

Millermatic® 350/350P

Issued Oct. 2005 • Index No. DC/12.51

MIG Arc Welding
Power Source 

Quick Specs

Industrial Applications

Fabrication
Maintenance and Repair
Farm
Manufacturing
Industrial

Processes

MIG (GMAW)
Pulsed MIG (GMAW-P)*
Flux Cored (FCAW)

*With 350P Model Only

Rated Output 300 A at 32 VDC, 60% Duty Cycle, 60 Hz, 1- or 3-Phase Input Power

Amperage Range 25–400 A

Wire Feed Speed 50–700 IPM (1.3–18 m/min) MIG Gun
50–800 IPM (1.3–20 m/min) Spool Gun/Push-Pull Gun

Weight 181 lb (82 kg)

The Power of Blue.®

NEW! 200/230/460 V model.

NEW! .045 Metal Core Pulse Program.

NEW! Adjustable crater feature optimizes crater size for steel, stainless, aluminum and metal-core applications.

NEW! Crater Time Delay allows deactivation of crater feature for tack or small welds.

Digital front panel/user controls makes process setup and weld parameters easy to adjust.

Operational information and weld parameter settings along with extra storage for contact tips and drive rolls conveniently located behind flip-down door.

1- or 3-phase input power with **Line Voltage Compensation** for constant output even with fluctuations to the input power.

Superior Aluminum Performance—direct connection for optional XR™ push-pull guns or Spoolmatic® spool gun. With Miller's exclusive **Gun-on-Demand**, simply pull the trigger for the gun to be used and you're ready to weld.

Large storage area for manuals, gloves, tools etc. and **removable gun and cable holder**.



Industrial, 4-roll wire drive system features two easy-to-set, scaled, tension adjustments and quick-change reversible drive rolls for .035 and .045 wire.

Fan-On-Demand cooling only operates when needed, reducing power consumption and contaminants inside the unit.

NEW! Aluminum Pulse Hot Start™

(Millermatic 350P only)

automatically provides more arc power to eliminate a "cold start" that is inherent with aluminum starts.



Welds materials 22 gauge up to 1/2 in thick.

TRUE BLUE
3 YR. WARRANTY

Power source is warranted for 3 years, parts and labor.
Original main power rectified parts are warranted for 5 years.
Gun warranted for 90 days, parts and labor.

Comes Complete with:

- C-4012 Roughneck® MIG gun
- 10 ft (3 m) Industrial power cord (without plug) for single- or three-phase
- 10 ft (3 m) work cable with clamp
- Factory-installed gas solenoid
- Argon mix regulator/flow meter
- Factory-installed, low-mounted running gear/cylinder rack
- Extra contact tips
- .035/.045 in reversible V-groove drive rolls (order U-groove drive roll kits for aluminum welding)
- Set-up and operation CD

Special Features:

- Run-in adjustment for MIG, push-pull and spool guns.
- Built-in 2-minute spot timer.
- Pre-flow and post-flow adjustment.
- View actual welding amperage/voltage during welding, and 5 seconds after arc has shutoff.
- SharpArc® controls welding arc cone width in pulsed MIG welding mode.
- Inductance control customizes weld output characteristics in MIG welding mode.

Exclusive Internal Timers:

- Tip Saver—Welding output shuts off if tip is shorted to work surface for more than 1 second.
 - Wire Jog Mode
 - If trigger is pressed and no arc is detected after 3 seconds, the welding output will be shut off and the unit will go into JOG MODE for feeding wire to the gun.
 - Gas Saver—Gas will automatically shutoff after 1 minute when no arc has been detected.
 - Wire Saver—Wire drive will automatically shutoff after 2 minutes when no arc has been detected.

Built-in pulsed MIG programs (Millermatic 350P only)

- .035 and .045 in for mild or stainless steel.
- .035 and .047 in for 4000 and 5000 series aluminum.
- .045 in for metal core.

All programmed information is stored for MIG, push-pull and spool guns, and is restored after each power up.

MADE IN USA
APPLETON, WI 



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



Specifications (Subject to change without notice.)

