

# Roughneck® C-Series

Issued March 2004 • Index No. AY/17.0

**Air-Cooled MIG (GMAW)  
Welding Guns**



## Quick Specs

### Applications

Construction  
Fabrication  
Maintenance/Repair  
Manufacturing

### Process

MIG (GMAW)  
Flux Cored (FCAW)

**Rated Output** C-30 Models: 300 A C-40 Models: 400 A  
C-50 Models: 500 A C-60 Models: 600 A

**Duty Cycle** 100% with CO<sub>2</sub> gas

**Weight** C-30 Models: 5.6–7.5 lb (2.5–3.4 kg)  
C-40 Models: 7.5–10.3 lb (3.4–4.7 kg)  
C-50 Models: 9.3–13 lb (4.2–5.9 kg)  
C-60 Models: 10.3–14.5 lb (4.7–6.6 kg)

## The Power of Blue.®

**Standard aluminum jacketed goosenecks** increase gun durability, resist spatter, and dissipate heat more effectively than copper alone.

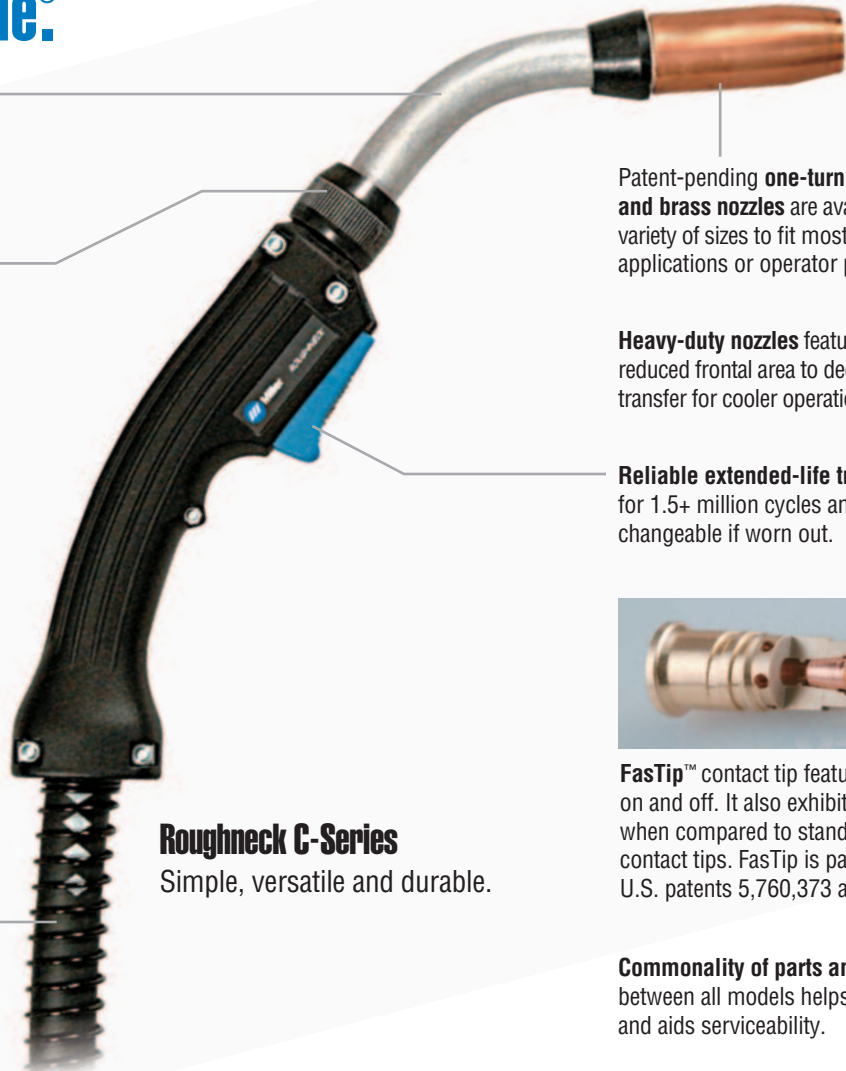
**360° wrench rotatable gooseneck** allows finger or thumb actuation of the trigger and field replacement of goosenecks.

