

# Medium-Duty Outfits



## Quick Specs

### Typical Applications

Shipbuilding  
 Railroad  
 Salvage  
 Pipeline  
 Metal fabrication  
 Construction and demolition

### Oxy-Fuel Processes

Cutting  
 Heating  
 Welding  
 Brazing

### Fuel Gases

Acetylene  
 Propane  
 Propylene (heating)  
 Natural gas

### Cutting Capacity

Up to 5/8 in. (16 mm) with included tip  
 Up to 6 in. (153 mm) with optional tips

### Heating Capacity

Up to 40,125 Btu with included tip  
 Up to 280,000 Btu with optional tips

### Welding Capacity

Up to 1/8 in. (3 mm) with included tip  
 Up to 3/8 in. (10 mm) with optional tips

## Medium-duty oxy-fuel system for your cutting, heating and welding needs.



Medium-duty outfit MBA-30510 shown.

Medium-duty outfits include MC509 cutting attachment, WH100 handle, cutting tip(s), heating tip, welding tip (except MBA-30510LP), oxy and fuel regulators, 20 ft. (6.1 m) hose, flashback arrestors (except MBA-30510LP which has check valves), single-flint lighter, shade 5 safety glasses, and tip cleaner.

### DESIGNED FOR SAFETY

**Three-tube construction** keeps gases separate in the cutting attachment until mixed at the tip for safety.

**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.

**Concave-shaped tip end** reduces backfire and resists flameout during accidental contact with the base metal while cutting.

**Flo-Trol™ valve** prevents seat burnout due to reverse flow of mixed gases, helping to reduce maintenance costs.

**External relief valve** protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.

**Dual filters including Sure Seat™** protect regulator high-pressure seat from debris for reliable operation and long service life.

### HIGH PERFORMANCE

**Silver-brazed torch joints** provide strength, leak resistance and heat protection.

**Nickel-plated torch assembly** provides heat protection.

**Stainless steel ball-style valves** provide smooth adjustment and positive seating to eliminate leaks.

**Internal threads** on handle protect threads from damage if torch is dropped.

**O-ring seals** on cutting attachment and welding tip allow for easy 360-degree rotation to reduce operator fatigue.

**Hand-tighten only** to seat the tip and attachments, saving time and tools when changing tips.

**Graf-Tite™ soft seats** on tips 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.

**Easy-to-read two-inch gauges** with shatter-resistant polycarbonate lens covers.



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



**Underwriters Laboratories (UL) Listed**  
 for gas pressure regulators.



**Electrical Testing Laboratories (ETL) Listed**  
 for oxy-fuel torches and tips.



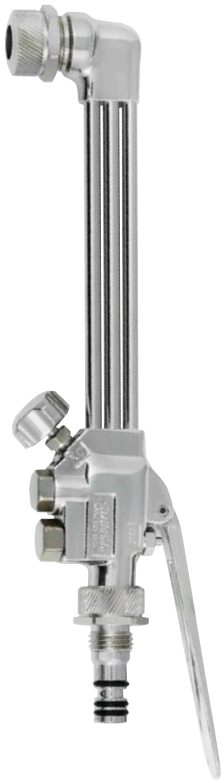
**Smith Equipment**  
 A Brand of Miller Electric Mfg. LLC  
 2601 Lockheed Avenue  
 Watertown, SD 57201

**Equipment Sales US and Canada**  
 Phone: 866-931-9730  
 International Phone: 920-735-4554

**MillerWelds.com**



# MC509 Medium-Duty Cutting Attachment



**Handles everyday cutting needs.**

**Cuts up to 6-inch (153 mm) thick steel. For use with WH100 medium-duty torch handle.**

**Materials of construction**

- Handle, lever and butt: nickel-plated brass
- Tubes: nickel-plated cupronickel
- Valve stem: stainless steel
- Valve packing: PTFE
- Flo-Trol™ diaphragm: Buna-N
- Springs: stainless steel
- Silver-brazed assembly
- Stem: stainless steel
- Cutting seat: Buna-N
- Seat retainer: brass
- Gasket: polyester
- Spring retainer: nickel-plated brass
- Backend: nickel-plated brass
- Backend nut: nickel-plated brass
- O-rings: Buna-N

**Specifications**

Length: 11.25 in. (318 mm)  
 Weight: 1.1 lb. (0.5 kg)  
 Head angle: 90 degrees

**Repair kit** MC101

**Warranty** 25 years

FUEL GAS	TORCH HANDLE		CUTTING AND GOUGING TIPS	
	STOCK NO.	LENGTH	STOCK NO.	DESCRIPTION
Acetylene	WH100	7 in. (178 mm)	MC12-00 to MC12-5 MC13-3	General cutting tips Gouging tip
Propane/natural gas			MC40-0 to MC40-4	General cutting tips

