



Gas Apparatus from ESAB



A full line of gas apparatus solutions for every application, industry, and environment.

An American Tradition

ESAB's OXWELD®, PUROX®, Elite Series, and PREST-O-LITE® gas apparatus is engineered, assembled, and tested in Florence, SC – and has been for more than 45 years.



ENGINEERED



ASSEMBLED



TESTED

Number One in Quality

The OXWELD®, PUROX®, Elite Series, and PREST-O-LITE® welding and cutting product lines have achieved world-class quality through Total Quality Control, which includes the commitment of every member of our team. Our employees – from the CEO to the men and women on the production line – are provided with the knowledge and skills they need to act as guardians of quality. We've put systems in place to recognize and correct mistakes before a product reaches your hands. And our quality control efforts cover every step, from product development to production to customer service.



ESAB's Lifetime Warranty

ESAB's gas apparatus lifetime warranty applies to OXWELD®, PUROX®, Elite Series, and PREST-O-LITE® standard torches, regulators, and flowmeters, and covers manufacturer defects in materials and workmanship.

To make a warranty claim, please call 1.800.ESAB.123, or visit esabna.com/lifetimewarranty.



ESAB's 100% Satisfaction Guarantee

We want you to be completely satisfied with your ESAB gas apparatus. So in addition to the standard warranty on ESAB products, we now offer the ESAB 100% Satisfaction Guarantee. It's our ongoing promise that we'll do whatever it takes to make sure that you are totally satisfied with our products for 100 days from the date of purchase.

ESAB is the only manufacturer in the business with enough confidence to offer you this unique purchase protection – allowing you to buy risk free.



What's covered by the ESAB 100% Satisfaction Guarantee?

It covers every piece of ESAB welding equipment, every filler metal, every gas apparatus, and every plasma machine – every product that ESAB sells in the U.S., Canada, and Mexico, excluding the following: mechanized cutting machines, scarfing machines, automation equipment, spare parts, consumables, special orders, re-manufactured items, minimum run products, and freight damage.

100% satisfaction is always just a toll-free call away.

What happens if your ESAB product doesn't perform to your expectations? What if you're unsure about how to get the most from your product or how an ESAB product should work? Put the ESAB 100% Satisfaction Guarantee to work by visiting www.esabna.com, and clicking the "100% Satisfaction Guarantee" button.

You can also talk to our Customer Satisfaction Team at 1.800.ESAB.123. An ESAB representative will find the best solution for your question or problem – guaranteed – and make sure that you are 100% satisfied with the result. Count on ESAB to do whatever it takes to make it right for you – from helping you understand a process to assisting you with a return, replacement, or refund.

Safety. Durability. Performance. Guaranteed.

Gas Apparatus Equipment

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Victor® is a registered trademark of Thermadyne Holdings Corporation.

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Process Description

In oxyfuel gas welding, heating, and cutting, an intense flame is produced by burning a controlled mixture of oxygen and a fuel gas. The gases are drawn from separate sources through pressure regulators and introduced into a torch for mixing. They exit the welding head or cutting tip, where they are ignited. Flame intensity depends on the flow rates of the gases, the gas mixture ratio, the properties of the fuel gas selected, and the type of welding head or cutting tip. Flow rates and mixture ratios are controlled by the regulator pressure settings and by the torch valves.

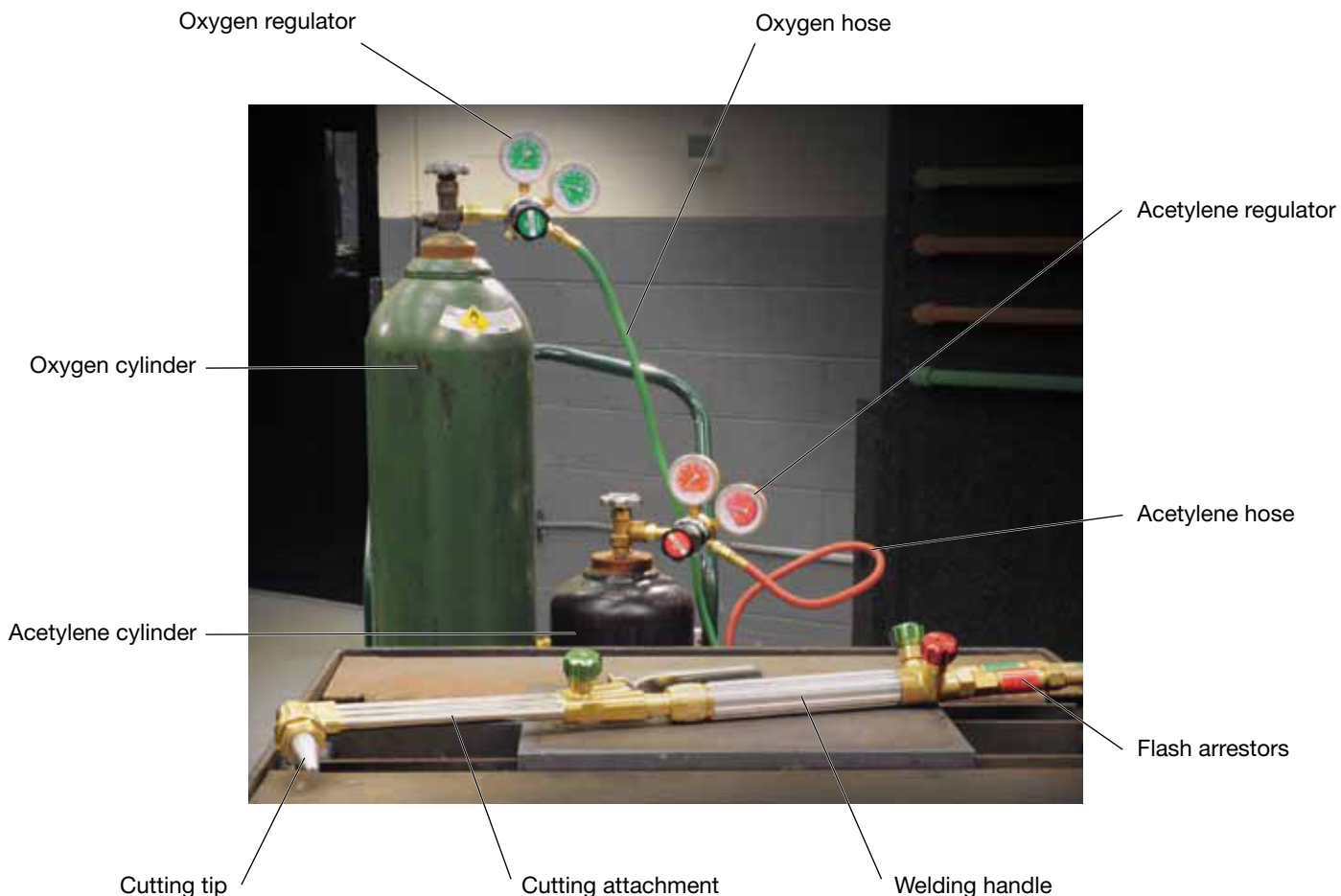
Welds are formed from the weld puddle created through contact of flame, workpiece, and welding rod, if used. Use of flux removes oxide and scale from the welding area and helps assure a sound weld. In cutting operations, a concentrated flame is used to preheat and maintain the workpiece at its ignition temperature while a high-velocity stream of oxygen is directed at the preheated plate. The oxygen stream rapidly oxidizes the metal in a narrow path and blows away the slag to form the kerf.

Basic equipment necessary for oxyfuel gas welding and cutting includes a torch with welding heads, cutting attachment, and cutting tips; oxygen and fuel gas hoses; oxygen regulator; and acetylene or other fuel gas regulator. Always comply with the instructions listed in the operator's manual provided with each piece of equipment.

The Oxy-Acetylene Handbook

For nearly five decades, the most comprehensive and widely used reference and textbook on oxy-acetylene welding, cutting, hard-facing, surfacing, and heating applications.

| | |
|-------------------------|--------|
| Soft Cover Binding..... | 781F00 |
| CD-ROM | 782F23 |



Product Cross-Reference Guide

OXWELD®, PUROX®, and Elite Series

Outfits

| Used to order OXWELD®: | Part Number | Now order PUROX® Elite Series*: | Part Number |
|------------------------|-------------|---------------------------------|-------------|
| Trade Master GT II | 0558008687 | Metal Master Champion | 0558011398 |
| Trade Master | 18835 | Metal Master III | 0558011392 |
| GT-450 | 21992 | Metal Master Select | 0558011393 |
| GT-510 | 0558005108 | Metal Master Champion | 0558011398 |

| Used to order PUROX®: | Part Number | Now order PUROX® Elite Series*: | Part Number |
|-----------------------|-------------|---------------------------------|-------------|
| Metal Master GT II | 0558008691 | Metal Master Champion | 0558011398 |
| Trade Master | 999995 | Metal Master III | 0558011392 |
| GT-350 | 21777 | Metal Master II | 0558011399 |
| GT-510 | 0558005107 | Metal Master Champion | 0558011398 |
| FlameMaster | 22497 | FlameMaster (no change) | 22497 |

Combination Torches

| Used to order OXWELD®: | Part Number | Now order OXWELD® Elite Series*: | Part Number |
|------------------------|-------------|----------------------------------|-------------|
| W-17 | 4250 | W-17 (no change) | 4250 |
| W-500 | 999079 | W-400 | 999045 |
| W-400 | 999045 | W-400 (no change) | 999045 |
| CW-23 | 01X36 | CW-23 (no change) | 01X36 |
| CW-500 | 999220 | CW-400 | 999046 |
| CW-400 | 999046 | CW-400 (no change) | 999046 |

| Used to order PUROX®: | Part Number | Now order PUROX® Elite Series*: | Part Number |
|-----------------------|-------------|---------------------------------|-------------|
| W-300 | 999339 | WH-4200** | 0558010617 |
| CW-300 | 999340 | CA-4200** | 0558010614 |

*This column represents our closest recommended replacement, but is not necessarily an exact cross reference, backwards compatible, or takes the same repair parts unless otherwise noted. Please call 1.800.ESAB.123 to confirm.

**Backwards compatible with previous item.

Product Cross-Reference Guide

OXWELD®, PUROX®, and Elite Series



Straight Cutter Torches

| Used to order OXWELD®: | Part Number | Now order OXWELD® Elite Series*: | Part Number |
|------------------------|-------------|--|-------------|
| C-32 | 01X26 | C-32 (no change) | 01X26 |
| C-66 | 27X71 | C-66 (no change; now compatible with all fuel gas) | 27X71 |
| C-97 | 22054 | C-66 (no change; now compatible with all fuel gas) | 27X71 |
| C-77 | 28X55 | C-32 | 01X26 |

| Used to order PUROX®: | Part Number | Now order PUROX® Elite Series*: | Part Number |
|-----------------------|-------------|---------------------------------|-------------|
| "E" Torch | 04L06 | "E" Torch (no change) | 04L06 |
| C-84 | 18260 | "E" Torch | 04L06 |

Mechanized Torches

| Used to order OXWELD®: | Now order OXWELD®*: | See Page |
|------------------------|-----------------------|----------|
| C-39 | C-39 (no change) | 27 |
| C-58 | C-58 (no change) | 27 |
| C-67 | C-67 (no change) | 26 |
| C-69/C-70 | C-69/C-70 (no change) | 27 |

Regulators

| Used to order OXWELD®: | Now order OXWELD® Elite Series*: | See Page |
|------------------------|----------------------------------|----------|
| R-77 | R-770 | 60 |
| R-76 | R-760 | 61 |

| Used to order PUROX®: | Now order PUROX® Elite Series*: | See Page |
|-----------------------|---------------------------------|----------|
| R-72 | R-720 | 62 |
| R-33 | R-33 (no change) | 65 |

*This column represents our closest recommended replacement, but is not necessarily an exact cross reference, backwards compatible, or takes the same repair parts unless otherwise noted. Please call 1.800.ESAB.123 to confirm.

Outfits

Overall Offering Guide



Cutting

PUROX® Elite Series Metal Master Select pg 9

- 1 cutting tip
- 3 versions
- Acetylene
CGA 510
CGA 300
- Alternate fuels
CGA 510



Cutting, Heating, and Welding

PUROX® Elite Series Metal Master III pg 12

- 1 cutting tip
- 1 heating head
- 2 welding heads
- Acetylene CGA 510



Cutting and Heating

PUROX® Elite Series Metal Master Champion pg 10

- 1 cutting tip
- 1 heating head
- Acetylene CGA 510



- 5 cutting tips
- 1 heating head
- 3 welding heads



Cutting and Welding

PUROX® Elite Series Metal Master II pg 11

- 1 cutting tip
- 1 welding head
- Acetylene CGA 510



PUROX® Elite Series Metal Master Select Cutting Outfit



Outfits

- Acetylene (CGA 510 or 300 option)
- Alternate fuels (CGA 510)
- Cuts 1½ in.
- Minimal components keep price low
- 3 versions for fuel gas flexibility
- Elite Series combo torch and regulators
- Regulator burnout protection
- Universal injector for flexibility



Ordering Information

| | |
|---|------------|
| PUROX® Elite Series Metal Master Select | 0558011393 |
| PUROX® Elite Series Metal Master Select FG | 0558011394 |
| PUROX® Elite Series Metal Master Select 300 | 0558011395 |

Contents

| | |
|--|------------|
| CA-4200 cutting attachment | 0558010614 |
| WH-4200 welding handle | 0558010617 |
| R-720 acetylene (15-510) regulator | 0558010648 |
| OR acetylene (15-300) regulator | 0558010649 |
| OR alternate fuel (75-510) regulator | 0558010650 |
| R-720 oxygen (125-540) regulator | 0558010651 |
| 4202 1½ in. cutting tip, acetylene | 16K10 |
| Hose | 22556 |
| Striker | 790F34 |
| Goggles | 17862 |

PUROX® Elite Series Metal Master Champion Cutting and Heating Outfit



- Acetylene (CGA 510)
- Cuts 1½ in.
- Heats 44,000 btu/hr. using 30 cfh acetylene
- Designed for cutting and heating applications
- Elite Series combo torch and regulators
- Regulator burnout protection
- Universal injector for flexibility



Outfits

Ordering Information

PUROX® Elite Series Metal Master Champion 0558011398

Contents

| | |
|--|------------|
| CA-4200 cutting attachment | 0558010614 |
| WH-4200 welding handle | 0558010617 |
| R-720 acetylene (15-510) regulator | 0558010648 |
| R-720 oxygen (125-540) regulator | 0558010651 |
| #30 Rosebud Jr heating head | 0558006160 |
| 4202 1½ in. cutting tip, acetylene | 16K10 |
| Hose | 22556 |
| Striker | 790F34 |
| Goggles | 17862 |

PUROX® Elite Series Metal Master II

Cutting and Welding Outfit



- ☐ Acetylene (CGA 510)
- ☐ Cuts 1½ in.
- ☐ Welds 1/8 in. using 9 cfh acetylene
- ☐ Designed for cutting and welding applications
- ☐ Elite Series combo torch and regulators
- ☐ Regulator burnout protection
- ☐ Universal injector for flexibility
- ☐ Surpasses competition in performance, warranty, and quality

Outfits



Ordering Information

PUROX® Elite Series Metal Master II 0558011399

Contents

| | |
|--|------------|
| CA-4200 cutting attachment | 0558010614 |
| WH-4200 welding handle | 0558010617 |
| R-720 acetylene (15-510) regulator | 0558010648 |
| R-720 oxygen (125-540) regulator | 0558010651 |
| 4202 1½ in. cutting tip, acetylene | 16K10 |
| #9 welding head, acetylene | 639442 |
| Hose | 22556 |
| Striker | 790F34 |
| Goggles | 17862 |

PUROX® Elite Series Metal Master III

Cutting, Heating, and Welding Outfit



- ☐ Acetylene (CGA 510)
- ☐ Cuts 1½ in.
- ☐ Heats 44,000 btu/hr. using 30 cfh acetylene
- ☐ Welds 1/8 in. using 9 cfh acetylene
- ☐ Do-it-all outfit with all components needed for cutting, heating, and welding
- ☐ Elite Series combo torch and regulators
- ☐ Regulator burnout protection
- ☐ Universal injector for flexibility
- ☐ Ready for practically any application



Outfits

Ordering Information

PUROX® Elite Series Metal Master III 0558011392

Contents

| | |
|--|------------|
| CA-4200 cutting attachment | 0558010614 |
| WH-4200 welding handle | 0558010617 |
| R-720 acetylene (15-510) regulator | 0558010648 |
| R-720 oxygen (125-540) regulator | 0558010651 |
| #30 Rosebud Jr heating head, acetylene | 0558006160 |
| 4202 1½ in. cutting tip, acetylene | 16K10 |
| #9 welding head, acetylene | 639442 |
| #15 welding head, acetylene | 639443 |
| Hose | 22556 |
| Striker | 790F34 |
| Goggles | 17862 |

PUROX® FlameMaster 300

Cutting, Heating, and Welding Outfit



- ☐ Cuts 4 in.
- ☐ Heats 81,000 btu/hr. using 55 cfh acetylene
- ☐ Welds 1/8 in. using 9 cfh acetylene
- ☐ Welding handle, cutting attachment and tips
- ☐ Ideal conversion kit for those not needing regulators or a hose
- ☐ Comes with tips and heads for use with acetylene
- ☐ Ready for any flame application



Outfits

Ordering Information

PUROX® FlameMaster 300 22497

Contents

| | |
|---|--------|
| W-300 welding handle | 999339 |
| CW-300 cutting attachment | 999340 |
| 4202 1/8 in. cutting tip, acetylene | 638869 |
| 4202 1/4 in. cutting tip, acetylene | 16K08 |
| 4202 1/2 in. cutting tip, acetylene | 16K09 |
| 4202 1½ in. cutting tip, acetylene | 16K10 |
| 4202 4 in. cutting tip, acetylene | 16K11 |
| #55 Rosebud O-A heating head, acetylene | 998775 |
| #2 welding head, acetylene | 639439 |
| #6 welding head, acetylene | 639441 |
| #9 welding head, acetylene | 639442 |

Torches

Overall Offering Guide



Combination

Heavy-Duty

OXWELD®
 W-17 welding handle pg 17
 CW-23 cutting attachment pg 17



OXWELD®
 W-400 welding handle pg 19
 CW-400 cutting attachment pg 19

Medium-Duty

PUROX® Elite Series
 WH-4200 welding handle pg 21
 CA-4200 cutting attachment pg 21



Hand Cutting

Extra Heavy-Duty

OXWELD®
 C-66 torch pg 23



C-32 torch pg 24



Medium-Duty

PUROX®
 "E" torch pg 25



Mechanized

Heavy-Duty

OXWELD®
 C-39 mixer torch pg 27
 C-58 mixer track torch pg 27
 C-67 injector torch pg 26



C-69, 70 valveless torches pg 27
 CM-79 track machine pg 28

(For Steel Industry torches, see "SIP" Section page 76)

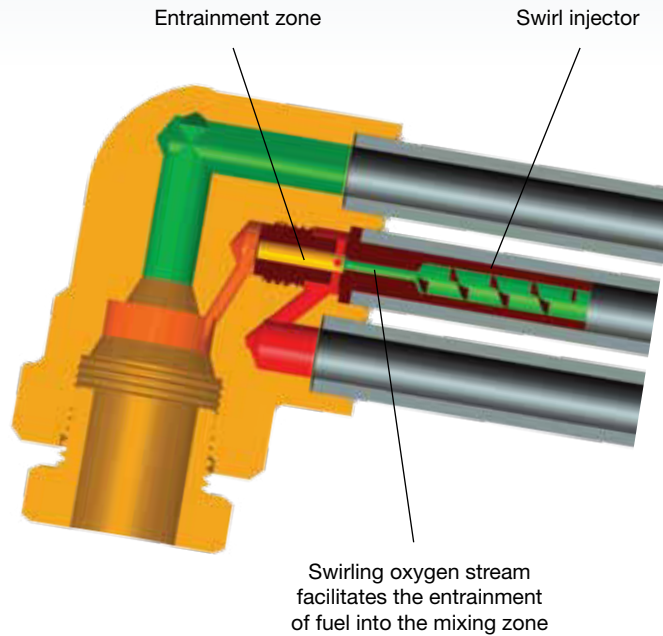
Torches

Combination



OXWELD® and PUROX® Elite Series*

PUROX® Elite Swirl Injector*



Torches

Performance Benefits

- ❑ In the higher pressure oxygen stream, the injector swirls the oxygen to create a superior homogenous mix of gas in the entrainment zone that increases efficiency
- ❑ The superior homogenous mix in the entrainment zone delivers optimum performance not possible with equal pressure mixers and tip mixers
- ❑ Swirling of the high-pressure oxygen mixing with the fuel gas creates a pumping action that pulls a vacuum on the torch to improve performance with long hoses and low-pressure operations

*This feature is available on the new CA-4200 cutting attachment.

Torches

Combination



OXWELD® and PUROX® Elite Series

Separate Flash Arrestors

- ❑ When flash arrestors are in proper working condition, used per instructions, and checked regularly for clogging, they are excellent safety devices to help prevent injury and flashback. However, when used incorrectly, flash arrestors can actually cause flashback
- ❑ ESAB offers separate flash arrestors that are not built into the torch. The flash arrestor can be safely checked without causing torch downtime

See page 31 for details and ordering information.



W-17/CW-23

OXWELD® Combination Torch



Heavy-Duty

W-17 welding handle

CW-23 cutting attachment

- ☑ Any fuel gas
- ☑ Cuts 8 in. acetylene
4 in. alternate fuels
- ☑ Heats 368,000 btu/hr. using 250 cfh acetylene
- ☑ Welds 1 in. using 100 cfh acetylene
- ☑ Industry's favorite welding torch
- ☑ Universal injector
- ☑ Operates on low or medium pressure fuel gas
- ☑ Ease on control of cutting oxygen



W-17/CW-23

OXWELD® Combination Torch



Heavy-Duty



Cutting Attachment

| CW-23 | Part Number |
|---------------------|-------------|
| 90° | 01X36 |
| 75° | 01X35 |
| 90° Alternate Fuels | 998258 |

Cutting Tip Series

| Acetylene | See Page |
|-----------|----------|
| 1502 | 41 |
| 1564 | 42 |
| Specialty | 47 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 1515 | 43 |
| Two-Piece 1567 | 45 |
| Specialty | 47 |



Welding Head, Single flame

| Acetylene | | |
|-----------|---------------------|-------------|
| Size | Steel Thickness in. | Part Number |
| 4A | 1/16 | 639865 |
| 6A | 3/32 | 639866 |
| 9A | 1/8 | 639867 |
| 12A | 3/16 | 17270 |
| 15A | 1/4 | 639868 |
| 30A | 1/2 | 639869 |
| 70A | 1 | 998102 |
| 100A | Heating | 10X03 |



Heating Head, Multi flame

| Acetylene | | | Alternate Fuels* | |
|-----------|---------|-------------|------------------|---------|
| Size | btu/hr. | Part Number | Size | btu/hr. |
| 100A | 147,000 | 11X22 | 250FG | 368,000 |
| 150A | 221,000 | 11X24 | | |
| 250A | 368,000 | 11X26 | | |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | Part Number |
| 250FG | 368,000 | 11X36 |



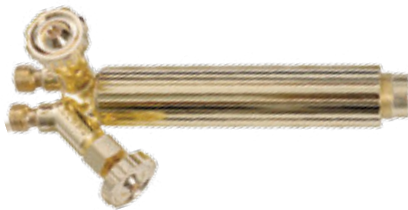
Heating Head, Rosebud

| Acetylene | | | Alternate Fuels* | |
|-----------|---------|-------------|------------------|---------|
| Size | btu/hr. | Part Number | Size | btu/hr. |
| 55 | 81,000 | 998819 | 200 | 221,000 |
| 100 | 147,000 | 998821 | | |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | Part Number |
| 200 | 221,000 | 999234 |

Flash Arrestors, Torch Pair

Part Number 20357



Welding Handle

| Description | Part Number |
|-------------|-------------|
| W-17 | 4250 |

*To find accurate cfh for alternate fuel heating heads, divide the btu/hr. by the figure below for the corresponding gas:
 Propylene 2371
 MAPP 2406
 Propane 2563
 Natural Gas 900-1000

W-400/CW-400

OXWELD® Combination Torch



Heavy-Duty

W-400 welding handle

CW-400 cutting attachment

- ☐ Any fuel gas
- ☐ Cuts 8 in. acetylene
4 in. alternate fuels
- ☐ Heats 294,000 btu/hr. using 200 cfh acetylene
- ☐ Welds 1 in. using 70 cfh acetylene
- ☐ Universal mixer
- ☐ Operates on medium pressure fuel gas
- ☐ Ease on control of cutting oxygen
- ☐ Piston-style ring seal for easy, leak free attachment connections



W-400/CW-400

OXWELD® Combination Torch



Heavy-Duty



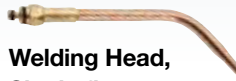
Cutting Attachment

| CW-400 | Part Number |
|--------|-------------|
| 90° | 999046 |
| 75° | 999622 |

Cutting Tip Series

| Acetylene | See Page |
|-----------|----------|
| 1502 | 41 |
| 1564 | 42 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 1515 | 43 |
| Two-Piece 1567 | 45 |
| Specialty | 47 |



Welding Head, Single flame

| Acetylene | | Part Number |
|-----------|---------------------|-------------|
| Size | Steel Thickness in. | |
| 1A | Up to 32 gauge | 639438 |
| 2A | 25-32 gauge | 639439 |
| 4A | 1/32 | 639440 |
| 6A | 1/16 | 639441 |
| 9A | 1/8 | 639442 |
| 12A | 3/16 | 17268 |
| 15A | 1/4 | 639443 |
| 30A | 3/8 | 17263 |
| 55A | 5/8 | 998085 |
| 70A | 1 | 998086 |

Flash Arrestors, Torch Pair

Part Number 20357



Welding Handle

| Description | Part Number |
|-------------|-------------|
| W-400 | 999045 |



Heating Head, Multi flame

| Acetylene | | Part Number |
|-----------|---------|-------------|
| Size | btu/hr. | |
| 55A | 81,000 | 998089 |
| 70A | 102,000 | 998090 |
| 100A | 147,000 | 998091 |
| 150A | 221,000 | 998092 |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | |
| 70FG | 104,000 | 998093 |



Heating Head, Rosebud

| Acetylene | | Part Number |
|-----------|---------|-------------|
| Size | btu/hr. | |
| 15 | 22,000 | 998773 |
| 30 | 44,000 | 998774 |
| 30 Jr | 44,000 | 0558006160 |
| 55 | 81,000 | 998775 |
| 70 | 103,000 | 998776 |
| 100 | 147,000 | 998777 |
| 200 | 294,000 | 998778 |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | |
| 70 | 103,000 | 999225 |
| 100 | 147,000 | 999228 |
| 200 | 294,000 | 999231 |

*To find accurate cfh for alternate fuel heating heads, divide the btu/hr. by the figure below for the corresponding gas:

- Propylene 2371
- MAPP 2406
- Propane 2563
- Natural Gas 900-1000

WH-4200/CA-4200

PUROX® Elite Series Combination Torch



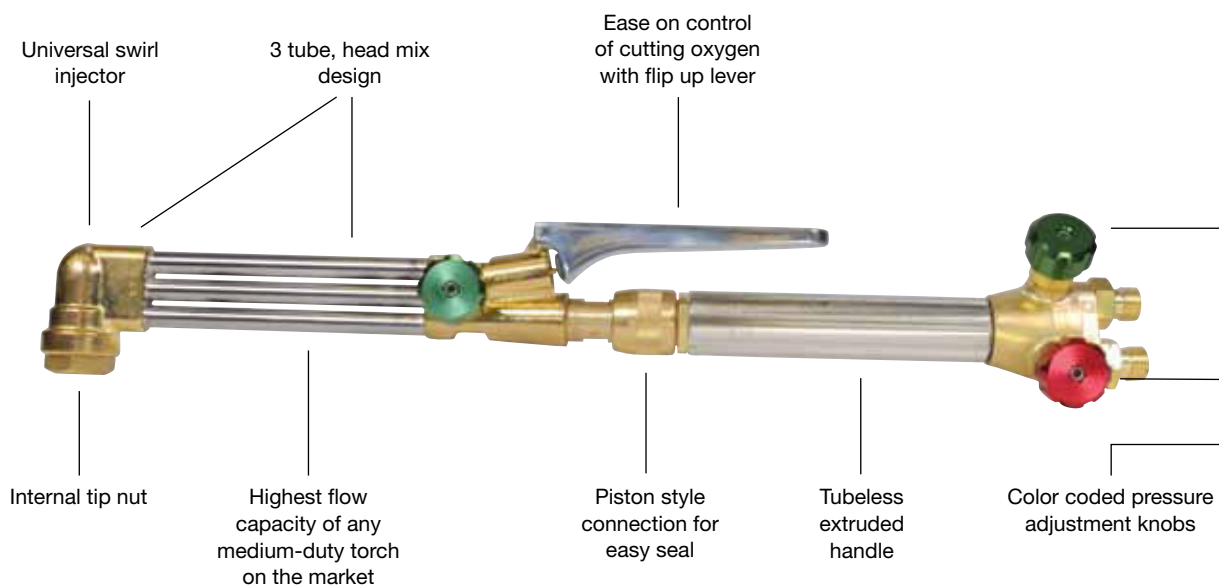
Medium-Duty

WH-4200 welding handle

CA-4200 cutting attachment

- ☑ Cuts 8 in. acetylene and alternate fuels
- ☑ Heats 294,000 btu/hr. using 200 cfh acetylene
- ☑ Welds 1 in. using 70 cfh acetylene
- ☑ Any fuel gas
- ☑ Most capacity of any medium-duty combo torch on the market
- ☑ Properly weighted for reduced fatigue
- ☑ Universal swirl injector
- ☑ Backwards compatible with W-300/CW-300

Torches



WH-4200/CA-4200

PUROX® Elite Series Combination Torch



Medium-Duty



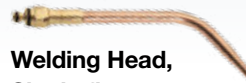
Cutting Attachment

| CA-4200 | Part Number |
|---------|-------------|
| 90° | 0558010614 |
| 75° | 0558010611 |

Cutting Tips Series

| Acetylene | See Page |
|-----------|----------|
| 4202 | 50 |
| Specialty | 53 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 4203 | 51 |
| Two-Piece 4216 | 50 |
| Two-Piece 4217 | 52 |



Welding Head, Single flame

| Acetylene | | Part Number |
|-----------|---------------------|-------------|
| Size | Steel Thickness in. | |
| 1A | Up to 32 gauge | 639438 |
| 2A | 25-32 gauge | 639439 |
| 4A | 1/32 | 639440 |
| 6A | 1/16 | 639441 |
| 9A | 1/8 | 639442 |
| 12A | 3/16 | 17268 |
| 15A | 1/4 | 639443 |
| 30A | 3/8 | 17263 |
| 55A | 5/8 | 998085 |
| 70A | 1 | 998086 |

Flash Arrestors, Torch Pair

Part Number 20357



Welding Handle

| Description | Part Number |
|-------------|-------------|
| WH-4200 | 0558010617 |



Heating Head, Multi flame

| Acetylene | | Part Number |
|-----------|---------|-------------|
| Size | btu/hr. | |
| 55A | 81,000 | 998089 |
| 70A | 103,000 | 998090 |
| 100A | 147,000 | 998091 |
| 150A | 221,000 | 998092 |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | |
| 70FG | 103,000 | 998093 |



Heating Head, Rosebud

| Acetylene | | Part Number |
|-----------|---------|-------------|
| Size | btu/hr. | |
| 15 | 22,000 | 998773 |
| 30 | 44,000 | 998774 |
| 30 Jr | 44,000 | 0558006160 |
| 55 | 81,000 | 998775 |
| 70 | 103,000 | 998776 |
| 100 | 147,000 | 998777 |
| 200 | 294,000 | 998778 |

| Alternate Fuels* | | Part Number |
|------------------|---------|-------------|
| Size | btu/hr. | |
| 70 | 104,000 | 999225 |
| 100 | 147,000 | 999228 |
| 200 | 294,000 | 999231 |

*To find accurate cfh for alternate fuel heating heads, divide the btu/hr. by the figure below for the corresponding gas:

- Propylene 2371
- MAPP 2406
- Propane 2563
- Natural Gas 900-1000

C-66 with Universal Injector

OXWELD® Hand Cutting Torch



Extra Heavy-Duty

- ☑ Any fuel gas
- ☑ Cuts 12 in. acetylene
16 in. alternate fuels
- ☑ One single universal injector for all fuel gases
- ☑ No need to swap injectors
- ☑ Ease on control of cutting oxygen
- ☑ Same proven design as used in previous
C-97 torch
- ☑ Internal tip nut design



Ordering Information

| | |
|------------------|-------|
| 21 in. 90° | 27X71 |
| 21 in. 75° | 27X70 |

Extra length torches available upon request.

