

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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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.

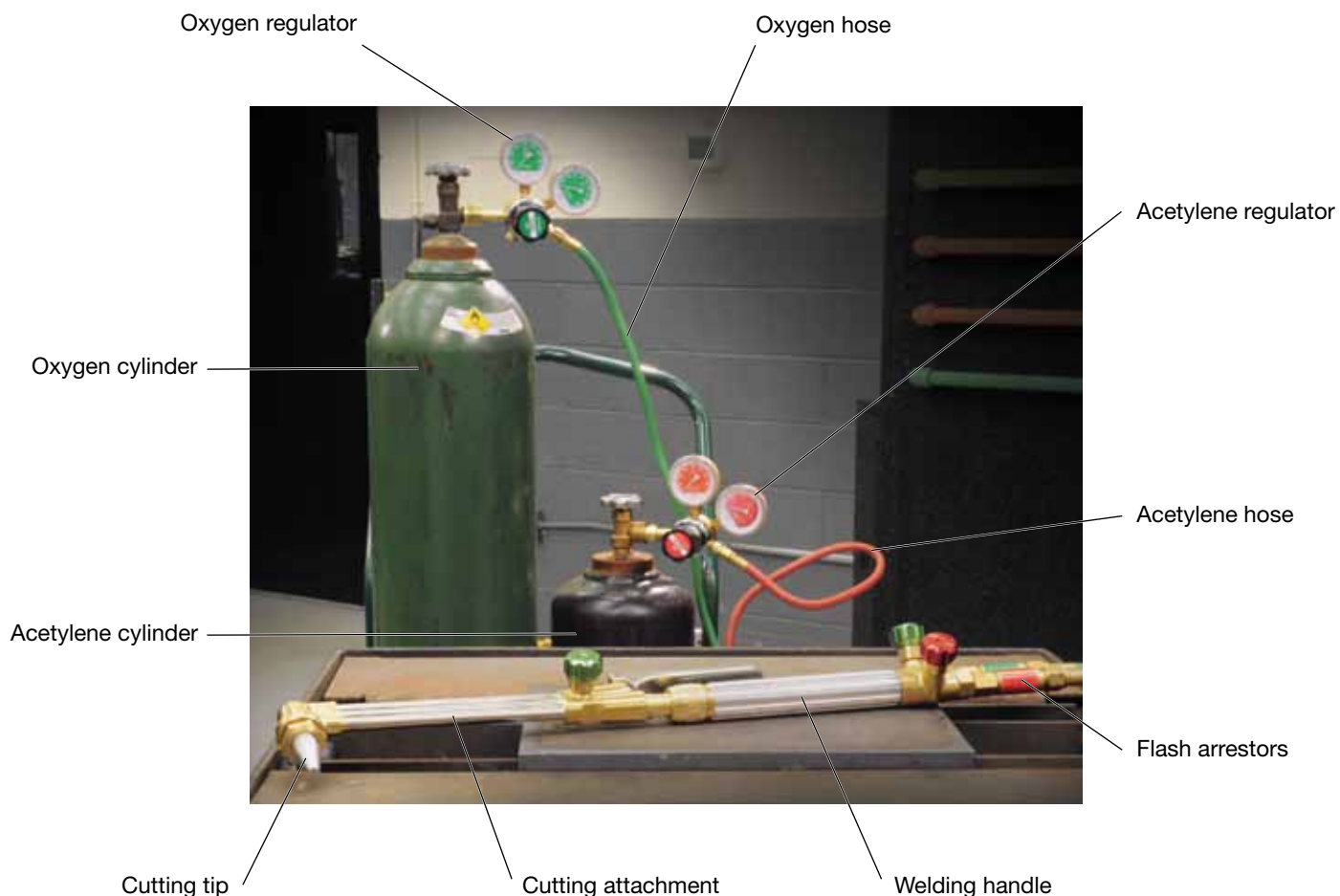
Welds are formed from the weld puddle created through contact of flame, workpiece, and welding rod, if used. Use of flux removes oxide and scale from the welding area and helps assure a sound weld. In cutting operations, a concentrated flame is used to preheat and maintain the workpiece at its ignition 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-ROM782F23



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



- 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



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



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
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C-32 torch	pg 24
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Medium-Duty

PUROX® "E" torch	pg 25
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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)

