

# SMITH™



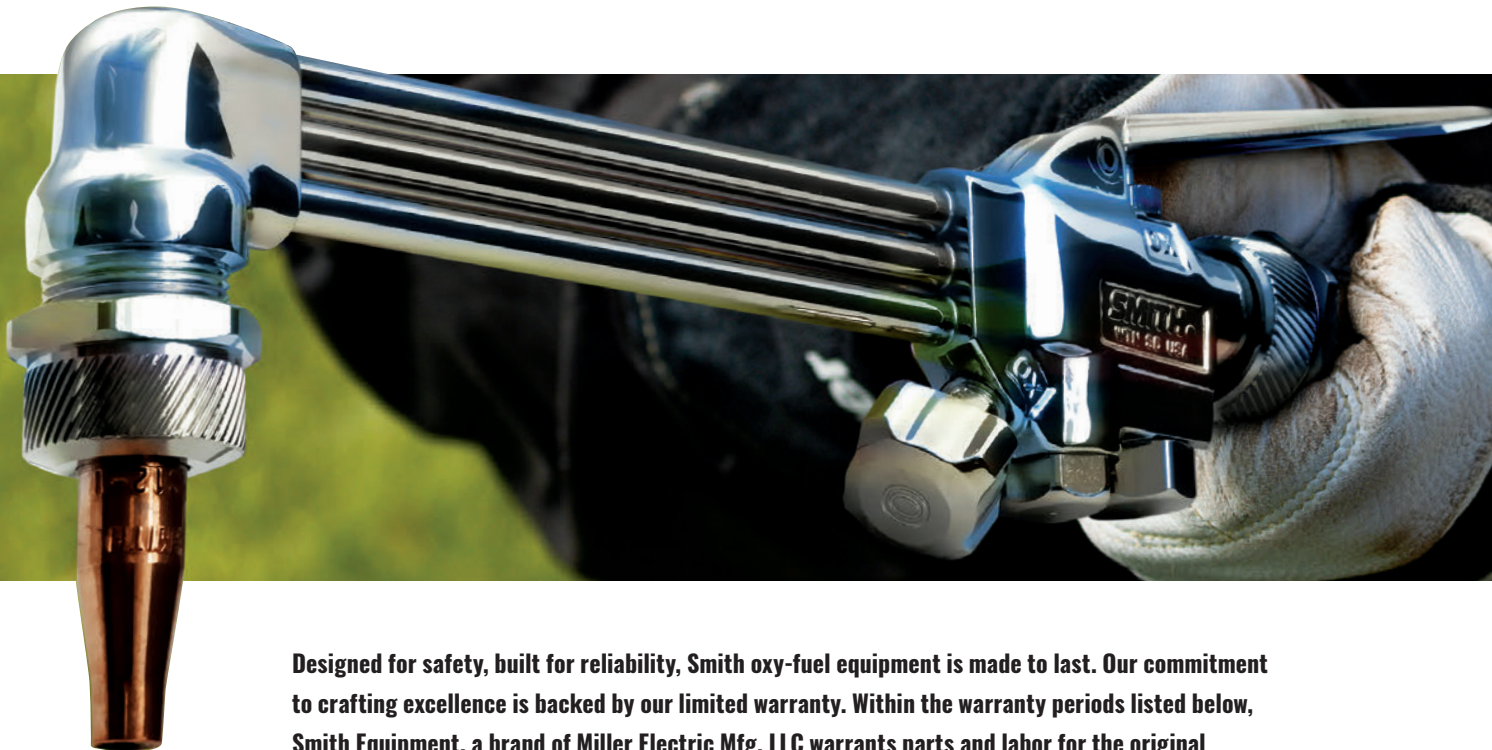
## GAS EQUIPMENT CATALOG

# Crafting Excellence Since 1916

Since it was founded in 1916 by Elmer Smith, Smith has continued to set the industry standard for oxy-fuel equipment.

Our commitment to crafting excellence has earned us a reputation for manufacturing high-quality equipment that welders and professionals trust.

Smith offers a comprehensive range of gas equipment and gas control products. From torches to regulators, our lineup meets the highest standards. Our equipment is meticulously designed for user safety without compromising on performance. We understand the diverse needs of oxy-fuel applications, providing solutions that empower professionals to achieve superior results with equipment they can rely on.



## Smith Warranty

**Designed for safety, built for reliability, Smith oxy-fuel equipment is made to last. Our commitment to crafting excellence is backed by our limited warranty. Within the warranty periods listed below, Smith Equipment, a brand of Miller Electric Mfg. LLC warrants parts and labor for the original purchaser with proof of purchase. Exclusions apply. See full details at [MillerWelds.com](http://MillerWelds.com).**

**25 Years** — Torch Handles, Cutting Attachments, Straight Cutting Torches and Machine Torches

**3 Years** — Series 22, 30, 32, 35, 36, 40, 46 Regulators, and all Flowmeters, Flow Gauges, and Flowmeter Regulators

**1 Year** — Gas Axe Cutting Torches, HVAC/Purge Regulators, Low-Pressure Three-Stage Nitrogen Regulators, Little Torch, Quickbraze Torch, Handi-Heat/Silver Smith Torch, and Gasaver

## FUEL GASES

Below is a list of fuel gases and their trade names commonly used in oxy-fuel processes, with acetylene being the most widely used option.

### Fuel gases

GENERIC NAME	TRADE NAME
Acetylene	—
Propane/Propane-Based Mixtures	Propane-butane, Flamex, Chem-O-Lene, Star Flame C, HGX, Chemtane
Natural Gas (Methane)	Natural Gas, City Gas
Propylene	HPG, HEF



MillerWelds.com  
1-800-426-4553



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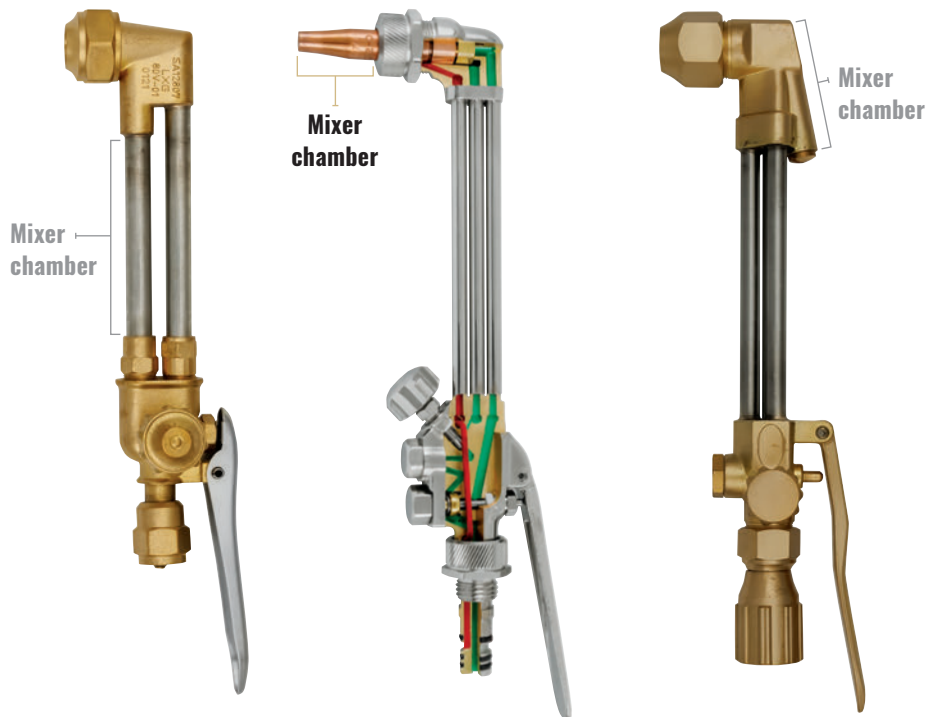
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# Are All Oxy-Fuel Torches the Same?

All oxy-fuel torches use a combustion process, mixing oxygen and fuel to cut, heat, braze and weld, but not all oxy-fuel torches mix oxygen and fuel in the same location.



## TUBE MIX

**Two Tubes** —  
Preheat Mixed Gas  
Cutting Oxygen

## SMITH IN-TIP MIX

**Three Tubes** —  
Preheat Fuel  
Preheat Oxygen  
Cutting Oxygen

## HEAD MIX

**Three Tubes** —  
Preheat Fuel  
Preheat Oxygen  
Cutting Oxygen

# Why Does the Location of Mixing Matter?

In the event of a sustained backfire where the flame is burning back inside of the torch, the flame will typically travel up to the mixer chamber. Continued burning can cause torch damage or fire, affecting both safety of the operator and performance of the torch.

## SAFETY

In a tube-mix design, during a sustained backfire, the mixed gas is burning inside of the torch tube. With the **Smith three-tube in-tip mix design**, mixed gas is isolated to the tip for safety.

## PERFORMANCE

In a tube-mix or head-mix design, during a sustained backfire, damage to the torch tube or head can result, increasing downtime and cost of repair. With the **Smith three-tube in-tip mix design** the torch remains undamaged, decreasing downtime and cost of repair. Every tip replacement is a new mixer.

# Torch Comparison — Which is Right for You?



	STANDARD-DUTY COMBINATION TORCH (pages 10–13)	TOUGH CUT™ COMBINATION TORCH (pages 10–13)	MEDIUM-DUTY COMBINATION TORCH (pages 10–13)	HEAVY-DUTY COMBINATION TORCH (page 10–13)	HAND CUTTING TORCH (pages 6–7)	GAS AXE™ TORCH (pages 6/8)
CUTTING CAPABILITY	Up to 3 inches (76 mm)	Up to 6 inches (152 mm)	Up to 6 inches (152 mm)	Up to 8 inches (203 mm)	Up to 12 inches (305 mm)	Up to 20 inches (508 mm)
HEATING CAPABILITY	Up to 41,550 Btu	Up to 128,970 Btu	Up to 128,970 Btu	Up to 194,890 Btu	—	—
WELDING CAPABILITY	Up to 1/2 inch (12.7 mm)	Up to 3/8 inch (9.5 mm)	Up to 3/8 inch (9.5 mm)	Up to 1/2 inch (12.7 mm)	—	—
TYPICAL APPLICATIONS	Occasional light-duty cutting, heating and welding applications: Maintenance and repair HVAC Plumbing	Occasional medium-duty cutting, heating and welding applications: Farm and ranch Metal fabrication Auto repair	Everyday medium-duty cutting, heating and welding applications: Shipbuilding Railroad Pipeline Metal fabrication Construction	Everyday heavy-duty cutting, heating and welding applications: Shipbuilding Railroad Pipeline Metal fabrication Construction	Everyday heavy-duty cutting applications: Shipbuilding Railroad Metal fabrication Construction	Extra heavy-duty cutting applications: Salvage Demolition
FEATURES						
IN-TIP MIXING	•	•	•	•	•	•
THREE-TUBE DESIGN	•	•	•	•	•	•
NICKEL-PLATING	•	•	•	•	•	
FLO-TROL™ CHECK VALVE (reverse-flow check valve)			•	•		
REVERSIBLE CUTTING LEVER					•	•
360-DEGREE TORCH HEAD ROTATION	•	•	•	•		
WARRANTY	25 years	25 years	25 years	25 years	25 years	1 year

# Cutting Torches

SC  
Gas Axe™  
Machine

Heavy-duty  
Extra-heavy-duty  
Heavy-duty

## 100 percent tested and inspected.

Cutting torches feature solid construction and ease of operation for applications such as construction, fabrication, shipyards, salvage and other related industries. For use with industrial fuel gases including acetylene, propane/natural gas and propylene.

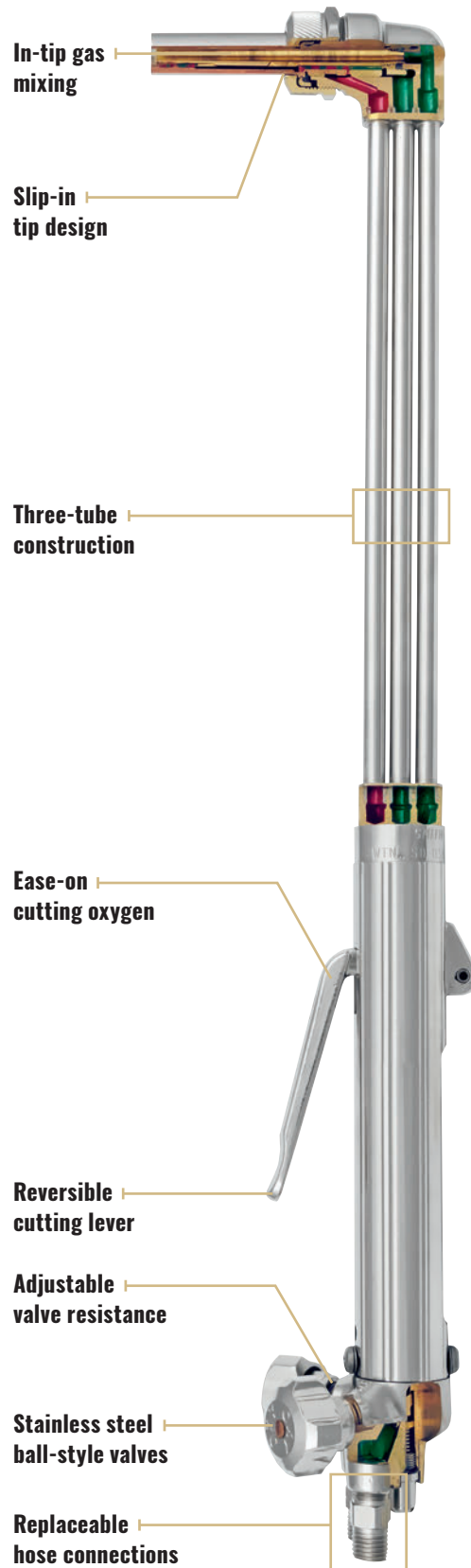
Torches have silver-brazed joints throughout, heads and butts are machined from dense forgings, and stainless steel ball-style control valves to provide positive gas shut-off.

## CONSTRUCTION FEATURES

- ▶ **In-tip gas mixing**  
Ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.
- ▶ **Slip-in tip design**  
No wrench is needed, allowing for quick and easy tip changes.
- ▶ **Three-tube construction**  
Keeps gases separate in the torch until mixed at the tip for safety.
- ▶ **Ease-on cutting oxygen**  
Provides exceptionally smooth application of cutting oxygen, reducing keyholing and slag blowback without sacrificing extremely high cutting capacity.
- ▶ **Reversible cutting lever**  
Top- or bottom-mount lever for ease of use.
- ▶ **Adjustable valve resistance**  
PTFE packing provides a gas-tight seal while allowing the “drag” to be adjusted to the individual preference.
- ▶ **Stainless steel ball-style valves**  
Provides smooth adjustment and positive seating to eliminate leaks.
- ▶ **Replaceable hose connections**  
Connections are easily replaced if damaged, reducing maintenance costs.
- ▶ **Thick-wall forged brass head (Gas Axe)**  
Super-tough, thick-walled head reduces heat warping and damage.
- ▶ **Durable brass raised-rib handle (Gas Axe)**  
Provides comfort and positive grip and reduces operator fatigue.



Cutting torches are warrantied for 25 years, parts and labor (except Gas Axe™ torches — one year).





SC229

SC229S

## SC SERIES

**Cuts up to 12-inch (305 mm) thick steel with acetylene, propane/natural gas or propylene**

Ideal for construction, fabrication and shipyard industries. SC229S has a thicker-walled manganese bronze head for more severe service applications.

Several models of standard and special purpose tips are available for use in SC Series cutting torches (see chart below).

### Specifications

STOCK NUMBER	HEAD ANGLE IN DEGREES	LENGTH INCHES (MM)	WEIGHT POUNDS (KG)
SC225	75	20.5 (521)	2.7 (1.22)
SC229	90		
SC229S	90		
SC220	180	21 (533)	2.7 (1.22)
SC365	75	36 (914)	3.3 (1.5)
SC369	90		
SC360	180		

### Compatible tips (see pages 16–18, 22)

STOCK NUMBER	GAS SERVICE	DESCRIPTION
SC12-00 to SC12-6 SC12-4X9 SC14-3 SC13-3 and SC13-5 SC83	Acetylene	General cutting tips Extra-long cutting tip Rivet/riser cutting tip Gouging tips Heating tip
SC40-0 to SC40-4 SC46-2, SC46-4 to SC46-6 SC50-0 to SC50-6 SC2-2 and SC2-4 SC112	Propane/ natural gas	General cutting tips Dirty or coated metal cutting tips Heavy preheat cutting tips Gouging tips Heating tip
SC60-0 to SC60-6	Propylene	Medium preheat cutting tips

**Repair kit** SC100

**Valve assembly replacement** LW14B-1



**SC929**

## GAS AXE™

**Cuts up to 12-inch (305 mm) thick steel with acetylene or propylene, and up to 20-inches (508 mm) with propane/natural gas**

Engineered and designed for severe applications with super-tough, thick-wall brass forged heads to reduce warping and distortion. Durable brass raised-rib handle provides comfort and positive grip, reducing operator fatigue.

Ideal for scrap and demolition cutting.

Several models of standard and special purpose tips are available for use in Gas Axe cutting torches (see chart below).