Torches

Flash Arrestors,
Torch Pair
Part Number 20357



Cutting Tips Series

| Acetylene | See Page |
|-----------|----------|
| 1502 | 41 |
| 1564 | 42 |
| Specialty | 47 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 1515 | 43 |
| Two-Piece 1567 | 45 |
| Specialty | 47 |

Heating Nozzle, Rosebud

| Description | See Page |
|----------------|----------|
| All fuel gases | 34 |

C-32 with Universal Mixer OXWELD® Hand Cutting Torch



Extra Heavy-Duty

- ☒ Any fuel gas
- ☒ Cuts 12 in. acetylene
3 in. alternate fuels
- ☒ One single universal mixer for all fuel gases
- ☒ Ease on control of cutting oxygen
- ☒ Heavy wall, nickel silver tubes
- ☒ Internal tip nut design



Ordering Information

| | |
|------------------|-------|
| 21 in. 90° | 01X26 |
| 21 in. 75° | 01X23 |

Extra length torches available upon request.

Torches

Flash Arrestors, Torch Pair

Part Number 20357



Cutting Tips Series

| Acetylene | See Page |
|-----------|----------|
| 1502 | 41 |
| 1564 | 42 |
| Specialty | 47 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 1515 | 43 |
| Two-Piece 1567 | 45 |
| Specialty | 47 |

Heating Nozzle, Rosebud

| Description | See Page |
|----------------|----------|
| All fuel gases | 34 |

“E” Torch with Universal Mixer

PUROX® Elite Series Hand Cutting Torch



Medium-Duty

- ☐ Any fuel gas
- ☐ Cuts 12 in. acetylene
3 in. alternate fuels
(12 in. with 998260 alternate fuels
only torch)
- ☐ Front, bottom mounted cutting oxygen lever
for convenient handling
- ☐ Nickel silver tubes contain our proven, safe and
efficient mixer design



Ordering Information

| | |
|------------------------------------|--------|
| “E” Torch 90° | 04L06 |
| “E” Torch 75° | 04L04 |
| “E” Torch 180° | 04L16 |
| Alternate Fuel “E” Torch 90° | 998260 |

Torches

Flash Arrestors, Torch Pair

Part Number 20357



Cutting Tips Series

| Acetylene | See Page |
|-----------|----------|
| 4202 | 50 |
| Specialty | 53 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 4203 | 51 |
| One-Piece 4216 | 50 |
| Two-Piece 4217 | 52 |

Mixers Only

| | |
|--|-------|
| Acetylene | 19048 |
| Alternate fuels over 5 psi inlet | 19049 |
| Natural gas low psi inlet | 19417 |

C-67 Machine Cutting Torch



C-67 Machine Cutting Torch



Specifications

| Description | C-67 Machine Cutting Torch |
|------------------|----------------------------|
| Cutting Range | |
| Alternate Fuels | Injector determines |
| Cutting Tips | 1500 Series |
| Torch Type | Injector |
| Hose Connections | 3 |
| Length | 20½ in. (570 mm) |
| | 12¾ in. (324 mm) |
| Barrel Diameter | 1⅜ in. (35 mm) |

| Description | Part Number |
|------------------|-------------|
| C-67-20 Type I | 28X31 |
| C-67-20 Type II | 28X28 |
| C-67-12 Type II | 28X35 |
| C-67-20 Type III | 28X29 |
| C-67-20 Type IV | 28X22 |

C-67 Injector Legend

Type I

- ☐ Less than 5 psi of alternate fuel inlet pressure
- ☐ Up to 8 in. cutting capacity
- ☐ Excellent multi-torch balancing
- ☐ Limited preheat intensity
- ☐ L.L.P.M.C. (low, low pressure — medium capacity)

Part Number 01Y61 (20½ in. torch)

Type II

- ☐ 3 psi or more of alternate fuel inlet pressure
- ☐ Up to 20 in. cutting capacity
- ☐ Not recommended for multi-torch balancing
- ☐ Great for heavy preheat applications (beveling, aux. preheat, etc.)
- ☐ L.P.H.C. (low pressure — high capacity)

Part Number 01Y57 (20½ in. torch)

Part Number 01Y75 (12¾ in. torch)

Type III

- ☐ 5 psi or more of alternate fuel inlet pressure
- ☐ Up to 14 in. cutting capacity
- ☐ Best all-around choice for multi-torch operation
- ☐ Heavy preheat for quick pierce starts
- ☐ L.P.M.C. (low pressure — medium capacity)

Part Number 01Y56 (20½ in. torch)

Part Number 01Y74 (12¾ in. torch)

Type IV

- ☐ 5 psi or more of alternate fuel inlet pressure
- ☐ 12 in. to 20 in. cutting capacity
- ☐ Very heavy preheat and cutting applications
- ☐ Up to 28 in. capacity when used with 1400 series SIP torches
- ☐ M.P.H.C. (medium pressure — high capacity)

Part Number 01Y58 (20½ in. torch)

Machine Cutting Torches



C-39 Machine Cutting Torch

☑ For use with shape cutting machines



Specifications

| Description | C-39 Machine Cutting Torch |
|------------------|----------------------------|
| Cutting Range | |
| Acetylene | 18 in. (457 mm) |
| Alternate Fuels | 6 in. (152.4 mm) |
| Cutting Tips | 1500 Series |
| Torch Type | Mixer |
| Hose Connections | 3 |
| Length | 20½ in. (570 mm) |
| Barrel Diameter | 1⅜ in. (35 mm) |

Ordering Information

C-39 Machine Cutting Torch 01X17

C-58 Machine Cutting Torch

☑ For use with straight line or shape cutting machines



Specifications

| Description | C-58 Machine Cutting Torch |
|------------------|----------------------------|
| Cutting Range | |
| Acetylene | 6 in. (152.4 mm) |
| Alternate Fuels | 2 in. (50.8 mm) |
| Cutting Tips | 1500 Series |
| Torch Type | Mixer |
| Hose Connections | 2 or 3 |
| Length | 12½ in. (318 mm) |
| Barrel Diameter | 1⅜ in. (35 mm) |

Ordering Information

C-58 2 Hose Connection 02X74
 C-58 3 Hose Connection 02X44

C-69/70 Machine Cutting Torch

☑ Valveless operation for bevel cutting and plate edge preparation



Specifications

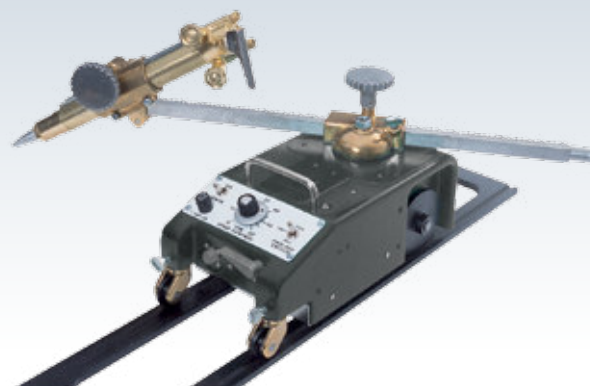
| Description | C-69/70 Machine Cutting Torch |
|----------------------|-------------------------------|
| Cutting Range | |
| C-70 Acetylene | 8 in. (203 mm) |
| C-69 Alternate Fuels | 8 in. (203 mm) |
| Cutting Tips | 1500 Series |
| Torch Type | Injector |
| Hose Connections | 3 |
| Length | 6 in. (152.4 mm) |
| Barrel Diameter | 1¼ inches (31.75 mm) |

Ordering Information

C-69 without rack 28X47
 C-70 without rack 28X53

CM-79 Portable Cutting Machine

- ▣ Solid state controls — for dependable, maintenance-free service
- ▣ Three position switch — for start, stop, and reverse
- ▣ Clutch levers at both ends of carriage — for greater accessibility
- ▣ Direct reading speed control dial — can be preset or instantly adjusted during operation
- ▣ Normal speed range 0-60 ipm (0-25 mm/sec.)
- ▣ Easily adjustable to 90 ipm (38 mm/sec.)
- ▣ Sturdy one-piece aluminum housing
- ▣ Heavy-duty motor with built-in solid state governor — for dependable, accurate speed



CM-79 with C-58 Torch, Rigging Assembly, and Track

Torches

Ordering Information

| | |
|---|--------|
| Machine or Rigging Only | |
| CM-79 Portable Machine Carriage with 28 ft. lead | 995557 |
| Torch Rigging Assembly | 16V90 |
| Basic Machine Package | |
| Includes standard machine, rigging, and manifold kit | |
| | 998695 |
| Complete Machine Package | |
| Includes everything supplied with Basic Package plus C-58 Torch (02X74), Heat Shield, and Heavy Duty Track Section .. | |
| | 998947 |

Accessories

| | |
|--|---------|
| Heavy-Duty Track Section | |
| 6 ft. | 16V82 |
| 7½ ft. | 20086 |
| 9 ft. | 2223156 |
| Circle Cutting Attachment, 2-54 in. diameter | 16V84 |
| Double Heat Shield Kit | 995586 |
| Counterweight | 995587 |
| For balancing heavy, off-center equipment loads | |
| Manifold Kit | 639659 |
| High Temperature Kit | 997608 |
| Recommended when carriage must travel on hot plates — temperature of control unit should not exceed 70°C (158°F). Contact your ESAB supplier for additional information. | |

Specifications

| Overall Size | | | Weight | Carrying Load Maximum | Speed Range | Cutting Capacity | Circle Cutting Range | Power Requirements |
|--------------|--------------------------------------|----------|--|-----------------------|-----------------|----------------------|----------------------|--|
| Length | Height | Width | | | | | | |
| in. (mm) | in. (mm) | in. (mm) | lbs. (kg) | lbs. | ipm (mm/sec.) | in. (mm) | in. (mm) | |
| 15¼ (387) | 7 (178) (including mounting stud) | 7¼ (184) | 21 (9.5) (without rigging or torch) | 250 | 0-60* (0-25) | 0-4 thick** (102) | 2-54*** (51-1371) | 120 vac, 2 amp (maximum), 50/60 Hz, 1 ph |

*Can be adjusted to attain speeds up to 90 ipm (38 mm/sec.).

**Up to 10 inches (254 mm) with accessory heat shield.

***Can be increased by use of longer rod easily made from standard bar stock.

Pressure Drops in Hose

To operate oxy-acetylene welding and cutting torches with maximum efficiency, certain inlet pressures must be maintained at the torch. Pressure at the torch may be determined by placing a gauge adaptor assembly, between the hose connections on the torch and on the hose. When no adaptor is available, the regulators should be set to values somewhat above those recommended for the torch in order to compensate for the pressure drop in the hose.

Pressure drop data for the most commonly used sizes and lengths of oxygen and acetylene hose appears in the following tables. By adding the pressure drop for the specific piece of hose to the desired torch pressure, the pressure actually required at the regulator can be determined. Values falling between those shown in the tables can be easily determined by interpolation.

Pressure Drop in Oxygen Hose

| Delivery Pressure lb. Per Square in. | Oxygen Flow cfh | 3/16 in. Hose Length | | | | *1/4 in. Hose Length | | | | *5/16 in. Hose Length | | | | *3/8 in. Hose Length | | | |
|---|--------------------|----------------------|-----------|-----------|------------|----------------------|-----------|-----------|------------|-----------------------|-----------|-----------|------------|----------------------|-----------|-----------|------------|
| | | 12½ ft. | 25 ft. | 50 ft. | 100 ft. | 12½ ft. | 25 ft. | 50 ft. | 100 ft. | 12½ ft. | 25 ft. | 50 ft. | 100 ft. | 12½ ft. | 25 ft. | 50 ft. | 100 ft. |
| 5 | 100 | 5.8 | 7.8 | 11.6 | 19.2 | 2.3 | 2.6 | 4.7 | 7.4 | ** | ** | ** | 2.7 | ** | ** | ** | 2.3 |
| | 250 | 20.7 | 26.8 | 38.1 | 54.3 | 11.7 | 13.8 | 20.0 | 28.2 | 3.4 | 4.9 | 6.6 | 11.5 | ** | 2.8 | 4.1 | 7.5 |
| | 500 | 52.5 | 63.1 | - | - | 33.7 | 37.5 | 50.0 | 68.5 | 20.1 | 25.7 | 34.5 | - | 5.8 | 8.7 | 12.3 | 19.7 |
| | 750 | - | - | - | - | - | - | - | - | 28.9 | - | - | - | 12.7 | 16.2 | 23.2 | 35.4 |
| | 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | 20.2 | 25.9 | 36.1 | - |
| | 1,500 | - | - | - | - | - | - | - | - | - | - | - | - | 35.5 | 47.2 | - | - |
| 10 | 100 | 5.0 | 6.3 | 10.8 | 18.8 | ** | 2.0 | 3.8 | 6.0 | ** | ** | ** | 2.3 | ** | ** | ** | 2.0 |
| | 250 | 18.3 | 24.8 | 35.4 | 53.0 | 9.4 | 11.8 | 17.2 | 25.0 | 2.7 | 4.1 | 5.9 | 10.0 | ** | ** | 3.3 | 6.4 |
| | 500 | 47.8 | 58.5 | - | - | 30.1 | 34.4 | 46.8 | 63.9 | 9.3 | 12.9 | 17.2 | 26.6 | 4.7 | 6.2 | 11.0 | 17.7 |
| | 750 | - | - | - | - | - | - | - | - | 18.6 | 25.0 | 31.9 | 44.1 | 9.6 | 13.4 | 21.2 | 33.1 |
| | 1,000 | - | - | - | - | - | - | - | - | 27.9 | 37.3 | 47.3 | - | 16.2 | 22.8 | 33.2 | - |
| | 1,500 | - | - | - | - | - | - | - | - | 47.0 | - | - | - | 31.0 | 43.4 | - | - |
| 25 | 100 | 3.6 | 5.7 | 8.2 | 13.4 | ** | ** | 2.9 | 4.3 | ** | ** | ** | ** | ** | ** | ** | ** |
| | 250 | 13.2 | 18.3 | 28.0 | 41.5 | 6.3 | 7.9 | 11.7 | 16.8 | ** | 2.4 | 3.2 | 6.7 | ** | ** | ** | 3.7 |
| | 500 | 37.5 | 48.4 | 67.8 | - | 21.5 | 25.6 | 35.8 | 51.2 | 6.3 | 8.7 | 12.1 | 19.9 | 2.7 | 4.6 | 6.9 | 11.9 |
| | 750 | - | - | - | - | 42.0 | 49.3 | - | - | 12.2 | 17.0 | 22.4 | 33.9 | 6.1 | 10.2 | 15.0 | 23.9 |
| | 1,000 | - | - | - | - | - | - | - | - | 20.6 | 27.5 | 32.5 | 48.0 | 10.7 | 15.6 | 24.9 | 38.6 |
| | 1,500 | - | - | - | - | - | - | - | - | 38.2 | 52.4 | - | - | 21.4 | 32.3 | 49.5 | - |
| | 2,000 | - | - | - | - | - | - | - | - | 56.3 | - | - | - | 34.4 | - | - | - |
| 50 | 100 | 2.0 | 3.4 | 5.9 | 9.3 | ** | ** | 2.0 | 2.7 | ** | ** | ** | ** | ** | ** | ** | ** |
| | 250 | 8.0 | 12.6 | 19.4 | 29.4 | 2.7 | 5.0 | 7.9 | 11.0 | ** | ** | 2.2 | 3.9 | ** | ** | ** | 2.6 |
| | 500 | 25.6 | 30.4 | 52.8 | 77.8 | 14.1 | 18.2 | 25.8 | 35.0 | 3.4 | 5.9 | 7.7 | 13.3 | ** | 2.9 | 4.7 | 8.0 |
| | 750 | 48.0 | 64.7 | - | - | 29.0 | 36.9 | 50.7 | 68.6 | 8.8 | 12.3 | 17.8 | 27.0 | 3.8 | 6.0 | 9.8 | 10.9 |
| | 1,000 | 73.7 | - | - | - | 48.4 | 69.8 | - | - | 15.2 | 22.1 | 35.5 | 42.1 | 6.8 | 10.5 | 16.8 | 28.1 |
| | 1,500 | - | - | - | - | 95.4 | - | - | - | 28.4 | 58.3 | - | - | 15.0 | 22.7 | 35.1 | 54.7 |
| | 2,000 | - | - | - | - | - | - | - | - | 45.1 | - | - | - | 25.6 | 31.0 | 56.1 | - |
| | 3,000 | - | - | - | - | - | - | - | - | - | - | - | - | 51.1 | 70.5 | - | - |
| 75 | 100 | ** | 2.6 | 3.8 | 7.1 | ** | ** | ** | 2.2 | ** | ** | ** | ** | ** | ** | ** | ** |
| | 250 | 6.0 | 3.4 | 13.3 | 23.1 | 3.0 | 3.8 | 6.0 | 8.2 | ** | ** | ** | 2.8 | ** | ** | ** | 2.0 |
| | 500 | 19.7 | 27.8 | 42.4 | 65.5 | 10.7 | 13.8 | 19.8 | 27.2 | 2.5 | 3.9 | 6.3 | 9.4 | ** | 2.0 | 3.4 | 5.9 |
| | 750 | 38.2 | 52.2 | 73.6 | - | 22.5 | 28.3 | 40.5 | 55.0 | 6.6 | 8.8 | 13.7 | 18.8 | 2.7 | 4.1 | 7.0 | 12.2 |
| | 1,000 | 59.7 | - | - | - | 38.6 | 47.3 | 66.1 | - | 11.8 | 14.7 | 22.6 | 31.0 | 4.9 | 6.9 | 12.0 | 20.3 |
| | 1,500 | - | - | - | - | 82.5 | 96.5 | - | - | 25.8 | 31.4 | 40.2 | 51.2 | 11.3 | 15.7 | 25.7 | 41.8 |
| | 2,000 | - | - | - | - | - | - | - | - | 47.1 | 53.9 | - | - | 18.7 | 22.4 | 43.0 | 67.6 |
| | 3,000 | - | - | - | - | - | - | - | - | - | - | - | - | 40.3 | 55.0 | 87.3 | - |
| 100 | 100 | ** | ** | 2.7 | 4.6 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| | 250 | 4.7 | 6.7 | 10.3 | 16.9 | 2.2 | 2.8 | 4.3 | 6.0 | ** | ** | ** | 2.2 | ** | ** | ** | ** |
| | 500 | 14.1 | 21.0 | 31.6 | 48.0 | 8.1 | 10.8 | 15.0 | 21.2 | 2.0 | 2.9 | 4.4 | 7.1 | ** | ** | 2.1 | 4.6 |
| | 750 | 29.0 | 42.0 | 59.5 | 75.0 | 17.7 | 23.0 | 32.3 | 42.8 | 4.7 | 6.9 | 10.3 | 15.4 | ** | 2.9 | 4.9 | 8.7 |
| | 1,000 | 48.0 | 67.5 | - | - | 31.0 | 37.0 | 53.0 | 68.5 | 8.6 | 11.8 | 17.4 | 25.0 | 3.1 | 5.2 | 8.8 | 14.4 |
| | 1,500 | 98.0 | - | - | - | 65.5 | 82.0 | - | - | 19.1 | 25.5 | 32.4 | 47.0 | 7.7 | 11.8 | 19.4 | 32.1 |
| | 2,000 | - | - | - | - | - | - | - | - | 32.8 | 42.2 | 47.0 | 70.0 | 13.4 | 15.2 | 32.1 | 53.4 |
| | 3,000 | - | - | - | - | - | - | - | - | 67.2 | 83.3 | - | - | 30.9 | 41.5 | 67.4 | - |

*The values listed in table are average for new hose including standard fittings as listed. **Indicates pressure drop of less than 2.0 lb. per sq. in.

| Hose Nipples | 3/16 in. Hose | 1/4 in. Hose | 5/16 in. Hose | 3/8 in. Hose |
|---------------|---------------|--------------|---------------|--------------|
| Hole Diameter | 0.125 | 0.1405 | 0.1935 | 0.250 |

Variations of plus or minus 10% may be expected, depending largely upon condition of the hose and fittings. To obtain inlet pressure, add the delivery pressure to the pressure drop given in the table.



Pressure Drops in Hose

Pressure Drop in Acetylene Hose

| Delivery Pressure lb. Per Square in. | Acetylene Flow cfh | 3/16 in. Hose Length | | | | *1/4 in. Hose Length | | | | *5/16 in. Hose Length | | | | *3/8 in. Hose Length | | | |
|---|-----------------------|----------------------|-----|-----|------|----------------------|-----|-----|-----|-----------------------|------|------|------|----------------------|------|------|------|
| | | 12½ | 25 | 50 | 100 | 12½ | 25 | 50 | 100 | 12½ | 25 | 50 | 100 | 12½ | 25 | 50 | 100 |
| | | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. | ft. |
| 2 | 25 | 0.3 | 0.5 | 1.0 | 1.8 | ** | ** | 0.5 | 0.8 | ** | ** | ** | 0.3 | ** | ** | ** | 2.3 |
| | 50 | 1.2 | 2.3 | 3.2 | 5.7 | 0.5 | 0.9 | 1.3 | 2.4 | ** | 0.3 | 0.4 | 0.7 | ** | ** | 0.3 | 0.4 |
| | 75 | 2.6 | 3.9 | 6.6 | - | 1.2 | 1.8 | 2.5 | 4.5 | 0.4 | 0.5 | 0.8 | 1.4 | ** | 0.3 | 0.5 | 0.8 |
| | 100 | 4.3 | 6.6 | - | - | 1.8 | 2.8 | 4.4 | 7.2 | 0.5 | 0.8 | 1.3 | 2.4 | 0.3 | 0.4 | 0.7 | 1.1 |
| | 150 | 8.4 | - | - | - | 4.0 | 5.7 | 8.9 | - | 1.2 | 1.7 | 2.7 | 4.8 | 0.5 | 0.8 | 1.2 | 2.2 |
| | 250 | - | - | - | - | 9.2 | - | - | - | 2.9 | 4.3 | 5.8 | 10.4 | 1.2 | 1.8 | 2.9 | 5.4 |
| | 500 | - | - | - | - | - | - | - | - | 10.3 | 13.2 | - | - | 4.1 | 6.0 | 9.0 | - |
| | 750 | - | - | - | - | - | - | - | - | - | - | - | - | 8.2 | - | - | - |
| 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 5 | 25 | 0.4 | 0.7 | 1.1 | 2.1 | ** | 0.3 | 0.6 | 1.0 | ** | ** | ** | ** | ** | ** | ** | ** |
| | 50 | 1.3 | 2.2 | 3.8 | 6.8 | 0.6 | 1.0 | 1.6 | 2.8 | 0.3 | 0.3 | 0.5 | 0.8 | ** | ** | 0.3 | 0.5 |
| | 75 | 2.7 | 4.3 | 7.3 | - | 2.2 | 3.3 | 5.0 | - | 0.5 | 0.6 | 0.9 | 1.6 | ** | 0.3 | 0.5 | 0.8 |
| | 100 | 4.6 | 7.5 | - | - | 4.5 | 6.5 | - | - | 0.6 | 1.0 | 1.5 | 2.8 | 0.3 | 0.5 | 0.8 | 1.3 |
| | 150 | 9.6 | - | - | - | 11.1 | - | - | - | 1.3 | 2.0 | 3.2 | 5.3 | 0.6 | 0.8 | 1.4 | 2.5 |
| | 250 | - | - | - | - | - | - | - | - | 3.3 | 5.0 | 7.1 | 11.5 | 1.4 | 2.1 | 3.4 | 6.0 |
| | 500 | - | - | - | - | - | - | - | - | 11.0 | 15.2 | - | - | 4.6 | 6.7 | 11.1 | - |
| | 750 | - | - | - | - | - | - | - | - | - | - | - | - | 9.1 | - | - | - |
| 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 7 | 25 | 0.3 | 0.5 | 0.9 | 1.6 | ** | ** | 0.4 | 0.7 | ** | ** | ** | ** | ** | ** | ** | 2.3 |
| | 50 | 1.1 | 1.8 | 3.0 | 5.4 | 0.5 | 0.8 | 1.2 | 2.1 | ** | 0.3 | 0.3 | 0.7 | ** | ** | 0.3 | 0.4 |
| | 75 | 2.2 | 3.6 | 6.0 | - | 1.0 | 1.5 | 2.4 | 4.2 | 0.3 | 0.4 | 0.6 | 1.4 | ** | ** | 0.4 | 0.7 |
| | 100 | 3.8 | 6.2 | - | - | 1.7 | 2.5 | 4.0 | 6.8 | 0.5 | 0.7 | 1.0 | 2.3 | 0.3 | 0.4 | 0.6 | 1.0 |
| | 150 | 8.2 | - | - | - | 3.6 | 5.2 | 8.0 | - | 1.0 | 1.6 | 2.3 | 4.5 | 0.5 | 0.7 | 1.1 | 2.1 |
| | 250 | - | - | - | - | 9.2 | - | - | - | 2.4 | 3.9 | 5.7 | 9.8 | 1.0 | 1.6 | 2.7 | 5.1 |
| | 500 | - | - | - | - | - | - | - | - | 9.1 | 12.4 | - | - | 3.7 | 5.5 | 9.2 | - |
| | 750 | - | - | - | - | - | - | - | - | - | - | - | - | 7.7 | - | - | - |
| 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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 | 5.3 | 10.7 | 0.9 | 1.4 | 2.2 | 3.7 | 0.3 | 0.4 | 0.5 | 0.6 | ** | ** | 0.3 | 0.6 |
| | 100 | 3.3 | 5.4 | - | - | 1.6 | 2.2 | 3.6 | 6.0 | 0.4 | 0.6 | 0.9 | 1.2 | ** | 0.3 | 0.5 | 0.9 |
| | 150 | 7.0 | - | - | - | 3.2 | 4.5 | 7.3 | - | 0.9 | 1.3 | 2.1 | 3.9 | 0.4 | 0.8 | 1.0 | 1.9 |
| | 250 | - | - | - | - | 8.1 | - | - | - | 2.3 | 3.5 | 5.2 | 8.8 | 6.9 | 1.4 | 2.5 | 4.4 |
| | 500 | - | - | - | - | - | - | - | - | 8.2 | 11.5 | 15.1 | - | 3.3 | 4.8 | 8.3 | 13.2 |
| | 750 | - | - | - | - | - | - | - | - | - | - | - | - | 7.0 | 13.2 | - | - |
| 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 13 | 25 | ** | 0.4 | 0.7 | 1.3 | ** | ** | 0.3 | 0.6 | ** | ** | ** | ** | ** | ** | ** | ** |
| | 50 | 0.8 | 1.4 | 2.4 | 4.8 | 0.4 | 0.6 | 0.9 | 1.6 | ** | ** | ** | 0.4 | ** | ** | ** | 0.4 |
| | 75 | 1.9 | 2.9 | 5.0 | 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 | 1.8 |
| | 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 |
| | 750 | - | - | - | - | - | - | - | - | - | - | - | - | 6.6 | 8.1 | - | - |
| 1,000 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |

*The values listed in table are average for new hose including standard fittings as listed.

**Indicates pressure drop of less than 0.3 lb. per square inch.

| Hose Nipples | 3/16 in. Hose | 1/4 in. Hose | 5/16 in. Hose | 3/8 in. Hose |
|---------------|---------------|--------------|---------------|--------------|
| Hole Diameter | 0.126 | 0.1405 | 0.1935 | 0.250 |

Variations of plus or minus 10% may be expected, depending largely upon condition of the hose and fittings. To obtain inlet pressure, add the delivery pressure to the pressure drop given in the table.

Torches

Flash Arrestors, Check Valves, Supplies

Hose Line Flash Arrestors

- ☐ When attached to OXWELD® or PUROX® Elite Series torch handles with “B” size inlets, will actually stop a flashback when properly operated
- ☐ Also designed to stop reverse flow of gases; should be left in place when hose is detached

Flow rate maximum

For cutting = up to 12 in. tip.
For heating or welding = up to a #100 head.



Flash Arrestors

Reverse Flow Check Valves

- ☐ Attached either to a torch or a regulator, they provide a certain measure of protection against reverse flow of gases
- ☐ Any condition that might cause reverse flow will close the valve completely
- ☐ Reverse flow check valves should be tested periodically for reverse flow leakage — frequency of testing depends on severity of service

CAUTION: Check valves ARE NOT designed to stop a flashback.

Flow rate maximum — 100 cfh using check valves.



Check Valves

Ordering Information - Flash Arrestors

Torch Mounted

| | |
|--------------------|-------|
| Matched pair | 20357 |
| Oxygen | 20373 |
| Acetylene | 20374 |

Regulator Mounted

| | |
|--------------------|------------|
| Matched Pair | 0558002695 |
| Oxygen | 0558002693 |
| Fuel Gas | 0558002694 |

| | |
|----------------------------|-------|
| Oxygen “ORS - ORS” | 21608 |
| Fuel Gas “ORS - ORS” | 21609 |

Ordering Information - Check Valves

For attachment to “B” size torch inlets

| | |
|----------------|--------|
| Oxygen | 639110 |
| Fuel gas | 639109 |

For replacement of 1/4 in. NPT to “B” size regulator outlet connection

| | |
|----------------|--------|
| Oxygen | 639112 |
| Fuel gas | 639111 |

For attachment to “B” size regulator outlets

| | |
|----------------|--------|
| Oxygen | 639209 |
| Fuel gas | 639210 |

For attachment to “A” size inlet

| | |
|---------------------|---------|
| Oxygen | 6271725 |
| Fuel gas | 6271726 |
| “A” size pair | 18451 |

ORS* inlet

| | |
|----------------|--------|
| Oxygen | 639212 |
| Fuel Gas | 639211 |

*ORS = OXWELD® Railway Service

Flash Arrestors, Check Valves, Supplies

Fitted Hose Assemblies

All hoses meet or exceed the standards for welding and cutting hoses established jointly by the Compressed Gas Association and the Rubber Manufacturers Association. They conform to Specification of the Association of American Railroads and to the requirements of the National Fire Protection Association.



Single Line Hose

☐ Type S

Consists of one braid or ply of reinforcement; normal welding and cutting service.

Twin Hose

☐ Type VD

Consists of two hoses with single braid or ply reinforcement identical in construction — one for oxygen, one for acetylene — connected continuously along the sides. Oxygen is green, acetylene is red. Both covers are smooth.

Maximum Working Pressure

Type S (one braid or ply) 200 psig
 Type VD (two braid or ply) 200 psig

Grades of Single and Twin Hose

☐ Grade RM

Has neoprene cover which is flame- and oil-resistant and a non-oil-resistant inner rubber tube.

☐ Grade R

Has a non-oil-resistant rubber inner tube and cover. For use with acetylene only.

☐ Grade T

For use with oxygen and all gases.

Fitted Assemblies

Fittings used with single and twin hose assemblies are standard hose connection nuts, nipples, and crimped ferrules.

Specifications and Ordering Information

Single Fitted Hose Assemblies (Type S, Grade R)

| Description | Length | Connection Sizes | Part Number (Acetylene Only) |
|--|--------|------------------|------------------------------|
| | ft. | | |
| 3/16 in. Single Fitted Hose Assemblies | 6 | A-A | 501F11 |
| | 12½ | A-A | 501F12 |
| | 25 | A-A | 501F13 |

Twin Fitted Hose Assembly (Grade T) Oxygen and All Gases

| Description | Length | Connection Sizes | Part Number (Acetylene Only) |
|--------------------------------------|--------|------------------|------------------------------|
| | ft. | | |
| 3/16 in. Twin Fitted Hose Assemblies | 12½ | A-A | 591F72 |
| 1/4 in. Twin Fitted Hose Assemblies | 25 | B-B | 593F83 |

Twin Fitted Hose Assembly (Type VD, Grade RM) Oxygen and All Gases

| Description | Length | Connection Sizes | Part Number (Acetylene Only) |
|--------------------------------------|--------|------------------|------------------------------|
| | ft. | | |
| 3/16 in. Twin Fitted Hose Assemblies | 12½ | A-A | 571F72 |
| | | A-B | 591F71 |
| | | B-B | 572F82 |
| | 25 | A-A | 571F73 |
| | | A-B | 574F93 |
| | | B-B | 572F83 |
| 50 | B-B | 572F84 | |
| | 25 | B-B | 583F83 |
| | | B-B | 583F84 |
| 100 | | B-B | 583F85 |

Torches

Accessories



Adjustable Bevel Cutting Adaptor

For use with machine cutting torches using 1500 Series tips. The adaptor connects to the torch in the same simple manner as a cutting tip. It has an angular adjustment range from 0°-90° on either side of the vertical center line of the torch and locks at the desired angle of bevel by means of a socket head screw. Tip aligns with same center line as torch at any angle.

