 in. (1.9 mm) | 1    | 0330-0199 | 30 / 35                  | 80 / 85               | 4 / 7                  | 9 / 14                | 3 / 5            | 8 / 13               | 17 / 21   | .07        |
| 1 in. (2.5 mm)   | 2    | 0330-0284 | 35 / 40                  | 140 / 150             | 4 / 9                  | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |

## Victor Series 1 Type 101-L

- General purpose
- Extra length tips



| Metal Thickness | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|-----------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3 in. (7.6 mm)  | 4    | 0330-0531 | 40 / 50                   | 270 / 320             | 6 / 17                  | 20 / 33               | 5 / 10           | 18 / 30              | 9 / 12    | .12        |
| 6 in. (15.2 mm) | 6**  | 0330-0535 | 45 / 40                   | 500 / 600             | 10 / 22                 | 33 / 48               | 7 / 13           | 30 / 44              | 6 / 8     | .18        |

## Victor Series 1 Type 108



- Boiler tube removal
- Tip is short to insert head and tip inside tube

| Metal Thickness    | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|--------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3/8 in. (0.9 mm)   | 0    | 0330-0058 | 25 / 30                   | 55 / 60               | 3 / 5                   | 5 / 9                 | 3 / 5            | 5 / 8                | 24 / 28   | .06        |
| 1/2 in. (1.2 mm)   | 0    | 0330-0058 | 30 / 35                   | 60 / 65               | 3 / 6                   | 7 / 11                | 3 / 5            | 6 / 10               | 20 / 24   | .06        |
| 3/4 in. (1.9 mm)   | 1    | 0330-0059 | 30 / 35                   | 80 / 85               | 4 / 7                   | 9 / 14                | 3 / 5            | 8 / 13               | 17 / 21   | .07        |
| 1 in. (2.5 mm)     | 2    | 0330-0063 | 35 / 40                   | 140 / 150             | 4 / 9                   | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |
| 1 1/2 in. (3.8 mm) | 2    | 0330-0063 | 40 / 45                   | 150 / 160             | 4 / 12                  | 13 / 20               | 3 / 7            | 12 / 18              | 13 / 17   | .09        |
| 2 in. (5 mm)       | 3    | 0330-0064 | 40 / 45                   | 210 / 225             | 5 / 14                  | 15 / 24               | 4 / 9            | 14 / 22              | 12 / 15   | .11        |
| 2 1/2 in. (6.4 mm) | 3    | 0330-0064 | 45 / 50                   | 225 / 240             | 5 / 16                  | 18 / 29               | 4 / 10           | 16 / 26              | 10 / 13   | .11        |
| 3 in. (7.6 mm)     | 4    | 0330-0065 | 40 / 50                   | 270 / 320             | 6 / 17                  | 20 / 33               | 5 / 10           | 18 / 30              | 9 / 12    | .12        |

## G-Series Series 1 Type 108

| Metal Thickness    | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|--------------------|------|-----------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3/8 in. (0.9 mm)   | 0    | 6700C2990 | CS11080   | 25 / 30                   | 55 / 60               | 3 / 5                   | 5 / 9                 | 3 / 5            | 5 / 8                | 24 / 28   | .06        |
| 1/2 in. (1.2 mm)   | 0    | 6700C2990 | CS11080   | 30 / 35                   | 60 / 65               | 3 / 6                   | 7 / 11                | 3 / 5            | 6 / 10               | 20 / 24   | .06        |
| 3/4 in. (1.9 mm)   | 1    | 6700C2991 | CS11081   | 30 / 35                   | 80 / 85               | 4 / 7                   | 9 / 14                | 3 / 5            | 8 / 13               | 17 / 21   | .07        |
| 1 in. (2.5 mm)     | 2    | 6700C2992 | CS11082   | 35 / 40                   | 140 / 150             | 4 / 9                   | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |
| 1 1/2 in. (3.8 mm) | 2    | 6700C2992 | CS11082   | 40 / 45                   | 150 / 160             | 4 / 12                  | 13 / 20               | 3 / 7            | 12 / 18              | 13 / 17   | .09        |
| 2 in. (5 mm)       | 3    | 6700C2993 | CS11083   | 40 / 45                   | 210 / 225             | 5 / 14                  | 15 / 24               | 4 / 9            | 14 / 22              | 12 / 15   | .11        |
| 2 1/2 in. (6.4 mm) | 3    | 6700C2993 | CS11083   | 45 / 50                   | 225 / 240             | 5 / 16                  | 18 / 29               | 4 / 10           | 16 / 26              | 10 / 13   | .11        |
| 3 in. (7.6 mm)     | 4    | 6700C2994 | CS11084   | 40 / 50                   | 270 / 320             | 6 / 17                  | 20 / 33               | 5 / 10           | 18 / 30              | 9 / 12    | .12        |

CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

**WARNING:** At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.

## Victor Series 1 Type 112



- Cutting close to bulk heads
- Hand cutting of rivet heads

| Metal Thickness    | Size | Part No.  | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|--------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 1 in. (2.5 mm)     | 2    | 0330-0086 | 35 / 40                   | 140 / 150             | 4 / 9                   | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |
| 1 1/2 in. (3.8 mm) | 2    | 0330-0086 | 40 / 45                   | 150 / 160             | 4 / 12                  | 13 / 20               | 3 / 7            | 12 / 18              | 13 / 17   | .09        |

## Victor Series 1 Type 118 Round



- Deseaming, scarfing, gouging
- Rivet washing
- Weld preparation

| Metal Thickness    | Size | Part No.  | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|--------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3/8 in. (0.9 mm)   | 0    | 0330-0109 | 25 / 30                   | 55 / 60               | 3 / 5                   | 5 / 9                 | 3 / 5            | 5 / 8                | 24 / 28   | .06        |
| 1/2 in. (1.2 mm)   | 0    | 0330-0109 | 30 / 35                   | 60 / 65               | 3 / 6                   | 7 / 11                | 3 / 5            | 6 / 10               | 20 / 24   | .06        |
| 1 in. (2.5 mm)     | 2    | 0330-0113 | 35 / 40                   | 140 / 150             | 4 / 9                   | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |
| 1 1/2 in. (3.8 mm) | 2    | 0330-0113 | 40 / 45                   | 150 / 160             | 4 / 12                  | 13 / 20               | 3 / 7            | 12 / 18              | 13 / 17   | .09        |
| 3 in. (7.6 mm)     | 4    | 0330-0114 | 40 / 50                   | 270 / 320             | 6 / 17                  | 20 / 33               | 5 / 10           | 18 / 30              | 9 / 12    | .12        |

## G-Series Series 1 Type 118 (Round)

| Metal Thickness    | Size | Part no.  | Model no. | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|--------------------|------|-----------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 3/8 in. (0.9 mm)   | 0    | 6700C2700 | CS11180   | 25 / 30                   | 55 / 60               | 3 / 5                   | 5 / 9                 | 3 / 5            | 5 / 8                | 24 / 28   | .06        |
| 1/2 in. (1.2 mm)   | 0    | 6700C2700 | CS11180   | 30 / 35                   | 60 / 65               | 3 / 6                   | 7 / 11                | 3 / 5            | 6 / 10               | 20 / 24   | .06        |
| 1 in. (2.5 mm)     | 2    | 6700C2701 | CS11182   | 35 / 40                   | 140 / 150             | 4 / 9                   | 11 / 18               | 3 / 6            | 10 / 16              | 15 / 19   | .09        |
| 1 1/2 in. (3.8 mm) | 2    | 6700C2701 | CS11182   | 40 / 45                   | 150 / 160             | 4 / 12                  | 13 / 20               | 3 / 7            | 12 / 18              | 13 / 17   | .09        |
| 3 in. (7.6 mm)     | 4    | 6700C2702 | CS11184   | 40 / 50                   | 270 / 320             | 6 / 17                  | 20 / 33               | 5 / 10           | 18 / 30              | 9 / 12    | .12        |

## Victor Series 1 Type 118 (Sides Cutaway)



- Deseaming, scarfing, gouging
- Rivet washing
- Weld preparation

| Metal Thickness  | Size | Part No.  | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 6 in. (15.2 mm)  | 6**  | 0330-0115 | 45 / 40                   | 500 / 600             | 10 / 22                 | 33 / 48               | 7 / 13           | 30 / 44              | 6 / 8     | .18        |
| 8 in. (20.3 mm)  | 6**  | 0330-0115 | 45 / 55                   | 500 / 600             | 10 / 25                 | 37 / 55               | 7 / 14           | 34 / 50              | 5 / 6     | .19        |
| 12 in. (30.5 mm) | 8**  | 0330-0116 | 45 / 55                   | 900 / 1000            | 20 / 35                 | 53 / 68               | 10 / 15          | 48 / 62              | 3 / 5     | .41        |

## G-Series Series 1 Type 118 (Sides Cutaway)

| Metal Thickness  | Size | Part no.  | Model no. | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Acetylene (psig) | Acetylene ****(SCFH) | Speed ipm | Kerf Width |
|------------------|------|-----------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|------------------|----------------------|-----------|------------|
| 6 in. (15.2 mm)  | 6**  | 6700C2703 | CS11186   | 45 / 40                   | 500 / 600             | 10 / 22                 | 33 / 48               | 7 / 13           | 30 / 44              | 6 / 8     | .18        |
| 8 in. (20.3 mm)  | 6**  | 6700C2703 | CS11186   | 45 / 55                   | 500 / 600             | 10 / 25                 | 37 / 55               | 7 / 14           | 34 / 50              | 5 / 6     | .19        |
| 12 in. (30.5 mm) | 8**  | 6700C2704 | CS11188   | 45 / 55                   | 900 / 1000            | 20 / 35                 | 53 / 68               | 10 / 15          | 48 / 62              | 3 / 5     | .41        |

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8" hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25' x 1/4" hose through tip size 5 and 25' x 3/8" hose for tip size 6 and larger.















\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

**WARNING:** At no time should the withdrawal rate of an individual acetylene cylinder exceed 1/7 of the cylinder contents per hour. If additional flow capacity is required use an acetylene manifold system of sufficient size to supply the necessary volume.

Series 1 – Propylene Cutting Tips

Propylene

Series 1 tip style, fuel gas usage and Victor equipment compatibility shown below

| Type  |                                                                                                                                                                         | Fuel Gas | Application                                                                                                           |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------|
| GPP   |       | P        | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting</li> </ul>             |
| HPP   |       | P        | <ul style="list-style-type: none"> <li>Heavy preheat for scrap, bevel and other heavy preheat requirements</li> </ul> |
| MTHP  |       | P        | <ul style="list-style-type: none"> <li>High speed machine cutting through 10" (252 mm)</li> </ul>                     |
| 303MP |       | P        | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting</li> </ul>             |
| BTMP  |       | P        | <ul style="list-style-type: none"> <li>High performance</li> <li>Bevel cutting</li> </ul>                             |
| GTB   |    | P        | <ul style="list-style-type: none"> <li>Gouging tip (bent)</li> <li>Removing welds</li> </ul>                          |
| 318MP |   | P        | <ul style="list-style-type: none"> <li>General purpose</li> <li>Gouging and rivet washing</li> </ul>                  |

Tip packaging is color coded with reference to fuel gas usage. Other special application tips available. Contact Technical Services at 1-800-426-1888



## Victor Series 1 Type GPP



- General purpose
- Hand and machine torch cutting

| Metal Thickness     | Size | Part No.   | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen *(psig)                   | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|------------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/8 in. (3.2 mm)    | 000  | 0333-0260  | 20/25                     | 12/14                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/6              | 24/28     | 0.04       |
| 1/4 in. (6.4 mm)    | 00   | 0333-0261  | 20/25                     | 22/26                 |                                          | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 0333-0262  | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 3/8 in. (9.5 mm)    | 0    | 0387-0154# | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 0333-0262  | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 0387-0154# | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 0333-0263  | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 3/4 in. (19.1 mm)   | 1    | 0387-0155# | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0333-0264  | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 in. (25.4 mm)     | 2    | 0387-0156# | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0333-0264  | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0333-0265  | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0333-0265  | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0333-0266  | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0333-0267  | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0333-0267  | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0333-0268  | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0333-0268  | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7    | 0333-0269  | 55/65                     | 450/500               |                                          | 23/153                | 8/12        | 25/35            | 3/5       | 0.34       |
| 12 in. (305 mm)     | 8    | 0333-0270  | 60/70                     | 450/500               |                                          | 23/153                | 10/14       | 25/35            | 3/4       | 0.14       |

## G-Series Series 1 Type GPP

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen *(psig)                   | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/8 in. (3.2 mm)    | 000  | 6700C2588 | CSGPP000  | 20/25                     | 12/14                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/6              | 24/28     | 0.04       |
| 1/4 in. (6.4 mm)    | 00   | 6700C2589 | CSGPP00   | 20/25                     | 22/26                 |                                          | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 6700C2590 | CSGPP0    | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 6700C2590 | CSGPP0    | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 6700C2591 | CSGPP1    | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2592 | CSGPP2    | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2592 | CSGPP2    | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2593 | CSGPP3    | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2593 | CSGPP3    | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2594 | CSGPP4    | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2595 | CSGPP5    | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2595 | CSGPP5    | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2596 | CSGPP6    | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2596 | CSGPP6    | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 6700C2597 | CSGPP7    | 55/65                     | 450/500               |                                          | 23/153                | 8/12        | 25/35            | 3/5       | 0.34       |
| 12 in. (305 mm)     | 8**  | 6700C2598 | CSGPP8    | 60/70                     | 450/500               |                                          | 23/153                | 10/14       | 25/35            | 3/4       | 0.14       |

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

CUTTING TIPS

## G-Series Series 1 Type GPP-P (Plated)



- General purpose
- Two-piece
- Medium preheat

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 in. (6.4 mm)    | 00   | 6700C2949 | CSGPPP00  | 20/25                     | 22/26                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 6700C2950 | CSGPPP0   | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 6700C2950 | CSGPPP0   | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 6700C2951 | CSGPPP1   | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2952 | CSGPPP2   | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2952 | CSGPPP    | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2953 | CSGPPP3   | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2953 | CSGPPP3   | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2954 | CSGPPP4   | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2955 | CSGPPP5   | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2955 | CSGPPP5   | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2956 | CSGPPP6   | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2956 | CSGPPP6   | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 6700C2957 | CSGPPP7   | 55/65                     | 450/500               |                                          | 23/153                | 8/12        | 25/35            | 3/5       | 0.34       |

## Victor Series 1 Type HPP



- Heavy preheat
- Scrap and bevel
- Hand and machine cutting

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/2 in. (12.7 mm)   | 0    | 0333-0282 | 30/35                     | 70/80                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 3/5         | 22/110           | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 0333-0283 | 30/35                     | 70/80                 |                                          | 44/240                | 3/6         | 22/110           | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0333-0284 | 35/40                     | 115/125               |                                          | 44/240                | 3/6         | 22/110           | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0333-0284 | 40/45                     | 125/135               |                                          | 44/240                | 4/8         | 22/110           | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0333-0285 | 40/45                     | 150/175               |                                          | 44/240                | 4/8         | 22/110           | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0333-0285 | 45/50                     | 175/200               |                                          | 44/240                | 5/9         | 22/110           | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0333-0286 | 40/50                     | 210/250               |                                          | 44/240                | 6/9         | 22/110           | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0333-0287 | 45/55                     | 300/360               |                                          | 44/240                | 6/9         | 22/110           | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0333-0287 | 50/55                     | 330/360               |                                          | 44/240                | 6/10        | 22/110           | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0333-0288 | 45/55                     | 400/500               |                                          | 44/240                | 6/10        | 22/110           | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0333-0288 | 55/65                     | 450/500               |                                          | 44/240                | 8/12        | 22/110           | 4/6       | 0.18       |
| 12 in. (305 mm)     | 8**  | 0333-0290 | 60/70                     | 750/850               |                                          | 50/265                | 10/14       | 25/120           | 3/4       | 0.41       |
| 15 in. (381 mm)     | 10** | 0333-0291 | 45/55                     | 1000/1200             |                                          | 50/265                | 10/16       | 25/120           | 2/4       | --         |
| 18 in. (457 mm)     | 12** | 0333-0292 | 45/55                     | 1150/1350             |                                          | 60/290                | 10/16       | 30/130           | 2/3       | --         |

## G-Series Series 1 Type HPP

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 3/4 in. (19.1 mm)   | 1    | 6700C2901 | CSHPP1    | 30/35                     | 70/80                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 3/6         | 22/110           | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2902 | CSHPP2    | 35/40                     | 115/125               |                                          | 44/240                | 3/6         | 22/110           | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2902 | CSHPP2    | 40/45                     | 125/135               |                                          | 44/240                | 4/8         | 22/110           | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2903 | CSHPP3    | 40/45                     | 150/175               |                                          | 44/240                | 4/8         | 22/110           | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2903 | CSHPP3    | 45/50                     | 175/200               |                                          | 44/240                | 5/9         | 22/110           | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2904 | CSHPP4    | 40/50                     | 210/250               |                                          | 44/240                | 6/9         | 22/110           | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2905 | CSHPP5    | 45/55                     | 300/360               |                                          | 44/240                | 6/9         | 22/110           | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2905 | CSHPP5    | 50/55                     | 330/360               |                                          | 44/240                | 6/10        | 22/110           | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2906 | CSHPP6    | 45/55                     | 400/500               |                                          | 44/240                | 6/10        | 22/110           | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2906 | CSHPP6    | 55/65                     | 450/500               |                                          | 44/240                | 8/12        | 22/110           | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 6700C2907 | CSHPP7    | 55/65                     | 450/500               |                                          | 23/153                | 5/12        | 25/35            | 3/5       | 0.34       |
| 12 in. (305 mm)     | 8**  | 6700C2908 | CSHPP8    | 60/70                     | 750/850               |                                          | 50/265                | 10/14       | 25/120           | 3/4       | 0.41       |

CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## Victor Series 1 Type MTHP



- High speed machines cutting up to 8" (203.2 mm)
- Two-piece
- Medium preheat

| Metal Thickness      | Size | Part No.  | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|----------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 in. (6.4 mm)     | 00   | 0333-0352 | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 23/30     | 0.05       |
| 3/8 in. (9.5 mm)     | 00   | 0333-0352 | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 22/29     | 0.05       |
| 1/2 in. (12.7 mm)    | 0    | 0333-0353 | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 20/28     | 0.06       |
| 3/4 in. (19.1 mm)    | 0    | 0333-0353 | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 18/26     | 0.06       |
| 1 in. (25.4 mm)      | 1    | 0333-0354 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 17/24     | 0.07       |
| 1 1/4 in. (31.75 mm) | 1    | 0333-0354 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 16/20     | 0.07       |
| 1 1/2 in. (38.1 mm)  | 1    | 0333-0354 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 12/16     | 0.07       |
| 1 1/2 in. (38.1 mm)  | 2    | 0333-0355 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 11/15     | 0.09       |
| 2 in. (50.8 mm)      | 2    | 0333-0355 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 10/13     | 0.09       |
| 2 1/2 in. (63.5 mm)  | 2    | 0333-0355 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 9/11      | 0.09       |
| 3 in. (76.2 mm)      | 3    | 0333-0356 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 7/10      | 0.11       |
| 4 in. (102 mm)       | 3    | 0333-0356 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 6/8       | 0.11       |
| 5 in. (127 mm)       | 3    | 0333-0356 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/7       | 0.11       |
| 6 in. (152 mm)       | 4    | 0333-0357 | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/6       | 0.14       |
| 8 in. (203 mm)       | 4    | 0333-0357 | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/6       | 0.14       |
| 9 in. (228.6 mm)     | 5    | 0333-0358 | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/5       | 0.18       |
| 10 in. (254 mm)      | 5    | 0333-0358 | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 3/5       | 0.18       |

## G-Series Series 1 Type MTHP

| Metal Thickness      | Size | Part No.  | Cutting Oxygen (psig) *** | Cutting Oxygen (SCFH) | Preheat Oxygen (psig) * | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width | Kerf Width |
|----------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|------------|
| 1/4 in. (6.4 mm)     | 00   | 6700C3119 | CSMTHP00                  | 85/95                 | 68/75                   | 30/35                 | 23/140      | 8 oz +           | 12/65     | 23/30      | 0.05       |
| 3/8 in. (9.5 mm)     | 00   | 6700C3119 | CSMTHP00                  | 85/95                 | 68/75                   | 30/35                 | 23/140      | 8 oz +           | 12/65     | 22/29      | 0.05       |
| 1/2 in. (12.7 mm)    | 0    | 6700C3120 | CSMTHP0                   | 85/95                 | 110/120                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 20/28      | 0.06       |
| 3/4 in. (19.1 mm)    | 0    | 6700C3120 | CSMTHP0                   | 85/95                 | 110/120                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 18/26      | 0.06       |
| 1 in. (25.4 mm)      | 1    | 6700C3121 | CSMTHP1                   | 85/95                 | 145/160                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 17/24      | 0.07       |
| 1 1/4 in. (31.75 mm) | 1    | 6700C3121 | CSMTHP1                   | 85/95                 | 145/160                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 16/20      | 0.07       |
| 1 1/2 in. (38.1 mm)  | 1    | 6700C3121 | CSMTHP1                   | 85/95                 | 145/160                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 12/16      | 0.07       |
| 1 1/2 in. (38.1 mm)  | 2    | 6700C3122 | CSMTHP2                   | 85/95                 | 230/250                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 11/15      | 0.09       |
| 2 in. (50.8 mm)      | 2    | 6700C3122 | CSMTHP2                   | 85/95                 | 230/250                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 10/13      | 0.09       |
| 2 1/2 in. (63.5 mm)  | 2    | 6700C3122 | CSMTHP2                   | 85/95                 | 230/250                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 9/11       | 0.09       |
| 3 in. (76.2 mm)      | 3    | 6700C3123 | CSMTHP3                   | 85/95                 | 285/320                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 7/10       | 0.11       |
| 4 in. (102 mm)       | 3    | 6700C3123 | CSMTHP3                   | 85/95                 | 285/320                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 6/8        | 0.11       |
| 5 in. (127 mm)       | 3    | 6700C3123 | CSMTHP3                   | 85/95                 | 285/320                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 5/7        | 0.11       |
| 6 in. (152 mm)       | 4    | 6700C3124 | CSMTHP4                   | 85/95                 | 390/450                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 5/6        | 0.14       |
| 8 in. (203 mm)       | 4    | 6700C3124 | CSMTHP4                   | 85/95                 | 390/450                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 4/6        | 0.14       |
| 9 in. (228.6 mm)     | 5    | 6700C3125 | CSMTHP5                   | 85/95                 | 670/720                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 4/5        | 0.18       |
| 10 in. (254 mm)      | 5    | 6700C3125 | CSMTHP5                   | 85/95                 | 670/720                 | 30/35                 | 23/140      | 8 oz +           | 12/65     | 3/5        | 0.18       |

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## Victor Series 1 Type 303MP



- General purpose
- Hand and machine torch cutting

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 in. (6.4 mm)    | 00   | 0330-0187 | 20/25                     | 22/26                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 0330-0188 | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 0330-0188 | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 0330-0189 | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0330-0193 | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0330-0193 | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0330-0194 | 40/45                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0330-0194 | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0330-0195 | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0330-0196 | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0330-0196 | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0330-0197 | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0330-0197 | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |

## G-Series Series 1 Type 303MP

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 3/8 in. (9.5 mm)    | 0    | 6700C3037 | CS1303MP0 | 25/30                     | 45/55                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 6700C3037 | CS1303MP0 | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 6700C3038 | CS1303MP1 | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C3039 | CS1303MP2 | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C3039 | CS1303MP2 | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C3040 | CS1303MP3 | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C3040 | CS1303MP3 | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C3041 | CS1303MP4 | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C3042 | CS1303MP5 | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C3042 | CS1303MP5 | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C3043 | CS1303MP6 | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C3043 | CS1303MP6 | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |

## Victor Series 1 Type BTMP



- High performance
- Bevel cutting

| Metal Thickness      | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|----------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1 in. (25.4 mm)      | 4    | 0333-0209 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 10/18     | -          |
| 1 1/2 in. (38.1 mm)  | 4    | 0333-0209 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 8/16      | -          |
| 2 in. (50.8 mm)      | 4    | 0333-0209 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 6/14      | -          |
| 2 1/2 in. (63.5 mm)  | 4    | 0333-0209 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 5/12      | -          |
| 3 in. (76.2 mm)      | 5    | 0333-0210 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 6/11      | -          |
| 3 1/2 in. (89 mm)    | 5    | 0333-0210 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 12/65     | -          |
| 4 in. (102 mm)       | 5    | 0333-0210 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 4/9       | -          |
| 4 1/2 in. (114.3 mm) | 5    | 0333-0210 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 4/8       | -          |
| 5 in. (127 mm)       | 6    | 0333-0211 | 65/85                     | -                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/8       | -          |
| 5 1/2 in. (139.7 mm) | 6    | 0333-0211 | 65/85                     | -                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/7       | -          |
| 6 in. (152 mm)       | 6    | 0333-0211 | 65/85                     | -                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/6       | -          |

Data compiled using a 3 Hose Torch

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## Victor Series 1 Type GTB



- Gouging tip (bent)
- Removing welds

| Metal Thickness               | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|-------------------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 - 3/4 in. (6.4 - 19.1 mm) | 3    | 0333-0414 | 30/65                     | 175/200               | 30/65                   | 23/108                | 8/10        | 14/18            | -         | -          |
| 1/4 - 3/4 in. (6.4 - 19.1 mm) | 4    | 0333-0415 | 30/65                     | 210/250               | 30/65                   | 23/108                | 8/10        | 16/20            | -         | -          |

## Victor Series 1 Type 318MP



- General purpose
- Gouging and rivet washing
- Medium preheat

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 2 in. (50.8 mm)     | 3    | 0330-0333 | 40/45                     | 150/175               | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0330-0333 | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0330-0335 | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 6 in. (152 mm)      | 6**  | 0330-0336 | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0330-0336 | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |

## G-Series Series 1 Type 318MP

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen *(psig)                   | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1 in. (25.4 mm)     | 2    | 6700C2651 | CS318MP2  | 35/40                     | 115/125               | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 3/6         | 22/110           | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2651 | CS318MP2  | 40/45                     | 125/135               |                                          | 44/240                | 4/8         | 22/110           | 12/16     | 0.09       |
| 3 in. (76.2 mm)     | 4    | 6700C2652 | CS318MP4  | 40/50                     | 210/250               |                                          | 44/240                | 6/9         | 22/110           | 8/11      | 0.12       |
| 6 in. (152 mm)      | 6**  | 6700C2653 | CS318MP6  | 45/55                     | 400/500               |                                          | 44/240                | 6/10        | 22/110           | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2653 | CS318MP6  | 55/65                     | 450/500               |                                          | 44/240                | 8/12        | 22/110           | 4/6       | 0.18       |
| 12 in. (305 mm)     | 8**  | 6700C2654 | CS318MP8  | 60/70                     | 750/850               |                                          | 50/265                | 10/14       | 25/120           | 3/4       | 0.41       |



CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.