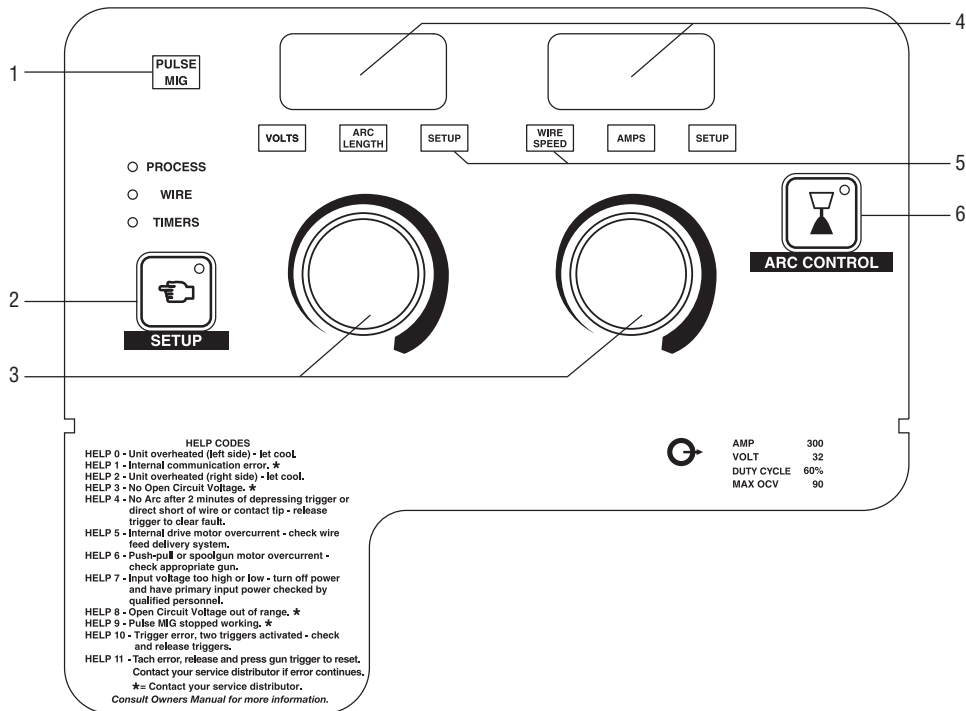


Rated Output	Amperage Range	Amps Input at Rated Output, 60 Hz						Wire Type and Diameter	Wire Feed Speed	Dimensions	Net Weight
		200 V	230 V	460 V	575 V	KVA	KW				
Three-phase 300 A at 32 V 60% Duty Cycle	25-400 A	34	30	15	12	11.6	11.5	Solid Steel: .023-.045 in (0.6-1.2 mm) Aluminum: .035-.047 in (0.9-1.2 mm) Flux Core: .030-.045 in (0.8-1.2 mm) Metal Core: .035-.052 in (0.9-1.3 mm)	MIG Gun: 50-700 IPM (1.3-18 m/min) Spool Gun and Push-Pull Gun: 50-800 IPM (1.3-20 m/min)	H: 34 in (863 mm) W: 19 in (483 mm) D: 41 in (1041 mm)	181 lb (82 kg)
Single-phase 300 A at 32 V 60% Duty Cycle		69	61	30	24	13.1	11.2				

Certified by Canadian Standards Association to both Canadian and U.S. Standards.

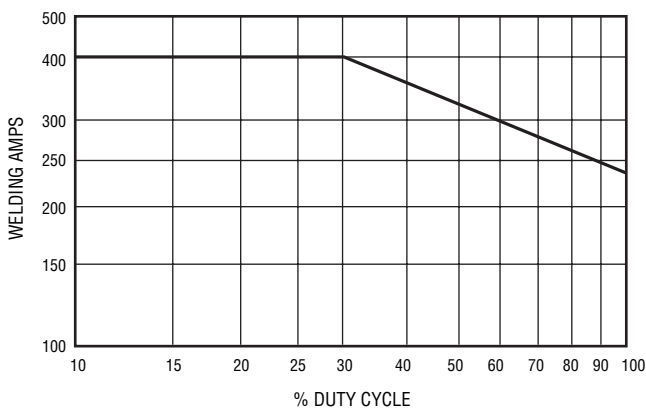
Control Panel

1. Weld Mode Indicator Lights
2. Menu Set-Up Button
3. Adjustment Knobs
4. Weld Parameter Displays
5. Weld Function Indicator Lights
6. Arc Control Button

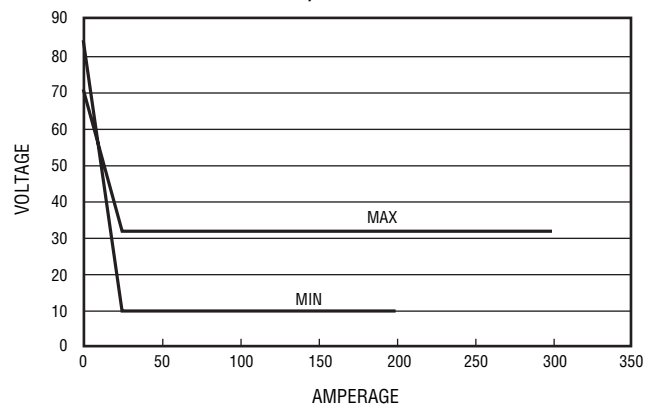


Performance Data

DUTY CYCLE CHART



VOLT/AMP CURVES



Genuine Miller Accessories

Pulsed MIG Upgrade #195 300
Upgrades MIG-only model (Millermatic 350) to MIG/Pulsed MIG.

Roughneck® MIG Guns
400 amp, capable of handling standard wire size .035–.045 in (0.9–1.2 mm)
C-4010 #194 754 10 ft (3 m)
C-4012 #194 755 12 ft (3.7 m)
C-4015 #194 756 15 ft (4.6 m)



Spoolmatic® 15A Spool Gun #195 156
Spoolmatic® 30A Spool Gun #130 831
Ideal for aluminum welding jobs. 200 amp, 100% duty cycle, air-cooled, 1 lb spool gun with your choice of 15 ft or (4.6 m) 30 ft (9.1 m) cable assembly. For detailed information, see Spoolmatic literature, Index No. M/1.5.

Power Cord Plug #213 380
For 200- or 230-volt single-phase application. Rated at 250 VAC/50 amp NEMA-style 6-50P. (Order from Miller Service Parts.)

Push-Pull Guns

XR-A Edge Gun
#181 534 15 ft (4.6 m)
#181 535 30 ft (9 m)

Adapter Cable #195 498
Required for XR-Edge Guns prior to serial #LE079101.

XR-A Pistol Gun
#198 127 15 ft (4.6 m)
#198 128 30 ft (9 m)

NEW! XR-A Python® 25 ft #195 373
Performs well on thin-gauge aluminum.

U-Groove Aluminum Drive Roll and Accessory Kits

Note: XR-Edge/Pistol kits include U-groove machine drive rolls, nylon wire guides, gun drive rolls and contact tips. XR-A Python kits include U-groove machine drive rolls, nylon wire guides and contact tips.

For XR-A Edge
#195 199 .035 in (0.9 mm)
#195 200 .047 in (1.2 mm)

For XR-A Pistol
#195 201 .035 in (0.9 mm)
#195 202 .047 in (1.2 mm)

For XR-A Python
#195 311 .035 in (0.9 mm)
#195 313 .047 in (1.2 mm)

CO₂ Regulator/Flow Gauge #212 492
Required if using 100% CO₂ gas. (Order from Miller Service Parts.)



Dual Cylinder Rack #195 299
Replaces single cylinder rack.



Millermatic® Protective Cover with Helmet Bag #195 142

Python® is a registered trademark of MK Products, Irvine, CA USA

Consumables (Order from Miller Service Parts.)

For All Roughneck, Spoolmatic 15A/30A, XR-Edge, XR-A, and XR-A Python Guns

FasTip Contact Tips (25 per package)

Heavy-Duty

#206 184 .023 in (0.6 mm)
#206 185 .030 in (0.8 mm)
#206 186 .035 in (0.9 mm)
#206 187 .040 in (1.0 mm) steel and for .035 in (0.9 mm) aluminum or stainless wires and metal core
#206 188 .045 in (1.2 mm)
#206 189 .052 in (1.3 mm) steel and for .047 in (1.2 mm) aluminum or .045 in (1.2 mm) stainless wires and metal core

Gas Diffuser #206 195 Standard
1/8 in recess for standard and heavy-duty FasTip.

Gas Diffuser #206 196
Flush tip for standard and HD FasTip.

For Roughneck C-Series MIG Guns

Replacement Liners

#202 889 .023–.030 in (standard)
#202 890 .035–.045 in (standard)

Insulator, Nozzle #198 856

Nozzles

#198 855
Screw-type copper, 5/8 in orifice.
#199 618
Screw-type copper, 5/8 in orifice HD.
#199 616
Screw-type copper, 3/4 in orifice straight.
#199 617
Screw-type copper, 3/4 in orifice straight HD.

Drive Roll Kits

Note: Drive roll kits include 4 drive rolls, an intermediate guide, and an inlet guide.

V-Grooved Drive Roll Kits

#087 132 .023/.025 in (0.6 mm)
#046 780 .030 in (0.8 mm)
#046 781 .035 in (0.9 mm)
#046 782 .045 in (1.2 mm)
#189 285 .035/.045 in (0.9/1.2 mm)
#046 783 .052 in (1.3 mm)
#046 784 1/16 in (1.6 mm)

U-Grooved Drive Roll Kits

#044 750 .035 in (0.9 mm)
#046 785 .047 in (1.2 mm)
#046 786 .052 in (1.3 mm)
#046 787 1/16 in (1.6 mm)

V-Knurled Drive Roll Kits

#046 792 .035 in (0.9 mm)
#046 793 .045 in (1.2 mm)
#046 794 .052 in (1.3 mm)
#046 795 1/16 in (1.6 mm)

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Millermatic® 350	#907 167	460/575 V, MIG unit		
	#907 299	200/230/460 V, MIG unit		
Millermatic® 350P	#907 168	460/575 V, MIG/Pulsed MIG unit		
	#907 300	200/230/460 V, MIG/Pulsed MIG unit		
Guns				
Roughneck C-4010 MIG Gun	#194 754	10 ft (3 m), 400 A, .035–.045 in (0.9–1.2 mm)		
Roughneck C-4012 MIG Gun	#194 755	12 ft (3.7 m), 400 A, .035–.045 in (0.9–1.2 mm)		
Roughneck C-4015 MIG Gun	#194 756	15 ft (4.6 m), 400 A, .035–.045 in (0.9–1.2 mm)		
Spoolmatic® 15A Spool Gun	#195 156	15 ft (4.6 m), 200 A, .023–1/16 in (0.6–1.6 mm) for aluminum		
Spoolmatic® 30A Spool Gun	#130 831	30 ft (9 m), 200 A, .023–1/16 in (0.6–1.6 mm) for aluminum		
XR™-A Edge Push-Pull Gun	#181 534	15 ft (4.6 m), 200 A, .030–1/16 in (0.8–1.6 mm) for aluminum		
	#181 535	30 ft (9 m), 200 A, .030–1/16 in (0.8–1.6 mm) for aluminum		
Adapter Cable	#195 498	Required for XR-Edge Guns prior to serial #LE079101		
XR™-A Pistol Push-Pull Gun	#198 127	15 ft (4.6 m), 200 A, .030–1/16 in (0.8–1.6 mm) for aluminum		
	#198 128	30 ft (9 m), 200 A, .030–1/16 in (0.8–1.6 mm) for aluminum		
NEW! XR-A Python®	#195 373	25 ft (7.6 m), 200 A, .030–1/16 in (0.8–1.6 mm) for aluminum		
U-Groove Aluminum Drive Roll and Accessory Kit	#195 199	For XR-A Edge Gun, .035 in (0.9 mm)		
	#195 200	For XR-A Edge Gun, .047 in (1.2 mm)		
	#195 201	For XR-A Pistol Gun, .035 in (0.9 mm)		
	#195 202	For XR-A Pistol Gun, .047 in (1.2 mm)		
	#195 311	For XR-A Python Gun, .035 in (0.9 mm)		
#195 313	For XR-A Python Gun, .047 in (1.2 mm)			
Accessories				
Pulsed MIG Upgrade	#195 300	Upgrades MIG-only unit to MIG/Pulsed MIG		
Dual Cylinder Rack	#195 299	Field installed, replaces single cylinder rack		
Protective Cover with Helmet Bag	#195 142			
CO ₂ Regulator/Flow Gauge	#212 492	Required if using 100% CO ₂ gas (<i>Order from Miller Service Parts.</i>)		
Power Cord Plug	#213 380	For 200/230 V, single-phase. NEMA-style 6-50P (<i>Order from Miller Service Parts.</i>)		
Electrode Wire				
Shielding Gas Cylinder				
Helmet/Gloves/Scratch Brush				
Consumables (<i>Order from Miller Service Parts.</i>)				
Contact Tips				
Tapered Contact Tips				
Contact Tip Adapter				
Replacement Liners				
Nozzles				
Spot Nozzles				
Tapered Nozzles				
Drive Rolls				

Date:

Total Quoted Price:



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