



S-22P12 and Super S-32P

Lightweight, Portable Wire Feeders

Processes



MIG (GMAW)
Welding



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



Lightweight and portable, these feeders are also durable, enclosed in steel-reinforced, impact-resistant and flame-retardant molded plastic cases.

They handle a wide variety of wire sizes and types, and include professional features for tough portable welding jobs.

Select either the Super S-32P for CC or CV-type voltage-sensing welding, or the S-22P12, for CV-type constant-speed welding with low-voltage 24 VAC operation. Their rugged portability makes these feeders great choices for all environments.

Applications

- Shipbuilding
- Field maintenance and repair
- Construction
- In-plant maintenance
- Pipe welding
- Outdoor equipment repair

Features

Benefits

For Both Wire Feeders

Impact-resistant, flame-retardant case	Provides strength in a portable, lightweight package. Impact resistant case protects internal components from damage.
Totally enclosed	Protects components and welding wire from moisture, dust and other contaminants.
Non-conductive case	Eliminates high voltage lines and the potential of welding current shorting to the workpiece.
Quick-change drive rolls	Two gear-driven drive rolls are easy to change—no tools required.
Gas purge	Purges gas line without feeding wire.
Wire jog control	Feeds welding wire without energizing contactor.
Insulated gun-holding bracket	Convenient place for holding gun when not welding or when transporting the feeder.
Overload protection	Protects motor and control circuit against possible damage due to overloading conditions.
Solid-state speed control and brake circuit	Excellent speed control and regulation. Eliminates the need for electrical/mechanical relays. Increases service life.
Lightweight, suitcase-type feeder	Allows improved mobility and ease of carrying to remote welding sites.
Industrial, high-torque, 24 VDC drive motor	Excellent positive and accurate wire feeding performance.

S-22P12 Only

Low voltage control—operates off 24 VAC remote control	Eliminates need for internal grounding of the feeder. Reduces the number of conductors required in the control cord from the power source to the feeder. Use with Miller CV power sources having a 14-pin receptacle and 24 VAC supply.
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Super S-32P Only

Operates on open-circuit and arc voltages	Only requires the secondary weld cable to power feeder. No control cord required.
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-22P12 Specifications *(Subject to change without notice.)*

Industrial *(Use with CV Power Sources.)*

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
24 VAC, 3.5 A, 50/60 Hz	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	75–630 IPM (1.9–16 m/min)	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	29 lb (13.1 kg)

Super S-32P Specifications *(Subject to change without notice.)*

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

Input Power	Electrode Wire Diameter Capacity	Maximum Spool Size Capacity*	Wire Speed	Dimensions	Net Weight
Operates on open-circuit voltage and arc voltage 15 to 100 V	.023–5/64 in (0.6–2.0 mm)	30 lb (13.6 kg) 12 in (304 mm)	50–700 IPM (1.3–17.8 m/min) Actual range in CC mode is dependent on arc voltage applied.	H: 15-3/4 in (400 mm) W: 8-3/4 in (222 mm) D: 22-1/2 in (572 mm)	32 lb (15 kg)

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

*When using an 8 in (203 mm) diameter spool of welding wire, compression spring #057 745 is required.

Ordering Information See back page.



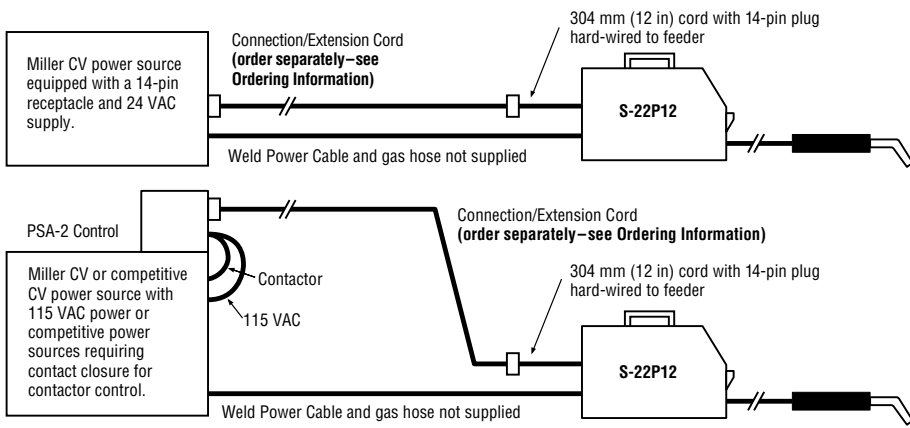
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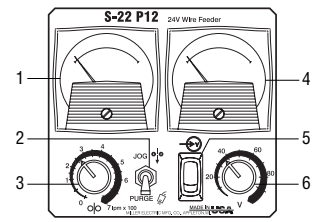


S-22P12 Typical Installations



Note: If using the S-22P12 Ultra-Lite feeder with a power source having only 115 VAC supply, the PSA-2 (power supply adapter) is required. Refer to Optional Controls and Accessories section.