\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

Series 1 – LP Cutting Tips

LP (Propane / Natural Gas)

Series 1 tip style, fuel gas usage and Victor equipment compatibility shown below

| Type |                                                                                     | Fuel Gas | Application                                                                                                                     |
|------|-------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------|
| 200  |    | LP       | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting</li> </ul>                       |
| 207  |    | LP       | <ul style="list-style-type: none"> <li>Used for "blowing" rivets</li> <li>Popular with various railroad applications</li> </ul> |
| 244  |    | LP       | <ul style="list-style-type: none"> <li>Cutting close to bulk heads</li> <li>Rivet cutting</li> </ul>                            |
| MCN  |    | LP       | <ul style="list-style-type: none"> <li>For application requiring extra heavy pre-heat and wide kerf</li> </ul>                  |
| GPN  |    | LP       | <ul style="list-style-type: none"> <li>General purpose</li> <li>Hand and machine torch cutting</li> </ul>                       |
| MTHN |   | LP       | <ul style="list-style-type: none"> <li>High speed machine cutting through 10" (252 mm)</li> </ul>                               |
| HPN  |  | LP       | <ul style="list-style-type: none"> <li>Heavy preheat for scrap, bevel and other heavy preheat requirements</li> </ul>           |
| BTN  |  | LP       | <ul style="list-style-type: none"> <li>Heavy performance bevel cutting for use with mild steel HSLA, T1 and HV-80</li> </ul>    |
| CSN  |  | LP       | <ul style="list-style-type: none"> <li>A coarse splined scrap cutting tip for use with natural gas</li> </ul>                   |
| GTB  |  | LP       | <ul style="list-style-type: none"> <li>Gouging tip (bent)</li> <li>Removal of welds</li> </ul>                                  |

Tip packaging is color coded with reference to fuel gas usage. Other special application tips available. Contact Technical Services at 1-800-426-1888

CUTTING TIPS



## Victor Series 1 Type 200



- General purpose
- Hand and machine torch cutting

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 3/4 in. (19.1 mm)   | 1    | 0330-0144 | 30/35                     | 70/80                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0330-0145 | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0330-0145 | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0330-0146 | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0330-0146 | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0330-0147 | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0330-0148 | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0330-0148 | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0330-0149 | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0330-0149 | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |

## Victor Series 1 Type 207



- Used for "blowing" rivets
- Popular with various railroad applications

| Metal Thickness | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|-----------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 3 in. (76.2 mm) | 4    | 0330-0166 | 40/50                     | 210/250               | REFERENCE<br>PREHEAT CHART ON<br>PAGE 56 | 44/240                | 6/9         | 22/110           | 8/11      | 0.12       |

## Victor Series 1 Type 244



- Cutting close to bulk heads
- Rivet cutting

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1 in. (25.4 mm)     | 2    | 0330-0344 | 35/40                     | 115/125               | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 3/6         | 22/110           | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0330-0344 | 40/45                     | 125/135               |                                          | 44/240                | 4/8         | 22/110           | 12/16     | 0.09       |

## Victor Series 1 Type MCN



- Extra heavy preheat
- Wide kerf

| Metal Thickness | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|-----------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 6 in. (152 mm)  | 6**  | 0330-0543 | 45/55                     | 400/500               | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 6/10        | 22/110           | 5/7       | 0.17       |
| 8 in. (203 mm)  | 6**  | 0330-0543 | 55/65                     | 450/500               |                                          | 44/240                | 8/12        | 22/110           | 4/6       | 0.18       |

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## Victor Series 1 Type GPN



- General purpose
- Hand and machine cutting

| Metal Thickness     | Size | Part No.   | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|------------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/8 in. (3.2 mm)    | 000  | 0333-0300  | 20/25                     | 12/14                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/6              | 24/28     | 0.04       |
| 1/4 in. (6.4 mm)    | 00   | 0333-0301  | 20/25                     | 22/.26                |                                          | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 0333-0302  | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 3/8 in. (9.5 mm)    | 0    | 0387-0172# | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 0333-0302  | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 0387-0172# | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 0333-0303  | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 3/4 in. (19.1 mm)   | 1    | 0387-0173# | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0333-0304  | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 in. (25.4 mm)     | 2    | 0387-0174# | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0333-0304  | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0387-0174# | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0333-0305  | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0333-0305  | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0333-0306  | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0333-0307  | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0333-0307  | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0333-0308  | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0333-0308  | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 0333-0309  | 55/65                     | 450/500               |                                          | 23/153                | 8/12        | 25/35            | 3/5       | 0.34       |
| 12 in. (305 mm)     | 8**  | 0333-0310  | 60/70                     | 450/500               | 23/153                                   | 10/14                 | 25/35       | 3/4              | 0.41      |            |

## G-Series Series 1 Type GPN

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/8 in. (3.2 mm)    | 000  | 6700C2468 | CSGPN000  | 20/25                     | 12/14                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 23/108                | 3/5         | 5/6              | 24/28     | 0.04       |
| 1/4 in. (6.4 mm)    | 00   | 6700C2469 | CSGPN00   | 20/25                     | 22/.26                |                                          | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 6700C2470 | CSGPN0    | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 6700C2470 | CSGPN00   | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 6700C2471 | CSGPN1    | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2472 | CSGPN2    | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2472 | CSGPN2    | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2473 | CSGPN3    | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2473 | CSGPN3    | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2474 | CSGPN4    | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2475 | CSGPN5    | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2475 | CSGPN5    | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2476 | CSGPN6    | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2476 | CSGPN6    | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 6700C2477 | CSGPN7    | 55/65                     | 450/500               |                                          | 23/153                | 8/12        | 25/35            | 3/5       | 0.34       |
| 12 in. (305 mm)     | 8**  | 6700C2478 | CSGPN8    | 60/70                     | 450/500               |                                          | 23/153                | 10/14       | 25/35            | 3/4       | 0.41       |

CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## G-Series Series 1 Type GPN (Plated)



- General purpose
- Hand and machine cutting
- Two-piece
- Medium preheat

| Metal Thickness     | Size | Part no.  | Model no. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/8 in. (3.2 mm)    | 000  | 6700C2928 | CSGPNP000 | 20/25                     | 12/14                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 63 | 23/108                | 3/5         | 5/6              | 24/28     | 0.04       |
| 1/4 in. (6.4 mm)    | 00   | 6700C2929 | CSGPNP00  | 20/25                     | 22/.26                |                                          | 23/108                | 3/5         | 5/7              | 21/25     | 0.04       |
| 3/8 in. (9.5 mm)    | 0    | 6700C2930 | CSGPNP0   | 25/30                     | 45/55                 |                                          | 23/108                | 3/5         | 8/10             | 20/24     | 0.06       |
| 1/2 in. (12.7 mm)   | 0    | 6700C2930 | CSGPNP0   | 30/35                     | 50/55                 |                                          | 23/108                | 3/5         | 8/10             | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 6700C2931 | CSGPNP1   | 30/35                     | 70/80                 |                                          | 23/108                | 4/6         | 10/12            | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2932 | CSGPNP2   | 35/40                     | 115/125               |                                          | 23/108                | 4/8         | 12/15            | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2932 | CSGPNP2   | 40/45                     | 125/135               |                                          | 23/108                | 5/9         | 12/15            | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2933 | CSGPNP3   | 40/50                     | 150/175               |                                          | 23/108                | 5/9         | 14/18            | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2933 | CSGPNP3   | 45/50                     | 175/200               |                                          | 23/108                | 6/10        | 14/18            | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2934 | CSGPNP4   | 45/50                     | 210/250               |                                          | 23/108                | 8/12        | 16/20            | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2935 | CSGPNP5   | 45/55                     | 300/360               |                                          | 23/108                | 8/12        | 20/30            | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2935 | CSGPNP5   | 50/55                     | 330/360               |                                          | 23/108                | 8/12        | 20/30            | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2936 | CSGPNP6   | 45/55                     | 400/500               |                                          | 23/153                | 10/15       | 25/35            | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2936 | CSGPNP6   | 55/65                     | 450/500               |                                          | 23/153                | 10/15       | 25/35            | 4/6       | 0.18       |
| 10 in. (254 mm)     | 7**  | 6700C2937 | CSGPNP7   | 55/65                     | 450/500               | 23/153                                   | 8/12                  | 25/35       | 3/5              | 0.34      |            |
| 12 in. (305 mm)     | 8**  | 6700C2938 | CSGPNP8   | 60/70                     | 450/500               | 23/153                                   | 10/14                 | 25/35       | 3/4              | 0.41      |            |

## Victor Series 1 Type MTHN



- High speed machine cutting through 10" (252 mm)

| Metal Thickness      | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|----------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 in. (6.4 mm)     | 00   | 0333-0363 | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 23/30     | 0.05       |
| 3/8 in. (9.5 mm)     | 00   | 0333-0363 | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 22/29     | 0.05       |
| 1/2 in. (12.7 mm)    | 0    | 0333-0364 | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 20/28     | 0.06       |
| 3/4 in. (19.1 mm)    | 0    | 0333-0364 | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 18/26     | 0.06       |
| 1 in. (25.4 mm)      | 1    | 0333-0365 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 17/24     | 0.07       |
| 1 1/4 in. (31.75 mm) | 1    | 0333-0365 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 16/20     | 0.07       |
| 1 1/2 in. (38.1 mm)  | 1    | 0333-0365 | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 12/16     | 0.07       |
| 2 in. (50.8 mm)      | 2    | 0333-0366 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 11/15     | 0.09       |
| 2 1/2 in. (63.5 mm)  | 2    | 0333-0366 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 10/13     | 0.09       |
| 3 in. (76.2 mm)      | 2    | 0333-0366 | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 9/11      | 0.09       |
| 4 in. (102 mm)       | 3    | 0333-0367 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 7/10      | 0.11       |
| 5 in. (127 mm)       | 3    | 0333-0367 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 6/8       | 0.11       |
| 6 in. (152 mm)       | 3    | 0333-0367 | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/7       | 0.11       |
| 7 in. (177.8 mm)     | 4    | 0333-0368 | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/6       | 0.14       |
| 8 in. (203 mm)       | 4    | 0333-0368 | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/6       | 0.14       |
| 9 in. (228.6 mm)     | 5    | 0333-0369 | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/5       | 0.18       |
| 10 in. (254 mm)      | 5    | 0333-0369 | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 3/5       | 0.18       |
| —                    | 6**  | 0333-0370 | 85/95                     | —                     | 30/35                   | 23/140                | 8 oz +      | 12/65            | —         | —          |
| —                    | 8**  | 0333-0371 | 85/95                     | —                     | 30/35                   | 23/140                | 8 oz +      | 12/65            | —         | —          |

CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## G-Series Series 1 Type MTHN



- High speed machine cutting
- Two-piece

| Metal Thickness      | Size | Part No.  | Model No. | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|----------------------|------|-----------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/4 in. (6.4 mm)     | 00   | 6700C3089 | CSMTHN00  | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 23/30     | 0.05       |
| 3/8 in. (9.5 mm)     | 00   | 6700C3089 | CSMTHN00  | 85/95                     | 68/75                 | 30/35                   | 23/140                | 8 oz +      | 12/65            | 22/29     | 0.05       |
| 1/2 in. (12.7 mm)    | 0    | 6700C3090 | CSMTHN0   | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 20/28     | 0.06       |
| 3/4 in. (19.1 mm)    | 0    | 6700C3090 | CSMTHN0   | 85/95                     | 110/120               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 18/26     | 0.06       |
| 1 in. (25.4 mm)      | 1    | 6700C3091 | CSMTHN1   | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 17/24     | 0.07       |
| 1 1/4 in. (31.75 mm) | 1    | 6700C3091 | CSMTHN1   | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 16/20     | 0.07       |
| 1 1/2 in. (38.1 mm)  | 1    | 6700C3091 | CSMTHN1   | 85/95                     | 145/160               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 12/16     | 0.07       |
| 2 in. (50.8 mm)      | 2    | 6700C3092 | CSMTHN2   | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 11/15     | 0.09       |
| 2 1/2 in. (63.5 mm)  | 2    | 6700C3092 | CSMTHN2   | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 10/13     | 0.09       |
| 3 in. (76.2 mm)      | 2    | 6700C3092 | CSMTHN2   | 85/95                     | 230/250               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 9/11      | 0.09       |
| 4 in. (102 mm)       | 3    | 6700C3093 | CSMTHN3   | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 7/10      | 0.11       |
| 5 in. (127 mm)       | 3    | 6700C3093 | CSMTHN3   | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 6/8       | 0.11       |
| 6 in. (152 mm)       | 3    | 6700C3093 | CSMTHN3   | 85/95                     | 285/320               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/7       | 0.11       |
| 7 in. (177.8 mm)     | 4    | 6700C3094 | CSMTHN4   | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 5/6       | 0.14       |
| 8 in. (203 mm)       | 4    | 6700C3094 | CSMTHN4   | 85/95                     | 390/450               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/6       | 0.14       |
| 9 in. (228.6 mm)     | 5    | 6700C3095 | CSMTHN5   | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 4/5       | 0.18       |
| 10 in. (254 mm)      | 5    | 6700C3095 | CSMTHN5   | 85/95                     | 670/720               | 30/35                   | 23/140                | 8 oz +      | 12/65            | 3/5       | 0.18       |
| —                    | 6**  | 6700C3096 | CSMTHN6   | 85/95                     | —                     | 30/35                   | 23/140                | 8 oz +      | 12/65            | —         | —          |

## Victor Series 1 Type HPN



- n Heavy preheat
- n Strap and bevel

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1/2 in. (12.7 mm)   | 0    | 0333-0322 | 30/35                     | 70/80                 | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240                | 3/5         | 22/110           | 18/22     | 0.06       |
| 3/4 in. (19.1 mm)   | 1    | 0333-0323 | 30/35                     | 70/80                 |                                          | 44/240                | 3/6         | 22/110           | 15/20     | 0.08       |
| 1 in. (25.4 mm)     | 2    | 0333-0324 | 35/40                     | 115/125               |                                          | 44/240                | 3/6         | 22/110           | 14/18     | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 0333-0324 | 40/45                     | 125/135               |                                          | 44/240                | 4/8         | 22/110           | 12/16     | 0.09       |
| 2 in. (50.8 mm)     | 3    | 0333-0325 | 40/45                     | 150/175               |                                          | 44/240                | 4/8         | 22/110           | 10/14     | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 0333-0325 | 45/50                     | 175/200               |                                          | 44/240                | 5/9         | 22/110           | 9/12      | 0.10       |
| 3 in. (76.2 mm)     | 4    | 0333-0326 | 40/50                     | 210/250               |                                          | 44/240                | 6/9         | 22/110           | 8/11      | 0.12       |
| 4 in. (102 mm)      | 5    | 0333-0327 | 45/55                     | 300/360               |                                          | 44/240                | 6/9         | 22/110           | 7/10      | 0.14       |
| 5 in. (127 mm)      | 5    | 0333-0327 | 50/55                     | 330/360               |                                          | 44/240                | 6/10        | 22/110           | 6/9       | 0.14       |
| 6 in. (152 mm)      | 6**  | 0333-0328 | 45/55                     | 400/500               |                                          | 44/240                | 6/10        | 22/110           | 5/7       | 0.17       |
| 8 in. (203 mm)      | 6**  | 0333-0328 | 55/65                     | 450/500               |                                          | 44/240                | 8/12        | 22/110           | 4/6       | 0.18       |
| 12 in. (305 mm)     | 8**  | 0333-0330 | 60/70                     | 750/850               |                                          | 50/265                | 10/14       | 25/120           | 3/4       | 0.41       |
| 15 in. (381 mm)     | 10** | 0333-0331 | 45/55                     | 1000/1200             |                                          | 50/265                | 10/16       | 25/120           | 2/4       | —          |
| 18 in. (457.2 mm)   | 12** | 0333-0332 | 45/55                     | 1150/1350             |                                          | 60/290                | 10/16       | 30/130           | 2/3       | —          |

CUTTING TIPS

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## G-Series Series 1 Type HPN



- n Hand and machine torch cutting
- n Heavy preheat

| Metal Thickness     | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH)                    | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width | Kerf Width |
|---------------------|------|-----------|---------------------------|-----------------------|-------------------------|------------------------------------------|-------------|------------------|-----------|------------|------------|
| 3/4 in. (19.1 mm)   | 1    | 6700C2841 | CSHPN1                    | 30/35                 | 70/80                   | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 44/240      | 3/6              | 22/110    | 15/20      | 0.08       |
| 1 in. (25.4 mm)     | 2    | 6700C2842 | CSMTHN2                   | 35/40                 | 115/125                 |                                          | 44/240      | 3/6              | 22/110    | 14/18      | 0.09       |
| 1 1/2 in. (38.1 mm) | 2    | 6700C2842 | CSMTHN2                   | 40/45                 | 125/135                 |                                          | 44/240      | 4/8              | 22/110    | 12/16      | 0.09       |
| 2 in. (50.8 mm)     | 3    | 6700C2843 | CSMTHN3                   | 40/45                 | 150/175                 |                                          | 44/240      | 4/8              | 22/110    | 10/14      | 0.10       |
| 2 1/2 in. (63.5 mm) | 3    | 6700C2843 | CSMTHN3                   | 45/50                 | 175/200                 |                                          | 44/240      | 5/9              | 22/110    | 9/12       | 0.10       |
| 3 in. (76.2 mm)     | 4    | 6700C2844 | CSMTHN4                   | 40/50                 | 210/250                 |                                          | 44/240      | 6/9              | 22/110    | 8/11       | 0.12       |
| 4 in. (102 mm)      | 5    | 6700C2845 | CSMTHN5                   | 45/55                 | 300/360                 |                                          | 44/240      | 6/9              | 22/110    | 7/10       | 0.14       |
| 5 in. (127 mm)      | 5    | 6700C2845 | CSMTHN5                   | 50/55                 | 330/360                 |                                          | 44/240      | 6/10             | 22/110    | 6/9        | 0.14       |
| 6 in. (152 mm)      | 6**  | 6700C2846 | CSMTHN6                   | 45/55                 | 400/500                 |                                          | 44/240      | 6/10             | 22/110    | 5/7        | 0.17       |
| 8 in. (203 mm)      | 6**  | 6700C2846 | CSMTHN6                   | 55/65                 | 450/500                 |                                          | 44/240      | 8/12             | 22/110    | 4/6        | 0.18       |
| 10 in. (254 mm)     | 7    | 6700C2847 | CSMTHN7                   | 55/65                 | 450/500                 |                                          | 23/153      | 8/12             | 25/35     | 3/5        | 0.34       |
| 12 in. (305 mm)     | 8**  | 6700C2848 | CSMTHN8                   | 60/70                 | 750/850                 |                                          | 50/265      | 10/14            | 25/120    | 3/4        | 0.41       |
| 15 in. (381 mm)     | 10** | 6700C2849 | CSMTHN10                  | 45/55                 | 1000/1200               |                                          | 50/265      | 10/16            | 25/120    | 2/4        | –          |
| 18 in. (457.2 mm)   | 12** | 6700C2850 | CSMTHN12                  | 45/55                 | 1150/1350               |                                          | 60/290      | 10/16            | 30/130    | 2/3        | –          |

## Victor Series 1 Type BTN



- Heavy performance bevel cutting for use with mild steel
- HSLA, T1 and HY-80

| Metal Thickness      | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig) | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|----------------------|------|-----------|---------------------------|-----------------------|-------------------------|-----------------------|-------------|------------------|-----------|------------|
| 1 in. (25.4 mm)      | 4    | 0333-0206 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 10/18     | –          |
| 1 1/2 in. (38.1 mm)  | 4    | 0333-0206 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 8/16      | –          |
| 2 in. (50.8 mm)      | 4    | 0333-0206 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 6/14      | –          |
| 2 1/2 in. (63.5 mm)  | 4    | 0333-0206 | 60/75                     | 390/450               | 30/35                   | 23/140                | 8-10        | 12/65            | 5/12      | –          |
| 3 in. (76.2 mm)      | 5    | 0333-0207 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 6/11      | –          |
| 3 1/2 in. (89 mm)    | 5    | 0333-0207 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 12/65     | –          |
| 4 in. (102 mm)       | 5    | 0333-0207 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 4/9       | –          |
| 4 1/2 in. (114.3 mm) | 5    | 0333-0207 | 60/75                     | 670/720               | 30/35                   | 23/140                | 8-12        | 12/65            | 4/8       | –          |
| 5 in. (127 mm)       | 6    | 0333-0208 | 65/85                     | –                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/8       | –          |
| 5 1/2 in. (139.7 mm) | 6    | 0333-0208 | 65/85                     | –                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/7       | –          |
| 6 in. (152 mm)       | 6    | 0333-0208 | 65/85                     | –                     | 30/35                   | 23/140                | 8-15        | 12/65            | 3/6       | –          |

Data compiled using a 3 Hose Torch

## Victor Series 1 Type CSN



- A coarse splined scrap cutting tip
- Use with natural gas

| Metal Thickness | Size | Part No.  | Cutting Oxygen *** (psig) | Cutting Oxygen (SCFH) | Preheat Oxygen * (psig)                  | Preheat Oxygen (SCFH) | Fuel (psig) | Fuel **** (SCFH) | Speed ipm | Kerf Width |
|-----------------|------|-----------|---------------------------|-----------------------|------------------------------------------|-----------------------|-------------|------------------|-----------|------------|
| 12 in. (305 mm) | 8    | 0333-0411 | 60/70                     | 750/850               | REFERENCE<br>PREHEAT CHART<br>ON PAGE 56 | 50/265                | 10/14       | 25/120           | 3/4       | 0.41       |

Data compiled using mild steel as test material.

\*Applicable for three hose machine torch only. With a two hose cutting torch, preheat pressure is set by the cutting oxygen.

\*\*For best results use ST2600FC series torches and 3/8 in. hose when using tip size 6 or larger.

\*\*\*All pressures are measured at the regulator using 25 ft. x 1/4 in. hose through tip size 5 and 25 ft. x 3/8 in. hose for tip size 6 and larger.

\*\*\*\*Oxygen consumption is 1.1 times the acetylene under neutral flame conditions.

## Flashback Arrestors and Check Valves

Flashback arrestors and reverse flow check valves provide additional protection against flashbacks. Victor recommends the use of these devices whenever possible. Victor add-on flashback arrestors contain both a reverse flow check valve and a flashback arrestor.

Due to the high flow requirements of Victor Heavy Industry torches, it is important to use flashback arrestors that have sufficient flow capacity.

It is important to understand the difference between reverse flow check valves and flashback arrestors.

### Reverse Flow Check Valves:

Helps to prevent the reverse flow of gases from traveling past the check valve.

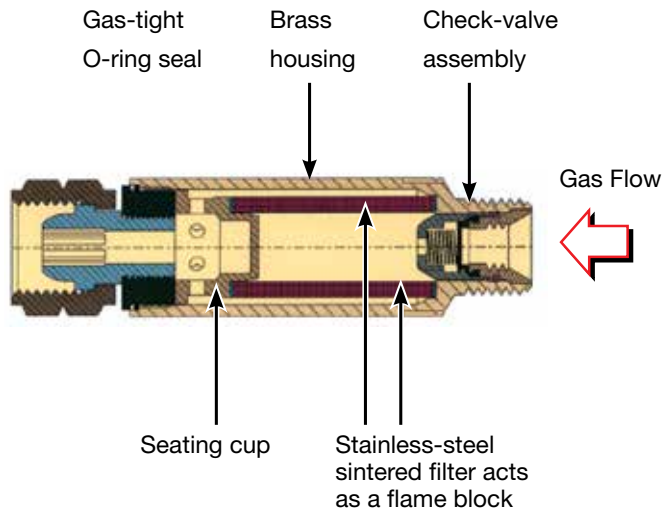
### Flashback Arrestors:

Prevents a flame from traveling past the flashback arrestor in the event of a flashback.

**NOTE:** The use of both regulator and torch mount flashback arrestors with heavy industry equipment requiring high gas volume is not recommended because it may cause excessive flow restriction. It is always better to place the safety devices at the rear of the torch than at the regulator in order to protect the hose.

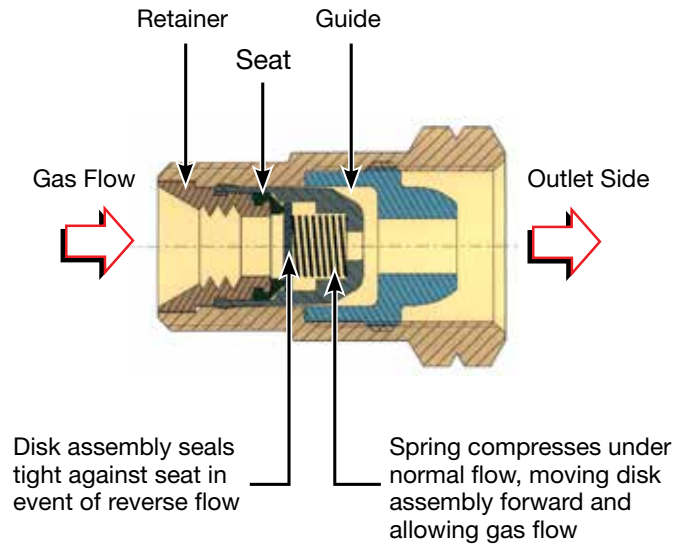
### The Flashback Arrestor

Prevents flashback



### The Check Valve

Prevents the reverse flow of gases



## Conversion Chart

| Gas       | Conversion Factor | Max. Pressure |
|-----------|-------------------|---------------|
| Acetylene | 1.05              | 15 psi        |
| Hydrogen  | 3.79              | 30 psi        |
| Mapp      | 0.82              | 22 psi        |
| Methane   | 1.34              | 50 psi        |
| Oxygen    | 0.95              | 143 psi       |
| Propane   | 0.80              | 50 psi        |

## FlameBuster™ High Flow

### FBHC-O

High Flow Torch Mount



### FBHC-OR

High Flow Regulator Mount



### FBHC-OC

High Flow Torch Mount

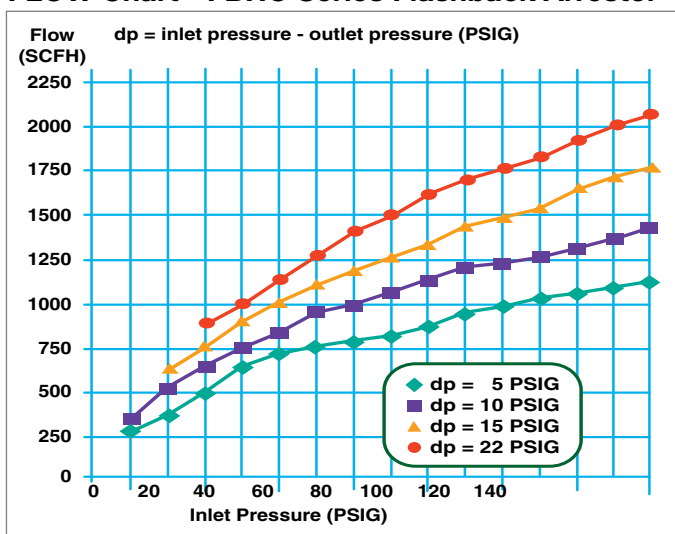


### FBHC-ORC

High Flow Regulator Mount



## FLOW Chart - FBHC Series Flashback Arrestor



## FlameBuster™

### FB-O

Torch Mount - Oxygen



### FB-OR

Regulator Mount - Oxygen



### FB-F

Torch Mount - Fuel

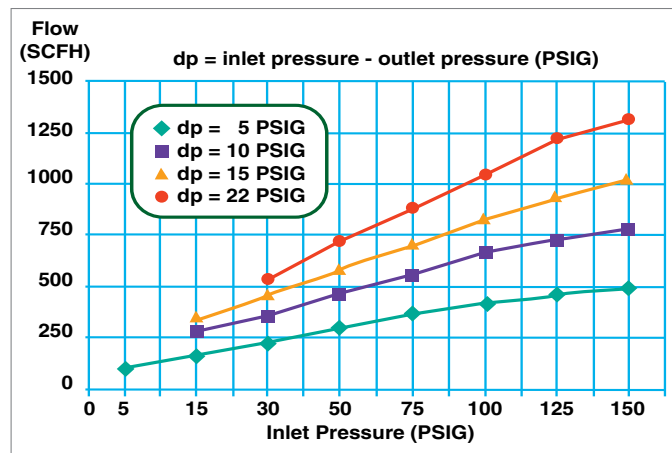


### FB-FR

Regulator Mount - Fuel



## FLOW Chart - FB Series Flashback Arrestor



| Ordering Information                                               |           |        |                             |                             |
|--------------------------------------------------------------------|-----------|--------|-----------------------------|-----------------------------|
| Part No.                                                           | Model No. | Gas    | Description                 | Connection                  |
| <b>Oxygen – Torch Mount (Torch mount models also protect hose)</b> |           |        |                             |                             |
| 0657-0076                                                          | FBHC-O    | Oxygen | Torch Mount - High Flow     | "B" 9/16"-18 RH (CGA 022)   |
| 0657-0077                                                          | FBHC-OC   | Oxygen | Torch Mount - High Flow     | "C" 7/8" - 14 RH (CGA 024)  |
| <b>Oxygen – Regulator Mount</b>                                    |           |        |                             |                             |
| 0657-0078                                                          | FBHC-OR   | Oxygen | Regulator Mount - High Flow | "B" 9/16" - 18 RH (CGA 022) |
| 0657-0079                                                          | FBHC-ORC  | Oxygen | Regulator Mount - High Flow | "C" 7/8" - 14 RH (CGA 024)  |

Flow rates shown in chart are for air. To convert to other gases, multiply the air flow rate by the conversion factor listed.

