



S-32S and S-32SL

Voltage-Sensing Wire Feeders

Processes



Flux Cored (FCAW) Welding
(Gas and Self-shielded)



MIG (GMAW) Welding



Simple to use but with all the features needed for heavy-duty wire feed applications... that's the S-32S and S-32SL wire feeders from Miller. Built with the

strength and flexibility to handle the strenuous work loads of field and fabrication shops, the S-32S and S-32SL delivers proven reliability and performance.

These feeders operate off arc voltage, so a control cord is not required. Operates with most CV and CC DC-type power sources.

The S-32S and S-32SL handle the necessary high-end speed for small diameter wires, and the low-end speed and power for the more demanding larger diameter wires.

Applications

- Structural steel
- Building construction
- Bridge construction
- Field maintenance and repair
- Outdoor equipment repair and build-up work

Features

Benefits

Operates on open-circuit and arc voltages	Requires only the secondary weld cable to power feeder, no control cord needed.
Voltage-sensing control circuit with CC/CV switch	Allows the feeder to be used with most constant-current and constant-voltage DC power sources.
S-32S wire speed range: 50–700 IPM (1.3–18 m/min)	Accommodates a wide variety of wire sizes and types, .023–5/64 in (0.6–2.0 mm).
S-32SL wire speed range: 25–325 IPM (0.6–8.2 m/min)	Designed for 5/64–7/64 in (2.0–2.8 mm) diameter wire.
Polarity insensitive	Operates on straight (electrode negative) or reverse (electrode positive) polarity.
High-torque, 24 VDC drive motor with two gear-driven drive rolls	Offers excellent wire feeding performance and long uninterrupted service life.
Solid-state speed control and brake circuit	Exceptional speed control and regulation; eliminates the need for electrical/mechanical relays and increases service life.
Overload protection	Protects motor and control circuit against possible damage due to overloading conditions.
Quick-change drive rolls and quick connect for Miller guns	No tools required. Easy attachment.
Insulated gun-holding bracket	Convenient place for holding gun when not welding or when transporting the feeder.

Specifications (Subject to change without notice.)

Heavy Industrial



(Use with CC/CV, DC Power Sources.)

Model	Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity	Wire Feed Speed**	Dimensions	Net Weight
S-32S	Operates on open-circuit voltage and arc voltage	.023–5/64 in (0.6–2.0 mm)	60 lb (27 kg) coil	50–700 IPM (1.3–18 m/min)	L: 22 1/2 in (572 mm) W: 10 3/4 in (273 mm) H: 10 in (254 mm)	33 lb (15 kg)
S-32SL*	15 to 100 V	5/64–7/64 in (2.0–2.8 mm)		25–325 IPM (0.6–8.2 m/min)		

*When using an 8 in (203 mm) diameter spool of welding wire, compression spring #057 745 is required. **Actual range is dependent on arc voltage applied.



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

Ordering Information See back page.



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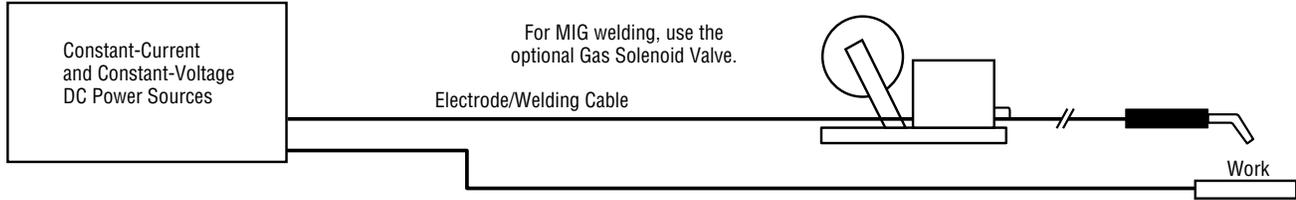
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Typical Installations

