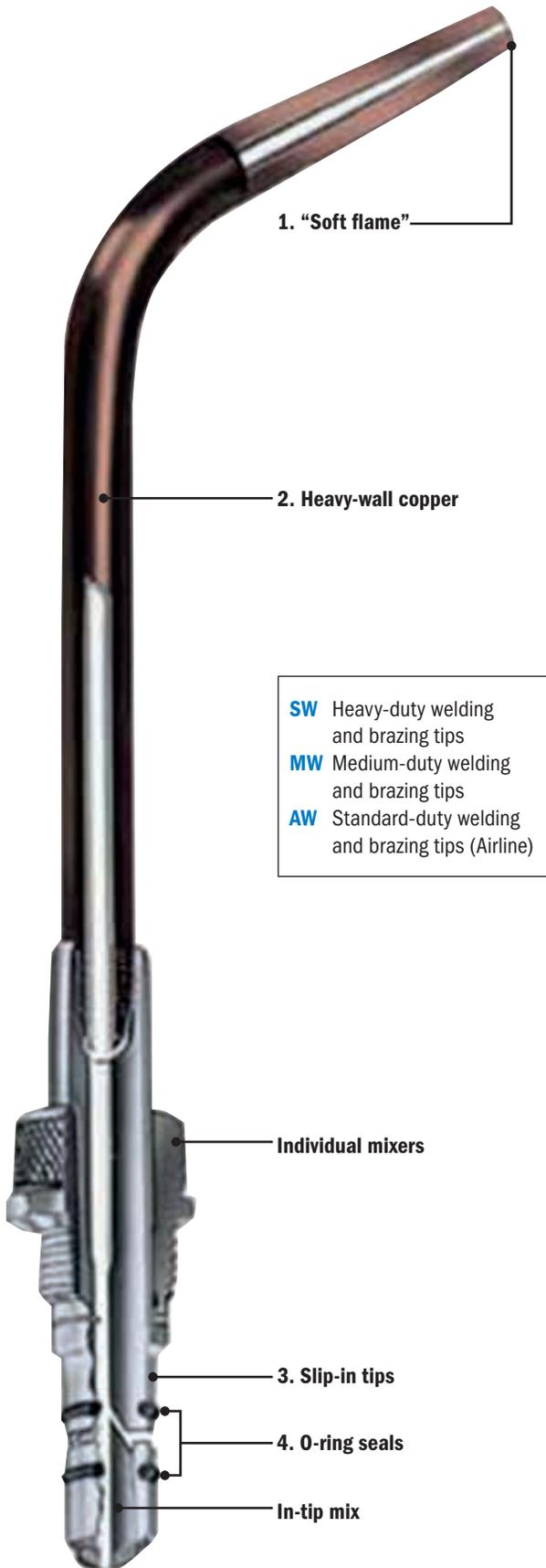


Welding Tips



Our “soft flame” welding tips are 100-percent tested and inspected, and make welding easier.

Our welding tips are quality engineered to provide easy handling, high performance and added protection in welding, brazing and soldering operations. Each tip is individually tested on our automatic testing machines and must pass stringent requirements for flame characteristics, gas flow and resistance to backfire or flashback.

Construction features

- 1 “Soft flame”**

Our “soft flame” welding tips provide concentrated heat for better “puddle” control – the turbulent-free flame eliminates puddle chasing. Soft flame provides deep, even penetration without burning through base metal for strong, dependable welds. Molten metal is protected from atmospheric oxidation by smooth, even flame envelope.
- 2 Heavy-wall copper**

Heavy-wall copper gives greater resistance to reflected heat, permits cooler operation, and dissipates more heat than thin-wall copper. Heat-absorbing tips provide longer life, and the long straight-away design permits tip refacing after excessive wear or abuse.
- 3 Slip-in tips**

Tips may be rotated 360 degrees for convenient positioning, eliminating hose resistance during operation. Slip-in tips can be changed in just seconds. Hand tighten, no wrench needed. O-rings provide gas-tight seal keeping gases separate until they mix in the tip.
- 4 O-ring seals**

O-rings provide gas-tight seal with no metal seating surface to damage if dropped. Gases are kept separate until entering the mixing chamber.

