

Toughcut™ Outfits

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Gas
Equipment



Quick Specs

Typical Applications

Farm and ranch
Metal fabrication
Auto repair

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.



Toughcut outfit MB55A-300 shown.

Toughcut outfits include CC509P cutting attachment, WH100 handle, cutting tip, heating and welding tips (except MB54A-510LP), oxy and fuel regulators, 20 ft. (6.1 m) hose, check valves, single-flint lighter, and shade 5 safety glasses.

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.

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.

Intertek



Smith Equipment

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

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MillerWelds.com



Toughcut™ CC509P 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
- 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 MT605 MT610*	40,125 73,085 128,970	MW201 MW203 MW205 MW207 MW209	1/32 in. (0.7 mm) 5/64 in. (1.9 mm) 1/8 in. (3 mm) 3/16 in. (5 mm) 3/8 in. (10 mm)
Propane/ natural gas			MT805 MT615	208,000 269,000	MW411 (Brazing)	5/8 in. (16 mm)
Propylene			MT805 MT615	280,000 280,000	—	—

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

Medium-Duty Cutting and Gouging Tips



MC12-1

(included in MB55A-510 and MB55A-300 outfits)

Materials of construction

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



MC40-1

(included in MB54A-510LP 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 MB55A-510 and MB55A-300 outfits)

Materials of construction

- Head and tube: copper
- 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		
MT615	269,000	20-60	10-25	225-535	70-160	14 (356)	1-2 (100 lb.)
		OXYGEN	NAT. GAS	OXYGEN	NAT. GAS		
	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 MB55A-510 and MB55A-300 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 MB55A-510 outfit)



30-15-300
(included with MB55A-300 outfit)



30-50-510
(included with MB54A-510LP 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
Toughcut™ Outfit Acetylene	MB55A-510	With CC509P cutting attachment, WH100 handle, MC12-1 cutting tip, 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, H698 regulator-mount check valves, single-flint lighter, and shade 5 safety glasses		
	MB55A-300	Same as MB55A-510, but with 30-15-300 fuel regulator		
Toughcut™ Outfit Propane	MB54A-510LP	With CC509P cutting attachment, WH100 handle, MC40-1 cutting 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, and shade 5 safety glasses		
REPLACEMENT PARTS				
O-ring Replacements	MW15	For CC509P cutting attachment, MW welding tips and MT heating tips (25 per package)		
Torch Head Nut	G690-8	For CC509P cutting attachment		
Cutting Assembly	MC101	For CC509P cutting attachment. Seat assembly with o-rings, pin, packing, gasket and diaphragm		
Valve Assembly	LW17	For WH100 handle. Valve assembly (pair)		
ACCESSORIES				
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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