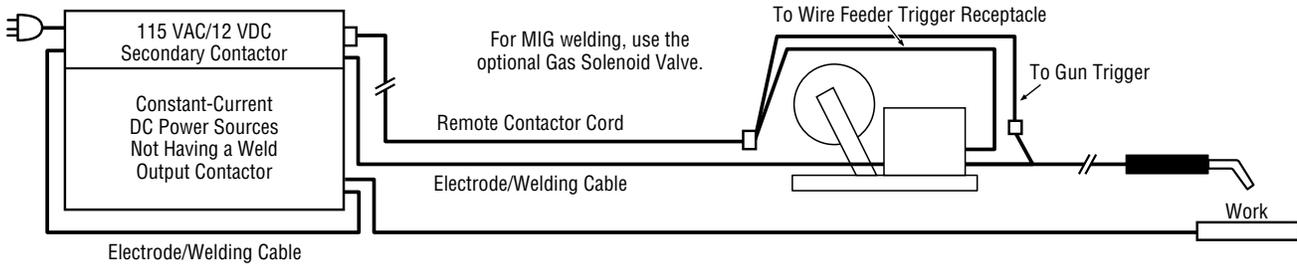
BASIC SET-UP — HOT WIRE



WITH OPTIONAL EXTERNAL SECONDARY CONTACTOR — COLD WIRE

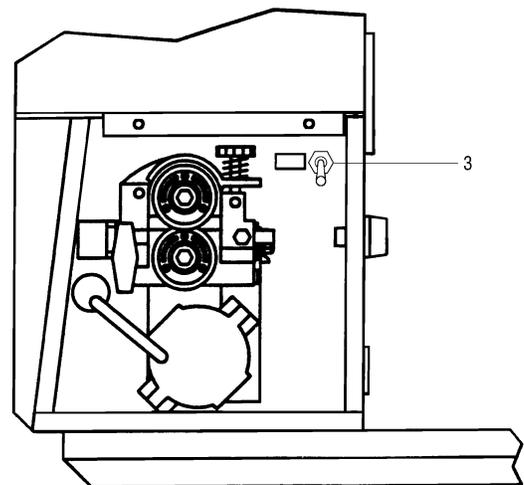
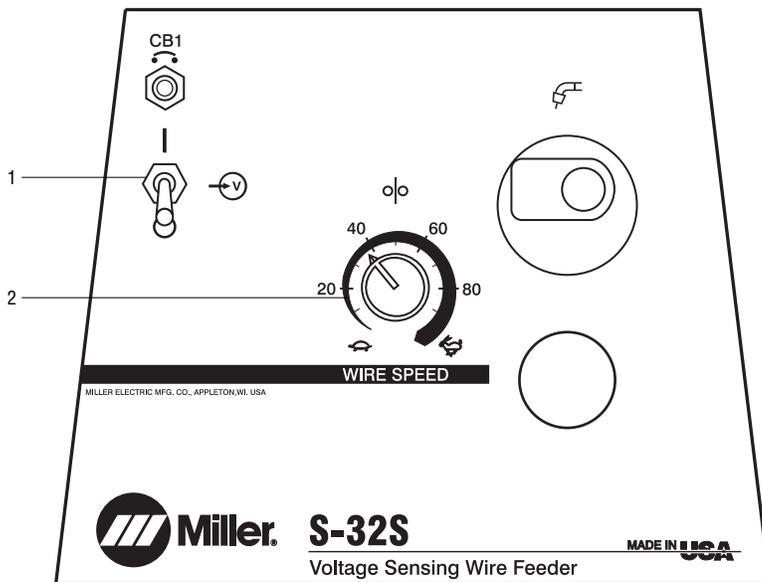
Note: The secondary contactor can be wired to operate off 115 VAC or powered off a 12 VDC battery of an engine driven welder.

10 ft. (3 m) 115 VAC Primary Cord (Connect to power source 115 VAC supply, if available.)



Control Panel

1. Power Control Switch
2. Wire Speed Control
3. CC/CV Switch



Drive Roll Kits (Order from Miller Service Parts.) Select drive roll kits from chart below according to type and wire size being used. Kit includes drive rolls and inlet guide.

Wire size	"V" groove for hard wire 	"U" groove for soft wire or soft-shelled cored wires 	"V" knurled for hard-shelled cored wires 	"U" cugged for extremely soft wire or soft-shelled cored wires (i.e., hard facing types) 
.023 / .025 in (0.6 mm)	#087 131	—	—	—
.030 in (0.8 mm)	#079 594	—	—	—
.035 in (0.9 mm)	#079 595	#044 749	#079 606	—
.040 in (1.0 mm)	#161 189	—	—	—
.045 in (1.1/1.2 mm)	#079 596	#079 599	#079 607	#083 318
.052 in (1.3/1.4 mm)	#079 597	#079 600	#079 608	#083 317
1/16 in (1.6 mm)	#079 598	#079 601	#079 609	#079 614
.068/.072 in (1.8 mm)	—	—	#089 984	—
5/64 in (2.0 mm)	—	#079 602	#079 610	#079 615
3/32 in (2.4 mm)	—	#079 603	#079 611	#079 616
7/64 in (2.8 mm)	—	#079 604	#079 612	#079 617

Options and Accessories

Skill Level Index

The box following the stock number of field-installed options contains a letter and number. The letter indicates the skill level required to install the option. The number indicates the approximate time required for installation (see legend).

A – Easy. No previous experience needed.

B – Average. Requires removal of service panels. Mechanical ability is helpful.

C – Difficult. May require the use of an ohmmeter and/or splicing of electrical wires. Repair or replacement of component parts is more difficult.

D – Technical. May require the use of an ohmmeter and the ability to read a circuit diagram. Repair or replacement of component parts is complex.

Example:

[B: 30] Skill Level: B, Time: 30 minutes

Gas Solenoid Valve

#093 768 Field [A: 15]

Required when using gas-shielded type wires. Includes purge control. Operates off the arc voltage and is designed for use with hot wire set-up or when using an external secondary contactor.



Compression Spring #057 745

Required when using 8 in (203 mm) diameter 10 lb (4.5 kg) and 15 lb (6.8 kg) spools of wire.

Spool Adapter #047 141

For use with 14 lb (6.4 kg) spool of Lincoln self-shielding wire.

External Secondary Contactor

#108 921 [A: 10]

Contacting rating:

400 amps at 30% duty cycle

330 amps at 60% duty cycle

250 amps at 100% duty cycle

Allows the welding wire to be electrically cold until the operator is ready to weld. The contactor can be used with direct current (DC) power sources operating in either reverse (electrode positive) or straight (electrode negative) polarity. The contactor will operate off 115 VAC or can be connected to a 12 VDC battery of an engine driven welder not having 115 VAC auxiliary power available. The gun trigger switch controls the contactor and must remain closed while welding.

Note: 25 ft (7.6 m), #108 925, or 50 ft (15.2 m), #108 926, remote contactor cord required.

Wire Reel Assembly #108 008

For 60 lb (27.2 kg) coil of wire.



Spool Cover #090 389

For 12 in (305 mm) spool only.

Reel Cover #091 668

For 60 lb (27 kg) coil.

Ordering Information and System Checklist

Equipment and Options	Stock No.	Description	Qty.	Price
S-32S	#088 816			
S-32SL	#109 294			
Drive Roll Kit		See table on page 3		
Gas Solenoid Valve	#093 768			
Power Sources				
Dimension™		See Lit. Index No. DC/19.2		
Gold Star®		See Lit. Index No. DC/8.1		
Mark VI®, VIII®-2		See Lit. Index No. DC/9.8, DC/10		
Bobcat™		See Lit. Index No. ED/4.31		
Trailblazer®251		See Lit. Index No. ED/4.5		
Big 40®G or Diesel		See Lit. Index No. ED/8.1, ED/9.6		
Big Blue® 251D		See Lit. Index No. ED/5.2		
Big Blue® 600D		See Lit. Index No. ED/10.3		
Miller Air Pak™				
Accessories				
External Secondary Contactor	#108 921			
Wire Reel Assembly	#108 008			
Spool Cover	#090 389			
Reel Cover	#091 668			
Compression Spring	#057 745	For 8 in spool of wire		
Spool Adapter	#047 141			
Remote Contactor Cables	#108 925	25 ft (7.6 m)		
	#108 926	50 ft (15.2 m)		
GA-40GL Gun		See Lit. Index No. M/9.0		
M-25, M-40 Guns		See Lit. Index No. M/10.0		
GW-500 Gun		See Lit. Index No. M/13.4		
Miscellaneous				
Primary Power Cable				
Secondary Power Cable				
Ground Cable with Clamp				
Gas Cylinder (if required)				
Gas Hose with Fittings (if required)				
Regulator/Flowmeter (if required)				
Welding Wire				
Helmet				
Welding Gloves				
Date:			Total Quoted Price:	



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