# WH100 Medium-Duty Handle



**Handles everyday cutting, heating and welding needs.**

**Cuts up to 6-inch (153 mm) thick steel with MC500 series and Toughcut™ CC509P cutting attachments.**

**Materials of construction**

- Handle, head, tube and butt: brass
- Valve ball: stainless steel
- Valve stem: bronze
- Valve packing: PTFE
- Valve nut: nickel-plated brass
- Valve knob: nickel-plated zinc
- Silver-brazed assembly

**Specifications**

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

**Inlet connection**

“B” size, 9/16”-18 RH and LH

**Valve assembly replacement** LW17

**Warranty** 25 years

FUEL GAS	CUTTING ATTACHMENT		HEATING TIPS		WELDING TIPS	
	STOCK NO.	HEAD ANGLE	STOCK NO.	BTU PER HOUR	STOCK NO.	METAL THICKNESS
Acetylene	MC505 MC509 CC509P (Toughcut)	75° 90° 90°	MT603	40,125	MW201	1/32 in. (0.7 mm)
			MT605	73,085	MW203	5/64 in. (1.9 mm)
			MT610*	128,970	MW205	1/8 in. (3 mm)
Propane/ natural gas			MT805	208,000	MW207	3/16 in. (5 mm)
			MT615	269,000	MW209	3/8 in. (10 mm)
Propylene			MT805	280,000	—	—
			MT615	280,000		

\*Two 350 cubic foot acetylene cylinders need to be manifolded together to use this tip.

# Medium-Duty Cutting and Gouging Tips



**MC12-0 and MC12-1**  
(included in MBA-30510 and MBA-30300 outfits)

**Materials of construction**

- Body: tellurium copper
- Seats: graphite
- Seat collars: brass



**MC40-1**  
(included in MBA-30510LP outfit)

**Materials of construction**

- Insert and sleeve: brass
- Shell: tellurium copper
- Seats: graphite
- Seat collars: brass

STOCK NO.	METAL THICKNESS INCH (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)	
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE
MC12-00	1/8-3/16 (3-5)	20	10	37	6
MC12-0	1/4-3/8 (6-10)	35-40	10	47-53	6
MC12-1	1/2-5/8 (13-16)	45-50	10	84-90	7
MC12-2	3/4-1 (19-25)	50-55	10	118-129	9
MC12-3	1-1/2-2 (38-51)	55-60	10	182-193	10
MC12-4	2-1/2-4 (64-102)	65-70	10	263-335	12-13
MC12-5	5-6 (127-152)	80-90	10	435-500	13
MC13-3*	3/8 x 1/4 (10 x 6)	20	10	115	24**
		OXYGEN	PROPANE	OXYGEN	PROPANE
MC40-0	1/4-3/8 (6-10)	35-40	10	40-46	7
MC40-1	1/2-5/8 (13-16)	45-50	10	75-81	7
MC40-2	3/4-1-1/4 (19-32)	50-60	10	107-133	7
MC40-3	1-1/2-2 (38-51)	55-60	10	170-181	7
MC40-4	2-1/2-4 (64-102)	65-75	10	249-320	7

\*MC13-3 is a gouging tip. \*\*Minimum of one 350 cubic foot cylinder required.

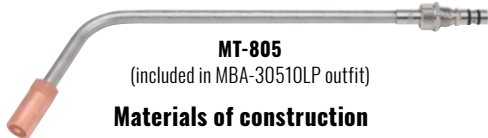
# Medium-Duty Heating Tips



**MT-603**  
(included in MBA-30510 and MBA-30300 outfits)

**Materials of construction**

- Head and tube: copper
- Nut: nickel-plated brass
- Mixing section: nickel-plated brass
- O-rings: Buna-N



**MT-805**  
(included in MBA-30510LP outfit)

**Materials of construction**

- Head shell: copper
- Head insert: brass
- Head nut: nickel-plated brass
- Tube: stainless steel
- Nut: nickel-plated brass
- Mixing section: nickel-plated brass
- O-rings: Buna-N

STOCK NO.	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)		LENGTH INCH (MM)	FUEL CYLINDERS REQUIRED
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE		
MT603	41,160	15	15	31	28	10 (254)	1 (350 cu. ft.)
MT605	74,970	15	15	57	51	16 (406)	1 (350 cu. ft.)
MT610	132,300	15	15	100	90	18 (457)	2 (350 cu. ft.)
		OXYGEN	PROPANE	OXYGEN	PROPANE		
	269,000	20-60	10-25	225-535	70-160	14 (356)	1-2 (100 lb.)
		OXYGEN	NAT. GAS	OXYGEN	NAT. GAS		
MT615	182,000	15-50	10-25	175-450	96-267	14 (356)	1-2 (100 lb.)
		OXYGEN	PROPYLENE	OXYGEN	PROPYLENE		
MT805	280,000	50-60	20-25	242-270	120-135	14 (356)	1 (100 lb.)