**Interchangeable goosenecks** allow Roughneck welding guns to adapt for hard to reach welds or operator preference.

**Optional Adapter Kits** allow Roughneck MIG welding guns to adapt to most major brands of welding equipment.

**Die-crimped power cable connections** provides maximum electrical conductivity and reduces heat at power cable connection.

**Steel spring strain relief** protects power cable from wear on both ends and helps prevent liner kinking, allowing better wire feedability.



**Roughneck C-Series**  
Simple, versatile and durable.

Patent-pending **one-turn screw-on copper and brass nozzles** are available in a wide variety of sizes to fit most welding applications or operator preference.

**Heavy-duty nozzles** feature patented reduced frontal area to decrease heat transfer for cooler operation.

**Reliable extended-life trigger** is rated for 1.5+ million cycles and is quickly changeable if worn out.



**FasTip™** contact tip features one fast turn on and off. It also exhibits extended life when compared to standard threaded contact tips. FasTip is patented under U.S. patents 5,760,373 and 5,911,894.

**Commonality of parts and consumables** between all models helps reduce inventory and aids serviceability.



Gun is warranted for 90 days parts and labor.



**Miller Electric Mfg. Co.**  
An Illinois Tool Works Company  
1635 West Spencer Street  
Appleton, WI 54914 USA

**International Headquarters**  
Phone: 920-735-4505  
USA FAX: 920-735-4134  
Canadian FAX: 920-735-4169  
International FAX: 920-735-4125

**Web Site**  
[www.MillerWelds.com](http://www.MillerWelds.com)



## Specifications (Subject to change without notice.)

Part No.	Gun Model	Cable Length	Rated Output	Duty Cycle	Standard Wire Size	Weight
#194 751	C-3010	10 ft (3.0 m)	300 Amps	100% using CO <sub>2</sub> (ratings with mixed gas are reduced by 10–50% depending on the gas mixture and welding parameters)	.035–.045 in (0.9–1.2 mm)	5.6 lb (2.5 kg)
#194 752	C-3012	12 ft (3.7 m)				6.4 lb (2.9 kg)
#194 753	C-3015	15 ft (4.6 m)				7.5 lb (3.4 kg)
#194 754	C-4010	10 ft (3.0 m)	400 Amps		.035–.045 in (0.9–1.2 mm)	7.5 lb (3.4 kg)
#194 755	C-4012	12 ft (3.7 m)				8.6 lb (3.9 kg)
#194 756	C-4015	15 ft (4.6 m)				10.3 lb (4.7 kg)
#194 757	C-5010	10 ft (3.0 m)	500 Amps	.052–1/16 in (1.3–1.6 mm)	9.3 lb (4.2 kg)	
#194 758	C-5012	12 ft (3.7 m)			10.8 lb (4.9 kg)	
#194 759	C-5015	15 ft (4.6 m)			13.0 lb (5.9 kg)	
#194 760	C-6010	10 ft (3.0 m)	600 Amps	.052–1/16 in (1.3–1.6 mm)	10.3 lb (4.7 kg)	
#194 761	C-6012	12 ft (3.7 m)			12.0 lb (5.4 kg)	
#194 762	C-6015	15 ft (4.6 m)			14.5 lb (6.6 kg)	

## Genuine Miller Options (Order from Miller Service Parts.)

### Locking Trigger Switch #199 661

Allows trigger to be locked during long welds.

### Gun Hook #199 662

Enables gun to be stored between welds.

### Aluminum Conversion Kit #202 895

Steel wrapped nylon liner allows 10 ft Roughneck® welding guns to feed 3/64–1/16 in (1.2–1.6 mm) aluminum wire.