### Specifications

STOCK NUMBER	HEAD ANGLE IN DEGREES	LENGTH INCHES (MM)	WEIGHT POUNDS (KG)
SC925	75	21 (533)	3.5 (1.6)
SC929	90		
SC935	75	36 (914)	4.2 (1.9)
SC939	90		
SC930	180	48 (1,219)	4.8 (2.2)
SC945	75		
SC949	90		
SC940	180	72 (1,829)	6.2 (2.8)
SC965	75		
SC969	90		
SC960	180		

### Compatible tips (see pages 16–18, 22)

STOCK NUMBER	GAS SERVICE	DESCRIPTION
SC12-00 to SC12-6 SC12-4X9 SC14-3 SC13-3 and SC13-5 SC83	Acetylene	General cutting tips Extra-long cutting tip Rivet/riser cutting tip Gouging tips Heating tip
SC40-0 to SC40-4 SC46-2, SC46-4 to SC46-6 SC50-0 to SC50-9 SC2-2 and SC2-4 SC112	Propane/ natural gas	General cutting tips Dirty or coated metal cutting tips Heavy preheat cutting tips Gouging tips Heating tip
SC60-0 to SC60-6	Propylene	Medium preheat cutting tips

### Recommended high-flow regulators (see pages 26–27)

(for use with SC50-6 to SC50-9 heavy preheat propane/natural gas cutting tips)

STOCK NUMBER	GAS SERVICE	DESCRIPTION
40-175-540 40-275-540	Oxygen	Series 40™ heavy-duty single-stage cylinder regulators
46-175		Series 46™ heavy-duty single-stage station regulators
40-50-510	Propane/ natural gas	Series 40™ heavy-duty single-stage cylinder regulators
46-50		Series 46™ heavy-duty single-stage station regulators

**Repair kit** 15772

**Valve assembly replacement** LW14B-1

## TWO-HOSE TORCHES

**Cuts up to 12 inches (305 mm) with acetylene, propane/natural gas or propylene**

Heavy-duty machine torches provide superior performance. Ease-on cutting lever reduces blowback in piercing and keyholing in restarts, extending tip life and providing high-quality precision cuts.

Torch barrels easily adjust to four positions at 90-degree increments and have a 1.375-inch (9.5 mm) diameter with a 32 pitch gear rack to fit most machines.

Ideal for shipbuilding, fabrication and pipeline industries.

Several models of standard and special purpose tips are available for use in machine cutting torches (see chart below).



SC770

SC772A

### Specifications

STOCK NUMBER	BARREL DIAMETER INCHES (MM)	LENGTH INCHES (MM)	WEIGHT POUNDS (KG)
SC770	1.375 (9.5)	8 (203)	2.9 (1.32)
SC772A		13.75 (349)	3.9 (1.77)

### Compatible tips (see pages 16–18, 22)

STOCK NUMBER	GAS SERVICE	DESCRIPTION
SC12-00 to SC12-6 SC12-4X9 SC14-3 SC13-3 and SC13-5 SC83	Acetylene	General cutting tips Extra-long cutting tip Rivet/riser cutting tip Gouging tips Heating tip
SC40-0 to SC40-4 SC46-2, SC46-4 to SC46-6 SC50-0 to SC50-6 SC2-2 and SC2-4 SC112	Propane/ natural gas	General cutting tips Dirty or coated metal cutting tips Heavy preheat cutting tips Gouging tips Heating tip
SC60-0 to SC60-6	Propylene	Medium preheat cutting tips

# Combination Torch Cutting Attachments

SC Heavy-duty  
 MC/Toughcut™ Medium-duty  
 AC Standard-duty

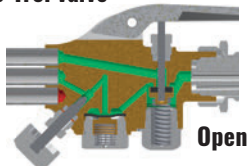
## 100 percent tested and inspected.

Cutting attachments are available in three capacities and have silver-brazed joints to provide overall strength and rigidity for improved safety and performance under rugged conditions.

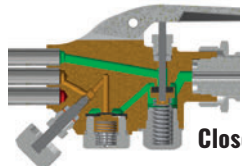
## CONSTRUCTION FEATURES

- ▶ **In-tip gas mixing**  
Ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.
- ▶ **Slip-in tip design**  
No wrench is needed, allowing for quick and easy tip changes.
- ▶ **Silver-brazed nickel-plated torch joints**  
Provides strength, leak resistance and heat protection.
- ▶ **Three-tube construction**  
Keeps gases separate in the cutting attachment until mixed at the tip for safety.
- ▶ **Center pre-heat valve**  
Universal usage for both left- and right-handed operators.
- ▶ **Flo-Trol™ valve (SG200 and MC500 Series)**  
Prevents seat burn out due to reverse flow of mixed gases, helping to reduce maintenance costs (see below).
- ▶ **Ease-on cutting oxygen**  
Provides exceptionally smooth application of cutting oxygen, reducing keyholing and slag blowback without sacrificing extremely high cutting capacity.
- ▶ **Triple o-ring seal**  
Allows easy 360-degree torch head rotation to reduce operator fatigue.

### Flo-Trol valve



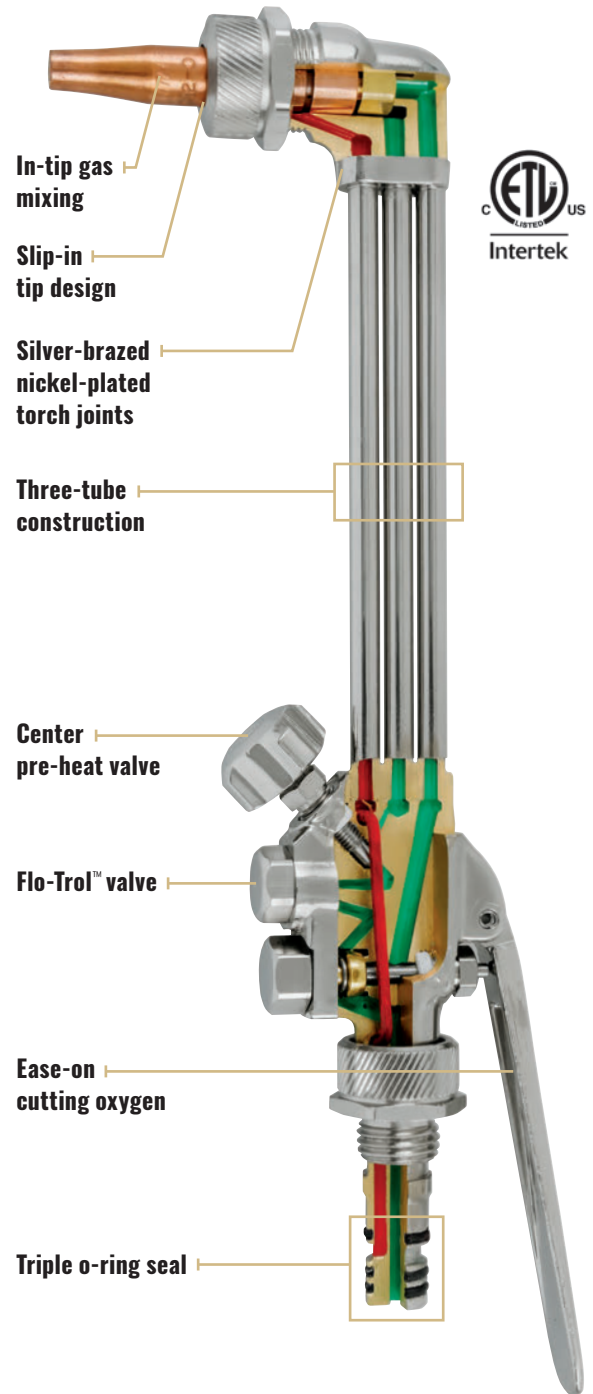
Open



Closed

When the oxygen supply pressure is able to overcome the force of the spring, the Flo-Trol valve opens, allowing the free flow of preheat oxygen.

If there is insufficient oxygen, the oxygen is unable to overcome the force of the Flo-Trol spring, stopping the flow of preheat oxygen or mixed gas travelling back to the system from a starved tip.



Torch cutting attachments are warranted for 25 years, parts and labor.

# Combination Torch Cutting Attachments

See literature GE/26.0

## SC200 SERIES HEAVY-DUTY CUTTING ATTACHMENTS

**Cuts up to 8-inch (203 mm) thick steel with acetylene, propane/natural gas or propylene.**

For heavy-duty cutting requiring high gas flow.

Ideal for shipbuilding, railroad, metal fabrication, salvage, construction and demolition, and pipeline industries.

Several models of standard and special-purpose tips are available for use in SC200 Series cutting attachments.



**SC205**

### SC205 and SC209

- Head angle: 75 degrees (SC205)  
90 degrees (SC209)
- Length: 12.5 in. (318 mm)
- Weight: 1.83 lb. (0.83 kg)

### Compatible handle

WH200A (see page 13)

### Compatible cutting/heating tips

SC Series tips (see pages 16–18, 22)

**Repair kit** SC101

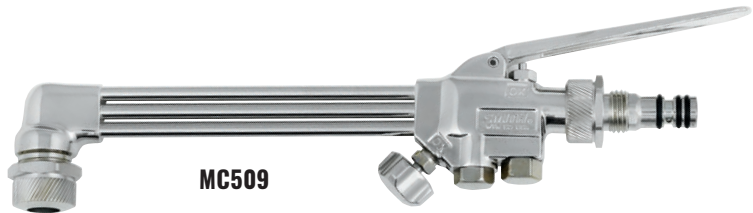
## MC500 SERIES AND TOUGH CUT™ CC509P MEDIUM-DUTY CUTTING ATTACHMENTS

**Cuts up to 6-inch (153 mm) thick steel with acetylene, propane/natural gas or propylene.**

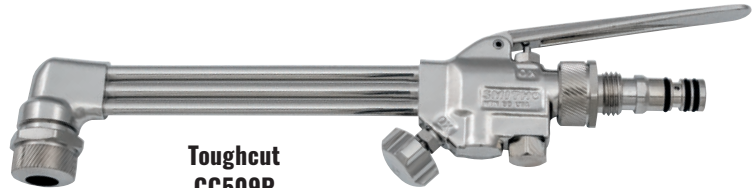
### MC500 Series

For everyday cutting needs.

Ideal for shipbuilding, railroad, metal fabrication, salvage, construction and demolition, and pipeline industries.



**MC509**



**Toughcut  
CC509P**

### MC505, MC509 and CC509P

- Head angle: 75 degrees (MC505)  
90 degrees (MC509)  
90 degrees (CC509P)
- Length: 11.25 in. (286 mm)
- Weight: 1.1 lb. (0.5 kg)

### Compatible handle

WH100 (see page 13)

### Compatible cutting tips

MC Series tips (see page 19)

**MC500 Series Repair kit** MC101

### Toughcut CC509P

For occasional cutting needs.

Similar in construction to the MC500 Series, however does not include the Flo-Trol valve or the buffed and polished finish.

Ideal for farm and ranch, metal fabrication, and auto repair.

## AC309 STANDARD-DUTY CUTTING ATTACHMENT

**Cuts up to 3-inch (76 mm) thick steel with acetylene, propane/natural gas or propylene.**

Lightweight and compact size for light-duty cutting needs.

Ideal for easy handling in tight spaces.

Ideal for maintenance and repair, HVAC, and plumbing applications.



### AC309

- Head angle: 90 degrees
- Length: 8.5 in. (216 mm)
- Weight: 1 lb. (0.44 kg)

### Compatible handle

AW1A (see page 13)

### Compatible cutting tips

MC Series tips (see page 19)

# Combination Torch Handles

**WH200A** Heavy-duty  
**WH100** Medium-duty  
**AW1A** Standard-duty

## 100 percent tested and inspected.

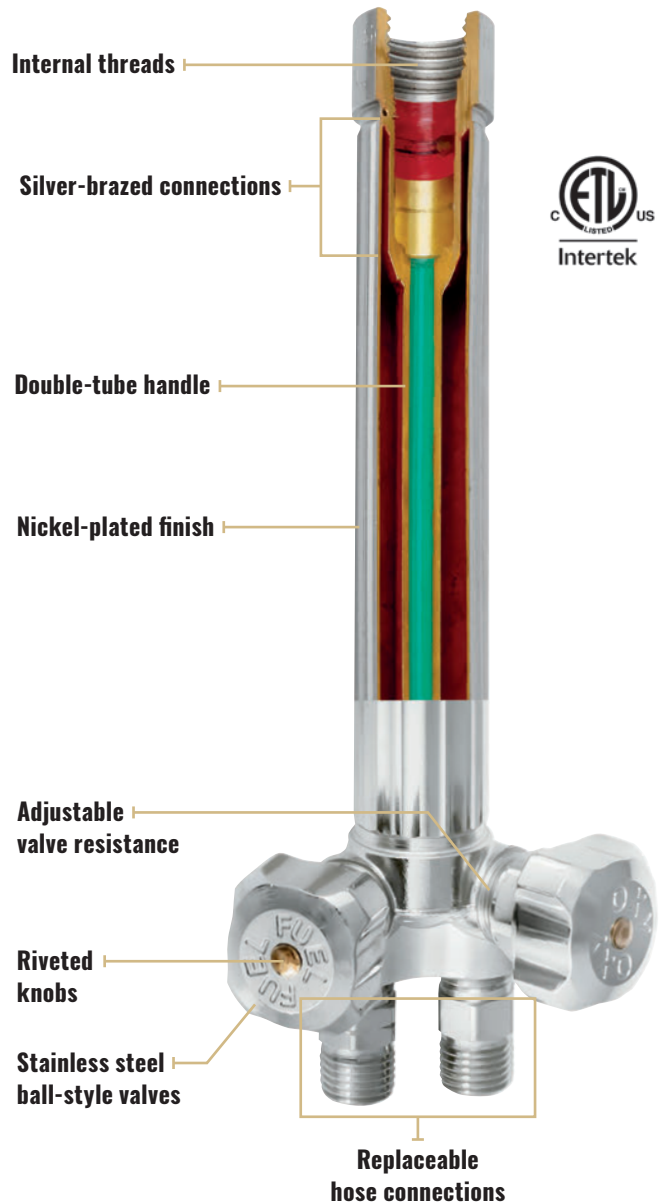
Torch handles are available in three capacities and have silver-brazed joints to provide overall strength and rigidity for improved safety and performance under rugged conditions.

## CONSTRUCTION FEATURES

- ▶ **Internal threads**  
Threads are protected from damage if the torch is dropped.
- ▶ **Silver-brazed connections**  
Provides strength, leak resistance and heat protection.
- ▶ **Double-tube handle**  
Tube-within-a-tube design provides strength while reducing weight.
- ▶ **Nickel-plated finish**  
Deflects heat and resists corrosion.
- ▶ **Adjustable valve resistance**  
PTFE packing provides a gas-tight seal while allowing the “drag” to be adjusted to the individual preference.
- ▶ **Riveted knobs (WH200A and WH100)**  
Knobs will not come loose from the valve stem.
- ▶ **Stainless steel ball-style valves (WH200A and WH100)**  
Provides smooth adjustment and positive seating to eliminate leaks.
- ▶ **Replaceable hose connections (WH200A)**  
Connections are easily replaced if damaged reducing maintenance costs.



Torch handles are warrantied for 25 years, parts and labor.



## WH200A HEAVY-DUTY HANDLE

**Cuts up to 8-inch (203 mm) thick steel with SC200 Series cutting attachments.**

Heavy-duty handle allows high gas flow for large cutting, heating and welding tips.

Riveted knobs will not come loose from the valve stem.

Replaceable "B"-size hose connections are 9/16"-18 right and left hand.

Compatible with our heavy-duty cutting attachments, and heavy-duty heating and welding tips.



### WH200A

- Handle diameter: 1 in. (25.4 mm)
- Length: 7.5 in. (191 mm)
- Weight: 1.01 lb. (0.46 kg)

**Compatible cutting attachments**  
SC200 Series (see page 11)

### Compatible heating tips

ST600 and ST800 Series (see page 21)

### Compatible welding tips

SW200 Series (see page 25)

### Valve assembly replacement

G729-5A

## WH100 MEDIUM-DUTY HANDLE

**Cuts up to 6-inch (152 mm) thick steel with MC500 Series and Toughcut™ CC509P cutting attachments.**

Easy handling, high-quality mid-size torch handle for everyday cutting needs. Handles all but the highest volume heating and heaviest welding needs.

Riveted knobs will not come loose from the valve stem.

"B"-size hose connections are 9/16"-18 right and left hand.

Compatible with our medium-duty cutting attachments, and medium-duty heating and welding tips.



### WH100

- Handle diameter: 15/16 in. (24 mm)
- Length: 7 in. (178 mm)
- Weight: 0.86 lb. (0.39 kg)

**Compatible cutting attachments**  
MC500 Series and CC509P (see page 11)

### Compatible heating tips

MT600 Series, MT805 and MT615 (see page 22)

### Compatible welding tips

MW200 Series and MW411 (see page 25)

### Valve assembly replacement

LW17

## AW1A STANDARD-DUTY HANDLE

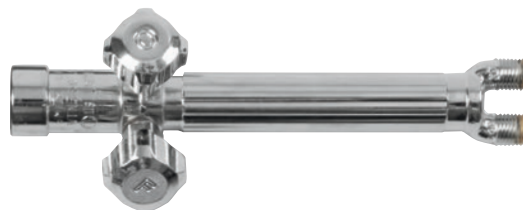
**Cuts up to 3-inch (76 mm) thick steel with AC309 cutting attachment.**

Light weight and compact size provide easy handling, even in tight spaces. Specifically designed to handle light-duty cutting, heating and welding needs.

Needle valves located at front end for easy one-hand flame adjustment.

"A"-size hose connections are 3/8"-24 right and left hand.

Compatible with our standard-duty cutting attachment, and standard-duty heating and welding tips.



### AW1A

- Handle diameter: 11/16 in. (17 mm)
- Length: 5.75 in. (146 mm)
- Weight: 0.37 lb. (0.17 kg)

**Compatible cutting attachment**  
AC309 (see page 11)

### Compatible heating tips

AT605, AT60 and AT61 (see page 23)  
AT600 and AT600X6 (see page 44)

### Compatible welding tips

AW200 Series (see page 25)

### Valve assembly replacement

AW11A7

# Are All Oxy-Fuel Tips the Same?

All oxy-fuel tips are made to perform a specific task, whether it's cutting, heating, brazing or welding, but not all oxy-fuel tips have the same design.



METAL-TO-METAL  
SEAT DESIGN

SMITH GRAF-TITE™  
SOFT-SEAT DESIGN

METAL-TO-METAL  
SEAT DESIGN

## Why Does the Tip Seat Matter?

Metal-to-metal seat designs rely on accurately machined seating surfaces to seat properly. The Graf-Tite soft-seat design by Smith uses pliable graf-tite material which conforms to potentially uneven seating surfaces.

### PERFORMANCE

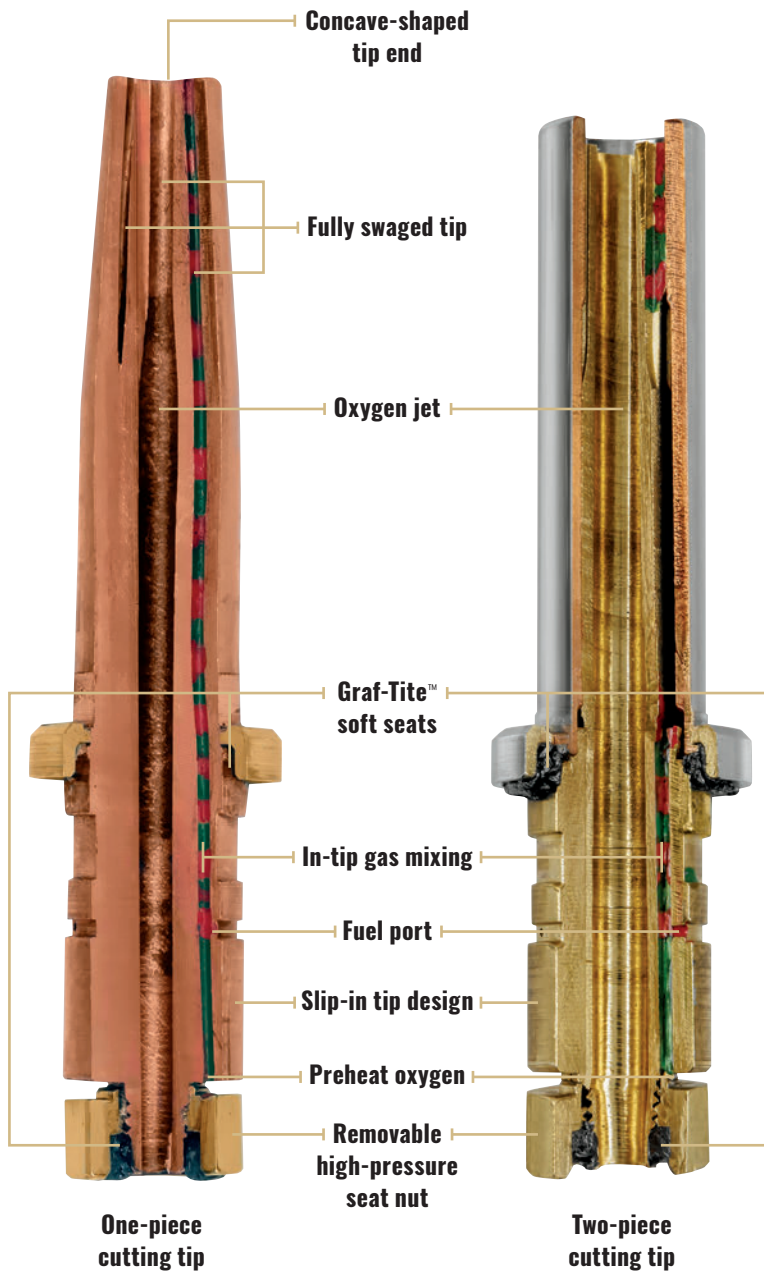
When a tip with a metal-to-metal seat design is dropped and damage to the tip seat occurs, the tip no longer fits or seats properly in the torch and the tip is no longer serviceable, increasing downtime. With the **Smith Graf-Tite soft-seat design**, if a tip seat is damaged, it can still conform to the mating surface and function properly, reducing downtime.

### PRODUCTIVITY

Metal-to-metal seat designs rely on tip nut torque and accurately machined seating surfaces to seat properly, requiring a tool to be used to tighten the tip into the torch. Compared to the metal-to-metal seat design, the **Smith Graf-Tite soft-seat design** conforms to uneven seating surfaces, allowing tips to be hand tightened with no tools required.

# Cutting and Gouging Tips

**SC** Heavy-duty  
**MC** Medium/standard-duty



## 100 percent tested and inspected.

Whatever your application, whatever your fuel gas, we have a tip that provides fast, economical and quality cutting. Make sure to select the proper tip for your application. It's faster, gives a cleaner cut, cuts expensive labor time, and saves on cleanup, machining and gas.

## CONSTRUCTION FEATURES

- ▶ **Concave-shaped tip end (acetylene tips only)**  
Reduces backfire and resists flameout when making accidental contact with base metal while cutting.
- ▶ **Fully swaged tip (SC12, MC12 and SC46 tips only)**  
Mirror-smooth passages deliver stable gas flows for fast starts and precision cuts. Reduces slag build up and saves time on clean up.
- ▶ **Graf-Tite™ soft seats**  
Soft seats compress and conform to the shape of the torch head for positive seating, eliminating leaks even when tips are nicked. Soft seat withstands extremely high temperature for longer tip life.
- ▶ **In-tip gas mixing**  
Ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.
- ▶ **Slip-in tip design**  
No wrench is needed, allowing for quick and easy tip changes.
- ▶ **Removable high-pressure seat nut**  
Allows safer and easier cleaning from back of tip.

## Tip usage

TIP SERIES	GAS SERVICE	APPLICATIONS AND CHARACTERISTICS
SC12, MC12	Acetylene	General cutting (medium preheat)
SC40, MC40	Propane/natural gas	
SC60	Propylene	
SC46	Propane/natural gas	Dirty, heavily coated metal/scraping (used where there is excessive reflected heat)
SC50	Propane/natural gas	Heavy preheat (for faster start, excellent for scraping and coated metal)
SC14	Acetylene	River or riser cutting (cuts bolts and bulk heads, use with heavy-duty torch to cut boiler tubes)
SC13, MC13	Acetylene	Gouging (edge preparation, removal of old welds or cracks, veeing and groove cutting)
SC2	Propane	

# Heavy-Duty Cutting Tips

See literature GE/27.0

## SC12 SERIES (acetylene)



Medium preheat cutting tips for general hand and machine cutting with acetylene. This series provides excellent preheat characteristics required for machine cutting.

### Compatible cutting torches

SC Series, Gas Axe™ and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

STOCK NUMBER	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	ACETYLENE		OXYGEN	ACETYLENE	
SC12-00	3/16 (5)	20	10	.050	31	6.5	68
SC12-0	1/4 (6)	30	10	.055	47.5	7	62
SC12-0	3/8 (10)	35	10	.055	57.5	7	62
SC12-1	1/2 (13)	35	10	.080	86	9.5	56
SC12-1	5/8 (16)	40	10	.080	96	9.5	56
SC12-2	3/4 (19)	36	10	.095	117	10.5	54
SC12-2	1 (25)	41	10	.095	127	10.5	54
SC12-2	1-1/4 (32)	51	10	.095	147	10.5	54
SC12-3	1-1/2 (38)	42	10	.100	184	12	51
SC12-3	2 (51)	47	10	.100	194	12	51
SC12-4	2-1/2 (64)	38	10	.125	255	13	45
SC12-4	3 (76)	44	10	.125	280	13	45
SC12-4	4 (102)	54	10	.125	331	14	45
SC12-5	5 (127)	56	10	.150	450	26**	41
SC12-5	6 (152)	67	10	.150	515	26**	41
SC12-5	8 (203)	78	10	.150	580	26**	41
SC12-6*	10 (254)	83	10	.230	782	28**	32
SC12-6*	12 (305)	125	10	.230	1,007	28**	32

\*Not for use with SC200 Series cutting attachments.

\*\*Minimum of one 350 cu. ft. cylinder required.

## SC40 SERIES (propane or natural gas)



Two-piece medium preheat cutting tips for general hand and machine cutting with propane, propane-based fuel gases and natural gas.

### Compatible cutting torches

SC Series, Gas Axe and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

STOCK NUMBER	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	FUEL GAS		OXYGEN	FUEL GAS	
SC40-0	1/4 (6)	30	10	.055	78	8	62
SC40-0	3/8 (10)	35	10	.055	88	8	62
SC40-1	1/2 (13)	35	10	.080	113	8	56
SC40-1	5/8 (16)	40	10	.080	123	8	56
SC40-2	3/4 (19)	36	10	.095	143	8	54
SC40-2	1 (25)	41	10	.095	153	8	54
SC40-2	1-1/4 (32)	51	10	.095	173	8	54
SC40-3	1-1/2 (38)	42	10	.100	208	8	51
SC40-3	2 (51)	47	10	.100	218	8	51
SC40-4	2-1/2 (64)	38	10	.125	305	15	45
SC40-4	3 (76)	44	10	.125	330	15	45
SC40-4	4 (102)	54	10	.125	380	15	45

## SC46 SERIES (propane or natural gas)



Cutting tips designed for cutting dirty or heavily coated metals with propane, propane-based fuel gases and natural gas. For rugged duty including scrapping, heavy construction, or where excessive reflected heat is present.

### Compatible cutting torches

SC Series, Gas Axe and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

STOCK NUMBER	METAL THICKNESS IN. (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH IN.	GAS CONSUMPTION (SCFH)		GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	FUEL GAS		OXYGEN	PROPANE	OXYGEN	NATURAL GAS	
SC46-2	3/4 (19)	36	10	.095	175	15	175	41	54
SC46-2	1 (25)	41	10	.095	185	15	185	41	54
SC46-2	1-1/4 (32)	51	10	.095	205	15	205	41	54
SC46-4	2-1/2 (64)	38	10	.125	310	15	310	41	45
SC46-4	3 (76)	44	10	.125	335	15	335	41	45
SC46-4	4 (102)	54	10	.150	385	15	385	41	45
SC46-5*	5 (127)	56	10	.150	525	22	510	52	41
SC46-5*	6 (152)	67	10	.150	590	22	575	52	41
SC46-5*	8 (203)	78	10	.150	655	22	640	52	41
SC46-6*	10 (254)	83	12	.200	855	22	840	52	32
SC46-6*	12 (305)	125	12	.230	1,080	22	1,065	52	32

\*Not for use with SC200 Series cutting attachments.

# Heavy-Duty Cutting Tips

See literature GE/27.0

## SC50 SERIES (propane or natural gas)



Heavy preheat two-piece cutting tips for hand and machine cutting with propane, propane-based fuel gases and natural gas. Cuts up to 20-inch thick steel.

### Compatible cutting torches

SC Series, Gas Axe™ and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

STOCK NUMBER	METAL THICKNESS IN. (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH IN.	GAS CONSUMPTION (SCFH)		GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	FUEL GAS		OXYGEN	PROPANE	OXYGEN	NATURAL GAS	
SC50-0	1/4 (6)	30	10	.055	87	13	102	38	62
SC50-0	3/8 (10)	35	10	.055	97	13	112	38	62
SC50-1	1/2 (13)	35	10	.080	145	15	145	40	56
SC50-1	5/8 (16)	40	10	.080	155	15	155	40	56
SC50-2	3/4 (19)	36	10	.095	175	15	175	40	54
SC50-2	1 (25)	41	10	.095	185	15	185	40	54
SC50-2	1-1/4 (32)	51	10	.095	210	16	205	40	54
SC50-3	1-1/2 (38)	42	10	.100	245	16	240	40	51
SC50-3	2 (51)	47	10	.100	255	16	250	40	51
SC50-4	2-1/2 (64)	38	10	.125	315	16	315	45	45
SC50-4	3 (76)	44	10	.125	340	16	340	45	45
SC50-4	4 (102)	54	10	.125	395	17	390	45	45
SC50-5	5 (127)	56	10	.150	500	17	502	50	41
SC50-5	6 (152)	67	10	.150	565	17	567	50	41
SC50-5	8 (203)	78	10	.150	640	20	632	50	41
SC50-6*	10 (254)	83	10	.230	980	50	870	75	32
SC50-6*	12 (305)	125	12	.230	1,255	60	1,140	100	32
SC50-7**	14 (354)	125	20	.250	1,580	62	1,450	120	28
SC50-8**	16 (406)	125	18	.300	1,875	80	1,720	135	17
SC50-8**	18 (457)	125	20	.340	2,200	85	2,050	150	17
SC50-9**	20 (508)	125	23	.350	2,570	90	2,400	150	3

\*Not for use with SC200 Series cutting attachments.

\*\*For use with Gas Axe only.

## SC60 SERIES (propylene)



Two-piece medium preheat cutting tips designed to provide optimum performance with propylene or propylene-based fuel gases.

### Compatible cutting torches

SC Series, Gas Axe and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

STOCK NUMBER	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	PROPYLENE		OXYGEN	PROPYLENE	
SC60-0	1/4 (6)	30	10	.053	78	9	62
SC60-0	3/8 (10)	35	10	.055	88	9	62
SC60-1	1/2 (13)	35	10	.080	113	9	56
SC60-1	5/8 (16)	40	10	.080	123	9	56
SC60-2	3/4 (19)	36	10	.095	143	9	54
SC60-2	1 (25)	41	10	.095	153	9	54
SC60-2	1-1/4 (32)	51	10	.095	173	9	54
SC60-3	1-1/2 (38)	42	10	.100	208	9	51
SC60-3	2 (51)	47	10	.100	218	9	51
SC60-4	2-1/2 (64)	38	10	.125	298	15	45
SC60-4	3 (76)	44	10	.125	323	15	45
SC60-4	4 (102)	54	10	.125	373	15	45
SC60-5	5 (127)	56	10	.150	478	15	41
SC60-5	6 (153)	67	10	.150	543	15	41
SC60-5	8 (203)	78	10	.150	608	15	41
SC60-6*	10 (254)	83	10	.230	808	15	32
SC60-6*	12 (305)	125	10	.230	1,033	15	32

\*Not for use with SC200 Series cutting attachments.

# Heavy-Duty Special-Purpose Tips

See literature GE/27.0

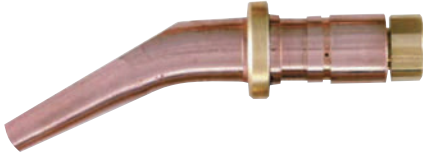
## SC12-4X9 EXTRA LONG CUTTING TIP (acetylene)



9 inches

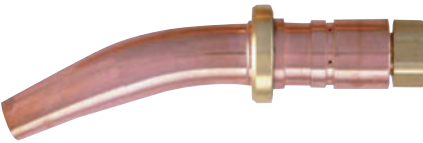
Cutting tip for hard-to-reach areas. Size 4.

## SC14-3 RIVET/RISER CUTTING TIP (acetylene)



Tip for cutting heads of bolts and rivets. It can also be used in 180-degree head cutting torch to cut out boiler tubes. Works equally well for cutting risers and bulk heads.

## SC13-3 and SC13-5 GOUGING TIPS (acetylene)



Gouging tips for edge preparation, removal of welds or gouging cracked metals.

STOCK NUMBER	PURPOSE	CAPACITY INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
			OXYGEN	ACETYLENE		OXYGEN	ACETYLENE	
SC12-4X9	Cutting	4 (102)	50	10	.125	331	14	45
SC14-3	Rivet/Riser Cutting	1-1/2 (38) rivets	40	10	.100	190	20	51
SC13-3	Gouging	3/8 (10) wide, 1/4 (6) deep	20	10	—	151	35	50 / 29
SC13-5	Gouging	1/2 (13) wide, 3/8 (10) deep	25	10	—	246	50	39 / 10

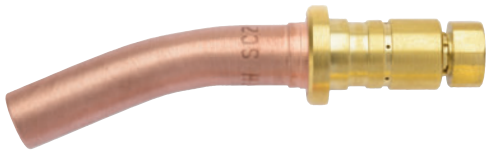
### Compatible cutting torches

SC Series, Gas Axe™ and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

## SC2-2 and SC2-4 GOUGING TIPS (propane or natural gas)



Two-piece gouging tips for removing old welds or cracks, veeing and groove cutting.

STOCK NUMBER	PURPOSE	CAPACITY INCHES (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
			OXYGEN	FUEL GAS	OXYGEN	FUEL GAS	
SC2-2	Gouging	5/16 (8) wide, 1/8 (3) deep	60	22	389	53	53 / 31
SC2-4	Gouging	3/8 (10) wide, 1/4 (6) deep	75	22	564	53	44 / 28

### Compatible cutting torches

SC Series, Gas Axe and machine torches (see pages 7–9)

### Compatible cutting attachments

SC200 Series (see page 11)

# Medium-Duty and Standard-Duty Tips

See literature GE/27.0

## MC12 SERIES CUTTING TIPS (acetylene)



Medium preheat cutting tips for general hand cutting. Use with medium pressure acetylene and oxygen.

### Compatible cutting attachments

MC500 Series, CC509P and AC309 (see page 11)

STOCK NUMBER	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	ACETYLENE		OXYGEN	ACETYLENE	
MC12-00	1/8 (3)	20 (30*)	10	.050	37	6	68
MC12-00	3/16 (5)	20 (30*)	10	.050	37	6	68
MC12-0	1/4 (6)	35 (45*)	10	.055	47	6	62
MC12-0	3/8 (10)	40 (50*)	10	.055	53	6	62
MC12-1	1/2 (13)	45 (55*)	10	.080	84	7	55
MC12-1	5/8 (16)	50 (60*)	10	.080	90	7	55
MC12-2	3/4 (19)	50 (60*)	10	.095	118	9	54
MC12-2	1 (25)	55 (65*)	10	.095	129	9	54
MC12-3	1-1/2 (38)	55 (65*)	10	.100	182	10	51
MC12-3	2 (51)	60 (70*)	10	.100	193	10	51
MC12-4	2-1/2 (64)	65 (75*)	10	.125	263	12	45
MC12-4	3 (76)	70 (80*)	10	.125	281	12	45
MC12-4	4 (102)	65	10	.125	335	13	45
MC12-5**	5 (127)	80	10	.150	435	13	41
MC12-5**	6 (152)	90	10	.150	500	13	41

\*Values in parentheses are with AC309 cutting attachment.

\*\*For use with MC500 Series cutting attachments only.

## MC40 SERIES CUTTING TIPS

(propane or natural gas)



Two-piece medium preheat cutting tips for hand cutting with propane and propane-based fuel gases.

### Compatible cutting attachments

MC500 Series, CC509P and AC309 (see page 11)

STOCK NUMBER	METAL THICKNESS INCHES (MM)	REGULATOR PRESSURE (PSIG)		KERF WIDTH INCHES	GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
		OXYGEN	FUEL GAS		OXYGEN	FUEL GAS	
MC40-0	1/4 (6)	35 (45*)	10	.055	75	7	62
MC40-0	3/8 (10)	40 (50*)	10	.055	81	7	62
MC40-1	1/2 (13)	45 (55*)	10	.080	110	7	55
MC40-1	5/8 (16)	50 (60*)	10	.080	116	7	55
MC40-2	3/4 (19)	50 (60*)	10	.095	142	7	54
MC40-2	1 (25)	55 (65*)	10	.095	153	7	54
MC40-2	1-1/4 (32)	60 (70*)	10	.095	168	7	54
MC40-3	1-1/2 (38)	55 (65*)	10	.100	205	7	51
MC40-3	2 (51)	60 (70*)	10	.100	216	7	51
MC40-4	2-1/2 (64)	65 (75*)	10	.125	284	7	51
MC40-4	3 (76)	70 (80*)	10	.125	302	7	51
MC40-4	4 (102)	75	10	.125	355	7	51

\*Values in parentheses are with AC309 cutting attachment.

## MC13-3 GOUGING TIP (propylene)



Gouging tip for edge preparation, removal of old welds or defects in steel. Heavy preheat.

### Compatible cutting attachments

MC500 Series, CC509P and AC309 (see page 11)

STOCK NUMBER	PURPOSE	CAPACITY INCHES (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)		CUTTING JET SIZE
			OXYGEN	ACETYLENE	OXYGEN	ACETYLENE	
MC13-3	Gouging	3/8 (10) wide 1/4 (6) deep	20	10	115	24*	50 / 29

\*Minimum of one 350 cubic foot cylinder required.

# Heating Tips

**ST** Heavy-duty  
**MT** Medium-duty  
**AT** Standard-duty

## 100 percent tested and inspected.

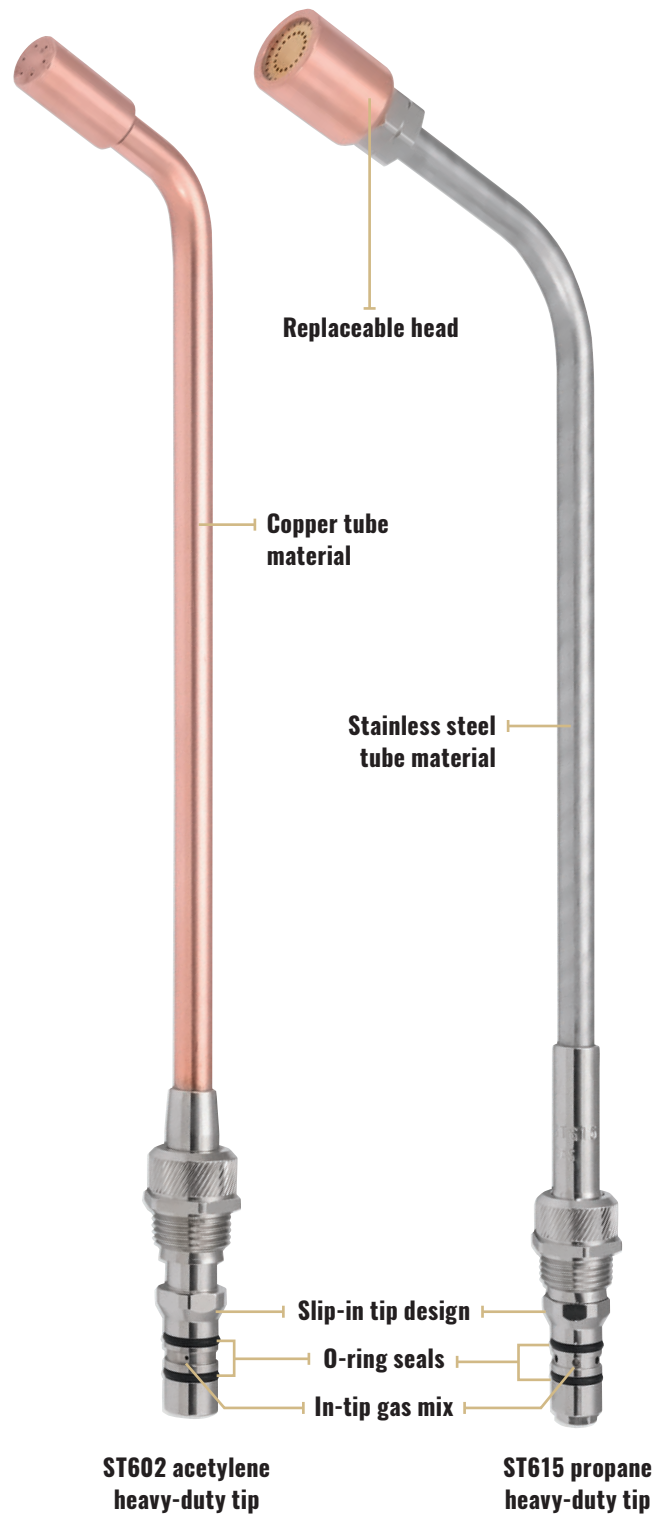
Our heating tips used in torch handles can provide significant cost savings in many applications. Heating tips can cut labor time to a minimum by providing great amounts of quick, concentrated heat.

For proper performance, use the recommended pressures for each tip and an adequate gas supply.

For use with industrial fuel gases including acetylene, propane/natural gas and propylene.

## CONSTRUCTION FEATURES

- ▶ **Replaceable head (except acetylene tips)**  
Allows for easy replacement if head gets damaged.
- ▶ **Copper tube material for acetylene tips**  
Helps keep the tip cool.
- ▶ **Stainless steel tube material for propane tips**  
Provides strength and higher gas flow.
- ▶ **Slip-in tip design**  
No wrench is needed, allowing for quick and easy tip changes.
- ▶ **O-ring seals**  
Provide easy 360-degree rotation to reduce operator fatigue.
- ▶ **In-tip gas mix**  
Ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.



# Heavy-Duty Heating Tips

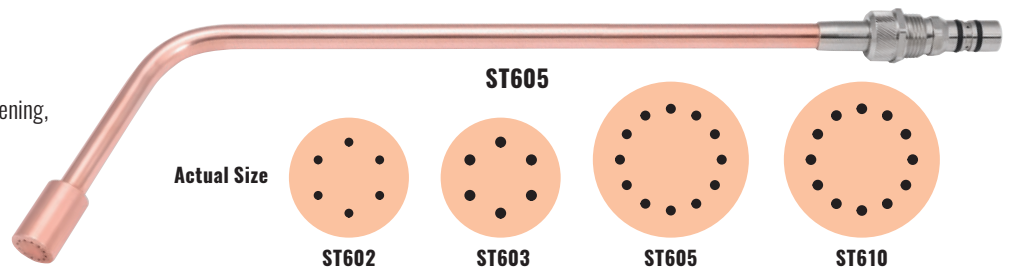
See literature GE/28.0

## ST600 SERIES (acetylene)

Multi-flame heating tips for our heavy-duty torch handles. Used for heat treating, bending, straightening, pre-heating, brazing, shrinking, forming, etc. Heads are manufactured from solid copper.

### Compatible combination torch handle

WH200A (see page 13)



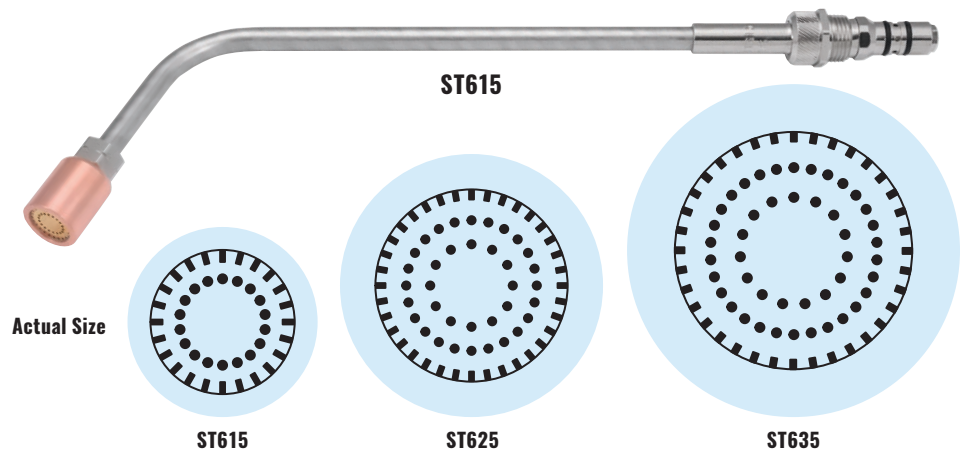
STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	350 CU. FT. FUEL CYLINDERS REQUIRED
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE			
ST602	41,160	15	15	31	28	64	16 (406)	1
ST603	73,500	15	15	55	50	56	16 (406)	1
ST605	141,120	15	15	96	87	57	19 (483)	2
ST610	220,500	15	15	150	136	54	19 (483)	3

## ST600 SERIES (propane/natural gas)

Medium-pressure propane and natural gas heating tips for our heavy-duty torch handles provide high heating performance with low-cost fuel gases.

### Compatible combination torch handle

WH200A (see page 13)



STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH INCHES (MM)	HEAD NUMBER
		OXYGEN	FUEL GAS	OXYGEN	FUEL GAS		
ST615	244,000	23-65	10-28 (propane)	225-535	70-160 (propane)	15.5 (394)	1495
	155,145	18-55	10-28 (natural gas)	175-450	92-267 (natural gas)		
ST625	455,000	50-110	17-28 (propane)	480-1,000	140-280 (propane)	31.5 (800)	1504
	313,950	43-80	18-28 (natural gas)	390-785	200-450 (natural gas)		
ST635*	614,195	70-115	18-40 (propane)	670-1,580	185-480 (propane)	31.5 (800)	1499

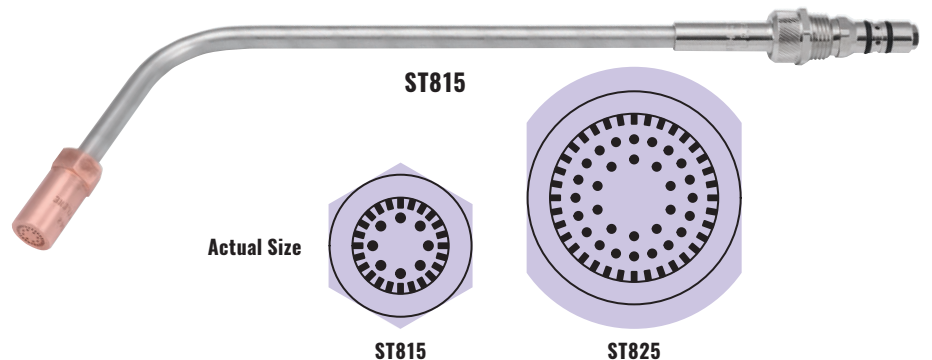
\*ST635 requires 3/8 inch (10 mm) I.D. hose and 40-50-510 propane cylinder regulator.

## ST800 SERIES (propylene)

Medium-pressure propylene heating tips for our heavy-duty torch handles provide high heating performance with low-cost fuel gases.

### Compatible combination torch handle

WH200A (see page 13)



STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH INCHES (MM)	HEAD NUMBER
		OXYGEN	PROPYLENE	OXYGEN	PROPYLENE		
ST815	273,000	37-77	13-37	390-655	120-235	16 (406)	4642
ST825	830,000	60-110	20-35	580-1,500	225-525	16 (406)	4639

# Heavy-Duty and Medium-Duty Heating Tips

See literature GE/28.0

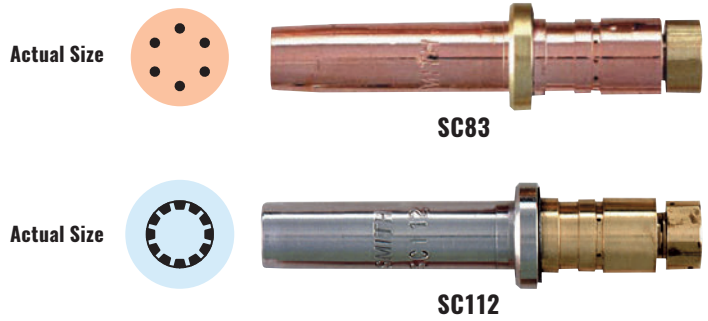
## SC SERIES HEAVY-DUTY SPECIAL PURPOSE

(acetylene or propane)

These tips provide heating using a one-piece torch. They quickly deliver lots of heat for bending, straightening, shrinking, forming and other heating applications. SC83 tip is for use with acetylene while SC112 two-piece tip is for use with propane.

### Compatible torches

SC Series, Gas Axe™ and machine torches (see pages 7–9)  
(not recommended for use with cutting attachments)



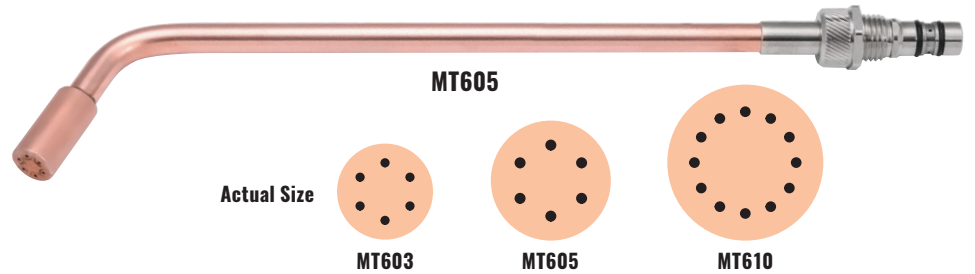
STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	FUEL CYLINDERS REQUIRED
		OXYGEN	FUEL GAS	OXYGEN	FUEL GAS			
SC83	76,440	15	10 (acetylene)	58	52 (acetylene)	56	3.5 (89)	2 (350 cu. ft. cylinders)
SC112	312,250	60	25 (propane)	495	125 (propane)	Slots	3.5 (89)	2 (100 lb. cylinders)

## MT600 SERIES (acetylene)

Versatile multi-flame heating tips for our medium-duty torch handles. Used for general heating of metals, brazing, hard surfacing, etc. Heads are manufactured from solid copper.

### Compatible combination torch handle

WH100 (see page 13)



STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	350 CU. FT. FUEL CYLINDERS REQUIRED
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE			
MT603	41,160	15	15	31	28	64	10 (254)	1
MT605	74,970	15	15	57	51	56	16 (406)	1
MT610	132,300	15	15	100	90	57	18 (457)	2

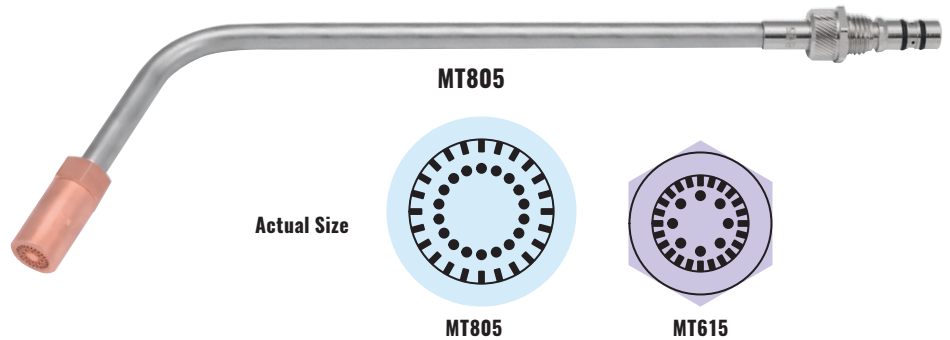
## MT805 and MT615

(propane/natural gas/propylene)

Medium-pressure propane, natural gas, and propylene heating tips for our medium-duty torch handles provide high heating performance with low-cost fuel gases.

### Compatible combination torch handle

WH100 (see page 13)



STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH INCHES (MM)	HEAD NUMBER
		OXYGEN	FUEL GAS	OXYGEN	FUEL GAS		
MT615	269,000	20–60	10–25 (propane)	225–535	70–160 (propane)	14 (356)	1495
	182,000	15–50	10–25 (natural gas)	175–450	96–267 (natural gas)		
MT805	280,000	50–60	20–25 (propylene)	242–270	120–135 (propylene)	14 (356)	4642

# Standard-Duty Heating Tips

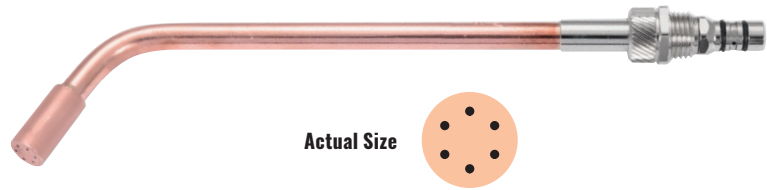
See literature GE/28.0

## AT605 (acetylene)

Handy standard-duty multi-flame tip for heating, brazing and applying hard facing metals. Uses medium-pressure acetylene and oxygen. Heads are manufactured from solid copper.

### Compatible combination torch handle

AW1A (see page 13)



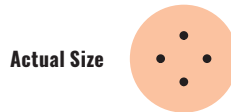
STOCK NUMBER	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	200 CU. FT. FUEL CYLINDERS REQUIRED
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE			
AT605	42,630	15	15	32	29	64	10 (254)	1

## AT60 (acetylene)

Multi-flame heating tips for our light-duty torch handle. Used for heat treating and brazing.

### Compatible combination torch handle

AW1A (see page 13)



STOCK NUMBER	TIP END	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH (NOT INCLUDING TIP END) INCHES (MM)
			OXYGEN	ACETYLENE	OXYGEN	ACETYLENE	
AT60	13716	24,990	17	17	17	17	5.6 (142)
	LT103	6,320	10	10	4.3	4.3	
	LT104	13,230	10	10	9	9	
	LT106	24,990	10	10	17	17	

## AT61 (propane/natural gas)

Multi-flame heating tips for our light-duty torch handle. Used for heat treating and brazing.

### Compatible combination torch handle

AW1A (see page 13)



STOCK NUMBER	TIP END	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH (NOT INCLUDING TIP END) INCHES (MM)
			OXYGEN	PROPANE/NATURAL GAS	OXYGEN	PROPANE/NATURAL GAS	
AT61	13715	29,980	38	12	38	12	5.6 (142)
	NE154	27,480	10	10	38	11	

# Welding and Brazing Tips

SW Heavy-duty  
MW Medium-duty  
AW Standard-duty

## 100 percent tested and inspected.

Our welding and brazing tips are quality engineered to provide easy handling, high performance and added protection in welding, brazing and soldering applications.

## CONSTRUCTION FEATURES

- ▶ **Soft flame**  
Provides concentrated heat for better puddle control and eliminates puddle chasing. Soft flame provides deep, even penetration without burning through base metal for strong, dependable welds.
- ▶ **Copper tube material**  
Helps keep the tip cool.
- ▶ **Slip-in tip design**  
No wrench is needed, allowing for quick and easy tip changes.
- ▶ **O-ring seals**  
Provide easy 360-degree rotation to reduce operator fatigue.
- ▶ **In-tip gas mixing**  
Ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.

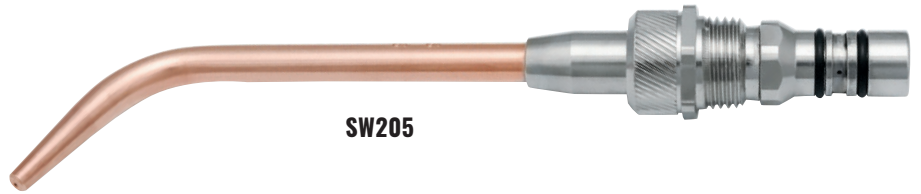


# Welding and Brazing Tips

See literature GE/29.0

## SW200 SERIES HEAVY-DUTY WELDING TIPS (acetylene)

Compatible combination torch handle  
WH200A (see page 13)



## MW200 SERIES MEDIUM-DUTY WELDING TIPS (acetylene)

Compatible combination torch handle  
WH100 (see page 13)



## AW200 SERIES STANDARD-DUTY WELDING TIPS (acetylene)

Compatible combination torch handle  
AW1A (see page 13)



## MW411 MEDIUM-DUTY BRAZING TIP (propane/natural gas)

Compatible combination torch handle  
WH100 (see page 13)



TIP SERIES	STOCK NUMBER	WELDING CAPACITY INCHES (MM)	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	350 CU. FT. FUEL CYLINDERS REQUIRED
			OXYGEN	ACETYLENE	OXYGEN	ACETYLENE			
SW200 Series Heavy-Duty Welding Tips	SW201	1/32 (0.7)	10	10	2.3	2.3	71	8 (203)	1
	SW203	5/64 (1.9)	10	10	3.2	3.2	67	8 (203)	1
	SW205	1/8 (3)	10	10	6	6	57	8 (203)	1
	SW207	3/16 (5)	10	10	12	12	54	9.5 (241)	1
	SW209	3/8 (10)	10	10	23	23	49	9.5 (241)	1
	SW210	1/2 (13)	15	15	36	36	44	12.5 (318)	1
MW200 Series Medium-Duty Welding Tips	MW201	1/32 (0.7)	10	10	2.3	2.3	71	7 (178)	1
	MW203	5/64 (1.9)	10	10	3.2	3.2	67	7 (178)	1
	MW205	1/8 (3)	10	10	6	6	57	7 (178)	1
	MW207	3/16 (5)	10	10	12	12	54	8.5 (216)	1
	MW209	3/8 (10)	10	10	23	23	49	8.5 (216)	1
AW200 Series Standard-Duty Welding Tips	AW201	1/32 (0.7)	10	10	2.3	2.3	71	5.5 (140)	1
	AW203	5/64 (1.9)	10	10	3.2	3.2	67	5.5 (140)	1
	AW205	1/8 (3)	10	10	6	6	57	5.5 (140)	1
	AW207	3/16 (5)	10	10	12	12	54	7 (178)	1
	AW209	3/8 (10)	10	10	23	23	49	7 (178)	1
	AW210	1/2 (13)	10	10	36	36	44	7 (178)	1

TIP	STOCK NUMBER	WELDING RANGE INCHES (MM)	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		DRILL SIZE	OVERALL LENGTH INCHES (MM)	350 CU. FT. FUEL CYLINDERS REQUIRED
			OXYGEN	PROPANE/NATURAL GAS	OXYGEN	PROPANE/NATURAL GAS			
MW411 Medium-Duty Brazing Tip	MW411	1/2 - 5/8 (13 - 16)	11	11	51.9	13	40	8.5 (216)	—

# Heavy-Duty Regulators

## Stock Number Definition (Example: 40-15-510)

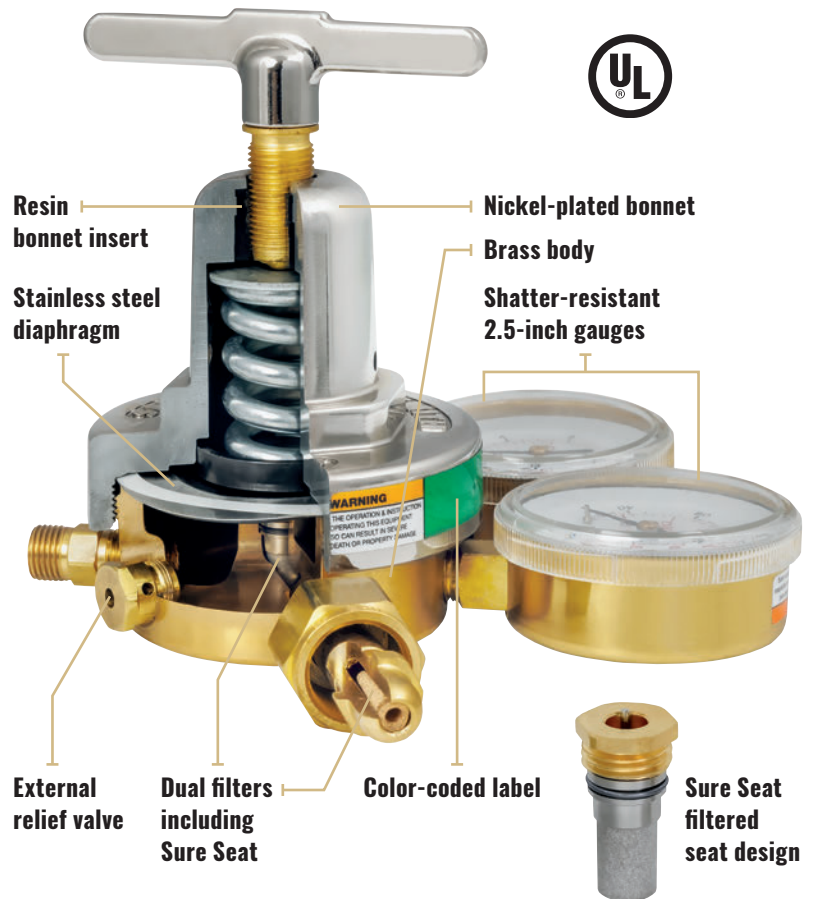
40	Series
15	Maximum delivery pressure
510	Inlet connection

### 100 percent tested and inspected.

Our Series 40™ and Series 46™ heavy-duty single-stage pressure regulators are designed to handle the most demanding jobs with their high flow capacity. They comprise a complete line of versatile regulators for cutting, heating, welding and other industrial applications.

## CONSTRUCTION FEATURES

- ▶ **Resin bonnet insert**  
Allows smooth, easy adjustment even at high-pressure levels.
- ▶ **Stainless steel diaphragm**  
Resists corrosion, leaking and freeze-up if used with liquid (cryogenic) gases for extended service life.
- ▶ **External relief valve**  
Protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.
- ▶ **Brass body and nickel-plated bonnet**  
Protects against corrosion.
- ▶ **Shatter-resistant 2.5-inch gauges**  
Easy-to-read gauge with polycarbonate lens cover for protection.
- ▶ **Dual filters including Sure Seat™**  
Protects high-pressure seat from debris for reliable operation and long service life.
- ▶ **Color-coded label**  
Supplies performance capabilities, easy gas service identification and technical information.



Heavy-duty regulators are warranted for three years, parts and labor.

# Heavy-Duty Pressure Regulators

See literature GE/5.0

## SERIES 40™ REGULATORS

Series 40 single-stage regulators provide high gas flow and longer trouble-free operation for high gas flow applications.

Their heavy-duty construction and a simplified design make them ideal for larger cutting and heating tips. They contain a stainless steel diaphragm (liquid gas applications) and our exclusive Sure Seat™ filtered seat technology for extended seat and regulator life.



Series 40 regulator shown with HB190 Hard Hat™ gauge/regulator guard.

## SERIES 46™ REGULATORS

Series 46 single-stage station regulators are used to connect pipeline gas delivery systems to the welding stations. Because the pipeline pressure is regulated upstream, station regulators only require a single delivery pressure gauge.



REGULATOR	STOCK NUMBER	GAS SERVICE	INLET GAUGE	OUTLET GAUGE	MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION	
Heavy-Duty Cylinder Regulators	40-175-540 40-175-540S*	Oxygen	0–4,000 psig (0–280 bar)	0–200 psig (0–14 bar)	175 psig (12 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540	
	40-275-540			0–400 psig (0–28 bar)	275 psig (19 bar)				
	40-15-300 40-15-300S*	Acetylene	0–400 psig (0–28 bar)	0–30 psig (0–2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 300	
	40-15-510 40-15-510S*							CGA 510	
		40-50-510	LP gas**	0–400 psig (0–28 bar)	0–60 psig (0–4 bar)	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
		40-275-580	Nitrogen	0–4,000 psig (0–280 bar)	0–400 psig (0–28 bar)	275 psig (19 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
Heavy-Duty Station Regulators	46-175	Oxygen	—	0–200 psig (0–14 bar)	175 psig (12 bar)	200 psig (14 bar)	9/16"-18 RH "B"	CGA 024 7/8"-14 RH "C"	
	46-15	Acetylene	—	0–30 psig (0–2 bar)	15 psig (1 bar)	100 psig (7 bar)	9/16"-18 LH "B"	CGA 025 7/8"-14 LH "C"	
	46-50	LP gas**	—	0–50 psig (0–3 bar)	50 psig (3 bar)	100 psig (7 bar)	9/16"-18 LH "B"	CGA 025 7/8"-14 LH "C"	

\*Includes HB190 Hard Hat gauge guard.

\*\*Propane, propylene or natural gas.

# Medium-Duty Regulators

## Stock Number Definition (Example: 30-100-540)

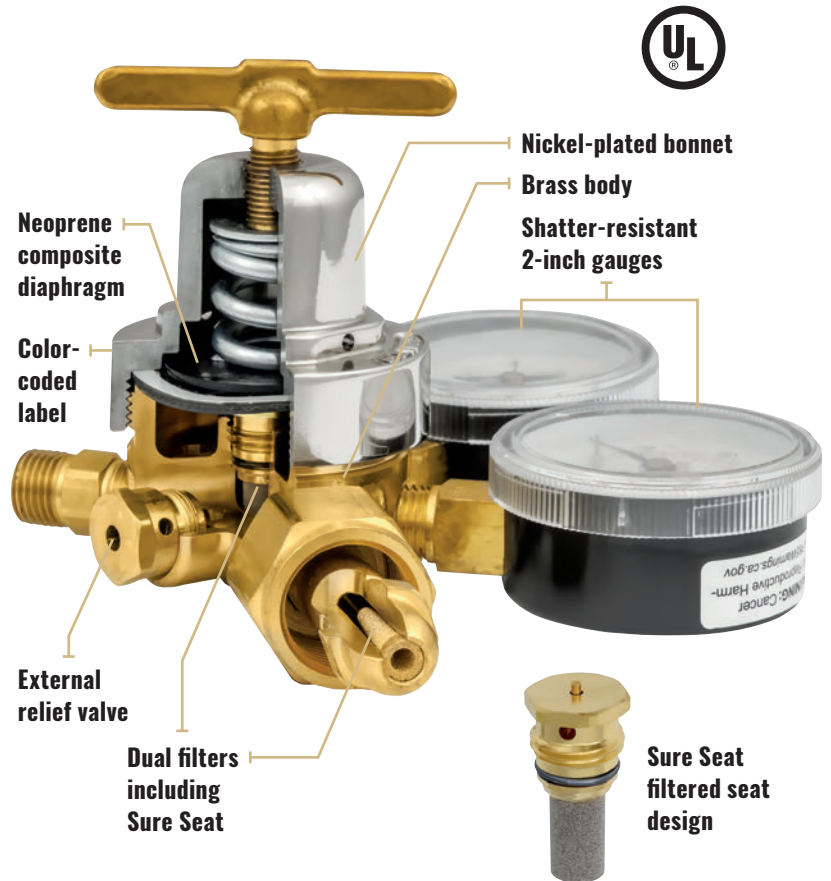
30	Series
100	Maximum delivery pressure
540	Inlet connection

### 100 percent tested and inspected.

Our Series 30™ medium-duty single-stage pressure regulators are extremely durable. These highly accurate regulators are manufactured with a rugged forged body and corrosion-resistant, bright nickel-plated bonnet. They comprise a complete line of versatile regulators for cutting, heating, welding and other industrial applications.

### CONSTRUCTION FEATURES

- ▶ **Neoprene composite diaphragm**  
Resists corrosion for extended service life.
- ▶ **Color-coded label**  
Supplies performance capabilities, easy gas service identification and technical information.
- ▶ **External relief valve**  
Protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.
- ▶ **Brass body and nickel-plated bonnet**  
Protects against corrosion.
- ▶ **Shatter-resistant 2-inch gauges**  
Easy-to-read gauge with polycarbonate lens cover for protection.
- ▶ **Dual filters including Sure Seat™**  
Protects high-pressure seat from debris for reliable operation and long service life.



Medium-duty regulators are warrantied for three years, parts and labor (except purge regulator — one year).

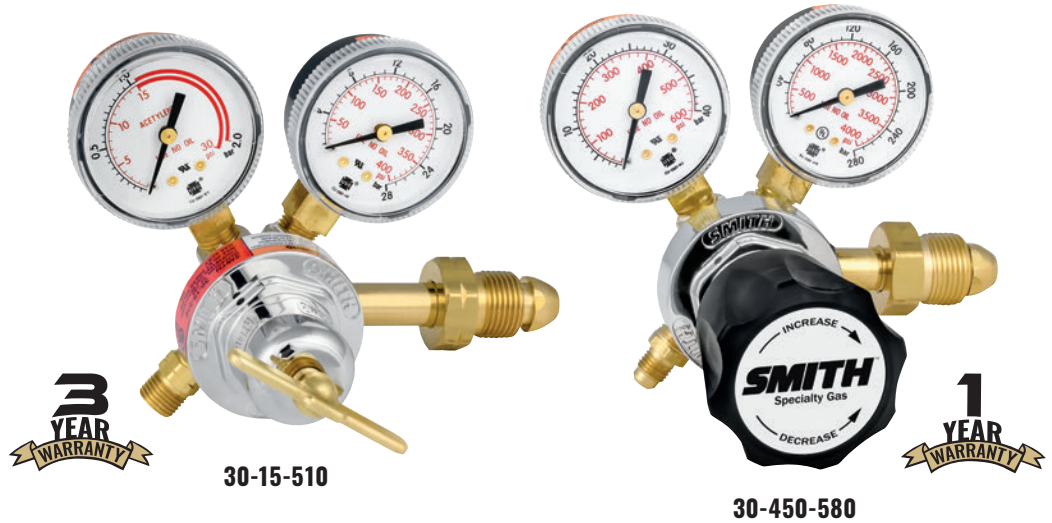
# Medium-Duty Pressure Regulators

See literature GE/4.0

## SERIES 30™ REGULATORS

Series 30 single-stage regulators provide accurate pressure control and are reliable for daily use. They contain a neoprene composite diaphragm and our exclusive Sure Seat™ filtered seat technology for extended seat and regulator life.

The Series 30 purge regulator is used with nitrogen in HVAC systems to test and locate leaks or purge refrigerant lines and equipment for installation and repair. Compact for limited space.