Nothing can take the place of proper equipment operation. Always read, understand and follow the instructions provided with each product.

| Ordering Information            |           |          |                 |                                    |
|---------------------------------|-----------|----------|-----------------|------------------------------------|
| Part No.                        | Model No. | Gas      | Description     | Connection                         |
| <b>Oxygen - Torch Mount</b>     |           |          |                 |                                    |
| 0657-0010                       | FB-O      | Oxygen   | Torch Mount     | "B" 9/16"-18 RH (CGA 022)          |
| <b>Oxygen - Regulator Mount</b> |           |          |                 |                                    |
| 0657-0014                       | FB-OR     | Oxygen   | Regulator Mount | "B" 9/16"-18 RH (CGA 022)          |
| <b>Fuel - Torch Mount</b>       |           |          |                 |                                    |
| 0657-0011                       | FB-F      | Fuel     | Torch Mount     | "B" 9/16"-18 LH (CGA 023)          |
| <b>Fuel - Regulator Mount</b>   |           |          |                 |                                    |
| 0657-0015                       | FB-FR     | Fuel     | Regulator Mount | "B" 9/16"-18 LH (CGA 023)          |
| <b>Pair Packs</b>               |           |          |                 |                                    |
| 0656-0001                       | FB-1      | Oxy/Fuel | Torch Mount     | "B" 9/16"-18 RH/LH (CGA 022 & 023) |
| 0656-0004                       | FBR-1     | Oxy/Fuel | Regulator       | "B" 9/16"-18 RH/LH (CGA 022 & 023) |

Flow rates shown in chart are for air. To convert to other gases, multiply the air flow rate by the conversion factor listed.

Nothing can take the place of proper equipment operation. Always read, understand and follow the instructions provided with each product.

Victor® add-on flashback arrestors contain both a reverse flow check valve and a flashback arrestor

## FlameBuster™ Plus

- Flashback Arrestor with Kwik-Connect™ Coupling
- Designed to prevent flashback from torch to hose (Not for regulators)



| Ordering Information                                                 |                                          |
|----------------------------------------------------------------------|------------------------------------------|
| 0656-0002                                                            | FBP-1 FlameBuster Plus Torch - Pair Pack |
| 0657-0002                                                            | FBP-0 FlameBuster Plus Torch             |
| 0657-0003                                                            | FBP-F FlameBuster Plus Torch             |
| <i>Plug Assemblies available: Oxygen: 0657-0031, Fuel: 0657-0032</i> |                                          |

## Flashback Arrestor with Kwik-Connect Coupling Components FBP-1

| Ordering Information |                   |
|----------------------|-------------------|
| 0657-0031            | Male End Oxygen   |
| 0657-0032            | Male End Fuel Gas |

## Flashback Arrestors Pair Packs



| Ordering Information |           |          |                 |                                    |
|----------------------|-----------|----------|-----------------|------------------------------------|
| Part No.             | Model No. | Gas      | Description     | Connection                         |
| 0656-0006            | FBT-2     | Oxy/Fuel | Torch Mount     | "B" 9/16"-18 RH/LH (CGA 022 & 023) |
| 0656-0007            | FBR-2     | Oxy/Fuel | Regulator Mount | "B" 9/16"-18 RH/LH (CGA 022 & 023) |

## Reverse Flow Check Valves for Torches & Regulators



| Ordering Information |                                                              |
|----------------------|--------------------------------------------------------------|
| Torch Models         |                                                              |
| 0690-0011            | CTO & CTF Torch - Check Valves Pair Pack (Oxygen & Fuel)     |
| 0690-0032            | CTO Torch - Check Valve (Oxygen)                             |
| 0690-0033            | CTF Torch - Check Valve (Fuel)                               |
| Regulator Models     |                                                              |
| 0690-0012            | CRO & CRF Regulator - Check Valves Pair Pack (Oxygen & Fuel) |
| 0690-0034            | CRO Regulator - Check Valve (Oxygen)                         |
| 0690-0035            | CRF Regulator - Check Valve (Fuel)                           |

## Built-in Flash Arrestor

### Retro-Fit Kit

The retro-fit kit allows replacement of built-in flash arrestors for cutting torches without the use of Loctite® or heat

| Ordering Information                                                                                                                     |                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Torch/Hose Connections                                                                                                                   |                                                                                           |
| 0656-0046                                                                                                                                | Includes oxygen and fuel cartridges, retainer plate and screws, hex key, and instructions |
| <i>Repair of oxy/fuel equipment, including flashback arrestor and check valve replacement, should be done by a qualified technician.</i> |                                                                                           |

## Vanguard™ Flashback Arrestor Replacement Cartridge



| Ordering Information                                                                                                                                                 |                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Torch/Hose Connections                                                                                                                                               |                                                                                               |
| 0657-0036                                                                                                                                                            | Torch and Torch Handle Replacement Cartridge (315FC, 100FC, J 100FC) (CST 800FC) (Both Gases) |
| 0657-0068                                                                                                                                                            | Torch & Torch Handle Replacement Cartridge (H 315FC, ST 900FC, ST 1000FC, ST 2600FC) (Oxygen) |
| 0657-0069                                                                                                                                                            | Torch & Torch Handle Replacement Cartridge (H 315FC, ST 900FC, ST 1000FC, ST 2600) (Fuel Gas) |
| <i>Flashback arrestor replacement cartridges include an "O" ring but does not include a replacement reverse flow check valve. Part No. 0690-0027 - 9/16" (pair).</i> |                                                                                               |

## Kwik-Connect

### Torch/Hose Connections



| Ordering Information   |                                               |
|------------------------|-----------------------------------------------|
| Torch/Hose Connections |                                               |
| 0656-0000              | KC-1 Kwik Connect Pair Pack (Oxygen and Fuel) |
| 0312-0090              | KCO Kwik Connect (Oxygen)                     |
| 0312-0091              | KCF Kwik Connect (Fuel)                       |



# MEET YOUR MATCH.



As someone who never settles for good enough, you deserve a regulator that's as tough as you, as sharp as you, as good as you. Now it has arrived – **EDGE 2.0**. It sets the new standard for Innovation, Performance, Ease of Use & Safety. And for the latest in cutting, meet the **Plus Series Torch and Handle**.

Find out how the best just got better. Visit [esab.com/edge2](http://esab.com/edge2).

**VICTOR**  
AN ESAB BRAND

**EDGE™ 2.0**



# // ARC GOUGING & EXOTHERMIC CUTTING





# ARCAIR® AIRPRO X4000: CARBON ARC GOUGING TORCH AND CABLE.

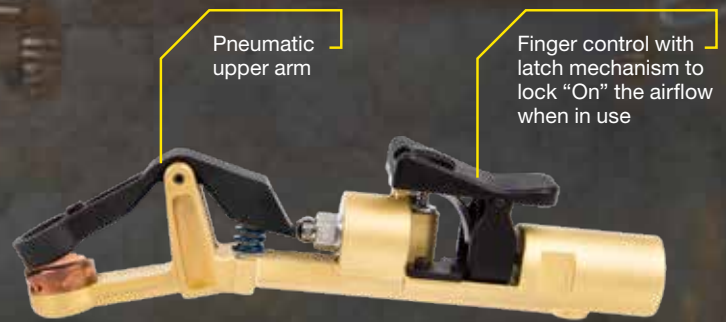
Arcair – the name synonymous with carbon arc gouging – introduces the AirPro X4000, a torch that takes ease of use to a new level.

Instead of using 27 lbs. of grip pressure to open the torch, the operator merely pushes a rocker switch. Compressed air already flowing through the AirPro X4000 torch pneumatically opens the torch jaws so operators can insert, adjust and remove carbons without effort.

## ARCAIR CARBONS.

The AirPro X4000 accepts 3/16- to 1/2-in. (4.7 mm-12.7 mm) pointed round, 3/8- and 5/8-in. (9.5 mm-15.8 mm) flat and 5/8-in. (15.8 mm) half-round carbons.

- Pneumatic upper arm lifts when activated by the rocker switch on the torch handle.
- Rocker switch allows insertion/adjustment of carbon and controls compressed air on/off. Latch mechanism locks "On" airflow when in use.
- No air flows through the torch or the cable without initiating the flow through the rocker switch.
- No-leak air valve saves electricity and maintenance costs of maintaining the shop air compressor.
- Elimination of the lever assembly creates a lower-profile torch for improved access.



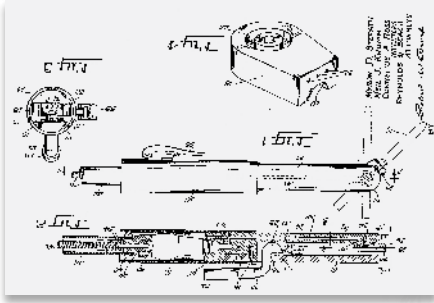
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**1949**

- Myron Stepath invents CAC-A cutting and gouging process.
- Stepath founds Arcair Co.
- Introduces G-3 cutting and gouging torch.



**1956**

Introduces H-5 cutting and gouging torch.



**1961**

Arcair relocates manufacturing to Lancaster, Ohio.

**1968**

Introduces K-3 cutting and gouging torch.



**1972**

Introduces Underwater Cutting and Welding Torch.

**1974**

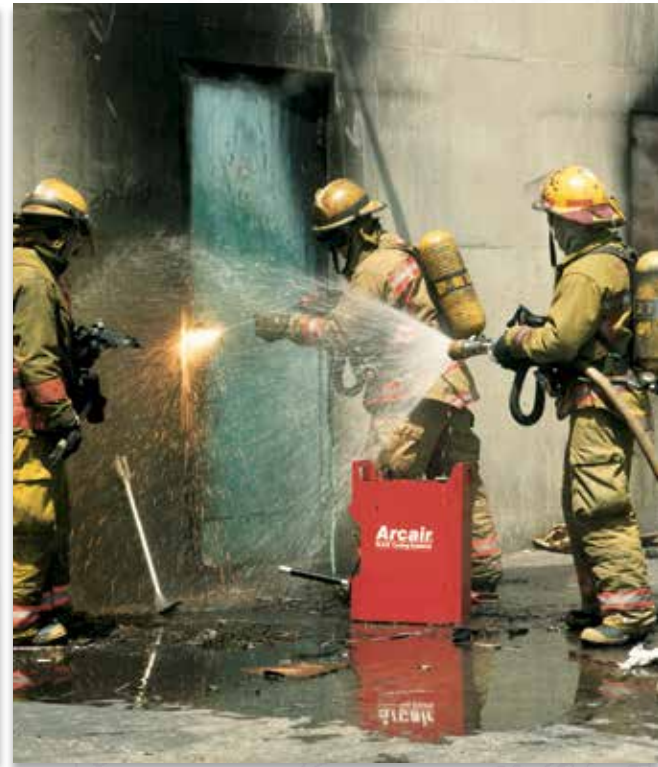
Myron Stepath retires.



**1980s**

SLICE® torch introduced, allowing for portable and quick cutting solutions for fire and rescue operations.

# ARCAIR IS SYNONYMOUS WITH **CARBON ARC GOUGING**



**1983**  
Introduces K4000®  
cutting and gouging torch.

**1989**

Arcair relocated to Wichita, Kansas;  
combines manufacturing with Tweco.

**2004**

Arcair relocates to  
Denton, Texas combines  
manufacturing with Victor.

**2011**

Introduces Arcair-Matic®  
N7500 Automated  
gouging System.

**2014**

Arcair becomes  
An ESAB Brand

**2018**

Introduces AirPro X4000  
gouging torch and  
cable assembly with  
the industry's first ever  
pneumatic arm.



## Gouging Torches

### Improved Torch Air Flow

- More efficient use of air supply
- Improved metal removal

### Four Hole Head Assembly

- Optimizes air flow to the arc
- Efficiently cleans slag from groove edge

### Air Assist Positive Air Shut-Off

- Minimizes air supply unit cycling on and off
- Allows torch usage when air supply is marginal

### Improved Cable Electrical Conduction

- Improves cable service life
- Decreases heat build up in cable and torch

### Superior Outer Cable Cover

- Durable cover for improved cable life in a harsh environment
- Resists breakdown due to exposure to heat produced by gouging

### Insulated Connection Boot & Hook-Up Kit

- Makes for easy torch hook-up
- Virtually eliminates the possibility of arcing when contacting electrically hot parts

Angle-Arc®  
Gouging Torches



Straight Handle  
Gouging Torches



Tri-Arc®  
Gouging Torches

## Improved Carbon-Arc Torch Cable Boot Design

### Patented Two-Piece Boot Design

- Molded from a hard nylon reinforced fiber polymer made to withstand the substantial abuse in shop and field applications

### Helps Prevent Accidental Arcing

- No chance of the “boot” pulling away from the power connection as seen with prior “boot” design

### Ease of Replacement in the Field

- Threaded screws holds the two halves together and can be loosened with a standard straight blade screwdriver

### Available in Two (2) Different Molded “Boot” Housing Configurations

- Conventional Boot (Part No. 94-105-032)
  - Accepts one 4/0 welding cable from the power supply and one 3/4 in. (19 mm) diameter air hose assembly providing current and compressed air
- Quick-Connect Hook-Up Kit (Part No. 94-463-046)
  - Twist lock-style power connection and air hose extending from the rear of the torch cable
- This option allows the operator to connect or disconnect the incoming power lead and air line quickly and easily



Conventional  
Replacement Part No. 94-105-032



Quick-Connect Hook-Up Kit  
Replacement Part No. 94-463-046

**NOTE:** Replacement Boots will fit onto all Arcair manual hand torch cable assemblies having an amperage range of 1000 Amps or less.



**THE “BEST” JUST GOT BETTER.**

Help prevent accidental arcing in your workplace.

## Gouging Techniques for Specific Materials

### Carbon Steel & Low Alloy Steel (such as ASTM A514 & A517) & Stainless Steel

- Use DC electrodes with DCEP (electrode positive). AC electrodes with an AC transformer can be used, but for this application, AC is only half as efficient as DC.

### Cast Iron Including Malleable & Ductile Iron (nodular)

- Use 1/2 in. (12.7 mm) or larger diameter CCDC electrodes at the highest rated amperage. Use an angle of 70° off the workpiece and the depth of gouge should not exceed 1/2 in. (12.7 mm) per pass

### Copper Alloys (copper content 60% and under)

- Use CCDC electrodes with DCEN (electrode negative) at the electrode's highest amperage rating

### Aluminum Bronze & Aluminum Nickel Bronze (naval propeller alloy)

- Use CCDC electrodes with DCEN (electrode negative) at the electrode's highest amperage rating

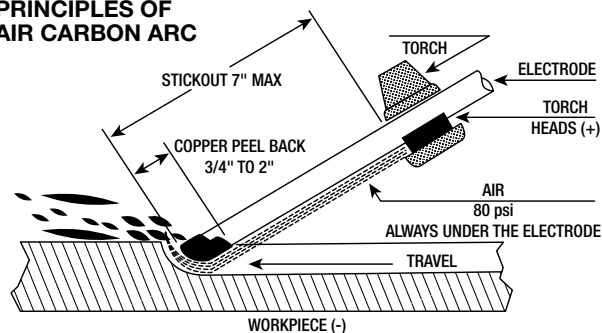
### Nickel Alloys (nickel content over 80% of mass)

- Use CCAC electrodes with AC current

### Nickel Alloys (nickel content under 80% of mass)

- Use CCDC electrodes with DCEP (electrode positive) at the electrode's highest amperage rating

### PRINCIPLES OF AIR CARBON ARC



### Magnesium Alloys

- Use CCDC electrodes with DCEP (electrode positive) and prior to welding, wire brush the groove

### Aluminum

- Use CCDC electrodes with DCEP (electrode positive).
- You must brush with a stainless wire brush before welding. Electrode stick-out (length of electrode between torch and workpiece) should not exceed 3 in. (76.2 mm)

### Titanium, Zirconium, Hafnium, & Their Alloys

- Do not cut or gouge to prepare for welding or remelting unless you mechanically remove the surface layer from the cut/gouge surface

NOTE – If you preheat for welding, preheat for gouging.

### Current Requirements

| Electrode       | 1/8 in. (3.2 mm) | 5/32 in. (4.0 mm) | 3/16 in. (4.8 mm) | 1/4 in. (6.4 mm) | 5/16 in. (7.9 mm) | 3/8 in. (9.5 mm) | 1/2 in. (13 mm) | 5/8 in. (16 mm) | 3/4 in. (19 mm) | 1 in. (25 mm) | 3/8 in. (9.5 mm) Flat | 5/8 in. (16 mm) Flat |
|-----------------|------------------|-------------------|-------------------|------------------|-------------------|------------------|-----------------|-----------------|-----------------|---------------|-----------------------|----------------------|
| Minimum amps DC | 60               | 90                | 200               | 300              | 350               | 450              | 800             | 1000            | 1250            | 1600          | 250                   | 300                  |
| Maximum amps DC | 90               | 150               | 250               | 400              | 450               | 600              | 1000            | 1250            | 1600            | 2200          | 450                   | 500                  |
| Minimum amps AC | –                | –                 | 200               | 300              | –                 | 350              | –               | –               | –               | –             | –                     | –                    |
| Maximum amps AC | –                | –                 | 250               | 400              | –                 | 450              | –               | –               | –               | –             | –                     | –                    |

### Gouging Torch Selection Guide

| Copperclad Electrodes                                                                     | Amperage Range       |            |             |             |             | Recommended  | Alternate                    |
|-------------------------------------------------------------------------------------------|----------------------|------------|-------------|-------------|-------------|--------------|------------------------------|
|                                                                                           | 90 – 450             | 450 – 1000 | 1000 – 1400 | 1400 – 2000 | 2000 – 2400 |              |                              |
| 1/8 in. - 3/8 in. Round (3.2 mm - 9.5 mm)<br>3/8 in. & 5/8 in. Flats (9.5 mm & 15.9 mm)   | ████████████████████ |            |             |             |             | K3000        | –                            |
| 5/32 in. - 1/2 in. Round (4.0 mm - 12.7 mm)<br>3/8 in. & 5/8 in. Flats (9.5 mm & 15.9 mm) | ████████████████████ |            |             |             |             | AirPro X4000 | K4000                        |
| 5/16 in. - 5/8 in. Round (7.9 mm - 15.9 mm)                                               | ████████████████████ |            |             |             |             | K-5          | Tri-Arc, AirPro X4000, K4000 |
| 5/16 in. - 1 in. Round (7.9 mm - 25.4 mm)                                                 | ████████████████████ |            |             |             |             | Tri-Arc      | –                            |

### Which Torch Is Right For You?

| Torch Model  | Amperage (Maximum) | Swivel Cable | Swivel Cable Lengths     | Air-Cooled Water-Cooled   | Handle Design     | Body/Upper Arm Construction | Application | Special Features                                                                                          |
|--------------|--------------------|--------------|--------------------------|---------------------------|-------------------|-----------------------------|-------------|-----------------------------------------------------------------------------------------------------------|
| K3000        | 600                | 360°         | 7 ft & 10 ft (2 m & 3 m) | Air-Cooled                | Small & Ergonomic | Brass                       | Medium Duty | All brass torch parts with a copper head assembly having 4-hole design                                    |
| K4000        | 1000               | 360°         | 7 ft & 10 ft (2 m & 3 m) | Air-Cooled                | Small & Ergonomic | Brass                       | Heavy Duty  | All brass torch parts with a copper head assembly having 4-hole design                                    |
| AirPro X4000 | 1000               | 360°         | 7 ft & 10 ft (2 m & 3 m) | Air-Cooled                | Small & Ergonomic | Brass                       | Heavy Duty  | All brass torch parts with a copper head assembly having 4-hole design, pneumatically operated upper arm  |
| K-5          | 1250               | 340°         | 7 ft & 10 ft (2 m & 3 m) | Air-Cooled                | Straight          | Brass                       | Heavy Duty  | All brass torch parts with a copper head assembly having 4-hole design                                    |
| Tri-Arc      | 2200               | 340°         | 7 ft & 10 ft (2 m & 3 m) | Air-Cooled & Water-Cooled | Straight          | Copper                      | Heavy Duty  | Versatility with three (3) different head assemblies to choose from to meet any metal removal application |

## Angle-Arc® Manual Gouging Torches

### Natural 15° Torch Angle

- Greater operator comfort

### Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

### 360° Swivel Cable

- Less cable twist
- Less strain on operator

### Positive Grip Handle

- Greater operator feel and ease in positioning the torch

### Reduced Weight

- Optimum cable and torch weight to minimize fatigue

### High Quality Cable Hose

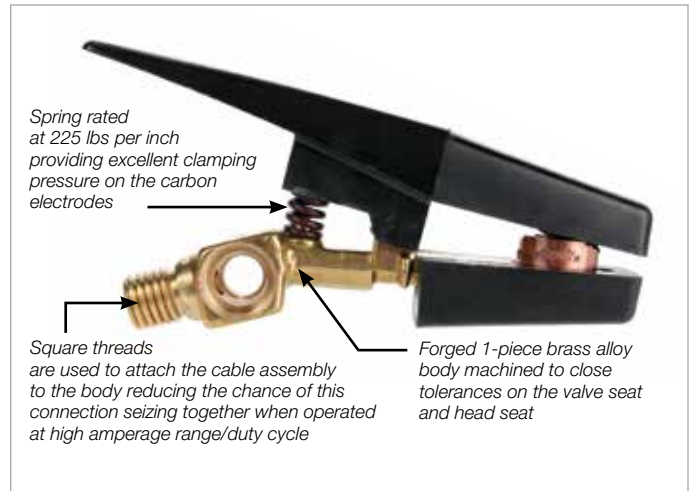
- Best quality cable hose offers high heat and abrasion resistance
- Non-conductive

MANUAL GOUGING

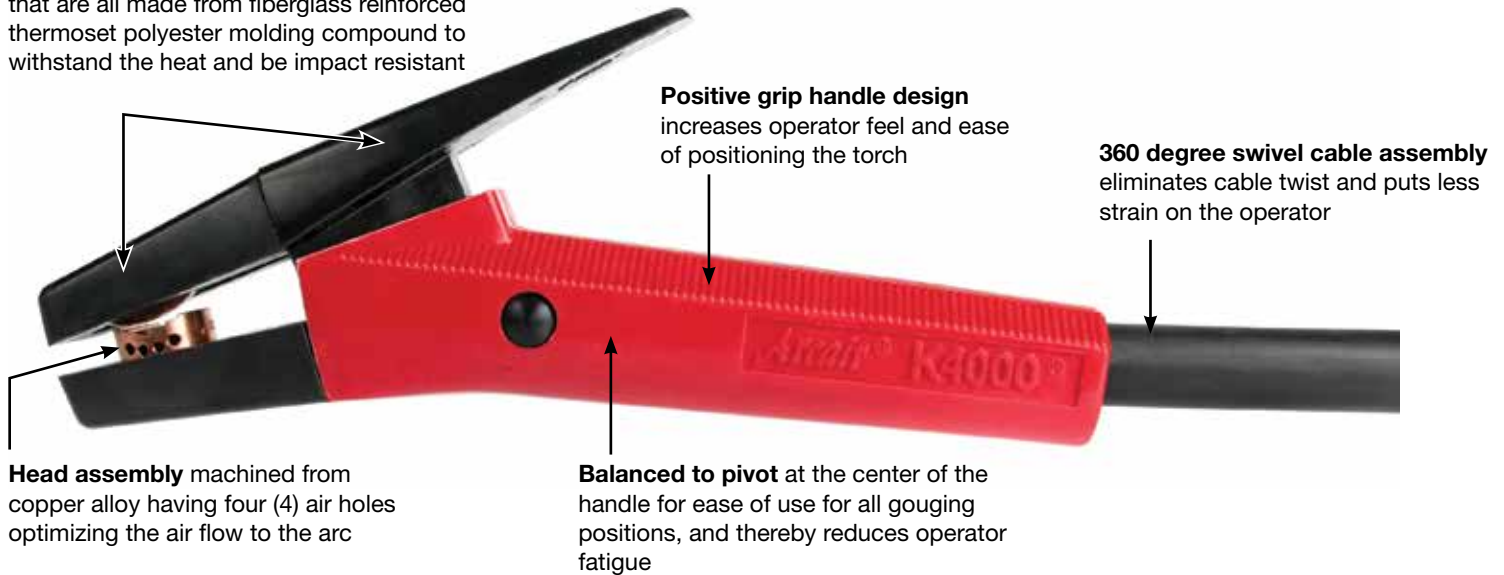
K3000



K4000



**Heavy-duty insulators, lever and handle** that are all made from fiberglass reinforced thermoset polyester molding compound to withstand the heat and be impact resistant



## K3000™

Medium Duty - General repair and maintenance jobs such as mining, construction, and all types of metal fabrication.



### Amperage Range

- 90 – 600 amps

### Electrode Size

- Pointed – 1/8 in. – 3/8 in. round (3.2 mm – 9.5 mm)
- Jointed - 5/16 in. – 3/8 in. round (7.9 mm – 9.5 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

### Air Requirements

- psi – 80
- kg/cm<sup>2</sup> – 5.6
- cfm – 22
- l/min – 624

| Ordering Information |                                                                |
|----------------------|----------------------------------------------------------------|
| 01065001             | Torch Only                                                     |
| 61065006             | Torch w/7 ft (2.1 m) 360° Swivel Cable                         |
| 61065002             | Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit |
| 61065007             | Torch w/10 ft (3 m) 360° Swivel Cable                          |
| 61065003             | Torch w/10 ft (3 m) 360° Swivel Cable & Insulated Hook-Up Kit  |

## K4000®

Heavy Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops and shipyards.