### Miller Roughneck Consumable Upgrade Kits for Tweco® Guns 300/400/500 Amp #214 893

Includes gas diffuser and neck insulator. Upgrades a Tweco gun for use with patented Miller FasTip™ contact tips. (Order FasTip contact tips separately.)

*Tweco is a registered trademark of Thermadyne.*



### Heat Shields

300/400 Amp #213 229

500/600 Amp #213 230

### Machine Adapter Kit #199 663

Allows Roughneck welding guns to adapt to Hobart and Thermal Arc products (BETAMIG II, 200, 250, 251; Hefty; 2000 Series; Dual/Digital 2000; Porta-Feed and Ultra-Feed), Lincoln products (Power MIG 255; Wirematic 250, 255; SP-T Series; Power Feed 10; DH-10; LN-10 (new style) and STT-10) and ESAB products (Migmaster 180). Tweco style 5/8 in direct plug. Requires ordering a new replacement liner.

### Machine Adapter Kit #199 664

Allows Roughneck welding guns to adapt to Lincoln products (LN-7, LN-8, LN-9, LN-22, LN-25 and LN-742). Requires ordering a new replacement liner.



### DSS-8 #079 693

A 15 ft 2-position (dual pull) trigger switch that attaches to the gun handle and is used **in place of** the standard trigger for dual scheduling. Adapter cord #157 364 is required to use the DSS-8 with 60M wire feeders.



### DSS-9 #071 833

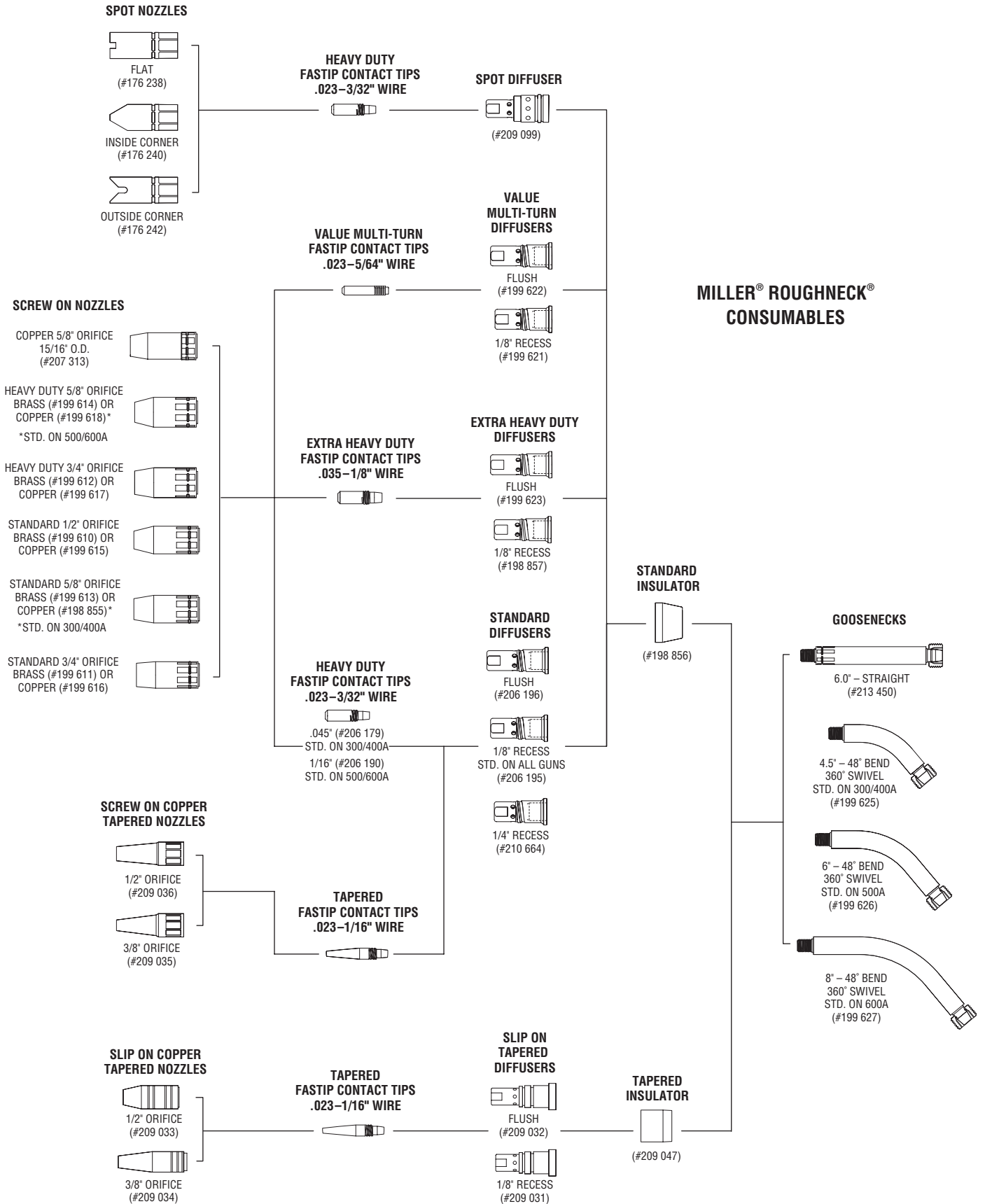
A 15 ft 2-position slide switch that attaches to the gun handle and is used to select the desired welding condition for dual scheduling. Gun trigger operates as standard trigger. Adapter cord #157 364 is required to use the DSS-9 with 60M wire feeders.



