

70 Series Swingarc™

Boom-Mounted Wire Feeder 

Quick Specs

Heavy Industrial Applications

Heavy Manufacturing
Metal Fabrication
Construction
Light Manufacturing

Processes

MIG (GMAW)
Flux-Cored (FCAW)
(Gas- and Self-Shielded)
Submerged Arc (SAW)
Pulsed MIG (GMAW) with
MPa Plus feeder and
optional MPa power source

Input Power 24 VAC, 10 A, 50/60 Hz

Wire Diameter Capacity .023–5/64 in. (0.6–2.0 mm)

Wire Feed Speed 50–780 IPM (1.3–19.8 m/min.)

Net Weight 110–280 lb. (50–127 kg) depending upon feeder and boom

Also Available! MPa Plus Swingarcs. Provides Synergic Pulsed MIG with any MPa power source.

Available in single- and dual-wire models with 8-, 12- or 16-foot booms to accommodate a wide variety of semiautomatic wire feed applications, including large weldments and hard to reach areas.

360-degree rotation and 60-degree lift angle maximizes your work area (16-, 24- or 32-foot diameter work area).

Unique counterbalanced boom makes it easy to raise and lower boom and automatically holds its position.

Includes 10-foot 14-pin interconnecting cord, 10-foot gas hose and 10-foot weld cable for the operator to hook up.

Control features on page 2.

In-boom cable routing organizes hoses and cables, preventing damage and maintaining an orderly work cell.



Models include Bernard™ Q400 MIG gun (two with D-74 models), .035/.045-inch drive rolls and Centerfire™ contact tips! For more options, visit MillerWelds.com/equiptoweld.

One of the following is required for mounting the boom:

- Swingpak base and pipe post with base plate (for 8-, 12- or 16-foot Swingarcs).
- 4- or 6-foot (1.2 or 1.8 m) pipe post with base plate (for 8-, 12- or 16-foot Swingarcs). Pipe post base plates allow post to be bolted to Swingpak base or floor.

See page 4 for details.

Single-wire Swingarc shown with pipe post, power source, welding gun, and optional Swingpak™ base.



Wire feeder and boom are warranted for 3 years, parts and labor.



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70 Series Control Features



- Models**
74S: Standard
74D: Digital meters and remote voltage control
74DX: Deluxe — digital full feature
74 MPa Plus: Digital full feature with Alumination™ technology

Note: 70 Series feeders are shown, but front panels are the same for both feeders and controls.

S models (basic 70 Series feeders)

- **Wire speed control.**
- **Factory-set run-in control** for improved arc starts.
- **24 VDC high-torque, permanent-magnet motor.**
- **Quick-change drive rolls.**
- **Quick-release, drive-roll pressure adjustment arm** allows drive roll change without losing spring preload setting.
- **Solid-state speed control and brake circuit** for increased service life.
- **Floating positive drive systems** provide trouble-free feeding on a variety of wires.

D models additional features

- **Digital meters** for easy viewing of the wire feed speed and voltage.
- **Remote voltage control** allows operator to set voltage at the wire feeder without having to go back to the power source.
- **Tachometer feedback** to help keep wire feed speed accurate.

DX models additional features

- **Four weld programs** allow the operators to store four independent welding parameters reducing welding setup time. (Four programs available per side on dual feeder.)
- **Adjustable run-in control** for improved arc starts.
- **Adjustable weld sequence control** gives operator complete control of the welding parameters: preflow, run-in, weld time, crater, burnback and postflow.
- **Welding process range control** locks parameters at a set percentage of welding parameters to ensure welding procedures and quality standards are maintained on the shop floor.
- **Dual schedule, trigger dual schedule and trigger program select** allows operator to switch welding parameters without readjusting machine, eliminating downtime and enhancing quality.

MPa Plus models additional features

Alumination™ technology allows you to use the extended reach of a push-pull system for consistent, versatile and dependable aluminum wire feeding. Alumination gives you the versatility to handle whatever aluminum welding job you want to tackle.

Synergic Pulsed MIG operation when optimized with MPa power supplies. Provides communication between the power source, feeder and gun. As wire speed increases/decreases, the pulse parameters also increase/decrease to match the right amount of power needed.