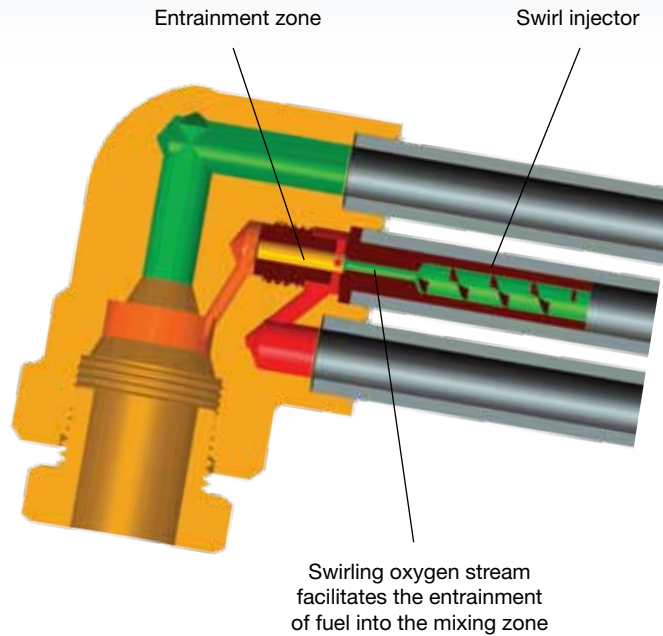
Torches

Combination



OXWELD® and PUROX® Elite Series*

PUROX® Elite Swirl Injector*



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

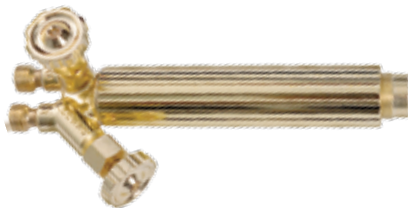


Welding Head, Single flame

Acetylene		Part Number
Size	Steel Thickness in.	
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

Flash Arrestors, Torch Pair

Part Number 20357



Welding Handle

Description	Part Number
W-17	4250



Heating Head, Multi flame

Acetylene		Part Number
Size	btu/hr.	
100A	147,000	11X22
150A	221,000	11X24
250A	368,000	11X26

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



Heating Head, Rosebud

Acetylene		Part Number
Size	btu/hr.	
55	81,000	998819
100	147,000	998821

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

*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



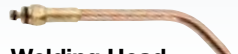
Cutting Attachment

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

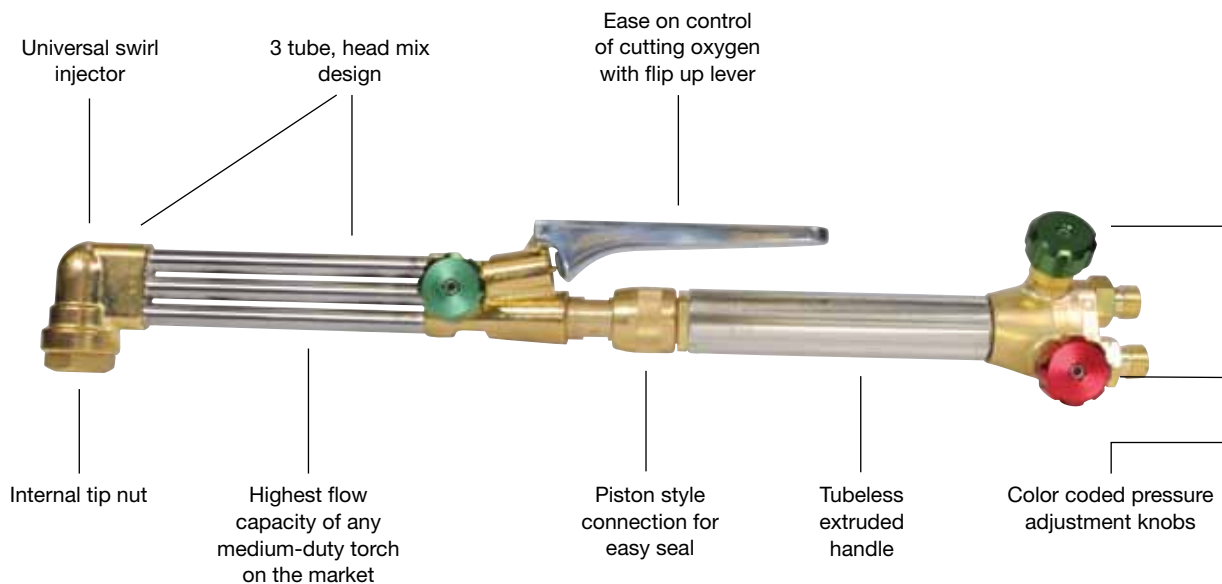


Medium-Duty

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



WH-4200/CA-4200

PUROX® Elite Series Combination Torch



Medium-Duty



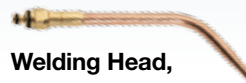
Cutting Attachment

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

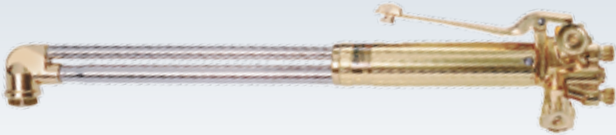
C-66 with Universal Injector

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.