### Amperage Range

- 90 – 1000 amps

### Electrode Size

- Pointed – 5/32 in. – 1/2 in. round (4.0 mm – 12.7 mm)
- Jointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

### Air Requirements

- psi – 80
- kg/cm<sup>2</sup> – 5.6
- cfm – 25
- l/min – 708

| Ordering Information |                                                                |
|----------------------|----------------------------------------------------------------|
| 01082002             | Torch Only                                                     |
| 61082008             | Torch w/7 ft (2.1 m) 360° Swivel Cable                         |
| 61082006             | Torch w/7 ft (2.1 m) 360° Swivel Cable & Insulated Hook-Up Kit |
| 61082009             | Torch w/10 ft (3 m) 360° Swivel Cable                          |
| 61082007             | Torch w/10 ft (3 m) 360° Swivel Cable & Insulated Hook-Up Kit  |

## Swivel Cable Assembly Options

K3000 360° Swivel Cable



K4000 360° Swivel Cable



| Ordering Information |          |                                         |
|----------------------|----------|-----------------------------------------|
| K3000                | K4000    |                                         |
| 70088107             | 70084207 | 7 ft (2.1 m) 360° Swivel Cable Assembly |
| 70088110             | 70084210 | 10 ft (3 m) 360° Swivel Cable Assembly  |

MANUAL  
GOUGING

## AirPro™ X4000 - Pneumatic Gouging Torch & Cable Assembly

### Easy to Load

- Uses compressed air to raise and lower the upper arm; no force required to load/unload electrodes

### Simple Operation

- To gouge, press the rocker switch and slide lock forward to lock in place to begin the airflow through the torch assembly; simply slide the lock back and release the rocker switch to stops

### No Leaks

- Positive air valve to eliminate compressed air from leaking

### Positive Grip Handle

- Greater operator feel and ease in positioning the torch

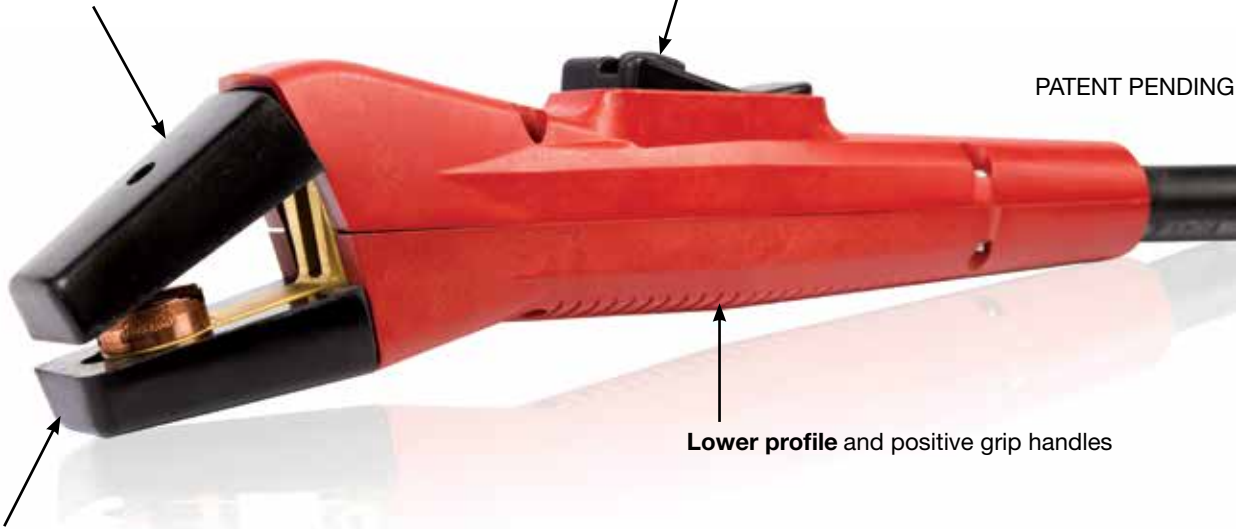
### Durable Front Insulators

- High impact and heat resistance protecting the torch metal parts



**Rocker switch** allowing the insertion/adjustment of the carbon electrode and compressed air on/off; no air flow through the torch and cable assembly without initiating flow through the rocker switch

**Pneumatically operated upper arm** for ease of inserting/adjusting the carbon electrode in the torch head assembly



PATENT PENDING

**Lower profile** and positive grip handles

**High impact**, heat resistant insulators

## AirPro™ X4000

Introducing the next generation air carbon-arc metal removal torch and cable assembly, AirPro X4000. The unique, patent-pending, pneumatically operated upper arm and air valve design eliminates air leakage through the torch and cable when turned off, making this torch assembly the best in the market.



Ideal for the following industries:

- Ship and Offshore Yards
- Civil Construction
- Pipe Construction
- Repair and Maintenance
- Heavy Fabrication
- Industrial and General Fabrication
- Mining
- Steel Erectors

### Amperage Range

- 90 – 1000 amps

### Electrode Size

- Pointed – 3/16 in. – 1/2 in. round (4.7 mm – 12.7 mm)
- Jointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

### Air Requirements

- psi – 80
- kg/cm<sup>2</sup> – 5.6
- cfm – 25
- l/min – 708

### Ordering Information

|          |                                                                                         |
|----------|-----------------------------------------------------------------------------------------|
| 01084002 | AirPro X4000 Torch Only                                                                 |
| 61084008 | AirPro X4000 Torch & Cable Assembly 7 ft. (2.1 m) – 360° Swivel                         |
| 61084006 | AirPro X4000 Torch & Cable Assembly 7 ft. (2.1 m) – 360° Swivel & Insulated Hook-up Kit |
| 61084009 | AirPro X4000 Torch & Cable Assembly 10 ft. (3 m) – 360° Swivel                          |
| 61084007 | AirPro X4000 Torch & Cable Assembly 10 ft. (3 m) – 360° Swivel & Insulated Hook-up Kit  |

## Swivel Cable Assembly



### Ordering Information

|          |                                |
|----------|--------------------------------|
| 70084407 | 7 ft (2.1 m) 360° Swivel Cable |
| 70084410 | 10 ft (3 m) 360° Swivel Cable  |
| 94463046 | Quick Connect Hook-Up Kit      |

## Tri-Arc® Foundry Gouging Torches

### Three Torches in One

- Designed for foundry applications, defect removal, general purpose applications, and padwashing by just changing head assemblies

### High Impact, Heat Resistant Insulators

- Provides protection for the torch metal parts

### Forged Body

- Provides cooler operation, improved air flow and greater current ratings

### Powerful Insulated Coil Spring & High Strength Upper Arm

- Insures positive electrode contact at all angles

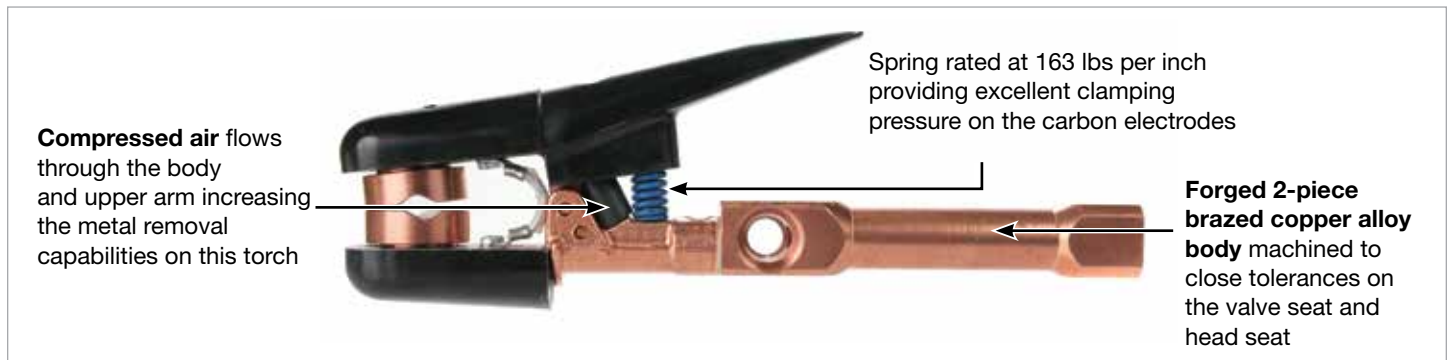
### Better Balance

- Streamline design and high strength fluted handles reduce operator fatigue

### Easy Cable Installation

- No need to disassemble the torch, just slide the sleeve from the rear of the handle

**Heavy-duty insulators**, lever and handle that are all made from fiberglass reinforced thermoset polyester molding compound to withstand the heat and be impact resistant



## Tri-Arc Torch Heads

### Defect Removal Heads

- For removal of defects and fine removal application
- Accepts electrode diameters – 3/8 in. (9.5 mm) through 3/4 in. (19.05 mm)



### General Purpose Cleaning Heads

- For removal of defects, fin removal, padwashing, and piercing applications
- Accepts electrode diameters – 1/2 in. (12.7 mm) through 1 in. (25.4 mm)



### Padwashing Heads

- For padwashing applications only
- Heads are fixed on a 35° work angle
- Accepts electrode diameters – 1/2 in. (12.7 mm) through 3/4 in. (19.05 mm)



## Tri-Arc®

Foundry - General foundry work, pad washing, defect, nails, sprue and interior work



### Amperage Range

- 450 – 2200 amps

### Electrode Size

- 5/16 in. – 1 in. Round (7.9 mm – 25.4 mm)

### Air Requirements

- psi – 80
- kg/cm<sup>2</sup> – 5.6
- cfm – 33
- l/min – 934

| Ordering Information           |                            |                                          |
|--------------------------------|----------------------------|------------------------------------------|
| No Heads in Torch              |                            | Electrode Size                           |
| 02991411                       | Torch Only                 | –                                        |
| 62991417                       | Torch & 7 ft (2.1 m) Cable | –                                        |
| No Heads in Torch – No Valve   |                            | Electrode Size                           |
| 02991426                       | Torch Only                 | –                                        |
| Defect Removal Heads           |                            | Electrode Size                           |
| 94378298                       | Replacement Heads          | 3/8 in. (9.5 mm) thru 3/4 in. (19.05 mm) |
| Padwashing Heads               |                            | Electrode Size                           |
| 94378286                       | Replacement Heads          | 1/2 in. (12.7 mm)                        |
| 94378289                       | Replacement Heads          | 5/8 in. (15.9 mm)                        |
| 94378283                       | Replacement Heads          | 3/4 in. (19.05 mm)                       |
| General Purpose Cleaning Heads |                            | Electrode Size                           |
| 94378267                       | Replacement Heads          | 1/2 in. (12.7 mm)                        |
| 94378270                       | Replacement Heads          | 5/8 in. (15.9 mm)                        |
| 94378273                       | Replacement Heads          | 3/4 in. (19.05 mm)                       |
| 94378343                       | Replacement Heads          | 1 in. (25.4 mm)                          |

Note: The cable assembly that comes standard on the assemblies is Part No. 74143607, 7 ft (2.1 m) long and rated for 1600 amperes maximum.

## Swivel Cable Assembly Options



MANUAL  
GOUGING

| Ordering Information |             |                                          |
|----------------------|-------------|------------------------------------------|
| 7 ft (2.1 m)         | 10 ft (3 m) |                                          |
| 74143607             | 74143610    | Std. Duty - 340° Swivel Cable Assembly   |
| 74161907             | –           | E-H-D 340° Swivel Cable Assembly         |
| 74085207             | 74085210    | Water-Cooled Cable Assembly – Non-Swivel |

K-5 Swivel Cable



| Ordering Information |                                         |
|----------------------|-----------------------------------------|
| 70128507             | 7 ft (2.1 m) 340° Swivel Cable Assembly |
| 70128510             | 10 ft (3 m) 340° Swivel Cable Assembly  |

## Straight Handle Manual Gouging Torches

### Reliable Torch Design

- Market leader for over 60+ years
- Greater operator comfort

### Accepts a Wide Range of CCDC Gouging Electrodes

- 5/16 in. (7.9 mm) - through 5/8 in. (15.9 mm) round

### Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

### Swivel Cable

- Less cable twist
- Less strain on the operator

### High Quality Cable Hose

- Best quality cable hose offers high heat and abrasion resistance
- Non-conductive

### Rugged Construction Overall

- Can withstand harsh environments

## K-5

Extra Heavy-Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops, shipyards and defect removal in foundries.



### Amperage Range

- 450 – 1250 amps

### Electrode Size

- Pointed – 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Jointed – 5/16 in. – 5/8 in. round (7.9 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

### Air Requirements

- psi – 80
- kg/cm<sup>2</sup> – 5.6
- cfm – 30
- l/min – 850

| Ordering Information |                                        |
|----------------------|----------------------------------------|
| 01104003             | Torch Only                             |
| 61104007             | Torch w/7 ft (2.1 m) 360° Swivel Cable |
| 61104008             | Torch w/10 ft (3 m) 360° Swivel Cable  |

## CutSkill Manual Gouging Torches

### Natural 15° Torch Angle

- Greater operator comfort

### Durable Front Insulators

- High impact and heat resistant protecting the torch metal parts

### 360° Swivel Cable

- Less cable twist
- Less strain on operator

### Positive Grip Handle

- Greater operator feel and ease in positioning the torch

### Reduced Weight

- Optimum cable and torch weight to minimize fatigue

### High Quality Cable Hose

- Best quality cable hose offers high heat and abrasion resistance
- Non conductive

## CSK4000

Heavy-Duty - Heavy metal removal applications such as weld preparations in pressure vessel shops and shipyards.



### Electrode Size

- Pointed – 5/32 in. – 1/2 in. round (4.0 mm – 12.7 mm)
- Jointed - 5/16 in. – 1/2 in. round (7.9 mm – 12.7 mm)
- Flat – 3/8 in. and 5/8 in. (9.5 mm – 15.9 mm)
- Half Round – 5/8 in. (15.9 mm)

### Air Requirements

- Maximum Amperage – 1000 amps
- Compressed Air – 80 psi (5.6 kg/cm<sup>2</sup>)
- Compressed Air Flow Rate – 28 cfm (0.79 m<sup>3</sup>/min)
- Torch and Cable Weight: 5.4 lbs (2.4 kg)

| Ordering Information |                                     |
|----------------------|-------------------------------------|
| 01088000             | Torch Only                          |
| 61088007             | Torch & 7 ft (2.1 m) Cable Assembly |
| 61088010             | Torch & 10 ft (3 m) Cable Assembly  |
| 70088007             | 7 ft (2.1 m) Cable Assembly         |
| 70088010             | 10 ft (3 m) Cable Assembly          |

## Inches of Groove per Electrode

| Pointed Copperclad DC Electrodes |                                         |                                         |                                        |                                         |                                        |                                         |
|----------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------|-----------------------------------------|----------------------------------------|-----------------------------------------|
| Groove Depth                     | 5/32 in. x 12 in.<br>(4.0 mm x 30.5 cm) | 3/16 in. x 12 in.<br>(4.8 mm x 30.5 cm) | 1/4 in. x 12 in.<br>(6.5 mm x 30.5 cm) | 5/16 in. x 12 in.<br>(8.0 mm x 30.5 cm) | 3/8 in. x 12 in.<br>(9.5 mm x 30.5 cm) | 1/2 in. x 14 in.<br>(12.7 mm x 35.6 cm) |
| 1/8 in. (3.2 mm)                 | 65 in. (165 cm)                         | 70 in. (178 cm)                         | 81 in. (206 cm)                        | NR                                      | NR                                     | NR                                      |
| 5/32 in. (4.0 mm)                | 57 in. (145 cm)                         | 65 in. (165 cm)                         | 70 in. (178 cm)                        | 81 in. (206 cm)                         | NR                                     | NR                                      |
| 3/16 in. (4.8 mm)                | NR                                      | 57 in. (145 cm)                         | 66 in. (168 cm)                        | 72 in. (183 cm)                         | 82 in. (208 cm)                        | NR                                      |
| 1/4 in. (6.4 mm)                 | NR                                      | 46 in. (117 cm)                         | 58 in. (147 cm)                        | 66 in. (168 cm)                         | 72 in. (183 cm)                        | 112 in. (285 cm)                        |
| 5/16 in. (8.0 mm)                | NR                                      | 20 in. (51 cm) – 2P                     | 46 in. (117 cm)                        | 58 in. (147 cm)                         | 59 in. (150 cm)                        | 100 in. (254 cm)                        |
| 3/8 in. (9.5 mm)                 | NR                                      | 12 in. (30 cm) – 2P                     | 24 in. (61 cm) – 2P                    | 47 in. (119 cm)                         | 59 in. (150 cm)                        | 88 in. (224 cm)                         |
| 1/2 in. (12.7 mm)                | NR                                      | NR                                      | 14 in. (36 cm) – 2P                    | 26 in. (66 cm) – 2P                     | 47 in. (119 cm)                        | 73 in. (185 cm)                         |
| 5/8 in. (15.9 mm)                | NR                                      | NR                                      | NR                                     | 16 in. (41 cm) – 2P                     | 26 in. (66 cm) – 2P                    | 57 in. (145 cm)                         |
| 3/4 in. (19.05 mm)               | NR                                      | NR                                      | NR                                     | NR                                      | 16 in. (41 cm) – 2P                    | 43 in. (109 cm)                         |
| 7/8 in. (22.0 mm)                | NR                                      | NR                                      | NR                                     | NR                                      | NR                                     | 35 in. (89 cm) – 2P                     |
| 1 in. (25.4 mm)                  | NR                                      | NR                                      | NR                                     | NR                                      | NR                                     | 28 in. (71 cm) – 2P                     |

Note: All figures derived from gouging mild steel under laboratory conditions. Field results may vary due to type of metal, power source, compressed air supply, operators experience and other parameters.

NR = Not Recommended

2P = Two (2) Passes

| Jointed Copperclad DC Electrodes |                                         |                                        |                                         |
|----------------------------------|-----------------------------------------|----------------------------------------|-----------------------------------------|
| Groove Depth                     | 5/16 in. x 14 in.<br>(7.9 mm x 35.6 cm) | 3/8 in. x 17 in.<br>(9.5 mm x 43.2 cm) | 1/2 in. x 17 in.<br>(12.7 mm x 43.2 cm) |
| 5/32 in. (4.0 mm)                | 160 in. (406 cm)                        | NR                                     | NR                                      |
| 3/16 in. (4.8 mm)                | 142 in. (361 cm)                        | 206 in. (523 cm)                       | NR                                      |
| 1/4 in. (6.4 mm)                 | 125 in. (318 cm)                        | 172 in. (437 cm)                       | 260 in. (660 cm)                        |
| 5/16 in. (7.9 mm)                | 112 in. (284 cm)                        | 150 in. (310 cm)                       | 188 in. (478 cm)                        |
| 3/8 in. (9.5 mm)                 | 84 in. (213 cm)                         | 136 in. (345 cm)                       | 157 in. (399 cm)                        |
| 1/2 in. (12.7 mm)                | 72 in. (183 cm) – 2P                    | 103 in. (262 cm)                       | 140 in. (356 cm)                        |
| 5/8 in. (15.9 mm)                | 48 in. (122 cm) – 2P                    | 75 in. (191 cm) – 2P                   | 102 in. (259 cm)                        |
| 3/4 in. (19.05 mm)               | NR                                      | 57 in. (145 cm) – 2P                   | 90 in. (229 cm)                         |
| 7/8 in. (22.0 mm)                | NR                                      | NR                                     | 80 in. (203 cm)                         |
| 1 in. (25.4 mm)                  | NR                                      | NR                                     | 72 in. (183 cm)                         |

Note: All figures derived from gouging mild steel under laboratory conditions. Field results may vary due to type of metal, power source, compressed air supply, operators experience and other parameters.

NR = Not Recommended

2P = Two (2) Passes

## Arcair Air Carbon-Arc Electrodes

Designed Specifically for the Air Carbon-Arc Process

- Contain a precise formulated blend of carbon and graphite
- The most efficient metal removal performance in today's market
- Superior metal removal rates, cool operation, and uniform diameters

Ideal for a Broad Range of Applications

- Creating u-grooves for weld joint
- Removing old welds
- Gouging out cracks
- Cleaning and repairing castings
- Removing hard surface material
- Rough machining

| Pointed Copperclad DC Electrodes |                                                   |                                                                                                                                                                                                                 |
|----------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                         | Description                                       | Application                                                                                                                                                                                                     |
| 22023003                         | 1/8 in. (3.2 mm) x 12 in. (30.5 cm) CCDC Pointed* | A standard, all-purpose gouging electrode. Its controlled copper coating improves electrical conductivity (for more efficient, cooler operation) and helps maintain electrode diameter at the point of the arc. |
| 22983003                         | 5/32 in. (4.0 mm) x 12 in. (30.5 cm) CCDC Pointed |                                                                                                                                                                                                                 |
| 22033003                         | 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Pointed |                                                                                                                                                                                                                 |
| 22043003                         | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                                                                 |
| 22053003                         | 5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed |                                                                                                                                                                                                                 |
| 22063003                         | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                                                                 |
| 22082003                         | 1/2 in. (12.7 mm) x 14 in. (35.6 cm) CCDC Pointed |                                                                                                                                                                                                                 |

Note: Standard 50 pieces per carton unless noted. \* 100 pieces per carton.

| Pointed Plain DC Electrodes |                                                 |                                                                                                                                                                                                  |
|-----------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                    | Description                                     | Application                                                                                                                                                                                      |
| 21983003                    | 5/32 in. (4.0 mm) x 12 in. (30.5 cm) DC Pointed | General purpose electrodes without the copper plating to avoid any chance of copper contamination in the base material. Same high quality blend of carbon and graphite used in other electrodes. |
| 21033003                    | 3/16 in. (4.8 mm) x 12 in. (30.5 cm) DC Pointed |                                                                                                                                                                                                  |
| 21043003                    | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) DC Pointed  |                                                                                                                                                                                                  |
| 21053003                    | 5/16 in. (7.9 mm) x 12 in. (30.5 cm) DC Pointed |                                                                                                                                                                                                  |
| 21063003                    | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) DC Pointed  |                                                                                                                                                                                                  |

Note: Electrodes will glow incandescent due to not having the copper plating and a penciling affect will take place along the outside diameter of the electrode. Standard 50 pieces per carton unless noted.

| Pointed Copperclad AC Electrodes |                                                   |                                                                                                                                                                                 |
|----------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                         | Description                                       | Application                                                                                                                                                                     |
| 20033003                         | 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCAC Pointed | Designed for use with A.C. power supplies. Rare earth material is added to the electrodes to stabilize the arc and enhance the operating characteristics. 12 in. (305 mm) long. |
| 20043003                         | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCAC Pointed  |                                                                                                                                                                                 |
| 20063003                         | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCAC Pointed  |                                                                                                                                                                                 |

| Flat Copperclad DC Electrodes |                                                                    |                                                                                                                                                                                                                                   |
|-------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                      | Description                                                        | Application                                                                                                                                                                                                                       |
| 35099003                      | 3/8 in. (9.5 mm) x 3/16 in. (4.8 mm) x 12 in. (30.5 cm) Flat       | Specially designed for close tolerance metal removal and scarfing applications. Excellent for general gouging applications, removing weld crowns, repairing or making dies, removing temporary welded dogs, and scarfing billets. |
| 35033003                      | 5/8 in. (15.9 mm) x 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Flat |                                                                                                                                                                                                                                   |

Note: Standard 50 pieces per carton unless noted.

| Half Round Copperclad DC Electrodes |                                                                       |                                                                                                                                                                                                                 |
|-------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                            | Description                                                           | Application                                                                                                                                                                                                     |
| 25103003                            | 5/8 in. (15.9) x 5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Half-Round | Versatility of having both a round and flat electrode for the various gouging applications. Excellent for removing weld crowns, repairing or making dies, removing temporary welded dogs, and scarfing billets. |

Note: Standard 50 pieces per carton unless noted.

| Jointed Jetrods® Copperclad DC Electrodes |                                                    |                                                                                                                                                                                 |
|-------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                                  | Description                                        | Application                                                                                                                                                                     |
| 24052003                                  | 5/16 in. (7.9 mm) x 14 in. (35.6 cm) CCDC Jointed  | Provides continuous electrode feed and increased savings, especially in production operations. Suited for both hand held foundry applications and or automated gouging systems. |
| 24062003                                  | 3/8 in. (9.5 mm) x 14 in. (35.6 cm) CCDC Jointed   |                                                                                                                                                                                 |
| 24064003                                  | 3/8 in. (9.5 mm) x 17 in. (43.2 cm) CCDC Jointed   |                                                                                                                                                                                 |
| 24082003                                  | 1/2 in. (12.7 mm) x 14 in. (35.6 cm) CCDC Jointed  |                                                                                                                                                                                 |
| 24084003                                  | 1/2 in. (12.7 mm) x 17 in. (43.2 cm) CCDC Jointed  |                                                                                                                                                                                 |
| 24104003                                  | 5/8 in. (15.9 mm) x 17 in. (43.2 cm) CCDC Jointed  |                                                                                                                                                                                 |
| 24124003                                  | 3/4 in. (19.05 mm) x 17 in. (43.2 cm) CCDC Jointed |                                                                                                                                                                                 |

Note: Standard 100 pieces per carton unless noted.

## CutSkill Electrodes

| Pointed Copperclad DC Electrodes |                                                   |                                                                                                                                                                                                                 |
|----------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                         | Description                                       | Application                                                                                                                                                                                                     |
| 22033003C                        | 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Pointed | A standard, all purpose gouging electrode. Its controlled copper coating improves electrical conductivity (for more efficient, cooler operation) and helps maintain electrode diameter at the point of the arc. |
| 22043003C                        | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                                                                 |
| 22053003C                        | 5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed |                                                                                                                                                                                                                 |
| 22063003C                        | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                                                                 |

Note: Standard 50 pieces per carton unless noted. \* 100 pieces per carton.

| Hollow Pointed Copperclad DC Electrodes |                                                   |                                                                                                                                                                  |
|-----------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part No.                                | Description                                       | Application                                                                                                                                                      |
| 22033003HC                              | 3/16 in. (4.8 mm) x 12 in. (30.5 cm) CCDC Pointed | General purpose electrodes having the same high quality blend of carbon and graphite used in other electrodes, but with a hole down the center of the electrode. |
| 22043003HC                              | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                  |
| 22053003HC                              | 5/16 in. (7.9 mm) x 12 in. (30.5 cm) CCDC Pointed |                                                                                                                                                                  |
| 22063003HC                              | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) CCDC Pointed  |                                                                                                                                                                  |
| 22082003HC                              | 1/2 in. (12.7 mm) x 14 in. (35.6 cm) CCDC Pointed |                                                                                                                                                                  |

Note: Standard 50 pieces per carton.

| Jointed Copperclad DC Electrodes |                                                    |                                                                                                        |
|----------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Part No.                         | Description                                        | Application                                                                                            |
| 24064003C                        | 3/8 in. (9.5 mm) x 17 in. (43.2 cm) CCDC Jointed   | Provides continuous electrode feed for greatly increased savings, especially in production operations. |
| 24084003C                        | 1/2 in. (12.7 mm) x 17 in. (43.2 cm) CCDC Jointed  |                                                                                                        |
| 24104003C                        | 5/8 in. (15.9 mm) x 17 in. (43.2 cm) CCDC Jointed  |                                                                                                        |
| 24124003C                        | 3/4 in. (19.05 mm) x 17 in. (43.2 cm) CCDC Jointed |                                                                                                        |
| 24164003C                        | 1 in. (25.4 mm) x 17 in. (43.2 cm) CCDC Jointed*   |                                                                                                        |

Note: Standard 100 pieces per carton unless noted \* - 25 pieces per carton.

## Welding Carbon Products

### Carbon Plates and Carbon Rods

Wide Range of Applications to Control the Flow of Weld Metal

- Repair broken corners
- Repair broken gears
- Dams or molds for weld deposit

Eliminates the Need for Many Jigs and Fixtures

- Substantial time and labor savings

| Ordering Information |                                                          |
|----------------------|----------------------------------------------------------|
| <b>Carbon Plate</b>  |                                                          |
| 48043012             | 1/4 in. (6.4 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)   |
| 48063012             | 3/8 in. (9.5 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)   |
| 48083012             | 1/2 in. (12.7 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)  |
| 48123012             | 3/4 in. (19.05 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm) |
| 48163012             | 1 in. (25.4 mm) x 12 in. (30.5 cm) x 12 in. (30.5 cm)    |
| <b>Carbon rod</b>    |                                                          |
| 47123000             | 3/4 in. (19.05 mm) x 12 in. (30.5 cm)                    |
| 47143000             | 7/8 in. (22.23 mm) x 12 in. (30.5 cm)                    |
| 47164000             | 1 in. (25.4 mm) x 17 in. (43.2 cm)                       |
| 47183000             | 1-1/8 in. (28.6 mm) x 12 in. (30.5 cm)                   |
| 47203000             | 1-1/4 in. (31.8 mm) x 12 in. (30.5 cm)                   |
| 47243000             | 1-1/2 in. (38.1 mm) x 12 in. (30.5 cm)                   |
| 47323000             | 2 in. (50.8 mm) x 12 in. (30.5 cm)                       |



## Arcair-Matic® N7500

### Automated Gouging System

The Arcair-Matic N7500 gouging system is highly productive for any metal fabrication operation where gouging and welding represents a large portion of the work schedule. This applies to almost all metals, including stainless steel, carbon, manganese, and chrome-moly steels.