Trigger schedule select allows the operator to select the alternative schedule by quickly tapping the gun trigger when not welding. When optimized with MPa power supplies the operator can also switch from MIG to Pulsed MIG.

Profile Pulse™ provides TIG appearance with MIG simplicity and productivity. Achieve “stacked dime” weld bead appearance without back-stepping. Profile Pulse frequency can be changed to increase or decrease the spacing between the ripple pattern to achieve the desired weld appearance.



Accu-Mate™ properly seats the power pin for best feeding performance and prevents Accu-Mate grooved MIG guns from sliding in the casting.

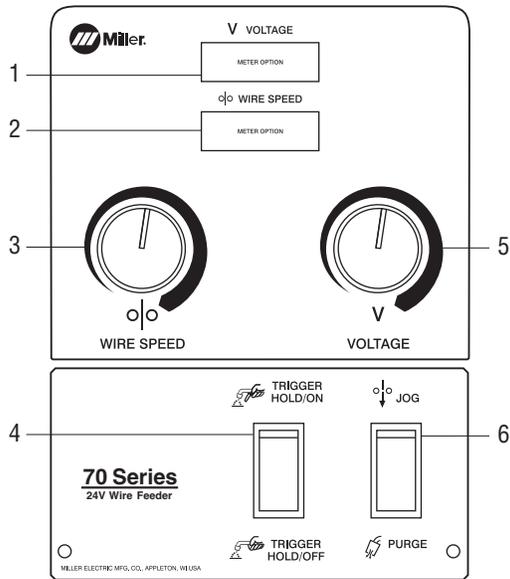
Specifications (Subject to change without notice.)

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

Model	Input Power	Wire Feed Speed	Electrode Wire Diameter Capacity	8-ft. Boom Net Weight	12-ft. Boom Net Weight	16-ft. Boom Net Weight
SS-74	24 VAC, 10 A, 50/60 Hz	50–780 IPM (1.3–19.8 m/min.)*	.023–5/64 in. (0.6–2.0 mm)	110 lb. (50 kg)	160 lb. (73 kg)	210 lb. (95 kg)
DS-74				134 lb. (61 kg)	207 lb. (94 kg)	280 lb. (127 kg)
SS-74 MPa Plus	24 VAC, 10 A, 50/60 Hz	50–780 IPM (1.3–19.8 m/min.)	.023–5/64 in. (0.6–2.0 mm)	110 lb. (50 kg)	160 lb. (73 kg)	210 lb. (95 kg)
DS-74 MPa Plus				134 lb. (61 kg)	207 lb. (94 kg)	280 lb. (127 kg)

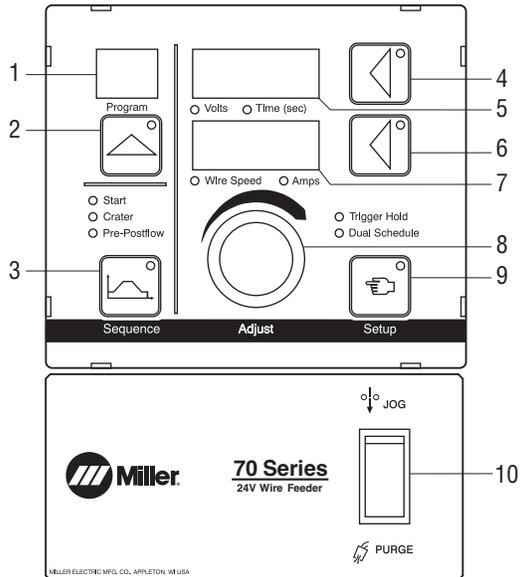
*Contact Miller Electric Mfg. Co. at 1-920-735-4505 for more information on optional low- and high-speed motor options.