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

**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	1⅝ 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	1⅝ 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)

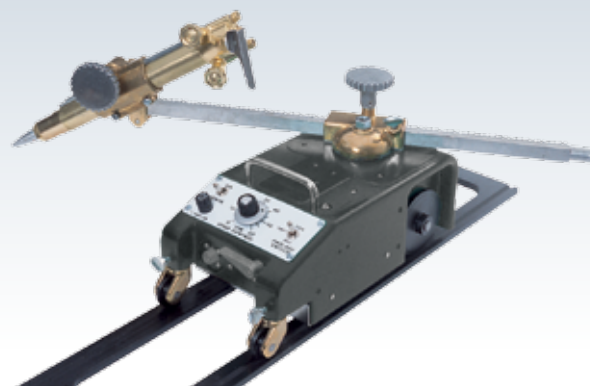
Ordering Information

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

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
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Complete Machine Package

Includes everything supplied with Basic Package plus C-58 Torch (02X74), Heat Shield, and Heavy Duty Track Section ..	998947
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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	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.
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	Acetylene Flow	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
lb. Per Square in.	cfh	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	-	-	-
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	-	-	-
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	-	-	-
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	-	-
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	-	-
1000	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*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.

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
1/4 in. Twin Fitted Hose Assemblies	50	B-B	572F84
	25	B-B	583F83
	50	B-B	583F84
	100	B-B	583F85

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 2 1/2 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 1 1/2 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
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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



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
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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
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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
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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

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 (4⅞ 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	<div>EXTRA HEAVY DUTY</div> <div>OXWELD</div> <div>GAS APPARATUS BY ESAB</div>	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		
Consult tip page to confirm applicable torch compatibility	1507	47
	1539	47
	1510	48
	1511	48
	1520	48
	1568	48
	1516	49
	1524	49
	1561	49

Cutting Attachment or Torch	<div>MEDIUM/HEAVY DUTY</div> <div>PUROX</div> <div>GAS APPARATUS BY ESAB</div>	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

Victor® is a registered trademark of Thermadyne Holdings Corporation.

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:

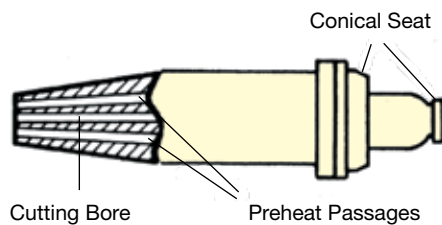
See Tip Size Recommendations on pages 41 through 55.

Select size recommended for thickness of steel to be cut.

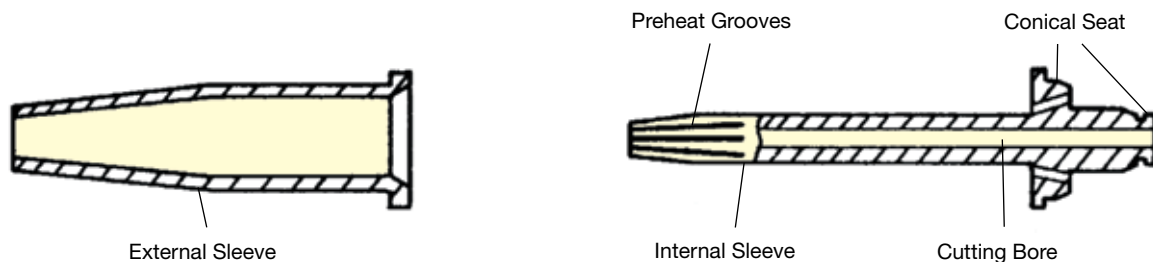
Oversize tips waste gas. Use oxygen pressure recommended for tip.

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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.				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	
in.	in.					ipm			in.
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.	mm	in.				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.				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	
in.	in.					ipm			in.
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

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	Preheat Oxygen	Fuel		Total Oxygen	Fuel	
			psig	psig	psig		cfh	cfh	
1/2	1/2	639600	90	20-50	3-5	21-26	60-80	5-10	.045
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
1 1/2	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
2 1/2	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 in.	Number Preheat Holes	Part Number
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 in.	Part Number	Gas Pressure	
		Cutting Oxygen psig	Acetylene 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 in.	Number Preheat Holes	Part Number	Cleaning Preheat	Drill Size 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 in.	Part Number	Gas Pressure	
		Cutting Oxygen psig	Fuel 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.				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	
in.	in.	Number	psig	psig	ipm	cfh	cfh	in.
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.				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	Number Preheat Holes	Cleaning Preheat	Drill Size Cutting
in.	mm	in.				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

4200 Group Tips

Two-Piece Alternate Fuels



4217 Series

Hand Cutting Tips

Metal Thickness		Tip Size	One-Piece or Internal Part Number	External Sleeve Natural Gas Propane	Number Preheat Holes	Cleaning Preheat	Drill Size Cutting
in.	mm	in.					in.
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

Operating Data

Metal Thickness Tip Size	Internal Part Number	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.

