

**Cutting / Welding & Brazing Outfits**

**Cutting, Welding & Brazing Outfits (NWSA 210)**

“Rugged” Star 98® - Heavy Duty

\* CUTS UP TO 8” – WELDS UP TO 1”

Star 98® Series Heavy Duty Outfits are designed and built to handle the toughest jobs. The Star 98® features Smith’s rugged heavy, duty nickel plated combination torch covered by Smith’s exclusive “LIFETIME” Warranty. Also features rugged, accurate Smith 1500 Series Brass Regulators with large 2”/2” diameter polished brass gauges. Reverse flow check valves included for added safety. Complete instruction and operation manual.



Part No. STAR98-510

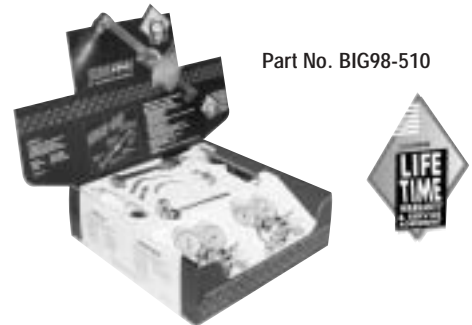
| Stock No.   | Fuel Gas  | Torch Handle | Cutting Attachment | Cutting Tip | Welding Tips   | Heating Tip | Oxy Regulator         | Fuel Gas Regulator    | Accessories                                |
|-------------|-----------|--------------|--------------------|-------------|----------------|-------------|-----------------------|-----------------------|--|
| STAR98-510  | Acetylene | SW1B         | SC209              | SC12-1      | SW205<br>SW207 | ST603       | HB1510-540<br>CGA 540 | HB1521-510<br>CGA 510 | lighter, goggles,<br>25 ft. 1/4" twin hose |
| STAR98-300  | Acetylene | SW1B         | SC209              | SC12-1      | SW205<br>SW207 | ST603       | HB1510-540<br>CGA 540 | HB1520-300<br>CGA 300 | lighter, goggles,<br>25 ft. 1/4" twin hose |
| STAR98-510L | Acetylene | SW1B         | SC209              | SC12-1      | SW205<br>SW207 | ST603       | HB1510-540<br>CGA 540 | HB1521-510<br>CGA 510 | lighter, goggles                           |
| STAR98-300L | Acetylene | SW1B         | SC209              | SC12-1      | SW205<br>SW207 | ST603       | HB1510-540<br>CGA 540 | HB1520-300<br>CGA 300 | lighter, goggles                           |

NOTE: Capacity with tips supplied in outfit: cuts up to 3/8", welds up to 3/16"

**BIG 98® - Medium Duty**

\*CUTS UP TO 6” – WELDS UP TO 7/8”

BIG 98® Series Medium Duty Outfits feature quality construction throughout. Torch components are nickel plated and backed by Smith’s exclusive “Lifetime” Warranty and Service Agreement. All BIG 98® outfits feature rugged and reliable Smith 1700 Series Brass Regulators and reverse flow check valves for added safety. Complete instructions and operation manual included.



Part No. BIG98-510

| Stock No.   | Fuel Gas  | Torch Handle | Cutting Attachment | Cutting Tip | Welding Tips   | Heating Tip | Oxy Regulator        | Fuel Gas Regulator   | Accessories                                |
|-------------|-----------|--------------|--------------------|-------------|----------------|-------------|----------------------|----------------------|--|
| BIG98-510   | Acetylene | MW5A         | MC509              | MC12-0      | MW203<br>MW205 | MT603       | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | lighter, goggles,<br>25 ft. 3/8" twin hose |
| BIG98-300   | Acetylene | MW5A         | MC509              | MC12-0      | MW203<br>MW205 | MT603       | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | lighter, goggles,<br>25 ft. 3/8" twin hose |
| BIG98-510L  | Acetylene | MW5A         | MC509              | MC12-0      | MW203<br>MW205 | MT603       | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | lighter, goggles                           |
| BIG98-300L  | Acetylene | MW5A         | MC509              | MC12-0      | MW203<br>MW205 | MT603       | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | lighter, goggles                           |
| BIG98-510T  | Acetylene | MW5A         | MC509              | MC12-0      | MW205          | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | lighter, goggles,<br>25 ft. 3/8" twin hose |
| BIG98-300T  | Acetylene | MW5A         | MC509              | MC12-0      | MW205          | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | lighter, goggles,<br>25 ft. 3/8" twin hose |
| BIG98-510TL | Acetylene | MW5A         | MC509              | MC12-0      | MW205          | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | lighter, goggles                           |
| BIG98-300TL | Acetylene | MW5A         | MC509              | MC12-0      | MW205          | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | lighter, goggles                           |

NOTE: Capacity with tips supplied in outfit: cuts up to 3/8", welds up to 1/8"

**Cutting / Welding & Brazing Outfits**

**Cutting, Welding & Brazing Outfits (NWSA 210)**

**SS Series - Heavy Duty**

Cuts up to 8" - Welds up to 1"

Smith SS Series Heavy Duty Combination Torch Outfits offer heavy duty performance and excellent economy. The SS Series is available with rugged Heavy Duty Smith HB1500 Series Brass Regulators or economical H1700 Series Medium Duty Regulators. Same Heavy Duty nickel plated combination torch components as the Heavy Duty STAR-98 Series Outfits. Ideal for heavy industrial, farm and maintenance applications. Torch handle and cutting attachment covered by Smith's exclusive "LIFETIME" Warranty. All SS Series Outfits include reverse flow check valves for added safety. Complete operation and instruction manual included with each kit.



Part No.  
**SS30-300L /  
SS30-510L**

| Stock No.               | Fuel Gas  | Torch Handle | Cutting Attachment | Cutting Tip   | Welding/ Brazing Tip | Heating Tip | Oxy Regulator          | Fuel Gas Regulator     | Accessories                                 |
|-------------------------|-----------|--------------|--------------------|---------------|----------------------|-------------|------------------------|------------------------|---|
| SS25-300L               | Acetylene | SW1B         | SC209              | SC12-1        | NONE                 | NONE        | HB1510-540<br>CGA 540  | HB1520-300<br>CGA 300  | NONE  |
| SS25-510L               | Acetylene | SW1B         | SC209              | SC12-1        | NONE                 | NONE        | HB1510-540<br>CGA 540  | HB1521-510<br>CGA 510  | NONE  |
| SS30-300L               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | ST603       | HB1510-540<br>CGA 540  | HB1520-300<br>CGA 300  | NONE  |
| SS30-510L               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | ST603       | HB1510-540<br>CGA 540  | HB1521-510<br>CGA 510  | NONE  |
| SS30A-300               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | ST603       | HB1510-540<br>CGA 540  | HB1520-300<br>CGA 300  | lighter, goggles,<br>25 ft. 3/16" twin hose |
| SS30A-510               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | ST603       | HB1510-540<br>CGA 540  | H1521-510<br>CGA 510   | lighter, goggles,<br>25 ft. 3/16" twin hose |
| SS31-300L               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | NONE        | H1710-540<br>CGA 540   | H1720-300<br>CGA 300   | NONE  |
| SS31-510L               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | NONE        | H1710-540<br>CGA 540   | H1721-510<br>CGA 510   | NONE  |
| SS31A-300               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | NONE        | H1710-540<br>CGA 540   | H1720-300<br>CGA 300   | lighter, goggles<br>25 ft. 3/16" twin hose  |
| SS31A-510               | Acetylene | SW1B         | SC209              | SC12-1        | SW207                | NONE        | H1710-540<br>CGA 540   | H1721-510<br>CGA 510   | lighter, goggles<br>25 ft. 3/16" twin hose  |
| <sup>1</sup> SS630-510L | Acetylene | SW1B         | SC209              | SC12-1        | NONE                 | NONE        | HB1510-540S<br>CGA 540 | HB1521-540S<br>CGA 510 | Hard Hat<br>Regulator guards                |
| SS25P-510L              | Propane   | SW1B         | SC209              | See<br>Note 2 | NONE                 | NONE        | HB1510-540<br>CGA 540  | HB1522-510<br>CGA 510  | None  |

1. SS630-510L boxed components only, (not available in skin packs)
  2. Cutting tip not included in SS25P-510L kit, allows custom selection of tip required for use with any LP fuel gas
- NOTE: Capacity with tips supplied in outfits: cuts to 3/8", welds to 3/16"

**Cutting / Welding & Brazing Outfits and The Little Torch**

**Cutting, Welding & Brazing Outfits (NWSA 210)**

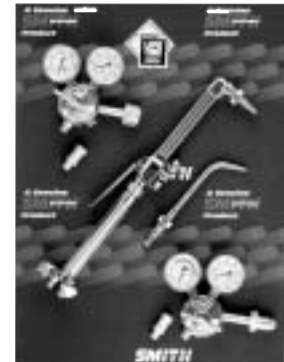
**MS Series - Medium Duty**

Cuts up to 6" – welds up to 3/8"

(Capacity with tips supplied in outfit: cuts up to 3/8", welds up to 3/8")

The MS Series is an outfit in which the craftsman can take pride and the hobbyist confidence. Quality construction and features throughout . . . torch handle and cutting attachment have a corrosion-resistant, bright-nickel finish, solid brass forgings, strong silver-brazed joints, and are covered by Smith's exclusive "LIFETIME" Warranty & Service Agreement. Outfits feature Smith's rugged and reliable H1700 Series Brass Regulators with 2" polished brass gauges. Reverse flow check valves included for added safety. Complete instruction and operation manual included with each outfit.