Auxiliary Preheat Kits for Bevel Cutting

For use with adjustable bevel cutting adaptor. The kit contains the necessary parts for attaching a preheat head (included in the kit) to the adaptor. The head leads the cutting tip and furnishes additional preheat for the cutting operation. The bend in the head may be readily modified, as desired. Auxiliary preheat kits are available for use with both acetylene and natural gas.

Ordering Information

| | |
|--|-------|
| Adjustable Bevel Cutting Adaptor | 18845 |
| Auxiliary Preheat Kit (for above) | |
| For Acetylene | 61Y99 |
| For Natural Gas | 63Y13 |



Test Gauge Adaptor

- ☑ Easy-to-read 2½ in. gauge faces
- ☑ Identifies pressure/flow problems
- ☑ Easy to install and remove
- ☑ Permanent or temporary mounting
- ☑ Used to measure gas pressures at torch inlet connections

Ordering Information

Test Gauge Adaptors

| | |
|--|--------|
| For Oxygen, 0-100 psig, "B" | 07X17 |
| For Oxygen, 0-200 psig, "C" | 21X48 |
| For Acetylene, 0-15 psig, "B" | 262510 |
| For Alternate Fuels, 0-100 psig, "B" | 639422 |



Adjustable Bevel Cutting Adaptor

This adaptor fits directly on all cutting torches using 1500 Series tips. It has a scissors-type arrangement which gives an adjustment range from 1½ to 12 in. (33 to 305 mm) between the center line of the two tips. It is used in operations requiring parallel cuts as in coupon or slot cutting.

Ordering Information

| | |
|---------------------------------------|-------|
| Sitting Adaptor — Scissors Type | 22X42 |
|---------------------------------------|-------|

Accessories



Rosebud Heating Nozzle

- ☐ For cutting torches with 1500 series heads
- ☐ Quickly converts from cutting to heating

Ordering Information

| | |
|---------------------------------|-------|
| Rosebud Heating Nozzles | |
| Number 55 Acetylene | 20238 |
| Number 70 Alternate Fuels | 20234 |



Torch Cutting Guide/ Circle Cutting Attachment

A truly universal torch cutting guide for use with OXWELD®, PUROX®, and Elite Series hand cutting torches and cutting attachments. The guide is supplied with inserts to accept either OXWELD® or PUROX® tips, and it will accept both series of Victor® tips.

To use the guide as a circle cutting attachment, just remove the guide handle and insert the guide rod and center point (which is supplied as part of the kit). Users can cut circles 5 in. - 25 in. in diameter.

Ordering Information

| | |
|---|------------|
| Torch Cutting Guide/Circle Cutting Attachment | 0558002676 |
|---|------------|



Two-Way Oxygen Inlet Adaptor

- ☐ Permits use of one hose for both preheat and cutting oxygen on torches which otherwise require three hoses

Ordering Information

| | |
|------------------------------------|-------|
| Two-Way Oxygen Inlet Adaptor | 18X20 |
|------------------------------------|-------|



Quick-Closing Oxygen Shutoff Valve

Particularly recommended when using the Number 200 O-FG or Number 500 O-FG Rosebud Heating Head. Connects between torch and oxygen hose for quickly shutting off oxygen flow in the event of flashback.

Ordering Information

| | |
|--|--------|
| Quick-Closing Oxygen Shutoff Valve | 999306 |
|--|--------|



Torch Roller Cutting Guide Kit

A truly universal torch cutting guide for use with OXWELD®, PUROX®, and Elite Series hand cutting torches and cutting attachments. The guide is supplied with inserts to accept either OXWELD® or PUROX® tips, and it will accept both series of Victor® tips.

Ordering Information

| | |
|--------------------------------------|------------|
| Torch Roller Cutting Guide Kit | 0558004121 |
|--------------------------------------|------------|

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Torches

Torches

Accessories

Leak Test Solution

Recommended when testing regulators or torches for leaks.

Ordering Information

8 ounces 998771



Leak Test Solution

OXWELD® Soapstone Markers

Indexable Model

A flat soapstone marker in stainless steel indexable holder — stone can be advanced to new position with one hand — oversized, sturdy pocket clip.

Gripper Model

Pencil-sized, anodized holder with built-in chuck to position and hold round soapstone element.

Ordering Information

Indexable Model Soapstone Marker
(Package of 72) 639133
Replacement Flat Soapstone Element
(Package of 144) 639141
Gripper Model Soapstone Marker
(Package of 72) 791F66



Indexable Model



Gripper Model

OXWELD® Tip Cleaners

- ☑ For cleaning orifices of welding heads and cutting tips
- ☑ Stainless steel burnishers
- ☑ Sets are hinged in aluminum cases
- ☑ Choice of five sets — each includes cleaning file
- ☑ King size cleaner (4½ in. long) can clean tip from back end
- ☑ Accessory brass bristle spline brush (Part Number 750F99) for cleaning internal slots in two-piece tips — stores in tip cleaner case
- ☑ Identification stamped on back of each case
- ☑ Special set for High Speed “HS” tips

Ordering Information

| Set | Number of Cleaners | Drill Size Range | Part Number |
|-----------|--------------------|------------------|-------------|
| Standard | 12 | 49-75 | 751F00 |
| King Size | 12 | 49-75 | 754F00 |
| Jumbo | 9 | 30-48 | 752F00 |
| Master* | 21 | 30-75 | 753F00 |
| “HS”** | 15 | — | 755F00 |

*Includes all cleaners from both Standard and Jumbo sets.

**For cleaning orifices of 1563 HS and 1566 HS cutting tips.



Tip Cleaner Set

Wrenches

Specifications and Ordering Information

| Description | Openings | Part Number |
|---|--|-------------|
| | in. | |
| Large Combination Wrench — For connecting oxy-fuel torch, hoses, and regulators. Also equipped with socket wrench for acetylene cylinders with CGA-300 valve outlet | 7/16, 1/2, 9/16, 5/8, 11/16, 7/8, 1, 1 1/8 | 791F76 |
| T-Wrench — For acetylene cylinders with CGA-510 valve outlet fitting | - | 791F74 |



Large Combination Wrench



T-Wrench

Friction Lighters

- ☑ Single- or triple-flint models
- ☑ Specially hardened file surface — over one square inch
- ☑ Fat spark — flint strikes file at angle
- ☑ Quick ignition — protection cup forms gas-collection pocket
- ☑ File turns automatically — equalizes wear
- ☑ Easily replaceable flints
- ☑ Individually blister-packed

Ordering Information

| Description | Part Number |
|---|-------------|
| Single Flint Lighter Heavy-Duty Model Box of 10 | 790F34 |
| Heavy-Duty Renewal Flints Box of 200 | 790F37 |
| Three Flint Friction Lighter | 790F35 |
| Three Flint Renewal Unit - Card of 4 | 790F98 |
| Three Flint Renewal Unit - Card of 1 | 790F36 |



Single Flint Lighter





Three Flint Lighter

Cutting Tips

Overall Offering Guide



| Cutting Attachment or Torch |  EXTRA HEAVY DUTY OXWELD GAS APPARATUS BY ESAB Cutting Tip Series | Page Number |
|---|--|-------------|
| One-Piece Acetylene | | |
| C-32 C-66 CW-23 CW-400 C-39 C-58 C-70 | 1502 | 41 |
| One-Piece Alternate Fuels | | |
| C-32 C-66 CW-23 CW-400 C-67 C-39 C-58 C-69 | 1515 1564 | 43 42 |
| Two-Piece Alternate Fuels | | |
| C-67 C-39 C-58 C-69 C-70 C-32 C-66 CW-23 CW-400 | 1566 high speed 1567 | 44 45 |
| Specialty Tips | | |
| | 1507 | 47 |
| | 1539 | 47 |
| | 1510 | 48 |
| Consult tip page to confirm applicable torch compatibility | 1511 | 48 |
| | 1520 | 48 |
| | 1568 | 48 |
| | 1516 | 49 |
| | 1524 | 49 |
| | 1561 | 49 |

| Cutting Attachment or Torch |  MEDIUM/HEAVY DUTY PUROX GAS APPARATUS BY ESAB Cutting Tip Series | Page Number |
|----------------------------------|--|-------------|
| One-Piece Acetylene | | |
| "E" torch CA-4200 | 4202 | 50 |
| One-Piece Alternate Fuels | | |
| "E" torch CA-4200 | 4203 4216 | 51 50 |
| Two-Piece Alternate Fuels | | |
| "E" torch CA-4200 | 4217 | 52 |
| Specialty Tips | | |
| "E" torch CA-4200 | 4206 4207 4209 | 53 |

| Cutting Attachment or Torch | Victor® Style Cutting Tip Series | Page Number |
|-----------------------------------|----------------------------------|-------------|
| One-Piece Acetylene | | |
| Any series 1-101 compatible torch | Q1-101 | 54 |
| Any series 3-101 compatible torch | Q3-101 | 54 |

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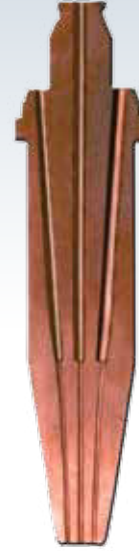
Cutting Tips

Cutting Tips

OXWELD®, PUROX®, and Victor® Style Cutting Tips



- ▣ **Precise CNC controlled drilling process ensures consistency in performance and quality**
- ▣ **One-piece tips have triple swaged interior — gas passages are mirror smooth with internal angles rounded for non-turbulent, more efficient gas flow — clean, smooth cuts with minimal kerf**
- ▣ **Preheat ports are closely spaced around cutting orifice for greater concentration of preheat flames**
- ▣ **Long, parallel preheat passages permit re-dressing tips without affecting performance**
- ▣ **One-piece tips are a single piece of solid copper — provide maximum cooling — recommended always for acetylene, and for other fuel gases when heat exposure is unusually severe**
- ▣ **Two-piece tips — recommended for high efficiency with alternate fuels — solid copper, heavy-wall external sleeve and brass internal sections can be ordered separately to minimize replacement cost**



One-Piece Acetylene Cutting Tip

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Cutting Tips

OXWELD®, PUROX®, and Victor® Style Cutting Tips



Four Steps to Proper Tip Selection

1. Choose One-Piece or Two-Piece Tip:

Acetylene — one-piece tip always.

Alternate Fuels — two-piece tip provides most efficient operation for normal cutting. One-piece tip extends life where heating is very severe.

2. Choose Series:

See “Overall Offering Guide” on page 38.

3. Choose Preheat Capacity:

Choice of tip depends on preheat capacity. See description above tip pictures on following pages. Steel coated with rust and scale, as well as bevel cutting, requires heavy preheat.

4. Choose Size:

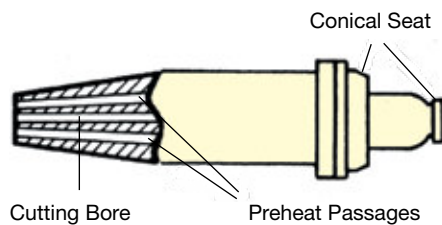
See Tip Size Recommendations on pages 41 through 55.

Select size recommended for thickness of steel to be cut.

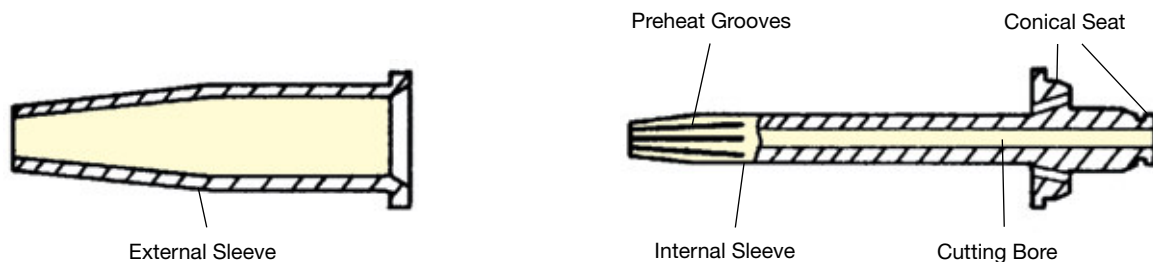
Oversize tips waste gas. Use oxygen pressure recommended for tip.

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One-Piece Tips



Two-Piece Tips



1500 Group Tips

One-Piece Acetylene



1502 Series

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Part Number | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting |
|-----------------|---------|----------|-------------|----------------------|------------------|--------------------|
| in. | mm | in. | | | | |
| 1/4 | 6 | 1/4 | 08Z67 | 6 | 69 | 68 |
| 1/2 | 13 | 1/2 | 15Z17 | 6 | 66 | 60 |
| 1 1/2 | 38 | 1 1/2 | 15Z18 | 6 | 65 | 53 |
| 2-4 | 500-100 | 4 | 15Z19 | 6 | 61 | 46 |
| 6-8 | 150-200 | 8 | 15Z20 | 6 | 57 | 39 |
| 9-12 | 230-300 | 12 | 15Z21 | 6 | 56 | 31 |
| 16-18 | 400-460 | 18** | 13A97 | 6 | 54 | 15 |
| 20 | 500 | 20** | 13A98 | 6 | 54 | 8 |

□ General purpose. Medium preheat sufficient for cutting dirty plate and for beveling



Operating Data*

| Metal Thickness | Tip Size | Part Number | Gas Pressure | | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|-------------|----------------|----------------|-----------|---------------|-----------------|-----------|--------------------|
| | | | Cutting Oxygen | Preheat Oxygen | Acetylene | | Total Oxygen | Acetylene | |
| | | | psig | psig | psig | | cfh | cfh | |
| 1/4 | 1/4 | 08Z67 | 30-35 | 20-25 | 5-7 | 17-25 | 35-45 | 6-8 | .045 |
| 1/2 | 1/2 | 15Z17 | 35-40 | 20-25 | 5-7 | 15-23 | 65-75 | 8-10 | .065 |
| 3/4 | 1 1/2 | 15Z18 | 35-40 | 20-25 | 5-7 | 13-21 | 120-135 | 14-16 | .075 |
| 1 | 1 1/2 | 15Z19 | 40-45 | 20-25 | 5-7 | 12-18 | 130-140 | 14-16 | .080 |
| 1 1/2 | 1 1/2 | 15Z19 | 40-45 | 20-25 | 5-7 | 11-16 | 150-170 | 16-20 | .090 |
| 2 | 4 | 15Z19 | 40-45 | 20-25 | 6-8 | 10-14 | 185-210 | 16-20 | .095 |
| 2 1/2 | 4 | 15Z19 | 40-45 | 20-30 | 6-8 | 9-12 | 190-235 | 16-20 | .095 |
| 3 | 4 | 15Z19 | 45-60 | 20-30 | 6-8 | 8-11 | 205-255 | 16-20 | .100 |
| 4 | 4 | 15Z19 | 50-55 | 25-30 | 6-8 | 6-9 | 235-285 | 19-22 | .015 |
| 6 | 8 | 15Z20 | 35-45 | 25-30 | 8-10 | 4.5-6.5 | 395-460 | 20-25 | .157 |
| 8 | 8 | 15Z20 | 55-65 | 30-35 | 8-10 | 3.5-5.0 | 545-625 | 30-35 | .170 |
| 10 | 12 | 15Z21 | 65-75 | 30-35 | 8-10 | 2.9-3.8 | 630-710 | 40-45 | .190 |
| 12 | 12 | 15Z21 | 55-65 | 30-35 | 10-12 | 2.4-3.0 | 790-905 | 45-55 | .210 |
| 18 | 18** | 13A97 | 40-45 | 35-40 | 11-13 | 3.0-3.5 | 1,300-1,695 | 75-80 | .320 |
| 20 | 20** | 13A98 | 45-75 | 40-60 | 11-13 | 2-3 | 1,600-1,900 | 80-90 | .360 |

*Not recommended for acetylene pressure less than 5 psig.

**Sizes 18 and 20 recommended only for use with C-39.

1500 Group Tips

One-Piece Alternate Fuels



1564 Series Propylene Tips

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Part Number | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|---------|----------|-------------|----------------------|------------------|------------------------|
| in. | mm | in. | | | | |
| 1/8-1/2 | 10-19 | 1/2 | 638983 | 8 | 67 | 60 |
| 3/4-1 1/2 | 19-50 | 1 1/2 | 638984 | 8 | 64 | 53 |
| 2-4 | 50-100 | 4 | 638985 | 8 | 62 | 46 |
| 4-8 | 100-200 | 8 | 638986 | 8 | 59 | 39 |
| 8-12 | 200-300 | 12 | 638987 | 8 | 56 | 31 |

□ General purpose. Medium preheat sufficient for cutting dirty plate and for beveling



Operating Data

| Metal Thickness | Tip Size | Part Number | Gas Pressure | | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|-------------|----------------|----------------|-----------|---------------|-----------------|-----------|--------------------|
| | | | Cutting Oxygen | Preheat Oxygen | Propylene | | Total Oxygen | Propylene | |
| in. | in. | | psig | psig | psig | ipm | cfh | cfh | in. |
| 1/4 | 1/2 | 638983 | 20-25 | 20-50 | 3-5 | 18-24 | 55-60 | 3-4 | .050 |
| 1/2 | 1/2 | 638983 | 30-35 | 20-50 | 3-5 | 14-22 | 70-80 | 4-5 | .065 |
| 3/4 | 1 1/2 | 638984 | 30-35 | 20-50 | 3-5 | 12-20 | 135-155 | 7-8 | .080 |
| 1 | 1 1/2 | 638984 | 35-40 | 20-50 | 3-5 | 11-17 | 150-155 | 7-8 | .090 |
| 1 1/2 | 1 1/2 | 638984 | 40-45 | 20-50 | 3-5 | 10-15 | 160-210 | 8-9 | .095 |
| 2 | 4 | 638985 | 25-30 | 20-50 | 3-5 | 9-13 | 215-245 | 8-10 | .100 |
| 3 | 4 | 638985 | 30-35 | 25-55 | 3-5 | 8-10 | 235-290 | 8-10 | .105 |
| 4 | 4 | 638985 | 35-40 | 25-55 | 3-5 | 6-9 | 270-320 | 10-11 | .115 |
| 5 | 8 | 638986 | 25-35 | 25-55 | 5-10 | 5-7 | 325-410 | 10-11 | .125 |
| 6 | 8 | 638986 | 35-45 | 25-55 | 5-10 | 4-6 | 410-480 | 11-13 | .170 |
| 8 | 8 | 638986 | 55-65 | 30-60 | 5-10 | 3.5-4.5 | 580-670 | 15-17 | .187 |
| 10 | 12 | 638987 | 40-50 | 30-60 | 10-15 | 2.5-3.5 | 680-805 | 20-23 | .210 |
| 12 | 12 | 638987 | 55-65 | 30-60 | 10-15 | 2-3 | 845-975 | 22-28 | .240 |

Cutting Tips

- Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.

- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

1500 Group Tips

One-Piece Alternate Fuels



1515 Series Natural Gas and Propane Tips

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Part Number | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting |
|-----------------|---------|----------|-------------|----------------------|------------------|--------------------|
| in. | mm | in. | | | | |
| 1/8-1/2 | 10-19 | 1/2 | 08Z85 | 8 | 67 | 60 |
| 3/4-1 1/2 | 19-38 | 1 1/2 | 08Z86 | 8 | 64 | 53 |
| 2-4 | 50-100 | 4 | 08Z87 | 8 | 42 | 46 |
| 4-8 | 100-200 | 8 | 08Z88 | 8 | 59 | 39 |
| 8-12 | 200-300 | 12 | 08Z89 | 8 | 56 | 31 |
| 12-16 | 300-400 | 16 | 65Z12 | 12 | 54 | 20 |
| 16-18 | 400-450 | 18 | 65Z13 | 12 | 53 | 15 |
| 18-20 | 450 | 20 | 65Z14 | 12 | 52 | 8 |

□ One-piece natural gas or propane, long preheat flames



Operating Data

| Metal Thickness | Tip Size | Part Number | Gas Pressure | | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|-------------|----------------|----------------|------------------------|---------------|-----------------|------------------------|--------------------|
| | | | Cutting Oxygen | Preheat Oxygen | Propane or Natural Gas | | Total Oxygen | Propane or Natural Gas | |
| | | | psig | psig | psig | | cfh | cfh | |
| 1/4 | 1/2 | 08Z85 | 20-25 | 20-50 | 3-5 | 18-24 | 55-60 | 5-8 | .050 |
| 1/2 | 1/2 | 08Z85 | 30-35 | 20-50 | 3-5 | 18-24 | 70-80 | 5-8 | .065 |
| 3/4 | 1 1/2 | 08Z86 | 30-35 | 20-50 | 3-5 | 12-20 | 135-155 | 8-12 | .080 |
| 1 | 1 1/2 | 08Z86 | 35-40 | 20-50 | 3-5 | 11-17 | 150-165 | 8-12 | .090 |
| 1 1/2 | 1 1/2 | 08Z86 | 40-45 | 20-50 | 3-5 | 10-15 | 160-210 | 8-12 | .095 |
| 2 | 4 | 08Z87 | 25-30 | 25-55 | 3-5 | 9-13 | 215-245 | 8-12 | .100 |
| 3 | 4 | 08Z87 | 30-35 | 25-55 | 5-10 | 7-10 | 235-290 | 12-18 | .105 |
| 4 | 4 | 08Z87 | 35-40 | 25-55 | 5-10 | 6-9 | 270-320 | 12-18 | .115 |
| 5 | 8 | 08Z88 | 25-35 | 25-55 | 5-10 | 5-7 | 325-410 | 12-18 | .125 |
| 6 | 8 | 08Z88 | 35-45 | 25-55 | 5-10 | 4-6 | 410-480 | 12-18 | .170 |
| 8 | 8 | 08Z88 | 55-65 | 30-60 | 5-10 | 3.5-4.5 | 580-670 | 18-20 | .187 |
| 10 | 12 | 08Z89 | 40-50 | 30-60 | 10-15 | 2.5-3.5 | 680-805 | 20-23 | .21 |
| 12 | 12 | 08Z89 | 55-65 | 30-60 | 10-15 | 2-3 | 845-975 | 22-28 | .24 |
| 16 | 16 | 65Z12 | 60-70 | 40-70 | 20-25 | 2-3 | 1,490-1,600 | 35-40 | .30 |
| 18 | 18 | 65Z13 | 50-60 | 60-90 | 22-26 | 1.5-2 | 1,640-1,900 | 40-45 | .34 |

Cutting Tips

- 43 - Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.
- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

1500 Group Tips

Two-Piece Alternate Fuels



1566 Series Alternate Fuels High Speed Tips

Machine Cutting Tips

| Metal Thickness | | Tip Size | Number Preheat Holes or Slots | Cleaning Preheat | Drill Size Cutting |
|-----------------|-----|----------|-------------------------------|------------------|--------------------|
| in. | mm | in. | | | in. |
| 1/2 | 13 | 1/2 | 12 | ◇ | # |
| 3/4 | 19 | 3/4 | 12 | ◇ | # |
| 1 | 25 | 1 | 12 | ◇ | # |
| 1½ | 38 | 1½ | 12 | ◇ | # |
| 2 | 50 | 2 | 12 | ◇ | # |
| 2½ | 64 | 2½ | 12 | ◇ | # |
| 4 | 100 | 4 | 12 | ◇ | # |
| 6 | 150 | 6 | 12 | ◇ | # |
| 8 | 200 | 8 | 12 | ◇ | # |
| 10 | 250 | 10 | 16 | ◇ | # |
| 14 | 350 | 14 | 16 | ◇ | # |

□ Two-piece, high-speed, high preheat for machine cutting, alternate fuels



Ordering Information

| Metal Thickness in. | Natural Gas or Propane | | | Propylene | | | Propylene - High Preheat* | | |
|------------------------|------------------------|----------|----------|-----------------|----------|----------|---------------------------|----------|----------|
| | Set Part Number | Internal | External | Set Part Number | Internal | External | Set Part Number | Internal | External |
| 1/2 | 0558005072 | 639600 | 639322 | 0558005083 | 639600 | 998277 | 0558005094 | 639600 | 998557 |
| 3/4 | 0558005073 | 639601 | 639322 | 0558005084 | 639601 | 998277 | 0558005095 | 639601 | 998557 |
| 1 | 0558005074 | 639602 | 639322 | 0558005085 | 639602 | 998277 | 0558005096 | 639602 | 998557 |
| 1½ | 0558005075 | 639603 | 639322 | 0558005086 | 639603 | 998277 | 0558005097 | 639603 | 998557 |
| 2 | 0558005076 | 639604 | 639322 | 0558005087 | 639604 | 998277 | 0558005098 | 639604 | 998557 |
| 2½ | 0558005077 | 639605 | 639322 | 0558005088 | 639605 | 998277 | 0558005099 | 639605 | 998557 |
| 4 | 0558005078 | 639606 | 639322 | 0558005089 | 639606 | 998277 | 0558005100 | 639606 | 998557 |
| 6 | 0558005079 | 639607 | 639322 | 0558005090 | 639607 | 998277 | 0558005101 | 639607 | 998557 |
| 8 | 0558005080 | 998739 | 14Z39 | 0558005091 | 998739 | 114Z08 | 0558005102 | 998739 | 998561 |
| 10 | 0558005081 | 998740 | 14Z77 | 0558005092 | 998740 | 639755 | 0558005103 | 998740 | 998558 |
| 14 | 0558005082 | 998741 | 14Z77 | 0558005093 | 998741 | 639755 | 0558005104 | 998741 | 998558 |

Cutting Tips

Operating Data

| Metal Thickness in. | Tip Size in. | Internal Part Number | Gas Pressure | | | Cutting Speed ipm | Gas Consumption | | Average Kerf Width in. |
|------------------------|-----------------|-------------------------|------------------------|------------------------|--------------|----------------------|---------------------|-------------|---------------------------|
| | | | Cutting Oxygen psig | Preheat Oxygen psig | Fuel psig | | Total Oxygen cfh | Fuel cfh | |
| | | | 1/2 | 1/2 | 639600 | 90 | 20-50 | 3-5 | 21-26 |
| 3/4 | 3/4 | 639601 | 90 | 20-50 | 3-5 | 20-25 | 110-130 | 5-10 | .055 |
| 1 | 1 | 639602 | 90 | 20-50 | 3-5 | 18-23 | 120-140 | 8-15 | .060 |
| 1½ | 1½ | 639603 | 90 | 20-50 | 3-5 | 13-18 | 175-195 | 8-15 | .080 |
| 2 | 2 | 639604 | 90 | 20-50 | 3-5 | 12-17 | 265-285 | 8-15 | .090 |
| 2½ | 2½ | 639605 | 90 | 25-55 | 3-5 | 10-17 | 275-295 | 8-15 | .105 |
| 3 | 4 | 639606 | 90 | 25-55 | 5-10 | 8-15 | 275-295 | 15-20 | .110 |
| 4 | 4 | 639606 | 90 | 25-55 | 5-10 | 7-13 | 315-325 | 15-20 | .115 |
| 6 | 6 | 639607 | 90 | 25-55 | 5-10 | 6-10 | 330-350 | 15-20 | .150 |
| 8 | 8 | 998739 | 90 | 30-60 | 5-10 | 4-6 | 670-690 | 20-25 | .160 |
| 10 | 10 | 998740 | 90 | 30-60 | 10-15 | 3-4 | 705-730 | 25-30 | .190 |
| 12 | 14 | 998741 | 90 | 30-60 | 10-15 | 3-4 | 850-875 | 25-30 | .210 |
| 14 | 14 | 998741 | 90 | 35-65 | 15-20 | 2-4 | 1,110-1,135 | 25-30 | .250 |

*Use where high preheat intensity is desired.

°To clean preheat slots, remove external sleeve and use a soft bristled brush.

*Clean cutting orifice only with high speed tip cleaning kit (755F00).

- Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.

- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

1500 Group Tips

Two-Piece Alternate Fuels



1567 Series

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Number Preheat Holes or Slots | Cleaning Preheat | Drill Size Cutting |
|-----------------|-----|----------|-------------------------------|------------------|--------------------|
| in. | mm | in. | | | in. |
| 1/4 | 6 | 1/4 | 12 | ◊ | 69 |
| 1/2 | 13 | 1/2 | 12 | ◊ | 65 |
| 3/4 | 19 | 3/4 | 12 | ◊ | 61 |
| 1 | 25 | 1 | 12 | ◊ | 54 |
| 2 | 50 | 2 | 12 | ◊ | 51 |
| 3 | 75 | 3 | 12 | ◊ | 49 |
| 4 | 100 | 4 | 16 | ◊ | 46 |
| 8 | 200 | 8 | 16 | ◊ | 39 |
| 12 | 300 | 12 | 16 | ◊ | 31 |
| 16 | 400 | 16 | 20 | ◊ | 20 |
| 18 | 500 | 18 | 20 | ◊ | 8 |

□ Two-piece, high preheat for machine cutting, alternate fuels



Ordering Information

| Metal Thickness in. | Natural Gas or Propane | | | Propylene | | | Propylene-High Preheat* | | |
|------------------------|------------------------|----------|----------|-----------------|----------|----------|-------------------------|----------|----------|
| | Set Part Number | Internal | External | Set Part Number | Internal | External | Set Part Number | Internal | External |
| 1/4 | 0558005016 | 639615 | 639322 | 0558005028 | 639615 | 998277 | 0558005040 | 639615 | 998557 |
| 1/2 | 0558005017 | 639616 | 639322 | 0558005029 | 639616 | 998277 | 0558005041 | 639616 | 998557 |
| 3/4 | 0558005018 | 639617 | 639322 | 0558005030 | 639617 | 998277 | 0558005042 | 639617 | 998557 |
| 1 | 0558005019 | 639618 | 639322 | 0558005031 | 639618 | 998277 | 0558005043 | 639618 | 998557 |
| 2 | 0558005020 | 639619 | 639322 | 0558005032 | 639619 | 998277 | 0558005044 | 639619 | 998557 |
| 3 | 0558005021 | 639620 | 639322 | 0558005033 | 639620 | 998277 | 0558005045 | 639620 | 998557 |
| 4 | 0558005022 | 998734 | 14Z39 | 0558005034 | 998734 | 114Z08 | 0558005046 | 998734 | 998561 |
| 8 | 0558005023 | 998735 | 14Z77 | 0558005035 | 998735 | 639755 | 0558005047 | 998735 | 998558 |
| 12 | 0558005024 | 998736 | 14Z77 | 0558005036 | 998736 | 639755 | 0558005048 | 998736 | 998558 |
| 16 | 0558005025 | 998737 | 14Z69 | 0558005037 | 998737 | 998269 | 0558005049 | 998737 | 998559 |
| 18 | 0558005026 | 998738 | 14Z69 | 0558005038 | 998738 | 998269 | 0558005050 | 998738 | 998559 |

*Use where high preheat intensity is desired.

◊To clean preheat slots, remove external sleeve and use a soft bristled brush.