- 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 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

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 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



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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- 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.

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

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Single-Stage Carbon Dioxide

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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

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Medium-Duty

Single-Stage

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

Flowmeters

Medium-Duty

Single-Stage Inert

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Single-Stage Carbon Dioxide

L-32 pg 66

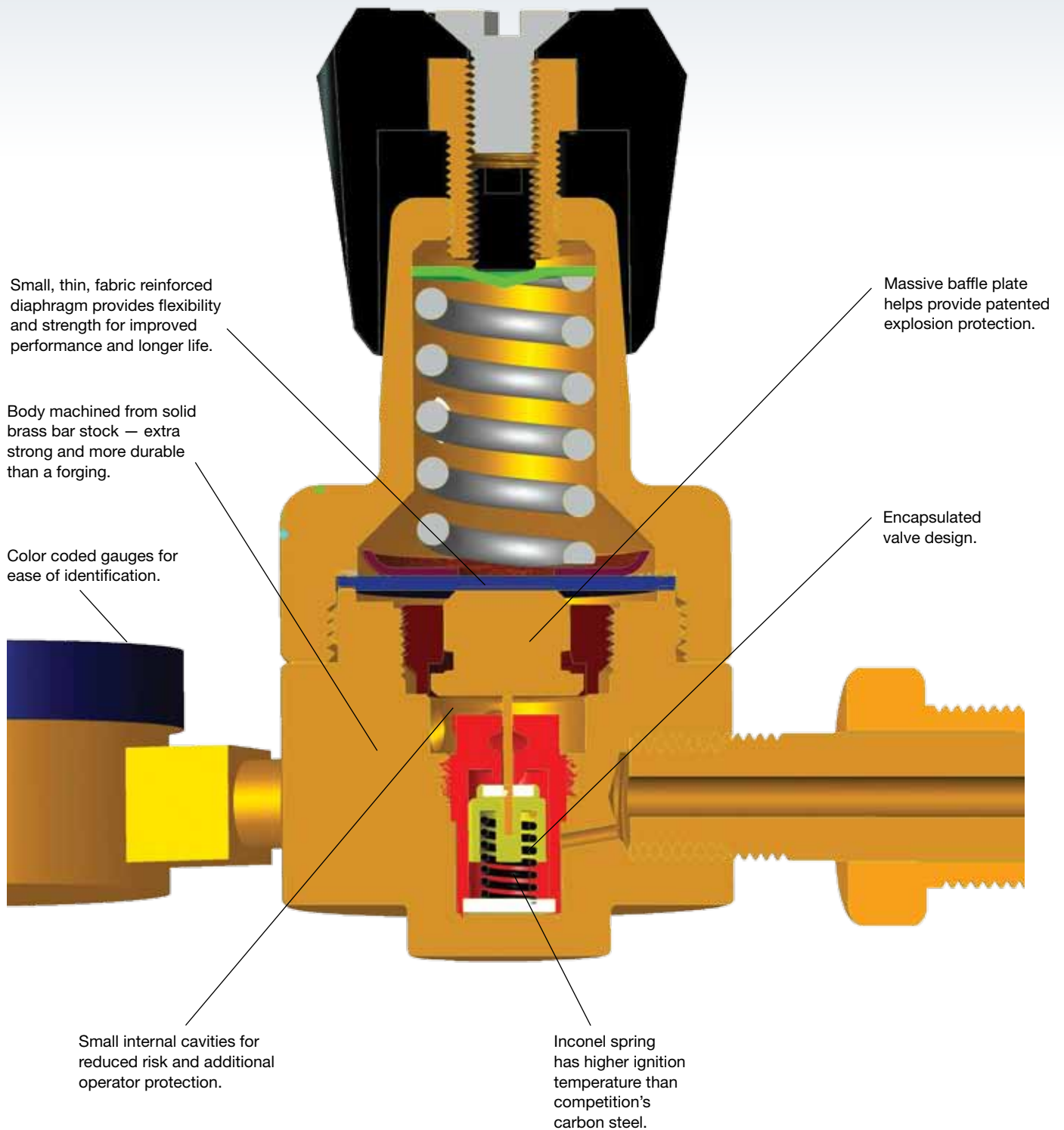
L-33 pg 66



Cylinder

OXWELD®, PUROX®, and Elite Series Regulators

Why Choose ESAB?



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.