Part No.  
MS31-300L  
MS31-510L



| Stock No.               | Fuel Gas   | Torch Handle | Cutting Attachment | Cutting Tip | Welding/ Brazing Tip | Heating Tip | Oxy Regulator        | Fuel Gas Regulator   | Accessories                                 |
|-------------------------|------------|--------------|--------------------|-------------|----------------------|-------------|----------------------|----------------------|---|
| MS31-300L               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | NONE  |
| MS31-510L               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA510  | NONE  |
| MS31A-510L              | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA510  | Lighter, goggles,                           |
| MS31A-300               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | Lighter, goggles,<br>25 ft. 3/16" twin hose |
| MS31A-510               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | Lighter, goggles<br>25 ft. 3/16" twin hose  |
| MS32-510L               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | MT603       | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | NONE  |
| MS32A-510L              | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | MT603       | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | Lighter, goggles                            |
| MS32A-510               | Acetylene  | MW5A         | MC509              | MC12-0      | MW205                | MT603       | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | Lighter, goggles,<br>25 ft. 3/16" twin hose |
| MS31P-510L <sup>1</sup> | any LP gas | MW5A         | MC509              | see note 1  | NONE                 | NONE        | H1710-540<br>CGA 540 | H1722-510<br>CGA 510 | NONE  |

<sup>1</sup> MS31P-510L does not include cutting tip, allows custom selection of cutting tip for use with any LP fuel gas

**The Little Torch™**

Welds a range of materials. Brazes and solders the tiniest elements, yet produces enough heat to weld steel up to 1/8" thick or melt 3 oz. of silver. Weighing only 1.5 ounces, The Little Torch™ is easily maneuvered in areas impossible to reach with conventional torches. It produces a perfectly controlled, stable flame hot enough to melt commercially weldable metals, glass and ceramics with thread-thin flames up to 6000° F. The Little Torch™ works with any commercially used fuel gas, and its strong, flexible hoses connect to any standard pressure regulator. The optional compressed air or atmospheric air tips provide softer flames and eliminate the need for compressed oxygen. Exclusive heating multi-orifice tips for heating or melting up to 3 oz. of metal.

- 23-1007A** Includes 11-1101C torch, #4 tip, 6' hoses and instruction manual.
- 23-1001B** Includes 11-1101C torch, #2-6 curved tips, 6' hoses and instruction manual. Encased in display box as shown ("B" hose connections fuel 3/16"-18-LH, Oxygen 3/16"-18-RH).
- 23-1001LP** Propane kit with torch, 6' hose and #3-7 tips.
- 23-1012** Includes 11-1101C torch, #2-6 curved tips, 6' hoses and instruction manual.
- 23-1020** Kit includes 11-1111 torch with 12' hoses and #2-6 tips.
- 23-1020LP** Kit with torch, 12' hose and propane #3-7 tips.
- 23-1014** Includes 249-499 preset oxygen regulator, 249-500 preset propane regulator, cylinder holder, 11-1101C torch, #4 tip, 6 ft. hoses and instruction manual. For use with disposable cylinders. Allows maximum portability.



**Cutting / Welding & Brazing Outfits**

**Toughcut™ - Medium Duty**

Cuts up to 6" – welds up to 3/8"

Versatile, economical "TOUGH CUT" cutting and welding outfits include many features found on more expensive outfits. With a wide range of outfit configurations available, the TOUGH CUT series is perfect for a multitude of applications. Torch handle and cutting attachment feature a corrosion-resistant, nickel finish. Outfits are available with rugged, reliable Smith H1700 series regulators or economical and compact H1900 series regulators. Each kit includes reverse flow check valves for added safety. Complete operation and instruction manual also included.

Part No.  
**MS51-510L**



| Part No.   | Fuel Gas  | Torch Handle | Cutting Attachment | Cutting Tip | Welding/ Brazing Tip | Heating Tip | Oxy Regulator        | Fuel Gas Regulator   | Accessories                                |
|------------|-----------|--------------|--------------------|-------------|----------------------|-------------|----------------------|----------------------|--|
| MS51-300L  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1910-540<br>CGA 540 | H1942-300<br>CGA 300 | NONE                                       |
| MS51-510L  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1910-540<br>CGA 540 | H1945-510<br>CGA 510 | NONE                                       |
| MS51A-300  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1910-540<br>CGA 540 | H1942-300<br>CGA 300 | goggles, lighter<br>20 ft. 3/8" twin hose  |
| MS51A-510  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1910-540<br>CGA 540 | H1945-510<br>CGA 510 | goggles, lighter<br>20 ft. 3/8" twin hose  |
| MS52-510L  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205C*              | MT603       | H1910-540<br>CGA 540 | H1942-300<br>CGA 300 | NONE                                       |
| MS52A-510  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205C*              | MT603       | H1910-540<br>CGA 540 | H1942-300<br>CGA 300 | goggles, lighter,<br>20 ft. 3/8" twin hose |
| MS52A-510L | Acetylene | CW5A         | CC509P             | MC12-0      | MW205C*              | MT603       | H1910-540<br>CGA 540 | H1942-300<br>CGA 300 | goggles, lighter                           |
| MS54-300L  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | NONE                                       |
| MS54-510L  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | NONE                                       |
| MS54A-300  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1720-300<br>CGA 300 | goggles, lighter,<br>20 ft. 3/8" twin hose |
| MS54A-510  | Acetylene | CW5A         | CC509P             | MC12-0      | MW205                | NONE        | H1710-540<br>CGA 540 | H1721-510<br>CGA 510 | goggles, lighter,<br>20 ft. 3/8" twin hose |

\* Copper Section Only

NOTE: Cuts to 3/8", welds to 3/8" with tips included in kits above

**Torch Handles & Cutting Accessories**

**Lifetime Torch Handles (NWSA 220)**  
**Heavy Duty Silver Star® - SW Series**

**SW1B High Volume Torch Handle**

Rugged torch handle for high volume heating tips and general purpose welding, brazing and cutting. Features rugged silver brazed construction, forged brass butt, solid brass seat, and fluted easy grip handle. Needle valves are ball type for positive seat and accurate flame control; guards against uneven valve wear to assure safer, longer trouble-free operation. Has TEFLON® packing for excellent flow control. Replaceable inlet connections fit "B" size hose nuts, 3/8" -18 right and left hand. Covered by the LIFETIME Warranty & Service Agreement. Cuts up to 8", welds up to 1".

USED WITH: Cutting Attachments - SC209, SC200, SC205, SC509.

Welding Tips - SW200 & 400 Series. Heating Tips - ST600 Series.



**SW1B**  
Length 7 1/2" / Weight 17 3/4 oz.  
Handle Diameter 1"

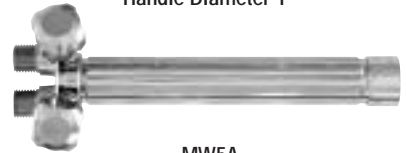
**Medium Duty Pipeliner - MW Series**

**MW5A Pipeliner Torch Handle**

Easy handling, high quality mid-size torch handle. Handles all but the highest volume heating and heaviest welding needs. Features rugged silver brazed construction, forged brass butt and precision machined brass head. Ball type needle valves reduce uneven valve wear and provide easy flame adjustment. Inlet connections, 3/8"-18 right, left hand, fit "B" size hose nuts. Cuts up to 6", welds up to 3/8". Covered by the LIFETIME Warranty & Service Agreement.

USED WITH: Cutting Attachments - MC505, MC509.