Control Panels



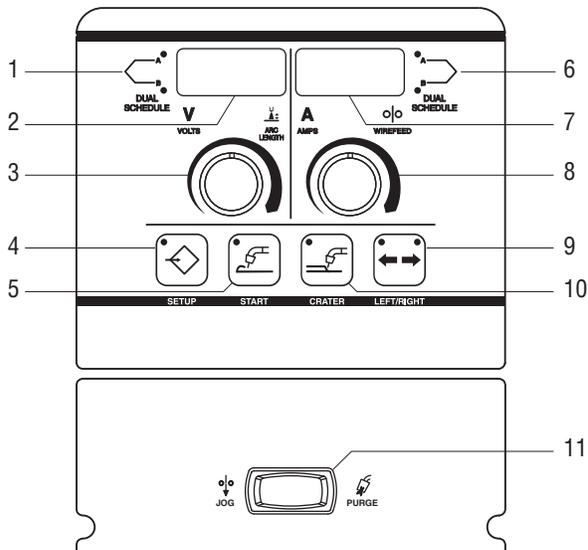
SS-74S and SS-74D

1. Voltage Display Meter (S-74D model only)
2. Wire Speed Display Meter (S-74D model only)
3. Wire Feed Speed Select
4. Trigger Hold
5. Voltage Select
6. Jog/Purge



SS-74DX

1. Program Display
2. Program # Select
3. Weld Sequence
4. Voltage/Time Select
5. Voltage/Time Display Meter
6. Wire Feed/Amperage Select
7. Wire Speed/Amperage Display Meter
8. Control Knob
9. Trigger Hold/Dual Schedule Control
10. Jog/Purge



DS-74 MPa Plus

1. Left Dual Schedule Indicator
2. Voltage/Arc Length Display Meter
3. Left Adjust Knob
4. Setup Button
5. Start Button
6. Right Dual Schedule Indicator
7. Amperage/Wire Speed Display Meter
8. Right Adjust Knob
9. Left/Right Select Button
10. Crater Button
11. Jog/Purge

Drive Roll Kits and Guides (Order from Miller Service Parts.)

Select drive roll kits from chart below according to type and wire size being used. Drive roll kits include four drive rolls, necessary guides and feature an anti-wear sleeve for inlet guide.

Wire Size	"V" groove for hard wire 	"U" groove for aluminum wires contains nylon guides 	"V" knurled for hard-shelled cored wires 	"U" clogged for extremely soft wire or soft-shelled cored wires (i.e., hard-facing types) 	"U" groove for soft wire or soft-shelled cored wires 
.035 in. (0.9 mm)	#151 026	#243 233	#151 052	—	—
.040 in. (1.0 mm)	#161 190	—	—	—	—
.045 in. (1.1/1.2 mm)	#151 027	#243 234*	#151 053	#151 070	#151 037*
.052 in. (1.3/1.4 mm)	#151 028	—	#151 054	—	—
1/16 in. (1.6 mm)	#151 029	#243 235	#151 055	#151 072	#151 039
.068/.072 in. (1.8 mm)	—	—	#151 056	—	—
5/64 in. (2.0 mm)	—	—	#151 057	—	—
3/32 in. (2.4 mm)	—	—	#151 058	—	#151 041

*Accommodates .045- and .047-inch (3/64-inch) wire.

Nylon Wire Guides for Feeding Aluminum Wire

Wire Size	Inlet Guide	Intermediate Guide
.035 in. (0.9 mm)	#221 912	#242 417
.047 in. (1.2 mm)	#221 912	#205 936
1/16 in. (1.6 mm)	#221 912	#205 937

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

Wire Guides

Wire Size	Inlet Guide	Intermediate Guide
.023-.040 in. (0.6-1.0 mm)	#221 030	#149 518
.045-.052 in. (1.1-1.4 mm)	#221 030	#149 519
1/16-5/64 in. (1.6-2 mm)	#221 030	#149 520
3/32-7/64 in. (2.4-2.8 mm)	#229 919	#149 521