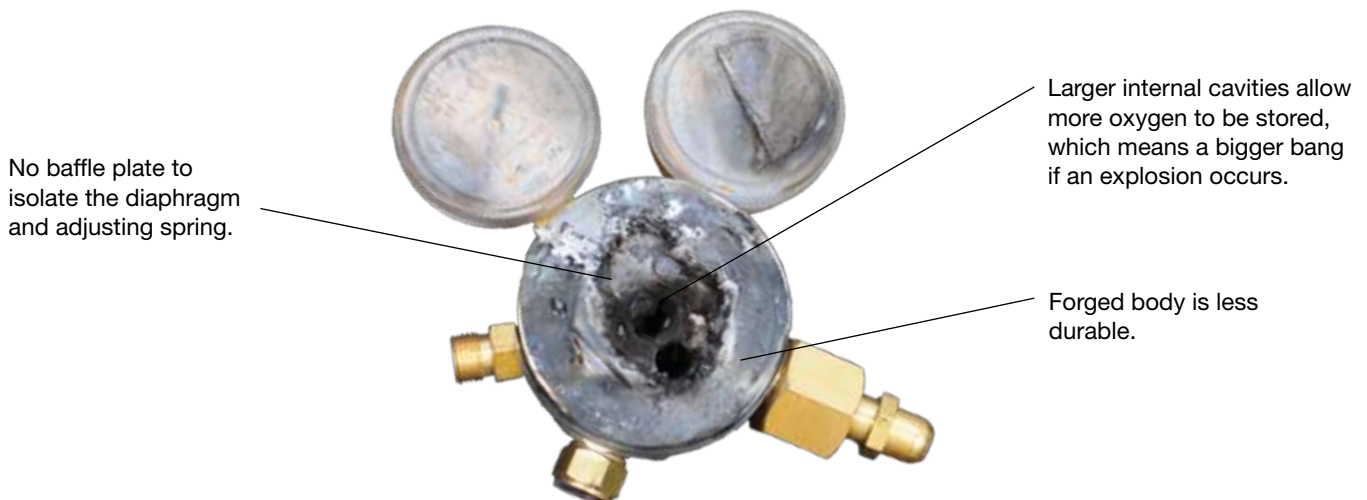
Two-Stage Regulators

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

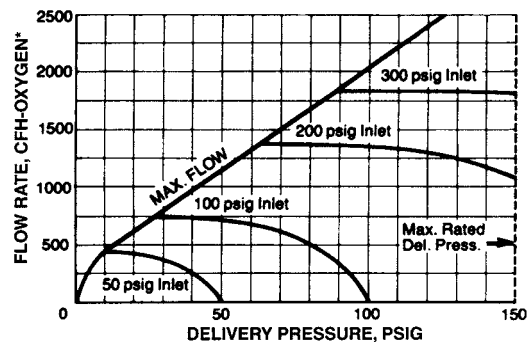


Figure 2 — R-770-200-540

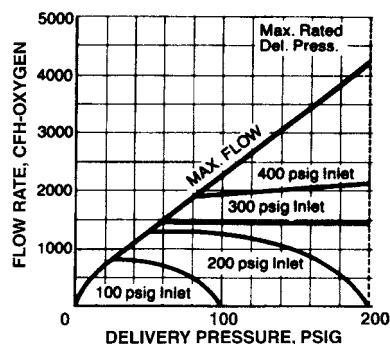
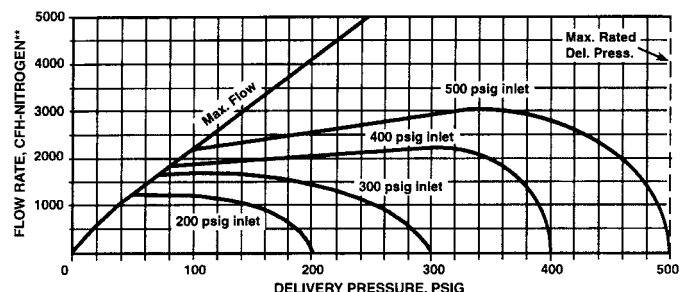


Figure 3 — R-770-500-580



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 lbs.	Length in.	Body Diameter in.	Gauge Size in.
6	8¼	2⅜	2½



R-770

Figure 4 — R-770-15-510, -300

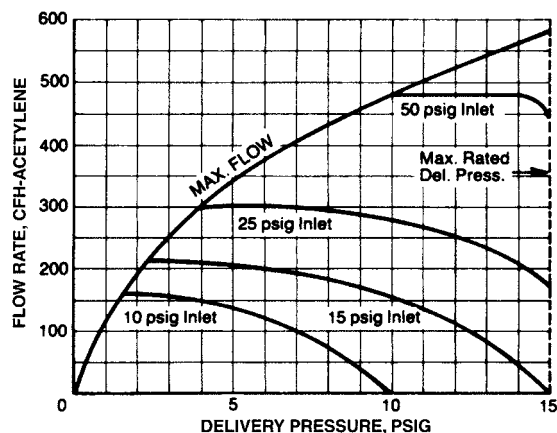
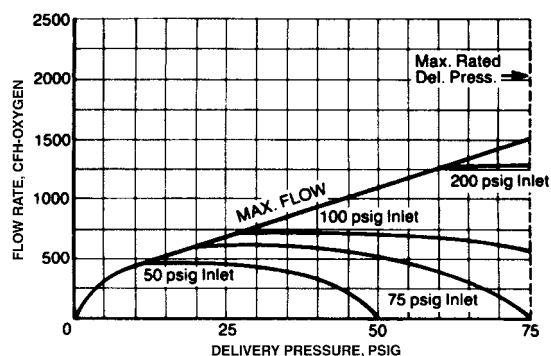