1500 Group Tips

Two-Piece Alternate Fuels



1567 Series

Operating Data

| Metal Thickness | Tip Size | Internal Part Number | Gas Pressure | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|----------------------|----------------|-------|---------------|-----------------|-------|--------------------|
| | | | Cutting Oxygen | Fuel | | Total Oxygen | Fuel | |
| in. | in. | Number | psig | psig | ipm | cfh | cfh | in. |
| 1/4 | 1/4 | 639615 | 40 | 3-5 | 20-25 | 45-65 | 5-10 | .050 |
| 1/2 | 1/2 | 639616 | 40 | 3-5 | 18-25 | 65-85 | 5-10 | .065 |
| 3/4 | 3/4 | 639617 | 40 | 3-5 | 15-24 | 70-90 | 5-10 | .080 |
| 1 | 1 | 639618 | 40 | 3-5 | 14-20 | 95-115 | 5-10 | .090 |
| 1½ | 2 | 639619 | 40 | 3-5 | 12-16 | 175-200 | 8-15 | .095 |
| 2 | 2 | 639619 | 40 | 3-5 | 10-14 | 175-200 | 8-15 | .100 |
| 2½ | 3 | 639620 | 40 | 3-5 | 8-12 | 235-260 | 8-15 | .105 |
| 3 | 3 | 639620 | 40 | 5-10 | 7-11 | 235-260 | 15-20 | .105 |
| 4 | 4 | 998734 | 40 | 5-10 | 6-10 | 300-335 | 15-20 | .115 |
| 6 | 8 | 998735 | 39 | 5-10 | 4-6 | 450-480 | 15-20 | .170 |
| 8 | 8 | 998735 | 55-60 | 5-10 | 3-5 | 560-590 | 20-25 | .187 |
| 10 | 12 | 998736 | 50-60 | 10-15 | 3-4 | 840-900 | 25-30 | .210 |
| 12 | 12 | 998736 | 60-70 | 10-15 | 3-4 | 900-970 | 25-30 | .240 |
| 14 | 16 | 998737 | 50-60 | 15-20 | 3-4 | 1,120-1,340 | 25-30 | .270 |
| 16 | 16 | 998737 | 60-70 | 15-20 | 2-3 | 1,340-1,480 | 30-35 | .300 |
| 18 | 18 | 998738 | 50-60 | 15-20 | 2-3 | 1,560-1,890 | 30-35 | .340 |

Cutting Tips

- Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.
- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

1500 Group Tips

Specialty



1507 Series Acetylene Tips

Special Tips Acetylene

| Tip Size | Number | Part Number |
|----------|---------------|-------------|
| in. | Preheat Holes | |
| 19* | 6 | 08Z90 |
| 19** | 6 | 66Z40 |
| 25 | 6 | 15Z37 |

□ Unsurpassed for washing off rivet heads and then piercing rivet to facilitate removal. Each tip is equipped with a spud, which produces a low-velocity oxygen stream



Operating Data

| Tip Size | Part Number | Gas Pressure | |
|----------|-------------|----------------|-----------|
| | | Cutting Oxygen | Acetylene |
| in. | | psig | psig |
| 19*** | 08Z90 | 80-90 | 5-10 |
| 19*** | 66Z40 | 50-60 | 5-10 |
| 25 | 15Z37 | 80-90 | 5-10 |

*Spudded for maximum useful oxygen flow at 80-90 psi.

**Spudded for maximum useful oxygen flow at 50-60 psi.

***The cutting oxygen throat diameter is 0.055 in. on Part Number 08Z90; 0.125 in. on 66Z40.

1539 Series Alternate Fuels Tips

Special Tips Propylene, Natural Gas, and Propane

| Tip Size | Number | Part Number | Cleaning | Drill Size |
|----------|---------------|-------------|----------|------------|
| in. | Preheat Holes | Number | Preheat | Cutting |
| | | | | in. |
| 19* | 10 | 65Z55 | 62 | 3/16 |
| 19** | 10 | 65Z50 | 62 | 3/16 |
| 25 | 10 | 65Z56 | 62 | 1/4 |

□ Unsurpassed for washing off rivet heads and then piercing rivet to facilitate removal. Each tip is equipped with a spud, which produces a low-velocity oxygen stream



Operating Data

| Tip Size | Part Number | Gas Pressure | |
|----------|-------------|----------------|------|
| | | Cutting Oxygen | Fuel |
| in. | | psig | psig |
| 19*** | 65Z55 | 80-90 | 5-7 |
| 19*** | 65Z50 | 50-60 | 5-7 |
| 25 | 65Z56 | 50-60 | 5-7 |

*Spudded for maximum useful oxygen flow at 80-90 psi.

**Spudded for maximum useful oxygen flow at 50-60 psi.

***The cutting oxygen throat diameter is 0.055 in. on Part Number 65Z55; 0.125 in. on 66Z50.

1500 Group Tips Specialty



1510 Series Alternate Fuels Tips

Special Tips Propylene, Natural Gas, and Propane

| Tip Size in. | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|-------------------------|---------------------|---------------------------|
| 8 | 12 | ◊ | 76 |
| 10 | 12 | ◊ | 68 |
| 12 | 6 | ◊ | 46 |

□ For riser removal. Except in length, comparable to 1502. Supplied straight, with instructions for bending



Operating Data

| Metal Thickness in. | Tip Size in. | Part Number | Gas Pressure | | | Cutting Speed ipm | Gas Consumption | | Average Kerf Width in. |
|---------------------------|--------------------|----------------|------------------------|------------------------|-------------------|-------------------------|---------------------|------------------|------------------------------|
| | | | Cutting Oxygen psig | Preheat Oxygen psig | Acetylene psig | | Total Oxygen cfh | Acetylene cfh | |
| 2 | 8 | 08Z40 | 25-30 | 15-25 | 6-8 | 10-14 | 185-210 | 16-20 | .095 |
| 3 | 8 | 08Z40 | 30-40 | 15-25 | 6-8 | 8-11 | 205-255 | 16-20 | .100 |
| 4 | 8 | 08Z40 | 35-40 | 15-25 | 6-8 | 6-9 | 235-285 | 19-22 | .105 |
| 6 | 10 | 08Z41 | 35-40 | 20-30 | 6-10 | 5-7 | 395-460 | 20-25 | .157 |
| 8 | 10 | 08Z41 | 55-65 | 20-30 | 6-10 | 4-5 | 545-625 | 30-35 | .170 |
| 10 | 12 | 08Z42 | 40-55 | 20-30 | 6-10 | 3-4 | 630-710 | 40-55 | .190 |
| 12 | 12 | 08Z42 | 55-65 | 20-30 | 10-12 | 3-4 | 790-905 | 45-55 | .210 |

◊ For preheat cleaning size, reference 1502 group series cleaning preheat column.

1511, 1520, and 1568 Tips

Special Tips Acetylene, Propylene, Natural Gas, and Propane

| Tip Size in. | For Acetylene 1511 Series | For Propane Natural Gas 1520 Series | For FG-2 MAPP 1568 Series | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|---------------------------------|---|---------------------------------|---------------------|------------------------------|
| 13 | 15X14 | 15X33 | 998273 | 56 | 55 |
| 19 | 15X15 | 15X34 | 998274 | 55 | 49 |
| 25 | 15X16 | 15X35 | 998275 | 54 | 41 |

□ For gouging, grooving plate edges for welding, removing defects from castings, pad washing. Bent 20°. 1511 and 1568 tips have stellite wear skids



Operating Data for Series 1511

| Tip Size in. | Part Number | Approximate Groove Dimensions | | Gas Pressure-PSIG | | Approximate Speed ft./min. | Gas Consumption | |
|-----------------|----------------|----------------------------------|--------------|------------------------|-------------------|----------------------------------|-----------------|------------------|
| | | Width in. | Depth in. | Cutting Oxygen psig | Acetylene psig | | Oxygen cfh | Acetylene cfh |
| 13 | 15X14 | 5/16 | 1/8-1/4 | 65-75 | 5-10 | 1.0-1.8 | 160-180 | 35-80 |
| 19 | 15X15 | 3/8-7/16 | 3/16-1/8 | 80-90 | 5-10 | 1.6-2.2 | 270-300 | 50-55 |
| 25 | 15X16 | 1/2 | 3/16-7/16 | 90-100 | 5-10 | 1.9-2.8 | 340-390 | 55-60 |

- Given pressures are "back-of-the-torch" pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.

- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

1500 Group Tips

Specialty



1516 Series Acetylene Tips

Special Tips Acetylene

| Tip Size in. | Number Preheat Holes | Part Number | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|----------------------------|----------------|---------------------|---------------------------|
| 6 | 4 | 65Z22 | 65 | 53 |

□ For cutting and trimming



Operating Data

| Metal Thickness in. | Tip Size in. | Part Number | Gas Pressure | | Gas Consumption | |
|------------------------|-----------------|----------------|----------------|-------------------|---------------------|------------------|
| | | | Oxygen psig | Acetylene psig | Total Oxygen cfh | Acetylene cfh |
| 3/4-1½ | 6 | 65Z22 | 35-40 | 5-7 | 120-150 | 15-20 |

1524 Series Alternate Fuels Tips

Special Tips Propylene, Natural Gas, and Propane

| Tip Size in. | Number Preheat Holes | Part Number | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|----------------------------|----------------|---------------------|---------------------------|
| 25 | 10 | 15X51 | 53 | 41 |

□ For the removal of fins and risers from steel castings by progressive washing. Equipped with a replaceable skirt. (Part Number 52Z20)



1561 Series Alternate Fuels Tips

Special Tips Propylene, Natural Gas, and Propane

| Tip Size in. | Number Preheat Holes | Part Number | Cleaning Preheat | Drill Size Cutting in. |
|-----------------|----------------------------|----------------|---------------------|------------------------------|
| 6 | 4 | 66Z49* | 53 | 41 |

□ For cutting or trimming work up to 1½ in. thick close to resting surface. Particularly useful in shipyards

*Tip nut 998571 is also required with each of these tips because the bend in the tip prevents use with standard tip nuts supplied with torches.



Operating Data

| Metal Thickness in. | Tip Size in. | Part Number | Gas Pressure | | Gas Consumption | |
|------------------------|-----------------|----------------|----------------|--------------|---------------------|-------------|
| | | | Oxygen psig | Fuel psig | Total Oxygen cfh | Fuel cfh |
| 3/4-1½ | 6 | 66Z49 | 30-45 | 3-5 | 135-200 | 7-10 |

49 - Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.

- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

4200 Group Tips

One-Piece Acetylene



4202 Series Acetylene Tips

Hand Cutting Tips

| Metal Thickness | | Tip Size | Part Number | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting |
|-----------------|---------|----------|-------------|----------------------|------------------|--------------------|
| in. | mm | in. | | | | |
| 1/8 | 3 | 1/8 | 638869 | 4 | 73 | 76 |
| 3/16-1/4 | 4-6 | 1/4 | 16K08 | 6 | 73 | 68 |
| 1/2 | 13 | 1/2 | 16K09 | 6 | 73 | 60 |
| 3/4-1 1/2 | 19-38 | 1 1/2 | 16K10 | 6 | 69 | 55 |
| 2-4 | 50-100 | 4 | 16K11 | 6 | 68 | 50 |
| 6 | 150 | 6 | 16K12 | 6 | 64 | 43 |
| 8-10 | 200-250 | 10 | 16K13 | 6 | 60 | 35 |
| 12 | 300 | 12 | 16K14 | 6 | 56 | 30 |

□ General purpose. Medium preheat, sufficient preheat for beveling



Operating Data

| Metal Thickness | Tip Size | Part Number | Gas Pressure | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|-------------|----------------|-----------|---------------|-----------------|-----------|--------------------|
| | | | Cutting Oxygen | Acetylene | | Total Oxygen | Acetylene | |
| | | | psig | psig | | cfh | cfh | |
| 1/16 | 1/8 | 638869 | 30-40 | 5-7 | 36-40 | 20-25 | 5-8 | .050 |
| 1/8 | 1/8 | 638869 | 30-40 | 5-7 | 34-38 | 25-32 | 8-10 | .055 |
| 1/4 | 1/4 | 16K08 | 30-40 | 5-7 | 28-32 | 38-45 | 8-10 | .055 |
| 3/8 | 1/2 | 16K09 | 30-40 | 5-7 | 23-27 | 55-60 | 9-11 | .060 |
| 1/2 | 1/2 | 16K09 | 30-40 | 5-7 | 18-22 | 70-75 | 10-12 | .065 |
| 5/8 | 1 1/2 | 16K10 | 30-40 | 5-7 | 16-20 | 78-83 | 10-12 | .070 |
| 3/4 | 1 1/2 | 16K10 | 30-40 | 5-7 | 14-18 | 95-102 | 12-14 | .075 |
| 1 | 1 1/2 | 16K10 | 35-40 | 5-7 | 13-15 | 120-125 | 14-16 | .080 |
| 1 1/2 | 1 1/2 | 16K10 | 50-55 | 5-7 | 11-13 | 168-175 | 16-20 | .090 |
| 2 | 4 | 16K11 | 40-45 | 6-10 | 10-12 | 195-205 | 18-20 | .095 |
| 3 | 4 | 16K11 | 50-60 | 6-10 | 10-11 | 230-240 | 18-22 | .100 |
| 4 | 4 | 16K11 | 60-75 | 6-10 | 8-10 | 300-325 | 21-25 | .110 |
| 5 | 6 | 16K12 | 60-70 | 10-12 | 7-9 | 340-380 | 22-25 | .130 |
| 6 | 6 | 16K12 | 60-70 | 10-12 | 6-8 | 410-460 | 25-28 | .160 |
| 8 | 10 | 16K13 | 65-75 | 10-12 | 4-6 | 600-640 | 30-35 | .170 |
| 10 | 10 | 16K13 | 80-90 | 10-12 | 1-2 | 680-740 | 40-45 | .190 |
| 12 | 12 | 16K14 | 75-85 | 10-12 | 1-2 | 800-860 | 48-52 | .210 |

Cutting Tips

4216 Series Propylene Tips

Hand Cutting Tips

| Metal Thickness | | Tip Size | Part Number | Number Preheat Holes | Cleaning Preheat | Drill Size Cutting |
|-----------------|---------|----------|-------------|----------------------|------------------|--------------------|
| in. | mm | in. | | | | |
| 1/8-1/4 | 3-6 | 1/4 | 998589 | 8 | 67 | 68 |
| 1/2 | 13 | 1/2 | 998590 | 8 | 67 | 60 |
| 3/4-1 1/2 | 19-38 | 1 1/2 | 998591 | 8 | 64 | 53 |
| 2-4 | 50-100 | 4 | 998592 | 8 | 62 | 46 |
| 6-8 | 150-200 | 8 | 998593 | 8 | 59 | 39 |
| 10-12 | 250-300 | 12 | 998594 | 8 | 56 | 31 |

□ Heavy preheat for scrap cutting and beveling in excess of 45°



- Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.

- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

4200 Group Tips

One-Piece Alternate Fuels



4203 Series Natural Gas and Propane Tips

Hand Cutting Tips

| Metal Thickness | | Tip Size | Part | Number | Cleaning Preheat | Drill Size Cutting |
|-----------------|---------|----------|--------|---------------|------------------|--------------------|
| in. | mm | in. | Number | Preheat Holes | | in. |
| 3/8-5/8 | 9-15 | 3/4 | 16K15 | 6 | 68 | 60 |
| 3/4-1 1/2 | 19-38 | 1 1/2 | 16K16 | 6 | 59 | 55 |
| 2-4 | 50-100 | 4 | 16K17 | 6 | 1/16 | 50 |
| 5-6 | 125-150 | 6 | 16K18 | 6 | 1/16 | 43 |

□ General purpose cutting with natural gas or propane. Medium preheat sufficient for beveling



Operating Data

| Metal Thickness | Tip Size | Part Number | Gas Pressure | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|-------------|----------------|------------------------|---------------|-----------------|------------------------|--------------------|
| | | | Cutting Oxygen | Propane or Natural Gas | | Total Oxygen | Propane or Natural Gas | |
| | | | psig | psig | | cfh | cfh | |
| 3/8 | 4 | 16K15 | 20-28 | 3-5 | 19-23 | 70-80 | 6-8 | .060 |
| 1/2 | 4 | 16K15 | 30-35 | 3-5 | 17-21 | 80-100 | 8-10 | .065 |
| 5/8 | 4 | 16K15 | 38-45 | 3-5 | 15-19 | 110-120 | 9-11 | .070 |
| 3/4 | 5 | 16K15 | 25-30 | 3-5 | 15-19 | 125-140 | 9-11 | .075 |
| 1 | 5 | 16K16 | 30-40 | 3-5 | 13-17 | 140-150 | 10-12 | .080 |
| 1 1/2 | 5 | 16K16 | 48-62 | 3-5 | 11-15 | 190-210 | 12-14 | .090 |
| 2 | 7 | 16K17 | 35-44 | 5-10 | 10-14 | 225-245 | 12-16 | .095 |
| 3 | 7 | 16K17 | 40-56 | 5-10 | 8-10 | 250-290 | 13-18 | .100 |
| 4 | 7 | 16K17 | 62-74 | 5-10 | 7-9 | 300-340 | 14-18 | .110 |
| 5 | 9 | 16K18 | 58-62 | 10-15 | 3-4 | 400-450 | 15-20 | .130 |
| 6 | 9 | 16K18 | 68-74 | 10-15 | 3-4 | 470-520 | 16-20 | .170 |

Cutting Tips

- 51 - Given pressures are “back-of-the-torch” pressures, not what to set regulator at; hose length, diameter, flash arrestor use, and many other factors affect pressure. Use test gauge adaptors on page 33 to check pressure at back of torch.
- When using tips larger than 6 in., ESAB recommends using straight (hand) cutting torches, not combination torches.

4200 Group Tips

Two-Piece Alternate Fuels



4217 Series

Hand Cutting Tips

| Metal Thickness | | Tip Size | One-Piece or Internal Part | External Sleeve | Number | | Drill Size |
|-----------------|-----|----------|----------------------------|-----------------|---------|----------|------------|
| in. | mm | in. | Number | Natural Gas | Preheat | Cleaning | in. |
| | | | | Propane | Holes | Preheat | |
| 1/4 | 6 | 1/4 | 19485 | 19518 | 12 | ◊ | 68 |
| 1/2 | 13 | 1/2 | 19486 | 19518 | 12 | ◊ | 60 |
| 1 | 25 | 1 | 19487 | 19518 | 12 | ◊ | 53 |
| 2 | 50 | 2 | 19488 | 19518 | 12 | ◊ | 50 |
| 4 | 100 | 4 | 19489 | 19519 | 20 | ◊ | 43 |
| 6 | 150 | 6 | 19490 | 19519 | 20 | ◊ | 39 |
| 8 | 200 | 8 | 19491 | 19519 | 20 | ◊ | 35 |
| 12 | 300 | 12 | 19492 | 19519 | 20 | ◊ | 31 |

□ General purpose. Medium preheat sufficient for beveling



Ordering Information

| Metal Thickness | Alternate Fuels | | |
|-----------------|-----------------|----------|----------|
| | Set Part Number | Internal | External |
| 1/4 | 0558005123 | 19485 | 19518 |
| 1/2 | 0558005124 | 19486 | 19518 |
| 1 | 0558005125 | 19487 | 19518 |
| 2 | 0558005126 | 19488 | 19518 |
| 4 | 0558005127 | 19489 | 19519 |
| 6 | 0558005128 | 19490 | 19519 |
| 8 | 0558005129 | 19491 | 19519 |
| 12 | 0558005130 | 19492 | 19519 |

Cutting Tips

Operating Data

| Metal Thickness | Internal Part | Gas Pressure | | | | Gas Consumption | | | | Cleaning Drill Size |
|-----------------|---------------|--------------|-----------|---------|--------------|-----------------|-----------|---------|-------------|---------------------|
| | | Oxygen | Propylene | Propane | Natural Gas* | Oxygen | Propylene | Propane | Natural Gas | |
| | | psig | psig | psig | psig | cfh | cfh | cfh | cfh | |
| 1/4 | 19485 | 30 | 4 | 6 | 7 | 70 | 8 | 12 | 30 | 68 |
| 1/2 | 19486 | 35 | 4 | 7 | 8 | 120 | 9 | 14 | 32 | 60 |
| 1 | 19487 | 40 | 4 | 8 | 9 | 180 | 10 | 15 | 35 | 53 |
| 2 | 19488 | 45 | 5 | 9 | 10 | 250 | 11 | 16 | 40 | 50 |
| 4 | 19489 | 40 | 4 | 8 | 10 | 370 | 12 | 18 | 45 | 43 |
| 6 | 19490 | 50 | 5 | 12 | 13 | 520 | 14 | 20 | 50 | 39 |
| 8 | 19491 | 50 | 6 | 15 | 16 | 610 | 16 | 22 | 55 | 35 |
| 12 | 19492 | 75 | 8 | 18 | 20 | 860 | 20 | 30 | 85 | 31 |

°Use soft bristled brush to clean preheat slots of internals.

*If using LPNG injector (19417) in E torch, it will operate with natural gas pressure less than 1/2 psig.

4200 Group Tips Specialty



4206 Series Acetylene Tips

Special Tips Acetylene

| Tip Size in. | No Preheat Holes | Part Number | Drill Size Cutting in. |
|-----------------|---------------------|----------------|---------------------------|
| 1/16 | 3 | 1 | 16K31 |
| 3/16 | 5 | 1 | 16K33 |

□ Light preheat for cutting sheet metal



4207 Series Acetylene Tips

Special Tips Hand Cutting, Gouging, Groove Cutting

| Approximate Groove Width in. | Dimensions Depth in. | Tip Size in. | Part Number |
|------------------------------------|-------------------------|-----------------|----------------|
| 1/4-5/16 | 1/8-1/4 | 13 | 16K67 |
| 3/8-7/16 | 1/4-3/8 | 19 | 16K35 |

□ Designed for grooving, gouging, and plate edge preparation



Operating Data

| Approximate Groove Dimensions | | Tip Size in. | Part Number | Gas Pressure | | Gas Consumption | | Gouging Speed ft./min. |
|----------------------------------|--------------|-----------------|----------------|----------------|-------------------|-----------------|------------------------|---------------------------|
| Width in. | Depth in. | | | Oxygen psig | Acetylene psig | Oxygen cfh | Total Acetylene cfh | |
| 1/4-5/16 | 1/8-1/4 | 13 | 16K67 | 35-40 | 9-10 | 157-180 | 33-38 | 1.0-1.8 |
| 3/8-7/16 | 1/4-3/8 | 19 | 16K35 | 45-50 | 12-14 | 268-303 | 50-55 | 1.6-2.2 |

Cutting Tips

4209 Series Acetylene Tips

Special Tips Hand Cutting, Gouging, Groove Cutting

| Riv or Bolt Diameter in. | Tip Size in. | Number Preheat Holes | Part Number |
|-----------------------------|-----------------|-------------------------|----------------|
| 5/8-3/4 | 5 | 2 | 16K47 |
| 1-1/2 | 7 | 2 | 16K48 |

□ Designed for rivet busting and bolt removal



Cutting Tips

Victor® Style



Series 1 Acetylene Tips

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Part Number |
|-----------------|-----|----------|-------------|
| in. | mm | in. | |
| 1/8 | 3 | 000 | Q1-101-000 |
| 1/4 | 6 | 00 | Q1-101-00 |
| 1/2 | 13 | 0 | Q1-101-0 |
| 3/4 | 19 | 1 | Q1-101-1 |
| 1½ | 38 | 2 | Q1-101-2 |
| 2½ | 63 | 3 | Q1-101-3 |
| 3 | 75 | 4 | Q1-101-4 |
| 5 | 125 | 5 | Q1-101-5 |
| 8 | 200 | 6 | Q1-101-6 |
| 10 | 250 | 7 | Q1-101-7 |
| 12 | 300 | 8 | Q1-101-8 |

□ General purpose



Series 3 Acetylene Tips

Hand or Machine Cutting Tips

| Metal Thickness | | Tip Size | Part Number |
|-----------------|-----|----------|-------------|
| in. | mm | in. | |
| 1/8 | 3 | 000 | Q3-101-000 |
| 1/4 | 6 | 00 | Q3-101-00 |
| 1/2 | 13 | 0 | Q3-101-0 |
| 3/4 | 19 | 1 | Q3-101-1 |
| 1½ | 38 | 2 | Q3-101-2 |
| 2½ | 63 | 3 | Q3-101-3 |
| 3 | 75 | 4 | Q3-101-4 |
| 5 | 125 | 5 | Q3-101-5 |

□ General purpose



Cutting Tips

Series 1 and Series 3 Operating Data

| Metal Thickness | Tip Size | Gas Pressure | | Cutting Speed | Gas Consumption | | Average Kerf Width |
|-----------------|----------|----------------|-----------|---------------|-----------------|-----------|--------------------|
| | | Cutting Oxygen | Acetylene | | Total Oxygen | Acetylene | |
| in. | in. | psig | psig | ipm | cfh | cfh | in. |
| 1/8 | 000 | 20-25 | 3-5 | 28-32 | 20-25 | 3-5 | .04 |
| 1/4 | 00 | 20-25 | 3-5 | 27-30 | 30-35 | 4-6 | .05 |
| 3/8 | 0 | 25-30 | 3-5 | 24-28 | 55-60 | 5-8 | .06 |
| 1/2 | 0 | 30-35 | 3-5 | 20-24 | 60-65 | 6-10 | .06 |
| 3/4 | 1 | 30-35 | 3-5 | 17-21 | 80-85 | 8-13 | .07 |
| 1 | 2 | 35-40 | 3-6 | 15-19 | 140-150 | 10-16 | .09 |
| 1½ | 2 | 40-45 | 3-7 | 13-17 | 150-160 | 12-18 | .09 |
| 2 | 3 | 40-45 | 4-9 | 12-15 | 210-225 | 14-22 | .11 |
| 2½ | 3 | 45-50 | 4-10 | 10-13 | 225-240 | 16-26 | .11 |
| 3 | 4 | 40-50 | 5-10 | 9-12 | 270-320 | 18-30 | .12 |
| 4 | 5 | 45-55 | 5-12 | 8-11 | 390-425 | 22-34 | .15 |
| 5 | 5 | 50-55 | 5-13 | 7-9 | 425-450 | 26-38 | .15 |
| 6 | 6 | 45-55 | 7-13 | 6-8 | 500-600 | 30-44 | .18 |
| 8 | 6 | 45-55 | 7-14 | 5-6 | 500-600 | 34-50 | .19 |

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Cutting Tips

Operating Data

Important Notes

1. Operating data is based on typical operating conditions. All values shown are average values. Factors such as the type and quality of the steel, its surface condition, the purity of the oxygen used in the cutting reaction, etc. will directly affect the results obtained.
2. All pressures given are measured at the torch. Pressure drop through hose must be considered when setting pressure at the regulator. Generally, 1/4 in. I.D. hoses up to 25 feet long are adequate for cutting steel up to 4 in. If longer hoses are required, and if cutting thicker steels, 3/8 in. I.D. hoses should be used.
3. The given data for acetylene tips is based on medium pressure torches. Unless otherwise stated, they will work with low pressure acetylene when higher oxygen pressure may be required, particularly when cutting steel plate 4 in. thick and up.
4. Kerf widths in the tables are average. When the kerf widths are of particular importance, a trial cut in scrap section is recommended.
5. Given pressures and flows are ranges. Please reference your specific torch literature for the most accurate tip pressures and flows.

Regulators

Overall Offering Guide



Cylinder

Regulators

**Heavy-Duty
Two-Stage**
R-770 pg 60



Single-Stage
R-760 pg 61



**Medium-Duty
Single-Stage**
R-720 pg 62



Regulator Flowmeters

Heavy-Duty
Two-Stage Inert
R-502-FM-580 pg 63
Single-Stage Inert
R-5007-FM-580 pg 63
Single-Stage Carbon Dioxide
R-5008-FM-320 pg 63

Medium-Duty
Single-Stage Inert
R-720-FM-580 pg 63
R-33-FM-580 pg 65
R-50-FM-580 pg 65
Single-Stage Carbon Dioxide
R-33-FM-320 pg 65



Controlled Flow Regulators

Heavy-Duty
Single-Stage Inert
R-760-CF-320 pg 63

Medium-Duty
Single-Stage Inert
R-720-CF-580 pg 63



Station Drop/Line

Regulators

Heavy-Duty
Single-Stage
R-760 pg 67
R-6700 pg 67



Medium-Duty
Single-Stage
R-720 pg 67



(For Steel Industry regulators, see "SIP" Section, pg 89-92)

Flowmeters

Medium-Duty
Single-Stage Inert
L-32 pg 66
L-33 pg 66

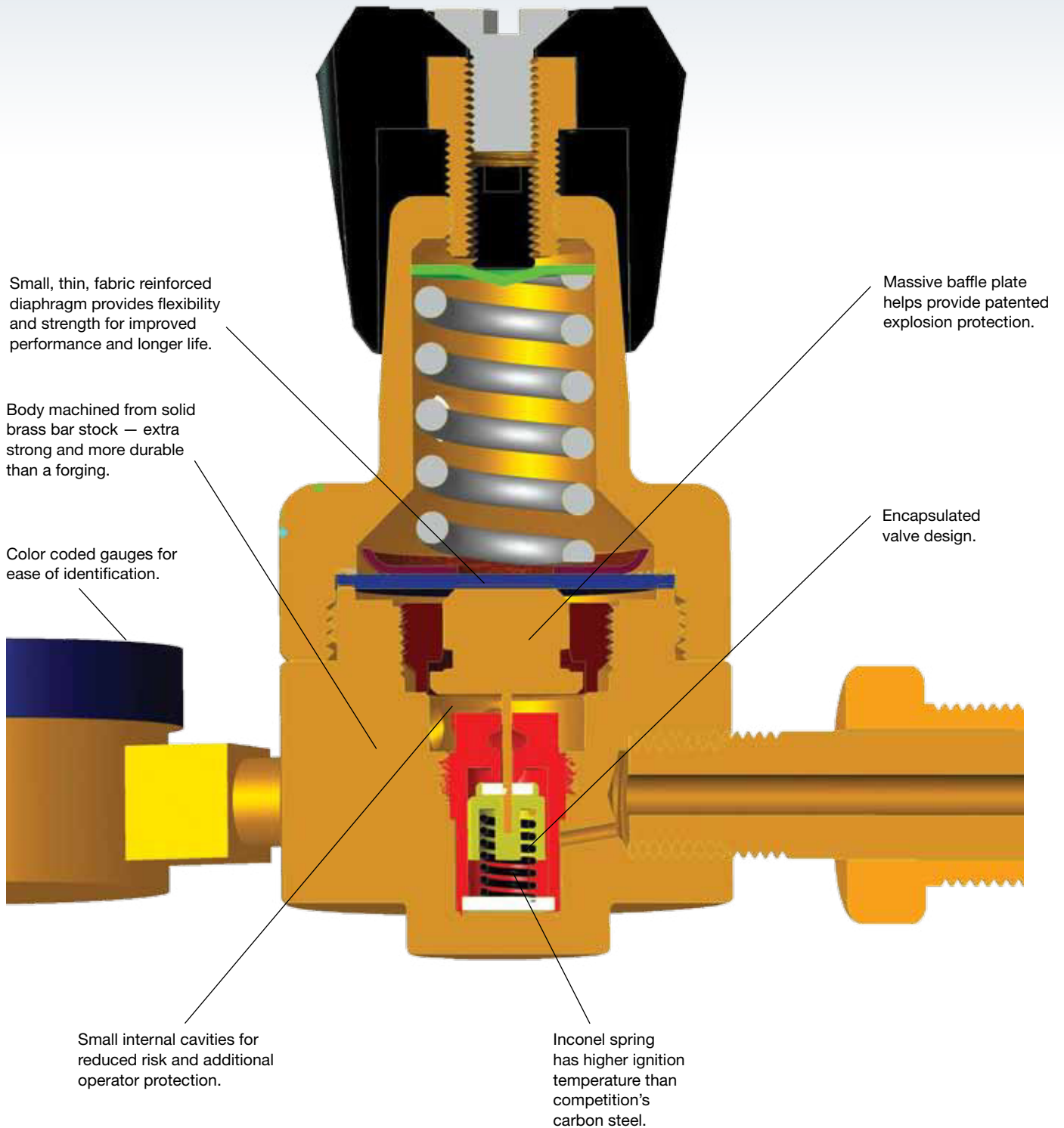
Single-Stage Carbon Dioxide
L-32 pg 66
L-33 pg 66



Cylinder

OXWELD®, PUROX®, and Elite Series Regulators

Why Choose ESAB?



Regulators

Regulators

ESAB manufactures a complete line of regulators that are unsurpassed in their field. They have the capacity to handle virtually all gas and electric welding, cutting, heating, and related process applications — ranging from light-duty maintenance and repair operations through general- and heavy-duty production. All regulators carry the UL seal.

Cylinder-Based Explosions

When oxygen comes in contact with certain impurities — especially a hydrocarbon — spontaneous ignition can occur. When this happens in the inner chambers of an oxygen regulator, it causes a cylinder-based fire or explosion.

Explosions can occur when prescribed practices for the safe handling and use of cylinders and regulators are not followed. Regulator pieces can become burning projectiles and cause serious personal injuries.

