

SSW Series Spot Welders

Water-Cooled Resistance Spot Welders



Quick Specs

Applications

Sheet Metal Work
Light Fabrication
Maintenance Work

Process

Resistance Spot Welding

Work Capacity

20 kVA units weld total thicknesses up to 1/4 inch (6.3 mm). Not recommended for aluminum or copper alloys.

Rated Output 20 kVA at 40% duty cycle depending on model, based on 10-second time period

Weight SSW 170–185 lb. (77–84 kg) depending on model

The Power of Blue.®

SSW models are designed for stationary use and come with an all-steel pedestal which houses timers and controls.

SSW models come complete with:

- Stationary welding head
- Remote foot switch
- Pedestal inclusive of controls and timer
- Air filter/regulator assembly

Note: Order tongs/tips separately to match your applications

Set-up/weld switch permits checking of tong pressure and alignment without making a weld.

Built-in squeeze/weld timer makes it quick and easy to set or adjust squeeze and/or weld time in hundredths of a second.

LED display makes it easy to read and see timer settings.



Air filter/regulator assembly included.



SSW foot switch permits user to use both hands to position weldment between tongs. Can be held longer if longer hold time is desired.

All spot welders operate on **single-phase** input power, and require a **minimum air supply of 60 PSI** (414 kPa).

Adjustable tong pressure nuts to adjust tong pressure for different thicknesses and applications.

Power switch/power “on” light/circuit breaker protects control circuitry. Easy reset.

Cam-operated locking device simplifies installation and adjustment of bottom tong.

Ten-step current control adjusts output current with no change in duty cycle.



Specifications (Subject to change without notice.)

1
Phase

Stationary Model	Input 50/60 Hz	Work Capacity*	Rated Output**	Rated Output (Calibrated w/ standard-type tongs)			Max. Open-Circuit Voltage	Dimensions (H x W x D)	Net Weight
SSW-2020 ATT	230 VAC, 90 Amps	1/4 in. (6.3 mm)	20 kVA at 40% Duty Cycle	6 in. (152 mm)	12 in. (305 mm)	18 in. (457 mm)	3.55	49 x 11 x 21-3/4 in. (1245 x 280 x 552 mm)	185 lb. (84 kg)
SSW-2040 ATT	460 VAC, 45 Amps			12,500 A	10,500 A	9000 A			

*Combined thickness uncoated mild steel using 6-inch (152 mm) tongs.

**Duty cycle based on 10-second time period. (40% duty cycle means unit can weld for 4 seconds out of each 10-second time period.)



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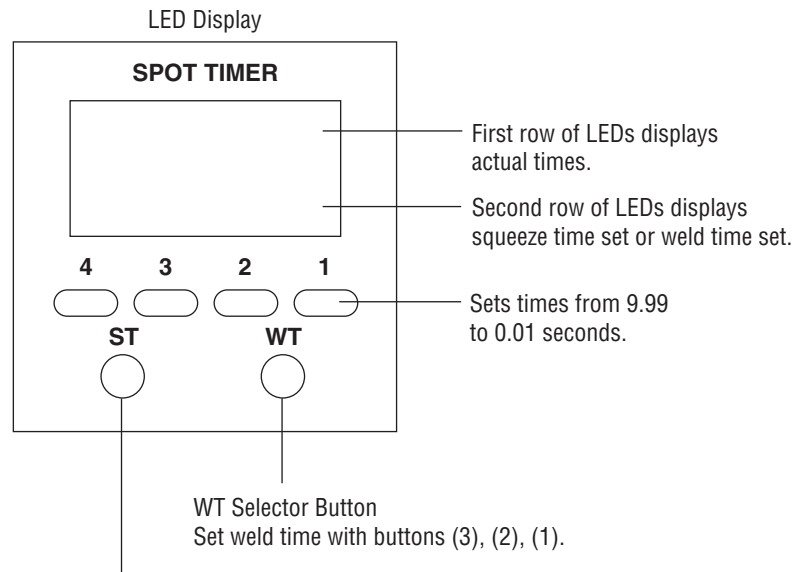
Website
MillerWelds.com



Control Panel



1. Power "On" Light/Circuit Breaker/Switch
2. Fuse to Protect Control Transformer
3. Weld Amperage Control
4. LED Display
5. Setup/Weld Switch
Place rocker switch in Setup position to check tong pressure and alignment without making weld.
Place in Weld position when ready to activate actual squeeze and weld time.