### DSS-9M #041 793

A 15 ft 2-position slide switch that attaches to the gun handle and is used to select the desired welding condition for dual scheduling with the 60M wire feeder. Gun trigger operates as standard trigger.

# Consumables (Order from Miller Service Parts.)



# Consumables continued (Order from Miller Service Parts.)

Consumables	Stock No.
<b>Heavy-Duty FasTip™ Contact Tips</b>	
.023 in (0.6 mm)	#206 184
.030 in (0.8 mm)	#206 185
.035 in (0.9 mm)	#206 186
.040 in (1.0 mm)	#206 187
.045 in (1.2 mm)	#206 188 <sup>1</sup>
.052 in (1.3 mm) or 3/64 in (1.2 mm) aluminum wires	#206 189
1/16 in (1.6 mm)	#206 190 <sup>2</sup>
.068 in (1.7 mm) steel and aluminum wires	#206 191
5/64 in (2.0 mm)	#206 192
3/32 in (2.4 mm)	#206 193
<b>Extra-Heavy Duty FasTip™ Contact Tips</b>	
.035 in (0.9 mm)	#199 605
.040 in (1.2 mm)	#199 606
.045 in (1.2 mm)	#198 851
.052 in (1.3 mm) or 3/64 in (1.2 mm) aluminum wires	#198 852
1/16 in (1.6 mm)	#198 853
.068 in (1.7 mm) steel and aluminum wires	#198 854
5/64 in (2.0 mm)	#199 607
3/32 in (2.4 mm)	#199 608
7/64 – 1/8 in (2.8 mm)	#199 609
<b>Value Multi-Turn Contact Tips</b>	
.023 in (0.6 mm)	#087 300
.030 in (0.8 mm)	#071 825
.035 in (0.9 mm)	#054 202
.045 in (1.2 mm)	#054 201
3/64 in (1.2 mm) aluminum wires	#199 593
.052 in (1.3 mm)	#044 006
1/16 in (1.6 mm)	#047 566
1/16 in (1.6 mm) aluminum wires	#202 933
.068 in (1.7 mm)	#199 594
5/64 in (2.0 mm)	#047 565
<b>Tapered FasTip™ Contact Tips</b>	
.023 in (0.6 mm)	#209 024
.030 in (0.8 mm)	#209 025
.035 in (0.9 mm)	#209 026
.045 in (1.2 mm)	#209 027
3/64 in (1.2 mm) aluminum wires	#209 028
.052 in (1.3 mm)	#209 029
1/16 in (1.6 mm)	#209 030

Note: All contact tips are packaged in bags of 25.