REGULATOR	STOCK NUMBER	GAS SERVICE	INLET GAUGE	OUTLET GAUGE	MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
Medium-Duty Cylinder Regulators	30-100-540	Oxygen	0–4,000 psig (0–280 bar)	0–150 psig (0–10 bar)	100 psig (7 bar)	3,000 psig (207 bar)	9/16"–18 RH "B"	CGA 540
	30-20-540			0–30 psig (0–2 bar)	20 psig (1.4 bar)			
	30-15-510	Acetylene	0–400 psig (0–28 bar)	0–30 psig (0–2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"–18 LH "B"	CGA 510
	30-15-300							CGA 300
	30-15-520							CGA 520
	30-15-200							CGA 200
	30-50-510	LP gas*	0–400 psig (0–28 bar)	0–60 psig (0–4 bar)	50 psig (3 bar)	400 psig (28 bar)	9/16"–18 LH "B"	CGA 510
	30-100-350	Hydrogen/ methane	0–4,000 psig (0–280 bar)	0–150 psig (0–10 bar)	100 psig (7 bar)	3,000 psig (207 bar)	9/16"–18 LH "B"	CGA 350
	30-150-580	Argon/ nitrogen	0–4,000 psig (0–280 bar)	0–200 psig (0–14 bar)	150 psig (10 bar)	3,000 psig (207 bar)	5/8"–18 RH internal	CGA 580
30-150-320	CO <sub>2</sub>	0–4,000 psig (0–280 bar)	0–200 psig (0–14 bar)	150 psig (10 bar)	3,000 psig (207 bar)	5/8"–18 RH internal	CGA 320	
Medium-Duty Purge Regulator	30-450-580	Nitrogen	0–4,000 psig (0–280 bar)	0–600 psig (0–40 bar)	450 psig (31 bar)	3,000 psig (207 bar)	7/16"–20 external flare fitting	CGA 580

\*Propane, propylene or natural gas.



## ALSO AVAILABLE

### Series 30 Single-Stage Regulator Twin Packs

STOCK NUMBER	GAS SERVICE	REGULATOR	MAX. DELIVERY PRESSURE	INLET CONNECTION
HTP2	Oxygen	30-100-540	100 psig (7 bar)	CGA 540
	Acetylene	30-15-510	15 psig (1 bar)	CGA 510
HTP5	Oxygen	30-100-540	100 psig (7 bar)	CGA 540
	Acetylene	30-15-300	15 psig (1 bar)	CGA 300

# Medium-Duty Regulators

See literature GE/6.0 (Series 31) and GE/7.0 (Series 35)

## SERIES 31™ SINGLE-STAGE FLOW GAUGE REGULATORS

Single-stage flow gauge regulators are compact and feature a forged brass body with 2-inch diameter gauges and a self-seating pressure relief valve.

They include a Sure Seat™ protective inlet filter and a durable neoprene-composite diaphragm.



31-50-580



35-50-580

## SERIES 35™ TWO-STAGE REGULATORS

Two-stage regulators drop cylinder pressure to working pressure in two stages for consistent and accurate outlet pressure and flow regardless of inlet pressure.

Shatter-resistant 2-inch gauges are easy-to-read.

Recommended where outlet pressure and flow must be maintained without variation.

REGULATOR	STOCK NUMBER	GAS SERVICE	INLET GAUGE	OUTLET GAUGE	FLOW RANGE OR MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
Single-Stage Flow Gauge Regulators	31-50-580	Argon	0-4,000 psig (0-280 bar)	0-50 scfh (0-25 lpm)	Flow Range 10-50 scfh (5-24 lpm)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
	31-50-320							CGA 320
	31-50-9	Argon						British fitting
Two-Stage Regulators	35-125-540	Oxygen	0-4,000 psig (0-280 bar)	0-150 psig (0-10 bar)	Max. Delivery Pressure 125 psig (9 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
	35-15-510	Acetylene	0-400 psig (0-28 bar)	0-30 psig (0-2 bar)	Max. Delivery Pressure 15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
	35-50-580	Nitrogen/helium	0-4,000 psig (0-280 bar)	0-60 psig (0-4 bar)	Max. Delivery Pressure 50 psig (3 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580

\*Includes 6-foot x 1/4-inch inert hose.

# Three-Stage Regulators

See literature GE/8.0

## LOW-PRESSURE THREE-STAGE NITROGEN REGULATORS

Preset regulators are specially designed to deliver a highly accurate and consistent 0.50 psig supply of nitrogen to the head space of oil-filled power transformers.

Shatter-resistant 2-inch gauge is easy-to-read.

Built-in self-relieving valve set at 8 psig protects the system from over-pressurization due to temperature variation.

Rapid-fill bypass pressure valve allowing rapid filling of the transformer with 6 psig of pressure.

Available with or without electronic pressure switch. Pressure switch is preset at 250 psig, but is adjustable from 70-300 psig.

Note: Operation voltage for 16347-3: 5 amps at 12/24 VDC or 125 VAC, 3 amps at 250 V. Switch wiring: Normally open or normally closed (DPDT), three 18-inch flying leads.



16347-3



STOCK NUMBER	GAS SERVICE	INLET GAUGE	PRESET OUTLET PRESSURE		MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
			2ND STAGE	3RD STAGE			
16391 (without pressure switch)	Nitrogen	0-4,000 psig (0-280 bar)	6 psig (0.41 bar)	0.5 psig (0.03 bar)	3,000 psig (207 bar)	1/2" FNPT	CGA 580
16347-3 (with pressure switch)							

# Specialty Gas Regulators

**Specialty gas regulators** provide a high degree of accuracy for comprehensive applications including bio-tech, pharmaceuticals, chemical processing, analytical, research and development, instrument analysis, gas chromatography, mass-spectrometry, petrochemical, aerospace, emissions testing and semi-conductor manufacturing.

Specialty gas regulators are used with a wide range of corrosive, non-corrosive, toxic, high-purity, cryogenic and general-purpose gases designed for pipeline systems, cryogenic cylinders and lecture bottles.

Different models can be configured with a wide variety of materials, accessories and inlet and outlet fittings for your exacting application.



See the list at right for regulator models that can be found in the **Smith Specialty Gas Regulators Catalog**, including the 820 Series listed below.

## General-purpose regulators

Recommended for use in non-corrosive and non-hazardous pure and mixed gas applications where elastomeric outgassing is not critical.

- 100 Series Line
- 110 Series Single-Stage Cylinder
- 120 Series Two-Stage Cylinder

## Analytical regulators

Recommended for use in non-corrosive pure and mixed gas applications.

- 200 Series Line
- 210 Series Single-Stage Cylinder
- 220 Series Two-Stage Cylinder

## High-purity corrosion-resistant regulators

Recommended for use in mildly corrosive and non-corrosive gas applications.

- 310 Series Single-Stage Cylinder
- 320 Series Two-Stage Cylinder

## High-purity regulators

Recommended for use in non-corrosive pure and mixed gas applications.

- 600 Series Line
- 610 Series Single-Stage
- 620 Series Two-Stage

## Low-flow (lecture bottle) regulators

Recommended for use in low-flow applications where compact size and reduced weight are important.

- 630 Series Two-Stage

## High-pressure analytical regulators

Recommended for use in non-corrosive pure and mixed gas applications.

- 810 Series Single-Stage
- 820 Series Single-Stage

## HEAVY-DUTY HIGH-PRESSURE REGULATOR

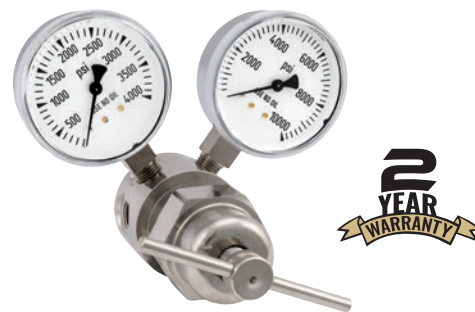
820 Series regulators are for use on cylinders with a wide variety of non-corrosive inert gases. Piston design gives structural reliability in high-pressure use.

Typical applications include high-pressure testing, purging/charging, calibration kits, airline charging carts, chemical plants, manufacturing processes, research/development and laboratories.

Shatter-resistant 2.5-inch gauges are easy-to-read.

Low-torque-control adjusting screw for easy pressure adjustments in closed/dead end systems.

*Note: Due to specific configurations, we cannot accept returns of 820 Series regulators.*



824-0009

MODEL SERIES	INLET GAUGE (200 PSIG GRADUATIONS)	OUTLET GAUGE (100 PSIG GRADUATIONS)	MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	MODEL CONFIGURATION		
					OPTION 1 (OUTLET PRESSURE)	OPTION 2 (OUTLET FITTINGS)	OPTION 3 (INLET FITTINGS — ADDITIONAL FITTINGS ARE AVAILABLE / MAX. INLET PRESSURE)
823	0 – 10,000 psig	0 – 1,000 psig	500 psig	823	00 None	—	
824		0 – 4,000 psig	1,000 psig	824		09 CGA 580 brass	3,000 psig
825		0 – 4,000 psig	2,000 psig	825		26 CGA 347 stainless steel	4,700 psig
826		0 – 6,000 psig	4,000 psig	826		27 CGA 677 stainless steel	6,400 psig
827		0 – 6,000 psig	6,000 psig	827		28 CGA 680 stainless steel	4,700 psig

# Heavy-Duty Flowmeter Regulators and Flowmeters

**Stock Number Definition**  
(Example: 22-80-580)

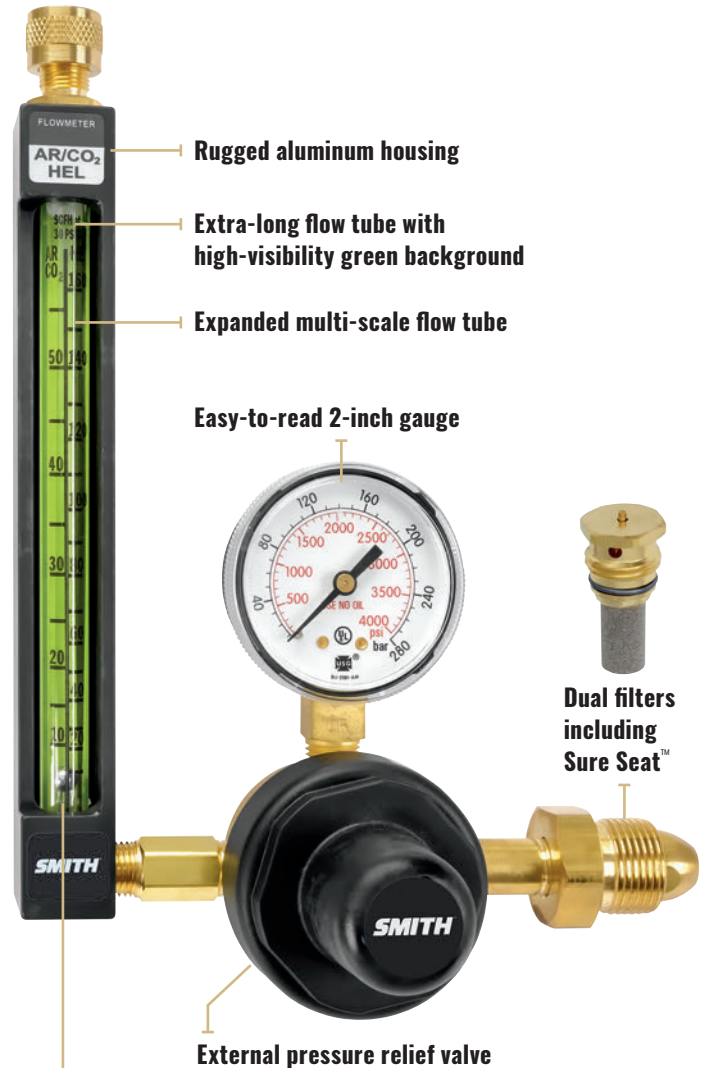
**22** Series  
**80** Preset outlet pressure  
**580** Inlet connection

## 100 percent tested and inspected.

Our heavy-duty flowmeter regulators and flowmeters provide unmatched gas control and accuracy and are available in multiple scales for use with all major shielding gases to cover most MIG or TIG welding applications.

## CONSTRUCTION FEATURES

- ▶ **Rugged aluminum housing**  
Protects flow tube from damage while offering unobstructed view of flow reading.
- ▶ **Extra-long flow tube with high-visibility green background**  
Eases readings from a distance and in low-light conditions.
- ▶ **Expanded multi-scale flow tube**  
Shatter-resistant polycarbonate resin flow tube is easy to read and accurate within five percent of full reading for inert gases.
- ▶ **Easy-to-read 2-inch gauge**  
Shatter-resistant gauge with polycarbonate lens cover.
- ▶ **Dual filters including Sure Seat™**  
Protects high-pressure seat from debris for reliable operation and long service life.
- ▶ **External pressure relief valve**  
Protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.
- ▶ **Exclusive self-centering ball guide**  
Provides accurate reading even if tipped. Others use conventional guide where the ball floats off center causing the actual gas flow to be two times greater than indicated.



Smith self-centering ball guide



Others' conventional flow tube



Heavy-duty flowmeter regulators and flowmeters are warranted for three years, parts and labor.

# Heavy-Duty Flowmeter Regulators and Flowmeters

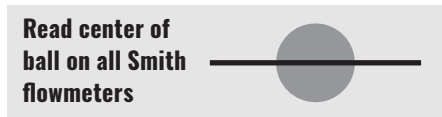
See literature GE/2.0

## HEAVY-DUTY FLOWMETER REGULATORS

Rugged industrial-grade regulators provide efficient and accurate regulation, and include our exclusive self-centering ball guide.

Provides high argon flow capacity up to 80 scfh.

Dual filters including sure seat prevent contamination from entering the seating area, reducing repair costs and downtime. Filtered seats also reduce CO<sub>2</sub> freeze-up. On two-stage flowmeter regulator (35-30-320) the heat exchanger further reduces high-flow CO<sub>2</sub> freeze-up.



FLOWMETER REGULATOR	STOCK NUMBER	GAS SERVICE	FLOW RANGE	PRESET OUTLET PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
Heavy-Duty Single-Stage Flowmeter Regulators	22-80-580 22-80-580-6*	Argon/CO <sub>2</sub>	10–80 scfh (5–38 lpm)	80 psig (6 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
	22-80-320 22-80-320-6*	CO <sub>2</sub>	10–80 scfh (5–38 lpm)	80 psig (6 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320
	22-30-580 22-30-580-6*	Argon/CO <sub>2</sub> Helium	10–55 scfh (5–26 lpm) 10–160 scfh (5–76 lpm)	30 psig (2 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
Heavy-Duty Two-Stage Flowmeter Regulator	35-30-320	CO <sub>2</sub>	10–55 scfh (5–26 lpm)	30 psig (2 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320

\*Includes 6-foot x 1/4-inch inert hose.

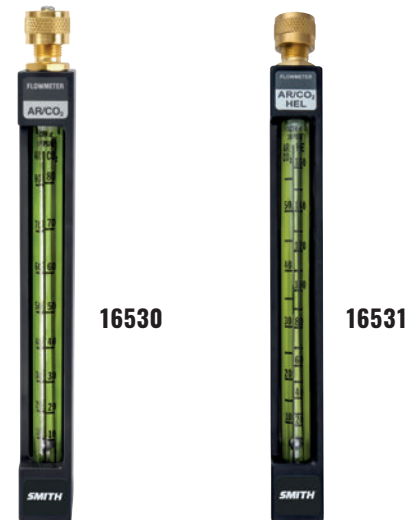
Note: When using argon/CO<sub>2</sub> mix, read argon scale.

## HEAVY-DUTY FLOWMETERS

Heavy-duty flowmeter models are designed to operate at inlet pressures of 80 psig (model 16530) or 30 psig (16531). They can be attached to regulators or pipeline installations.

Includes extra-long flow tube made of shatter-resistant polycarbonate resin that is accurate to within five percent of the full scale reading.

Exclusive self-centering ball guide centers the ball in the tube and keeps it centered (competitors use a ball floating in a non-centering tube which allows the ball to float off-center resulting in greater flows than the reading indicates).



STOCK NUMBER	GAS SERVICE	FLOW RANGE	RECOMMENDED INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
16530	Argon/CO <sub>2</sub>	10–80 scfh (5–38 lpm)	80 psig (6 bar)	5/8"-18 RH internal	1/4" FNPT
16531	Argon/CO <sub>2</sub>	10–55 scfh (5–26 lpm)	30 psig (2 bar)		
	Helium	10–160 scfh (5–76 lpm)			

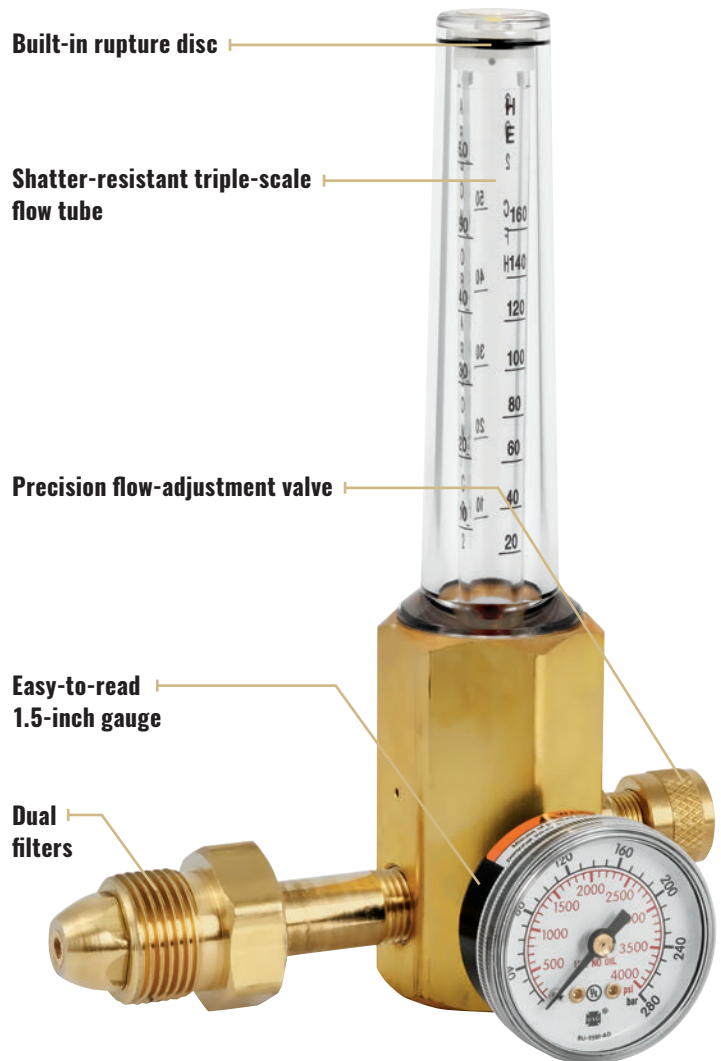
# Medium-Duty Flowmeter Regulators and Flowmeters

## 100 percent tested and inspected.

Our medium-duty flowmeter regulators and flowmeters combine exceptional value and a compact design with accurate shielding gas regulation for MIG or TIG welding applications and more.