MANUAL  
GOUGING

### Digital LCD Remote Pendant

- Ease of use – start/stop function, travel delay, electrode diameter
- Rough machining feature to stall the feed of the electrode to compensate for pitted area or out-of-round steel rolls, thereby maintaining the concentricity of the shaft/roll
- US Patent No. US 9101998 B2
- “Travel delay” function assures excellent groove geometry at the very beginning of the groove, thereby eliminating the need for a starting pad
- Shock-absorbent bumper
- Remote Pendant incorporates an emergency stop switch (E-Stop) when pressed in, will take precedence over any other “stop” signal and will drop out the engaged contactor in the power supply stopping the flow of current to the carbon electrode



### Torch Head

- Small and lightweight while accepting the wide range of Arcair jointed Jetrod Copperclad DC carbons, 5/16 in. (7.9 mm) through 3/4 in. (19.05 mm)
- Can be oriented 360 degrees in any direction giving flexibility to fit the application



### Digital Circuitry Control Box

- Redesigned digital circuitry control box
- A synergic mode ensures conformity to pre-determined, pre-selected groove depth and width specifications
- Can be used with CC/CV power supplies and the system utilizes the contactor in the welding power supply unit thereby eliminating the need for an external contactor used on prior models



### Complete N7500 Gouging System

#### Ordering Information

65991015

Includes remote pendant, control box, torch head, air regulator and electrode tube holder

### System Cable Assembly Options\*

#### Ordering Information

##### 110V AC Power Supply Cable

|          |             |
|----------|-------------|
| 96130304 | 10 ft (3 m) |
|----------|-------------|

##### 220V AC Power Supply Cable

|          |             |
|----------|-------------|
| 96130305 | 10 ft (3 m) |
|----------|-------------|

##### Pendant Cable Assembly

|          |                 |
|----------|-----------------|
| 96170069 | 14 in. (0.36 m) |
|----------|-----------------|

|          |             |
|----------|-------------|
| 96170070 | 15 ft (5 m) |
|----------|-------------|

|          |             |
|----------|-------------|
| 96170071 | 25 ft (8 m) |
|----------|-------------|

|          |              |
|----------|--------------|
| 96170072 | 50 ft (15 m) |
|----------|--------------|

##### Motor Cable Assembly

|          |              |
|----------|--------------|
| 96130335 | 3 ft (0.9 m) |
|----------|--------------|

|          |             |
|----------|-------------|
| 96130336 | 15 ft (5 m) |
|----------|-------------|

|          |             |
|----------|-------------|
| 96130337 | 25 ft (8 m) |
|----------|-------------|

|          |              |
|----------|--------------|
| 96130338 | 50 ft (15 m) |
|----------|--------------|

##### Power Supply Communication Cable Assembly

|          |             |
|----------|-------------|
| 96130339 | 15 ft (5 m) |
|----------|-------------|

|          |             |
|----------|-------------|
| 96130340 | 25 ft (8 m) |
|----------|-------------|

|          |              |
|----------|--------------|
| 96130341 | 50 ft (15 m) |
|----------|--------------|

##### DC Power Cables

|          |              |
|----------|--------------|
| 96130254 | 4 ft (1.2 m) |
|----------|--------------|

|          |             |
|----------|-------------|
| 96130256 | 15 ft (5 m) |
|----------|-------------|

|          |             |
|----------|-------------|
| 96130300 | 25 ft (8 m) |
|----------|-------------|

NOTE: Minimum 2 Power Cables Required

##### Air Hose Assembly

|          |              |
|----------|--------------|
| 94396051 | 4 ft (1.2 m) |
|----------|--------------|

|          |             |
|----------|-------------|
| 94396049 | 15 ft (5 m) |
|----------|-------------|

|          |             |
|----------|-------------|
| 94396048 | 25 ft (8 m) |
|----------|-------------|

\*Must be ordered separately

## All Position Travel Systems

Arcair, the industry leader in air carbon-arc products partnered with leading travel system manufacturers to create the best all-around metal removal system providing superior performance, flexibility, versatility, and safety for your metal removal applications.

BUG-O® and GULLCO® tractors are ideal for out of position metal removal applications. Both systems incorporate an aluminum track that guides the tractor down the weld seam with the ability to keep the Arcair-Matic N7500 torch head on track with a mechanical rack device.

### Bug-O Travel System Packages

All travel systems include a complete N7500 Automated Gouging System

- Remote pendant
- Control box
- Torch head
- Arcair electrode tube holder
- Arcair air regulator



MANUAL  
GOUGING

| Ordering Information |          |
|----------------------|----------|
| Rigid - 110 VAC      | 71023140 |
| Rigid - 220 VAC      | 71023141 |
| Flex - 110 VAC       | 71023142 |
| Flex - 220 VAC       | 71023143 |

\* System Part No. includes the BUG-O items as noted along with the Arcair-Matic N7500 System.

| Bug-O Travel System Specifications            |                    |                            |                       |                         |                                     |                      |  |
|-----------------------------------------------|--------------------|----------------------------|-----------------------|-------------------------|-------------------------------------|----------------------|--|
| Carriage                                      | Master Drive Unit  | Arc Gouging Control Module | Arcair Mounting Group | Cable Mounting Assembly | Rail                                | On/Off Magnet        |  |
| MPD-1065 (12 in. Releaseable Carriage)        | MPD-1000 (110 VAC) | AGS-1002                   | AGS-4172              | BUG-2975                | ARR-1080 (Heavy-Duty Aluminum Rail) | ARM-2010 (5 Magnets) |  |
| MPD-1065 (12 in. Releaseable Carriage)        | MPD-1002 (220 VAC) | AGS-1002                   | AGS-4172              | BUG-2975                | ARR-1080 (Heavy-Duty Aluminum Rail) | ARM-2010 (5 Magnets) |  |
| FMD-1105 (HI-Flex Carriage w/ Handle & Clamp) | MPD-1000 (110 VAC) | AGS-1002                   | AGS-4172              | --                      | FMD-2170 (HI-Flex Rail)             | FMD-2010 (8 Magnets) |  |
| FMD-1105 (HI-Flex Carriage w/ Handle & Clamp) | MPD-1002 (220 VAC) | AGS-1002                   | AGS-4172              | --                      | FMD-2170 (HI-Flex Rail)             | FMD-2010 (8 Magnets) |  |

### GULLCO Travel System Packages

All travel systems include a complete N7500 Automated Gouging System

- Remote pendant
- Control box
- Torch head
- Arcair electrode tube holder
- Arcair air regulator



| Ordering Information |          |
|----------------------|----------|
| Rigid - 110 VAC      | 71023144 |
| Rigid - 220 VAC      | 71023145 |

\* System Part No. includes the GULLCO items as noted along with the Arcair-Matic N7500 System.

| Gullco Travel System Specifications                                  |                                         |                                                              |                                                                      |                                                            |                                            |
|----------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------|
| Carriage                                                             | Rack Box                                | Rack Bar                                                     | Welding Gun Attachment                                               | Track                                                      | Track Magnet Devices                       |
| GK-200-RHB-N (GULLCO "KAT" Variable Speed Travel Carriage - 110 VAC) | GK-171-650 (GULLCO Heavy Duty Rack Box) | GK-171-047-2 (GULLCO 18 in. Long Heavy Duty Square Rack Bar) | GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment) | GK-165-052-1 (GULLCO 96 in. Aluminum Alloy Standard Track) | GK-165-215 (6 GULLCO Track Magnet Devices) |
| GK-200-RHC-N (GULLCO "KAT" Variable Speed Travel Carriage - 220 VAC) | GK-171-650 (GULLCO Heavy Duty Rack Box) | GK-171-047-2 (GULLCO 18 in. Long Heavy Duty Square Rack Bar) | GK-165-047-2 (GULLCO 4-Motion Semi-Automatic Welding Gun Attachment) | GK-165-052-1 (GULLCO 96 in. Aluminum Alloy Standard Track) | GK-165-215 (6 GULLCO Track Magnet Devices) |

BUG-O is a registered trademark of the Weld Tooling Corporation. Gullco is a registered trademark of Gullco Enterprises Limited. The aforementioned registered trademarks are in no way affiliated with Arcair. Arcair is a registered trademark of ESAB.

## Titan Travel System Packages

### Straight Line Flat Position Carriage

For metal removal applications in the flat position only, Arcair offers a machine carriage system that can carry the complete Arcair-Matic N7500 system and can be easily lifted on and off the work surface with an overhead crane. The track section consists of a steel "T" bar, machined on each end to permit joining additional sections easily. The same machine carriage can come with "outrigger" wheels to guide the carriage down the work surface, ideal for bridge girder back-gouging applications.

### All travel systems include a complete N7500 Automated Gouging System

- Remote pendant (72008020)
- Control box (72008021)
- Torch head (05-124-001)
- Arcair electrode tube holder (94893082)
- Arcair air regulator (71000073)

*With the exception of the power communication cable assembly, all other system cable assemblies, 110V AC power cable, pendant cable, motor cable, dc power cable, and air hose assemblies are included.*



| Ordering Information                                                       |          | Arcair Titan Travel System Specifications |                   |                     |                                                 |                  |                      |                  |              |
|----------------------------------------------------------------------------|----------|-------------------------------------------|-------------------|---------------------|-------------------------------------------------|------------------|----------------------|------------------|--------------|
|                                                                            |          | Horizontal Rack Bar                       | Vertical Rack Bar | Outrigger Wheel Pkg | Track                                           | Pointer Assembly | Magnet Supports      | Cable-Hose Clamp | Lift Bracket |
| Titan Machine Carriage System Package with Track - 110 VAC                 | 71022704 |                                           |                   |                     |                                                 |                  |                      |                  |              |
| Titan Machine Carriage System Package w/ Outrigger Wheel Package - 110 VAC | 71022705 | 71099073                                  | 71099074          | -                   | 71022501 (Arcair 10 ft "T" Steel Track Section) | 71022502         | 71022504 (3 Magnets) | 71022506         | 94111168     |
|                                                                            |          | 71099073                                  | 71099074          | 80345               | -                                               | -                | -                    | 71022506         | 94111168     |

*\* System Part No. includes the items as noted along with the Arcair-Matic N7500 System.*

### Titan with Outrigger Wheel Package



EXOTHERMIC CUTTING

## Arcair Titan Machine Carriage

Ideal for any automated applications in metal fabrication operations where gouging, welding and cutting represents a large portion of your work schedule. And that applies to almost all metals, including stainless, carbon, manganese, and chrome-moly steels.

### Flat Plate Work

Arcair Titan Machine Carriage is designed for low maintenance and high performance in straight line operation such as automated air-carbon arc gouging, cutting or welding operations. Available in speed ranges from 6 – 80 i.p.m. (15.2 – 203.2 cm/min).



| Specifications                            |                                              |
|-------------------------------------------|----------------------------------------------|
| <b>Dimensions L x W x H</b>               | <b>Weight</b>                                |
| 24 x 21 x 5-7/8 in. (61 x 53.3 x 14.9 cm) | 61 lb (27.7 kg)                              |
| <b>Weight Capacity</b>                    | <b>Mounting Area</b>                         |
| Flat Position: 300 lb (136.1 kg)          | 245 in <sup>2</sup> (1,639 cm <sup>2</sup> ) |

| Ordering Information |                                                                         |
|----------------------|-------------------------------------------------------------------------|
| 71022501             | Titan Machine Carriage - 6-80 ipm (15.2 - 203.2 cm/min (110 VAC, 60 Hz) |

| Options & Accessories |                                                                 |
|-----------------------|-----------------------------------------------------------------|
| 71022502              | Track Section 10 ft (3 m) Long                                  |
| 71022504              | Magnet and Support Bar Assembly [3 ea required per 10 ft (3 m)] |

## Arcair Horizontal & Vertical Rack Bar Positioners

### Ruggedness, Rigidity

- Made from heavy gauge aluminum and brass to operate under severe operating conditions

### Accuracy & Ease of Operation

- Precision machined parts ensures accurate torch/tool positioning
- Positioners do not need to be disassembled to reposition or remove

### Horizontal Rack Bar Positioner



| Specifications                         |                 |
|----------------------------------------|-----------------|
| <b>Dimensions L x W x H</b>            | <b>Weight</b>   |
| 26 x 4 x 9-7/8 in. (66 x 10 x 24.5 cm) | 61 lb (27.7 kg) |

| Ordering Information |                              |
|----------------------|------------------------------|
| 71099073             | Horizontal Rack Bar Assembly |

### Vertical Rack Bar Positioner



| Specifications                                 |                 |
|------------------------------------------------|-----------------|
| <b>Dimensions L x W x H</b>                    | <b>Weight</b>   |
| 6 x 4-1/2 x 13-7/8 in. (35.2 x 11.4 x 15.2 cm) | 3.1 lb (1.4 kg) |

| Ordering Information |                            |
|----------------------|----------------------------|
| 71099074             | Vertical Rack Bar Assembly |

EXOTHERMIC CUTTING

## SLICE® Exothermic Cutting System

### Versatile - Unlike Any Other Cutting Technology

- Cuts right through hard-to-cut materials
  - Mild, stainless steel and alloy steels
  - Cast iron
  - Aluminum, magnesium and other non ferrous metals
  - Slag and refractory materials
  - Pierces through concrete or brick

### Fast Cutting Speeds

- No-preheat required
- Cut sooner and finish every job faster

### Comfortable and Easy to Use

- Pistol grip style handle
- Lightweight shield to protect the operator from heat and sparks
- Lever operated oxygen control

### Carry All Convenience

- Several portable SLICE packs to choose from
  - Utility Pack
  - Battery Pack
  - Industrial Pack
  - Complete Pack



 [arcairslice.com](http://arcairslice.com)

| Specifications              |                                     |                      |                                |                                                                       |
|-----------------------------|-------------------------------------|----------------------|--------------------------------|-----------------------------------------------------------------------|
| Input Voltage               | Length of Power Cable & Oxygen Hose | Power Cable AWG Size | Certification Mark (Standards) | Weight                                                                |
| 12 V Battery (not included) | 10 ft (3 m)                         | #10<br>#6<br>#1      | CE                             | #10 - 3.8 lb (1.7 kg)<br>#6 - 4.4 lb (2.0 kg)<br>#1 - 6.3 lb (2.9 kg) |

| Ordering Information |                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------|
| 03003012             | SLICE Cutting Torch w/ #10 Power Cable (When Igniting w/ 12V Battery & Cutting w/o Power) |
| 03003011             | SLICE Cutting Torch w/ #6 (When Igniting 12V Battery & Cutting w/o Power)                 |
| 03003010             | SLICE Cutting Torch w/ #1 (Up to 200 A w/ Power)                                          |

Use 1/4" & 3/8" diameter of cutting rods by simply changing the collet nut and collet chuck

Lightweight shield to help protect the operator from heat and sparks

Easy to squeeze lever on the handle for easy oxygen control

Industrial grade oxygen hose 10 ft (3 m) length is standard

Pistol grip designed handle is comfortable and easy to use



EXOTHERMIC CUTTING

# Tips for Using SLICE® Exothermic Cutting Equipment

## TIPS FOR CUTTING

Cutting procedures will vary from job to job. Study the cutting rates chart for specific cutting speeds.

Normal cutting is done by using a drag technique. Once the rod is in contact with the piece to be cut, drag the rod in the direction of the cut. If the operator cannot see the kerf, the speed of cut is too fast. If the rod is being used too rapidly the progress of the cut is too slow and the rod is being used without cutting. REMEMBER, the cutting rods consume as long as the oxygen is flowing. Maintain the proper travel speed at all times.

NOTE: Use a sawing motion when material to be cut is thicker than 1-1/2 to 2 inches to ensure a complete melt through.

Use a smooth motion to complete the cut. Be careful not to hit nearby material with the rod when cutting in “close quarters.” After completing the cut, release the oxygen control lever in the handle. THE CUTTING ROD WILL CONTINUE TO BURN AS LONG AS OXYGEN IS SUPPLIED. Hold the torch safely away from you until the rod cools.

## TIPS FOR PIERCING SURFACES

The SLICE Torch can be used to pierce solids. Special procedures must be used when piercing. When piercing, use a collet extension (and shield). This extension adds life to the torch and hand shield, and greatly improves operator safety and comfort. Always hold the torch at arm’s length and wear plenty of protective clothing, eye and ear protection. Cutting rods can get stuck inside the pierced hole. If possible, remove the cutting rod from the hole before releasing the oxygen lever.

With any thermal cutting equipment blowback is most likely to occur when the user is piercing holes. Cutting rods may burn unevenly. Slowly swirl the cutting rod as it enters a pierced hole. Cutting rods may burn out on the sides. Correct the problem by removing the cutting rod from the pierce point, shut the oxygen off, and replace the cutting rod.

To pierce follow these steps:

- Strike cutting rod on striker.
- Hold torch at arm’s length
- Keep the cutting rod at a 90° angle (perpendicular) to the pierce point
- Slowly push cutting rod in at pierce point until you are at proper depth or until you have achieved burn through

The pierce procedure is also used to cut concrete. By piercing a series of holes where a user wants to cut concrete, the concrete becomes easier to fracture. This helps reduce the time it would take to actually cut the concrete.

## OXYGEN USAGE

This cutting process uses standard industrial grade oxygen to support the exothermic reaction and to remove the molten metal. All SLICE equipment uses standard oxygen fittings.

The most commonly recommended operating pressure is 80 psi. Applications such as cutting material sections 3 in. (7.6 cm) and thicker might require higher operating pressures. Pressures as low as 40 psi have been used to perform operations such as washing off rivet heads and scarfing out small cracks for repair.

The oxygen consumption rate for the SLICE cutting rods at 80 psi is 7 to 7.5 cfm for the 1/4 in. (6.35 mm) diameter cutting rods and 11 to 12 cfm for the 3/8 in. (15.87 mm) diameter cutting rods. This rate will vary if a different operating pressure is used.

## ROD BURNTIME

Listed are the approximate burntimes for the various SLICE rod diameters and lengths:

- 1/4 in. x 22 in. (6.4 X 559 mm) . . 40 - 45 seconds
- 1/4 in. x 44 in. (6.4 X 1118 mm) 80 - 90 seconds
- 3/8 in. x 18 in. (9.5 X 457 mm) . . 30 - 35 seconds
- 3/8 in. x 36 in. (9.5 X 914 mm) . . 60 - 70 seconds

## APPLICATION DATA

The best techniques for the SLICE equipment will change from job to job. The enclosed charts present the results of extensive testing of the SLICE Torch. Four things contribute to good cutting:

- 1) Electrical current
- 2) Type of material being cut
- 3) Environmental conditions
- 4) Experience of the operator(s)

These data result from studies of the first two (2) items in this list. Since data were collected in a laboratory, actual results obtained will vary because of changes in the environment. Too, these tests were conducted by highly experienced users. The way in which you use the SLICE Torch will also cause your results to vary.

In any application, some adjustments in operating conditions are necessary. The charts are presented only as a guideline. Results will vary. You can approximate these results by using the data presented as a starting point, then adjusting for your job.

Here is a sample of some cutting rates that can be obtained using the SLICE equipment. Cutting rates in this chart were obtained using 80 psi oxygen pressure, battery ignition (no power cutting) and 1/4 in. x 22 in. (356 x 559 mm) cutting rods. These cutting rates will vary when using different rods, when cutting with power or using a different oxygen pressure. This chart does not represent all materials SLICE will cut nor all thicknesses used in fabrication. When cutting composite materials or metals not listed, locate the listed type that most closely matches the metal to be cut. This information is only meant as a reference to the efficiency and versatility that a user can realize using the SLICE equipment.

| Cutting Rates      |           |      |            |     |           |        |
|--------------------|-----------|------|------------|-----|-----------|--------|
| Material Being Cut | Thickness |      | Cut/in Rod |     | Cut Speed |        |
|                    | in.       | cm   | in.        | cm  | in/min    | cm/min |
| Carbon Steel       | 1/8       | .318 | 2.25       | 5.7 | 72        | 183    |
|                    | 1/4       | .635 | 1.50       | 3.8 | 52        | 132    |
|                    | 3/8       | .953 | 1.38       | 3.5 | 42        | 106    |
|                    | 1/2       | 1.27 | 1.25       | 3.2 | 35        | 89     |
|                    | 3/4       | 1.91 | 0.75       | 1.9 | 22        | 56     |
| Stainless Steel    | 1/8       | .318 | 2.00       | 5.1 | 65        | 165    |
|                    | 1/4       | .635 | 1.13       | 2.9 | 36        | 91     |
| Aluminum           | 1/4       | .635 | 1.75       | 4.4 | 58        | 147    |
|                    | 3/8       | .953 | 1.25       | 3.2 | 38        | 97     |
|                    | 3/4       | 1.91 | 0.75       | 1.9 | 23        | 58     |

*This data is the result of averaging lab tests. The actual results will vary.*

EXOTHERMIC CUTTING

## SLICE® Battery/Utility Pack

Go anywhere and cut, burn, or pierce virtually any metallic, non-metallic or composite material with this exothermic cutting pack. Comes with all the necessary equipment and cutting rods required to do cutting when combined with standard industrial grade oxygen to support the exothermic reaction and to remove the molten metal.



- New heavy-duty storage case to hold/store the equipment when not in use
- Improved torch handle and rubber shield to improve the operator's grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar

Battery Pack Only:

- Improved battery ignition source with improved features over prior model
  - Faster recharging of a “dead” battery
  - Better visual “gas gauge” indicating battery condition
  - Over-charging safe guard

| Specifications                                     |                                     |                      |                                             |                                                                   |
|----------------------------------------------------|-------------------------------------|----------------------|---------------------------------------------|-------------------------------------------------------------------|
| Input Voltage                                      | Length of Power Cable & Oxygen Hose | Power Cable AWG Size | Certification Mark (Standards)              | Weight                                                            |
| 120 V AC 60 Hz<br>220 V AC 50 Hz<br>(Battery Pack) | 10 ft (3 m)                         | #10                  | CE                                          | Battery Pack<br>28 lb (12.7 kg)<br>Utility Pack<br>21 lb (9.5 kg) |
| Output Voltage                                     | Type of Battery                     | Recharge Time        | Exothermic Cutting Rods                     | Dimensions L x W x H                                              |
| 12 V DC                                            | Seal lead acid                      | 6 h (fully drained)  | 1/4 in. x 22 in.<br>Uncoated –<br>25 pieces | 22.25 x 20 x 5.5 in.<br>(565 x 508 x 140 mm)                      |

| Ordering Information |                                     |
|----------------------|-------------------------------------|
| 63991041             | SLICE Battery Pack – 120 V AC 60 Hz |
| 63991044             | SLICE Battery Pack – 220 V AC 50 Hz |
| 63991047             | SLICE Utility Pack                  |

## SLICE® Battery Ignition Source

The improved battery ignition source features faster recharging, better visual gas gauge and over-charging safe guard.

Accepts the SLICE cutting torch power connection that has the twist-lock power pin and the SLICE Striker Assembly that completes the circuit when the SLICE rod held in the cutting torch comes in contact with the Striker copper bar. With oxygen flowing through the torch and cutting rod the exothermic reaction begins and cutting can start. Simply release the oxygen lever on the torch to stop the burn.



- All connections to the battery ignition source are labelled for ease of use
- Illuminated lights “GAS GAUGE” signifies the level of the battery current output to ignite the cutting rod
- Experienced operators can expect to achieve 115+ ignitions from a fully charged battery
- Charging time to bring a fully drained battery up to a fully charged status is 6 hours

| Specifications |                          |                                          |                                |                                                     |
|----------------|--------------------------|------------------------------------------|--------------------------------|-----------------------------------------------------|
| Input Voltage  | Internal Battery Display | Charging Mode                            | Certification Mark (Standards) | Weight                                              |
| 22-30 V DC     | LED                      | Constant Voltage                         | CE                             | 7.1 lb (3.22 kg)<br>Battery Case &<br>Power Adapter |
| Output Voltage | Type of Battery          | Adapter Input                            | Adapter Output                 | Dimensions L x W x H                                |
| 12 V DC        | Seal lead acid           | 100 – 240 VAC<br>50 – 60 Hz<br>1.4 A Max | 24 V DC, 2.7 A                 | 6.4 x 4.6 x 7.4 in.<br>(163 x 117 x 188 mm)         |

| Ordering Information |                                 |
|----------------------|---------------------------------|
| 96076040             | SLICE Battery Ignition Source   |
| 96076041             | Power Adapter w/ NAM Power Lead |

## SLICE® Industrial Pack

A self-contained cutting system lends itself well for maintenance/repair inside of manufacturing facilities.

- Improved torch handle and rubber shield to improve the operators grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper) which increases the life of the striker copper bar
- Improved battery box with improved features over prior model
  - Faster recharging of a “dead” battery
  - Better visual “gas gauge” indicating battery condition
  - Over-charging safe guard
- Storage shelf on the cart to place a 12V battery for the power to ignite the SLICE rod and begin exothermic cutting action (12V battery not included with system)
- System includes a battery charger mounted on the cart to recharge the 12V battery as needed



## SLICE® Complete Pack

A self-contained cutting system lends itself well to the emergency/forced entry type cutting situations where seconds count.

- Improved torch handle and rubber shield to improve the operators grip and provide protection from molten spray when piercing
- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar
- Improved battery box with improved features over prior model
  - Faster recharging of a “dead” battery
  - Better visual “gas gauge” indicating battery condition
  - Over-charging safe guard



### Specifications

| Input Voltage  | Length of Power Cable & Oxygen Hose   | Power Cable AWG Size | Certification Mark (Standards) | Weight                                            |
|----------------|---------------------------------------|----------------------|--------------------------------|---------------------------------------------------|
| 120 V AC 60 Hz | 10 ft (3 m)                           | #10                  | CE                             | 81.2 lbs (36.8 kg)                                |
| Output Voltage | Exothermic Cutting Rods               |                      |                                | Dimensions L x W x H                              |
| 12 V DC        | 1/4 in. x 22 in. Uncoated – 25 pieces |                      |                                | 20-5/8 x 48-3/8 x 20 in.<br>(524 x 1229 x 508 mm) |

### Ordering Information

|          |                                        |
|----------|----------------------------------------|
| 63991045 | SLICE Industrial Pack – 120 V AC 60 Hz |
|----------|----------------------------------------|

### Specifications

| Input Voltage                    | Length of Power Cable & Oxygen Hose | Power Cable AWG Size                  | Certification Mark (Standards) | Weight                                                                                                                    |
|----------------------------------|-------------------------------------|---------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 120 V AC 60 Hz<br>220 V AC 50 Hz | 10 ft (3 m)                         | #10                                   | CE                             | With Cylinder<br>70 lb (31.75 kg)<br>Without Cylinder<br>39.05 lb (17.71 kg)                                              |
| Output Voltage                   | Recharge Time                       | Exothermic Cutting Rods               |                                | Dimensions L x W x H                                                                                                      |
| 12 V DC                          | 6 h (fully drained)                 | 1/4 in. x 22 in. Uncoated – 25 pieces |                                | With Cylinder:<br>15 x 27 x 8 in.<br>(400 x 689 x 206 mm)<br>Without Cylinder:<br>15 x 25 x 8 in.<br>(400 x 638 x 206 mm) |

### Ordering Information

|          |                                      |
|----------|--------------------------------------|
| 63991040 | SLICE Complete Pack – 120 V AC 60 Hz |
| 63991042 | SLICE Complete Pack – 220 V AC 50 Hz |

EXOTHERMIC CUTTING

## SLICE® Striker Assembly



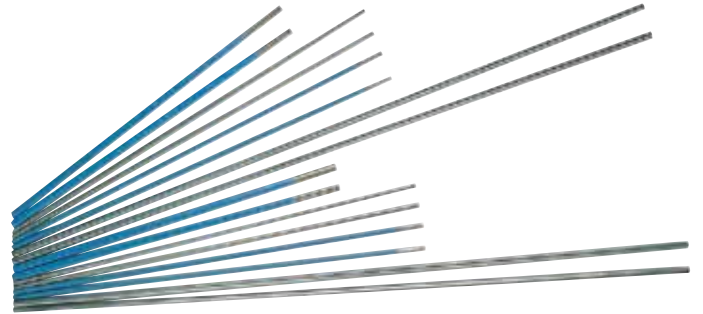
The SLICE Striker comes standard with a #10 AWG Power Cable with a twist-lock brass pin that can connect to the SLICE battery ignition source. The same twist-lock pin can be inserted into the mating receptacle on a plier type clamp found in the SLICE Utility Pack (please see separate fact sheet for details).