Because any regulator can be used contrary to the manufacturer's warnings and instructions, it is impossible to guarantee that an explosion will not occur. After years of research and development, we achieved an advance in regulator design that makes a cylinder explosion more likely to be contained if a regulator is misused.

In extensive tests where we simulated operator misuse, ESAB regulators were more effective at minimizing the risk of personal injury than any of the competitor's single- or two-stage models we tested.

Further, the explosion protection that is built into our exclusive design has been patented and added to all ESAB cylinder oxygen regulators.

Single-Stage or Two-Stage Regulators

All regulators are used to reduce the gas pressure supplied by a high pressure source to a precise workable level that can be handled by the equipment being used. Both single- and two-stage regulators control only the gas pressure — not the flow rate, unless equipped with a flow control device.

Single-Stage Regulators

Reduce pressure in one step. Changes in input pressure will cause changes in output pressure. Since the cylinder pressure will decrease as the cylinder empties, it is necessary to make occasional readjustments for consistent output pressure. Where input pressure remains constant, such as from liquified gas sources or controlled line supplies, no adjustments are necessary.

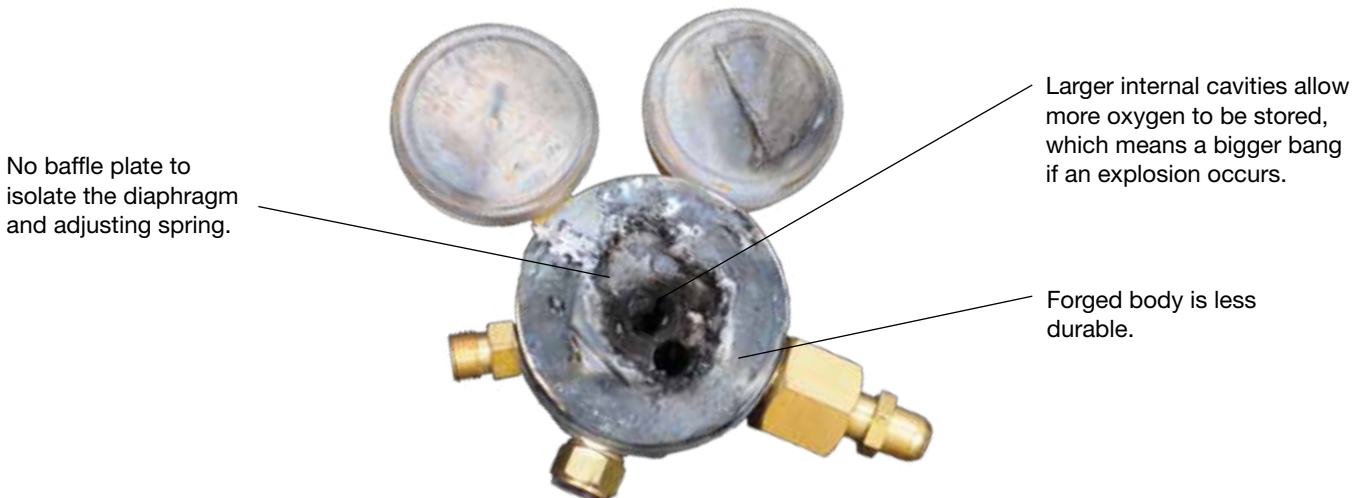
Two-Stage Regulators

Reduce pressure in two steps. They are actually two regulators in one. The first stage reduces the input pressure to a preset intermediate pressure which becomes the input pressure to the second stage. Because the intermediate pressure is regulated, the delivery pressure of the regulator remains virtually constant. As a result, cylinders can be used to much lower pressures for increased gas savings for our customers — up to 10% of full cylinder content savings, depending on regulator service.

Gaugeless Regulators

In applications where the gauges are subject to frequent damage, gaugeless regulators are often preferred. A spring-loaded, pop-up indicator retracts when the cylinder is nearly empty. A sliding indicator in the regulator cap is used to indicate delivery pressure.

This regulator without explosion protection experienced a regulator burnout (RBO)



Watch our Regulator Burnout (RBO) Safety Video online at esabna.com/gasapparatus

Cylinder

OXWELD®, PUROX®, and Elite Series Regulators

Ease of Identification



Flow data provides an aid to proper regulator selection. The regulators are rated with standard CGA fittings. Other factors to consider include hose diameter and length, valve, and gas apparatus combinations. If more detailed information is required for a specific application, consult your distributor for assistance.

To find the flow rate for a particular regulator and gas, refer to the appropriate curve and the correction factor, if any, noted below the curves. The following example will help in reading the curves:

In Figure 3, the helium flow rate for an R-770-500-580 regulator, given a delivery pressure of 240 psig and inlet pressure of 300 psig, is determined by multiplying the curve reading of 1,000 cfh by the correction factor of 2.7. The flow rate, therefore, is 2,700 cfh.

*For other gases, multiply oxygen flow rate by: 0.9 for argon and FG-2; 1.1 for nitrogen; 1.4 for natural gas; 2.8 for helium; 4.0 for hydrogen.

**For other gases, multiply nitrogen flow rate by 0.8 for argon; 2.7 for helium.

Outlet Connection:

- CGA-022 (formerly "B" oxygen) - 9/16 in. - 18 RH male connection
- CGA-023 (formerly "B" fuel gas) - 9/16 in. - 18 LH male connection
- CGA-032 (formerly "B" inert gas) - 5/8 in. - 18 RH female connection
- CGA-033 (formerly "B" air-water) - 5/8 in. - 18 LH female connection
- CGA-020 (formerly "A" oxygen) - 3/8 in. - 24 RH male connection
- CGA-021 (formerly "A" fuel gas) - 3/8 in. - 24 LH male connection

Figure 1 — R-770-150-540, -350, -580, -590, -680

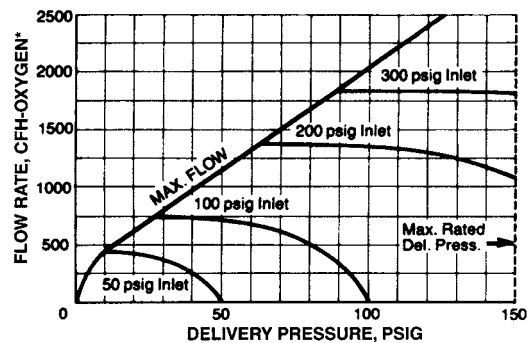


Figure 2 — R-770-200-540

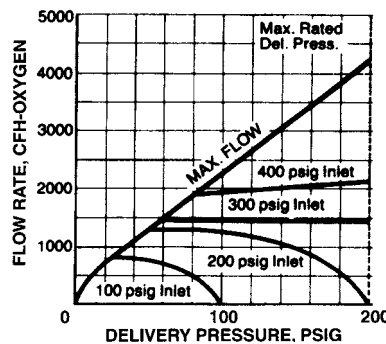
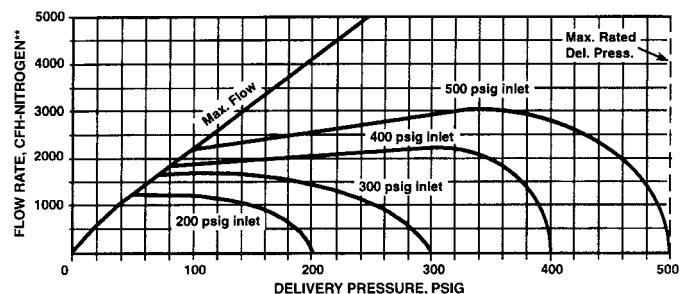


Figure 3 — R-770-500-580



R-770 Series - Cylinder

OXWELD® Elite Series, Two-Stage Regulators



- ▣ Improved design
- ▣ RBO production reduces risk of oxygen regulator burnout
- ▣ Two stages for accurate delivery pressure over life of a cylinder
- ▣ Replaces R-77 model

Specifications

| Weight | Length | Body Diameter | Gauge Size |
|--------|--------|---------------|------------|
| lbs. | in. | in. | in. |
| 6 | 8¼ | 2¾ | 2½ |



R-770

Figure 4 – R-770-15-510, -300

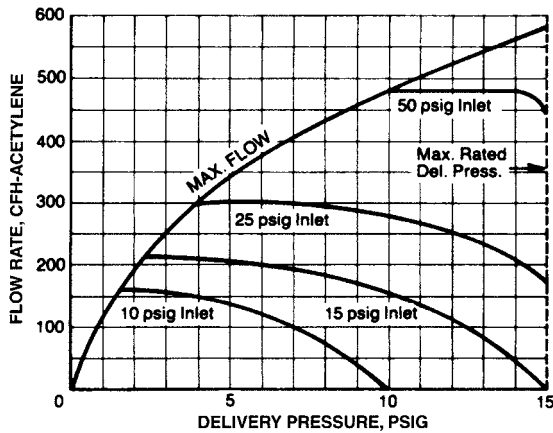
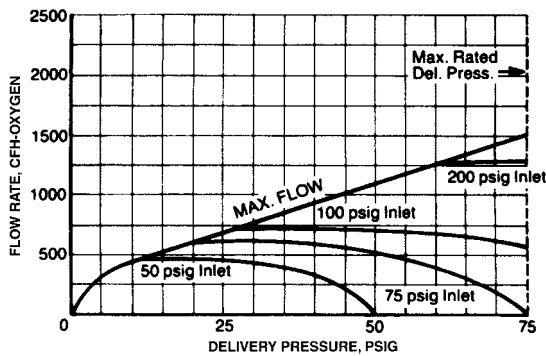


Figure 5 – R-770-75-540, -350, -580, -577, -701



Ordering Information

| Model | Part Number | CGA Outlet |
|-----------------------------|-------------|--------------------|
| Oxygen | | |
| R-770-75-540 | 0558010675 | 022 |
| R-770-150-540 | 0558010676 | 022 |
| R-770-200-540 | 0558010677 | 022 |
| Acetylene | | |
| R-770-15-510 | 0558010685 | 023 |
| R-770-15-300 | 0558010678 | 023 |
| Hydrogen or Methane* | | |
| R-770-75-350 | 0558010679 | 023 |
| R-770-150-350 | 0558010680 | 023 |
| Inert | | |
| R-770-15-580 | 0558010674 | 032 |
| R-770-30-580 | 0558010672 | 032 |
| R-770-75-580 | 0558010681 | 032 |
| R-770-150-580 | 0558010682 | 032 |
| R-770-500-580 | 0558010683 | 1/4 in. 37° flared |
| Air | | |
| Industrial R-770-150-590 | 0558010684 | 033 |
| Breathing R-770-150-346 | 0558010673 | 022 |

*Bottled natural gas.

Accessories

Gauge Guard 999965

Regulators

R-760 Series - Cylinder

OXWELD® Elite Series, Single-Stage Regulators



- ▣ Improved design
- ▣ RBO production reduces risk of oxygen regulator blowout
- ▣ Pressure adjusting knob for accuracy
- ▣ Replaces R-76 model
- ▣ Single-stage version of R-770



R-760

Specifications

| Weight | Length | Body Diameter | Gauge Size |
|--------|--------|---------------|------------|
| lbs. | in. | in. | in. |
| 5½ | 6½ | 2¾ | 2½ |

Figure 6 – R-760-15-510, -300

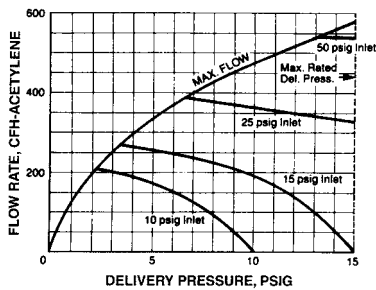


Figure 7 – R-760-75-540, -510, -350

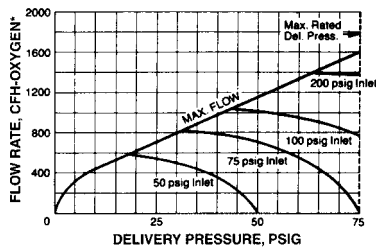


Figure 8 – R-760-150-540, -580

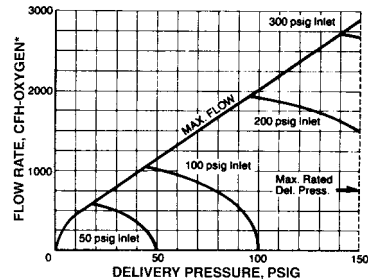
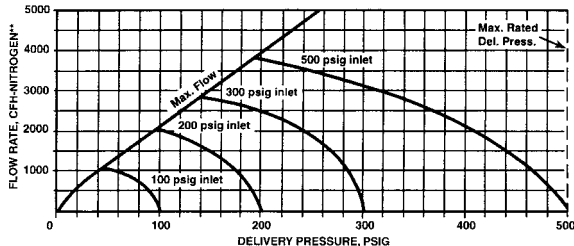


Figure 9 – R-760-500-586



Ordering Information

| Model | Part Number | CGA Outlet |
|-----------------------------|-------------|---------------------|
| Oxygen | | |
| R-760-75-540 | 0558010663 | 022 |
| R-760-150-540 | 0558010664 | 022 |
| Acetylene | | |
| R-760-15-510 | 0558011373 | 023 |
| R-760-15-300 | 0558010665 | 023 |
| Propylene or Propane | | |
| R-760-75-510 | 0558010668 | 023 |
| Hydrogen or Methane* | | |
| R-760-75-350 | 0558010669 | 023 |
| Inert | | |
| R-760-150-580 | 0558010670 | 032 |
| R-760-500-580 | 0558010671 | 1/4 in., 37° flared |
| Carbon Dioxide | | |
| R-760-150-320 | 0558010659 | 022 |
| R-760-CF-320 | 999149 | 022 |
| Air | | |
| Breathing R-760-150-346 | 0558010653 | 032 |
| Liquid | | |
| Oxygen R-760-150-540 | 0558010660 | 022 |
| Inert R-760-150-580 | 0558010661 | 023 |
| Gaugeless | | |
| Oxygen R-760-150-540G | 0558010666 | 022 |
| Acetylene R-760-15-510G | 0558010667 | 023 |

*Bottled natural gas.

Accessories

Gauge Guard 999965

R-720 Series - Cylinder

PUROX® Elite Series, Single-Stage Regulators



- ☑ Encapsulated valve – internal design improvement
- ☑ RBO protection reduces risk of oxygen regulator burnout
- ☑ Pressure adjusting knob for accuracy
- ☑ Replaces R-72 model

Specifications

| Weight | Length | Body Diameter | Gauge Size |
|--------|--------|---------------|------------|
| lbs. | in. | in. | in. |
| 3¼ | 5 | 2¼ | 2½ |



R-720

Figure 10 – R-720-75-540, -510

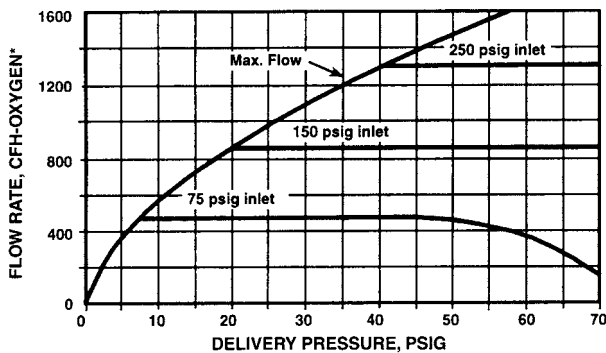
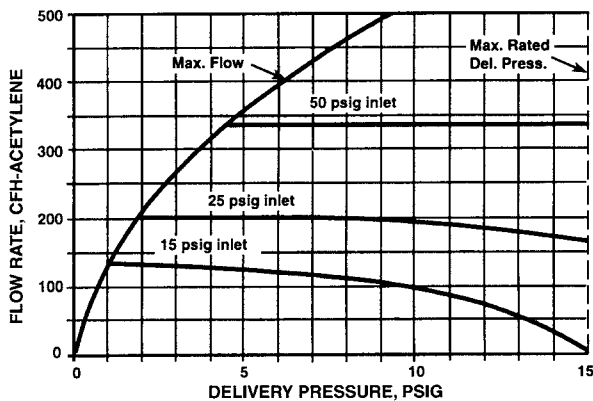


Figure 11 – R-720-15-510, -300



Ordering Information

| Model | Part Number | CGA Outlet |
|-----------------------------|-------------|---------------------|
| Oxygen | | |
| R-720-75-540 | 0558010647 | 022 |
| R-720-125-540 | 0558010651 | 022 |
| Acetylene | | |
| R-720-15-510 | 0558010648 | 023 |
| R-720-15-300 | 0558010649 | 023 |
| Propylene or Propane | | |
| R-720-75-510 | 0558010650 | 023 |
| Inert | | |
| R-720-75-580 | 0558010643 | 032 |
| R-720-125-580 | 0558010644 | 032 |
| R-36-500-580 | 0558010652 | 1/4 in., 37° flared |
| Carbon Dioxide | | |
| R-720-75-320 | 0558010638 | 032 |

Regulators

Cylinder

Regulator Flowmeter Combinations



R-760-CF-320 Carbon Dioxide

- ❑ Black anodized finned body for the best heat conduction possible
- ❑ Valve stem attached to diaphragm for positive shut off, especially when cold
- ❑ Low rate pressure adjusting spring for smooth and easy flow adjustment, coupled with a 2½ in. delivery gauge scaled in cfh
- ❑ Carbon dioxide flow rates up to 80 cfh



R-720-CF-580

- ❑ 2½ in. delivery gauge scaled in cfh
- ❑ Accurate argon flow rate of 10-40 cfh



R-720-FM-580

- ❑ Mounted with the well-known L-32 type flowmeter
- ❑ Accurate flow control of argon, helium, C-25, and nitrogen
- ❑ Delivery pressure to flowmeter factory-preset to 50 psig



R-5007-FM-580/R-5008-FM-320

- ❑ R-5007 for argon, helium, C-25 mixture, and nitrogen (R-5008 for carbon dioxide only)
- ❑ Accurate flow control of argon, helium, C-25, and nitrogen
- ❑ Delivery pressure to flowmeter factory-preset to 50 psig

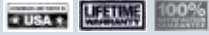


R-502-FM-580

- ❑ Two-stage version of R-5007
- ❑ Provides constant, accurate flow as cylinder pressure decreases

Cylinder

Regulator Flowmeter Combinations



Specifications and Ordering Information

| Cylinder Gas | Model | Part Number | Calibrated Flow Range | CGA Outlet Connection |
|---|-------------------------------|--------------------------|---|--------------------------------------|
| | | | cfh | in. |
| Carbon Dioxide | R-760-CF-320 | 999149 | 10-80 | 5/8-18 RH female |
| Inert Gas | R-720-CF-580 R-720-FM-580 | 0558010645 0558010646 | 10-40 10-70 Argon 20-220 Helium 10-80 Nitrogen 10-65 C-25 | 5/8-18 RH female 5/8-18 RH female |
| Argon, Helium, C-25, and Nitrogen | R-5007-FM-580 R-502-FM-580 | 998124 998846 | 10-70 Argon 20-220 Helium 10-80 Nitrogen 10-65 C-25 | 5/8-18 RH female 5/8-18 RH female |
| Carbon Dioxide | R-5008-FM-320 | 998125 | 10-65 | 5/8-18 RH female |

Regulator Flowmeter - Cylinder



R-33 Regulator Flowmeter

- ☑ Competitively priced
- ☑ Durable Lexan outer tube and flow tube with easy-to-read graduations
- ☑ Solid brass piston and machined brass body
- ☑ 3,000 psi cylinder contents gauge

R-50 Series Regulator Flowmeter Combinations

- ☑ Brass bar stock construction for long life and durability
- ☑ Equipped with cylinder contents gauge for convenience
- ☑ Equipped with reliable safety release system for operator and equipment protection



R-33-FM-580

Specifications

| Regulator Model | Gas Service | Flow Rate | Connections (CGA) Outlet |
|--------------------------------|----------------|-----------|--------------------------|
| | | cfh | in. |
| Regulator Flowmeters | | | |
| R-33-FM-580 Display Package | Argon | 10-50 | 5/8-18 RH female |
| | Helium | 20-150 | |
| | C-25 | 10-50 | |
| R-33-FM-320 Display Package | Carbon Dioxide | 10-65 | 5/8-18 RH female |
| R-50-FM-580 | Argon | 10-40 | 5/8-18 RH female |
| | Helium | 20-125 | |
| | Nitrogen | 10-50 | |
| | C-25 | 10-40 | |

Ordering Information

| | |
|------------------------|-------|
| Regulator Flowmeters | |
| R-33-FM-580 | 21557 |
| Display Package* | 21589 |
| R-33-FM-320 | 21558 |
| Display Package* | 21590 |
| R-50-FM-580 | 17775 |

*Consists of R-33-FM plus an 8 ft. hose (Part Number 21591).

Flowmeter - Station Drop/Line



L-32/L-33 Flowmeters

- Durable Lexan outer tubes
- L-32 has four rotatable scales
- L-33 has single scale
- Carbon dioxide models available in both styles

Specifications

| Gas | Model | Optimum Inlet Pressure | Calibrated Flow Range cfh | Connections (CGA) | |
|-----------------------------------|---------------------|------------------------|--|-------------------|------------------|
| | | | | Inlet in. | Outlet in. |
| Argon, Helium, C-25, and Nitrogen | L-32 | 50 | 10-70 Argon 10-65 C-25 20-220 Helium 10-80 Nitrogen | RH male* | 5/8-18 RH female |
| Carbon Dioxide | L-32 | 80 | 10-65 Carbon Dioxide | 1/4 NPT | 5/8-18 RH female |
| Argon | L-33IG | 25 | 10-50 | 5/8-18 RH male | 5/8-18 RH female |
| Helium, C-25 | L-33IG | 25 | 20-150 Helium 10-50 C-25/Argon | 1/4 NPT female | 5/8-18 RH female |
| Carbon Dioxide | L-33 Carbon Dioxide | 80 | 10-65 | 1/4 NPT female | 5/8-18 RH female |

*Available in 1/4 in. NPT inlet. Order Part Number 639749.
A L-32 20 psi model is available. Order Part Number 603383.



Gas Meter



L-32



L-32 with Guard



L-33

Ordering Information

| | | |
|----------------------------|---|--------|
| L-32 | Argon, Helium, C-25, and Nitrogen | 639751 |
| | Carbon Dioxide | 998843 |
| L-33IG | Argon | 21988 |
| | Helium, C-25 | 21989 |
| L-33 Carbon Dioxide | Carbon Dioxide | 21990 |

Optional Accessories

Flowmeter Guard

Mounts over the calibrated tube of the L-32 for protection against rough handling. 17459

Portable Gas Meter

Available to check actual shielding gas flow at torch. 19043

Regulators - Station Drop/Line



R-760 OXWELD® Elite Series Heavy-Duty Station Regulators

- Similar in construction to single-stage, heavy-duty cylinder regulators, these regulators are equipped with a “C” size inlet connection
- Models are available for oxygen, acetylene, alternate fuels, and inert gases



Heavy-Duty Hi-Flow R-760

R-720 PUROX® Elite Series Medium-Duty Station Regulators

- Similar in construction to single-stage, medium-duty cylinder regulators, these regulators are equipped with a “C” size inlet connection
- Models are available for oxygen, acetylene, alternate fuels, and inert gases



Medium-Duty R-720

R-6700 High-Capacity Station Regulators

- For multi-torch applications; for example, the supply of cutting oxygen to an eight-torch cutting machine working on heavy plate
- Three models are available with up to five times the capacity of standard models
- Equipped with 1/2 in. NPT female inlet/outlet connections, and a delivery pressure gauge capacity of standard models
- Can be used with any common, non-corrosive, industrial gas
- “C” size outlet fittings available for oxygen, fuel gases, and inert gas



High-Capacity R-6700



Regulators - Station Drop/Line



Specifications and Ordering Information

| Gas Service | Model | Part Number | Maximum Delivery Pressure | Maximum Inlet Pressure* | CGA Outlet** Connections |
|---|---------------|-------------|---------------------------|-------------------------|--------------------------|
| | | | psig | psig | |
| R-760 Elite Series Extra Heavy-Duty Hi-Flow Station Regulators | | | | | |
| Oxygen | R-760-150-024 | 0558010654 | 150 | 200 | 022 |
| Acetylene | R-760-15-025 | 0558010655 | 15 | 15 | 023 |
| Propane, Hydrogen, Propylene | R-760-75-025 | 0558010656 | 75 | 200 | 023 |
| Argon, Helium, Nitrogen | R-760-150-034 | 0558010658 | 150 | 200 | 032 |
| R-720 Elite Series Medium/Heavy-Duty Station Regulators | | | | | |
| Oxygen | R-720-75-024 | 0558010639 | 75 | 200 | 022 |
| Acetylene | R-720-15-025 | 0558010640 | 15 | 15 | 023 |
| Propane, Hydrogen, Propylene | R-720-75-025 | 0558010641 | 75 | 200 | 023 |
| Argon, Helium, Nitrogen | R-720-75-034 | 0558010642 | 75 | 200 | 032 |
| R-6700 High-Capacity Station Regulators | | | | | |
| Any non-corrosive, non-toxic industrial gas except Carbon Dioxide | R-6701 | 22234 | 15 | 400 | 1/2 in. NPT (female) |
| | R-6702 | 22235 | 75 | 400 | 1/2 in. NPT (female) |
| | R-6703 | 22236 | 150 | 400 | 1/2 in. NPT (female) |
| | R-6704 | 2227920 | 200 | 400 | 1/2 in. NPT (female) |

*Inlet pressure is limited because pressure of pipeline with "C" size hose-type outlets should not exceed 200 psig. Inlet pressure on acetylene regulators is limited because pressure of pipelines conveying acetylene should never exceed 15 psig.

**Outlet Connection:

- CGA 022 (formerly "B" oxygen) - 9/16 in. - 18 RH male connection
- CGA 023 (formerly "B" fuel gas) - 9/16 in. - 18 LH male connection
- CGA 032 (formerly "B" inert gas) - 5/8 in. - 18 RH female connection

Inlet Connection:

- CGA 024 (formerly "C" oxygen) - 7/8 in. - 14 RH female nut
- CGA 025 (formerly "C" fuel gas) - 7/8 in. - 14 LH female nut
- CGA 034 (formerly "C" inert gas) - 7/8 in. - 14 RH male nut

Flow Rates: Refer to curves on pages 61 thru 62 for data on selected regulator flow rates. See instruction literature F-15-396 for flow rates on R-6700 series regulators.

Replacement Gauges

Replacement Gauges for Regulators

- ☑ Easy-to-read dial markings
- ☑ Durable 1/4-turn Lexan crystals
- ☑ 6 o'clock nipple position for most convenient gauge reading
- ☑ Specially packaged for showroom display
- ☑ Plain white face models for use on regulators of any make

Replacement Windows

| | |
|--------------------------------------|-------|
| 2 1/2 in., 1/4 Turn Twist-Lock | 18858 |
| 2 in., 1/4 Turn Twist-Lock | 18859 |
| 2 in., Snap-In | 18702 |





Replacement Gauges

Specifications and Ordering Information

| Diameter in. | Nipple in. | Scale psig | Case | Shades [§] | Part Number |
|-----------------|---------------|---------------|---------|---------------------|-------------|
| 2½ | ¼ -18 NPT | 30 | Brass | White (RB) | 19076 |
| | | | Brass | White | 19134 |
| | | | Brass | Blue | 999505 |
| | | | Brass | Red | 999437 |
| | | 100 | Brass | White | 19135 |
| | | | Brass | Blue | 999435 |
| | | | Brass | Red | 999434 |
| | | | Brass | Green | 999436 |
| | | 200 | Brass | White | 19136 |
| | | | Brass | Blue | 999439 |
| | | | Brass | Red | 999438 |
| | | | Brass | Green | 999440 |
| | | 400 | Brass | White | 19137 |
| | | | Brass | Red | 999441 |
| | | | Brass | Green | 999442 |
| | | 1,000 | Brass | White | 19077 |
| 4,000 | Brass | White | 19138 | | |
| | Brass | Blue | 999445 | | |
| | Brass | Red | 999444 | | |
| | Brass | Green | 999446 | | |
| 2 | ¼-18 NPT | 30 | Plastic | White (RB) | 21934 |
| | | | Steel | Red | 999515 |
| | | | Plastic | Red | 22437 |
| | | 100 | Plastic | White | 21935 |
| | | | Steel | Blue | 999992 |
| | | | Plastic | Blue | 22438 |
| | | | Steel | Red | 999993 |
| | | | Steel | Green | 999516 |
| | | | Plastic | Green | 22431 |
| | | 200 | Plastic | White | 21936 |
| | | | Plastic | Blue | 22439 |
| | | | Plastic | White | 21937 |
| | | 400 | Steel | Red | 999517 |
| | | | Plastic | Red | 22440 |
| | | | Plastic | White | 21939 |
| | | 600 | Plastic | Green | 22430 |
| | | | Plastic | Blue | 22442 |
| | | | Plastic | White | 21938 |
| Steel | Blue | | 999518 | | |
| Plastic | Blue | | 22441 | | |
| Steel | Green | | 999519 | | |
| 4,000 | Plastic | Green | 22429 | | |
| | Plastic | Blue | 22443 | | |
| | 60 cfh | Plastic | Blue | 22443 | |
| 2 | ⅛-27 NPT | 30 | Plastic | White | 21865 |
| | | | Steel | Red | 18694 |
| | | 100 | Plastic | White | 21866 |
| | | | Steel | Green | 18696 |
| | | 400 | Plastic | White | 21867 |
| | | | Steel | Red | 18695 |
| | | 4,000 | Plastic | White | 21868 |
| | | | Steel | Green | 18697* |

[§]Dial shade refers to decorative background color: Red — fuel gas; Green — oxygen; White — for any gas that is not oil pumped.
Gauge markings: "USE NO OIL." "RB" models are for acetylene. Blue — for any gas EXCEPT oxygen. Used on all inert gas regulators.

*Dial actually marked with fractional contents of acetylene cylinders (1/4, 1/2, 3/4, full).

Regulators

Valves

Single and Double Shutoff Valves

■ V-26

For quick-acting on/off control of oxygen

■ V-27

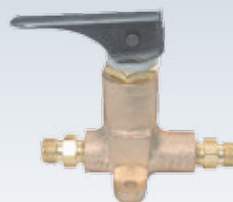
Used in flame-hardening, machine cutting, etc., for quick-acting on/off control of oxygen and fuel gas with a single lever

■ V-30

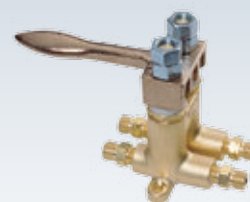
Used in electric welding for on/off control of argon and water

■ V-31

Used in oxy-fuel gas welding for control of stop/start operations. Two models are available which vary only in pilot light assembly



V-26



V-27



V-30



V-31

Maximum Operating Pressures and Specifications

| Description | V-26 | V-27 | V-30 | V-31 |
|------------------------------|-------------------------|-------------------------|-----------------------|-----------------------|
| Argon | - | - | 100 psig (690 kPa) | - |
| Water | - | - | 75 psig (517 kPa) | - |
| Oxygen | 150 psig (1,035 kPa) | 150 psig (1,035 kPa) | - | 100 psig (690 kPa) |
| Acetylene | - | 15 psig (103 kPa) | - | 15 psig (103kPa) |
| Other Fuel Gases | - | 75 psig (517 kPa) | - | 75 psig (517 kPa) |
| Height | 5¾ in. (146 mm) | 6¾ in. (172 mm) | 5 in. (127 mm) | 5 in. (127 mm) |
| Width | 2¾ in. (60 mm) | 3⅝ in. (92 mm) | 4 in. (102 mm) | 4½ in. (114 mm) |
| Length | 5½ in. (140 mm) | 5½ in. (140 mm) | 10 in. (254 mm) | 10 in. (254 mm) |
| Inlet and Outlet Connections | * | * | - | * |

Ordering Information

| | |
|---|-------|
| V-26 Oxygen Single Shutoff Valve | 07X36 |
| V-27 Oxygen-Fuel Gas Shutoff Valve | 20X25 |
| V-30 Argon-Water Shutoff Valve | 16X21 |
| V-31 Oxygen-Acetylene Shutoff Valve | 16X22 |
| V-31 Oxygen-Fuel Gas Shutoff Valve | 22X18 |

*The V-26, V-27, and V-31 valves are all supplied with appropriate 1/4 in. NPT to "B" size inlet and outlet connection fittings, packed loose.