Mounting Equipment for Swingarc™ Booms

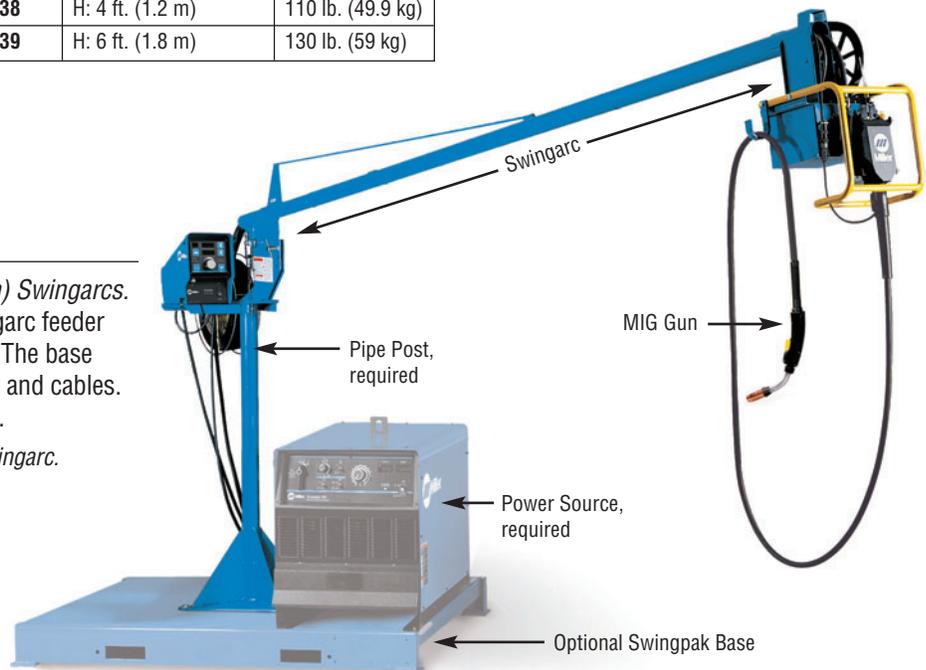
Specifications and Usage (Subject to change without notice.)

Usage	Model	Stock No.	Dimensions	Net Weight
For 8-, 12- or 16-ft. Swingarc	Swingpak Base	#183 997	L: 65 in. (1.7 m) W: 50.875 in. (1.3 m)	285 lb. (129 kg)
	4-ft. Pipe Post with Base	#149 838	H: 4 ft. (1.2 m)	110 lb. (49.9 kg)
	6-ft. Pipe Post with Base	#149 839	H: 6 ft. (1.8 m)	130 lb. (59 kg)

Swingpak™ Base

For use with 8-, 12- or 16-foot (2.4, 3.7 or 4.9 m) Swingarcs. Each base accommodates a power source, Swingarc feeder system, water coolant system, and gas cylinder. The base plate is solid to help better organize components and cables. The entire unit can be moved with a forklift truck.

Note: Base must be mounted to floor with 16-foot Swingarc.



Genuine Miller® Options and Accessories

Remote Voltage Control

#194 988 Field. Non-digital for S-74S

#194 991 Field. Non-digital for D-74S

Conversion Kit

#194 989 Field. S-74S to S-74D

#194 992 Field. D-74S to D-74D



Single/Dual Spool Carrier (Pipe Post not included)

#300 353 For 4-ft. post

#300 352 For 6-ft. post



Industrial MIG 4/0 Kit with Dinse Connectors #300 405

Includes regulator flowmeter with 10-foot (3 m) gas hose, 10-foot (3 m) 4/0 feeder weld cable with Dinse connector on one end and a lug on the other, 15-foot (4.6 m) work cable with Dinse connector on one end and 600-amp C-clamp on the other.



Industrial MIG 4/0 Kit #300 390

Includes the same as the kit above, except weld and work cables have lugs instead of Dinse connectors.



Spool Covers

#057 607

For S-74 and left side of D-74 models

#090 389

For right side of D-74 models

For 12-inch (305 mm) spool.

Note: Spool Covers cannot be installed if the wire drive assembly is in a rotated position.



Wire Reel Assembly

#108 008

For 60-pound (27 kg) coil of wire.

Reel Covers

#195 412 For S-74 and left side of D-74 models

#091 668 For right side of D-74 models

For 60-pound (27 kg) coil. Helps to protect the welding wire from dust and other contaminants.

Note: Reel Covers cannot be installed if the wire drive assembly is in a rotated position.

Spool Adapter #047 141

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

Extension Cables for 14-Pin Plugs to 14-Pin Sockets*

#242 208 025 25 ft. (7.6 m)

#242 208 050 50 ft. (15.2 m)

#242 208 080 80 ft. (24.4 m)

Provides 14-pin, 24 VAC, contactor and voltage control. Add to the standard 10-foot (3 m) feeder cable to extend feeder farther from power source.

**For additional lengths visit MillerWelds.com/equiptoweld.*



DSS-9 Dual Schedule Switch #071 833

A two-position slide switch which attaches to the gun handle and is used to select the desired welding condition for dual schedule purposes. The gun trigger operates as a standard gun trigger. **(For 74DX models only.)**

For MPa Plus Wire Feeders only

Extension Cables*

#247 831 025 25 ft. (7.6 m)

#247 831 050 50 ft. (15.2 m)

#247 831 080 80 ft. (24.4 m)

Eleven conductors to support contactor control and remote voltage control on all Miller electronic CV 14-pin power sources. Additional functions supported when using the MPa power sources include Synergic Pulsed MIG, and remote process select and side select capabilities.

**For additional lengths visit MillerWelds.com/equiptoweld.*



XR-Aluma-Pro™ Plus Gun

#300 000 001 15 ft. (4.6 m), air-cooled

#300 001 001 25 ft. (7.6 m), air-cooled

#300 004 001 25 ft. (7.6 m), water-cooled

This easy-to-use and easy-to-maintain gooseneck-style MIG gun is designed for push-pull wire feed systems. Available in air- or water-cooled versions. Gun design allows for better access into tight spots.

1/16-inch (1.6 mm) Wire Kit #230 708

Specially designed for 1/16-inch wire. Includes idler roll, head tube liner and inlet guide. Required when running 1/16-inch wires. Not included with standard XR-Aluma-Pro Plus gun.

Hardwire Liner Kit for Steel and Stainless #198 377

For 15-, 25-, or 35-foot (4.6, 7.6 or 10.6 m) guns. Kit consists of gun head tube liner and feed cable liner. Recommend using .030–.045 inch mild steel or stainless steel electrode wire (.052- and 1/16-inch wire not recommended).

Phosphorous Bronze Liner (Optional)

#233 999 Long Head Tube (air or water)

#233 998 Short Head Tube (air only)

Steel Liner (Optional)

#242 191 Short Head Tube (air only)

Typical Installations

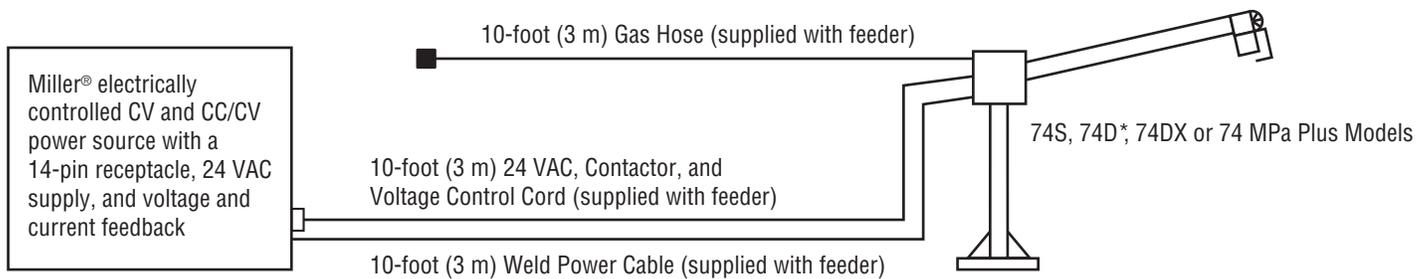
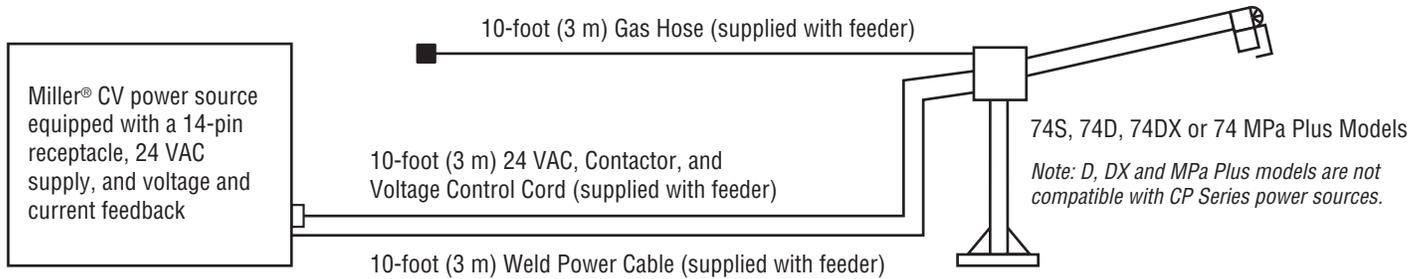
Models