- Improved striker assembly that incorporates a slide mechanism that allows the operator to only expose a small portion of the ignition bar (copper), which increases the life of the striker copper bar
- Robust handle insulator material that can handle impact with the ground and high temperature rating

| Specifications                                 |                                             |                                       |
|------------------------------------------------|---------------------------------------------|---------------------------------------|
| <b>Length of Power Cable &amp; Oxygen Hose</b> | <b>Power Cable AWG Size</b>                 | <b>Certification Mark (Standards)</b> |
| 10 ft (3 m)                                    | #10                                         | CE                                    |
| <b>Weight</b>                                  | <b>Dimensions L x W x H</b>                 |                                       |
| 1.2 lb (.54 kg)                                | 9.5 x 1.5 x 1.75 in. (241.3 x 38 x 44.5 mm) |                                       |

| Ordering Information |                        |
|----------------------|------------------------|
| 72012010             | SLICE Striker Assembly |

## SLICE® Cutting rods



Unlike any other cutting process used today, SLICE systems can cut, burn or pierce virtually any metallic, non-metallic or composite material. Specially designed flux-coated cutting rod, patented single piece construction maintains the balance necessary to sustain the exothermic reaction.

- Specially designed cutting rod
- One piece patented construction maintains the balance necessary to sustain the exothermic reaction
- Cutting rod sustains the burn without constant electrical power once ignited

| Ordering Information |                                                                |
|----------------------|----------------------------------------------------------------|
| 42049003             | SLICE Exothermic Cutting Rods, Flux Coated, 1/4 x 22 – 100 Pcs |
| 42049002             | SLICE Exothermic Cutting Rods, Flux Coated, 1/4 x 22 – 25 Pcs  |
| 43049009             | SLICE Exothermic Cutting Rods, Uncoated, 3/8 x 36 – 25 Pcs     |
| 43049007             | SLICE Exothermic Cutting Rods, Uncoated, 3/8 x 18 – 50 Pcs     |
| 43049002             | SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 22 – 25 Pcs     |
| 43049005             | SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 44 – 25 Pcs     |
| 42049005             | SLICE Exothermic Cutting Rods, Flux Coated, 3/8 x 18 – 50 Pcs  |
| 43049003             | SLICE Exothermic Cutting Rods, Uncoated, 1/4 x 22 – 100 Pcs    |
| 94463032             | 3/8 in. Collet Conversion Kit                                  |

# MAJOR UPGRADE: ARCAIR® SLICE® EXOTHERMIC CUTTING SYSTEM.

The fastest way to cut, burn or pierce virtually any metallic, nonmetallic or composite material. SLICE cuts anything put in front of its 8,000°F to 10,000°F flame, including steel, aluminum, cast iron, brass, nickel, concrete or firebrick.

The portability and cut-anything capabilities of SLICE systems make them preferred tools for forcible entry (fire and rescue), heavy equipment repair and maintenance, steel erection, bridge construction, and scrap and demolition work.

## SLICE ENHANCEMENTS.

- More-ergonomic torch grip and oxygen flow lever.
- Stronger connection between grip and rubber shield.
- New striker assembly extends striker life by exposing ignition bar in small increments.
- Improved 12V ignition source for faster recharging of a dead battery, overcharging safeguard and a better visual indication of battery condition.

## FOUR SLICE PACK OPTIONS.

### 1. SLICE Utility Pack.

Includes everything required for cutting except the 12V battery and oxygen cylinder.

### 2. SLICE Battery Pack.

Includes improved 12V ignition source. No cylinder.

### 3. SLICE Complete Pack.

Includes improved 12V ignition source and 55-cu.-ft. oxygen cylinder and oxygen regulator. Metal carrying case makes it well-suited for forcible-entry situations when seconds count.

### 4. SLICE Industrial Pack.

Cart accommodates a large oxygen cylinder to extend cutting time, and a 12V AC battery charger.



# // MANUAL PLASMA







# WE'VE CREATED A CUTTING BEAST.



**THE FIERCEST PLASMA CUTTER IN ITS CLASS.  
KILLER POWER-TO-WEIGHT RATIO // INSANE CUTTING ARC  
VICIOUS TORCH // MONSTROUS DISPLAY**

Find out how you can unleash the Thermal Dynamics® **Cutmaster® 60i** at [esab.com/beast](https://esab.com/beast).

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## PLASMA ACCESSORIES

Plasma Accessories ..... 204



Dr. James Browning, Founder



**1957**

Dr. James Browning & Merle Thorpe found Thermal Dynamics.

**1970**

First PAK® unit-power supply, PAK 40, cooling system, and console combined into one unit.

**1975**

PAK 44 incorporated plug-in relays, torch auto-pilot, and constant current.

**1980**

First single phase machine introduced, PAK 5.

**1982**

PAK-3, the first PAC system to use air as plasma gas; for cutting gauge thickness material.

**1990**

Plasma gouging introduced, PAK 15XC

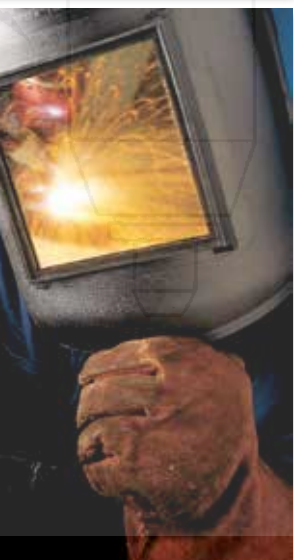
**1997**

PakMaster® XL series and the Econopak® provide more portability.

**1998**

The Drag-Gun® introduced as the first cutting system with a built-in air compressor.

# AT THE FOREFRONT OF PLASMA CUTTING INNOVATION



**1999**  
PakMaster® XL Plus Series  
introduced.

**2000**  
Cutmaster® 50 &  
Sure Lok® RPT  
replacement torches  
introduced.

**2002**  
Torch® and ATC® connection were  
introduced with SureLok®  
technology. First non-High  
Frequency system introduced with  
the Cutmaster® 38

**2004**  
Cutmaster 1Series®;  
51/81/101 launched.

**2008**  
Cutmaster TRUJE™ Series;  
39/52/82/102/152 launched.

**2011**  
Cutmaster 42 with SL40 torch  
utilizing V2S technology.

**2014**  
Thermal Dynamics  
becomes  
An ESAB Brand

**2017**  
ESAB launches the  
Thermal Dynamics  
Cutmaster 60i

## Plasma Cutting Process

### From the Market Leaders

Since Thermal Dynamics® developed the plasma arc process in 1953 and incorporated in 1957, we have introduced a number of innovations to ensure peak performance in plasma cutting and gouging.

Today, ESAB's product line includes the full range of Thermal Dynamics systems designed to meet your specific needs and applications.

### Process Description

Plasma arc cutting is a relatively simple operation and widely accepted for cutting ferrous and non-ferrous metals. The plasma arc's straight, narrow, column-like shape and high current density allow the operator to achieve cut consistency without maintaining a constant distance between the nozzle and the workpiece.

Plasma cutting involves using a torch, compressed gas, and a source of electric power to create a constricted arc that melts a localized area of metal and removes the molten material with a high-velocity jet of hot, ionized gas.

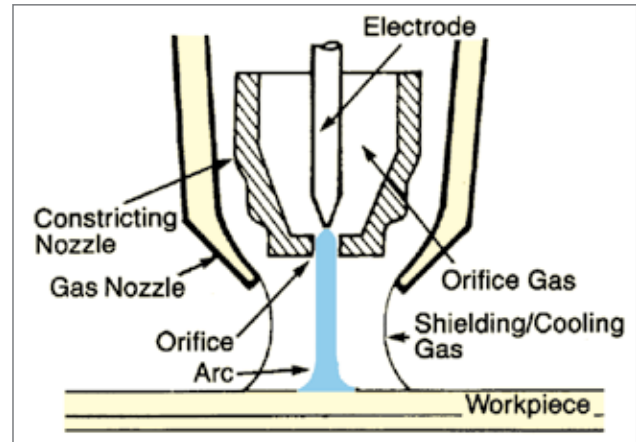
During plasma cutting, a compressed gas and an electric arc are simultaneously passed through a small orifice, which is typically 0.040 in. (1.0 mm) to 0.125 in. (3.18 mm) in diameter. An electric arc heats the gas to a plasma state at a temperature as high as 50,000°F (27,760°C). This super-heated plasma jet is directed to the area to be cut, and the jet melts a path through the metal. Because it is a melting process, plasma cutting can cut almost any commercially used metal.

Plasma gouging is a variation of the plasma cutting process. The torch nozzle configuration is designed to produce a lower velocity, broader arc. Rather than cutting completely through the metal, the torch is held at an angle so the arc gouges a U-shaped groove in the metal.

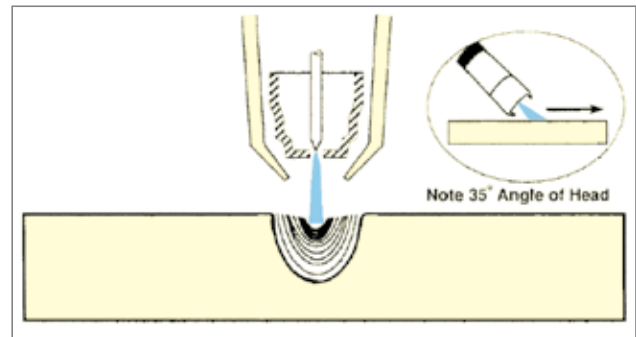
Plasma cutting can be accomplished manually or mechanically. In mechanical setups, a plasma torch is driven by an automatic machine that is typically regulated by a computer numerical control (CNC) to cut a predetermined shape. This section focuses on manual plasma cutting, in which the plasma torch is manipulated by hand to perform a variety of metal cutting tasks.

Manual systems are available in a variety of sizes. Generally rated in amperage output or cutting capacity, the units range from about 15 to 300A output, encompassing a cutting capacity ranging from 1/4 in. (6.35 mm) to approximately 4 in. (101.6 mm).

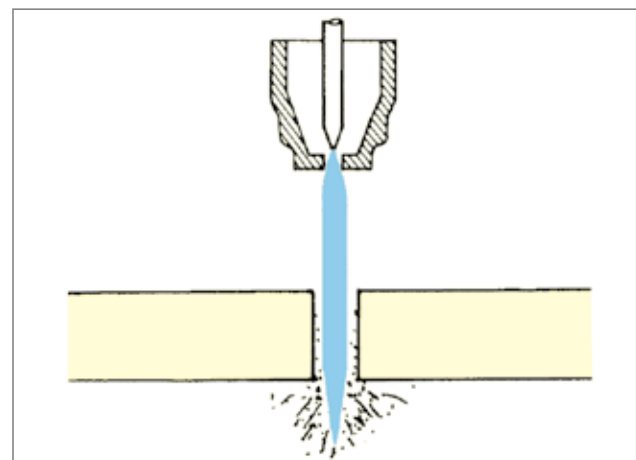
Manual units can also be divided into two general categories. Stationary or console systems generally are designed to remain fixed in one place, although most are equipped with wheels that make it possible to move them around a shop. Portable systems are designed to be carried around by one or two workers, allowing them to move the system where it is needed rather than taking materials to be cut to one location.



Plasma Arc Cutting



Plasma Arc Cutting



Plasma Arc Gouging

## Plasma Cutting Process

### The Cutting Torch

One of the most important considerations in choosing a system is the front-end design of the plasma cutting torch, because it controls the cut and most heavily influences the operating costs of the setup. If reaching tight places is important, a torch with a small or narrow front end is a good choice. A smaller front end may also be a better choice in applications that require a clear line of vision to follow a cut line, because a larger front end could obscure vision.

In addition to the up-front costs for nozzles, electrodes, and other front-end parts, you should consider the durability of the parts and the life in arc hours you can expect from the nozzle and electrode combination. These factors are better indicators of operating costs than are the prices of the parts alone.

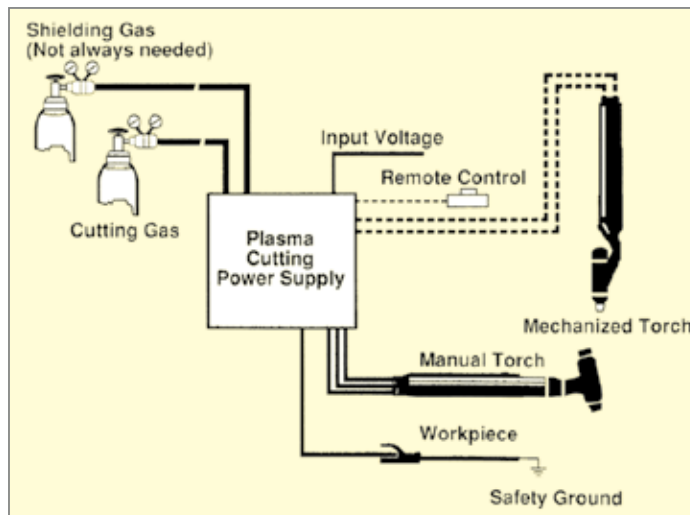
Plasma cutting torch parts are generally made to very high tolerances. Make sure that any replacement parts you use are made to proper specifications. The wrong replacement parts can result in poor performance and damage to the torch head, which could require an expensive repair.

### Recommended Cutting Gases

**Compressed Air** is the most commonly used gas for lower current plasma cutting and works well for most metals from gauge thickness to 1 in. (25.4 mm). It leaves an oxidized cut surface. Compressed air can also be used for plasma gouging on carbon steel.

**Nitrogen (N<sub>2</sub>)** is often used for higher current plasma systems and for cutting materials up to 3 in. (76.2 mm) thick. It produces excellent quality cuts on most materials.

**Argon-Hydrogen Mixtures (H-35)** are generally used for cutting stainless steel and aluminum. They produce a clean, high quality cut face. Argon-Hydrogen is required for mechanized cutting of any material more than 3 in. (76.2 mm) thick. This mixture also provides an excellent gas for plasma gouging on all materials.



Finally, the best way to evaluate a manual plasma cutting system for your application is to ask for a demonstration. Many of the factors that determine which unit is right for you become obvious when you see the unit demonstrated in your own shop. Pay particular attention to cut speed, quality, ease of use, and portability, if that is an issue. If access is limited to an area to be cut, make sure that the cutter you evaluate can do the job.

### Important Product Safety

Sound common sense procedures must be followed for personal protection and operating efficiency when using manual plasma cutting equipment. Always comply with the manufacturer's recommendations for operating and maintaining the equipment, as set forth in the instructions provided with each unit. Also, be certain to use all applicable safety precautions, as described in [Precautions and Safe Practices for Arc Welding, Cutting and Gouging \(F-52-529\)](#), which is available by contacting ESAB at 1-800-ESAB.123 or visiting [esabna.com](http://esabna.com).

## Cutmaster® 42

The power of two machines built into one



- The Cutmaster® 42 is one of the most affordable, highest quality 120 V, 1/4 in. (6 mm) plasma systems on the market
- At 230 V, the Cutmaster 42 delivers 40 A, and recommended cut of 3/8 in. (9.5 mm)
- As part of the TRUE™ Series, you can rely on the Cutmaster 42 to cut all day at its recommended cutting capacity and to pack more punch when you need it
- The Cutmaster 42 with SL40 torch incorporates Vent2Shield™ (V2S) technology allowing the use of a considerably smaller compressor (less weight to carry, can be used with 120 V) compared to similar 40 A units

### Specifications

| Input Voltage                | Recommended Cut                                  | Maximum Cut                                      | Duty Cycle         | Pierce Rating                                    | Max Amperage Output                      | Torch Air Pressure | Torch Air Consumption                           |
|------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------|--------------------------------------------------|------------------------------------------|--------------------|-------------------------------------------------|
| 120/230 V, 1 ph, 50/60 Hz    | 120 V: 1/4 in. (6 mm)<br>230 V: 3/8 in. (9.5 mm) | 120 V: 5/8 in. (15 mm)<br>230 V: 3/4 in. (20 mm) | 40% @ 40 A @ 230 V | 120 V: 1/4 in. (6 mm)<br>230 V: 3/8 in. (9.5 mm) | 27 A @ 120 V<br>40 A @ 230 V             | 75 psi (5.2 bar)   | SL40 3.2 cfm (91 l/m)<br>SL60 6.7 cfm (190 l/m) |
| Amperage Draw                | Gouging Profiles                                 | Output Range                                     | Depth              | Width                                            | Dimensions L x W x H                     | Weight             |                                                 |
| 29 A @ 120 V<br>15 A @ 230 V | Tip A (SL60 torch only)                          | 40 A (Max)                                       | Shallow            | Narrow                                           | 18.5 x 7 x 9 in.<br>(470 x 177 x 228 mm) | 26 lbs. (11.8 kg)  |                                                 |

### Ordering Information

|                                                                       |             |                                                                           |          |
|-----------------------------------------------------------------------|-------------|---------------------------------------------------------------------------|----------|
| Cutmaster 42, SL40 75° hand torch, 15 ft. (4.5 m), 120/230 V, 1ph CSA | 1-4200      | Cutmaster 42, SL40 75° hand torch, 15 ft. (4.5 m), 120/230 V, 1ph CSA     | 1-4200-7 |
| Cutmaster 42, SL60 75° hand torch, 20 ft. (6.1 m), 120/230 V, 1ph CSA | 1-4200-SL60 | Cutmaster 42, SL40 ATC 75° hand torch, 15 ft. (4.5 m), 120/230 V, 1ph CSA | 7-0040   |

Cutmaster 42 systems include: Power supply, torch, spare parts kit, input power cable, work cable and clamp, shade 5 safety glasses, power plug adapters, welding gloves, heavy-duty carry case and an instructional DVD.

## Cutmaster® 58

Medium-duty, portable plasma cutting system



- The Cutmaster® 58 is the most powerful 5/8 in. (16 mm) machine on the market today
- Cuts through mild and stainless steel, or aluminum up to 1 in. (25 mm) thick
- 1/2 in. (13 mm) pierce rating
- Combines power with the well-known performance and features of the industry-leading 1Torch®
- 6.2 kW rated output, 50% duty cycle at 60A, available in either 208-480V or 600V system - either system is capable of being wired single or three phase
- Simple switch at the back of the system allows for low or high voltage applications and automatic voltage detection within each range
- Built for portability and durability with the integral multi-handle design

### Specifications

| Input Voltage                                                                  | Recommended Cut                                                | Pierce Rating   | Max Amperage Output                      | Output Power      | Torch                                                                        |
|--------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------|------------------------------------------|-------------------|------------------------------------------------------------------------------|
| 208-230/460 V, 1/3 ph, 50/60 Hz<br>400 V, 3 ph, 50 Hz<br>600 V, 3 ph, 50/60 Hz | 5/8 in. (16 mm)                                                | 1/2 in. (12 mm) | 60 A                                     | 6.2 kW            | SL60QD<br>Air Pressure - 75 psi (5.2 bar)<br>Consumption - 6.7 cfm (190 l/m) |
| Duty Cycle                                                                     | Amperage draw                                                  | Maximum Cut     | Dimensions L x W x H                     | Weight            |                                                                              |
| 40% @ 60 A<br>60% @ 50 A<br>100% @ 30 A                                        | 45 A @ 230 V, 1 ph<br>24 A @ 230 V, 3 ph<br>16 A @ 460 V, 3 ph | 1 in. (25 mm)   | 24 x 12 x 15 in.<br>(610 x 305 x 381 mm) | 43 lbs. (19.5 kg) |                                                                              |

### Ordering Information

|                                                    |          |                                                    |          |
|----------------------------------------------------|----------|----------------------------------------------------|----------|
| Cutmaster 58, 20 ft. (6 m), SL60QD, 208-230 VAC    | 1-5830-1 | Cutmaster 58, 20 ft. (6 m), SL60QD, 400-480 VAC    | 1-5830-2 |
| Cutmaster 58, 20 ft. (6 m), SL60QD, 600 VAC        | 1-5830-5 | Cutmaster 58, 50 ft. (15.2 m), SL60QD, 208-230 VAC | 1-5831-1 |
| Cutmaster 58, 50 ft. (15.2 m), SL60QD, 400-480 VAC | 1-5831-2 | Cutmaster 58, 50 ft. (15.2 m), SL60QD, 600 VAC     | 1-5831-5 |
| Cutmaster 58 Power Supply, 208-230 VAC             | 3-5830-1 | Cutmaster 58 Power Supply, 400-480 VAC             | 3-5830-2 |
| Cutmaster 58 Power Supply, 600 VAC                 | 3-5830-5 |                                                    |          |

Cutmaster 58 systems include: Power supply, torch, spare parts kit, input power cable, work cable and clamp.

# Cutmaster® 60i

The new frontier in plasma

 [esab.com/beast](http://esab.com/beast)



- Packed with power and offering the highest power-to-weight ratio in its class, the Cutmaster® 60i with SL60QD 1Torch® also has best-in-class cutting arc length and the most empowering and engaging user experience no matter the application
- Built for portability and durability with the integral multi-handle design, available in either a 1 phase or 3 phase unit
- Cutmaster MechPak is also available for easy integration into semi-automatic cutting processes
- 50% Duty Cycle at 60A with automatic multi-voltage detection from 208-480V
- Industrial SL60QD 1Torch quick disconnect with ATC® (Advanced Torch Connector) allowing selective replacement of either the torch handle assembly or the torch leads, using the patented SureLok® technology
- Up to 3/4 in. (20 mm) recommended cut capacity with maximum sever of 1-1/2 in. (38 mm) and 3/4 in. (20 mm) pierce capability
- High-visibility, oversized display with gas optimizer technology and consumables end-of-life indicator, makes setup and usage simple and productive
- Cutmaster Black Series electrode included for up to 60% longer life of consumable parts
- Industry leading 4-year warranty on power supply and 1-year warranty on torch

**CUTTING MACHINES**

### Specifications

| Input Voltage                                                                                         | Recommended Generator Size                                                                                              | Open Circuit Voltage                                                                                  | Amperage Output                                     |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 208 – 480 VAC +/- 10%,<br>1 ph or 3 ph, 50/60 Hz                                                      | 15 kW (full output)                                                                                                     | 300 V                                                                                                 | 10 – 60 A,<br>continuously adjustable               |
| Rated Duty Cycle                                                                                      | Amperage Draw                                                                                                           | Input Power Cable and Plug                                                                            | Work Lead with Ground Clamp                         |
| 50% @ 60 A<br>60% @ 50 A<br>100% @ 40 A                                                               | 43 A @ 208 V 1 ph / 26 A @ 208 V 3 ph<br>39 A @ 230 V 1 ph / 23 A @ 230 V 3 ph<br>19 A @ 480 V 1 ph / 11 A @ 480 V 3 ph | 9 ft. (2.7 m) 1 ph 8 AWG 3/C with NEMA 6-50P plug<br>9 ft. (2.7 m) 3 ph 12 AWG 4/C cable without plug | 20 ft. (6 m) #8 work cable<br>with 50 mm connection |
| Recommended Cut                                                                                       | Maximum Sever                                                                                                           | Pierce Rating                                                                                         | Gas Requirements                                    |
| up to 3/4 in. (20 mm)                                                                                 | 1-1/2 in. (38 mm)                                                                                                       | 3/4 in. (20 mm)                                                                                       | Compressed air                                      |
| SL60QD Torch Duty Cycle                                                                               | Air Flow Requirements (cutting & gouging)                                                                               | Operating Input Air Pressure Range                                                                    | Operating Temperature Range                         |
| 100% at 60 A @ 400 scfh air flow                                                                      | 300 – 500 cfm (142 – 235 l/m)                                                                                           | 90 – 125 psi (6.2 – 8.6 bar)                                                                          | 32 – 122° F (0° – 50° C)                            |
| Torches                                                                                               | Power Supply Gas Filtering Ability                                                                                      | Dimensions L x W x H                                                                                  | Weight                                              |
| SL60QD 1Torch (supplied)<br>SL60/SL100 1Torch<br>SL100 Mechanized 1Torch<br>SL100SLV Automated 1Torch | Particulates to 5 Microns                                                                                               | 21.12 x 7.85 x 14.15 in. (536 x 199 x 593 mm)                                                         | 37 lbs. (16.8 kg)                                   |

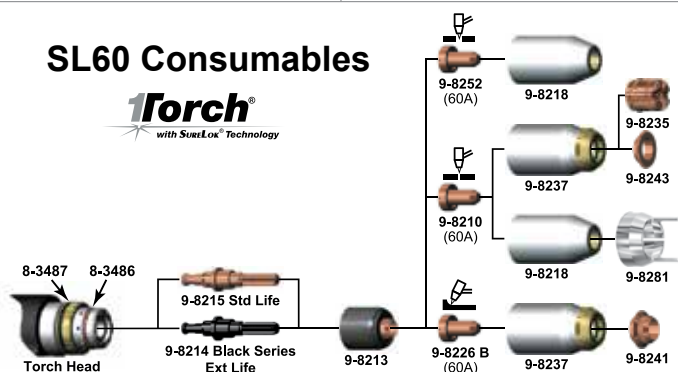
### Ordering Information

|                                                                 |           |
|-----------------------------------------------------------------|-----------|
| Cutmaster 60i, 1 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head  | 1-5630-1X |
| Cutmaster 60i, 1 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head | 1-5631-1X |
| Cutmaster 60i, 1 ph Power Supply Only                           | 3-5630-1X |
| Cutmaster 60i, 3 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head  | 1-5630-2X |
| Cutmaster 60i, 3 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head | 1-5631-2X |
| Cutmaster 60i, 3 ph Power Supply Only                           | 3-5630-2X |

Cutmaster 60i systems include: power supply, SL60QD 75° torch with lead, 20 ft. (6.1 m) work lead with ground clamp, spare parts kit, operating manual, and filter wrench.

Cutmaster 60i is compatible with all 1Torch® ATC torch connections.

### SL60 Consumables



## Cutmaster® 82

Medium/heavy-duty, portable plasma cutting system



- The Cutmaster® 82 weighs in at only 43 lbs. (19.5 kg) while still offering superior cutting power
- Cuts 3/4 in. (20 mm) with a maximum capability of 1-1/2 in. (40 mm)
- Versatile 1Torch® with ATC® disconnect makes it easy to add lead extensions or convert to a machine torch
- True Guard roll bar provides easy transportation and protection for unmatched durability
- Auto Pilot Restart feature instantly reignites the pilot arc while cutting expanded metals

### Specifications

| Input Voltage                                                                    | Recommended Cut                                                | Pierce Rating                           | Output Power                             | Max Amperage Output | Torch                                                        |
|----------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------|------------------------------------------|---------------------|--------------------------------------------------------------|
| 208 – 230/460 V, 1/3 ph, 50/60 Hz<br>400 V, 3 ph, 50 Hz<br>600 V, 3 ph, 50/60 Hz | 3/4 in. (20 mm)                                                | 5/8 in. (15 mm)                         | 9 kW                                     | 80 A                | SL60<br>Air Pressure - 70 psi (4.8 bar)<br>6.7 cfm (190 l/m) |
| Maximum Cut                                                                      | Amperage Draw                                                  | Duty Cycle (@ 104°F/40°C)               | Dimensions L x W x H                     | Weight              |                                                              |
| 1.5 in. (40 mm)                                                                  | 72 A @ 230 V, 1 ph<br>39 A @ 230 V, 3 ph<br>21 A @ 460 V, 3 ph | 40% @ 80 A<br>60% @ 65 A<br>100% @ 55 A | 24 x 12 x 15 in.<br>(610 x 305 x 381 mm) | 43 lbs. (19.5 kg)   |                                                              |

### Ordering Information

|                                                         |          |                                                          |          |
|---------------------------------------------------------|----------|----------------------------------------------------------|----------|
| Cutmaster 82, SL60 75°, 20 ft. (6.1 m), 208-230 V, 1 ph | 1-1130-1 | Cutmaster 82, SL60 75°, 20 ft. (6.1 m), 460 V, 3 ph      | 1-1130-2 |
| Cutmaster 82, SL60 75°, 20 ft. (6.1 m), 600 V, 3 ph     | 1-1130-5 | Cutmaster 82, SL60 75°, 50 ft. (15.2 m), 208-230 V, 1 ph | 1-1131-1 |
| Cutmaster 82, SL60 75°, 50 ft. (15.2 m), 460 V, 3 ph    | 1-1131-2 | Cutmaster 82, SL60 75°, 50 ft. (15.2 m), 600 V, 3 ph     | 1-1131-5 |

Cutmaster 82 systems include: power supply, torch, spare parts kit, input power cable, work cable and clamp, and an instructional DVD.