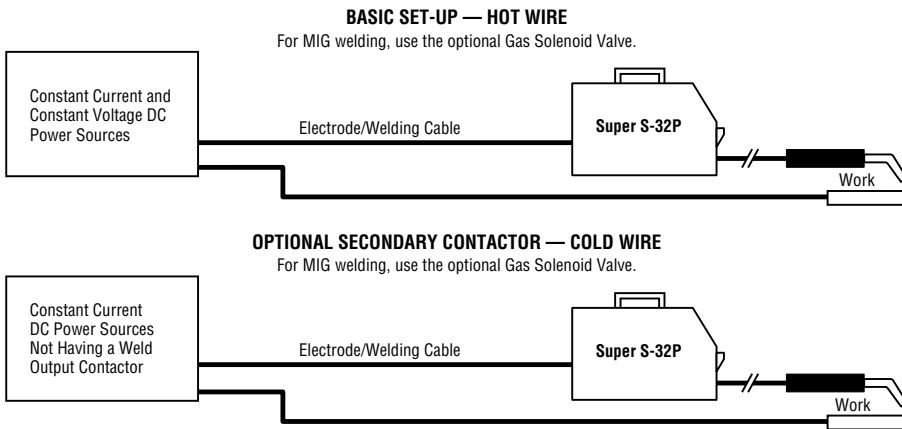
S-22P12 Control Panel



1. Wire Speed Meter*
2. Jog/Purge Switch
3. Wire Speed Range Switch
4. Voltage Meter*
5. Power Control Switch
6. Remote Voltage Control*

*Optional

Super S-32P Typical Installations



Nylon Wire Guides for Feeding Aluminum Wire (Order from Miller Service Parts.)

Wire Size	Inlet Guide
.047 in (1.2 mm)	#151 203
1/16 in (1.6 mm)	#151 205

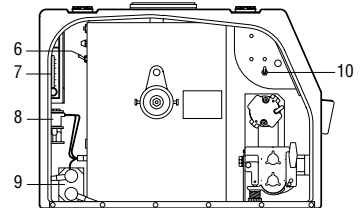
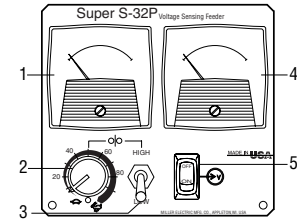
Note: "U" groove drive rolls are recommended when feeding aluminum wire.

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" cogged 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

Super S-32P Control Panel



1. Wire Speed Meter*
2. Wire Speed Control
3. Wire Speed Range Switch
4. Voltage Meter*
5. Power Control Switch
6. CC/CV Switch
7. Flowmeter*
8. Gas Solenoid*
9. Secondary Contactor*
10. Purge Switch*

*Optional

Skill Level Index

The bracketed entry to the right of 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

S-22P12 Options

Remote Voltage Control

#121 569 Field [A: 10]

Installs in front panel of feeder to allow remote voltage control of most Miller electronically controlled CV or CC/CV power sources having a 14-pin receptacle.

Notes: The standard Connection/Extension Cord listed under ordering information is also designed for use with the Remote Voltage Control.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

Spot/Burnback Control #121 562 [B: 20]

Installs inside feeder. Provides up to 5 seconds of spot weld time in two ranges. Time starts with depression of gun trigger switch. Burnback control up to 0.25 seconds. Can be used in the spot or continuous mode.

Note: Cannot be installed if Pre-Flow/Post-Flow Control is used.

Preflow/Postflow Gas Control #121 563 [B: 20]

Installs inside feeder. An adjustable timer (0.25 to 5 seconds) for controlling gas flow prior to arc initiation and after completion of weld.

Note: Cannot be installed if Spot Control is used.

Meter Kit – Voltage/Wire Feed Speed

#121 568 Field [B: 25]

Analog DC voltmeter and wire feed speed meter. The design of the meter and the S-22P12 circuit allow the wire feed speed to be pre-set. The voltage is displayed only while welding.



Gas Flowmeter

#161 812 Field [A: 15]

Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

S-22P12 Accessories

Extension Cords

#122 973 25 ft (7.6 m)

#122 974 50 ft (15 m)

#122 975 75 ft (23 m)

These cords are used as interconnecting cords (between the feeder and the power source) and extension cords. For example, two 25 ft (7.6 m) cords can be used together to make a 50 ft (15 m) cord.

MIG Accessory Kit #173 856

25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable, and ground cable with clamp.



PSA-2 Control

#141 604 [A: 10]

Required when using the S-22P12 with power sources having only 115 VAC available. Mounts at power source and includes a 10 ft (3 m) 115 VAC cord and contactor cord with Hubbell connectors. A simple modification in the PSA-2

control also allows it to be used with competitive constant-voltage power sources requiring a contact closure for contactor control. The PSA-2 includes a 14-pin

receptacle for direct connection of the standard interconnecting cord and optional extension cords. Bracket included for side mounting to the power source.