Needle Valve

| Valve Type | Part Number | Height | Length | Shipping Weight | Inlet Connection | Outlet Connection |
|---------------------------------|-------------|--------|--------|-----------------|-------------------------|-----------------------|
| | | in. | in. | lbs. | in. | in. |
| Oxygen Needle Valve "B" Size | 3395 | 2 | 2⅞ | 1/2 | "B" RH female (9/16-18) | "B" RH male (9/16-18) |
| Acetylene Needle Valve "B" Size | 3396 | 2 | 2⅞ | 1/2 | "B" LH female (9/16-18) | "B" LH male (9/16-18) |

Adaptors

Hose connection adaptors have the following American Standards Association screw threads:

- ☐ **Hose Connection: "A" Size**
Screw Thread: 3/8 in. - 24 NF-3
- ☐ **Hose Connection: "B" Size**
Screw Thread: 9/16 in. - 18 NF-3
- ☐ **Hose Connection: "C" Size**
Screw Thread: 7/8 in. - 14 NF-3
- ☐ **Hose Connection: "D" Size**
Screw Thread: 1 1/4 in. - 12 NF-3



119X02



119X04



119X10



119X07

Cylinder to Regulator

| Cylinder Connection | Regulator Connection | Adaptor Part Number |
|--|--|---------------------|
| CGA 510 Acetylene (.885 in.-14 LH Internal) | CGA 300 Acetylene (alternate) (.830 in. - 14 Internal) | 119X02 |
| | CGA 520 Acetylene ("B"-Tanks) (.899 in. - 18 Internal) | 119X04 |
| CGA 520 Acetylene ("B"-Tanks) (.895 in.-18 RH External) | CGA 510 PREST-O-LITE® Acetylene (.880 in. - 14 External) | 119X10 |
| | CGA 200 Acetylene ("MC" Tanks) (.628 in. - 20 Internal) | 119X07 |

Pipe Thread to Regulator Connection

| Pipe Thread | Regulator Connection | Adaptor Part Number |
|-------------|----------------------|---------------------|
| in. | | |
| 1/2 NPT | CGA 540 | 6425 |
| 1/2 NPT | CGA 555 | 6426 |
| 1/2 NPT | CGA 580 (female) | 639059 |



6425/6426



639059

Multiple-Connection Adaptors

| Description | From | To | Part Number |
|--|---------------------------------|--------------------------------|-------------|
| Oxygen (Y) Connection Adaptor | "B" Size Oxygen female | Two "B" Size Oxygen male | 3798 |
| Acetylene (Y) Connection Adaptor | "B" Size Acetylene female | Two "B" Size Acetylene male | 3799 |
| Inert Gas Connection Adaptor | "B" Size Inert Internal | Two "B" Size Inert External | 950356 |



3798

Adaptors

Pipe Thread to Hose Connection

| Pipe Thread in. | Regulator Connection | Adaptor Part Number |
|---------------------------------|-----------------------------|---------------------|
| 1/4 NPT (5/8-18 External) | "B" Inert Gas | 74S76 |
| 1/4 NPT (5/8-18 External RH) | Air/Water (old style) | 10Z30 |
| 1/4 NPT (5/8-18 Internal LH) | Air/Water (CGA Standard) | 11N16 |
| 1/2 NPT | "B" Oxygen | 8696 |
| 1/2 NPT | "B" Fuel Gas | 8693 |
| 1/2 NPT | "C" Oxygen | 18Z55 |
| 1/2 NPT | "C" Fuel Gas | 18Z08 |
| 1/2 NPT | "C" Inert Gas | 639377 |
| 3/4 NPT | "C" Oxygen | 19Z14 |
| 3/4 NPT | "C" Fuel Gas | 18Z04 |
| 3/4 NPT | "D" Oxygen | 73A68 |
| 3/4 NPT | "D" Fuel Gas | 18Z50 |



74S76

Hose Connection to Hose Connection (Straight)

| From | To | Part Number |
|-----------------------|-----------------------|-------------|
| "B" Oxygen male | "B" Argon male | 11N21 |
| "B" Oxygen External | "A" Oxygen Internal | 6998 |
| "B" Fuel Gas External | "A" Fuel Gas Internal | 6999 |
| "C" Oxygen External | "B" Oxygen Internal | 18X19* |
| "C" Fuel Gas External | "B" Fuel Gas Internal | 18X29* |

*With swivel "C" size nut.



6998/6999

Hose Connection to Hose Connection (90°)

| From | To | Part Number |
|--|--|-------------|
| "B" Oxygen Internal | "B" Oxygen External | 18X55 |
| "B" Fuel Gas Internal | "B" Fuel Gas External | 18X56 |
| Standard Air/Water 5/8 in. - 18 NF-2 male | Standard Air/Water 5/8 in. - 18 NF-2 female | 19X19 |



18X55/18X56

Steel Industry Products

Overall Offering Guide



Torches and Tips

Hand

Cutting and Scarfing

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| C-59 | pg 76 |
| 1808 cutting tips | pg 84 |
| 1806 scarfing tips | pg 86 |
| C-59-4 | pg 76 |
| 1702 cutting tips | pg 82 |
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Cutting

| | |
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| 1427 tips | pg 81 |



| | |
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| PM-GST | pg 77 |
| PM tips | pg 85 |
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Mechanized

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Powder Cutting Equipment

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Regulation Devices

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| R-52 family | pg 90 |



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Hand Scarfing/Cutting Torches



C-59 and C-59-4 Scarfing Torches

- ▣ Scarfing widths from 2½ in. - 4½ in.
- ▣ Alternate fuels
- ▣ High capacity emergency hand cutting
- ▣ Models for 1700 and 1800 series cutting tips
- ▣ C-59 available with or without rod feed

Specifications

| Model | Cutting Range | Scarfing Range | Tip Series |
|--------|---------------|----------------|------------|
| | in. | in. | |
| C-59 | 20-60 | 2½-3¾ | 1800 |
| C-59-4 | 20-60 | 3-4½ | 1700 |

Ordering Information

| Model | Length | Degree | Part Number |
|-----------------|--------|--------|-------------|
| | in. | | |
| C-59-36-75 | 36 | 75 | 02X67 |
| C-59-48-75 | 48 | 75 | 02X68 |
| C-59-48-75NRF | 48 | 75 | 02X92 |
| C-59-48-180NRF | 48 | 180 | 5278749 |
| C-59-56-75NRF | 56 | 75 | 526438 |
| C-59-72-75 | 72 | 75 | 5278595 |
| C-59-72-180NRF | 72 | 180 | 5278980 |
| C-59-84-180NRF | 84 | 180 | 5278667 |
| C-59-96-180NRF | 96 | 180 | 5279110 |
| C-59-108-75NRF | 108 | 75 | 5278890 |
| C-59-108-90NRF | 108 | 90 | 2217963 |
| C-59-108-180NRF | 108 | 180 | 5279250 |
| C-59-120-75NRF | 120 | 75 | 2217964 |
| C-59-120-90NRF | 120 | 90 | 2217965 |
| C-59-120-180NRF | 120 | 180 | 2119320 |
| C-59-144-90NRF | 144 | 90 | 2217967 |
| C-59-144-180NRF | 144 | 180 | 2217968 |
| C-59-4-42-75 | 42 | 75 | 687861 |
| C-59-4-48-75 | 48 | 75 | 687862 |

Note: NRF = No rod feed.



C-59 NRF



C-59-4

Accessories

Riding Skid Assembly

C-59 only 5279716

Hose Requirements

Oxygen 1/2 in., "C" Size

Fuel gas 3/8 in., "B" Size

Replacement Heads

C-59

75° 83Z97

90° 2117835

180° 83Z92

C-59-4

75° 686066

Hand Cutting Torches



OXWELD® C-63

- ▣ Cutting range 9 in. - 60 in.
- ▣ Alternate fuels
- ▣ Separate preheat and cutting oxygen inlets
- ▣ Off-center 180° head allows kerf to be widened by rotating torch. Torch can then be inserted into kerf to deepen cut
- ▣ Use 1808 series cutting tips

C-66-1400 Series

- ▣ Cutting range 3 in. - 28 in.
- ▣ Alternate fuels
- ▣ Reliable emergency hand cutting in production mill environments
- ▣ Designed for extra heavy-duty operations for long trouble-free service life
- ▣ Torch lengths from 31 in. - 17 ft.
- ▣ Torches 9 ft. and over have protective out channel
- ▣ Off-center 180° head allows kerf to be widened by rotating torch. Torch can then be inserted into kerf to deepen cut
- ▣ Use 1400 series cutting tips
- ▣ Fast, efficient scrap cutting

OXWELD® PM-GST*

- ▣ Cutting range 3 in. - 24 in.
- ▣ Alternate fuels
- ▣ Reliable emergency hand cutting production mill environments
- ▣ Designed for extra heavy-duty operations for long trouble-free service life
- ▣ Superior emergency torch capability
- ▣ High stand-off 4 in. - 6 in.
- ▣ Pilot flame modes saves gas in stand-by mode — ready for immediate use
- ▣ Use standard PM-100/PM-200 cutting tips
- ▣ This torch cannot pierce plate
- ▣ Post mix design prevents flashbacks

*PM-GST = post mix-gas saving torch.



Ordering Information

See Ordering Information on next page.

Accessories

Hose Requirements

C-66-1400 and PM-GST

Oxygen “C” size; Fuel “B” size

C-63

Preheat “B” size

Cut oxygen 1/2 in., “C” size

Riding Skid Assembly

C-66-1400 2029858

C-63 5279716

PM-GST 22073

Hand Cutting Torches



Ordering Information

| Model | Length | Degree | Part Number |
|-----------|--------|--------|-------------|
| | in. | | |
| C-66-1400 | 21 | 75 | 22111 |
| | 21 | 90 | 22112 |
| | 21 | 180 | 22113 |
| | 48 | 75 | 718321 |
| | 48 | 90 | 2120361 |
| | 48 | 180 | 718322 |
| | 60 | 75 | 718323 |
| | 60 | 90 | 22122 |
| | 60 | 180 | 718324 |
| | 72 | 75 | 718325 |
| | 72 | 90 | 22123 |
| | 72 | 180 | 718326 |
| C-63 | 60 | 180 | 27X05 |
| | 60 | 75 | 5279010 |
| | 72 | 180 | 2219219 |
| | 84 | 75 | 5279856 |
| PM-GST | 48 | 90 | 22094 |
| | 48 | 180 | 22098 |
| | 60 | 75 | 22087 |
| | 60 | 90 | 22095 |
| | 60 | 180 | 22099 |
| | 72 | 90 | 22096 |
| | 96 | 90 | 22097 |
| | 96 | 180 | 22101 |
| | 120 | 75 | 22090 |
| | 120 | 180 | 22102 |
| | 144 | 75 | 22091 |
| | 144 | 90 | 22106 |
| | 144 | 180 | 22103 |
| | 192 | 75 | 22092 |
| | 192 | 180 | 22104 |
| | 216 | 75 | 22093 |
| 216 | 180 | 22105 | |

Machine Cutting Torches



OXWELD® C-67-1400

- ❑ Cut steel up to 30 in. thick
- ❑ Low- and medium-pressure alternate fuels
- ❑ Three hose connections — separate cutting oxygen
- ❑ Straight line, shape, or scrap cutting
- ❑ Use high performance 1400 series cutting tips
- ❑ Mounts in standard torch holders

OXWELD® C-43E

- ❑ Cut steel up to 30 in. thick
- ❑ Medium-pressure alternate fuels
- ❑ Water-cooled
- ❑ Three hose connections
- ❑ Straight line, shape, or scrap cutting
- ❑ Use high performance 1400 series cutting tips

OXWELD® PM-100, PM-200, and PM-300

- ❑ Cutting range with alternate fuels:
 - PM-100: 16 in.
 - PM-200: 24 in.
 - PM-300: 40 in.
- ❑ Gases mixed outside torch — safe, trouble-free operation
- ❑ Convection, air, or water-cooled
- ❑ Automatic cut-off or shape cutting operations
- ❑ High stand-off keeps high-speed cutting tips clean
- ❑ PM-100 has 1½ in. barrel, PM-200 and PM-300 have 2 in. barrel
- ❑ Post-mix design does not permit piercing of plate

OXWELD® C-60

- ❑ Cut steel 25 in. - 60 in.
- ❑ Medium-pressure alternate fuels including acetylene
- ❑ Short and long versions available with or without tube and rack assembly
- ❑ Use 1701 and 1702 series cutting tips

OXWELD® C-100

- ❑ Cut steel 40 in. - 96 in.
- ❑ Medium-pressure alternate fuels
- ❑ Special ball seat cutting tips



C-67-1400 C-43E PM-100



PM-200, PM-300 C-60 C-100

Ordering Information

| Model | Part Number |
|---|-------------|
| C-67-1400-20 | 644644 |
| C-67-1400-12 | 2217997 |
| C-43E-01 in-line connection | 20826 |
| PM-100-01 (13 ⁹ / ₁₆ in.) | 2118100 |
| PM-100-02 (32 ¹ / ₁₆ in.) | 2223375 |
| PM-200-01 (18 in.) | 2222658 |
| PM-200-03 (33 ¹ / ₂ in.) | 2218800 |
| C-60-02 (7 ft. without rack and tube) | 687541 |
| C-100-01 (9 ft. without tip) | 691442 |
| C-100-02 (9 ft. with #80 tip) | 6914A42 |
| C-100-03 (9 ft. with #100 tip) | 6914B42 |
| C-100-04 (5½ ft. with #100 tip) | 2028139 |

Accessories

Hose Requirements

- C-67-1400, C-43E and PM-100 3/8 in. "B" size
- PM-200 3/8 in. "B" preheat oxygen and fuel, cutting oxygen - 1/2 in. "C" size
- C-60 and C-100 preheat 1/2 in. "C" size, cutting oxygen - 3/4 in. "D" size
- PM-300 3/8 in. "B" preheat oxygen and fuel, cutting oxygen - 3/4 in. "D" size

OXWELD® Lance



V-24 Oxygen Lance

- ☑ Reliable lancing for steel mill, foundry, production, and scrapping applications
- ☑ Lever-operated valve for dependable ease-on and quick shut-off of oxygen
- ☑ Quick connect pipe chuck grips pipe firmly
- ☑ Neoprene seals prevent leakage around lance pipe
- ☑ Compact and durable
- ☑ Uses schedule 40 black iron pipe



V-24

Powder Lance (not shown)

- ☑ Effectively lances non-ferrous materials including refractories
- ☑ Uses reliable V-24 Lance Valve for oxygen control
- ☑ Separate quick acting powder on-off valve
- ☑ Complete with spark shield to protect operator from molten spatter
- ☑ Uses schedule 40 black iron pipe

Ordering Information

| Model | Part Number | |
|--|----------------------|----------------------|
| | "C" Size Connections | "B" Size Connections |
| V-24 Oxygen Lance Valve Only | 06X78 | - |
| V-24 Oxygen Lance Valve - 1/4 in. Holder | 9728A65 | 2218938 |
| V-24 Oxygen Lance Valve - 3/8 in. Holder | 9728B65 | 2218937 |
| V-24 Oxygen Lance Valve - 1/2 in. Holder | 9728C65 | - |

Accessories

Hose Requirements

- "C" size (CGA-024) 1/2 in.
- "B" size (CGA-022) 3/8 in.

Nominal Oxygen Flow (cfh) through 10 ft. Schedule 40 Pipe

| Inlet Pressure psig | Pipe Size (with no internal obstructions) | | | |
|------------------------|---|---------|---------|---------|
| | 1/8 in. | 1/4 in. | 3/8 in. | 1/2 in. |
| 40 | 1,200 | 2,350 | 2,800 | 8,500 |
| 60 | 1,700 | 3,400 | 5,800 | 11,000 |
| 80 | 2,200 | 4,450 | 7,900 | 13,500 |
| 100 | 2,700 | 5,500 | 10,000 | 16,000 |

Maximum operating pressure - 100 psig.

OXWELD® Cutting Tips



1400 Series Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|-----------------------------------|-----------------|----------|-----------------------------------|
| | in. | | |
| Fits C-43, 66 and 67-1400 Torches | 12 | 1427-12 | 5470099 |
| | 14 | 1427-14 | 5470144 |
| | 16 | 1427-16 | 5470100 |
| | 20 | 1427-20 | 5460192 |
| | 24 | 1427-24 | 5460162 |
| | 28 | 1427-28 | 5460193 |
| | 3-6 | 1431-120 | 66Z59 |
| | 6-10 | 1431-140 | 66Z60 |
| | 10-16 | 1431-160 | 66Z61 |
| | 16-20 | 1431-200 | 66Z62 |
| | 20-24 | 1431-240 | 66Z63 |
| 24-28 | 1431-280 | 66Z64 | |



1427 and 1431

1427 Series Alternate Fuels Operating Data

| Tip | | Steel Thickness | Gas Pressure | | | Cutting Speed | Cleaning Drill Size | | Gas Consumption | | |
|------|-------------|-----------------|----------------|----------------|-------------|---------------|---------------------|---------|-----------------|----------------|-------------|
| Size | Part Number | | Cutting Oxygen | Preheat Oxygen | Natural Gas | | | | Cutting Oxygen | Preheat Oxygen | Natural Gas |
| in. | Number | in. | psig | psig | psig | in./min. | Preheat | Cutting | cfh | cfh | cfh |
| 12 | 5470099 | 12 | 75-85 | 8-10 | 16-19 | 4-5 | 55 | 31 | 800-900 | 100-115 | 65-75 |
| 14 | 5470144 | 14 | 60-70 | 7-9 | 8-11 | 3½-4½ | 54 | 28 | 950-1,100 | 115-140 | 75-95 |
| 16 | 5470100 | 16 | 55-65 | 9-12 | 11-15 | 3-4½ | 53 | 20 | 1,150-1,330 | 145-175 | 95-115 |
| 20 | 5460192 | 20 | 45-55 | 13-18 | 17-23 | 2¼ | 52 | 8 | 1,450-1,700 | 170-225 | 125-150 |
| 24 | 5460162 | 24 | 40-50 | 21-25 | 28-33 | 2-3½ | 51 | C | 1,850-2,200 | 225-285 | 170-190 |
| 28 | 5460193 | 28 | 30-40 | 28-33 | 39-45 | 2-3½ | 50 | K | 1,950-2,400 | 315-350 | 210-235 |

1427 Series Tips: Cutting speeds are based on cutting steel at room temperature and have straight cylindrical cutting bores.

1431 High Speed Series Alternate Fuels Operating Data

| Tip | | Steel Thickness | Gas Pressure | | | Cutting Speed | Cleaning Drill Size | | Gas Consumption | | |
|------|-------------|-----------------|----------------|----------------|-------------|---------------|---------------------|---------|-----------------|----------------|-------------|
| Size | Part Number | | Cutting Oxygen | Preheat Oxygen | Natural Gas | | | | Cutting Oxygen | Preheat Oxygen | Natural Gas |
| in. | Number | in. | psig | psig | psig | in./min. | Preheat | Cutting | cfh | cfh | cfh |
| 120 | 66Z59 | 3-6 | 80-115 | 9 | 17 | 18-30 | 55 | 31 | 1,350 | 140 | 110 |
| 140 | 66Z60 | 6-10 | 80-115 | 10 | 13 | 10-20 | 54 | 28 | 1,850 | 225 | 130 |
| 160 | 66Z61 | 10-16 | 80-115 | 11 | 14 | 10-20 | 53 | 20 | 2,100 | 240 | 135 |
| 200 | 66Z62 | 16-20 | 80-115 | 15 | 20 | 8-20 | 52 | 8 | 3,100 | 275 | 175 |
| 240 | 66Z63 | 20-24 | 80-115 | 22 | 30 | 6-17 | 51 | C | 4,700 | 335 | 225 |
| 280 | 66Z64 | 24-28 | 60-80 | 30 | 42 | 4-16 | 50 | K | 4,900 | 405 | 275 |

1431 Series Tips: Cutting speeds are based on cutting steel at temperatures over 1,000°F (1,832°C), and have tapered divergent cutting bores. These tips are used in continuous casting cut-off or plate ripping applications where it is necessary to slice through quickly.

OXWELD® Cutting Tips



1701 Series Acetylene

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|---------------------|-----------------|---------|-----------------------------------|
| | in. | | |
| For C-60 Torch Only | 35-40 | 1701-50 | 08Z82 |



1701 and 1702

1701 Series Acetylene Operating Data

| Tip | | Steel Thickness in. | Gas Pressure | | | Cutting Speed in./min. | Gas Consumption | | | Cleaning Drill Size | |
|-------------|-------------|------------------------|-----------------|-----------|----------------|---------------------------|-----------------|-----------|------------------|---------------------|----------------|
| Size in. | Part Number | | Cutting Oxygen* | Acetylene | Preheat Oxygen | | Cutting Oxygen | Acetylene | Preheat Oxygen** | Cutting in. | Preheat in. |
| | | | psig | psig | psig | | cfh | cfh | cfh | | |
| 30 | 08Z78 | 24-26 | 22 | 10 | 20 | 2-3½ | 2,160 | 213 | 170 | 19/64 | 53 |
| 40 | 08Z80 | 28-30 | 18 | 10 | 20 | 2-3½ | 3,470 | 272 | 217 | "X" | 54 |
| 50 | 08Z82 | 35-40 | 12 | 10 | 20 | 2-3 | 4,600 | 330 | 264 | 1/2 | 3/64 |

*Read from gauge mounted on torch.

**Preheat oxygen flow is given as 80% of acetylene flow. This oxygen/acetylene ratio produces an 18 in. acetylene feather which is used for most heavy cutting operations.

1702 Series Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|---------------------------|-----------------|---------|-----------------------------------|
| | in. | | |
| Fits C-60, C-59-4 Torches | 24-26 | 1702-30 | 460064 |
| | 28-30 | 1702-40 | 596578 |
| | 35-40 | 1702-50 | 5470081 |
| | 45-50 | 1702-60 | 5470082 |
| | 50-60 | 1702-70 | 5490062 |

1702 Series Natural Gas Operating Data

| Tip | | Steel Thickness in. | Gas Pressure | | | Cutting Speed in./min. | Cleaning Drill Size | | | Cleaning Drill Size | |
|-------------|-------------|------------------------|-----------------|-------------|----------------|---------------------------|---------------------|-------------|------------------|---------------------|----------------|
| Size in. | Part Number | | Cutting Oxygen* | Natural Gas | Preheat Oxygen | | Cutting Oxygen | Natural Gas | Preheat Oxygen** | Cutting in. | Preheat in. |
| | | | psig | psig | psig | | | | | | |
| 30 | 460064 | 24-26 | 22 | 7-15 | 11-25 | 2-3½ | 2160 | 190-380 | 285-570 | 19/64 | 5/64 |
| 40 | 596578 | 28-30 | 18 | 11-16 | 18-25 | 2-3½ | 3470 | 275-400 | 410-600 | "X" | 46 |
| 50 | 5470081 | 35-40 | 12 | 12-17 | 20-26 | 3 | 4600 | 380-450 | 570-675 | 1/2 | 46 |
| 60 | 5470082 | 45-50 | 7 | 14-18 | 25-30 | 2-2½ | 5450 | 450-525 | 675-790 | 19/32 | 45 |
| 70 | 5490062 | 50-60 | 6 | 16-24 | 30-40 | 2-1¼ | 7500 | 525-650 | 790-975 | 11/16 | 43 |

*Read from gauge mounted on torch.

**Preheat oxygen flow is given as 50% of natural gas flow for a 1.5 oxygen to 1.0 natural gas ratio. This oxygen/natural gas ratio produces a long inner cone flame length which is used for most heavy cutting operations.

OXWELD® Scarfing Tips



1705 Series Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|-------------------------|------------------|---------|-----------------------------------|
| | in. | | |
| Fits C-59-4 (not shown) | Scarf width 3-4½ | 1705-80 | 686068 |

1705 Natural Gas Tips Operating Data

| Tip | | Oxygen | | Natural Gas | | Cleaning Drill Size | |
|------|--------|-------------|--------------|-------------|--------------|---------------------|---------|
| Size | Part | Pressure | Consumption | Pressure* | Consumption | Preheat | Cutting |
| in. | Number | psig (bars) | cfh (m3/hr.) | psig (bars) | cfh (m3/hr.) | in. | in. |
| 80 | 686068 | 75 (5.18) | 6,500 (184) | 5 (0.35) | 100 (2.83) | 5/64 | 48 |
| | | 100 (6.90) | 8,500 (241) | 10 (.69) | 175 (4.96) | - | - |
| | | 125 (8.63) | 10,500 (297) | 15 (1.04) | 225 (6.37) | - | - |
| | | 150 (10.4) | 12,500 (354) | 20 (1.38) | 275 (7.79) | - | - |
| | | - | - | 25 (1.73) | 300 (8.5) | - | - |

*Measured at the regulators using 100 ft. of 3/4 in. hose plus special whip hose subassembly (Part Number 688928) between torch and oxygen regulators, and 100 ft. of 3/8 in. hose between torch and fuel gas regulator.

OXWELD® Cutting Tips



1808 Series Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|--------------------|-----------------|---------|-----------------------------------|
| | in. | | |
| Fits C-59 and C-63 | 20-40 | 1808-30 | 65Z44 |
| | 40-50 | 1808-40 | 65Z45 |
| | 50-60 | 1808-50 | 65Z46 |



1808

Tip Data

| Size | Part Number | Cleaning Drill Size | |
|------|-------------|---------------------|---------|
| | | Cutting | Preheat |
| | | in. | in. |
| 30 | 65Z44 | 19/64 | 51 |
| 40 | 65Z45 | "X" | 50 |
| 50 | 65Z46 | 1/2 | 48 |

Oxy-Propane Operating Data

| Metal Thickness | Tip Number | Cutting Oxygen | | Propane | | Preheat Oxygen | |
|-----------------|------------|----------------|-------|---------|-----|----------------|-----|
| | | psig | cfh | psig | cfh | psig | cfh |
| 20-40 | 30 | 50 | 4,500 | 12-14 | 132 | 45 | 462 |
| 40-50 | 40 | 50 | 7,000 | 13-15 | 144 | 50 | 504 |
| over 50 | 50 | 50 | 9,000 | 13-15 | 150 | 55 | 525 |

Oxy-Natural Gas Operating Data

| Metal Thickness | Tip Number | Cutting Oxygen | | Natural Gas | | Preheat Oxygen | |
|-----------------|------------|----------------|-------|-------------|-----|----------------|-----|
| | | psig | cfh | psig | cfh | psig | cfh |
| 20-40 | 30 | 50 | 4,500 | 21-23 | 330 | 68 | 660 |
| 40-50 | 40 | 50 | 7,000 | 23-25 | 360 | 75 | 720 |
| over 50 | 50 | 50 | 9,000 | 24-26 | 375 | 78 | 750 |

OXWELD® Cutting Tips



PM Tips Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|-----------------------------------|-----------------|------------|-----------------------------------|
| | in. | | |
| Fits PM-100, 200, and GST Torches | 3-6 | PM-120-85 | 2118702 |
| | 6-10 | PM-140-85 | 2118701 |
| | 6-10 | PM-110-200 | 2118707 |
| | 10-16 | PM-160-85 | 2118700 |
| | 10-24 | PM-160-135 | 2118703 |
| | 4-9 | PM-93-200 | 2228620 |



PM-100, 200, and GST

PM - GST Operating Data

| Tip Part Number | Steel Thickness in. | Gas Pressure | | Tip Stand-off in. | Gas Consumption | |
|-----------------|------------------------|-----------------|-------------------------|----------------------|-----------------|------------------------|
| | | Cutting Oxygen* | Natural Gas or Propane* | | Oxygen | Natural Gas or Propane |
| | | psig | psig | | cfh | cfh |
| 2118700 | 10-16 | 80-110 | 10-30 | 4-6 | 2,080 | 225-500 |
| 2118701 | 6-10 | 80-110 | 10-30 | 4-6 | 1,640 | 225-500 |
| 2118702 | 3-6 | 80-110 | 10-30 | 4-6 | 1,260 | 225-500 |

*Non-Divergent Bore: (See Cleaning Cutting Tips).

PM-100/PM-200/PM-300 Operating Data

| Tip Part Number | Steel Thickness in. | Gas Pressure | | | Cutting Speed in./min. | Tip Stand-off in. | Cleaning Drill Size | | |
|-------------------|------------------------|----------------|----------------|-------------|---------------------------|----------------------|---------------------|-------------|----------------|
| | | Cutting Oxygen | Preheat Oxygen | Natural Gas | | | Cutting Oxygen | Natural Gas | Preheat Oxygen |
| | | psig | psig | psig | | | psig | psig | psig |
| PM-100/200 | | | | | | | | | |
| 2118700 | 10-20 | 85 | 10-20 | 4-6 | 6-9 | 4-6 | 1800 | 180-240 | 345-465 |
| 2118701 | 6-10 | 85 | 10-20 | 4-6 | 9-13 | 4-6 | 1400 | 180-240 | 345-465 |
| 2118702 | 3-6 | 85 | 10-20 | 4-6 | 12-18 | 4-6 | 1020 | 180-240 | 345-465 |
| 2118703 | 20-30 | 135 | 10-20 | 4-6 | 2-10 | 4-6 | 3040 | 180-240 | 345-465 |
| 2118707 | 6-10 | 190 | 10-20 | 4-6 | 7-16 | 4-6 | 2020 | 180-240 | 345-465 |
| PM-300 | | | | | | | | | |
| 2228184* | 20-30 | 50 | 10-20 | 4-6 | 2-5 | 5-7 | 4600 | 180-240 | 345-465 |
| 2228185 | 20-30 | 80 | 10-20 | 4-6 | 3-6 | 5-7 | 3800 | 180-240 | 345-465 |
| 2228186 | 30-40 | 135 | 10-20 | 4-6 | 2-4 | 5-7 | 5200 | 180-240 | 345-465 |

Oxygen pressure: Set while cutting lever is depressed; pressure measured at the torch.

Natural gas or propane pressure: Set while cutting lever is depressed and fuel gas valve is wide open; pressure measured at the torch.

OXWELD® Scarfing and Cutting Tips



C-100 Tips Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|-------|-----------------|-----------|-----------------------------------|
| | in. | | |
| C-100 | 60-76 | C-100-80 | 691446 |
| | 76-96 | C-100-100 | 691448 |



C-100 #80

Operating Data

| Tip Size | Part Number | Steel Thickness in. | Cutting Oxygen | | Propane | | Preheat Oxygen | |
|----------|-------------|------------------------|----------------|---------------|----------|------|----------------|------|
| | | | Pressure | Flow | Pressure | Flow | Pressure | Flow |
| | | | psig | cfh | psig | cfh | psig | cfh |
| 80 | 691446 | 60-76 | 5-6 | 9,500-12,000 | 35 | 825 | 15 | 550 |
| 100 | 691448 | 76-96 | 5-7 | 15,000-19,000 | 35 | 825 | 15 | 550 |

1806 Series Alternate Fuels

| Model | Steel Thickness | Size | One-Piece or Internal Part Number |
|-----------|----------------------|---------|-----------------------------------|
| | in. | | |
| Fits C-59 | Scarf width 2¼-3¾ | 1806-62 | 15X44 |



1806

Operating Data

| Tip | | Scarfing Path Width in. (mm) | Preheat Holes | Cleaning Drill Size | | Replacement Parts | |
|------|-------------|---------------------------------|---------------|---------------------|---------|--------------------|---------|
| Size | Part Number | | | Preheat | Cutting | Wear Ring Assembly | Tip Nut |
| 62 | 15X44 | 2¼-3¾ (57 - 81mm) | 16 | 1/16 in. | 5/8 in. | 60Y92 | 37Z23 |

Operating Data

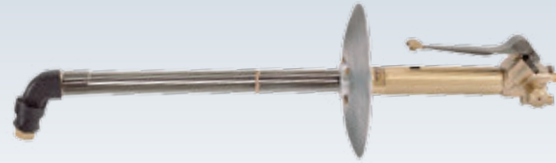
| Cutting Oxygen | | Natural Gas | |
|----------------|--------------|----------------|--------------|
| Inlet Pressure | Flow | Inlet Pressure | Flow |
| psig (bars) | cfh (m3/hr.) | psig (bars) | cfh (m3/hr.) |
| 20 (1.38) | 4,300 (121) | 5 (0.35) | 40 (1.13) |
| 30 (2.07) | 5,600 (159) | 10 (0.69) | 75 (2.12) |
| 40 (2.76) | 7,000 (198) | 15 (1.04) | 105 (2.97) |
| 50 (3.45) | 8,300 (235) | 20 (1.38) | 130 (3.68) |
| 60 (4.14) | 9,600 (272) | - | - |

Hose Sizes: For oxygen, use "C" size hose (1/2 in. I.D.), Part Number 2120399 (50 ft.).
For fuel gas, "B" size hoses (3/8 in. I.D.), Part Number 2120404.