## Cutmaster® 102

Heavy-duty, portable plasma cutting system



- The Cutmaster® 102 weighs in at 62 lbs. (28 kg) and provides 100 A of cutting power
- This unit combined with the 1Torch® has a maximum cut capacity of 1-3/4 in. (45 mm)
- Versatile 1Torch with ATC® disconnect makes it easy to add lead extensions or convert to a machine torch
- True Guard roll bar provides easy transportation and protection for unmatched durability
- Auto Pilot Restart feature instantly reignites the pilot arc while cutting expanded metals

### Specifications

| Input Voltage                                                                    | Recommended Cut   | Pierce Rating                            | Output Power                             | Max Amperage Output | Torch                                                         |
|----------------------------------------------------------------------------------|-------------------|------------------------------------------|------------------------------------------|---------------------|---------------------------------------------------------------|
| 208 – 230/460 V, 1/3 ph, 50/60 Hz<br>400 V, 3 ph, 50 Hz<br>600 V, 3 ph, 50/60 Hz | 1 in. (25 mm)     | 3/4 in. (20 mm)                          | 12 kW                                    | 100 A               | SL100<br>Air Pressure - 70 psi (4.8 bar)<br>7.5 cfm (212 l/m) |
| Amperage Draw                                                                    | Maximum Cut       | Duty Cycle                               | Dimensions L x W x H                     | Weight              |                                                               |
| 95 A @ 230 V, 1 ph<br>45 A @ 230 V, 3 ph<br>29 A @ 460 V, 3 ph                   | 1 3/4 in. (45 mm) | 60% @ 100 A<br>80% @ 80 A<br>100% @ 70 A | 30 x 12 x 15 in.<br>(762 x 305 x 381 mm) | 62 lbs. (28.1 kg)   |                                                               |

### Ordering Information

|                                                           |          |                                                            |          |
|-----------------------------------------------------------|----------|------------------------------------------------------------|----------|
| Cutmaster 102, SL100 75°, 20 ft. (6.1 m), 208-230 V, 1 ph | 1-1330-1 | Cutmaster 102, SL100 75°, 20 ft. (6.1 m), 460 V, 3 ph      | 1-1330-2 |
| Cutmaster 102, SL100 75°, 20 ft. (6.1 m), 600 V, 3 ph     | 1-1330-5 | Cutmaster 102, SL100 75°, 50 ft. (15.2 m), 208-230 V, 1 ph | 1-1331-1 |
| Cutmaster 102, SL100 75°, 50 ft. (15.2 m), 460 V, 3 ph    | 1-1331-2 | Cutmaster 102, SL100 75°, 50 ft. (15.2 m), 600 V, 3 ph     | 1-1331-5 |

Cutmaster 102 systems include: power supply, torch, spare parts kit, input power cable, work cable and clamp, and an instructional DVD.

## Cutmaster® 152

Extra heavy-duty cutting system



- The Cutmaster® 152, weighing only 62 lbs. (28 kg), offers multi-voltage 1-or 3-phase input capability and provides 120 A of cutting power for a 1-1/4 in. (30 mm) recommended cut and 2 in. (50 mm) maximum cut
- Comes standard with the 1Torch® providing you with the well known comfort and reliability famous throughout the industry
- Front Panel LEDs indicate status conditions for maximum efficiency and storage compartment for convenient access to spare parts and consumables
- True Guard roll bar provides easy transportation and protection for unmatched durability
- Auto Pilot Restart feature instantly reignites the pilot arc while cutting expanded metals

CUTTING MACHINES

| Specifications                                                                   |                   |                             |              |                                          |                                                               |
|----------------------------------------------------------------------------------|-------------------|-----------------------------|--------------|------------------------------------------|---------------------------------------------------------------|
| Input Voltage                                                                    | Recommended Cut   | Pierce Rating               | Output Power | Max Amperage Output                      | Torch                                                         |
| 208 – 230/460 V, 1/3 ph, 50/60 Hz<br>400 V, 3 ph, 50 Hz<br>600 V, 3 ph, 50/60 Hz | 1-1/4 in. (30 mm) | 1 in. (25 mm)               | 15.4 kW      | 120 A                                    | SL100<br>Air Pressure - 70 psi (4.8 bar)<br>7.5 cfm (212 l/m) |
| Amperage Draw                                                                    | Maximum Cut       | Duty Cycle                  |              | Dimensions L x W x H                     | Weight                                                        |
| 120 A @ 230 V, 1 ph<br>56 A @ 230 V, 3 ph<br>37 A @ 460 V, 3 ph                  | 2 in. (50 mm)     | 80% @ 120 A<br>100% @ 100 A |              | 30 x 12 x 15 in.<br>(762 x 305 x 281 mm) | 62 lbs. (28.1 kg)                                             |

| Ordering Information                                      |          |                                                            |          |
|-----------------------------------------------------------|----------|------------------------------------------------------------|----------|
| Cutmaster 152, SL100 75°, 20 ft. (6.1 m), 208–230 V, 1 ph | 1-1730-1 | Cutmaster 152, SL100 75°, 20 ft. (6.1 m), 460 V, 3 ph      | 1-1730-2 |
| Cutmaster 152, SL100 75°, 20 ft. (6.1 m), 600 V, 3 ph     | 1-1730-5 | Cutmaster 152, SL100 75°, 50 ft. (15.2 m), 208–230 V, 1 ph | 1-1731-1 |
| Cutmaster 152, SL100 75°, 50 ft. (15.2 m), 460 V, 3 ph    | 1-1731-2 | Cutmaster 152, SL100 75°, 50 ft. (15.2 m), 600 V, 3 ph     | 1-1731-5 |

Cutmaster 152 systems include: power supply, torch, spare parts kit, input power cable, work cable and clamp, and an instructional DVD.

## PAK® 200i

Manual air-plasma cutting and gouging system



- Capable of hand cutting at 200 A with the ability to cut up to 2-3/4 in. (70 mm) on mild steel; at full output this unit will cut 10 ipm (254 mm/min) on 2 in. (51 mm) carbon steel
- 100% duty cycle at full output
- Dual Gas Capability – the dual gas system ensures superior quality and performance on ferrous and non-ferrous materials (Plasma Gas: Air, ArH2, Secondary Gas: Air, N2)
- High Gouging Removal Rate – with the ability to remove up to 25 lbs. (11.3 kg) of carbon steel per hour
- Tip Saver for Optimal Tip Life – this ensures that any accidental contact between the tip and the work at high power levels will not damage the tip

All PAK 200i systems include power supply, torch and leads, spare parts kit, 25 ft. (7.6 m) work cable and clamp, and torch coolant.

| Specifications                                      |                                              |                                                       |                   |                                                |                                                             |                     |
|-----------------------------------------------------|----------------------------------------------|-------------------------------------------------------|-------------------|------------------------------------------------|-------------------------------------------------------------|---------------------|
| Input Voltage                                       | Output Power                                 | Recommended Cut                                       | Maximum Cut       | Pierce Rating                                  | Duty Cycle                                                  | Torch               |
| 380 – 415 V, 3 ph, 50/60 Hz / 480 V, 3 ph, 50/60 Hz | 40 kW                                        | 1-1/2 in. (40 mm)                                     | 2 3/4 in. (70 mm) | 1 1/4 in. (32 mm)                              | 100% @ 200 A                                                | PCH200 Hand/Machine |
| Output Current                                      | Amperage Draw                                | Specifications                                        |                   | Dimensions L x W x H                           | Weight                                                      |                     |
| 35-200 A                                            | 60 A @ 380 V<br>57 A @ 400 V<br>47 A @ 480 V | Plasma Gas - Air, ArH2, N2<br>Secondary Gas - Air, N2 |                   | 40.6 x 48 x 27.5 in.<br>(1031 x 1219 x 698 mm) | 490 lbs. (222 kg) w/o torch<br>Fully Assembled Power Supply |                     |

| Ordering Information                         |        |                                               |        |                                               |        |  |
|----------------------------------------------|--------|-----------------------------------------------|--------|-----------------------------------------------|--------|--|
| PAK 200i - 70° Torch, 25 ft. (7.6 m), 480 V  | 1-2239 | PAK 200i - 70° Torch, 50 ft. (15.2 m), 480 V  | 1-2240 | PAK 200i - 90° Torch, 25 ft. (7.6 m), 480 V   | 1-2241 |  |
| PAK 200i - 70° Torch, 25 ft. (7.6 m), 400 V  | 1-2245 | PAK 200i - 70° Torch, 50 ft. (15.2 m), 400 V  | 1-2246 | PAK 200i - 90° Torch, 25 ft. (7.6 m), 400 V   | 1-2247 |  |
| PAK 200i - 90° Torch, 50 ft. (15.2 m), 480 V | 1-2242 | PAK 200i - 90° Torch, 50 ft. (15.2 m), 400 V  | 1-2248 | PAK 200i - 180° Torch, 25 ft. (7.6 m), 480 V  | 1-2243 |  |
| PAK 200i - 180° Torch, 25 ft. (7.6 m), 400 V | 1-2249 | PAK 200i - 180° Torch, 50 ft. (15.2 m), 480 V | 1-2244 | PAK 200i - 180° Torch, 50 ft. (15.2 m), 400 V | 1-2250 |  |

## 1TORCH® SL60

Light/medium-duty torch (20 – 80 A)



- As a replacement (RPT®) torch, the 1Torch® has the ability to work on the majority of plasma power supplies on the market today
- Its unique design allows the 1Torch the ability to work with high frequency, touch, CD, and moving parts (blow back) start systems

### Ordering Information

|                                                 |        |                                                                         |        |
|-------------------------------------------------|--------|-------------------------------------------------------------------------|--------|
| SL60, 75°, 20 ft. (6.1 m) Standard RPT Connect  | 7-5200 | SL60, 90°, 20 ft. (6.1 m) Standard RPT Connect                          | 7-5261 |
| SL60, 75°, 50 ft. (15.2 m) Standard RPT Connect | 7-5201 | SL60, 90°, 50 ft. (15.2 m) Standard RPT Connect                         | 7-5262 |
| SL60, 75°, 20 ft. (6.1 m) ATC Connect           | 7-5204 | SL60, 90°, 20 ft. (6.1 m) ATC Connect                                   | 7-5260 |
| SL60, 75°, 50 ft. (15.2 m) ATC Connect          | 7-5205 | SL60, 90°, 50 ft. (15.2 m) ATC Connect (lead extension 7-7545 required) | 7-5260 |
| SL60QD Torch and Lead 20 ft. (6.1 m) 75° Head   | 7-5604 | SL60QD Torch and Lead 50 ft. (15.2 m) 75° Head                          | 7-5605 |

## 1TORCH® SL100

Medium/heavy-duty torch (20 – 120 A)



- Hand torches offer ergonomic handles with easy-to-use trigger release that provides comfort during prolonged use
- 75° and 90° heads offer operators a choice of positions

### Ordering Information

|                                                  |        |                                                                          |        |
|--------------------------------------------------|--------|--------------------------------------------------------------------------|--------|
| SL100, 75°, 20 ft. (6.1 m) Standard RPT Connect  | 7-5202 | SL100, 90°, 20 ft. (6.1 m) Standard RPT Connect                          | 7-5264 |
| SL100, 75°, 50 ft. (15.2 m) Standard RPT Connect | 7-5203 | SL100, 90°, 50 ft. (15.2 m) Standard RPT Connect                         | 7-5265 |
| SL100, 75°, 20 ft. (6.1 m) ATC Connect           | 7-5206 | SL100, 90°, 20 ft. (6.1 m) ATC Connect                                   | 7-5263 |
| SL100, 75°, 50 ft. (15.2 m) ATC Connect          | 7-5208 | SL100, 90°, 50 ft. (15.2 m) ATC Connect (lead extension 7-7545 required) | 7-5263 |

## 1TORCH® Mechanized SL100, Automation SL100SV

Medium/heavy-duty torch (20 – 120 A)



SL100 Mechanized



SL100SV Automated

- Only 34 consumable parts cover the full range of cutting and gouging up to 120 A
- Stocking parts for a fleet of plasma units can be simplified using the 1Torch®

### Ordering Information

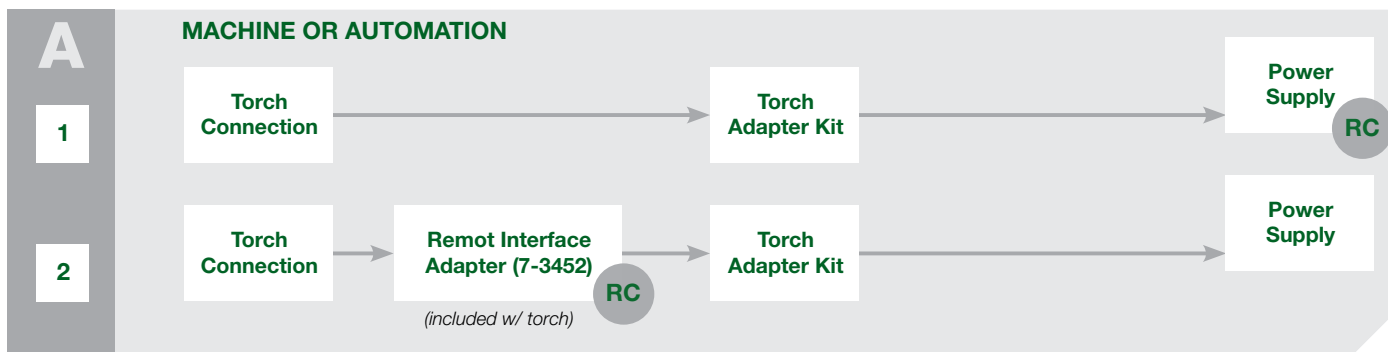
|                                                                 |        |                                                                |        |
|-----------------------------------------------------------------|--------|----------------------------------------------------------------|--------|
| SL100 Mechanized, 180°, 25 ft. (7.6 m), Standard                | 7-5209 | SL100 Mechanized, 180°, 50 ft. (15.2 m), Standard              | 7-5210 |
| SL100 Mechanized, 180°, 25 ft. (7.6 m), Shielded                | 7-5211 | SL100 Mechanized, 180°, 50 ft. (15.2 m), Shielded              | 7-5212 |
| SL100 Mechanized, 180°, 5 ft. (1.5 m), Standard ATC Connect     | 7-5213 | SL100 Mechanized, 180°, 10 ft. (3.0 m), Standard ATC Connect   | 7-5214 |
| SL100 Mechanized, 180°, 25 ft. (7.6 m), Standard ATC Connect    | 7-5215 | SL100 Mechanized, 180°, 50 ft. (15.2 m), Standard ATC Connect  | 7-5216 |
| SL100 Mechanized, 180°, 5 ft. (1.5 m), Shielded ATC Connect     | 7-5219 | SL100 Mechanized, 180°, 10 ft. (3.0 m), Shielded ATC Connect   | 7-5220 |
| SL100 Mechanized, 180°, 25 ft. (7.6 m), Shielded ATC Connect    | 7-5221 | SL100 Mechanized, 180°, 50 ft. (15.2 m), Shielded ATC Connect  | 7-5222 |
| SL100SV Automated, 180°, 25 ft. (7.6 m), Standard ATC Connect   | 7-4001 | SL100SV Automated, 180°, 35 ft. (10.6 m), Standard ATC Connect | 7-4002 |
| SL100SV Automated, 180°, 50 ft. (15.2 m), Standard ATC Connect  | 7-4003 | SL100SV Automated, 180°, 75 ft. (22.8 m), Standard ATC Connect | 7-4004 |
| SL100SV Automated, 180°, 100 ft. (30.4 m), Standard ATC Connect | 7-4005 |                                                                |        |

## Torch Connection Options - Remote Control

The diagrams below show the different torch connections with remote connection options.

### Standard RPT (Replacement Torch) Connection

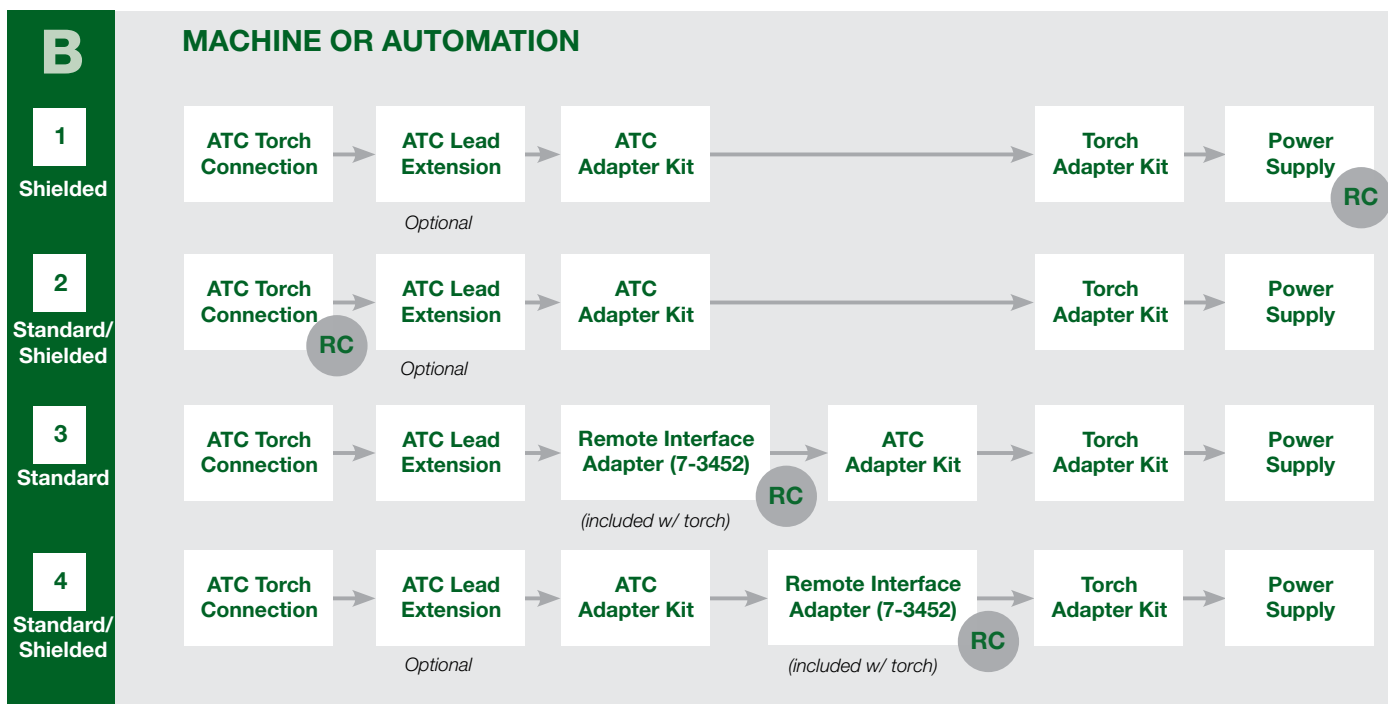
(Note: Remote control is either 7-3460 Remote Pendant Control or is user supplied.)



RC = Remote Control

### ATC (Advanced Torch Connector) Torch Connection

(Note: Remote control is either 7-3460 Remote Pendant Control or is user supplied.)



RC = Remote Control

PLASMA  
TORCHES

## Plasma Torch Adapter Kits Selection

Listed below is the Adapter Kit selection charts for the Hand 1Torch® RPT® torch.

| Manufacturer       | Power Supply Model                                                                                         | Part No. |
|--------------------|------------------------------------------------------------------------------------------------------------|----------|
| <b>ESAB®</b>       | PCM-SMi, 500i, 625i, PCS-43                                                                                | 7-3425   |
|                    | PCS-53, 80, 90                                                                                             | 7-3435   |
|                    | ESP-100i                                                                                                   | 7-3426   |
|                    | PCM-750i, 875, 1000i, 1125                                                                                 | 7-3429   |
|                    | Sidewinder 30,55,105                                                                                       | 7-3434   |
|                    | Powercut 650                                                                                               | 7-3464   |
|                    | Powercut 875, 1125                                                                                         | 7-3465   |
|                    | Powercut 1250, 1500                                                                                        | 7-3462   |
| <b>HARRIS®</b>     | System 50, 65 and 100                                                                                      | 7-3439   |
| <b>HOBART®</b>     | Smoothcut II 35A, 60A, and 100A                                                                            | 7-3427   |
| <b>HYPERTHERM®</b> | Max 40, HT40 (H/F Start)<br>Max 70, 80, 100 (w/ & w/o Q.D.)                                                | 7-3430   |
|                    | Max 42*, 43*, 40cs*,<br>Powermax 600*, 800*, 900* (w/ Q.D.)                                                | 7-3454   |
|                    | Powermax 1100*                                                                                             | 7-3455   |
|                    | Powermax 1000*, 1250*                                                                                      | 7-3461   |
|                    | Max 40cs* (w/o Q.D.)                                                                                       | 7-3476   |
|                    | Powermax 380*                                                                                              | 7-3477   |
|                    | Powermax 600* (w/o Q.D.)                                                                                   | 7-3480   |
|                    | Powermax 800*, 900* (w/o Q.D.)                                                                             | 7-3481   |
|                    | Powermax 1650*                                                                                             | 7-3483   |
|                    | Powermax 350*                                                                                              | 7-3484   |
| <b>L TEC®</b>      | PCM-31, SMi, 32i/34i, VPi<br>PCM-500i, 625i, PCS-80i                                                       | 7-3425   |
|                    | PCM-50A, 70, 80, 52i/54i, 82i/84i<br>ESP-100i, PCM-50, PCM-100 (Single Gas)<br>PCM-50, P-MC-100 (Dual Gas) | 7-3426   |
|                    | PCS-40                                                                                                     | 7-3430   |
|                    | PCM-750i, 1000i                                                                                            | 7-3435   |
|                    | PCM-101                                                                                                    | 7-3436   |

| Manufacturer             | Power Supply Model                                                                          | Part No. |
|--------------------------|---------------------------------------------------------------------------------------------|----------|
| <b>LINCOLN®</b>          | Procut 60                                                                                   | 7-3431   |
| <b>MILLER®</b>           | Plazcut 60†/Zipcut                                                                          | 7-3432   |
|                          | Spectrum 250D, 500, 750                                                                     | 7-3433   |
|                          | Spectrum 700, 1000,1250,PLUS                                                                | 7-3430   |
|                          | Spectrum 3080*                                                                              | 7-3456   |
|                          | Spectrum 650*, 701*, 2050*                                                                  | 7-3457   |
|                          | Spectrum 300*                                                                               | 7-3476   |
|                          | Spectrum 375*                                                                               | 7-3477   |
|                          | Spectrum 625*                                                                               | 7-3478   |
| <b>OTHERS</b>            | OTC: D-5000 and D-7000<br>PTRON: P-TRON 75 and 100<br>Daihen: MRAT-70<br>Multiquip: PCX50SS | 7-3437   |
| <b>SMITH®</b>            | Powerpro 55 and 75                                                                          | 7-3487   |
| <b>THERMAL DYNAMICS®</b> | PAK 3XR, 5XT, 6XR, 7XR, 625XR, 750XR                                                        | 7-3446   |
|                          | PAK 8XR, 10XR, 1000XR, 1250XR,<br>PakMaster 75, 100                                         | 7-3434   |
|                          | PakMaster 50XL/XLP,<br>75XL/XLP, 100XL/XLP<br>Cutmaster 50, 75, 80XL, 100                   | 7-3447   |
|                          | PakMaster 25, 38XL, EconoPAK 25,<br>Drag-Gun 38,<br>PAK 4Xi, 6Xi, PAK 2XT, Dynapak 110      | 7-3443   |
|                          | PakMaster 50 w/Smart Torch (Q.D)                                                            | 7-3445   |
|                          | EconoPAK 50                                                                                 | 7-3449   |
|                          | EconoPAK 100                                                                                | 7-3450   |
|                          | PAK 5                                                                                       | 7-3444   |
|                          | PAK 10                                                                                      | 7-3436   |

\* Non-HF Systems.

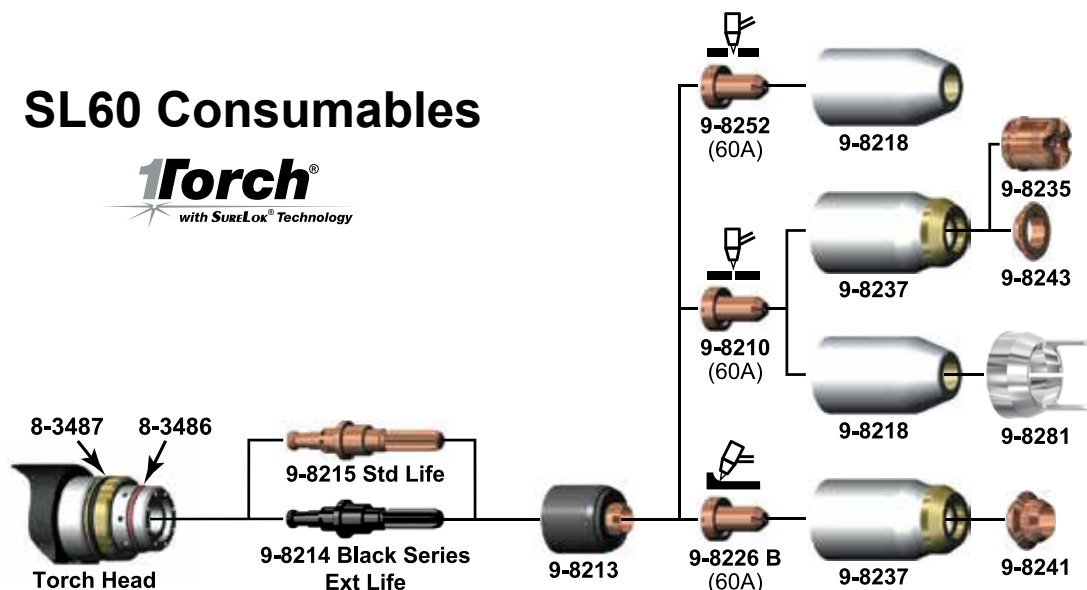
† The Miller PlazCut machines with Serial Numbers beginning JE are not compatible with 1Torch® RPT Torches.

NOTES: Each Adapter Kit includes connection fitting, electrical connectors and installation instruction sheets for the selected power supply.