Welding Tips - MW200 and MW400 Series. Heating Tips - MT600 Series.



**MW5A**  
Length 7" / Weight 14 oz.  
Handle Diameter 1 5/8"

**CW5A**  
Length 7" / Weight 14 oz.  
Handle Diameter 1 5/8"  
(1 Yr. Warranty)

**Light Duty Airline™ - AW Series**

**AW1A Airline Torch Handle**

Specially designed to handle light duty welding, brazing, cutting and fabricating. Lightweight and compact size provide easy handling, even in confined areas. Needle valves located at front end for easy one-hand flame adjustment. Inlet connections 3/8"-24 right and left hand, fit "A" size hose nuts. Cuts up to 3", welds up to 1/2". Covered by the LIFETIME Warranty & Service Agreement.

USED WITH: Cutting Attachments - AC309. Welding Tips - AW200 Series, AW400 Series.

Heating Tip - AT600 Series. Twin Flame Tip - AT600.



**AW1A**  
Length 5 3/4" / Weight 6 1/2 oz.  
Handle Diameter 1 1/8"

**AW10A Airline High Volume Torch Handle**

New, larger size Airline torch handle provides increased gas flow. Ball type valves provide fine flame adjustment. Long valve thread engagement in Teflon packing prevents flame fluctuation and stops valve wobble. Inlet connections, 3/8"-18 right and left hand, fit "B" size hose nuts. Cuts up to 3", welds up to 1/2". Covered by the LIFETIME Warranty & Service Agreement.

USED WITH: Cutting Attachments - AC309. Welding Tips - AW200 Series.

Heating Tips - AT600 Series. Twin Flame Tip - AT600.



**AW10A**  
Length 6 3/4" / Weight 14 oz.  
Handle Diameter 1 5/8"

**Cutting Attachments**

**Silver Star - SC200 Series Heavy Duty**

Quickly converts Silver Star torch handles into efficient cutting torches. Cuts up to 8" thick steel in one pass. Solid silver brazed construction. Features "O" ring seating, special FLO-TROL™ safety protection and easy-to-change slip-in Graf-Tite™ cutting tips with cost saving soft-seats. Covered by the LIFETIME Warranty & Service Agreement.

Use with any industrial medium pressure fuel gases — acetylene, propane, butane, natural gas, propylene, HPG®, MAPP®, and many others. Select from over 70 tips available for the Silver Star cutting attachments.

USED IN: Torch Handle - SW1B.

**SC500 Sidewinder Series**

"Sidewinder" cutting attachment has oxygen preheat control valve on left side. Has same quality construction and features as SC209. Covered by the LIFETIME Warranty & Service Agreement.

USE IN: Torch Handle - SW1B



**SC209**  
Length 12 1/2"  
Weight 1 lb. 14 oz.



**SC509 "Sidewinder"**  
Length 14 3/4"  
Weight 1 lb. 14 oz.

Use SC200 & 500 Attachment, G900-41A Tip Nut, LW15 O-Ring

| Part No. | Style      | Head Angle |  |
|----------|------------|------------|--|
| SC200    | STD        | 180°       | <b>Oxygen/Acetylene:</b> SC10-0 thru SC10-4, SC12-000 thru SC12-5, SC56-00 thru SC56-5   |
| SC205    | STD        | 75°        | <b>Oxygen/Propane Oxygen/Propane Based:</b> SC40-0 thru SC40-5, SC46-1 thru SC46-5, SC50-00 thru SC50-5, SC2-2 thru SC2-6, SC47-4P                         |
| SC209    | STD        | 90°        | <b>Oxygen/Propylene:</b> SC46-1P thru SC46-5P, SC60-0 thru SC60-5, SC2-2 thru SC2-6, SC47-4P<br><b>Oxygen/MAPP:</b> SC90-0 thru SC90-5, SC56-1 thru SC56-5 |
| SC509    | Sidewinder | 90°        | <b>SC Series Special Purpose Tips</b> except SC110, SC112  |

## Cutting Attachments

### Lifetime Cutting Attachments (NWSA 220) Medium Duty Cutting Attachments

Pipeliner - MC500 Series Medium Duty

Popular medium duty cutting attachment easily cuts up to 6" steel. Solid construction to last a lifetime - silver brazed joints, stainless steel tubes, brass forged butt and head. Has the same quality features and construction as the larger and heavier Silver Star attachment. Exclusive FLO-TROL™ protects the oxygen cutting valve seat against seat-burnout, a common problem with competitive cutting attachments. Covered by the LIFETIME Warranty & Service Agreement.

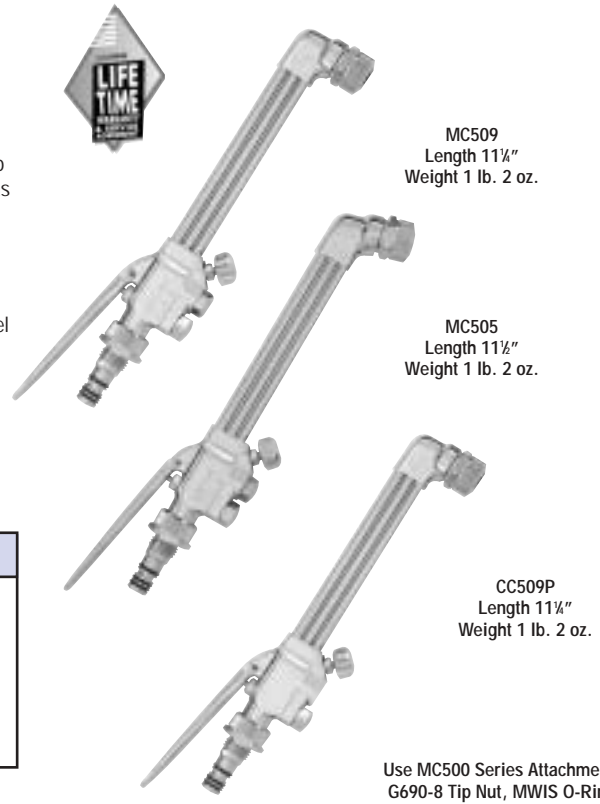
Use this cutting attachment with any commonly available industrial medium pressure fuel gases: acetylene, propane, propylene, MAPP, Natural Gas and other alternative gases. Cutting tips feature Smith's in-tip mix, slip-in design for quick changing and the replaceable soft seat design used in the larger "SC" series cutting tips.

USE IN: Torch Handle - MW5A.

| Part No.              | Head Angle |  |
|-----------------------|------------|--|
| MC505                 | 75°        | <b>Oxygen/Acetylene:</b> MC12-00 thru MC12-4<br><b>Oxygen/Propane Oxygen/Propane Based:</b> MC40-0 thru MC40-4<br><b>Oxygen/Propylene:</b> MC60-0 thru MC60<br><b>Oxygen/MAPP:</b> MC90-0 thru MC90-3<br><b>MC Series Special Purpose Tips</b> |
| MC509                 | 90°        |  |
| CC509P <sup>1,2</sup> |            |  |

<sup>1</sup> FLO-TROL™ valve not included on CC509P.

<sup>2</sup> 1-year warranty (Lifetime Warranty not included.) on CC509P.



Use MC500 Series Attachment,  
G690-8 Tip Nut, MWIS O-Ring

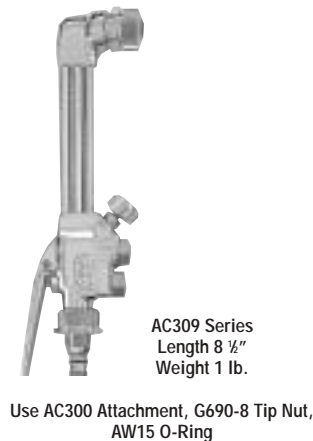
### Light Duty Cutting Attachments

#### Airline - AC300 Series Light Duty

Fits into AW1A torch handle to form a small light weight cutting torch with cutting capacity up to 3" steel. Has same quality construction and features built into each Smith cutting attachment. Covered by the LIFETIME Warranty & Service Agreement.