74S: Standard

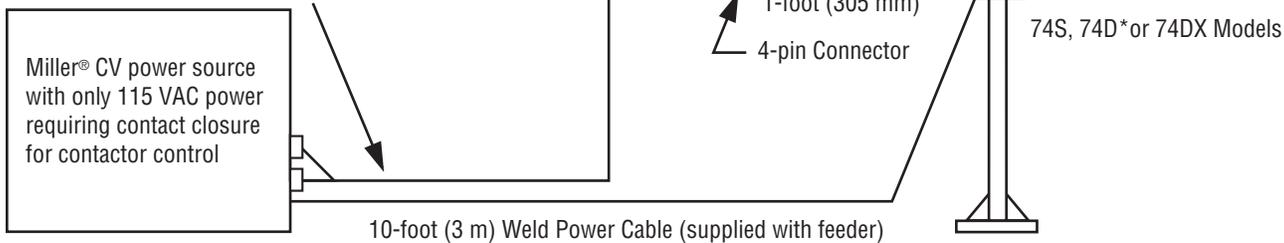
74D: Digital meters and remote voltage control

74DX: Deluxe — digital full feature

74 MPa Plus: Digital full feature with Alumination™ technology



10-foot (3 m) interconnecting cord included with PSA-2 control. Includes a 4-pin connector for connecting to PSA-2 control and Hubbell connectors on older-style Miller® CV power sources.

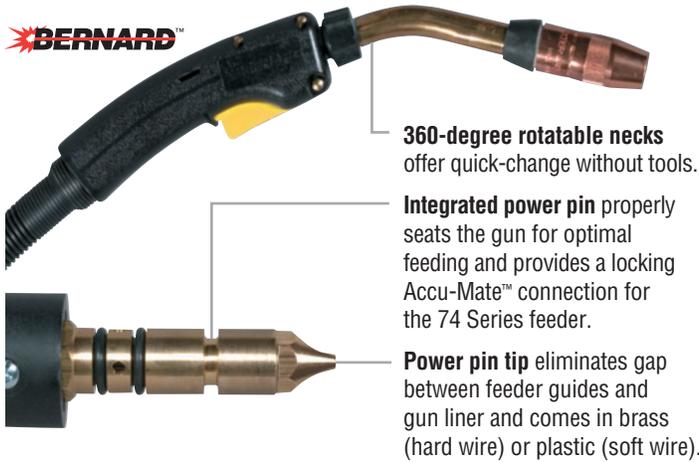


**When using the D model with Miller® power sources that DO NOT have remote voltage control capabilities, i.e., CP type, the voltage control in the feeder IS NOT functional. See Operator's Manual for operating instructions.*

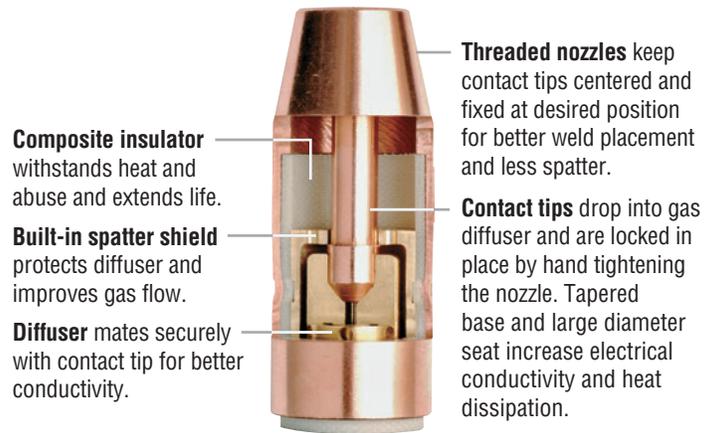
***If using the 70 Series feeders with a power source having only 115 VAC supply, the PSA-2 (Power Source Adapter) is required. When using the PSA control, optional remote voltage is not functional. See Operator's Manual for operating instructions.*

Bernard™ Q-Gun™ MIG Guns and Centerfire™ Consumables

Q-Guns increase productivity, reduce downtime, and lower maintenance and inventory costs.