Consumables	Stock No.
<b>Screw-On Brass Nozzles</b>	
1/2 in orifice	#199 610
3/4 in orifice	#199 611
3/4 in orifice— heavy duty	#199 612
5/8 in orifice	#199 613
5/8 in orifice— heavy duty	#199 614
<b>Screw-On Copper Nozzles</b>	
1/2 in orifice	#199 615
3/4 in orifice	#199 616
3/4 in orifice— heavy duty	#199 617
5/8 in orifice	#198 855 <sup>1</sup>
5/8 in orifice— heavy duty	#199 618 <sup>2</sup>
<b>Replacement Liners</b>	
.023 – .030 in dia. wire x 15 ft—round wound	#202 889
.035 – .045 in dia. wire x 15 ft—round wound	#202 890 <sup>1</sup>
.052 – 1/16 in dia. wire x 15 ft—round wound	#202 891 <sup>2</sup>
1/16 – .078 in dia. wire x 15 ft—flat wound	#202 892
5/64 – 3/32 in dia. wire x 15 ft—flat wound	#202 893
7/64 – 1/8 in dia. wire x 15 ft—flat wound	#202 894
3/64 – 1/16 in dia. aluminum wires	#202 895
<b>Gas Diffusers</b>	
1/8 in tip recess — for heavy-duty FasTip™ contact tips	#206 195 <sup>3</sup>
1/4 in tip recess — for heavy-duty FasTip™ contact tips	#210 664
Flush tip — for heavy-duty FasTip™ contact tips	#206 196
1/8 in tip recess — for extra heavy-duty FasTip™ contact tips	#198 857
Flush tip — for extra heavy-duty FasTip™ contact tips	#199 623
1/8 in tip recess — for value multi-turn contact tips	#199 621
Flush tip — for value multi-turn contact tips	#199 622
<b>Insulators</b>	
Diffuser to gooseneck insulator (included with goosenecks)	#198 856
Gooseneck nut cover (included with goosenecks)	#202 292
<b>Goosenecks</b>	
4.5 in/48° Aluminum jacketed with wrench swivel	#199 625
6 in/48° Aluminum jacketed with wrench swivel	#199 626
8 in/48° Aluminum jacketed with wrench swivel	#199 627
6 in/180° Aluminum jacketed	#213 450

<sup>1</sup>Standard on 300 and 400 Amp guns. <sup>2</sup>Standard on 500 and 600 Amp guns.

<sup>3</sup>Standard on all guns.

## Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
C-3010	#194 751	10 ft (3.0 m). Maximum wire size – 5/64 in		
C-3012	#194 752	12 ft (3.7 m). Maximum wire size – 5/64 in		
C-3015	#194 753	15 ft (4.6 m). Maximum wire size – 5/64 in		
C-4010	#194 754	10 ft (3.0 m). Maximum wire size – 5/64 in		
C-4012	#194 755	12 ft (3.7 m). Maximum wire size – 5/64 in		
C-4015	#194 756	15 ft (4.6 m). Maximum wire size – 5/64 in		
C-5010	#194 757	10 ft (3.0 m). Maximum wire size – 1/8 in		
C-5012	#194 758	12 ft (3.7 m). Maximum wire size – 1/8 in		
C-5015	#194 759	15 ft (4.6 m). Maximum wire size – 1/8 in		
C-6010	#194 760	10 ft (3.0 m). Maximum wire size – 1/8 in		
C-6012	#194 761	12 ft (3.7 m). Maximum wire size – 1/8 in		
C-6015	#194 762	15 ft (4.6 m). Maximum wire size – 1/8 in		
<b>Options and Consumables (Order from Miller Service Parts.)</b>		See page 3 for options and above for consumables		

Date: \_\_\_\_\_ Total Quoted Price: \_\_\_\_\_

Distributed by:

