

Heating Tips

Heating tips used in torch handles provide significant cost savings in many applications.

Heating tips do jobs faster and 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.

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

Fuel Gas Chart

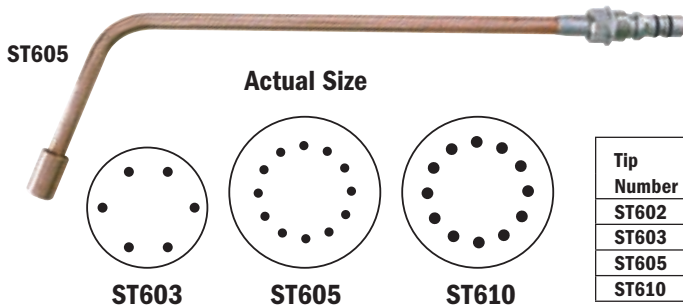
Generic Name	Trade Name
Acetylene	—
Propane and Propane-Based Mixtures	Propane-butane, Flamex, Acetogen, Chem-O-Lene, Florida Industrial Gas, Hy-Temp, Fuel Gas, I.G. Gas, Chem-Gas, Lingas, Chemtone
Propylene	HPG, Apachi, B-Plus, Gulf HP Gas, HEF, Liquifuel, B.T.U.
Natural Gas (Methane)	Natural Gas, City 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 Acetylene must not be withdrawn at more than 1/7 of the cylinder capacity per hour (50 SCFH for a 350-cu.-ft.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.

CAUTION: Flashback arrestors
Heating tips must be used in conjunction with high-flow flashback arrestors. It may be necessary to increase outlet pressures to compensate for flow restrictions that may be created by flashback arrestors.

Heavy-Duty Tips

ST600 Series



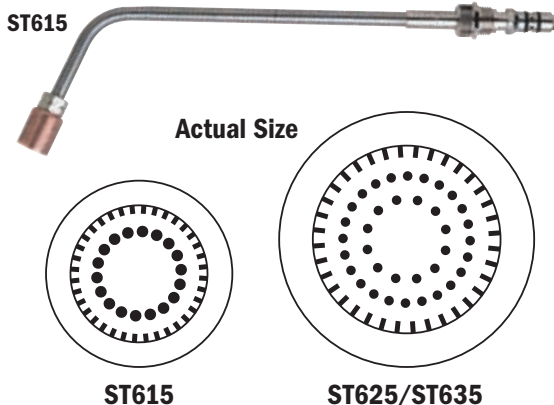
Acetylene

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 torch handles

- WH200A, WH200, SW1B, SW1A and SW1

Tip Number	Average BTU/Hour	Consumption (SCFH)		Drill Size	350 Cu. Ft. Fuel Cylinders Required	Overall Length Inches (mm)
		Oxygen	Acetylene			
ST602	40,125	31	28	64	1	16 (406)
ST603	71,750	55	50	56	1	16 (406)
ST605	124,670	96	87	57	2	19 (483)
ST610	194,890	150	136	54	3	19 (483)



Propane or Natural Gas

Medium pressure oxy-propane or propane-based heating tips provide high heating performance with low-cost fuel gases including natural gas and propane-based gases.

Propylene

Compatible torch handles

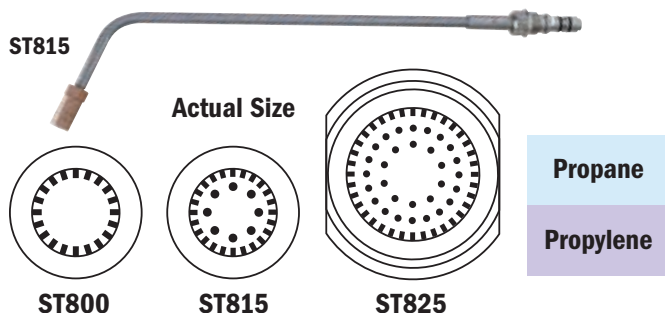
- WH200A, WH200, SW1B, SW1A and SW1

Tip Number	Average BTU/Hour	Consumption (SCFH)		Overall Length Inches (mm)	Torch Head Number
		Oxygen	Fuel Gas		
ST615	244,000	225-535	70-160 (propane)	16 (406)	1495
	155,145	175-450	96-267 (natural gas)		
	280,000	235-430	100-160		
ST625	455,000	480-1000	140-280 (propane)	31.5 (800)	1504
	313,950	390-785	200-450 (natural gas)		
ST635*	614,195	670-1580	185-480 (propane)	31.5 (800)	1499

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

Heavy-Duty Tips

ST800 Series



Medium pressure oxy-propane or propane-based heating tips provide high heating performance with low-cost fuel gases including natural gas and propane-based gases.

Compatible torch handles

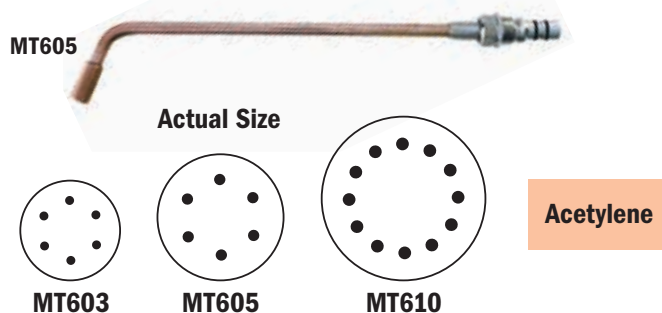
- WH200A, WH200, SW1B, SW1A and SW1

Tip Number	Average BTU/Hour	Consumption (SCFH)		Overall Length Inches (mm)	Torch Head Number
		Oxygen	Fuel Gas		
ST800	58,000	107-108	22-24	15.5 (394)	16317
	75,000	118-138	31-34		
ST815	273,000	390-655	120-235	16 (406)	4642
ST825	830,000	580-1500	225-525	31 (787)	4639

Note: Use 3/8-inch (10 mm) I.D. hose.