Powder Equipment



- ☐ Rapidly cut any thickness stainless steel, cast iron, and high alloy steels
- ☐ As simple to use as regular cutting torches
- ☐ Manual or mechanized versions available



AC-4 Torch

AC-4 Powder Cutting Hand Torches

- ☐ Capacity 10 in. thick stainless
- ☐ Acetylene or alternate fuels
- ☐ Single lever control
- ☐ Self contained

Specifications and Ordering Information

| Model | Part Number | Length in. | Head degree | Ship Weight lb. | Inlet Connections in. |
|-------------|-------------|------------|-------------|-----------------|-----------------------|
| AC-4-28-75 | 02X60 | 28 | 75 | 22 | 3/8 - "B" Size |
| AC-4-44-75 | 28X65 | 44 | 75 | 30 | 3/8 - "B" Size |
| AC-4-28-180 | 220234 | 28 | 180 | 22 | 3/8 - "B" Size |
| AC-4-44-180 | 2117245 | 44 | 180 | 30 | 3/8 - "B" Size |

Powder Attachments for standard OXWELD® torches

- ☐ Single- and Dual-Tube for straight-line cutting
- ☐ Multi-Jet for shape cutting applications
- ☐ See next page for details



AC-4 Tip

AC-4 Powder Cutting Tips

- ☐ Powder flows between sleeve and tip
- ☐ Made from pure copper – rapid heat transfer
- ☐ Chrome plated powder flow surfaces for protection from wear

Specifications and Ordering Information

| Gas Service | Description | Steel Thickness | Size | Part Number | External Sleeve |
|-----------------|-------------|-----------------|------|-------------|-----------------|
| | | in. | | | |
| Acetylene | 1418-8 | Up to 3 | 8 | 65Z02 | 71Z78 |
| | 1418-10 | Up to 5 | 10 | 65Z03 | 71Z78 |
| | 1418-12 | 6 | 12 | 65Z04 | 71Z78 |
| | 1418-14 | Up to 9 | 14 | 65Z05 | 71Z78 |
| Alternate Fuels | 1430-10 | Up to 5 | 10 | 66Z33 | 71Z78 |
| | 1430-16 | Up to 8 | 16 | 66Z34 | 71Z78 |
| | 1430-20 | Up to 10 | 20 | 66Z35 | 71Z78 |

AC-4 Cutting Tip Data (For Clean 18-8 Stainless Steel)

1418 and 1430 Series

| Model Number | Part Number | Cutting Thickness in. | Tip Size | Total Oxygen | | Powder Flow lbs./hr. | Acetylene | | Natural Gas | |
|--------------|-------------|-----------------------|----------|---------------|----------|----------------------|---------------|----------|---------------|----------|
| | | | | Pressure psig | Flow cfh | | Pressure psig | Flow cfh | Pressure psig | Flow cfh |
| | | | | 1418-8 | 65Z02 | | Up to 3 | 8 | 50 | 370 |
| 1418-10 | 65Z03 | Up to 5 | 10 | 70 | 630 | 20 | 2-8 | 30 | - | - |
| 1418-12 | 65Z04 | 6 | 12 | 50 | 660 | 22 | 2-8 | 42 | - | - |
| 1418-14 | 65Z05 | Up to 9 | 14 | 80 | 1,300 | 30 | 2-8 | 57 | - | - |
| 1430-10 | 66Z33 | Up to 5 | 10 | 80 | 780 | 20 | - | - | 5 | 40 |
| 1430-16 | 66Z34 | Up to 8 | 16 | 100 | 2,120 | 30 | - | - | 15 | 85 |
| 1430-20 | 66Z35 | Up to 10 | 20 | 100 | 2,960 | 32 | - | - | 20 | 105 |

Powder Equipment



Powder Dispensers

- Heavy welded steel construction
- Hinged lid with heavy-duty closures
- Inlet gas filter and moisture trap
- Pop-off safety valve
- Screen filter sifts out lumps of powder
- Manual and automatic models

Manual Powder Dispensers

- Manual 100 and 400 lb. dispensers designed for general powder cutting or lancing operations

Automatic Powder Dispenser

- Automatic 400 lb. powder dispenser designed for automatic or semi-automatic machine cutting
- Equipped with electric powder valve and nitrogen gas purging
- Controlled by interfacing the cutting machines logic with the dispenser powder and gas controls



Powder Dispenser - 100 lbs.

Options and Accessories

- High Precision Cutting Ejector**
For fine control and maximum economy when cutting materials less than 2 in. thick 65Z49
- Powder Supply Hose**
Fitted clear vinyl hose 50 ft. long..... 2119297
- Inlet Nitrogen Hose**
Fitted black rubber hose 110 ft. long.. 2211347
- Cover Gaskets**
100 lb. dispenser 5279191
400 lb. dispenser 2225204

Specifications and Ordering Information

| Powder Capacity lbs. | Part Number | Type | Powder Flow | Nitrogen Inlet | Nitrogen Flow | Operating Pressure | Relief Pressure |
|-------------------------|----------------|-----------|-------------|----------------|---------------|--------------------|-----------------|
| | | | lb./hr. | psig | cfh | psig | psig |
| 100 | 2217290 | Manual | 15-100 | 40 | 50-200 | 5-40 | 45 |
| 400 | 2223093 | Manual | 15-100 | 40 | 50-200 | 5-40 | 45 |
| 400 | 2220388 | Automatic | 15-100 | 40 | 50-200 | 5-40 | 45 |

Power Attachment Ordering Information

| Torch Type | Type Attachment | Part Number | Accessory Powder Valve |
|--|-----------------|--|------------------------|
| C-37, C-39, C-67 (mechanized) and other 1500 Series models | Single-Tube | 60Y98 | not required |
| PM-200 (mechanized) | Dual-Tube | 2227380 | |
| C-100 (mechanized) | | 2028213 | 16X36 |
| C-31, C-32, C-66 (manual with 75° head) | Multi-Jet* | 61Y59 (1500-ACA-2) 61Y60 (1500-ACA-1) | not required |
| C-31, C-32, C-66 (manual with 90° head) | Multi-Jet* | 61Y61 (1500-ACA-2) 61Y58 (1500-ACA-1) | |
| C-37, C-39, C-67 (mechanized) | Multi-Jet* | 61Y56 (1500-ACA-2) | |
| | | 61Y57 (1500-ACA-1) | |

Select the correct model based on the type tip being used. The 1500-ACA-2 attachment is limited to one-piece tips having a tapered front end as follows: 1514 Series through size 4, 1563 Series through size 6, 1564 Series, 1565 Series through size 3. The 1500-ACA-1 attachment accepts all other 1500 Series Cutting Tips.

Regulators



High Pressure Regulators

- ▣ Typical applications include cartridge filling, pressure testing of vessels, and pressurization of recoil cylinders
- ▣ For high delivery pressures — 200-4,000 psig (1,380-27,600 kPa)
- ▣ Standard HP cylinder connections — ready to use on cylinders or manifolds
- ▣ Standard 1/4 in. NPT-37° flared tubing outlet connection on R-89 models
- ▣ Forged brass bodies
- ▣ Models available for higher inlet pressure inert gas cylinders



R-89-3M-580



R-2327

High Capacity Manifold Regulators

- ▣ For use when flow requirements exceed 2,000 cfm
- ▣ Ideal if line pressure of 200-1,000 psig (1,000-6,900 kPa) is needed
- ▣ Extremely effective, high-capacity inlet filters
- ▣ Supplied with 1/2 in. NPT male pipe nipple — connects to stationary cylinder manifolds



R-2428

Specifications and Ordering Information

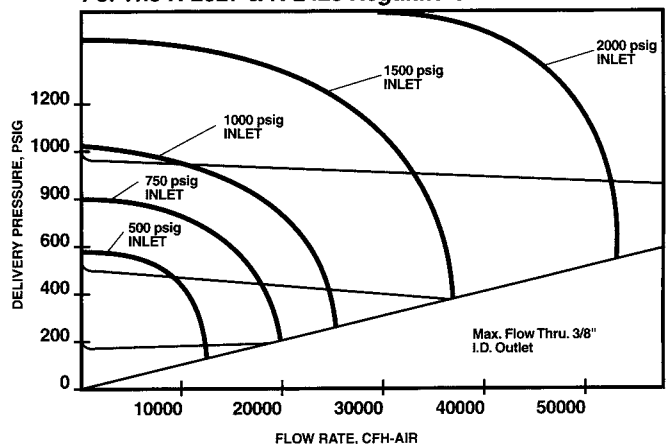
| Cylinder Gas | Model | Part Number | Maximum Delivery Pressure | | CGA Connections | | Pressure Gauges | |
|---|-------------|-------------|---------------------------|--------|--------------------|--------------------|-----------------|--------|
| | | | psig | kPa | Inlet | Outlet | Inlet | Outlet |
| High-Pressure Regulators | | | | | | | | |
| Inert Gases | R-89-3M-580 | 103X85 | 3,000 | 13,800 | 580 | flare | 4,000 | 4,000 |
| | R-89-4M-680 | 19017 | 4,000 | 13,800 | 680 | flare | 6,000 | 6,000 |
| High-Capacity Manifold Regulators | | | | | | | | |
| Any non-corrosive, non-toxic industrial gas | R-2327 | 104X10 | 1,000 | 6,900 | 1/2 in. NPT female | 3/8 in. NPT female | 4,000 | 4,000 |
| | R-2428 | 104X13 | 200 | 1,380 | 1/2 in. NPT female | 3/8 in. NPT female | 4,000 | 400 |

High-Capacity Station Regulators

To determine the flow rates of a regulator for other gases, multiply the nitrogen flow rates by the following correction factors:

| | |
|-----------------------------|-----|
| acetylene..... | 1.0 |
| air | 1.0 |
| argon | 0.8 |
| carbon dioxide..... | 0.8 |
| propylene | 0.8 |
| helium..... | 2.6 |
| hydrogen..... | 3.7 |
| methane or natural gas..... | 1.3 |
| oxygen | 0.9 |
| propane..... | 0.8 |

Performance Curves
For The R-2327 & R-2428 Regulators



Regulators



High Capacity Industrial Gas Regulators

- ▣ Pilot operation controls delivery pressure within 3% of maximum rated pressure if operated at more than 10% capacity
- ▣ High flow capacity up to 200,000 cfh for mill, foundry, and other industrial applications requiring consistent process control
- ▣ Where demand exceeds flow of a single regulator, multiple units can be installed in parallel



R-52

Specifications and Ordering Information

| Gas Service | Model | Part Number | Maximum Inlet Pressure | Maximum Delivery Pressure | Inlet and Outlet Connection | Rated Capacity |
|-------------|----------|-------------|------------------------|---------------------------|-----------------------------|----------------|
| | | | psig | psig | in. | cfh |
| Oxygen | R-52 | 20A16 | 350 | 150 | 3/4 NPT | 10,000 |
| Oxygen | R-52-200 | 2117105 | 350 | 200 | 3/4 NPT | 10,000 |
| Oxygen | R-83 | 2103822 | 350 | 150 | 2 NPT | 40,000 |
| Acetylene | R-5210 | 524193 | 15 | 12 | 3/4 NPT | 2,000 |
| Fuel Gas | R-99 | 04X50 | 350 | 40 | 3/4 NPT | 3,000 |
| Fuel Gas | R-84 | 2103957 | 150 | 40 | 3/4 NPT | 8,000 |

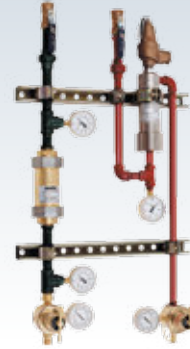
In most instances, capacity is much higher than listed. This will depend upon outlet pipe/hose restrictions. Consult ESAB for recommendations.

Regulation Panels



Regulation Panels

- ☑ Meets OSHA requirements for piping safety
- ☑ Two and three outlet versions
- ☑ Portable or permanent process gas distribution
- ☑ Include all valves, safety devices, and filter for reliable long life
- ☑ Standard-Flow and High-Flow versions



2-Hose Standard-Flow Panel



3-Hose High-Flow Panel

Specifications and Ordering Information

| Model | Part Number | Cut Oxy Regulator | P.H. Oxy Regulator | P.H. Fuel Regulator | Inlet Connections | | Outlet Connections | | |
|-------------------------------------|-------------|-------------------|--------------------|---------------------|-------------------|---------|--------------------|-------------------|--|
| | | | | | Oxy | Fuel | Cut Oxy | P.H. Oxy and Fuel | |
| | | | | | in. | in. | | | |
| Standard-Flow | | | | | | | | | |
| Two Outlet | 2224539 | R-6703 | - | R-6702 | 3/4 NPT | 1/2 NPT | "C" Size | "B" Size | |
| Three Outlet | 2224540 | R-6703 | R-6702 | R-6702 | 3/4 NPT | 1/2 NPT | "C" Size | "B" Size | |
| Standard-Flow Without Filter | | | | | | | | | |
| Two Outlet | 2225202 | R-6703 | - | R-6702 | 3/4 NPT | 1/2 NPT | "C" Size | "B" Size | |
| High-Flow | | | | | | | | | |
| Two Outlet | 2119101 | R-52 | - | R-6702 | 3/4 NPT | 1/2 NPT | "C" Size | "B" Size | |
| Three Outlet | 2116395 | R-52 | R-6702 | R-6702 | 3/4 NPT | 1/2 NPT | "C" Size | "B" Size | |

Station Drops



Regulation Supply Lines

Standard-Flow Oxygen

- ☐ 1 in. oxygen filter (50 micron)
- ☐ Shutoff valve
- ☐ Check valve
- ☐ Meets OSHA requirements



Standard-Flow Oxygen Station Drop

High-Flow Oxygen

- ☐ 1 in. oxygen filter (50 micron)
- ☐ Shutoff valve
- ☐ Check valve
- ☐ Meets OSHA requirements



High-Flow Oxygen Station Drop

Fuel Gas

- ☐ 1 in. fuel gas filter (50 micron)
- ☐ Shutoff valve
- ☐ H-16 back pressure valve and check valve
- ☐ Meets OSHA requirements



Fuel Gas Station Drop

Argon

- ☐ Shutoff valve



Argon Station Drop

Air/Nitrogen

- ☐ Air line filter (40 micron)
- ☐ Shutoff valve



Air/Nitrogen Station Drop

Specifications and Ordering Information

| Model | Part Number | Regulator | Inlet Connections | | Outlet Connections |
|-----------------------------------|-------------|-----------|-------------------|--|--------------------------------|
| | | | in. | | |
| Standard-Flow Oxygen Station Drop | 0558006001 | R-6703 | 3/4 NPT | | "D" Size |
| High-Flow Oxygen Station Drop | 0558006000 | R-52-200 | 3/4 NPT | | "D" Size |
| Fuel Gas Station Drop | 0558006002 | R-6702 | 1/2 NPT | | "C" Size |
| Argon Station Drop | 0558006004 | R-6703 | 1/2 NPT | | "B" Size (5/8 in. - 18 female) |
| Air/Nitrogen Station Drop | 0558006003 | R-6703 | 1/2 NPT | | "C" Size |

Flashback/ Backflow Protective Devices



H-14 and H-16 Dry Type Protective Devices

- ☑ Rated fuel gas capacities to 300 cfh
- ☑ Meets OSHA requirements and NFPA standards
- ☑ No liquid — requires no filling or cold weather maintenance
- ☑ Heavy-duty steel shell construction
- ☑ Models for all fuel gases
- ☑ Ideal for station service or portable outlet headers
- ☑ Flashback and backflow protection to satisfy OSHA regulations
- ☑ Contains relief valve



H-14

Specifications and Ordering Information

| Gas Service | Model | Part Number | Maximum Inlet Pressure | Rated Flow Capacity | Pressure Drop at 300 | Height | Max Diameter | Inlet and Outlet Connections | Relief Valve Connection | Shipping Weight |
|-----------------|-------|-------------|------------------------|---------------------|----------------------|--------------------------------|-------------------------------|------------------------------|-------------------------|-----------------|
| | | | psig | cfh | psig | | | | | |
| Acetylene | H-14 | 11P31 | 15 | 300 | 2.5 | 12 ³ / ₄ | 2 ⁷ / ₈ | 1/2 NPTF | 3/4 NPTF | 12 |
| Alternate Fuels | H-16 | 13P16 | 13-28 | 300 | 2.5 | 12 ³ / ₄ | 2 ⁷ / ₈ | 1/2 NPTF | 3/4 NPTF | 12 |
| Alternate Fuels | H-16 | 2120396 | 50-100 | 300 | 2.5 | 12 ³ / ₄ | 2 ⁷ / ₈ | 1/2 NPTF | 3/4 NPTF | 12 |

Filters, Check/Relief/Dual Shutoff Valves



High Capacity Line Filters

- ☑ Remove dirt, scale, and foreign materials from pipelines
- ☑ Prevent damage to valves, regulators, torches, etc.
- ☑ Reduce possibility of combustible particles igniting in pipeline
- ☑ 40 micron rating on 1 in. and 2 in. sintered bronze elements
- ☑ 140 mesh screen on 3 in. screen filter



2 in. Filter

| Gas Service | Size | Part Number | Maximum Operating Pressure | Maximum Flow | Overall Length | Body Diameter | Weight |
|-------------|-------|-------------|----------------------------|--------------|-------------------------------|-------------------------------|--------------------------------|
| | in. | | psig | cfh | in. | in. | lbs. |
| Oxygen | 1 NPT | 2116734 | 350 | 20,000 | 7 ³ / ₈ | 2 ⁵ / ₈ | 5 ¹ / ₂ |
| Fuel Gas | 1 NPT | 2116339 | 350 | 20,000 | 7 ³ / ₈ | 2 ⁵ / ₈ | 5 ¹ / ₂ |
| Oxygen | 2 NPT | 2116735 | 350 | 100,000 | 14 | 3 ¹ / ₂ | 13 ¹ / ₂ |
| Fuel Gas | 2 NPT | 2116363 | 350 | 100,000 | 14 | 3 ¹ / ₂ | 13 ¹ / ₂ |

Heavy Duty Check/Relief/Dual Shutoff Valves

Check Valves

- ☑ Wide assortment of NPTF thread check valves
- ☑ For oxygen and fuel gas service

| Gas Service | Size | Part Number | Type |
|-------------|-------------------------------|-------------|-------------|
| | in. | | |
| Oxygen | 1/4 | 86W02 | NPTF-Poppet |
| | 1/2 | 2030506 | NPTF-Poppet |
| | 3/4 | 188W20 | NPTF-Poppet |
| | 1 | 2102243 | NPTF-Poppet |
| | 1 ¹ / ₂ | 2117071 | NPTF-Swing |
| Fuel Gas | 1/4 | 86W02 | NPTF-Poppet |
| | 1/4 | 2028762 | NPTF-Poppet |
| | 3/4 | 2028759 | NPTF-Poppet |



1¹/₂ in. Swing Check Valve

Relief Valves

- ☑ Use with any non-corrosive, non-toxic industrial gas
- ☑ Easily maintained for long life
- ☑ Equipped with 3/4 in. NPT male inlet, 3/4 in. NPT female outlet

| Model | Part Number | Relief Pressure |
|-------|-------------|-----------------|
| | | psig |
| RV-27 | 11P62 | 15 |
| RV-28 | 11P63 | 20 |
| RV-29 | 11P64 | 75 |
| RV-30 | 20069D10 | 45 |



RV-28

Filters, Check/Relief/Dual Shutoff Valves



Dual Shutoff Valves

- High flow
- Manually controlled
- 3/4 in. NPTF inlet/outlet
- Delayed action – sequence can be changed



V-21

| Model | Part Number | Flow Capacity |
|-------|-------------|----------------------------|
| | | cfh |
| V-21 | 07X67 | Oxygen - 10,700 at 100 psi |
| | | Fuel Gas - 3,300 at 10 psi |

Valves



Line or Station Shutoff Valves, Check Valves, Shutoff/Check Valve Combinations

V-35

- ☐ Ball type, 1/4 in. turn, inline shutoff valve
- ☐ Any non-corrosive, non-toxic industrial gas
- ☐ Gas may flow either direction



V-35

V-53

- ☐ Ball type, 1/4 in. turn, inline shutoff valve
- ☐ Any non-corrosive, non-toxic industrial gas
- ☐ Gas may flow in either direction



V-53

V-54

- ☐ 90° throttle type shutoff valve
- ☐ Any non-corrosive, non-toxic industrial gas



V-53 / CV-1
Shown with check valve



V-54

Specifications and Ordering Information

Shutoff Valves

| Model | Part Number | Maximum Operating Pressure | | Connections | |
|-------|-------------|----------------------------|-------|--------------------|--------------------|
| | | psig | kPa | Inlet | Outlet |
| V-35 | 998210 | 400 | 2,760 | 3/4 in. NPT female | 3/4 in. NPT female |
| V-53 | 639674 | 300 | 2,070 | 3/4 in. NPT female | 3/4 in. NPT female |
| V-54 | 998184 | 400 | 2,760 | 1/2 in. NPT male | 3/4 in. NPT female |

Shutoff/Check Valve Combinations

| Combination Part Number* | | Check Valve | | Gas Service | Check Valve Outlet Connection | Cap and Chain Assembly (Accessory) |
|--------------------------|--------|-------------|--------------|-------------|-------------------------------------|------------------------------------|
| V-53 | V-54 | Symbol | Part Number† | | | |
| 639767 | 998185 | CV-1 | 639677 | Oxygen | CGA-024 (7/8 in. - 14 RH male)** | - |
| 639768 | 998186 | CV-2 | 639710 | Fuel Gas | CGA-025 (7/8 in. - 14 LH male)** | - |
| 998314 | 998315 | CV-3 | 639706 | Oxygen | CGA-022 (9/16 in. - 18 RH male)*** | 86W40 |
| 998316 | 998317 | CV-4 | 639711 | Fuel Gas | CGA-023 (9/16 in. - 18 LH male)*** | 86W41 |
| 639769 | 998187 | CV-5 | 639717 | ^ | 1/2 in. NPT male | - |
| 998442 | 998443 | CV-6 | 639719 | Inert Gas | CGA-034 (7/8 in. - 14 RH female)** | - |
| 998227 | 998228 | CV-7 | 639720 | Inert Gas | CGA-032 (5/8 in. - 18 RH female)*** | - |

Maximum Operating Pressure for all Shutoff/Check Value Combinations is 200 psig.

*Combination Part Number includes both shutoff valve and check valve.

Oxygen check valves are supplied, assembled, and sealed to the station valves; all other combinations are supplied unassembled.

†This Part Number is for check valve only.

^Any common non-corrosive, non-toxic industrial gas.

**For connection to regulators with "C" size inlets.

***For connection to hose with "B" size fittings.

PREST-O-LITE® GT-200

Cutting Outfit



- Cutting range up to 1/2 in. (13 mm)
- Lightweight components
- For professional jewelry, light duty repair, and maintenance work
- Sold with or without tote



Ordering Information

| | |
|--|------------|
| PREST-O-LITE® GT-200 DLX 540/510 | 0558005266 |
| PREST-O-LITE® GT-200 DLX "B" | 0558005267 |
| PREST-O-LITE® GT-200 DLX "MC" | 0558005268 |
| Prest-O-Pak GT-200 DLX with Tote | 0558005269 |

Contents

| | |
|---|--------|
| W-200 Torch | 999805 |
| CW-200 Cutting Attachment | 05L20 |
| Cutting Tip 4202 1/2 in | 16K09 |
| Oxygen Regulator R-22-75-540A | 18564 |
| Acetylene Regulator R-22-15-510 | 998765 |
| Acetylene Regulator R-22-15-520 "B" | 05X01 |
| Acetylene Regulator R-22-15-200 "MC" | 05X02 |
| Striker | 790F34 |
| Goggles | 17862 |
| Hose 12½ ft. x 3/16 in. A-A "T" Grade | 591F72 |

Precision Master

Welding and Cutting Outfit

- ❑ Welding range up to 3/16 in. (5 mm)
- ❑ Cutting range up to 1/2 in. (13 mm)
- ❑ Lightweight components
- ❑ For professional jewelry, maintenance, and light-duty repair work
- ❑ Tanks not included



Ordering Information

Precision Master DLX "MC" with Tote 600500

Contents

| | |
|---|--------|
| W-200 Torch | 999805 |
| CW-200 Cutting Attachment | 05L20 |
| Cutting Tip 4202 1/2 in | 16K09 |
| Welding Head #4 | 06L48 |
| Welding Head #6 | 06L49 |
| Welding Head #9 | 06L50 |
| Oxygen Regulator R-22-75-540A | 18564 |
| Acetylene Regulator R-22-15-200 "MC" | 05X02 |
| Striker | 790F34 |
| Goggles | 17862 |
| Hose 12½ ft. x 3/16 in. A-A "T" Grade | 591F72 |

Precision Master II

Welding and Cutting Outfit



- ❑ Welding range up to 3/16 in. (5 mm)
- ❑ Cutting range up to 1/2 in. (13 mm)
- ❑ Lightweight components
- ❑ For professional jewelry, maintenance, and light-duty repair work



Ordering Information

Precision Master II DLX "MC" with Tote 0558003742

Contents

| | |
|---|--------|
| W-200 Torch | 999805 |
| CW-200 Cutting Attachment | 05L20 |
| Cutting Tip 4202 1/2 in. | 16K09 |
| Welding Head #6 | 06L49 |
| Oxygen Regulator R-522-75-540A | 22554 |
| Acetylene Regulator R-522-15-510 | 22555 |
| Striker | 790F34 |
| Goggles | 17862 |
| Hose 12½ ft. x 3/16 in. A-A "T" Grade | 591F72 |

PREST-O-LITE® Maintenance Outfit

Welding and Cutting Outfit

- ❑ Welding range up to 1/16 in. (1.5 mm)
- ❑ Cutting range up to 1/2 in. (13 mm)
- ❑ Lightweight components
- ❑ Everything you need for brazing, soldering, and cutting
- ❑ Tanks not included



Ordering Information

| | |
|---|--------|
| PREST-O-LITE® DLX Maintenance Outfit "B" | 639103 |
| PREST-O-LITE® DLX Maintenance Outfit "MC" | 639130 |
| PREST-O-LITE® DLX Maintenance Outfit "MC" with Tote.. | 600499 |

Contents

| | |
|---|--------|
| W-200 Torch | 999805 |
| CW-200 Cutting Attachment | 05L20 |
| Cutting Tip 4202 1/2 in | 16K09 |
| Welding Head #6 | 06L49 |
| Oxygen Regulator R-522-75-540A | 22554 |
| Acetylene Regulator R-522-15-510 | 22555 |
| Striker | 790F34 |
| Goggles | 17862 |
| Hose 12½ ft. x 3/16 in. A-A "T" Grade | 591F72 |

PREST-O-LITE® Brazing Outfit

Welding and Cutting Outfit



- Welding range up to 1/8 in. (3 mm)
- Heating range up to 9 cfh acetylene (13,000 btu/hr.)
- Piston type connection between torch and heads for easy hand tightening
- RBO protection in each regulator
- Tanks not included



Ordering Information

| | |
|--|--------|
| PREST-O-LITE® DLX Brazing Outfit "B" | 638593 |
| PREST-O-LITE® DLX Brazing Outfit "MC" | 639021 |
| Prest-O-Pak DLX Brazing Outfit "MC" with Tote..... | 600498 |

Contents

| | |
|---|--------|
| W-200 Torch | 999805 |
| Welding Head #4 | 06L48 |
| Welding Head #9 | 06L50 |
| Oxygen Regulator R-22-75-540A | 18564 |
| Acetylene Regulator R-22-15-510 "B" | 05X01 |
| Acetylene Regulator R-22-15-200 "MC" | 05X02 |
| Striker | 790F34 |
| Goggles | 17862 |
| Hose 12½ ft. x 3/16 in. A-A "T" Grade | 591F72 |

W-200/CW-200

PREST-O-LITE® Combination Torch

Light-Duty

W-200 welding handle

CW-200 cutting attachment

- ☐ Any fuel gas
- ☐ Cuts 2 in.
- ☐ Heats 59,000 btu/hr. using cfh
- ☐ Welds 3/8 in.
- ☐ For light production welding, brazing, and cutting
- ☐ Solid brass forged body with drilled passages — no mixed gases in handle
- ☐ Ease on control of cutting oxygen for smoother starts



W-200/CW-200

PREST-O-LITE® Combination Torch



Light-Duty

Cutting Tips Series



Cutting Attachment

| CW-200 | Part Number |
|--------|-------------|
| 90° | 05L20 |

| Acetylene | See Page |
|-----------|----------|
| 4202 | 50 |

| Alternate Fuels | See Page |
|-----------------|----------|
| One-Piece 4203 | 51 |
| One-Piece 4216 | 50 |
| Two-Piece 4217 | 52 |



Welding Head, Acetylene Single Flame

| Size | Steel Thickness | Part Number |
|------|-----------------|-------------|
| | in. | |
| 1 | 32 gauge | 06L46 |
| 2 | 25-32 gauge | 06L47 |
| 4 | 1/32 | 06L48 |
| 6 | 1/16 | 06L49 |
| 9 | 1/8 | 06L50 |
| 15 | 3/16 | 06L52 |
| 30 | 3/8 | 06L54 |



Welding Handle

| Description | Part Number |
|-------------|-------------|
| W-200 | 999805 |



Heating Head, Acetylene Multi Flame

| Size | btu/hr. | Part Number |
|------|---------|-------------|
| 15 | 22,000 | 07L13 |
| 30 | 44,000 | 07L15 |
| 40 | 59,000 | 07L17 |



Twin Flame Head, Acetylene

| Size | btu/hr. | Part Number |
|------|---------|-------------|
| 40 | 44,000 | 07L18 |

Twin Flame Head, Alternate Fuels

| Size | btu/hr. | Part Number |
|------|---------|-------------|
| 40 | 44,000 | 07L19 |

Air Gas Outfits

PREST-O-LITE® 5-in-1 Outfit with Soft Flame Tips

For all purpose soldering, heating, and brazing

- ☐ Meets most industrial demands
- ☐ “B” tank and “MC” tank models available
- ☐ Interchangeable tips — for proper flame size and heat
- ☐ Soldering iron — for use without open flame
- ☐ Change tips in seconds — no tools necessary; tips lock in any working position
- ☐ Common torch handle — provides equivalent of five outfits
- ☐ Adjustable pressure regulator for steady gas delivery and stable flames



PREST-O-LITE® 4-in-1 Outfit with Soft Flame Tips

- ☐ Identical to 5-in-1 Outfit without the soldering iron

Ordering Information

| | |
|----------------------|-------|
| 5-in-1 Outfit | |
| For “B” Tank | 30X60 |
| For “MC” Tank | 30X61 |
| 4-in-1 Outfit | |
| For “B” Tank | 30X63 |
| For “MC” Tank | 30X64 |

Refrigeration and Air Conditioning Outfits with Soft Flame Tips

All soldering, heating and bending equipment for refrigeration and air-conditioning work in a handy kit

- ☐ Piston type connection between torch and heads for easy hand tightening
- ☐ RBO protection in each regulator
- ☐ Sold with or without tote and/or tanks



Ordering Information

| | |
|---------------------|-------|
| For “B” Tank | 30X66 |
| For “MC” Tank | 30X67 |

Air Gas Outfits

PREST-O-LITE® General Purpose Air-Acetylene Outfits with Soft Flame Tip

For sweat-type fittings, heating, and brazing

- ☑ Ideal for copper, brass, steel, and wrought iron pipe with solder-type fittings
- ☑ Precision flame control – for joints near a wall, against each other, and in hard-to-reach places
- ☑ Instant heat – 4,000°F, without pumping or priming
- ☑ Convenient – small, light, easy to handle, and always ready to use
- ☑ Efficient – ample range for run-of-shop work; unaffected by drafts, wind, and rain
- ☑ “B” tank and “MC” tank models available
- ☑ Adjustable pressure regulator with contents gauge and delivery pressure indicators on pressure adjustment knob