Centerfire consumables improve weld quality, reduce downtime and boost gun performance.



Power Pin Tips

- #2200105 Plastic, .030–.035 in. (0.8–0.9 mm), for aluminum (red)
- #2200106 Plastic, .040–3/64 in. (1.02–1.19 mm), for aluminum (white)
- #2200107 Plastic, .052–1/16 in. (1.4–1.6 mm), for aluminum (blue)
- #4477* Brass, .023–.045 in. (0.6–1.2 mm), for steel

Liners

- #44115* 15 ft. (4.6 m), .035–.045 in. (0.9–1.2 mm), steel
- #44215 15 ft. (4.6 m), .045–1/16 in. (1.2–1.6 mm), steel

T Series Centerfire

- Contact Tips** 1.5 in. (38.1 mm)
- #T-023 .023 in. (0.6 mm)
 - #T-030 .030 in. (0.8 mm)
 - #T-035 .035 in. (0.9 mm)
 - #T-039 .039 in. (1.0 mm)
 - #T-045* .045 in. (1.2 mm)
 - #T-052 .052 in. (1.4 mm)
 - #T-062 1/16 in. (1.6 mm)
 - #T-078 5/64 in. (2.0 mm)
 - #T-094 3/32 in. (2.4 mm)
 - #T-109 7/64 in. (2.8 mm)
 - #T-125 1/8 in. (3.2 mm)

TT Series Centerfire

- Contact Tips** 2 in. (50.8 mm)
- #TT-023 .023 in. (0.6 mm)
 - #TT-030 .030 in. (0.8 mm)
 - #TT-035 .035 in. (0.9 mm)
 - #TT-039 .039 in. (1.0 mm)
 - #TT-045 .045 in. (1.2 mm)
 - #TT-052 .052 in. (1.4 mm)
 - #TT-062 1/16 in. (1.6 mm)

Centerfire Large Nozzles

- #N-3400C Copper, 3/4-in. I.D., flush tip
- #N-3418C Copper, 3/4-in. I.D., 1/8-in. tip recess
- #N-3414C Copper, 3/4-in. I.D., 1/4-in. tip recess
- #N-3418B Brass, 3/4-in. I.D., 1/8-in. tip recess
- #N-3414B Brass, 3/4-in. I.D., 1/4-in. tip recess
- #N-5800C Copper, 5/8-in. I.D., flush tip
- #N-5818C Copper, 5/8-in. I.D., 1/8-in. tip recess
- #N-5814C* Copper, 5/8-in. I.D., 1/4-in. tip recess
- #N-5818B Brass, 5/8-in. I.D., 1/8-in. tip recess
- #N-5814B Brass, 5/8-in. I.D., 1/4-in. tip recess