When using the PSA-2 control, the optional Remote Voltage Control is not functional.

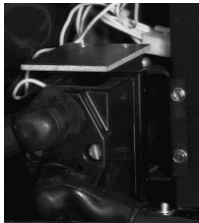
GW-500 Gun

Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]

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

Super S-32P Options



Secondary Contactor

#156 464 Field [A: 15]

Conveniently installs inside the feeder, allowing the welding wire to be electrically cold until the operator is ready to weld. Operates with straight or reverse

polarity and features magnetic blow-outs to help preserve and extend service life of the contactor.

Contactor Rating:

400 amps at 30% duty cycle

330 amps at 60% duty cycle

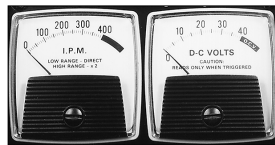
250 amps at 100% duty cycle

Note: Can be ordered factory installed in option package.

Gas Solenoid Valve #161 810 Field [A: 10]

Required when using gas-shielded type wires. Includes purge control.

Note: Can be ordered factory installed in option package.



Meter Kit – Voltage/Wire Feed Speed

#161 242 Field [B: 25]

DC voltmeter and wire feed speed meter.

Note: Can be ordered factory installed in option package.



Gas Flowmeter

#161 812 Field [A: 15]

Allows the shielding gas flow rate to be adjusted and monitored at the wire feeder.

Super S-32P Accessories



GA-40GL Gun

For self-shielded applications. Refer to gun Lit. Index No. M/9.0.

M-25 and M-40 Guns

For gas-shielded applications. Refer to gun Lit. Index No. M/10.0.

GW-500 Gun

Refer to gun Lit. Index No. M/13.4.

Spool Adapter #047 141 [A: 05]

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

Recommended Power Sources

For S-22P12

Regency® 250	Lit. Index No. DC/12.6
XMT® 304 CC/CV	Lit. Index No. DC/18.8
Shopmaster™	Lit. Index No. AD/2.3
CP-252TS	Lit. Index No. DC/13.0
CP-302	Lit. Index No. DC/13.0
Deltaweld® 302	Lit. Index No. DC/16.2
Trailblazer® 251 DT	Lit. Index No. ED/4.5
Trailblazer® 300D NT	Lit. Index No. ED/4.6

For Super S-32P

Dimension™	Lit. Index No. DC/19.2
Gold Star®	Lit. Index No. DC/8.1
Mark VI®	Lit. Index No. DC/9.8
Mark VIII®-2	Lit. Index No. DC/10
Bobcat™	Lit. Index No. ED/4.31
Trailblazer® 251 NT	Lit. Index No. ED/4.5
Big 40® G	Lit. Index No. ED/8.1
Big 40® Diesel	Lit. Index No. ED/9.6
Big Blue® 251D	Lit. Index No. ED/5.2
Big Blue® 600D	Lit. Index No. ED/10.3
Miller Air Pak™	Lit. Index No. ED/10.5

For Both Models

Big Blue® 402	Lit. Index No. ED/10.8
Pipe Pro 304	Lit. Index No. ED/10.6
Miller Du-Op	Lit. Index No. ED/10.9

Ordering Information and System Checklist

Equipment	Stock No.	Description	Qty.	Price
S-22P12	#125 616	Standard		
	#125 616-01-2	With meter kit (volt/wfs)		
	#125 616-02-8	With meter kit (volt/wfs), voltage control		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Remote Voltage Control	#121 569	Field		
Spot/Burnback Control	#121 562	Field		
Pre-Flow/Post-Flow Gas Control	#121 563	Field		
Meter Kit (volt/wfs)	#121 568	Field		
Gas Flowmeter	#161 812	Field		
S-22P12 Accessories				
Extension Cords (one required)	#122 973	25 ft (7.6 m)		
	#122 974	50 ft (15 m)		
	#122 975	75 ft (23 m)		
MIG Accessory Kit	#173 856	25 ft (7.6 m) 2/0 cable. Includes gas hose, weld cable and ground cable with clamp.		
PSA-2 Control	#141 604	Field		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	#047 141			
Super S-32P	#159 928	Standard		
	#159 928-02-1	With contactor, gas valve		
	#159 928-03-1	With contactor, gas valve, meters		
Drive Roll Kit		See Drive Roll Kit table on page 2		
Secondary Contactor	#156 464	Field		
Gas Solenoid Valve	#161 810	Field		
Meter Kit	#161 242	Field		
Gas Flowmeter	#161 812	Field		
Super S-32P Accessories				
GA-40GL Gun		See Lit. Index No. M/9.0		
M-25, M-40 Gun		See Lit. Index No. M/10.0		
GW-500 Gun		See Lit. Index No. M/13.4		
Spool Adapter	#047 141			
Miscellaneous				
Consumables				
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				
Compression Spring	#057 745	For 8 in (203 mm) spool of wire		
Helmet/Gloves				
Date:				Total Quoted Price:



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