Ordering Information

For “B” Tank 30X37
 For “MC” Tank 30X38

PREST-O-LITE® Swirljet® Outfit

For faster soldering and brazing

- ☑ Superhot flame from Swirljet® tips will silver- or alloy-braze pipe faster than a conventional flame
- ☑ More effective – flame concentrates heat on work where needed – less waste
- ☑ Shorter wraparound flame allows soldering of joints within an inch of walls or woodwork without damaging or discoloring
- ☑ Efficient – for use under all weather conditions; wind will not deflect high velocity flame
- ☑ Adjustable pressure regulator with contents gauge and delivery pressure indicators on pressure adjustment knob
- ☑ Two outfits available – one for acetylene; one for MAPP or propane in refillable tanks



Ordering Information

For Acetylene “B” Tank 998623
 For Refillable Propane Tank or MAPP 999147

Air Gas Outfits

PREST-O-LITE® Silversmith Outfit with Soft Flame Tip

- ☐ Includes all essential equipment required for fine silversmith and other detail work
- ☐ Similar to the General Purpose Outfit except that it contains a smaller torch tip, a shorter hose assembly, and a friction lighter



Ordering Information

For "B" Tank 639297

Air Gas Outfits



PREST-O-LITE® Ordering Information and Components

| Air Acetylene Outfits | Part Number | 5-in-1 Outfits | | 4-in-1 Outfits | | General Purpose Outfits | | Silver-Smith Outfit 639297 | Refrigeration and Air-Conditioning Outfits | | Swirljet® Outfits | |
|---|-------------|----------------|---------|----------------|---------|-------------------------|---------|-------------------------------|--|---------|-------------------|--------|
| | | 30 x 60 | 30 x 61 | 30 x 63 | 30 x 64 | 30 x 37 | 30 x 38 | | 30 x 66 | 30 x 67 | 998623 | 999147 |
| Number 403 Torch Handle (valve at rear) | 02X93 | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ |
| Number 1A Fine Torch Tip | 638948 | ▪ | ▪ | ▪ | ▪ | | | | ▪ | ▪ | | |
| Number 3 Light Torch Tip | 10X23 | ▪ | ▪ | ▪ | ▪ | | | ▪ | ▪ | ▪ | | |
| Number 3 Swirljet® Torch Tip | 21471 | | | | | | | | | | ▪ | |
| Number 4 Swirljet® Tip | 21475 | | | | | | | | | | | ▪ |
| Number 4 Medium Torch Tip | 10X24 | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | | ▪ | ▪ | | |
| Number 5 Heavy Torch Tip | 10X25 | ▪ | ▪ | ▪ | ▪ | | | | | | | |
| Number 8 Soldering Iron (Pointed Copper) | 11X18 | ▪ | ▪ | | | | | | | | | |
| R-411B Regulator (for "B" Tank) | 04X36 | ▪ | | ▪ | | ▪ | | ▪ | ▪ | | ▪ | |
| R-411MC Regulator (for "MC" Tank) | 04X37 | | ▪ | | ▪ | | ▪ | | | ▪ | | |
| R-416 LPG Regulator | 05X38 | | | | | | | | | | | ▪ |
| 6 ft. length 3/16 in. (A-A) Fitted Hose Assembly | 501F11 | | | | | | | ▪ | | | | |
| 12½ ft. length 3/16 in. (A-A) Fitted Hose Assembly | 501F12 | ▪ | ▪ | ▪ | ▪ | ▪ | ▪ | | ▪ | ▪ | ▪ | |
| 12 ft. length 3/16 in. (A-A) Special Fitted Hose Assembly | 90F50 | | | | | | | | | | | ▪ |
| Friction Lighter | 790F34 | | | | | | | ▪ | | | | |

Torches

Handles and Tips

PREST-O-LITE® Torch Handles

Model Number 401M

- ☐ Compact and comfortable to work with
- ☐ Features a quick-acting connection for fast tip changes without tools
- ☐ Standard and Swirljet® tips fit interchangeably
- ☐ Valve assembly for 401M is located at the front of the handle for convenient flame adjustment
- ☐ Valve incorporates a gas flow adjustment knob with a shutoff lever, permitting relight without flame readjustment



Model 401M



Model 403

Model Number 403

- ☐ Same compact torch handle as above
- ☐ Feature a quick-acting connection for fast tip changes without tools
- ☐ Standard and Swirljet® tips fit interchangeably
- ☐ Control valve at the rear for handy shutoff and automatic gas regulation

Ordering Information

Model 401M

Number 401M Torch Handle
(forward on-off valve with flame control knob) 639297

Model 403

Number 403 Torch Handle (valve at rear) 02X93
Needle Valve for Number 403 Torch Handle 19X39

Specifications – Operating Pressures and Gas Consumption and Replacement Parts

| Tip Size | Flame Port Size in. | Operating Pressure Range psig | Gas Consumption cfh | Mixer Disks | Filter Screw |
|----------|------------------------|----------------------------------|------------------------|-------------|--------------|
| 1A | 1/10 | 1-5 | 0.2-1 | 638783 | 998311 |

Torches

Handles and Tips



PREST-O-LITE® Standard Torch Tips

☐ Interchangeable with both PREST-O-LITE® torch handles

Specifications — Operating Pressures and Gas Consumption and Replacement Parts

| Tip Size | Flame Port Size in. | Operating Pressure Range psig | Gas Consumption cfh | Mixer Disks | Filter Screw |
|----------|------------------------|----------------------------------|------------------------|-------------|--------------|
| 1A | 1/10 | 1-5 | 0.2-1 | 638783 | 998311 |



Fine Soft Flame



Soldering Iron



Number 1 FG Tip



Number 6 FG Tip

Ordering Information

For acetylene use

Number 1-A

Fine Soft Flame — For fine jewelry work, telephone switchboard and other small-wire soldering, radiator fine soldering 638948

Number 3-A

Light Soft Flame — For many wire splicing assignments, some jewelry work, light sheet metal work 10X23

Number 4-A

Medium Soft Flame — For automobile body work and copper tube joints in the 1/2 to 1 in. range 10X24

Number 5-A

Heavy Soft Flame — For most heating jobs and for copper tubing joints in the 3/4 to 1½ in. range 10X25

Number 6-A

Extra-Heavy Soft Flame — For maximum heating, such as needed for large-diameter copper tubing 10X26

Number 8-A

Soldering Iron with pointed copper 11X18

Replacement Soldering Tip — Pointed 23S32

Number 8-C

Soldering Iron with chisel copper 11X17

Replacement Soldering Tip — Chisel 23S20

Propylene, MAPP, or propane use

Number 1FG

Pencil flame tip for precision work and soldering aluminum 17861

Number 6FG

Bushy flame tip for heat shrinking 11X19

Torches

Swirljet® Tips

PREST-O-LITE® Swirljet® Tips

In the Swirljet® tip, mixed gases (air and fuel) are swirled at very high velocity through a propeller-like set of vanes at the rear of the flame tube. This swirling produces a much hotter, relatively short flame that concentrates heat output on the work. Swirljet® tips are available for air-acetylene and air-fuel gas use.

- ☐ Superior to standard tips — provide maximum effective heating power
- ☐ Short wrap-around flame for close work — no heat damage to walls or woodwork as close as 1 in. away
- ☐ All weather use — protected, high velocity flame works in wind, rain and sub-zero temperatures
- ☐ Interchangeable with both PREST-O-LITE® 403 and 401M torch handles
- ☐ Run quieter, cooler, and give better heat transfer than other comparable tips



Acetylene Swirljet® Tip



Fuel Gas Swirljet® Tip



Tip Adaptor 19595



Tip Adaptor 639040

Operating Pressures

Swirljet® air-acetylene tips require a minimum acetylene pressure of 13 psig and are so labeled. Do not use with any regulator preset to deliver 10 psig or less. Swirljet® air-fuel gas tips require pressure of 24 psig with propane, 32 psig with propylene, and 36 psig with MAPP. Operating at too low a pressure will cause overheating at the flame tube.

Ordering Information

Tip Adaptor

Used to connect threaded POL air-acetylene or air-propane tips to Quick Disconnect torch handles19505

Tip Adaptor

Used to connect threaded POL air-acetylene or air-propane tips to W-200 torch handles 639040

Filter Screw Assembly

(for all tips - except #5 acetylene) 998311

Filter Screw Assembly for #5 Acetylene Tips998312

PREST-O-LITE® Swirljet® Tips – Acetylene

| Model | Part Number | Fuel | Pressure Gas Flow | | | Copper Tubing Size and Capacity | | Replacement Mixer Tip |
|-------|-------------|-----------|-------------------|------|--------|---------------------------------|--------------|-----------------------|
| | | | | | | Soft Solder | Silver Braze | |
| | | | psig | cfh | btu | in. | in. | |
| SJ-0A | 22588 | Acetylene | 13 | 2 | 3,000 | 1/8-1/2 | 1/8-1/4 | 21478 |
| SJ-1A | 22589 | Acetylene | 13 | 3.6 | 5,300 | 1/4-1 | 1/8-1/2 | 0558001907 |
| SJ-2A | 22590 | Acetylene | 13 | 5.7 | 8,300 | 3/4-1½ | 1/4-3/4 | 0558001908 |
| SJ-3A | 21471 | Acetylene | 13 | 7.2 | 16,500 | 1-2 | 1/2- 1 | 21481 |
| SJ-4A | 21472 | Acetylene | 13 | 12.8 | 18,500 | 2-4 | 1-2 | 21482 |
| SJ-5A | 21473 | Acetylene | 13 | 33.8 | 50,000 | 4-6 | 1-4 | 21483 |

PREST-O-LITE® Swirljet® Tips – Propylene

| Model | Part Number | Fuel* | Pressure Gas Flow | | | Copper Tubing Size and Capacity | | Replacement Mixer Tip |
|---------|-------------|-----------|-------------------|-----|--------|---------------------------------|--------------|-----------------------|
| | | | | | | Soft Solder | Silver Braze | |
| | | | psig** | cfh | btu | in. | in. | |
| SJ-3LPG | 21474 | Propylene | 32 | 1.5 | 3,500 | 1/4-1½ | 1/4 -1/2 | 21478 |
| SJ-4LPG | 21475 | Propylene | 32 | 3.1 | 7,300 | 1/4-2½ | 1/4-1¼ | 21479 |
| SJ-5LPG | 21476 | Propylene | 32 | 8.0 | 19,000 | 1-4 | 1/2-2 | 21480 |

*These tips can also be used with propane and MAPP gas.

**24 psig with propane, 36 psig with MAPP.

Operating at too low a pressure will cause overheating at the flame tube.

Torches

Air-Acetylene Swirljet® Kits

X-3B POL Kit

Flexible kit bronze brazes light/medium gauge steel

- ❑ Soft solders to 4 in. (100 mm)
- ❑ Silver brazes to 2 in. (50 mm)
- ❑ “B” tank connection
- ❑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



X-4B POL Kit

Higher capacity kit bronze brazes medium/heavy gauge steel

- ❑ Soft solders to 6 in. (150 mm)
- ❑ Silver brazes to 4 in. (100 mm)
- ❑ “B” tank connection
- ❑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



Ordering Information

X-3B POL Kit 21954

Kit Contains

R-411B (CGA520) Regulator 04X36
POL QD#1 Torch 21702
QD-SJ-3A Tip 21703
QD-SJ-4A Tip 21704
Hose 12½ ft. x 3/16 in. A-A Fuel Gas 501F12

Ordering Information

X-4B POL Kit 21955

Kit Contains

R-411B (CGA520) Regulator 04X36
POL QD#1 Torch 21702
QD-SJ-4A Tip 21704
QD-SJ-5A Tip 21705
Hose 12½ ft. x 3/16 in. A-A Fuel Gas 501F12

Torches

Air-Acetylene Swirljet® Kits



X-5B POL Kit

Flexible lighter duty kit

- ☑ Soft solders to 2 in. (50 mm)
- ☑ Silver brazes to 1 in. (25 mm)
- ☑ “B” tank connection
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



X-6MC POL Kit

All purpose kit for using “MC” tank

- ☑ Soft solders to 2 in. (50 mm)
- ☑ Silver brazes to 1 in. (25 mm)
- ☑ “MC” tank connection
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



Ordering Information

X-5B POL Kit 21956

Kit Contains

R-411B (CGA520) Regulator 04X36
 POL QD#1 Torch 21702
 QD-SJ-3A Tip 21703
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 501F12
 Friction Lighter 790F34

Ordering Information

X-6MC POL Kit 21957

Kit Contains

R-411MC (CGA200) Regulator 04X37
 POL QD#1 Torch 21702
 QD-SJ-3A Tip 21703
 QD-SJ-4A Tip 21704
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 501F12

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 Goss® is a registered trade name of Goss®.



Torches

Air-Acetylene and Air-LP Swirljet® Kits

PZ-5A “MC” Kit

Self-lighting tip

- ☑ Soft solders to 2 in. (50 mm)
- ☑ Silver brazes to 1 in. (25 mm)
- ☑ “MC” tank connection
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



LP-1 POL Kit - LP

- ☑ Soft solders to 6 in. (150 mm)
- ☑ Silver brazes to 4 in. (100 mm)
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



Ordering Information

PZ-5A “MC” Kit 0558003175

Ordering Information

LP-1 POL Kit - LP 21951

Kit Contains

R-411MC (CGA200) Regulator 04X37
 POL QD#1 Torch 21702
 PZ5A Tip 22575
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 501F12
 Kit Available with R-411B Regulator 0558003176

Kit Contains

R-416 LPG Regulator 05X38
 POL QD#1 Torch 21702
 QD-SJ-4LPG Tip 21707
 QD-SJ-6LPG Tip 21709
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 90F50

Torches

Air-LP Swirljet® Kits



LP-2 POL Kit - LP

For jobbing and smaller work

- ☑ Soft solders to 2½ in. (60 mm)
- ☑ Silver brazes to 1¼ in. (30 mm)
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



LP-3 POL Kit - LP

- ☑ Soft solders to 4 in. (100 mm)
- ☑ Silver brazes to 2 in. (50 mm)
- ☑ Quick Disconnect - interchangeable with TurboTorch® and Goss® handles and tips



Ordering Information

LP-2 POL Kit - LP 21952

Kit Contains

R-416 LPG Regulator 05X38
 POL QD#1 Torch 21702
 QD-SJ-3LPG Tip 21706
 QD-SJ-5LPG Tip 21708
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 90F50

Ordering Information

LP-3 POL Kit - LP 21953

Kit Contains

R-416 LPG Regulator 05X38
 POL QD#1 Torch 21702
 QD-SJ-4LPG Tip 21707
 Hose 12½ ft. x 3/16 in. A-A Fuel Gas 90F50
 Friction Lighter 790F34

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 Goss® is a registered trade name of Goss®.



Torches

QD Handle and QD Swirljet® Tips

Swirljet® Tips and Torch Handle

These Swirljet® tips are designed to be used with the PREST-O-LITE® #1 Quick Disconnect torch handle. They run quieter and cooler, and give better heat transfer than other comparable tips.

Interchangeable with TurboTorch® and Goss® Handles and Tips

| Description | Part Number | Replaces TurboTorch® Model |
|--------------------------------------|-------------|----------------------------|
| POL #1 Quick Disconnect Torch Handle | 21702 | G-4 |

- ☐ Quick disconnect
- ☐ Interchangeable with TurboTorch® and Goss® handles and tips



PZ Spark Lighting Tip – Acetylene/Fuel Gas

Air Acetylene, Swirl Flame, Auto-Ignite Tips

| Quick Connect | | Replacement Tip End | | Copper Tubing Size Capacity Using 15 psig Acetylene | | |
|---------------|-------------|---------------------|-------------|---|-------------------|--------------|
| Model Number | Part Number | Model Number | Part Number | Soft Solder in. | Silver Solder in. | Gas Flow cfh |
| PZ-3A | 22602 | PZ-3ATR | 22605 | 1/4-1 | 1/8-1/2 | 3.5 |
| PZ-4A | 22603 | PZ-4ATR | 22606 | 3/4-1½ | 1/4-3/4 | 5.1 |
| PZ-5A | 22575 | PZ-5ATR | 22607 | 1-2 | 1/2-1 | 6.8 |
| PZ-6A | 22604 | PZ-6ATR | 22608 | 2-4 | 1-2 | 9.1 |

- ☐ One-handed operation
- ☐ No need for a separate spark lighter
- ☐ Swirl flame for maximum heat transfer



Fuel Gas, Swirl Flame, Auto-Ignite Tips

| Quick Connect | | Replacement Tip End | | Copper Tubing Size Capacity Using 15 psig Acetylene | | | |
|---------------|-------------|---------------------|-------------|---|-------------------|-----------------|-------------------|
| Model Number | Part Number | Model Number | Part Number | Propane Gas | | MAPP Gas | |
| | | | | Soft Solder in. | Silver Solder in. | Soft Solder in. | Silver Solder in. |
| PZ-3P | 22609 | PZ-3PTR | 22612 | 1/4-1 | 1/8-1/2 | 1/4-1½ | 1/4-1/2 |
| PZ-4P | 22610 | PZ-4PTR | 22613 | 3/4-1½ | 1/4-3/4 | 1/4-2½ | 1/4-1¼ |
| PZ-5P | 22611 | PZ-5PTR | 22614 | 1½-2½ | 1/2-1¼ | 1-4 | 1/2-2 |



Ordering Information

Tip Adaptor to connect threaded POL tips to Quick Disconnect torch handles 19505

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Goss® is a registered trade name of Goss®.

Torches

Swirljet® Tips



Acetylene Swirljet® Tips

| Description | Part Number | Replaces TurboTorch® Model | Fuel | Pressure psig | Gas Flow cfh | Copper Tubing Sizing and Capacity | | Replacement Mixer Tip |
|-------------|-------------|----------------------------|-----------|---------------|--------------|-----------------------------------|------------------|-----------------------|
| | | | | | | Soft Solder in. | Silver Braze in. | |
| QD SJ-OA | 22591 | A-2 | Acetylene | 13 | 2 | 1/8-1/2 | 1/8-1/4 | 21478 |
| QD SJ-1A | 22592 | A-3 | Acetylene | 13 | 3.6 | 1/4-1/2 | 1/8-1/2 | 0558001907 |
| QD SJ-2A | 22593 | A-5 | Acetylene | 13 | 5.7 | 3/4-1½ | 1/4-3/4 | 0558001908 |
| QD SJ-3A | 21703 | A-8 | Acetylene | 13 | 7.2 | up to 2 | 1/2-1 | 21481 |
| QD SJ-4A | 21704 | A-14 | Acetylene | 13 | 12.8 | 2-4 | 1-2 | 21482 |
| QD SJ-5A | 21705 | A-32 | Acetylene | 13 | 33.8 | 4-6 | 1-4 | 21483 |

□ Quick disconnect



Fuel Gas Swirljet® Tips

| Description | Part Number | Replaces TurboTorch® Model | Fuel | Pressure psig | Gas Flow cfh | Copper Tubing Sizing and Capacity | | Replacement Mixer Tip |
|-------------|-------------|----------------------------|------------|---------------|--------------|-----------------------------------|------------------|-----------------------|
| | | | | | | Soft Solder in. | Silver Braze in. | |
| QD SJ-3LPG | 21706 | T-3 | Propylene* | 32 | 1.5 | 1/4-1½ | 1/4-1/2 | 21478 |
| QD SJ-4LPG | 21707 | T-4 | Propylene* | 32 | 3.1 | 1/4-2½ | 1/4-1¼ | 21479 |
| QD SJ-5LPG | 21708 | T-5 | Propylene* | 32 | 8.0 | 1-4 | 1/2-2 | 21480 |
| QD SJ-6LPG | 21709 | T-6 | Propylene* | 32 | 16.2 | 1-6 | 3/4-4 | 21482 |

□ Quick disconnect



*These tips can also be used with propane and MAPP gas (refer to instruction literature for appropriate pressures and flows for these gases). Filter Screw Assembly - Part Number 998311 (for all tips - except #5 acetylene).

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Torches

Air-Fuel

PZ-503 and Accessories

- ☐ Self-igniting torch; burn propylene, MAPP, or propane gas
- ☐ Adjustable flame control



PZ-503 Torch



PZ-503 Torch Kit



12 ft. Hose Assembly



Adaptor

Ordering Information

| | |
|---|-------|
| PZ-503 | 22533 |
| PZ-503 Kit with Propane Cylinder | 22536 |
| 12 ft. Hose Assembly | |
| Connects PZ Torches and SS-9 | |
| to CGA-510 fuel gas cylinder | 22579 |
| Adaptor | |
| Connects PZ Torches and SS-9 | |
| to "B" LH size fuel gas hose | 22580 |

Regulators

PREST-O-LITE® Pressure Regulators

- ☑ New and improved
- ☑ Small and lightweight, yet rugged and dependable
- ☑ Outperform regulators twice their size
- ☑ Oxygen models have patented, built-in Regulator Burnout (RBO) protection
- ☑ Fine mesh inlet filters prevent contamination



R-411/R-416 Regulator



R-522 Regulator

Specifications and Ordering Information

R-411/R-416

| Gas | Model | Part Number | Maximum Delivery Pressure psig | Outlet Connection | Gauges | |
|---|-----------|-------------|-----------------------------------|-------------------|----------|-------------------|
| | | | | | Contents | Delivery Pressure |
| "B" Acetylene Tank (40 cf) | R-411B | 04X36 | 15 | "A" size | * | none |
| "MC" Acetylene Tank (10 cf) | R-411 MC | 04X37 | 15 | "A" size | * | none |
| Liquified Fuel Gas Cylinders with CGA 510 Outlet such as propylene or propane | R-416 LPG | 05X38 | 60 | "A" size | none | 100 psig |

R-522

| Gas | Model | Part Number | Maximum Delivery Pressure | CGA Outlet Connection |
|-----------|---------------|-------------|---------------------------|------------------------|
| | | | psig | |
| Oxygen | R-522-75-540 | 22237 | 75 | 9/16 in. - 18 RH male |
| | R-522-75-540A | 22554 | 75 | 3/8 in. - 24 RH male |
| Acetylene | R-522-15-520 | 22238 | 15 | 9/16 in. - 18 LH male |
| | R-522-15-200 | 22239 | 15 | 9/16 in. - 18 LH male |
| | R-522-15-300 | 22240 | 15 | 9/16 in. - 18 LH male |
| | R-522-15-510 | 22241 | 15 | 9/16 in. - 18 LH male |
| | R-522-15-510A | 22555 | 15 | 3/8 in. - 24 LH male |
| Inert gas | R-522-CF-580 | 22492 | 10-40 cfh | 5/8 in. - 18 RH female |

*Graduated as follows: full, 3/4, 1/2, 1/4, empty.

Regulators

PREST-O-LITE® Pressure Regulators

- ☑ New and improved
- ☑ Small and lightweight, yet rugged and dependable
- ☑ Outperform regulators twice their size
- ☑ Oxygen models have patented, built-in explosion protection
- ☑ Fine mesh inlet filters prevent contamination



R-22



R-36

Specifications and Ordering Information

R-22

| Gas | Model | Part Number | Maximum Delivery Pressure | Outlet Connection | Gauges | |
|--|---------------|-------------|---------------------------|-------------------|-----------|-------------------|
| | | | psig | | Contents | Delivery Pressure |
| Acetylene | | | | | | |
| "B" Acetylene Tank (40 cf) | R-22-15-520B | 20971* | 15 | "B" size | *** | 15 psi |
| "MC" Acetylene Tank (10 cf) | R-22-15-200MC | 20972** | 15 | "B" size | *** | 15 psi |
| Standard Acetylene Cylinders with CGA 510 Outlet | R-22-15-510A | 998765 | 15 | "A" size | 4,00 psi | 15 psi |
| Oxygen | | | | | | |
| Standard Oxygen Cylinders with CGA 540 Outlet | R-22-75-540A | 18564 | 75 | "A" size | 4,000 psi | 100 psi |

R-36

| Gas | Model | Part Number | Maximum Delivery Pressure | Outlet Connection | Gauges | |
|-----------|--------------|-------------|---------------------------|-------------------|-----------|-------------------|
| | | | psig | | Contents | Delivery Pressure |
| Inert Gas | R-36-500-580 | 21365 | 500 | 1/4 flared 37° | 4,000 psi | 400 psi |

*20971 = 05X01 and 18Z56 Adapter.

**20972 = 05X02 and 18Z56 Adapter.

***Graduated as follows: full, 3/4, 1/2, 1/4, empty.

Regulators

Specifications

PREST-O-LITE® Regulator Replacement Gauges

| Regulator Part Number | Regulator Description | Contents Gauge (Colored) | Contents Gauge (White) | Delivery Gauge (Colored) | Delivery Gauge (White) |
|-----------------------|-----------------------|--------------------------|------------------------|--------------------------|------------------------|
| 21365 | R-36-500-580 | 22441 (Blue) | 21938 (White) | 22442 (Blue) | ----- |
| 18564 | R-22-75-540A | 21868 (White) | ----- | 21866 (White) | ----- |
| 20968 | R-22-75-540B | 21868 (White) | ----- | 21866 (White) | ----- |
| 998765 | R-22-15-510A | 21867 (White) | ----- | 21865 (White) | ----- |
| 20969 | R-22-15-510B | 21867 (White) | ----- | 21865 (White) | ----- |
| 05X01 | R-22-15-520 | 21867 (White) | ----- | 21865 (White) | ----- |
| 05X02 | R-22-15-200 | 21867 (White) | ----- | 21865 (White) | ----- |
| 20971 | R-22-15-520B | 21867 (White) | ----- | 21865 (White) | ----- |
| 20972 | R-22-15-200B | 21867 (White) | ----- | 21865 (White) | ----- |
| 22237 | R-522-75-540 | 22321 (Green) | ----- | 22323 (Green) | ----- |
| 22238 | R-522-15-520 | 22322 (Red) | ----- | 22324 (Red) | ----- |
| 22239 | R-522-15-200 | 22322 (Red) | ----- | 22324 (Red) | ----- |
| 22240 | R-522-15-300 | 22322 (Red) | ----- | 22324 (Red) | ----- |
| 22241 | R-522-15-510 | 22322 (Red) | ----- | 22324 (Red) | ----- |
| 22492 | R-522-CF-580 | 22506 (Blue) | ----- | 22507 (Red) | ----- |
| 04X36 | R-411B | 18695 (Red)* | ----- | ----- | ----- |
| 04X37 | R-411MC | 18695 (Red)* | ----- | ----- | ----- |
| 05X38 | R-416LPG | ----- | ----- | 18700 (Red) | ----- |
| 21807 | R-511B | 21812 (Red) | ----- | ----- | ----- |
| 21806 | R-511MC | 21812 (Red) | ----- | ----- | ----- |
| 21820 | R-511LPG | ----- | ----- | 21833 (White) | ----- |



2 1/2 in., 1/4 turn twist-lock



2 in., 1/4 turn twist-lock



2 in., snap-in

Ordering Information

Replacement Windows

| | |
|--------------------------------------|-------|
| 2 1/2 in., 1/4 turn twist-lock | 18858 |
| 2 in., 1/4 turn twist-lock | 18859 |
| 2 in., snap-in | 18702 |

*Dial actually marked with fractional contents of acetylene cylinders (1/4, 1/2, 3/4, full). Dial shade refers to decorative background color: Red - Fuel Gas; Green - oxygen; White - for any gas that is not oil pumped. Gauge markings: "USE NO OIL." "RB" models are for acetylene. Blue - for any gas EXCEPT oxygen. Used on all inert gas regulators.

Adaptors

PREST-O-LITE® Adaptors

To Make Connection Between

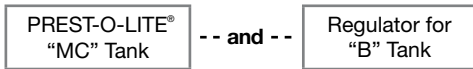


Use This Adaptor

| Description | Part Number |
|-------------|-------------|
| "B" to "MC" | 119X07 |



To Make Connection Between

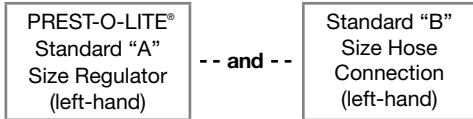


Use This Adaptor

| Description | Part Number |
|-------------|-------------|
| "MC" to "B" | 19X41 |



To Make Connection Between

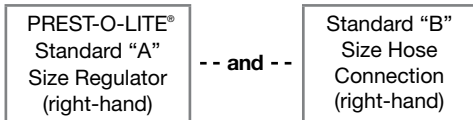


Use This Adaptor

| Description | Part Number |
|----------------------------|--|
| "A" to "B" Hose Connection | 18Z56 3/8-24 in. RH female to 9/16-18 in. LH male |



To Make Connection Between

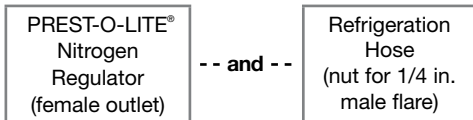


Use This Adaptor

| Description | Part Number |
|----------------------------|--|
| "A" to "B" Hose Connection | 18Z57 3/8-24 in. RH female to 9/16-18 in. RH male |



To Make Connection Between



Use This Adaptor

| Description | Part Number |
|----------------|--|
| Outlet Reducer | 17544 5/8-18 in. male to 7/16-20 in. male |



Nitrogen Purge and Blow Gun Kits

PREST-O-LITE® Purging and Pressure Testing

Using a refrigerant for purging contaminants from a system is no longer acceptable. To remove contaminants from a system and remain environmentally safe, use dry nitrogen. To assure the system is clean of contaminants before charging with refrigerants, purge the system with low pressure dry nitrogen when brazing. Testing a system for leaks with nitrogen will save time and money. PREST-O-LITE®'s Nitrogen Regulator R-36-500-580 can deliver up to 500 psig to pressurize a system for leak testing at operating pressure. Always use manufacturer's recommended specifications for maximum test pressure before testing.

NPK-40S (22546)

- ❑ 6 ft., 1/8 m hose
- ❑ OSHA rated blow gun
- ❑ Regulator, R-36-500-580
- ❑ Carrying stand
- ❑ Multiple uses: purges, blows, leak tests



NPK-40S



NPK-40TS

NPK-40TS (22545)

- ❑ 40 cu. ft. tank, refillable, empty
- ❑ 6 ft., 1/8 m hose
- ❑ OSHA rated blow gun
- ❑ Regulator, R-36-500-580
- ❑ Carrying stand
- ❑ Multiple uses: purges, blows, leak tests

Specifications Nitrogen Purge Kit

| Description | Part Number | Model Number |
|--|-------------|--------------|
| 40 cu. ft. Carrying Stand | 88F82 | NPA-S |
| 40 cu. ft. Nitrogen Cylinder | 22544 | NPA-T |
| Blow Gun | 22542 | NPA-G |
| Charging Hose 6 ft. | 22543 | NPA-H |
| Blow Gun and Hose Assembly | 22548 | NPA-GH |
| Blow Gun, Hose Assembly, and Regulator | 22547 | NPA-GHR |

Accessories

Tanks and Carriers

- ☐ “R” Oxygen Tank holds 20 cu. ft. — new, empty
- ☐ “MC” Acetylene Tank holds 10 cu. ft. — new, empty

Cylinder Pressure Test Gauges

| Gauge Part Number | Used On | Contents |
|-------------------|--------------|------------|
| 20864 | “MC” Tank | 400 psig |
| 20865 | “B” Tank | 400 psig |
| 20866 | “R” Cylinder | 4,000 psig |



“R” Oxygen Tank
22457



“MC” Acetylene Tank
22456

Specifications and Ordering Information

| Description | Part Number | Cylinders Accommodate | Height | Width | Weight |
|----------------------------|-------------|-----------------------|--------------------------------|--------------------------------|-------------------------------|
| | | | in. | in. | lbs |
| Cart, Small, Rubber Wheel | 88F69 | Small Medical | 41 | 12 | 6 |
| Carrying Stand | 88F82 | - | 28 ³ / ₄ | 7 ³ / ₄ | 3 ¹ / ₅ |
| Kangaroo Cart | 0558003632 | “R” and “MC” | 24 | 12 ¹ / ₄ | 2 ¹ / ₂ |
| Bracket, Wall Mount Single | 88F71 | 1K or 1T | - | - | 2 |
| Bracket, Wall Mount Double | 88F72 | 2K or 2T | - | - | 3 ¹ / ₂ |
| “B” Tank Handle | 25Y29 | - | - | - | - |



Test Gauge Assembly



Carrying Stand



Kangaroo Cart



“B” Tank Handle



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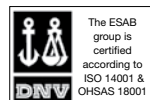
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GAS-1000D 2/12