# Medium-Duty Welding and Brazing Tips



**MW205**  
(included in MBA-30510 and MBA-30300 outfits)

**Materials of construction**

- Tube: copper
- Nut: nickel-plated brass
- Mixing section: nickel-plated brass
- O-rings: Buna-N

STOCK NO.	WELDING CAPACITY INCH (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)		DRILL SIZE	LENGTH INCH (MM)
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE		
MW201	1/32 (0.7)	10	10	2.3	2.3	71	7 (178)
MW203	5/64 (1.9)	10	10	3.2	3.2	67	7 (178)
MW205	1/8 (3)	10	10	6	6	57	7 (178)
MW207	3/16 (5)	10	10	12	12	54	8.5 (216)
MW209	3/8 (10)	10	10	23	23	49	8.5 (216)
		OXYGEN	PROPANE/NAT. GAS	OXYGEN	PROPANE/NAT. GAS		
MW411*	5/8 (16)	11	11	51.9	13	40	8.5 (216)

\*MW411 is a brazing tip.

# Series 30™ Medium-Duty Single-Stage Regulators



**30-100-540**  
(included with all outfits)



**30-15-510**  
(included with MBA-30510 outfit)



**30-15-300**  
(included with MBA-30300 outfit)



**30-50-510**  
(included with MBA-30510LP outfit)

STOCK NO.	GAS	GAUGES (2 INCH /51 MM)		MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
		INLET	OUTLET				
30-100-540	Oxygen	4,000 psig (276 bar)	150 psig (10 bar)	100 psig (7 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
30-20-540	Oxygen	4,000 psig (276 bar)	30 psig (2 bar)	20 psig (1.4 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
30-15-510	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
30-15-300	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 300
30-15-520	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 520
30-15-200	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 200
30-50-510	LP gas*	400 psig (28 bar)	60 psig (4 bar)	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
30-150-580	Argon/nitrogen	4,000 psig (276 bar)	200 psig (14 bar)	150 psig (10 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 580
30-150-320	Carbon dioxide	4,000 psig (276 bar)	200 psig (14 bar)	150 psig (10 bar)	3,000 psig (207 bar)	5/8"-18 RH internal	CGA 320
30-100-350	Hydrogen/methane	4,000 psig (276 bar)	150 psig (10 bar)	100 psig (7 bar)	3,000 psig (207 bar)	9/16"-18 LH "B"	CGA 350

\*Propane, propylene or natural gas.

Note: Regulators are also sold in Twin Pack options. HTP2 includes 30-100-540 and 30-15-510. HTP5 includes 30-100-540 and 30-15-300.

## Ordering Information

OUTFITS	STOCK NO.	DESCRIPTION	QTY.	PRICE
Medium-Duty Outfit Acetylene	MBA-30510	With MC509 cutting attachment, WH100 handle, MC12-0 and MC12-1 cutting tips, MT603 heating tip, MW205 welding tip, 30-100-540 oxy regulator, 30-15-510 fuel regulator, 20 ft. (6.1 m) 3/16 in. (5 mm) "R"-grade hose, H743 torch-mount flashback arrestors, single-flint lighter, shade 5 safety glasses, and tip cleaner		
	MBA-30300	Same as MBA-30510, but with 30-15-300 fuel regulator		
Medium-Duty Outfit Propane	MBA-30510LP	With MC509 cutting attachment, WH100 handle, MC40-1 cutting tip, MT805 heating tip, 30-100-540 oxy regulator, 30-50-510 fuel regulator, 20 ft. (6.1 m) 1/4 in. (6 mm) "T"-grade hose, H698 regulator-mount check valves, single-flint lighter, shade 5 safety glasses, and tip cleaner		
<b>REPLACEMENT PARTS</b>				
O-ring Replacements	MW15	For MC500 series cutting attachments, MW welding tips and MT heating tips (25 per package)		
Torch Head Nut	G690-8	For MC500 series cutting attachments		
Cutting Assembly	MC101	For MC500 series cutting attachments. Seat assembly with o-rings, pin, packing, gasket and diaphragm		
Valve Assembly	LW17	For WH100 handle. Valve assembly (pair)		
<b>ACCESSORIES</b>				
Flashback Arrestors	H743	Torch-mount flashback arrestors (pair)		
Check Valves	H697	Torch-mount reverse-flow check valves (pair)		
Twin-Hose	RL935	For acetylene. 20 ft. (6.1 m) "R"-grade twin-hose, 3/16 in. ID, "B" fittings		
	TRL1131	For propane/natural gas. 20 ft. (6.1 m) "R"-grade twin-hose, 1/4 in. ID, "B" fittings		
Cylinder Wrench	N230			
Adjustable Circle Cutting Guide	16229	Cuts from 5/8 to 12 in. diameter holes — works with all MC- and SC-style cutting tips		

DATE:

TOTAL QUOTED PRICE:

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