Figure 5 — R-770-75-540, -350, -580, -577, -701



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

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

Specifications

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



R-760

Figure 6 — R-760-15-510, -300

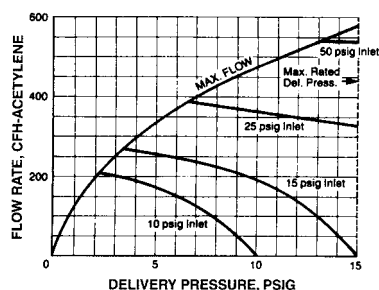


Figure 7 — R-760-75-540, -510, -350

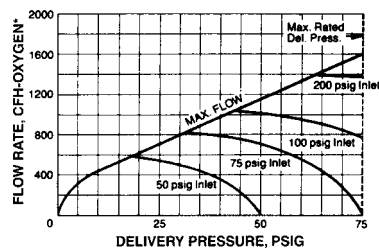


Figure 8 — R-760-150-540, -580

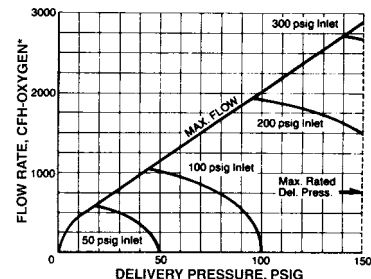
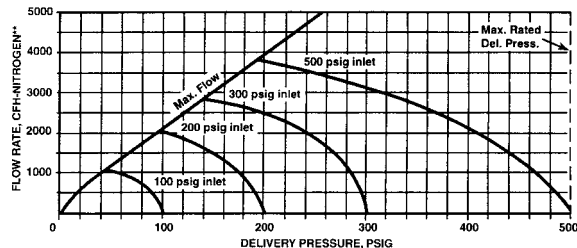


Figure 9 — R-760-500-586



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

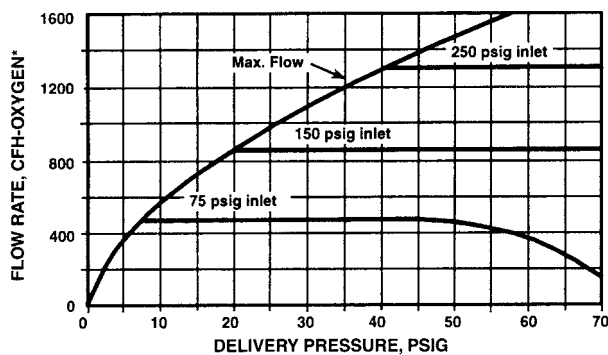
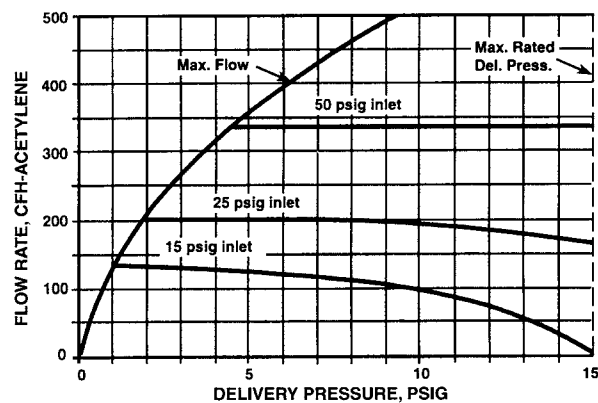


Figure 11 — R-720-15-510, -300



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

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



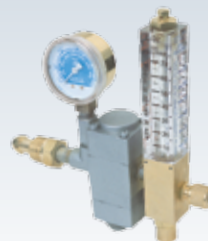
R-720-CF-580

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



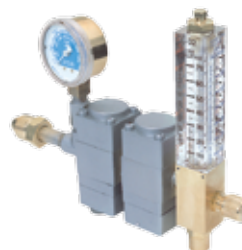
R-720-FM-580

- ❑ 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



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

2½ 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 ^s	Part Number
2½	1/4 -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
2	1/4-18 NPT	30	Brass	White	19138
			Brass	Blue	999445
			Brass	Red	999444
		4,000	Brass	Green	999446
			Plastic	White (RB)	21934
			Steel	Red	999515
		100	Plastic	Red	22437
			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
		400	Plastic	White	21937
			Steel	Red	999517
		600	Plastic	Red	22440
			Plastic	White	21939
			Plastic	Green	22430
		4,000	Plastic	Blue	22442
			Plastic	White	21938
			Steel	Blue	999518
			Plastic	Blue	22441
			Steel	Green	999519
		60 cfh	Plastic	Green	22429
			Plastic	Blue	22443
2	1/8-27 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*

^sDial 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).