Genuine Miller® Accessories



Tip Dresser #040 228
For use with pointed tips.

Coolmate 3



Coolmate 4



Coolant Systems

For more information, see the Miller Coolant Systems literature sheet, Index No. AY/7.2.

Coolmate™ 3

#043 007 115 VAC

#043 008 230 VAC

For use with water-cooled torches rated up to 600 amps. Unique paddle-wheel indicator, external filter and easy-fill spout.

Coolmate™ 4 #042 288 115 VAC

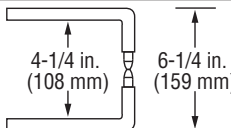
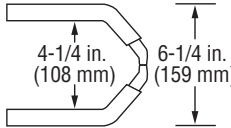
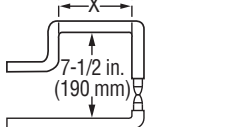
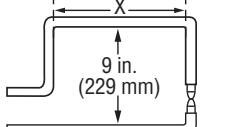
For use with water-cooled torches rated up to 600 amps. Tough molded polyethylene case with carrying handle.

Coolants

#043 810 Coolant, low-conductivity

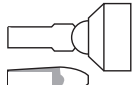
#043 809 Coolant, aluminum protecting
Sold in cases of four one-gallon recyclable plastic bottles. Miller coolants contain a base of ethylene glycol and deionized water to protect against freezing to -37 degrees Fahrenheit (-38° C) or boiling to 227 degrees Fahrenheit (108° C). Both also contain a compound that resists algae growth.

Tongs and Tips (Must be ordered separately from spot welders. One pair of tips are supplied with each set of tongs.)

Tongs	Tong Length			Tips Included
	6 in. (150 mm)	12 in. (304 mm)	18 in. (457 mm)	
 Standard 90° No. 1 Morse Taper No. 2 Morse Taper	#040 218 —	#040 219 —	#040 220 #041 001	#040 223 #040 308
 Standard 45° No. 1 Morse Taper No. 2 Morse Taper	— —	#041 004 —	#041 005 #040 296	#040 851 #040 225
 TT-6W No. 2 Morse Taper	—	—	#041 838	#040 308
 TT-9W No. 2 Morse Taper	—	—	#041 840	#040 308

Notes for tongs and tips:

- Tongs and tips shown to the left can be used with all PSW and SSW model spot welders. Recommended maximum tong length is 18 inches (457 mm).
- Tong throat-height dimension for standard 90° and 45° tongs is 4-1/4 inches (108 mm). Throat length is measured from the center of the spot tips to the front water hose connection. X = tong length.
- One set of tips is supplied with each set of tongs.
- Tips are made of RWMA Class 2 alloy.
- Maximum welding capabilities are obtained with minimum tong length.
- MT = Morse Taper.
- No. 1 Morse Taper has smaller diameter than No. 2 Morse Taper.

Tips	Quantity	Where Used
 No. 1 MT (Pointed) #040 223	2 tips	Standard No. 1 Tongs, 90°
 No. 1 MT (Offset) #040 224	2 tips	Standard No. 1 Tongs, 90°
 No. 2 MT (Pointed) #040 308	2 tips	Standard No. 2 Tongs, 90° TT-6W Tongs TT-9W Tongs
 No. 1 MT (Offset) #040 851	2 tips	Standard No. 1 Tongs, 45°
 No. 1 MT (Offset) #040 226	2 tips	Standard No. 1 Tongs, 90°
 No. 1 MT (Offset) #040 298	2 tips	Standard No. 1 Tongs, 90°
 No. 2 MT (Offset) #040 225	2 tips	Standard No. 2 Tongs, 45°
 No. 1 MT (Flat Swivel Tip) Matching Pointed Tip #040 216	2 tips	Standard No. 1 Tongs, 90°
 Adapter (adapts No. 1 Morse Taper Tip to No. 2 receptacle) #040 227	2 adapters	Standard No. 2 Tongs, 90° TT-6W Tongs (top) TT-9W Tongs (top)