## CONSTRUCTION FEATURES

- ▶ **Built-in rupture disc**  
Reduces possibility of flow tube damage due to inadvertent high-pressure surge. Disc is user-replaceable if ruptured — not auto-resetting.
- ▶ **Shatter-resistant triple-scale flow tube**  
Polycarbonate resin flow tube can be rotated to position desired scale for easy reading. Scaled for CO<sub>2</sub>, argon and argon/CO<sub>2</sub> mix, and helium.
- ▶ **Precision flow-adjustment valve**  
Allows easy adjustment to desired setting.
- ▶ **Easy-to-read 1.5-inch gauge (2-inch gauge on dual model)**  
Shatter-resistant gauge with polycarbonate lens cover.
- ▶ **Dual filters**  
Protects high-pressure seat from debris for reliable operation and long service life.



Medium-duty flowmeter regulators and flowmeters are warranted for three years, parts and labor.

# Medium-Duty Flowmeter Regulators and Flowmeters

See literature GE/2.5

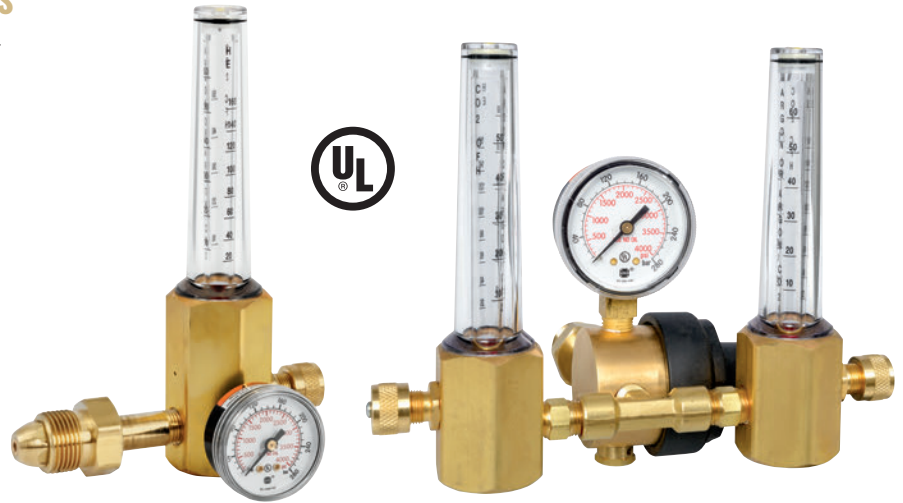
## MEDIUM-DUTY FLOWMETER REGULATORS

Medium-duty flowmeter regulators provide accurate shielding gas regulation.

Shatter-resistant polycarbonate flow tube(s) is repositionable for easy reading, featuring triple-scale for CO<sub>2</sub>, argon and argon/CO<sub>2</sub> mix, and helium.

Packless o-ring flow tube seal reduces maintenance and a built-in rupture disc reduces possibility of flow tube damage due to high-pressure inlet surge.

Dual flowmeter regulator has a back-pressure compensated flow tube with shatter-resistant polycarbonate cover, sensitive needle valve for fine adjustment and a larger 2-inch (51 mm) gauge.



H2051B-580

23-50-580

**Read center of ball on all Smith flowmeters**

FLOWMETER REGULATOR	STOCK NUMBER	GAS SERVICE	FLOW RANGE	PRESET OUTLET PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
Medium-Duty Single-Stage Flowmeter Regulators	H2051B-580 H2051B-580H*	Argon, argon/CO <sub>2</sub>	0–60 scfh (0–28 lpm)	50 psig (3 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
		CO <sub>2</sub>	0–50 scfh (0–24 lpm)				
		Helium	0–160 scfh (0–78 lpm)				
Medium-Duty Single-Stage Dual Flowmeter Regulator	23-50-580	Argon, argon/CO <sub>2</sub>	0–60 scfh (0–28 lpm)	50 psig (3 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
		CO <sub>2</sub>	0–50 scfh (0–24 lpm)				
		Helium	0–160 scfh (0–78 lpm)				

\*Includes 6-foot x 1/4-inch inert hose.

Note: When using argon/CO<sub>2</sub> mix, read argon scale.

## MEDIUM-DUTY FLOWMETERS

Medium-duty flowmeter models are designed to operate at inlet pressures of 50 psig.

They can be attached to regulators or pipeline installations.

Features include a shatter-resistant polycarbonate flow tube that is repositionable for easy reading with a triple-scale for CO<sub>2</sub>, argon and argon/CO<sub>2</sub> mix, and helium.

**Read center of ball on all Smith flowmeters**

**Do not connect directly to gas cylinder**



H2230A

STOCK NUMBER	GAS SERVICE	FLOW RANGE	RECOMMENDED INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
H2230A	Argon, argon/CO <sub>2</sub>	0–60 scfh (0–28 lpm)	50 psig (3 bar)	5/8"-18 RH internal	H2230A: 1/4" MNPT H2231A: 5/8"-18 RH external
H2231A	Argon/CO <sub>2</sub>	0–50 scfh (0–24 lpm)			
	Helium	0–160 scfh (0–78 lpm)			

# Outfits and Packs

**Outfits include all the components and accessories needed for your cutting, heating, welding or brazing project.**

**Packs are an easy and economic way to update or change your oxy-fuel system. They are available with either cutting, heating and welding tips OR multiple cutting tips.**

**See our torch comparison on page 5 to find the right torch for you.**

## HEAVY-DUTY

Robust torches and regulators provide maximum durability even in the harshest environments. Heavy-duty hand cutting torches cut up to 12 inches. Heavy-duty combination torches cut up to 8 inches and can accommodate large heating and welding tips. Ideal for everyday high-gas-flow cutting, heating and welding applications including shipbuilding, railroad, salvage, pipeline, metal fabrication, construction and demolition.

## MEDIUM-DUTY

Medium-duty torches and regulators feature quality construction throughout providing dependability for a wide range of applications. Medium-duty combination torches cut up to 6 inches and can accommodate heating and welding tips. Ideal for everyday medium-duty cutting, heating and welding applications including shipbuilding, railroad, pipeline, metal fabrication and construction.

## TOUGH CUT™

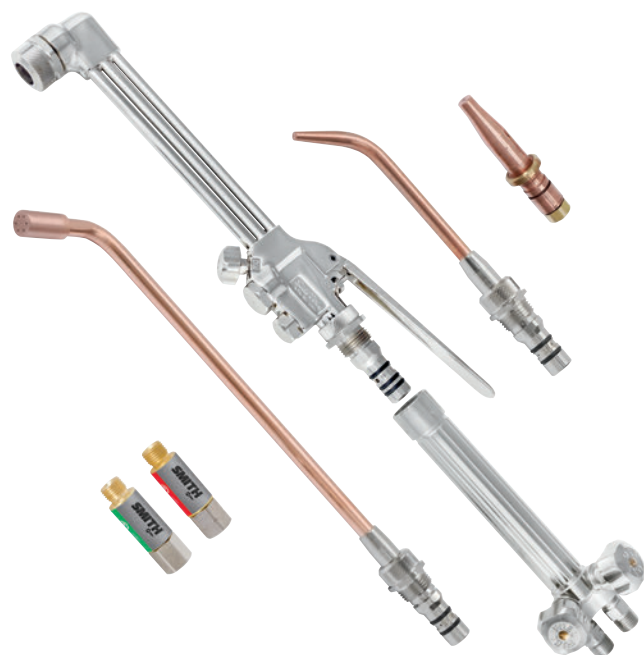
Toughcut outfits provide an economic option for your oxy-fuel needs. They provide dependability for your occasional medium-duty cutting, heating, and welding applications. Toughcut torches can cut up to 6 inches and can accommodate heating and welding tips. Ideal for farm and ranch, metal fabrication and auto repair.



**Torches are warranted for 25 years, parts and labor. Regulators are warranted for three years, parts and labor.**



**Heavy-duty combination torch outfit HBA-40510**



**Heavy-duty combination torch pack 16206**

# Heavy-Duty Hand Cutting Torch Outfits

**Cuts up to 1-1/4 inches (32 mm) with included tips**  
**Cuts up to 12 inches (305 mm) with optional tips**

Hand cutting torch outfits are built for the toughest jobs.

They feature an SC229 nickel-plated torch with proven in-tip gas mixing technology, reversible cutting lever and ease-on oxygen design for smooth starts and restarts.

The outfits also include either our heavy-duty Series 40™ regulators or medium-duty Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.

HBS outfits come with HB190 Hard Hat™ gauge/regulator guards made from rugged steel.

HBAS outfits come with hose, lighter, safety glasses, tip cleaner and flashback arrestors.



**HBS-H510S / HBS-H300S**



**HBAS-30510 / HBAS-30300**

STOCK NUMBER	FUEL GAS	CUTTING TORCH	CUTTING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
HBS-H510S	Acetylene	SC229	SC12-2	40-175-540S CGA 540	40-15-510S CGA 510	HB190 Hard Hat gauge/regulator guard
HBS-H300S					40-15-300S CGA 300	
HBAS-30510	Acetylene	SC229	SC12-1	30-100-540 CGA 540	30-15-510 CGA 510	20 ft. (6.1 m) 3/16 in. (5 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, tip cleaner, H743 torch-mount flashback arrestors
HBAS-30300					30-15-300 CGA 300	

Note: Cutting capacity with tip in HBS outfit is up to 1-1/4 inches (32 mm). Cutting capacity with tip in HBAS outfit is up to 5/8 inch (16 mm).

# Heavy-Duty Combination Torch Outfits

**Cuts up to 1-1/4 inches (32 mm) with included tips**  
**Cuts up to 8 inches (203 mm) with optional tips**

These heavy-duty outfits feature our heavy-duty combination torch with proven in-tip gas mixing technology and Flo-Trol™ valve to prevent the reverse flow of mixed gases. This combination improves operator safety and increases torch life.

The outfits also include either our heavy-duty Series 40™ regulators or medium-duty Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.

*Note: Welding may require additional equipment depending on which outfit is ordered. See chart below.*



**HBA-30510**  
with medium-duty regulators



**HBA-40510 / HBA-40300**  
with heavy-duty regulators



**HBA-30300**  
with medium-duty regulators



**HBA-30510LP**  
with medium-duty regulators

STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	HEATING TIP	WELDING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES	
HBA-40510	Acetylene	WH200A	SC209	SC12-1 SC12-2	ST602	SW205	40-175-540 CGA 540	40-15-510 CGA 510	25 ft. (7.6 m), 1/4 in. (6 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, tip cleaner, H743 torch-mount flashback arrestors	
HBA-40300								40-15-300 CGA 300		
HBA-30510	Acetylene	WH200A	SC209	SC12-1	ST602	SW205	30-100-540 CGA 540	30-15-510 CGA 510		
HBA-30300								30-15-300 CGA 300		
HBA-30510LP	Propane or natural gas	WH200A	SC209	SC40-1	ST615	—	30-100-540 CGA 540	30-50-510 CGA 510		20 ft. (6.1 m) 1/4 in. (6 mm) "T"-grade twin hose, lighter, shade 5 safety glasses, tip cleaner, H698 regulator-mount check valves

*Note: Cutting capacity with SC12-1 or SC40-1 cutting tip in outfits is up to 5/8 inch (16 mm), and with SC12-2 tip in HBA-40510 is up to 1-1/4 inches (32 mm).*

# Medium-Duty Combination Torch Outfits

See literature GE/11.0

**Cuts up to 5/8 inch (16 mm) with included tips**  
**Cuts up to 6 inches (153 mm) with optional tips**

These medium-duty outfits feature our medium-duty combination torch with proven in-tip gas mixing technology and Flo-Trol™ valve to prevent the reverse flow of mixed gases. This combination improves operator safety and increases torch life.

The outfits also include our Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.



**MBA-30510**



**MBA-30300**



**MBA-30510LP**

STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	HEATING TIP	WELDING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
MBA-30510	Acetylene	WH100	MC509	MC12-0	MT603	MW205	30-100-540 CGA 540	30-15-510 CGA 510	20 ft. (6.1 mm) 1/4 in. (6 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, tip cleaner, H743 torch-mount flashback arrestors
MBA-30300				MC12-1				30-15-300 CGA 300	
MBA-30510LP	Propane or natural gas	WH100	MC509	MC40-1	MT805	—	30-100-540 CGA 540	30-50-510 CGA 510	20 ft. (6.1 mm) 1/4 in. (6 mm) "T"-grade twin hose, lighter, shade 5 safety glasses, tip cleaner, H698 regulator-mount check valves

Note: Cutting capacity with cutting tip in outfits is up to 5/8 inch (16 mm).

# Toughcut™ Combination Torch Outfits

See literature GE/10.0

**Cuts up to 5/8 inch (16 mm) with included tips**  
**Cuts up to 6 inches (153 mm) with optional tips**

Toughcut outfits feature our toughcut cutting attachment with proven in-tip gas mixing technology. This outfit is ideal for applications such as farm and ranch, automotive, refrigeration, light fabrication and repair.

The outfits also include our Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.



**MB55A-300**



**MB55A-510**



**MB54A-510LP**

STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	HEATING TIP	WELDING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
MB55A-510	Acetylene	WH100	CC509P	MC12-1	MT603	MW205	30-100-540 CGA 540	30-15-510 CGA 510	20 ft. (6.1 mm) 3/16 in. (5 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, H698 regulator-mount check valves
MB55A-300								30-15-300 CGA 300	
MB54A-510LP	Propane	WH100	CC509P	MC40-1	—	—	30-100-540 CGA 540	30-50-510 CGA 510	20 ft. (6.1 mm) 1/4 in. (6 mm) "T"-grade twin hose, lighter, shade 5 safety glasses, H698 regulator-mount check valves

Note: Cutting capacity with cutting tip in outfits is up to 5/8 inch (16 mm).

# Combination Torch and Tips Packs

## HEAVY-DUTY COMBINATION TORCH AND TIPS PACKS

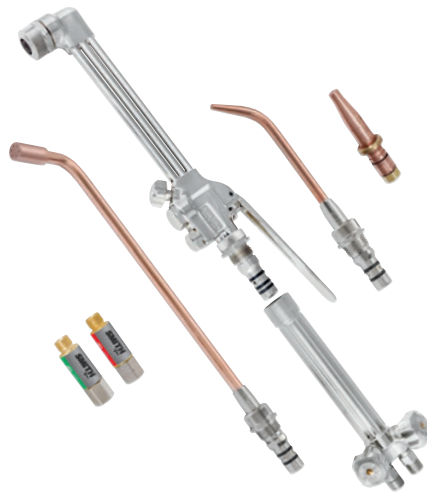
**Cuts up to 5/8 inch (16 mm) with included tips**

**Cuts up to 8 inches (203 mm) with optional tips**

These heavy-duty packs are available with either cutting, heating and welding tips **OR** multiple cutting tips. They feature our heavy-duty combination torch with proven in-tip gas mixing technology and Flo-Trol™ valve to prevent the reverse flow of mixed gases.

Graf-Tite™ soft-seat cutting tips maintain positive seating, eliminating leaks for longer use even if the tip is nicked.

Our thick-wall heating and welding tips hold up well to excess heat for long service life.



16206



16280



## MEDIUM-DUTY COMBINATION TORCH AND TIPS PACKS

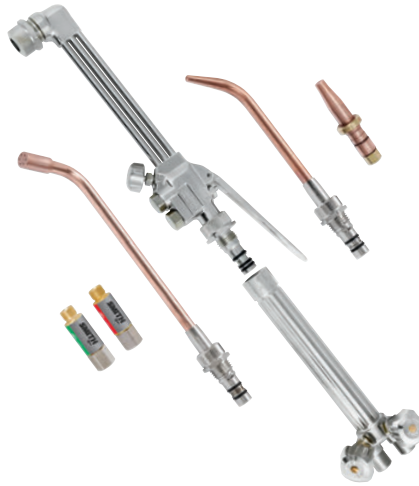
**Cuts up to 5/8 inch (16 mm) with included tips**

**Cuts up to 6 inches (153 mm) with optional tips**

These medium-duty packs are available with either cutting, heating and welding tips **OR** multiple cutting tips. They feature our medium-duty combination torch with proven in-tip gas mixing technology and Flo-Trol™ valve to prevent the reverse flow of mixed gases.

Graf-Tite™ soft-seat cutting tips maintain positive seating, eliminating leaks for longer use even if the tip is nicked.