Valves

Single and Double Shutoff Valves

V-26

For quick-acting on/off control of oxygen

V-27

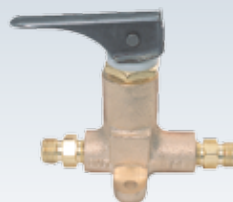
Used in flame-hardening, machine cutting, etc., for quick-acting on/off control of oxygen and fuel gas with a single lever

V-30

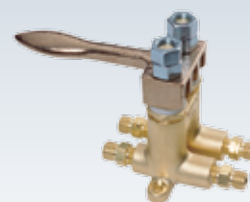
Used in electric welding for on/off control of argon and water

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



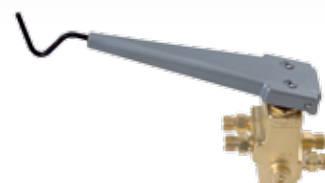
V-26



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 (103 kPa)
Other Fuel Gases	-	75 psig (517 kPa)	-	75 psig (517 kPa)
Height	5 3/4 in. (146 mm)	6 3/4 in. (172 mm)	5 in. (127 mm)	5 in. (127 mm)
Width	2 3/8 in. (60 mm)	3 5/8 in. (92 mm)	4 in. (102 mm)	4 1/2 in. (114 mm)
Length	5 1/2 in. (140 mm)	5 1/2 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 in.	Length in.	Shipping Weight lbs.	Inlet Connection in.	Outlet Connection in.
Oxygen Needle Valve "B" Size	3395	2	2 7/8	1/2	"B" RH female (9/16-18)	"B" RH male (9/16-18)
Acetylene Needle Valve "B" Size	3396	2	2 7/8	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

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



119X02



119X04



119X10



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



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Steel Industry Products

85 Years of Serving the Steel Industry



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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.



C-63

C-66-1400

PM-GST

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 1 1/8 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 (5 1/2 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		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		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	Gas Pressure			Cutting Speed	Gas Consumption			Cleaning Drill Size	
Size	Part		Cutting Oxygen*	Acetylene	Preheat Oxygen		Cutting Oxygen	Acetylene	Preheat Oxygen**	Cutting	Preheat
in.	Number	in.	psig	psig	psig	in./min.	cfh	cfh	cfh	in.	in.
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	Gas Pressure			Cutting Speed	Cleaning Drill Size			Cleaning Drill Size	
Size	Part		Cutting Oxygen*	Natural Gas	Preheat Oxygen		Cutting Oxygen	Natural Gas	Preheat Oxygen**	Cutting	Preheat
in.	Number	in.	psig	psig	psig	in./min.	cfh	cfh	cfh	in.	in.
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	Gas Pressure			Cutting Speed	Tip Stand-off	Cleaning Drill Size		
		Cutting Oxygen	Preheat Oxygen	Natural Gas			Cutting Oxygen	Natural Gas	Preheat Oxygen
	in.	psig	psig	psig	in./min.	in.			
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	Cutting Oxygen		Propane		Preheat Oxygen	
			Pressure	Flow	Pressure	Flow	Pressure	Flow
		in.	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 2 1/4 - 3 3/16	1806-62	15X44



1806

Operating Data

Tip		Scarfing Path Width		Cleaning Drill Size		Replacement Parts	
				Preheat	Cutting	Wear Ring Assembly	Tip Nut
Size	Part Number	in. (mm)	Preheat Holes	in.	in.		
62	15X44	2 1/4 - 3 3/16 (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 Powder Cutting Hand Torches

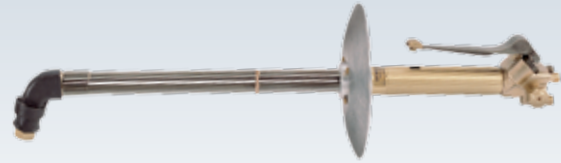
- ☐ Capacity 10 in. thick stainless
- ☐ Acetylene or alternate fuels
- ☐ Single lever control
- ☐ Self contained

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 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



AC-4 Torch

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



AC-4 Tip

Specifications and Ordering Information

Gas Service	Description	Steel Thickness in.	Size	Part Number	External Sleeve
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	Flow		Pressure	Flow	Pressure	Flow
				psig	cfh		psig	cfh	psig	cfh
1418-8	65Z02	Up to 3	8	50	370	19	2-8	19	-	-
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	Part		Powder Flow	Nitrogen Inlet	Nitrogen Flow	Operating Pressure	Relief Pressure
lbs.	Number	Type	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	
C-31, C-32, C-66 (manual with 75° head)	Multi-Jet*	61Y59 (1500-ACA-2)	not required
		61Y60 (1500-ACA-1)	
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