Typical Installations

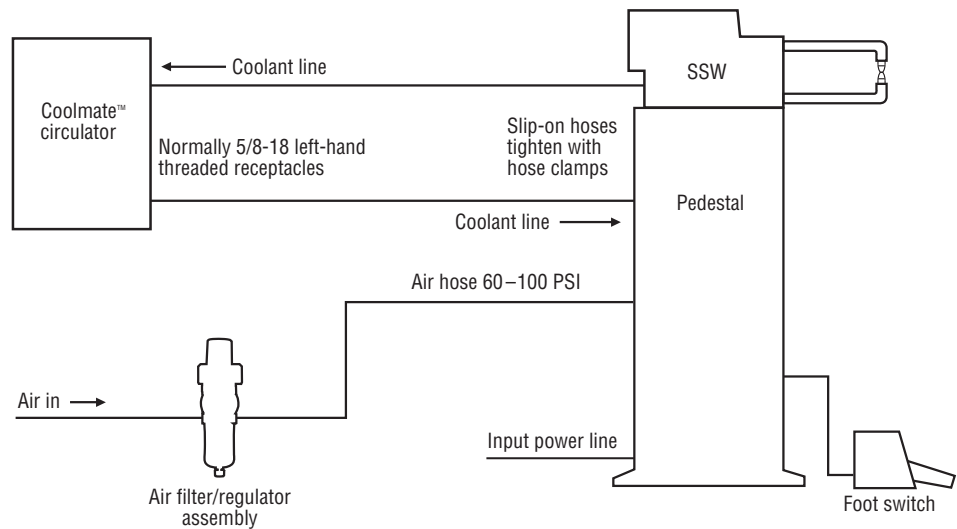


Stationary Resistance Spot Welding Basic Equipment

Order tongs and tips separately.

Also required:

- Input power cord of proper size per NEC and local codes.
- Coolant source and two coolant hoses (5/16 ID). Hoses must be compatible with coolant.
Note: Oxy-acetylene hoses are not compatible with ethylene glycol.
- Air hoses.



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
SSW-2020 ATT	#903 826	Stationary, air-operated, 230 VAC, 50/60 Hz		
SSW-2040 ATT	#903 827	Stationary, air-operated, 460 VAC, 50/60 Hz		
Tongs				
Order separately		Ordered by the pair. One pair of tips included with each pair of tongs. See page 3 for tong/tip combinations		
Tips				
Order spares or additional types		One pair of tips included with each pair of tongs. See page 3 for tips that can be ordered in pairs or individually		
Accessories				
Tip Dresser	#040 228			
Coolant Systems				
Coolmate™ 3	#043 007 #043 008	115 VAC 5/8-18 left-hand inlet/outlet receptacles 230 VAC 5/8-18 left-hand inlet/outlet receptacles		
Coolmate™ 4	#042 288	115 VAC 5/8-18 left-hand inlet/outlet receptacles		
Coolant Solution				
Low Conductivity	#043 810	1 gallon, must be ordered in multiples of 4		
Aluminum Protecting	#043 809	1 gallon, must be ordered in multiples of 4		
Miscellaneous				
Coolant Hoses		One coolant "out" and one coolant "in" hose required. One end 5/8-18 left-hand male fitting and the other end "slip-on" secured with hose clamp. 5/16 ID hoses must be compatible with coolant.		
Air Hoses		Air supply to air filter to back of controller. Air Filter has 1/4-inch pipe thread female fittings. Controller has 5/8-18 left-hand thread female fittings.		
Input Power Cord		To be supplied by local source to meet local electrical codes and guidelines.		

Date:

Total Quoted Price:



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