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# 1TORCH® Consumables

## SL60 Consumables



| Description                                      | Part Number            |        |
|--------------------------------------------------|------------------------|--------|
| O-Ring                                           | 8-3487                 |        |
| O-Ring                                           | 8-3486                 |        |
| O-Ring Lubricant                                 | 8-4025                 |        |
| Electrode                                        | 9-8215                 |        |
| Start Cartridge                                  | 9-8213                 |        |
| Heavy-Duty Start Cartridge (non HF systems only) | 9-8277                 |        |
| Drag                                             | Tip, 20A, Drag         | 9-8205 |
|                                                  | Tip, 30A, Drag         | 9-8206 |
|                                                  | Tip, 40A, Drag         | 9-8207 |
|                                                  | Tip, 60A, Drag         | 9-8252 |
| Standoff                                         | Tip, 40A, Standoff     | 9-8208 |
|                                                  | Tip, 50/55A, Standoff  | 9-8209 |
|                                                  | Tip, 60A, Standoff     | 9-8210 |
|                                                  | Tip, 70A, Standoff     | 9-8231 |
|                                                  | Tip, 80A, Standoff     | 9-8211 |
|                                                  | Tip, 90/100A, Standoff | 9-8212 |
| Gouge                                            | Tip, A, Gouging        | 9-8225 |
|                                                  | Tip, B, Gouging        | 9-8226 |
|                                                  | Tip, C, Gouging        | 9-8227 |
|                                                  | Tip, D, Gouging        | 9-8228 |
|                                                  | Tip, E, Gouging        | 9-8254 |
| Shield Cup                                       | 9-8218                 |        |
| Shield Cup Body, MaximumLife®                    | 9-8237                 |        |

| Description                   | Part Number                     |        |
|-------------------------------|---------------------------------|--------|
| Drag                          | Shield Cap, Drag, 40A           | 9-8244 |
|                               | Shield Cap, Drag, 50-60A        | 9-8235 |
|                               | Shield Cap, Drag, 70-100A       | 9-8236 |
|                               | Shield Cap, Drag, 120A          | 9-8258 |
| Mechanized                    | Shield Cap, Mechanized, 40A     | 9-8245 |
|                               | Shield Cap, Mechanized, 50-60A  | 9-8238 |
|                               | Shield Cap, Mechanized, 70-100A | 9-8239 |
|                               | Shield Cap, Mechanized, 120A    | 9-8256 |
| Shield Cap, Deflector         | 9-8243                          |        |
| Shield Cap, Gouging           | 9-8241                          |        |
| Ohmic Clip                    | 9-8224                          |        |
| Ohmic clip for manual torches | 9-8259                          |        |
| Spare Parts Kit, 30A          | 5-2550                          |        |
| Spare Parts Kit, 40A          | 5-2551                          |        |
| Spare Parts Kit, 50/55A       | 5-2552                          |        |
| Spare Parts Kit, 60A          | 5-2553                          |        |
| Spare Parts Kit, 70A          | 5-2554                          |        |
| Spare Parts Kit, 80A          | 5-2555                          |        |
| Spare Parts Kit, 90/100A      | 5-2556                          |        |

Note: All Spare Parts Kits above include ten (10) tips, five (5) electrodes and one (1) start cartridge.

PLASMA TORCHES

## 1TORCH® Consumables Parts Application Guide

For SL60®/SL100® Manual Cutting and Gouging Operations.



**DRAG TIP CUTTING** The preferred method of cutting light gauge metal up to 1/4 in. (6 mm) thickness. Produces the best cut quality narrowest kerf width, fastest cutting speeds, and with little to no distortion. Traditional drag cutting was limited to 40 Amps or less; now with Thermal Dynamics TRUE Cut Drag Tip Series™ technology, it is possible to cut up to 60 Amps. For best results, use the Shield Cup with the torch tip in direct contact with the work (up to 60 Amps).



**DRAG SHIELD CUTTING** This is an operator-friendly method of cutting between 70 to 120 Amps while maintaining a constant standoff distance. For metal thickness greater than 1/4 in. (6 mm), simply drag the shield cap in contact with the work piece. Use the shield cup body with the appropriate drag shield cap matching the current level being used. This method is not recommended for cutting light-gauge sheet metal.



**STANDOFF CUTTING** The preferred method of cutting metal thicker than 1/4 in. (6 mm) and at current levels above 60 Amps. Provides maximum visibility and accessibility. Shield cup for 'standoff' cutting (with the torch tip 1/8 in. (3 mm) to 1/4 in. (6 mm) from the work piece). Use the shield cup body together with the deflector for extended parts life and improved resistance to reflect heat. This combination provides cutting results similar to the single piece shield cup, as well as easy changeover to gouging or drag shield cutting.



**GOUGING** A simple method of metal removal by angling the torch to a lead angle of 35°-45°, and using a gouging tip. While maintaining a constant standoff distance, this allows for only a partial penetration into the work, thus removing metal from the surface. The amount of current, travel speed, standoff distance, lead angle, and tip size will determine the amount of material removed and the profile of the gouge. You can use the shield cup body with either the gouging shield cap or the shield deflector. Also, you can use the single piece shield cup.

| Gouging Profiles |              |          |          |
|------------------|--------------|----------|----------|
|                  | Output Range | Depth    | Width    |
|                  | 40A (MAX)    | Shallow  | Narrow   |
|                  | 50-100A      | Deep     | Narrow   |
|                  | 60-120A      | Moderate | Moderate |
|                  | 60-120A      | Shallow  | Wide     |

## Plasma Accessories



### Cutting Guide Cutting Kit (Deluxe)

Part Number: 7-8910

Cuts circles from 2-1/8 in. (54 mm) to 41-1/2 in. (1054 mm) with proper cutting attachments. Includes easy add-on attachments to fit most Thermal Dynamics torches for precise straight line, circle cutting and beveling. Carrying case, radius/roller kit (7-7501), circle cutting guide (7-3291), magnetic pivot, suction pivot included.



### Circle Guide Cutting Kit

Part Number: 7-3291

Cuts 2-1/8 in. (54 mm) to 27-3/4 in. (705 mm) circles (using magnetic attachment) when cutting or beveling is required. For use with most Thermal Dynamics torches.



### Radius/Roller Cutting Guide Kit

Part Number: 7-7501

This easy-to-use guide cuts circles from 3 in. (76 mm) up to 28-3/4 in. (730 mm). Maintains a consistent height off the work piece whether you are using the circle cutting attachment for cutting circles or the roller guide feature to improve your straight-line cutting. Both novices and experts will see noticeable improvement in quality, speed, and parts life. Cutting Bushing (7-2915) for use with the SL40 torch.



### Straight Line Cutting Guide

Part Number: 7-8911

This versatile, straight line cutter is for hand held systems and it cuts vertical, 90° or bevel cuts. Magnetic mounts ensure placement and ease of use. Optional suction plates available for non-magnetic applications (i.e. aluminum and stainless steel). Includes: 4 ft. (1.2 m) standard rail torch holder and bushing heavy duty magnets (2 ea.) slide assembly wheels and fasteners. optional 4 ft. (1.2 m) extensions (9-7971) available.



### Standoff Cutting Guides

Part Number: 9-0090 (SL40 Torch)  
Part Number: 9-8251 (SL60/SL100 Torch, 40A)  
Part Number: 9-8281 (SL60/SL100 Torch, 60-100A)

Available for SL40 torch, SL60 and SL100 torches.



### Cutting Guide Bushing

Part Number: 7-2915

Designed to fit the SL40 torch specific to the Cutmaster 42 system. This bushing accommodates the use of the SL40 torch with the cutting guides.



### Leather Lead Covers

Part Number: 9-1258 [15 ft. (4.6 m)]  
Part Number: 9-1260 [20 ft. (6.1 m)]  
Part Number: 9-1270 [25 ft. (7.6 m)]  
Part Number: 9-1280 [50 ft. (15.2 m)]

These lead covers are suitable for both 1Torch and SureLok leads. Snaps make it easy to install. For wider torches, consider snapping two covers together width wise.



### Remote Pendant Control

Part Number: 7-3460

20 ft. (6.1 m) Remote Pendant Control for your mechanized application.






### ATC Lead Extensions

Part Number: 7-7544 [15 ft. (4.6 m)]  
Part Number: 7-7545 [25 ft. (7.6 m)]  
Part Number: 7-7552 [50 ft. (15.2 m)]

Available for any system using hand or mechanized 1Torch with ATC Quick Disconnect. Leads Extensions enable you to customize your lead length to suit the cutting job.

## Plasma Accessories

|                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                |
| <p><b>Single Stage Air Filter Kit</b><br/>Part Number: 7-7507</p> <p>(Filter Body 9-7740, Hose 9-7742, Filter Element 9-7741). For use with shop compressed air systems, this in-line filter will not allow moisture or water to pass through the filter element even if it becomes completely saturated. This hi-tech filter element actually blocks the absorption of water to increase performance and improve consumable parts life.</p> | <p><b>Two Stage Air Filter</b><br/>Part Number: 9-9387</p> <p>First Stage Element 9-1021, Second Stage Element 9-1022). The Two Stage Air Filter will remove moisture and contaminants from the air stream when using compressed air. The filter is capable of filtering to at least 5 microns. The filter assembly is pre-assembled and need only be installed on the power supply.</p> | <p><b>Multi-Purpose Cart</b><br/>Part Number: 7-8888</p> <p>Designed for most portable manual cutting systems or any similar sized systems. This rugged steel cart has easy rolling 8 in. (203 mm) diameter wheels along with 3" (76 mm) front mounted casters. This cart also serves as an excellent showroom display stand.</p> |
| <p><b>Trigger Guard Guides</b><br/>Part Number: 9-8420</p> <p>1Torch (SL60 and SL100). These guards offer additional protection from accidental activation or damage to the torch switch.</p>                                                                                                                                                                                                                                                | <p><b>Hand Pendant Extension</b><br/>Part Number: 7-7744</p> <p>25 ft. (7.6 m).</p>                                                                                                                                                                                                                                                                                                      | <p><b>Automation Interface Kit</b><br/>Part Number: 9-8311</p> <p>For Cutmaster TRUE Series (52, 82, 102, 152). This kit adds a divided low volt output for height controls that can use 50:1 arc voltage. Required for the Thermal Dynamics SC-11 height control.</p>                                                            |
| <p><b>CNC Harness Cable</b><br/>Part Number: 9-9385</p> <p>Assembly of electrical cables or wires which transmit signals or electrical power.</p>                                                                                                                                                                                                                                                                                            | <p><b>CNC Interface Cable</b><br/>Part Number: 9-1008 [25 ft. (7.6 m)]<br/>Part Number: 9-1010 [35 ft. (10.6 m)]<br/>Part Number: 9-1011 [50 ft. (15.2 m)]</p> <p>For "Start/Stop" and "OK to Move" Only.</p>                                                                                                                                                                            | <p><b>Pinion Assembly</b><br/>Part Number: 7-2827</p> <p>1-3/8 in. (35 mm) Diameter</p>                                                                                                                                                                                                                                           |

# // PPE & ACCESSORIES







# MISSION READY. FOR THE ACCOMPLISHED.

The best welders deserve the best equipment. And when it comes to choosing a helmet, Sentinel is it – with ergonomic HALO™ headgear, external grind mode access, a hypervisible control panel, and an ultra-clear true-color lens. To learn more about the incredible Sentinel helmet and find a distributor near you, go to [esab.com/sentinel](https://esab.com/sentinel).

## SENTINEL™

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## Sentinel™ A50

Shade 5-13 auto-darkening welding helmet



- Revolutionary shell design - high impact resistance nylon
- Halo™ headgear - ergonomic, infinitely-adjustable 5 point head gear provides extreme comfort and balance
- Low-profile design, central pivot point allows for maximum head clearance while helmet is in the up position.
- 3.93 x 2.36 in. (100 x 60 mm) viewing area
- 1/1/1/2 –5-13 ADF
- Color touch screen control panel with 8 separate memory settings and externally activated shade 4 Grind Button
- Hard hat adapter option available for use with ESAB hard hat

[esab.com/sentinel](http://esab.com/sentinel)

### Specifications

| Cartridge Dimensions                    |                | Viewing Area                                                                        | Lens Shade                                                                 | Sensors          |
|-----------------------------------------|----------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------|
| 5.2 x 4.5 x 0.35 in. (133 x 114 x 9 mm) |                | 3.93 x 2.36 in. (100 x 60 mm)                                                       | Shade 5-8/9-13                                                             | 4                |
| Switch Time                             | Classification | Power Supply                                                                        | Standards                                                                  | Weight           |
| 1/25,000 s from light to dark           | 1/1/1/2        | Solar cell plus battery replaceable. (2 x CR2450 lithium). Alerts when low battery. | DIN Plus, CE, EN 175, EN 379, EN 166, ANSI Z87.1, CSA Z94.3, AS/NZS 1338.1 | 1.4 lbs. (640 g) |

### Ordering Information

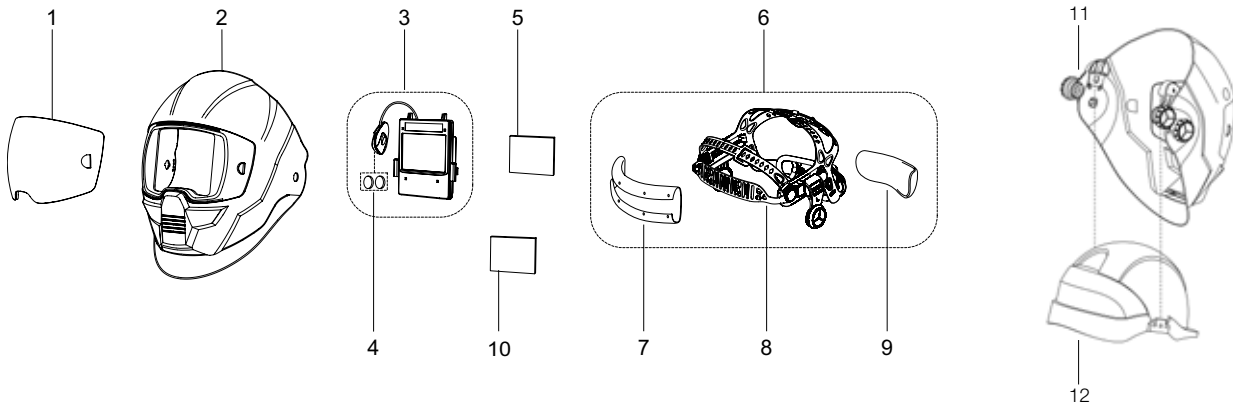
|                             |            |
|-----------------------------|------------|
| SENTINEL A50 Welding Helmet | 0700000800 |
|-----------------------------|------------|

### Options & Accessories

|    |                                                              |            |
|----|--------------------------------------------------------------|------------|
| 1  | Front Cover Lens Clear HD                                    | 0700000823 |
| 1  | Front Cover Lens Amber HD                                    | 0700000824 |
| 1  | Front Cover Lens Clear                                       | 0700000802 |
| 1  | Front Cover Lens Amber                                       | 0700000803 |
| 2  | SENTINEL Helmet Shell                                        | 0700000804 |
| 3  | Auto-Darkening Filter (including 2 x CR2450 lithium battery) | 0700000806 |
| 4  | 2 x CR2450 lithium battery                                   | 0700000807 |
| 5  | Inside Cover Lens                                            | 0700000808 |
| 6  | Headgear Assembly (including sweat bands)                    | 0700000809 |
| 7  | Front Sweat Band                                             | 0700000810 |
| 8  | Headgear                                                     | 0700000811 |
| 9  | Rear Sweat Band                                              | 0700000812 |
| 10 | Magnifying Glass +1.0 Diopter                                | 0367951001 |
| 10 | Magnifying Glass +1.5 Diopter                                | 0367951002 |
| 10 | Magnifying Glass +2.0 Diopter                                | 0367951003 |
| 10 | Magnifying Glass +2.5 Diopter                                | 0367951004 |
| 11 | Sentinel Hard Hat Adapter*                                   | 0700000619 |
| 12 | Concept Hard Hat Yellow                                      | 0700000052 |
| x  | Sentinel Bandana                                             | 0700000821 |

\*For use with Concept Hard Hat. For details on assembly, please see separate user guide. Hard Hat Adapter replaces Headgear 0700000809 for the Sentinel A50 with Hard Hat combination.

# Sentinel™ A50

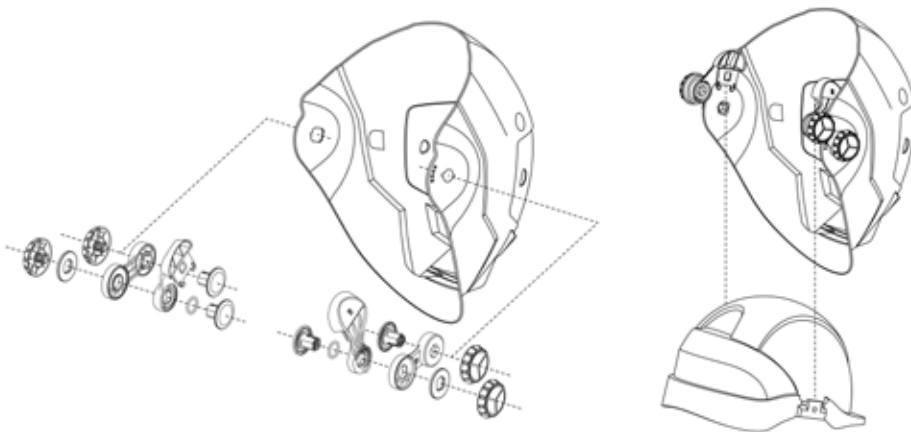


WELDING HELMETS

## Hard Hat Adapter



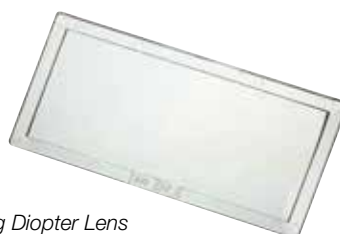
The Sentinel hard hat adapter is designed for use with the ESAB hard hat (0700000052). Easy to assemble - simply remove the headgear from the Sentinel A50 helmet, assemble the hard hat adapter, insert the hard adapter into the hard hat slot.



## Additional Accessories



HD Front Cover Lenses



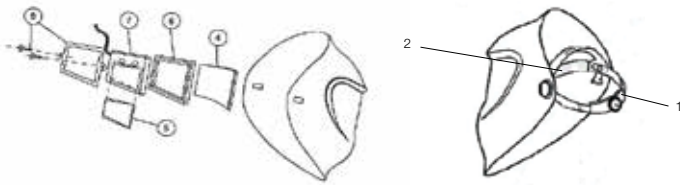
Magnifying Diopter Lens

## Warrior™ Tech

Shade 9-13 auto-darkening welding helmet



- Designed to meet the needs of welders, featuring a high-tech, lightweight shell for protection from heat, sparks, and spatter
- Large welding lens provides optimal viewing area with excellent quality using the latest auto-darkening filter (ADF) technology
- External shade adjustment between Shade 9 and Shade 13, and optical class 1/2/1/2
- Delay and sensitivity can be adjusted from the inside
- Four arc sensors for higher response and wider coverage and wa large viewing area of 3.85 x 1.88 in. (98 x 48 mm) providing a wider field of vision and increased spatial awareness
- Sensitivity control is an adaptable feature useful when welding low amperages (GTAW) for better reaction to darker arc light
- Delay control enabling the welder to set how long the lens stays dark after the welding arc stops - short delay helps get the job done faster during tack welding, whilst longer delay is useful for high amperage welding



| Specifications               |                      |                |
|------------------------------|----------------------|----------------|
| Viewing Area                 | Lens Shade           | Classification |
| 3.85 x 1.88 in. (98 x 48 mm) | Shade 9 and Shade 13 | 1/2/1/2        |

| Ordering Information       |            |
|----------------------------|------------|
| Warrior Tech 9-13 – Black  | 0700000400 |
| Warrior Tech 9-13 – Yellow | 0700000401 |

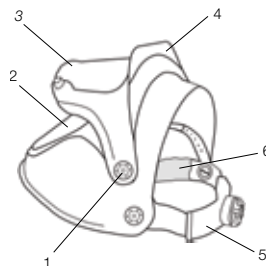
| Options & Accessories |                                    |            |
|-----------------------|------------------------------------|------------|
| 1                     | ESAB Head Gear Pro with sweat band | 0700000415 |
| 2                     | Sweat Band, pack of 2              | 0700000244 |
| 3                     | Front Cover Lens                   | 0700000010 |
| 4                     | Inside Cover Lens                  | 0700000416 |
| 5                     | ESAB 9-13 ADF Cradle               | 0700000418 |
| 6                     | Lens Retainer with Screws          | 0700000419 |

## Globe-Arc

Flip-front welding helmet



- Provides outstanding protection for all kinds of metal working including arc welding, grinding, gas cutting, gas welding, and plasma cutting
- Its design is unique to flip-front and grinding helmets, and is equipped with strong, comfortable headgear
- Globe-Arc's visor, along with a combination of inner and outer lenses, provides full protection against IR, UV, and visible light
- Inner lenses are available in a variety of different shades: Shade 2, Shade 3, and Shade 5
- Note that when adding the upper and lower visor shades together, the actual shade is one unit less, i.e. shade 3 main visor and shade 8 flip visor give a combined protection at shade 10



| Ordering Information |            |
|----------------------|------------|
| Globe-Arc Shade 10   | 0700000947 |
| Globe-Arc Shade 11   | 0700000943 |

| Options & Accessories |                                   |            |
|-----------------------|-----------------------------------|------------|
| 1                     | Hinge Set                         | 0700000267 |
| 2                     | Large Inner Visor Globe-Arc Clear | 0700000238 |
| 2                     | Large Inner Visor Globe-Arc DIN 2 | 0700000239 |
| 2                     | Large Inner Visor Globe-Arc DIN 3 | 0700000240 |
| 2                     | Large Inner Visor Globe-Arc DIN 5 | 0700000241 |
| 3                     | Outer Flip Visor Globe-Arc DIN 5  | 0700000242 |
| 3                     | Outer Flip Visor Globe-Arc DIN 8  | 0700000247 |
| 3                     | Outer Flip Visor Globe-Arc DIN 10 | 0700000248 |
| 4                     | Flip-Up Globe-Arc Holder          | 0700000249 |
| 5                     | Head Gear Globe-Arc               | 0700000243 |
| 6                     | Sweat Band                        | 0700000244 |

ESAB's FR line of flame retardant clothing is designed to give maximum protection to the professional welder while providing comfort in the most demanding environments. Garments are made with Phoenix FR material, which gives the clothing 100% FR protection for the lifetime of the garment. There are no worries of washing out or wearing down the flame retardant fibers as these properties are an inherent part of the garment.

## FR Jersey

- Lightweight
- For warmer climates



| Ordering Information |            |
|----------------------|------------|
| Size Medium          | 0700010374 |
| Size Large           | 0700010375 |
| Size X-Large         | 0700010376 |
| Size XX-Large        | 0700010377 |

## FR Fleece

- Full zip front
- For cooler climates



| Ordering Information |            |
|----------------------|------------|
| Size Medium          | 0700010369 |
| Size Large           | 0700010370 |
| Size X-Large         | 0700010371 |
| Size XX-Large        | 0700010372 |

## FR Winter

- Rugged
- For the coldest climates



| Ordering Information |            |
|----------------------|------------|
| Size Medium          | 0700010359 |
| Size Large           | 0700010360 |
| Size X-Large         | 0700010361 |
| Size XX-Large        | 0700010362 |



## Proban Welding Jacket



- Designed for maximum comfort and safety
- Sleeves and shoulders are made of durable grade-A leather to withstand the exposure to welding spatter
- The front and back are made from flame-retardant Proban material
- The jacket features concealed inner pockets, adjustable sleeves, a stand-up collar, and Kevlar® stitching

| Ordering Information |            |
|----------------------|------------|
| Size Large           | 0700010302 |
| Size X-Large         | 0700010303 |
| Size XX-Large        | 0700010304 |

## Shop Coat



- This knee-length, comfortable shop coat is styled to fit the way you work, with two lower front pockets plus breast pocket
- Features simple snap-front closure and side slits for easy access to trouser pockets

| Ordering Information |        |
|----------------------|--------|
| Size Medium          | 781F58 |
| Size Large           | 781F59 |
| Size X-Large         | 781F60 |
| Size XX-Large        | 781F61 |

## Welding Apron



- This protective apron distributes weight effectively
- Kevlar® stitched and 42.1 in. long

| Ordering Information |            |
|----------------------|------------|
| One Size             | 0700010007 |

PROTECTIVE CLOTHING

All ESAB gloves have a high resistance to heat and offer additional protection against spatter.



Tested against mechanical stress such as abrasion, cut, tear, and puncture.



Tested for thermal performance, such as exposure to an open flame, contact heat, convective heat, radiant heat, and small and large splashes of molten metal.

## Curved MIG (GMAW) Gloves



- These gloves offer a whole new approach to fit, form, and function
- Ergonomically designed to fit the natural curve of the hand, these MIG gloves are made from heavy and fine-cut leather, and are lined from hand to cuff
- With the curved design, the glove fits the hand perfectly, and also has a flexible wrist area that reduces friction
- With welted seams, Kevlar® stitching, and reinforced thumb, these gloves are ultra strong and offer the highest level of protection

### Ordering Information

|              |            |
|--------------|------------|
| Size Large   | 0700005043 |
| Size X-Large | 0700005040 |

## Heavy-Duty Black Gloves



- A welding glove made of black, strong cow-grain leather
- High dexterity with Kevlar® stitching ensures that the glove can resist hard mechanical stress
- The gloves are also fully welted

### Ordering Information

|          |            |
|----------|------------|
| One Size | 0467222007 |
|----------|------------|

## Heavy-Duty Aluminized Gloves



- A welding glove with two layers of cowhide capable of withstanding extreme heat – suitable for tubular wire welding
- The facing of aluminum-coated PFR rayon reflects 95% of the thermal radiation
- Gloves are padded with COMFOflex®, and sewn with fourfold Kevlar®
- The thumb is angled for high comfort

### Ordering Information

|          |              |
|----------|--------------|
| One Size | 0700 005 010 |
|----------|--------------|

## Curved TIG (GTAW) Gloves



- These TIG gloves are ergonomically designed to fit the natural curve of the hand, giving you quality and comfort like none other
- Made from thin, high-quality leather with improved fit for higher dexterity, the gloves are highly durable, with welted seams and Kevlar® stitching
- Extremely lightweight for additional comfort

### Ordering Information

|              |            |
|--------------|------------|
| Size Large   | 0700005041 |
| Size X-Large | 0700005042 |

## Professional TIG (GTAW) Gloves



- A quality GTAW glove with a reinforced thumb and 5.1 in.-long leather cuff
- The palm is fully lined for increased comfort and protection

### Ordering Information

|          |            |
|----------|------------|
| One Size | 0701415963 |
|----------|------------|

GLOVES



## Safety Glasses



- Weld Warrior safety glasses are used for drilling, chipping, and metalworking
- They have a sporty style, are soft to the touch, and have a lightweight wrap-around neck cord
- The glasses are extremely flexible and durable, and are available in four different lens configurations that protect against UV radiation
- Plus, all eyewear meets ANSI Z87.1 standards

### Ordering Information

|         |            |
|---------|------------|
| Clear   | 0700012030 |
| Smoked  | 0700012031 |
| Amber   | 0700012032 |
| Shade 5 | 0700012033 |



Clear



Smoked



Amber



Shade 5

## Goggles



- A one-piece goggle with a soft molded body, indirect ventilation, and a 4 x 1.75 in. lens aperture
- The goggle is fitted with a Shade 5 filter, and will fit over prescription glasses

### Ordering Information

|                |       |
|----------------|-------|
| Goggle Shade 5 | 17862 |
|----------------|-------|

## Proban Hood

- Flame-resistant head protection that covers the head, neck, and shoulders



### Ordering Information

|             |            |
|-------------|------------|
| Proban Hood | 0000593269 |
|-------------|------------|

## Hard Hat

- The lightest, strongest, and most comfortable helmet available
- Manufactured from ABS material, and weighs less than a pound
- Head gear is equipped with a ratchet adjustment for easy adjustment and comfort



### Ordering Information

|                 |            |
|-----------------|------------|
| Hard Hat Yellow | 0700000052 |
|-----------------|------------|

## Welder's Cap

- Cap to be worn under helmet to protect your head and hair



### Ordering Information

|             |        |
|-------------|--------|
| Size Medium | 781F97 |
| Size Large  | 781F98 |

## Insulated Helmet Liner

- The insulated helmet liner is worn underneath the welding helmet to offer protection when working in a cold environment



### Ordering Information

|                        |            |
|------------------------|------------|
| Insulated Helmet Liner | 0000904378 |
|------------------------|------------|

## Leather Helmet Pad

- Made of top-grain cowhide with foam cushion and rust-resistant hardware to provide ultimate protection and comfort



### Ordering Information

|                    |        |
|--------------------|--------|
| Leather Helmet Pad | 747F92 |
|--------------------|--------|

## Easy-Lite

- Easily attaches to your welding helmet, hard hat, safety glasses, or anywhere that additional light is required and an excellent tool for adapting to a stainless steel inspection mirror
- Battery has over 50 hours of life.



### Ordering Information

|           |            |
|-----------|------------|
| Easy-Lite | 0700014040 |
|-----------|------------|







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