Fuel Gas Chart

Generic Name	Trade Name
Acetylene	–
Propane and Propane-Based Mixtures	Propane-butane, Flamex, Acetogen, Chem-O-Lene, Florida Industrial Gas, Hy-Temp, Fuel Gas, I.G. Gas, Chem-Gas, Lingas, Chemtone
Propylene	HPG, Apache, B-Plus, Gulf HP Gas, HEF, Liquifuel, B.T.U.
Natural Gas (Methane)	Natural Gas, City Gas

CAUTION: Manifolding cylinders

When required flows (cubic feet per hour – SCFH) exceed the recommended withdrawal rate from one cylinder, then additional cylinders must be manifolded to provide safe and efficient operation. Acetylene must not be withdrawn at more than 1/7 of the cylinder capacity per hour (50 SCFH for a 350 cu. ft. cylinder). Consult your gas supplier for manifolding instructions for the gases and cylinders supplied to you.

Heavy-Duty Tips

SW200 Series



Acetylene

The SW200 Series is for general and heavy welding and brazing. Swaged construction provides greater heat concentration for improved “puddle” control. Tips are bent to 63.5-degree angle. O-ring replacement: LW15 (package of 25).

Compatible torch handles

- WH200A, WH200, SW1B, SW1A and SW1

Fuel gases

These tips may also be used for brazing with acetylene-based fuels and propylene-based fuel gases. When using these gases, select a tip two sizes larger than recommended for the same work as acetylene.

Tip Number	Welding Capacity Inches (mm)	Consumption (SCFH)*		Drill Size
		Oxygen	Acetylene	
SW201	1/32 (0.7)	2.3	2.3	71
SW203	5/64 (1.9)	3.2	3.2	67
SW205	1/8 (3)	6	6	57
SW207	3/16 (5)	12	12	54
SW209	3/8 (10)	23	23	49
SW210	1/2 (13)	36	36	44

*Consumption (SCFH: cubic feet per hour) figures represent the average volumes of gases consumed when acetylene is added until sooty smoke just disappears from the acetylene flame prior to opening the oxygen valve and adjusting to a neutral flame.

Medium-Duty Tips

MW200 Series



Acetylene

The MW200 Series is for general purpose medium-duty welding which features our “soft flame” for easier puddle control and better penetration. Tips are bent to 63.5-degree angle. O-ring replacement: MW15 (package of 25).

Compatible torch handles

- WH100, MW5A and CW5A

Fuel gases

These tips may also be used for brazing with acetylene-based fuels and propylene-based fuel gases. When using these gases, select a tip two sizes larger than recommended for the same work as acetylene.

Tip Number	Welding Capacity Inches (mm)	Consumption (SCFH)*		Drill Size
		Oxygen	Acetylene	
MW201	1/32 (0.7)	2.3	2.3	71
MW203	5/64 (1.9)	3.2	3.2	67
MW205	1/8 (3)	6	6	57
MW207	3/16 (5)	12	12	54
MW209	3/8 (10)	23	23	49

*Consumption (SCFH: cubic feet per hour) figures represent the average volumes of gases consumed when acetylene is added until sooty smoke just disappears from the acetylene flame prior to opening the oxygen valve and adjusting to a neutral flame.

Medium-Duty Tips

MW411



Propane or Natural Gas

General-purpose medium-duty brazing tips designed specifically for use with propane or propane-based mixture fuel gases with oxygen. Used for brazing applications and casting platinum. O-ring replacement: MW15 (package of 25).

Compatible torch handles

- WH100, MW5A and CW5A

Tip Number	Welding Range Inches (mm)	Consumption (SCFH)	
		Oxygen	Fuel
MW411	1/2-5/8 (13-16)	51.9	13

Standard-Duty Tips

AW200 Airline™ Series



Acetylene

General-purpose standard-duty welding/brazing tips. Shorter, lighter and easier to handle. O-ring replacement: AW15 (package of 25).

Compatible torch handles

- AW1A and AW10A

Fuel gases

These tips may also be used for brazing with acetylene-based fuels and propylene-based fuel gases. When using these gases, select a tip two sizes larger than recommended for the same work as acetylene.

Tip Number	Welding Capacity Inches (mm)	Consumption (SCFH)*		Drill Size
		Oxygen	Acetylene	
AW201	Up to 1/32 (0.7)	2.3	2.3	71
AW203	5/64 (1.9)	3.2	3.2	67
AW205	1/8 (3)	6	6	57
AW207	3/16 (5)	12	12	54
AW209	3/8 (10)	23	23	49
AW210	1/2 (13)	36	36	44

*Consumption (SCFH: cubic feet per hour) figures represent the average volumes of gases consumed when acetylene is added until sooty smoke just disappears from the acetylene flame prior to opening the oxygen valve and adjusting to a neutral flame.