USE IN: Torch Handles - AW1A, AW10A.

| Stock No. | Head Angle |  |
|-----------|------------|--|
| AC309     | 90°        | <b>Oxygen/Acetylene:</b> MC12-00 thru MC12-4<br><b>Oxygen/Propane Oxygen/Propane Based:</b> MC40-0 thru MC40-4<br><b>Oxygen/Propylene:</b> MC60-0 thru MC60-4<br><b>Oxygen/MAPP:</b> MC90-0 thru MC90-3<br><b>MC Series Special Purpose Tips</b> |
|           |            |  |



Use AC300 Attachment, G690-8 Tip Nut,  
AW15 O-Ring

## Lifetime Cutting Torches (NWSA 220)

### Heavy Duty Cutting Torches

Silver Star® - SC200 Series

Cuts Up To 12"

Silver Star cutting torches feature solid construction and top handling ease for hundreds of jobs in metal working, fabricating, shipyards, salvage and other related industries. Silver brazed joints throughout. Head and butt are machined from dense brass forgings. Ball style control valves provide positive gas shut-off. Covered by the LIFETIME Warranty & Service Agreement.

- 3 tube "in-tip" mix design keeps gases separated until reaching the tip
- 12" cutting capacity
- Reversible lever, "over" or "under" position
- Uses "Soft Seat" Graf-Tite™ cutting tips
- Replaceable hose connections
- Wide array of cutting, gouging and specialty tips
- Versatile — for use with acetylene, propane, propylene, MAPP® and many other gases
- "Ease-on" cutting jet action reduces tip-clogging slag blow-back in piercing operations
- 100% tested and inspected



SC229  
Length 20 ½"  
Weight 2 ½ lbs.



SC220  
Length 21"  
Weight 3 lbs.



SC229S  
Length 20 ½"  
Weight 2 lbs. 14 oz.  
Rugged Duty Tuf-Tony Head

### Extra-Long or Short Torches

Smith offers a wide range of cutting torches to meet specific needs.

Standard sizes include: 17", 36", 48", 60", and 72" lengths.

Contact customer service for availability of other lengths.

### Rugged Duty Head Torch

Standard length (20 ½") SC200 series heavy duty torch with forged manganese bronze head to withstand unusually severe use.

Choice of 75° or 90° head. Special 45° head available in 36" length.

| Part No. | Head Angle | Length |   |
|----------|------------|--------|---|
| SC175    | 75°        | 17"    | <b>Oxygen/Acetylene:</b> SC10-0 thru SC10-4, SC12-000 thru SC12-7, SC56-00 thru SC56-6<br><b>Oxygen/Propane Oxygen/Propane Based:</b> SC40-0 thru SC40-6, SC46-1 thru SC46-6, SC50-00 thru SC50-6<br><b>Oxygen/Propylene:</b> SC46-1P thru SC46-5P<br><b>SC60-0 thru SC60-5, SC47-4P, SC2-2 thru SC2-6</b><br><b>Oxygen/MAPP:</b> SC90-0 thru SC90-6, SC56-00 thru SC56-6<br><br><b>Special Purpose Tips</b><br>All medium pressure "SC" series Special Purpose Tips may be used. |
| SC179    | 90°        | 17"    |   |
| SC220    | 180°       | 21"    |   |
| SC225    | 75°        | 20 ½"  |   |
| SC229    | 90°        | 20 ½"  |   |
| SC360    | 180°       | 36"    |   |
| SC365    | 75°        | 36"    |   |
| SC369    | 90°        | 36"    |   |
| SC225S*  | 75°        | 20 ½"  |   |
| SC229S*  | 90°        | 20 ½"  |   |

\* "S" on part number denotes Tuf-Tony™ manganese bronze torch head.

NOTE: Torches over 48" of length, one year warranty only.

Above Torches Use G900-41A Tip Nut

## Cutting Tips

### "SC" Series Cutting Tips

Smith's cutting tips are swaged from high quality copper to assure smoothest possible gas passages and fastest, most efficient cutting. All Smith cutting tips feature the slip-in design that hand-tightens to form a perfect, positive seal, protected recessed heat resistant seats and the extra safety of in-tip mixing.

Replacement seats G931 (high pressure); G932 (low pressure)

| Hand Cutting Torches |          | Machine Cutting Torches |        | Cutting Attach. |
|----------------------|----------|-------------------------|--------|-----------------|
| Silver Star          | Tuf-Tony | 3-Hose                  | 2-Hose | Silver Star     |
| SC229                | SC729    | SC780A                  | SC770  | SC209, 200      |
| SC229S               | SC725    | SC781A                  | SC771  | SC205           |
| SC225                | SC739    | SC782A                  |        | SC509           |
| SC225S               | SC735    |                         |        |                 |

| Cutting Range | Acetylene   |             |               | 2-piece tips Propane |               |                         | 2-piece tips Propylene | 2-piece tips MAPP® |                |
|---------------|-------------|-------------|---------------|----------------------|---------------|-------------------------|------------------------|--------------------|----------------|
|               | 4 Pre-heats | 6 Pre-heats | Heavy Preheat | Medium Preheat       | Heavy Preheat | Hi Speed Mach. Cut.     | Medium Preheat         | Heavy Preheat      | Medium Preheat |
| Up to 1/8"    |             | SC12-000    |               |                      |               |                         |                        |                    |                |
| Up to 3/16"   |             | SC12-00     | SC56-00       |                      | SC50-00       |                         | SC60-00                | SC56-00            | SC90-00        |
| 1/4"-3/8"     | SC10-0      | SC12-0      | SC56-0        | SC40-0               | SC50-0        | SC21A-1 (1/4"-3/8")     | SC60-0                 | SC56-0             | SC90-0         |
| 1/2"-5/8"     | SC10-1      | SC12-1      | SC56-1        | SC40-1               | SC50-1        | SC21A-2 (1/2"-1")       | SC60-1                 | SC56-1             | SC90-1         |
| 3/4"-1 1/4"   | SC10-2      | SC12-2      | SC56-2        | SC40-2               | SC50-2        | SC21A-3 (1 1/4"-1 1/2") | SC60-2                 | SC56-2             | SC90-2         |
| 1 1/2"-2"     | SC10-3      | SC12-3      | SC56-3        | SC40-3               | SC50-3        | SC21A-4 (2"-2 1/2")     | SC60-3                 | SC56-3             | SC90-3         |
| 2 1/2"-4"     | SC10-4      | SC12-4      | SC56-4        | SC40-4               | SC50-4        | SC21A-5 (3"-4")         | SC60-4                 | SC56-4             | SC90-4         |
| 5"-8"         |             | SC12-5      | SC56-5        | SC40-5               | SC50-5        |                         | SC60-5                 | SC56-5             | SC90-5         |
| 9"-12"        |             | SC12-6      | SC56-6        |                      | SC50-6        |                         | SC60-6                 | SC56-6             | SC90-6         |
| 13"-14"       |             | SC12-7      | SC56-7        |                      | SC50-7        |                         |                        | SC56-7             |                |
| 15"-18"       |             |             | SC56-8        |                      | SC50-8        |                         |                        | SC56-8             |                |
| 19"-20"       |             |             | SC56-9        |                      | SC50-9        |                         |                        | SC56-9             |                |
| 21"-24"       |             |             | SC56-9        |                      |               |                         |                        | SC56-9             |                |



SC10 Series



SC12 Series



SC40 Series



SC56 Series



MC40 Series



Gouging SC13-1



Rivet Cutting SC14-3



Rivet Cutting SC24-3



Rivet Blowing and Metal Washing SC15-2



Plate Cutting SC17-0

### "MC" Cutting Tips

Smith's "MC" cutting tips have the same high quality construction and features of the larger, heavier duty "SC" series tips. Replacement seats G695 (high pressure), G694 (low pressure)

| Cutting Attachments |       | Cutting Range | Acetylene 6 Pre-heats | 2-piece tips           | 2-piece tips             | 2-piece tips         |
|---------------------|-------|---------------|-----------------------|------------------------|--------------------------|----------------------|
| MC509               | AC309 |               |                       | Propane Medium Preheat | Propylene Medium Preheat | MAPP® Medium Preheat |
| MC505               |       | Up to 3/16"   | MC12-00               |                        | MC60-00                  |                      |
| CC509P              |       | 1/4"-3/8"     | MC12-0                | MC40-0                 | MC60-0                   | MC90-0               |
|                     |       | 1/2"-5/8"     | MC12-1                | MC40-1                 | MC60-1                   | MC90-1               |
|                     |       | 3/4"-1 1/4"   | MC12-2                | MC40-2                 | MC60-2                   | MC90-2               |
|                     |       | 1 1/2"-2"     | MC12-3                | MC40-3                 | MC60-3                   | MC90-3               |
|                     |       | 2 1/2"-4"     | MC12-4                | MC40-4                 | MC60-4                   |                      |
|                     |       | 5"-6"         | MC12-5                |                        |                          |                      |

### Special Purpose Tips - "SC" AND "MC"

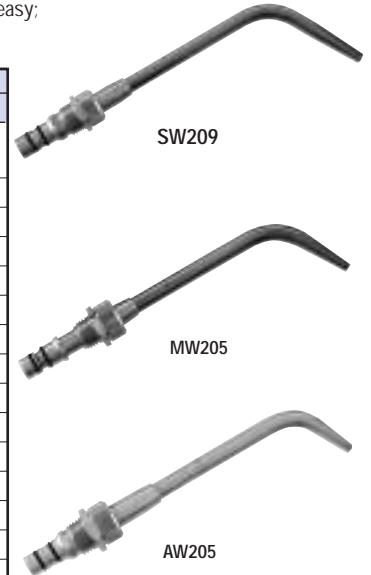
| Application                   | Capacity        | SC209     | SC229   | SC225   | SC729     | SC739 | MC509  | AC309 |
|-------------------------------|-----------------|-----------|---------|---------|-----------|-------|--------|-------|
|                               |                 | SC205     | SC229S  | SC225S  | SC725     | SC735 | MC505  |       |
|                               |                 | Acetylene | Propane | MAPP®   | Acetylene |       |        |       |
|                               | 1/8" D x 1/4" W | SC13-1    |         |         |           |       |        |       |
| Gouging                       | 1/4" D x 3/8" W | SC13-3    | SC23-3  | SC23-3M |           |       | MC13-3 |       |
|                               | 3/8" D x 1/2" W | SC13-5    | SC23-5  | SC23-5M |           |       |        |       |
| Rivet Cutting                 | 3/4" Rivets     |           |         |         |           |       | MC14-1 |       |
|                               | 1 1/2" Rivets   | SC14-3    |         |         |           |       |        |       |
| Rivet Blowing & Metal Washing | 3/8"-1/2"       | SC15-2    |         |         |           |       |        |       |
| Plate Cutting                 | 3/8"            | SC17-0    |         |         |           |       | MC17-0 |       |
| Heating                       | 123,000 BTU     | SC110*    |         |         |           |       |        |       |

\* For use with straight cutting torches only

### Exclusive Soft-Flame Welding and Brazing Tips

Smith's "Soft-Flame" welding and brazing tips provide concentrated heat for better "puddle" control - the turbulent-free flame eliminates puddle chasing for higher quality welding. The heavy wall copper gives greater resistance to reflected heat, permits cooler operation, and dissipates more heat than thin wall copper. Smith's Slip-In tip design makes tip change quick and easy; takes just seconds, hand-tightened, no wrench necessary.

| Welding Range<br>(Metal Thickness) | Use in SW1B  |         | Use in MW5A |         | Use in AW1A, AW10A |         |
|------------------------------------|--------------|---------|-------------|---------|--------------------|---------|
|                                    | Acetylene    | Propane | Acetylene   | Propane | Acetylene          | Propane |
| UP TO                              |              |         |             |         | AW200, AW20        |         |
| 1/32"                              |              |         |             |         | AW201              |         |
| 1/16"                              | SW201        |         | MW201       |         | AW201              |         |
| 1/8"                               | SW202        | SW403   | MW202       | MW403   | AW202              | AW403   |
| 5/64"                              | SW203        |         | MW203       |         | AW203              |         |
| 3/32"                              | SW204        |         | MW204       |         | AW204              |         |
| 1/8"                               | SW205        | SW405   | MW205       | MW405   | AW205              | AW405   |
| 5/32"                              | SW206        |         | MW206       |         | AW206              |         |
| 3/16"                              | SW207        |         | MW207       | MW407   | AW207              | AW407   |
| 1/4"                               | SW208        |         | MW208       |         | AW208              |         |
| 3/8"                               | SW209        | SW409   | MW209       | MW409   | AW209              |         |
| 1/2"                               | SW210        |         | MW210       |         | AW210              |         |
| 5/8"                               | SW211        |         |             | MW411   |                    |         |
| 7/8"                               | SW212        |         |             |         |                    |         |
| 1" and over                        | SW213, SW214 |         |             |         |                    |         |
| Repl. O-Ring                       | LW15         |         | MW15        |         | AW15               |         |



### Heating Tips

Fast, efficient "Smith" high capacity heating tips save money and reduce labor. Superior design provides high volume heat for bending, straightening, pre-heating, brazing, shrinking and more. Use recommended pressures with adequate gas supply for best performance. **Manifolding cylinders may be required for safe and efficient operation of larger heating tips. Acetylene must not be withdrawn at more than 1/7 of cylinder capacity per hour.**

|                     | Stock No.      | Use in Torch Handles | Use with Fuel Gas | Average      |         |
|---------------------|----------------|----------------------|-------------------|--------------|---------|
|                     |                |                      |                   | BTU's Output |         |
| Replacement O-Rings | LW15           | SW1B                 | Acetylene         | ST602        | 40,125  |
|                     |                |                      |                   | ST603        | 71,750  |
|                     |                |                      |                   | ST605        | 124,670 |
|                     |                |                      | ST610             | 194,890      |         |
|                     |                |                      | ST615             | 244,000      |         |
|                     |                |                      | ST625             | 455,000      |         |
|                     |                |                      | ST815             | 421,000      |         |
|                     |                |                      | ST635             | 614,195      |         |
|                     |                |                      | ST825             | 865,000      |         |
| MW15                | MW5A and CW5A  | Acetylene            | MT603             | 40,125       |         |
|                     |                |                      | MT605             | 73,085       |         |
|                     |                |                      | MT610             | 128,970      |         |
|                     |                | Propane**            | MT615             | 244,000      |         |
|                     |                |                      | MT810             | 121,500      |         |
|                     |                |                      | MT815             | 421,000      |         |
| AW15                | AW1A and AW10A | Acetylene            | AT603             | 24,500       |         |
|                     |                |                      | AT605             | 41,550       |         |
|                     |                | Propane**            | AT615             | 37,100       |         |



\* May also be used for natural gas or propylene - BTU output will vary.

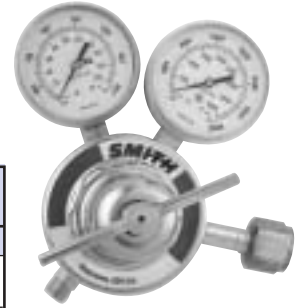
\*\* May also be used for natural gas - BTU output will vary.

† May also be used for propylene - BTU output will vary.

**Regulators / Flowmeter**

**Regulators/Flowmeters (NWSA 230) Heavy Duty Brass HB1500 Series**

HB1500 series single stage regulators comprise a complete line of versatile regulators for welding, cutting, heating and other industrial applications. Heavy duty construction and simplified design provide longer trouble-free operation.



**H190 "Hard Hat"<sup>™</sup>**  
shown with HB1500 series  
regulator

| Part Number   | Gas Used        | Delivery Pressure        | Gauges (2 1/2" Dia.)   |                      | Inlet Connection | Outlet Connection      | Max Inlet Pressure |
|---|-----------------|--------------------------|------------------------|----------------------|------------------|------------------------|--------------------|
|   |                 |                          | Inlet                  | Outlet               |                  |                        |                    |
| <b>Oxygen Regulators</b>                                  |                 |                          |                        |                      |                  |                        |                    |
| HB1510-540  | Oxygen          | 0-150 PSIG<br>0-1000 KPa | 4000 PSIG<br>28000 KPa | 200 PSIG<br>1400 KPa | CGA 540          | 3/8"-18 RH<br>"B"      | 3000 PSIG          |
| HB1510-540S <sup>2</sup>                                  | Oxygen          | 0-150 PSIG<br>0-1000 KPa | 4000 PSIG<br>28000 KPa | 200 PSIG<br>1400 KPa | CGA 540          | 3/8"-18 RH<br>"B"      | 3000 PSIG          |
| HB1511-540  | Oxygen          | 0-275 PSIG<br>0-1900 KPa | 4000 PSIG<br>28000 KPa | 400PSIG<br>2800 KPa  | CGA 540          | 3/8"-18 RH<br>"B"      | 3000 PSIG          |
| <b>Acetylene Regulators</b>                               |                 |                          |                        |                      |                  |                        |                    |
| HB1520-300  | Acetylene       | 0-15 PSIG                | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 300          | 3/8"-18 LH "B"         | 400 PSIG           |
| HB1520-300S <sup>2</sup>                                  | Acetylene       | 0-100 KPa                | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 300          | 3/8"-18 LH "B"         | 400 PSIG           |
| HB1521-510  | Acetylene       | 0-100 KPa                | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 510          | 3/8"-18 LH "B"         | 400 PSIG           |
| HB1521-510S <sup>2</sup>                                  | Acetylene       | 0-100 KPa                | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 510          | 3/8"-18 LH "B"         | 400 PSIG           |
| <b>Propane, Natural Gas and Other Fuel Gas Regulators</b> |                 |                          |                        |                      |                  |                        |                    |
| HB1522-510  | Fuel Gas        | 0-50 PSIG<br>0-350 KPa   | 400 PSIG<br>2800 KPa   | 60 PSIG<br>400 KPa   | CGA 510          | 3/8"-18 LH<br>"B"      | 400 PSIG           |
| HB1522-510S <sup>2</sup>                                  | Fuel Gas        | 0-50 PSIG<br>0-350 KPa   | 400 PSIG<br>2800 KPa   | 60 PSIG<br>400 KPa   | CGA 510          | 3/8"-18 LH<br>"B"      | 400 PSIG           |
| <b>Other Gases</b>  |                 |                          |                        |                      |                  |                        |                    |
| HB1530-580  | Nitrogen        | 0-275 PSIG<br>0-1900 KPa | 4000 PSIG<br>28000 KPa | 400 PSIG<br>2800 KPa | CGA 580          | 3/8"-18 RH<br>Internal | 3000 PSIG          |
| HB1533-320 <sup>1</sup>                                   | CO <sub>2</sub> | 0-150 PSIG<br>0-1000 KPa | 4000 PSIG<br>28000 KPa | 200 PSIG<br>1400 KPa | CGA 320          | 3/8"-18 RH<br>Internal | 3000 PSIG          |

<sup>1</sup> Flows above 100 SCFH CO<sub>2</sub> require minimum 80 PSIG outlet and heat may be needed to prevent freeze-up.

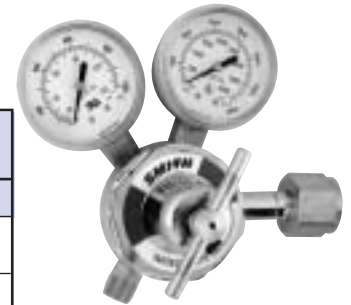
<sup>2</sup> Includes HB190 "Hard Hat"<sup>™</sup> Gauge Guard.

Note: These regulators are not suitable in cryogenics or lox or other liquid gas systems.

**Medium Duty Brass H1700 Series**

H1700 Series Brass Regulators provide durability for service in corrosive environments. Color-coded bonnet labels make gas service identification easy. Features extra sensitive Neoprene diaphragm for quick response to changes in pressure.

| Part Number   | Gas Used             | Delivery Pressure       | Gauges (2" Dia.)       |                      | Inlet Connection | Outlet Connection          | Max Inlet Pressure |
|---|----------------------|-------------------------|------------------------|----------------------|------------------|----------------------------|--------------------|
|   |                      |                         | Inlet                  | Outlet               |                  |                            |                    |
| <b>Oxygen Regulators</b>                                  |                      |                         |                        |                      |                  |                            |                    |
| H1710-540   | Oxygen               | 0-100 PSIG<br>0-700 KPa | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 540          | 3/8"-18 RH<br>"B"          | 3000 PSIG          |
| H1740-540   | Oxygen               | 0-20 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 540          | 3/8"-18 RH<br>"B"          | 3000 PSIG          |
| <b>Acetylene Regulators</b>                               |                      |                         |                        |                      |                  |                            |                    |
| H1720-300   | Acetylene            | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 300          | 3/8"-18 LH "B"             | 400 PSIG           |
| H1721-510   | Acetylene            | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 510          | 3/8"-18 LH "B"             | 400 PSIG           |
| <b>Propane, Natural Gas and Other Fuel Gas Regulators</b> |                      |                         |                        |                      |                  |                            |                    |
| H1722-510   | Fuel Gas             | 0-50 PSIG<br>0-350 KPa  | 400 PSIG<br>2800 KPa   | 60 PSIG<br>400 KPa   | CGA 510          | 3/8"-18 LH<br>"B"          | 400 PSIG           |
| <b>Other Gases</b>  |                      |                         |                        |                      |                  |                            |                    |
| H1730-580   | Argon/<br>Nitrogen   | 0-100 PSIG<br>0-700 KPa | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 580          | 3/8"-18 RH<br>Internal     | 3000 PSIG          |
| H1733-320 <sup>1</sup>                                    | CO <sub>2</sub>      | 0-100 PSIG<br>0-700 KPa | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 320          | 3/8"-18 RH<br>Internal     | 3000 PSIG          |
| H1732-350   | Hydrogen/<br>Methane | 0-100 PSIG<br>0-700 KPa | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 350          | 3/8"-18 LH "B"<br>Internal | 3000 PSIG          |



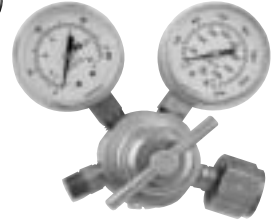
**H195 "Hard Hat"<sup>™</sup>**  
Gauge/Regulator Guards

<sup>1</sup> Flows above 100 SCFH CO<sub>2</sub> require minimum 80 PSIG outlet and heat may be needed to prevent freeze-up.

**Regulators / Flowmeters & Regulator Twin Packs**

**Regulators/Flowmeters (NWSA 230) Standard Duty Brass H1900 Series**

Economical, compact single stage design provides efficient and dependable control of gases. H1980 series regulators are engineered to maximize performance and fine flame adjustment of Handi-Heat™ air/fuel soldering and heating torches.



H195 "Hard Hat"™  
Gauge/Regulator Guards

| Part Number   | Gas Used                     | Delivery Pressure       | Gauges (2" Dia.)       |                      | Inlet Connection | Outlet Connection    | Max Inlet Pressure |
|---|------------------------------|-------------------------|------------------------|----------------------|------------------|----------------------|--------------------|
|   |                              |                         | Inlet                  | Outlet               |                  |                      |                    |
| <b>Oxygen Regulators</b>                                  |                              |                         |                        |                      |                  |                      |                    |
| H1910-540   | Oxygen                       | 0-75 PSIG<br>0-500 KPa  | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 540          | ½"-18 RH<br>"B"      | 3000 PSIG          |
| H1940-540   | Oxygen                       | 0-20 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 540          | ½"-18 RH<br>"B"      | 3000 PSIG          |
| H1947-540   | Oxygen                       | 0-20 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 540          | ¾"-24 RH "A"<br>"B"  | 3000 PSIG          |
| H1911-540   | Oxygen                       | 0-125 PSI<br>0-830 KPa  | 4000 PSIG<br>28000 KPa | 400 PSI<br>2800 KPa  | CGA 540          | ½"-18 RH "B"         | 3000 PSIG          |
| <b>Acetylene Regulators</b>                               |                              |                         |                        |                      |                  |                      |                    |
| H1941-520   | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 520          | ½"-18 LH "B"         | 400 PSIG           |
| H1942-300   | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA300           | ½"-18 LH "B"         | 400 PSIG           |
| H1944-200   | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 200          | ½"-18 LH "B"         | 400 PSIG           |
| H1945-510   | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | 30 PSIG<br>200 KPa   | CGA 510          | ½"-18 LH "B"         | 400 PSIG           |
| H1946-200   | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 200          | ¾"-24 LH "A"         | 400 PSIG           |
| H1983-520 <sup>1</sup>                                    | Acetylene                    | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | N/A                  | CGA 520          | ½"-18 LH "B"         | 400 PSIG           |
| <b>Propane, Natural Gas and Other Fuel Gas Regulators</b> |                              |                         |                        |                      |                  |                      |                    |
| H1943-350   | Hydrogen                     | 0-15 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 350          | ½"-18 LH<br>"B"      | 3000 PSIG          |
| H1945-510   | LP/<br>Acetylene             | 0-15 PSIG<br>0-100 KPa  | 4000 PSIG<br>28000 KPa | 30 PSIG<br>200 KPa   | CGA 510          | ½"-18 LH<br>"B"      | 400 PSIG           |
| H1982-510 <sup>1</sup>                                    | LP                           | 0-15 PSIG<br>0-100 KPa  | 400 PSIG<br>2800 KPa   | N/A                  | CGA 510          | ½"-18 LH<br>"B"      | 400 PSIG           |
| <b>Inert, Argon/Nitrogen/CO<sub>2</sub></b>               |                              |                         |                        |                      |                  |                      |                    |
| H1931-580   | Argon/<br>Nitrogen/<br>Inert | 0-125 PSIG<br>0-830 KPa | 4000 PSIG<br>28000 KPa | 400 PSIG<br>2800 KPa | CGA 580          | ½"-18 RH<br>Internal | 3000 PSIG          |
| H1933-320   | CO <sub>2</sub>              | 0-100 PSIG<br>0-700 KPa | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 320          | ½"-18 RH<br>Internal | 3000 PSIG          |
| H1932-320   | CO <sub>2</sub>              | 0-50 PSI<br>0-350 PSI   | 4000 PSIG<br>28000 KPa | 150 PSIG<br>1000 KPa | CGA 320          | ½"-18 RH<br>Internal | 3000 PSIG          |

<sup>1</sup> Single gauge regulator for air/fuel applications (not for use with oxy/fuel torches)



**H1900 Series Regulator Twin Packs**

FEATURE BENEFITS: Solid Brass Industrial Construction, Durable Teflon® High Pressure Seat, Corrosion Resistant Brass Gauges, Convenient & Economical "Twin Pack" - 100% TESTED AND INSPECTED

|             |  |                           |        |  |                           |                        |
|-------------|--|---------------------------|--------|--|---------------------------|------------------------|
| <b>HTP1</b> | H1940-540<br>Delivery Press: 0-20 PSIG | Inlet Connection: CGA 540 | Oxygen | H1945-510<br>Delivery Press: 0-15 PSIG | Inlet Connection: CGA 510 | Fuel Gas: LP/Acetylene |
| <b>HTP2</b> | H1910-540<br>Delivery Press: 0-75 PSIG | Inlet Connection: CGA 540 | Oxygen | H1945-510<br>Delivery Press: 0-15 PSIG | Inlet Connection: CGA 510 | Fuel Gas: LP/Acetylene |
| <b>HTP3</b> | H1910-540<br>Delivery Press: 0-75 PSIG | Inlet Connection: CGA 540 | Oxygen | H1944-200<br>Delivery Press: 0-15 PSIG | Inlet Connection: CGA 200 | Fuel Gas: Acetylene    |
| <b>HTP4</b> | H1940-540<br>Delivery Press: 0-20 PSIG | Inlet Connection: CGA 540 | Oxygen | H1944-200<br>Delivery Press: 0-15 PSIG | Inlet Connection: CGA 200 | Fuel Gas: Acetylene    |
| <b>HTP5</b> | H1910-540<br>Delivery Press: 0-75 PSIG | Inlet Connection: CGA 540 | Oxygen | H1942-300<br>Delivery Press: 0-15 PSIG | Inlet Connection: CGA 300 | Fuel Gas: Acetylene    |

## Regulators / Flowmeters

### Regulators/Flowmeters (NWSA 230)

#### Single Stage Flowmeter Regulators

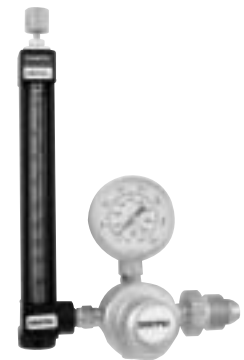
Compact, economical single-stage flowmeter regulators provide efficient and accurate regulation. Has many features found in more expensive regulators: sensitive rubber diaphragm, double filters, rugged, corrosion resistant solid brass bonnet and polished brass gauge.

- Flowmeter Tube has a unique ball guide that centers the ball float in the flow tube and keeps it centered. Other tubes must stand absolutely perpendicular to assure flow accuracy. Without Smith's exclusive self-centering flow tube the ball may float off center and the actual gas flow can be up to 2-1/2 times greater than is indicated.

#### H1950 Series Single Stage Flowmeter Regulators-Lexan™ Flow Tube

| Stock No.                    | Gas Used                 | Flow Range | Preset Delivery Pressure | Flowmeter | Inlet Connection | Outlet Connection   | Maximum Inlet Pressure |
|------------------------------|--------------------------|------------|--------------------------|-----------|------------------|---------------------|------------------------|
| H1950-580                    | Argon or CO <sub>2</sub> | 0-80 SCFH  | 80 PSIG                  | H1103     | CGA 580          | ½" - 18 RH Internal | 3000 PSIG              |
| H1955-320                    | Argon or CO <sub>2</sub> | 0-80 SCFH  | 80 PSIG                  | H1103     | CGA 320          | ½" - 18 RH Internal | 3000 PSIG              |
| H1951-580                    | Argon                    | 0-60 SCFH  | 30 PSIG                  | H1104     | CGA 580          | ½" - 18 RH Internal | 3000 PSIG              |
| *H1954-580<br>"Select-O-Gas" | Argon/CO <sub>2</sub>    | 0-60 SCFH  | 30 PSIG                  | H1230     | CGA-580          | ½" - 18 RH Internal | 3000 PSIG              |
|                              | Helium                   | 0-190 SCFH | 30 PSIG                  | H1230     | CGA-580          | ½" - 18 RH Internal | 3000 PSIG              |
|                              | General/<br>Any Gas      | 0-10 Range | 30 PSIG                  | H1230     | CGA-580          | ½" - 18 RH Internal | 3000 PSIG              |

For Regulator/Hose Pak with 6' hose, add -H to stock number.

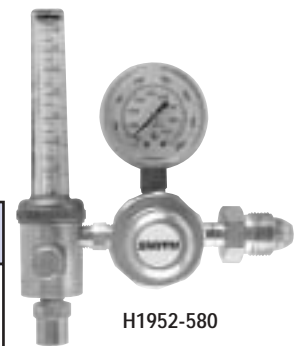


H1950-580

#### SELEC-O-GAS™ Regulator

Does the jobs of more than 4 common flowmeters. Has 4 separate scales: ARGON, CO<sub>2</sub>, HELIUM and GENERAL. "General" scale can be used for any non-corrosive gas . . . conversion chart supplied with regulator.

| Part No.                  | Gas Used        | Flow Range | Preset Delivery Pressure | Flowmeter  | Inlet Connection | Outlet Connection   | Maximum Inlet Pressure |
|---------------------------|-----------------|------------|--------------------------|------------|------------------|---------------------|------------------------|
| H1952-580<br>Selec-O-Gas™ | Helium          | 0-200 SCFH | 50 PSIG                  | CF-4000 RH | CGA-580          | ½" - 18 RH Internal | 3000 PSIG              |
|                           | Argon           | 0-70 SCFH  |                          |            |                  |                     |                        |
| H1956-320<br>Selec-O-Gas™ | CO <sub>2</sub> | 0-60 SCFH  | 50 PSIG                  | CF-4000 RH | CGA-320          | ½" - 18 RH Internal | 3000 PSIG              |
|                           | Argon           | 0-70 SCFH  |                          |            |                  |                     |                        |



H1952-580

#### Economy H2051 Single Stage Flowmeter Regulator

Exceptional value and compact design, provides precise shield gas regulation for MIG and TIG welding applications and more. Shatter resistant polycarbonate flow tube features triple scale for Argon, Helium and Argon/CO<sub>2</sub>, and has a packless O-ring flow tube seal which reduces maintenance. Precision flow adjustment valve locks flow at desired setting. Regulator features 3-year warranty.

| Stock No. | Gas Used                               | Flow Range | Preset Delivery Pressure | Inlet Connection | Outlet Connection   | Maximum Inlet Pressure |
|-----------|--|------------|--------------------------|------------------|---------------------|------------------------|
| H2051-580 | Argon/CO <sub>2</sub><br>Argon, Helium | 0-50 SCFH  | 30 PSIG                  | CGA 580          | ½" - 18 RH Internal | 3000 PSIG              |

For Regulator/Hose pack with 10' hose, add -H to stock number.



H2051-580

*Weldit*



### The Original Gas Saving Method of Cutting Production Cost

Oxygen and acetylene consumption cut up to 25 or 30 percent. Many users consider the increase in working operations soon pays for the small cost of the Gasaver. Used by America's largest production plants. Listed as standard by Underwriters Laboratory and the New York City Board of Standards and Appeals.

#### WEL-W-100 Model M Oxy/MAPP Gasaver

Now the original Weldit gas saving method is available for MAPP and oxygen use. Standard Model "E" Gasaver but uses the W-1740 MAPP pilot assembly.

#### WEL-W-101 Model E Oxy/Acet. Gasaver

For general use on all types of acetylene and oxygen operations. Gasavers can be installed in any convenient location—on the line between regulators and torch—the closer the torch, the greater the savings in oxygen and acetylene.