R-2428

High Capacity Manifold Regulators

- For use when flow requirements exceed 2,000 cfh
- 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

Specifications and Ordering Information

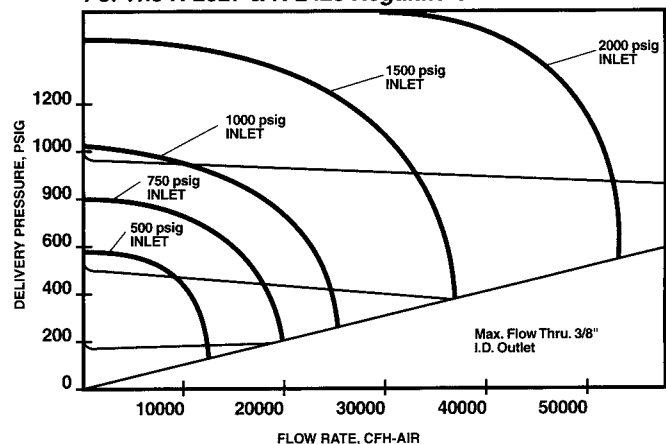
Cylinder Gas	Model	Part Number	Maximum Delivery Pressure		CGA Connections		Pressure Gauges	
			psig	kPa	Inlet	Outlet	Inlet	Outlet
High-Pressure Regulators								
Inert Gases	R-89-3M-580	103X85	3,000	13,800	580	flare	4,000	4,000
	R-89-4M-680	19017	4,000	13,800	680	flare	6,000	6,000
High-Capacity Manifold 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

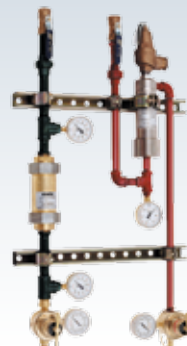
In most instances, capacity is much higher than listed. This will depend upon outlet pipe/hose restrictions. Consult ESAB for recommendations.

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 Station Drop

High-Flow Oxygen

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



Fuel Gas Station Drop

Fuel Gas

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



Argon Station Drop

Argon

- ❑ Shutoff valve

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 psig	Rated Flow Capacity cfh	Pressure Drop at 300 psig	Height in.	Max Diameter in.	Inlet and Outlet Connections in.	Relief Valve Connection in.	Shipping Weight lbs.
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 in.	Part Number	Maximum Operating Pressure psig	Maximum Flow cfh	Overall Length in.	Body Diameter in.	Weight 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 in.	Part Number	Type
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

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



V-21

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



V-53 / CV-1
Shown with check valve

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-54

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



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



Welding Handle

Description	Part Number
W-200	999805



Cutting Attachment

CW-200	Part Number
90°	05L20

Cutting Tips Series

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



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

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	Refrigeration and Air-Conditioning Outfits		Swirljet® Outfits	
Components	Number	30 x 60	30 x 61	30 x 63	30 x 64	30 x 37	30 x 38	639297	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 1 1/2 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

Ordering Information

X-4B POL Kit 21955

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

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

Ordering Information

X-6MC POL Kit 21957

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

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®.

PREST-O-LITE®

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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PREST-O-LITE®

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®.

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



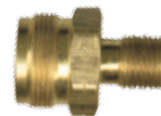
PZ-503 Torch



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	Outlet Connection	Gauges	
			psig		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)	-----

*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.



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

Adaptors

PREST-O-LITE® Adaptors

To Make Connection Between

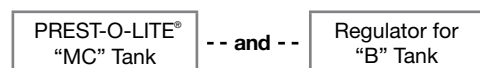


Use This Adaptor

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



To Make Connection Between

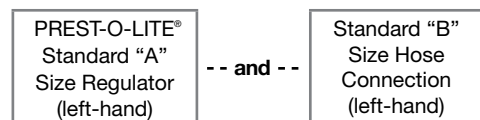


Use This Adaptor

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



To Make Connection Between

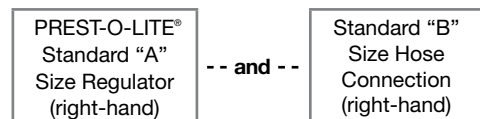


Use This Adaptor

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

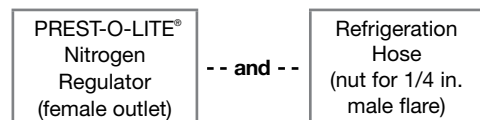


Use This Adaptor

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

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 ⁴ / 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	-	-	-	-



“R” Oxygen Tank
22457



“MC” Acetylene Tank
22456



Test Gauge Assembly



Carrying Stand



Kangaroo Cart



“B” Tank Handle



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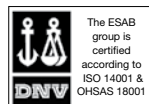
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GAS-1000D 2/12