Diffuser #D-1*

Insulator #10012*

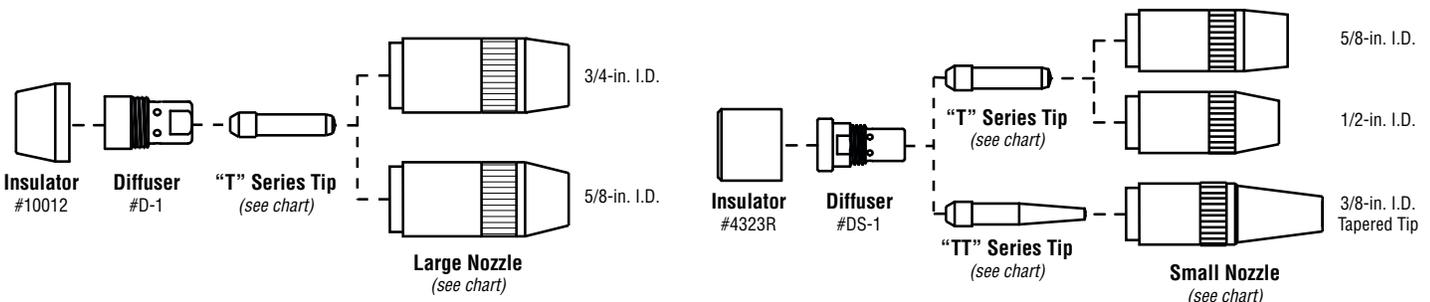
Centerfire Small Nozzles

- #NS-5818C Copper, 5/8-in. I.D., 1/8-in. tip recess
- #NS-5800B Brass, 5/8-in. I.D., flush tip
- #NS-5818B Brass, 5/8-in. I.D., 1/8-in. tip recess
- #NS-1218C Copper, 1/2-in. I.D., 1/8-in. tip recess
- #NS-1200B Brass, 1/2-in. I.D., flush tip
- #NS-1218B Brass, 1/2-in. I.D., 1/8-in. tip recess
- #NST-3800B Brass, tapered, 3/8-in. I.D., flush tip
- #NST-3818B Brass, tapered, 3/8-in. I.D., 1/8-in. tip recess
- #NST-38XTB Brass, tapered, 3/8-in. I.D., 1/8-in. tip extension

Diffuser #DS-1

Insulator #4323R

*Comes standard with Q400 15-ft. steel gun.



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Single-Wire Models				
SS-74S8	#951 522	8 ft. With S-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74S12	#951 523	12 ft. With S-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74S16	#951 524	16 ft. With S-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74D8	#951 525	8 ft. With S-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74D12	#951 526	12 ft. With S-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74D16	#951 527	16 ft. With S-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74DX8	#951 528	8 ft. With S-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74DX12	#951 529	12 ft. With S-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74DX16	#951 530	16 ft. With S-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74MPa Plus-8	#951 437	8 ft. With S-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74MPa Plus-12	#951 438	12 ft. With S-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
SS-74MPa Plus-16	#951 439	16 ft. With S-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
Dual-Wire Models				
DS-74S8	#951 531	8 ft. With D-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74S12	#951 532	12 ft. With D-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74S16	#951 533	16 ft. With D-74S wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74D8	#951 534	8 ft. With D-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74D12	#951 535	12 ft. With D-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74D16	#951 536	16 ft. With D-74D wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74DX8	#951 537	8 ft. With D-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74DX12	#951 538	12 ft. With D-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74DX16	#951 539	16 ft. With D-74DX wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74MPa Plus-8	#951 440	8 ft. With D-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74MPa Plus-12	#951 441	12 ft. With D-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
DS-74MPa Plus-16	#951 442	16 ft. With D-74 MPa Plus wire feeder, 15-ft. (4.6 m) Bernard Q400 gun and drive rolls		
Control Options				
Remote Voltage Control	#194 988 #194 991	Field. Non-digital control (<i>S-74S model only</i>) Field. Non-digital control (<i>D-74S model only</i>)		
Conversion Kit	#194 989 #194 992	Field. S-74S to S-74D Field. D-74S to D-74D		
Replacement Gun and Consumables				
Bernard™ Q400	#Q4015AE8EM	400 A, 15 ft. (4.6 m)		
XR-Aluma-Pro™ Plus		For MPa Plus wire feeders only. See page 5		
Centerfire™ Consumables		See page 7		
Power Sources				
Invision™ 352 MPa and 450 MPa		See Lit. Index No. DC/23.6		
Deltaweld® Series		See Lit. Index No. DC/16.2		
XMT® 304/350/450 CC/CV		See Lit. Index No. DC/18.8 and 18.83		
XMT® MPa Series		See Lit. Index No. DC/18.84		
Dimension™ Series		See Lit. Index No. DC/19.2		
Mounting Equipment				
Swingpak™ Base	#183 997	For 8-, 12- or 16-ft. booms		
Pipe Posts	#149 838 #149 839	4-ft. with base for 8-, 12- or 16-ft. boom 6-ft. with base for 8-, 12- or 16-ft. boom		
Accessories				
Single/Dual Spool Carrier		See page 5		
Industrial MIG 4/0 Kits		See page 5		
Spool Covers		See page 5		
Wire Reel Assembly	#108 008			
Reel Covers		See page 5		
Spool Adapter	#047 141			
Extension Cables		See page 5		
DSS-9 Dual Schedule Switch	#071 833			

Date:

Total Quoted Price:

Distributed by:



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