Our thick-wall heating and welding tips hold up well to excess heat for long service life.



16205



16281

STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	HEATING TIP	WELDING TIP	INCLUDES
16206 (heavy-duty)	Acetylene	WH200A	SC209	SC12-1	ST602 (40,000 avg. Btu/hr.)	SW203	H743 torch-mount flashback arrestors
16280 (heavy-duty)				SC12-0, SC12-1	—	—	
16205 (medium-duty)	Acetylene	WH100	MC509	MC12-1	MT603 (40,000 avg. Btu/hr.)	MW203	H743 torch-mount flashback arrestors
16281 (medium-duty)				MC12-0, MC12-1	—	—	

Note: Cutting capacity with cutting tip in outfits is up to 5/8 inch (16 mm).

# Specialty Outfits

Specialty outfits include all the components and accessories needed for your cutting, heating, welding or brazing project. They offer versatility and feature uniquely designed torches and tips for efficiency and precision in specific applications, including refrigeration and air conditioning, maintenance and repair, plumbing, metal fabrication, jewelry and other specialized applications.

## TAG-A-LONG™ OUTFIT

Lightweight and compact design stores easily for road travel or when not in use. Torch is capable of cutting up to 6 inches and the portable carrier houses a 20 cubic foot oxygen cylinder and a 10 cubic foot acetylene cylinder. Ideal for farm and ranch and maintenance and repair operations.

## VERSA-TORCH® OUTFIT

Lightweight and compact design stores easily for road travel or when not in use. Torch is capable of cutting up to 3 inches and the portable carrier houses a 20 cubic foot oxygen cylinder and a 10 cubic foot acetylene cylinder. Ideal for maintenance and repair operations.

## LITTLE TORCH® OUTFIT

Produces a perfectly controlled, completely stable torch flame for your soldering and brazing applications. Flame is hot enough to melt commercially weldable metals, glass and even ceramics.

## QUICKBRAZE™ OUTFIT

Perform quick brazing in refrigeration and air conditioning applications without using messy and costly heat sink materials and still protect internal parts from heat transfer damage.

## HANDI-HEET™ OUTFIT

Provides fast heat with acetylene and atmospheric air. The concentrated soft torch flame delivers heat right where it is needed for maximum performance in soldering, heating and brazing applications.



Tag-A-Long



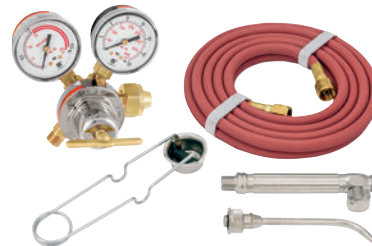
Versa-Torch



Little Torch



Quickbraze



Handi-Heat



Tag-A-Long and Versa-Torch torches are warrantied for 25 years, parts and labor. Regulators are warrantied for three years, parts and labor.



Regulators are warrantied for three years, parts and labor (except preset regulators used in select Little Torch outfits — one year). Little Torch, Quickbraze and Handi-Heat torches are warrantied for one year, parts and labor.

## TOUGH CUT™ TAG-A-LONG™ OUTFITS

**Cuts up to 3/8 inch (10 mm) with included tips**  
**Cuts up to 6 inches (153 mm) with optional tips**

These Toughcut Tag-A-Long outfits are ideal for farm and ranch, maintenance and repair, automotive and light fabrication applications. They feature our Toughcut combination torch with proven in-tip gas mixing technology.

The portable carrier is durable and includes a hose wrap and covered storage compartment for accessories.

The outfits also include our Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.



**TL-550**



STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	WELDING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
TL-500 (no tanks) TL-550	Acetylene	WH100	CC509P	MC12-0	MW203	30-100-540 CGA 540	30-15-200 CGA 200	Carrier, 12.5 ft. (3.8 m), 3/16 in. (5 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, H698 regulator-mount check valves, oxygen cylinder, acetylene cylinder (cylinders NOT included with TL-500)

*Note: Cutting capacity with tip in outfits is up to 3/8 inch (10 mm). Use of larger tips than those in outfits may require larger/higher capacity cylinders. See owners manual for more information.*



# Specialty Outfits

See literature GE/18.0

## STANDARD-DUTY VERSA-TORCH® OUTFIT

**Cuts up to 3/16 inch (5 mm) with included tip**  
**Cuts up to 3 inches (76 mm) with optional tips**

These Versa-Torch outfits are ideal for maintenance and repair operations, air conditioning and refrigeration and plumbing applications. They feature our standard-duty combination torch with proven in-tip gas mixing technology.

The portable carrier is durable and includes a hose wrap and covered storage compartment for accessories.

The outfits also include our Series 30™ regulators with dual filters, including exclusive Sure Seat™ technology to protect the seat from debris for reliable operation.



STOCK NUMBER	FUEL GAS	TORCH HANDLE	CUTTING ATTACHMENT	CUTTING TIP	MIXER TUBE	HEATING TIP END	BRAZING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
VT-4T	Acetylene	AW1A	AC309	MC12-00	AT60	13716 Rosebud	LT103 LT104 LT106	30-100-540 CGA 540	30-15-200 CGA 200	Carrier, 12.5 ft. (3.8 m), 3/16 in. (5 mm) "R"-grade twin hose, lighter, shade 5 safety glasses, H698 regulator-mount check valves, oxygen cylinder, acetylene cylinder

*Note: Cutting capacity with tip in outfit is up to 3/16 inch (5 mm). Use of larger tips than those in outfits may require larger/higher capacity cylinders. See owners manual for more information.*

## VERSA-TORCH BRAZING/SOLDERING TIP SELECTION

**Screw-On Acetylene Multi-Flame Tip 13716**

**Screw-On Acetylene/LP Tips LT100 Series and NE154** (see chart below)

**Screw-On Acetylene/LP Tips LT100 Series and NE154** (see chart below)

**Screw-On Acetylene Multi-Flame Tip 13715**

**Multi-Flame Tip AT605** (see page 23)

**Brazing Tip Assembly AW200 Series** (see page 25)

**Threaded Tip Tube AT60** (see page 23)

**10-Inch Tip AT600** (see below, includes LT103 tips)

**Flexible Twin Flame Tips**

**6-Inch Tip AT600X6** (see below, includes LT103 tips)

**Threaded Tip Tube AT61** (see page 23)

**Acetylene**

**Acetylene with LT100 Series**

**Propane/natural gas with NE154**

**Propane/natural gas**

## VERSA-TORCH FLEXIBLE TWIN-FLAME TIPS

(acetylene/propane/natural gas)

Flexible twin-flame tips provide concentrated heat for soldering and other soft-flame applications.

### Compatible combination torch handle

AW1A standard-duty torch handle



STOCK NUMBER	TIP END	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		CONSUMPTION (SCFH)		OVERALL LENGTH (INCLUDING TIP END) INCHES (MM)
			OXYGEN	FUEL GAS	OXYGEN	FUEL GAS	
AT600 AT600X6	LT103	12,600	10	10 (acetylene)	8.6	8.6 (acetylene)	AT600: 13.8 (351) AT600X6: 9.8 (249)
	LT104	26,400	10	10 (acetylene)	18	18 (acetylene)	
	LT106	50,000	10	10 (acetylene)	34	34 (acetylene)	
	NE154	55,000	10	10 (propane/natural gas)	76	22 (propane/natural gas)	

*Note: Use LT100 series tip ends for acetylene (LT103 tip ends are included with (AT600 and AT600X6) and NE154 tip ends for propane/natural gas (see chart below).*

## LITTLE TORCH® OUTFITS

### Brazes up to 7/8 inch (22 mm) with No. 7 tip

These Little Torch outfits provide top precision and control on small-part soldering and brazing applications making them ideal for jewelry manufacturing and repair.

Exclusive No. 2 and 3 tip orifices are fitted with laser-drilled synthetic sapphires for accurate gas flow and consistent flame. The variety of tip settings can melt up to 3 ounces of gold or silver.

The Little Torch works with different tank sizes from large pressurized cylinders to small disposable types.



23-1003



23-1014



TIP TYPE	SIZE	AVERAGE BTU/HOUR	BRAZING CAPACITY COPPER PIPE
Curved	No. 2	130	—
	No. 3	1,150	Up to 1/8 in.
	No. 4	2,300	1/4 – 3/8 in.
	No. 5	3,800	5/16 – 5/8 in.
	No. 6	6,585	3/8 – 3/4 in.
	No. 7	9,200	1/2 – 7/8 in.



23-1004A



23-1010P



23-1015P

KIT	STOCK NUMBER	GAS SERVICE	TORCH	CURVED TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
Basic Kit	23-1001D	Any fuel gas	11-1101C	No. 3 No. 4 No. 5 No. 6 No. 7	—	—	8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses with "B" 9/16"-18 hose fittings
	23-1013A						8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses with Australian hose fittings
	239-047B						8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses with British hose fittings
	239-048A						8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses with European hose fittings
Kit with Regulators	23-1003	Acetylene	11-1101C	No. 3 No. 4 No. 5 No. 6 No. 7	30-20-540 CGA 540	30-15-200 CGA 200	8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses, H698 regulator-mount check valves
	23-1003B	Acetylene				30-15-520 CGA 520	
	23-1003P	Acetylene Propane				30-15-510 CGA 510	
Kit for Disposable Tanks	23-1014	Propane Propylene	11-1101C	No. 5	249-499B preset regulator	249-500B preset regulator	8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses, cylinder holder (cylinders NOT included — may be purchased at local hardware stores or gas distributors)
Caddy Kits	23-1004A	Acetylene	11-1101C	No. 3 No. 4 No. 5 No. 6 No. 7	30-20-540 CGA 540	30-15-200 CGA 200	Carrier, 8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses, H698 regulator-mount check valves, oxygen cylinder, acetylene cylinder
	23-1010P	Propane				249-500B preset regulator	Carrier, 8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses, H698 regulator-mount check valves, oxygen cylinder, refillable propane cylinder
	23-1015P	Propane				30-15-510 CGA 510	Metal carrier, 8 ft. (2.4 m), 1/8 in. (3.2 mm) covered hoses, H698 regulator-mount check valves, oxygen cylinder (disposable propane cylinder NOT included)

# Specialty Outfits

See literature GE/19.0 (Handi-Heat)

## QUICKBRAZE™ OUTFITS

**Heats up to 13,760 Btu with included tips**  
**Brazes up to 1-5/8 inch (35 mm) with included tips**

These Quickbraze outfits provide quick heat for brazing applications making them ideal for refrigeration and air conditioning applications.

The heat is unable to transfer to internal valve parts, protecting them from damage and eliminating the need for messy and costly heat sink materials.

Included twin flame tips solder coil return bends quickly and evenly and don't heat or loosen surrounding joints.



23-5005A



23-5004A

TIP NUMBER	AVERAGE BTU/HOUR	BRAZING CAPACITY — COPPER PIPE
16586	7,360	1/2 – 3/4 in.
T7	12,200	5/8 – 1-3/8 in.
14711*	13,760	1/2 – 1-5/8 in.

\*For use with acetylene only.

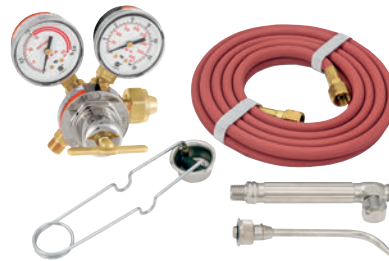
STOCK NUMBER	FUEL GAS	TORCH ASSEMBLY	SINGLE FLAME TIP	TWIN FLAME TIP	HEATING TIP	OXYGEN REGULATOR	FUEL GAS REGULATOR	INCLUDES
23-5005A	Any fuel gas (acetylene-only for use with 14711 heating tip)	11-1116 with 10 ft. (3 m) hose and "A" 3/8" hose fittings	16586	T7	14711 Rosebud	—	—	1 pair of hose adapters from "A" 3/8" fittings to "B" 9/16" fittings
23-5004A	Acetylene	11-1114 with 10 ft. (3 m) hose and "B" 9/16" hose fittings				30-20-540 CGA 540	30-15-200 CGA 200	Carrier, lighter, H698 regulator-mount check valves

## HANDI-HEET™ OUTFITS

**Heats up to 26,460 Btu with optional tips**

These Handi-Heat outfits provide fast heat with acetylene and atmospheric air, no oxygen tank is needed. They are ideal for plumbing, manufacturing and repair and precision metal work.

The soft flame is easily controlled by a one hand flame adjustment and provides concentrated heat for better puddle control and eliminates puddle chasing.



239-193



NE835A

TIP NUMBER	AVERAGE BTU/HOUR
NE180-00	588
NE180-0	1,764
NE180-1	3,675
NE180-2	6,174
NE180-3	10,878
NE180-4	26,460



STOCK NUMBER	FUEL GAS	TORCH HANDLE	AIR/ACETYLENE TIP	FUEL GAS REGULATOR	INCLUDES
239-193	Acetylene	NE180A	NE180-00	30-15-520 CGA 520	3/16 in. (5 mm) "R"-grade twin hose, lighter
NE835A			NE180-1		
			NE180-2 NE180-3		

# Accessories

## HARD HAT™ REGULATOR GUARDS

Protect regulators from costly gauge replacement with our Hard Hat gauge guards. Designed to help prevent broken gauges which can lead to gas leaks, costly equipment downtime and expensive repairs.

**HB190** Made from rugged steel with a bright yellow, baked-enamel finish. Fits Series 40™ regulators.

**H195** Formed from extremely tough, impact-resistant polycarbonate resin with a bright, safety-yellow finish. Fits Series 30™ regulators.

*Note: Will not work with flow gauge regulators.*



**HB190**

**H195**

## GASAVER

Gasaver is ideal for production brazing and welding applications, and can help you realize savings by reducing wasted gas between flame applications, or during torch start-up/shut-down. Hook rod provides a place to temporarily keep torch secure when not in use. Torch flame is automatically extinguished when torch is not in use—simply pass torch over pilot flame to re-light.

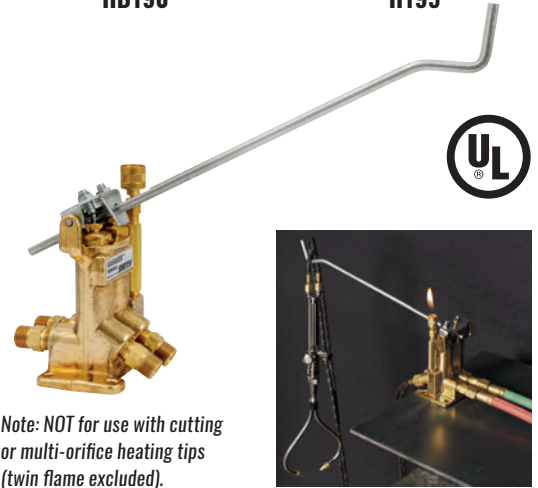
Install on the line between regulators and torch. The closer the torch, the greater the savings on oxygen and fuel gas. Comes equipped with adjustable pilot light (WDW103 pilot flame requires separate fuel source).

**WDW100** For use with propylene

**WDW101** For use with acetylene

**WDW103** For use with low-pressure natural gas under four psi or hydrogen

**WDW104** For use with propane or natural gas at four psi or above



*Note: NOT for use with cutting or multi-orifice heating tips (twin flame excluded).*

## H1400 SERIES FIXED-FLOW ADAPTORS

Designed for welding operations or other applications requiring fixed gas flows. Installs in regulator outlet or directly on 30 psig pipeline outlet without regulator. Set regulator at 30 psig and be assured of correct gas flow. Inlet filter protects orifice from debris. Female thread size 5/8"-18 UNF, male thread size 1/4-inch (6 mm) NPT.



STOCK NUMBER	FLOW (SCFH) AT 30 PSIG INLET PRESSURE							ORIFICE DIAMETER
	CO <sub>2</sub>	AIR	ARGON	HELIUM	NITROGEN	HYDROGEN	OXYGEN	
H1400-20	20	24	21	65	25	91	23	.026
H1400-30	30	37	32	100	38	140	35	.032
H1400-40	39	48	41	129	49	182	46	.037
H1400-50	50.5	62	53	167	63	234	59	.042

## 15001 SERIES SURGE PROTECTORS

Fixed-flow surge protectors designed for MIG welding applications eliminate sudden surges of shielding gas into the wire feeder. Flows listed are at 30 psig inlet pressure. Female and male thread size 5/8"-18 UN, (connects directly to wire feeder or welder).



STOCK NUMBER	FLOW (SCFH) AT 30 PSIG INLET PRESSURE							ORIFICE DIAMETER
	CO <sub>2</sub>	AIR	ARGON	HELIUM	NITROGEN	HYDROGEN	OXYGEN	
15001-20	20	24	21	65	25	91	23	.026
15001-30	30	37	32	100	38	140	35	.032
15001-40	39	48	41	129	49	182	46	.037



**N230**  
Cylinder Wrench



**N250**  
Tip Cleaner (sharp point spiral)



**NE135B**  
Two-Hose Manifold (oxygen "B" connections)

**NE136B**

Two-Hose Manifold (fuel "B" connections)



**16229**  
Adjustable Circle Cutting Guide  
(cuts from 5/8 to 12 inch diameter holes — works with all SC- and MC-style cutting tips)



## DESIGNED FOR SAFETY. BUILT FOR RELIABILITY.

When you make your living with your hands, it matters a great deal what you put in them. You need tools as rugged, dependable and hardworking as you are to keep moving forward with superior results no matter the task. Smith oxy-fuel equipment is made to last. Crafted with exceptional design, our oxy-fuel torches and tips, regulators, outfits and accessories improve safety and provide unparalleled performance. With over a century of trusted expertise, trust in Smith to get the job done no matter what it requires.



For pricing or to find your local distributor, visit us on the web or give us a call at: 1-800-426-4553

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