Medium-Duty Tips

MT600 Series



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

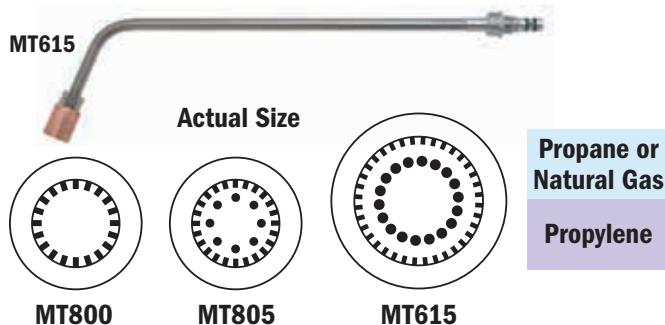
Compatible torch handles

- WH100, MW5A and CW5A

Tip Number	Average BTU/Hour	Consumption (SCFH)		Drill Size	350 Cu. Ft. Fuel Cylinders Required	Overall Length Inches (mm)
		Oxygen	Acetylene			
MT603	40,125	31	28	64	1	10 (254)
MT605	73,085	57	51	56	1	16 (406)
MT610	128,970	100	90	57	2	18 (457)

Medium-Duty Tips

MT800 Series and MT615



Medium pressure oxy-propane or propane-based heating tips provide high heating performance with low-cost fuel gases including natural gas and propane-based gases.

Compatible torch handles

- WH100, MW5A and CW5A

Tip Number	Average BTU/Hour	Consumption (SCFH)		Overall Length Inches (mm)	Torch Head Number
		Oxygen	Fuel Gas		
MT800	93,000	119-121	36-38 (propane)	12.5 (318)	16317
	123,000	135-146	51-56		
MT805	208,000	206-230	80-100 (propane)	15 (381)	4642
	280,000	242-270	120-135		
MT615	269,000	225-535	70-160 (propane)	15 (381)	1495
	182,000	175-450	96-267 (natural gas)		
	280,000	235-430	100-160		

Standard-Duty Tips

AT605



Handy light-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 torch handles

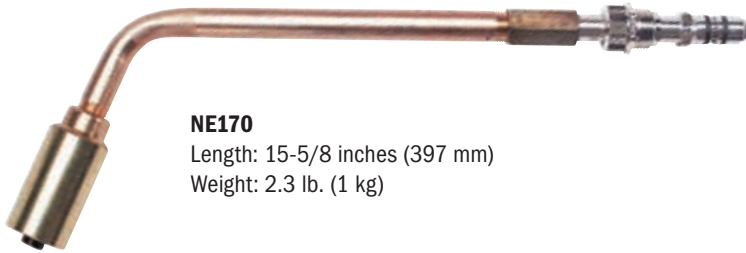
- AW1A and AW10A

Tip Number	Average BTU/Hour	Consumption (SCFH)		Drill Size	200 Cu. Ft. Fuel Cylinders Required	Overall Length Inches (mm)
		Oxygen	Acetylene			
AT605	41,550	32	29	64	1	10 (254)

Note: Tips may also be used with oxygen/hydrogen.

Heavy-Duty Special-Purpose Heating Tips

Compressed Air Heating Tip



NE170
Length: 15-5/8 inches (397 mm)
Weight: 2.3 lb. (1 kg)

Propane or Natural Gas

Produces concentrated flame not normally possible with low-cost natural gas. Ideal for a wide range of heating applications including die casting. Produces temperatures of 3400 degrees Fahrenheit with natural gas and 3500 degrees Fahrenheit with propane. Operates on gas pressures of 2-10 PSIG and 10-100 PSIG compressed air. For maximum heat output, a minimum of 30 PSIG air is required.

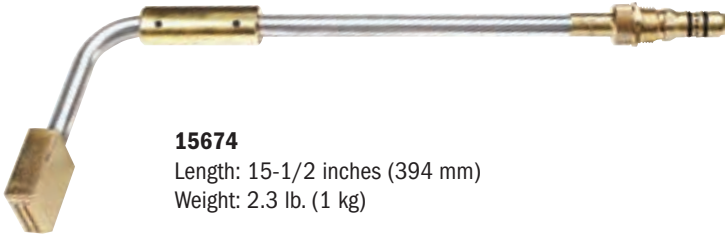
Compatible torch handles

- WH200A, WH200, SW1B, SW1A and SW1

Tip Number	Consists of		
	Gas Mixer	Tip Head	Gooseneck
NE170	ST625B	NE171 86,000 BTU/hour	NE171-1

Note: Hex tip tube adaptor is part number **15855**.

Railroad Heating Tip (Preheat for Thermite Rail Welding)



15674
Length: 15-1/2 inches (394 mm)
Weight: 2.3 lb. (1 kg)

Propane

Five-minute-style preheating tip for rail welding. May also be used for additional heating applications.

Compatible torch handles

- WH200A, WH200, SW1B, SW1A and SW1

Tip Number	Average BTU/Hour	Consumption (SCFH)	
		Oxygen	Propane
15674	150,000	275	70

⚠ CAUTION: Liquid oxygen

When using liquid oxygen, tips may require greater gas volume than a single cylinder is capable of producing. External evaporators or manifolding multiple cylinders may be necessary to supply sufficient gas flows.

⚠ 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.

⚠ CAUTION: Flashback arrestors

Heating tips must be used in conjunction with high-flow flashback arrestors. It may be necessary to increase outlet pressures to compensate for flow restrictions that may be created by flashback arrestors.