#### WEL-W-102 Model EI Inert Gas/Water Gasaver

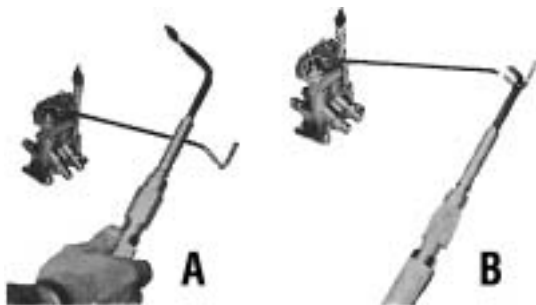
Positive shut off of gas and water for inert arc-welding operations. Equipped with standard water connections.

#### WEL-W-103 Model ELP Oxy/LP Fuel Gasaver

Equipped with separate fuel inlet for use with low pressure fuel gas with injector type torches, you must use a separate source of high pressure pilot gas with this model. Normally supplied with W1508 Propane pilot light. Pilots for other gases available upon request.

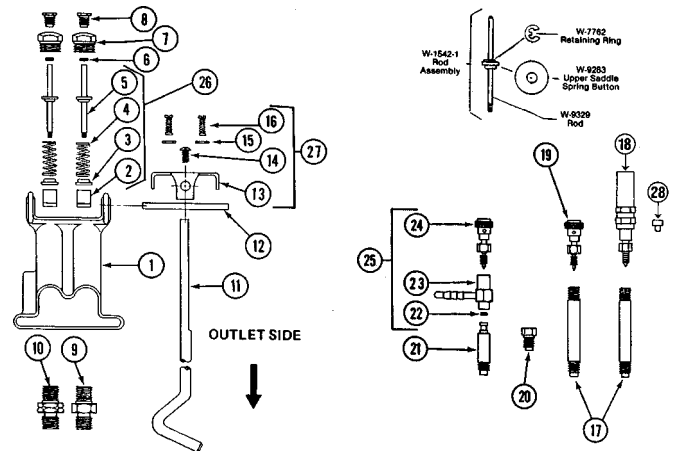
#### WEL-W-104 Model P Oxy/Propane Gasaver

Standard gasaver equipped with W1508 pilot light for use with propane or natural gas at 2 psi or more.



"A" – Shows the ignited torch about to be hung on the lever rod of the Gasaver.

"B" – When the torch is hung in place, the flame is automatically extinguished. To relight, pick torch off lever rod and pass over pilot light which instantly ignites it to predetermined flame.



| Reference Number | Part Number  | Description                           | Quantity Needed |
|------------------|--------------|---------------------------------------|-----------------|
| 1                | WEL-W-9303   | Body                                  | 1               |
| 2                | WEL-W-8446   | Seat                                  | 2               |
| 3                | WEL-W-9328   | Lower Saddle Spring Button            | 2               |
| 4                | WEL-W-7809   | Spring                                | 2               |
| 5                | WEL-W-1542   | Rod Assembly, Plunger                 | 2               |
| 6                | WEL-LP-112   | O-Ring                                | 2               |
| 7                | WEL-W-6183   | Plunger Rod Bushing                   | 2               |
| 8                | WEL-W-6045   | Packing Nut                           | 2               |
| 9                | WEL-103-0024 | Oxygen Inlet/Outlet                   | 2               |
|                  | WEL-103-0128 | Water Inlet/Outlet                    | 2               |
| 10               | WEL-103-0025 | Gas Inlet/Outlet                      | 2               |
|                  | WEL-103-0127 | Inert Inlet/Outlet                    | 2               |
| 11               | WEL-W-9286   | Lever                                 | 1               |
| 12               | WEL-W-9315   | Pinion Rod                            | 1               |
| 13               | WEL-W-8805   | Saddle                                | 1               |
| 14               | WEL-W-7730   | Lever Rod Lock Screw                  | 1               |
| 15               | WEL-W-7887   | Adjusting Screw Lock Nut              | 2               |
| 16               | WEL-W-7736   | Adjusting Screw                       | 2               |
| 17               | SMT-15163    | Pilot Light Tube                      | 1               |
| 18               | WEL-W-1740   | Pilot - MAPP - W-100                  | 1               |
| 19               | WEL-W-1507   | Pilot Light - Acetylene - W-101       | 1               |
|                  | WEL-W-9324   | Lava Pilot Light Tip                  | 1               |
| 20               | WEL-W-6232   | Plug for W-102                        | 1               |
| 21               | WEL-W-6702   | Pilot Base for W-103                  | 1               |
| 22               | WEL-W-7738   | Set Screw for W-103                   | 1               |
| 23               | WEL-W-1506   | Pilot Adapter W-103                   | 1               |
| 24               | WEL-W-1508   | Pilot Light, Natural Gas W-103; W-104 | 1               |
| 25               | WEL-W-1533   | Pilot Light Assembly for W-103        | 1               |
| 26               | WEL-W-1566   | Plunger Assembly                      | 1               |
| 27               | WEL-W-10005  | Saddle Assembly                       | 1               |
| 28               | WEL-LP-607-1 | Orifice                               | 1               |

**150 Amp Tig Torch & Accessories**

**KG PRODUCTS**



The 150 amp, gas-cooled TIG torch is for medium duty applications that use up to 150 amp AC or DC straight polarity. This torch has a separate gas hose and power cable, either can be replaced or repaired independent of each other, reducing maintenance costs.

**Ordering Information**

Outfits: Torch with valve assembly, valve plug, three size backcaps; alumina nozzles (1/4" & 3/8") and collets (.040", 1/16", 3/32").

**Outfits**



| Part No. | Description  |
|----------|--|
| 1172A    | 150 amp, Vis-Arc II, 12-1/2' gas hose and power cable  |
| 1173A    | With 25' gas hose and power cable                      |
| 1174     | 150 amp, Vis-Arc III, 12-1/2' gas hose and power cable |
| 1175     | With 25' gas hose and power cable                      |

**Assemblies**

| Part No. | Description  |
|----------|--|
| 1176A    | 150 amp, Vis-Arc II, 12-1/2' gas hose and power cable  |
| 1177A    | With 25' gas hose and power cable                      |
| 1178*    | 150 amp, Vis-Arc III, 12-1/2' gas hose and power cable |
| 1179*    | With 25' gas hose and power cable                      |

\* VIS-ARC III has 1 piece rubber power cable

**Accessories:**

|  | Part No. | Description      |
|--|----------|------------------|
| Alumina Nozzles<br> | 23008    | 1/4" x 1-1/2"    |
|  | 23010    | 5/16" x 1-1/2"   |
|  | 23012    | 3/8" x 1-1/2"    |
|  | 23014    | 7/16" x 1-1/2"   |
|  | 23016    | 1/2" x 1-1/2"    |
|  | 23108    | 1/4" x 3/4"      |
|  | 23110    | 5/16" x 3/4"     |
|  | 23112    | 3/8" x 3/4"      |
|  | 23114    | 7/16" x 3/4"     |
| Lava Nozzles<br>    | 13012    | 3/8" x 1-1/4"    |
|  | 13014    | 7/16" x 1-13/16" |
|  | 13108    | 1/4" x 2-5/8"    |
|  | 13110    | 5/16" x 1-1/4"   |
|  | 13112    | 3/8" x 1-7/8"    |
|  | 13114    | 7/16" x 1-1/4"   |

**Specifications**

|                        |  |
|------------------------|--|
| Duty cycle at 150 amps | 60%  |
| Duty cycle at 120 amps | 100%   |
| Weight/without cable   | 6 oz.  |
| Length                 | 8-1/4"   |
| Head Angle             | 75°  |
| Head Diameter          | 3/4"   |
| Handle Diameter        | 3/4"   |
| Torch Head             | Short Cap 2"<br>Medium Cap 3-3/8"<br>Long Cap 7-3/8" |
| Electrode Sizes        | .040 to 3/32"  |
| Nozzles                | Alumina & Lava                                       |
| Gas Connection         | 5/8" - 18RH  |

**Parts:**

| Part No. | Description                          |
|----------|--------------------------------------|
| R401293  | Vis-Arc Torch Head w/ Valve Assembly |
| R390086  | Fiberglass Washer                    |
| R401288  | Valve Assembly                       |
| R401295  | Valve Plug                           |
| R400407  | Collet: .040"                        |
| R400406  | Collet: 1/16"                        |
| R400405  | Collet: 3/32"                        |
| R390686  | Short Backcap                        |
| R390805  | Medium Backcap                       |
| R390690  | Long Backcap                         |