

SP-175T

Ready To Weld!

Lincoln's SP-175T gives you the power you need, the portability you want, and the performance you demand! Just plug this quality-driven wire feeder/welder into a 208 or 230V outlet in your garage, barn or shop, and start crossing projects off your list! The SP-175T package includes most of the essentials for MIG welding on mild steel – there's even a spool of SuperArc™ MIG wire! Simply add a cylinder of shielding gas and you're good to go. If you're a stickler for quality, you'll love the outstanding arc performance this well-engineered machine delivers!




Processes

MIG Flux-Cored

Advantage Lincoln

- MIG weld on mild steel as thin as 24 gauge with .025" SuperArc™ L-56 MIG wire. Flux-cored wire weld up to 5/16" mild steel plate with Innershield® NR®-211-MP and up to 1/2" plate with .045" Innershield NR-212 (sold separately). Install optional K664-2 Aluminum Feeding Kit to weld 22 gauge through 1/4" aluminum.
- Designed to feed .023-.035" (0.6-0.9mm) diameter mild and stainless steel MIG wire, .035-.045" (0.9-1.2mm) diameter flux-cored wire and .035" diameter 4043 aluminum MIG wire.
- Ready To Weld! Includes mild steel MIG wire and adjustable gas regulator and hose kit. Just add shielding gas (sold separately).
- Large easy to set knobs provide 5-position adjustable tap voltage control and continuous full-range control of wire feed speed.
- Welder settings reference chart conveniently located inside wire feed compartment door makes it easy to set the machine for your application.
- Gun trigger controlled output feature provides added safety by keeping welding wire electrically "cold" until trigger is pressed.
- Three year Lincoln Warranty on parts and labor. (90 days warranty on gun and cable).
- Manufactured under a quality system certified to ISO 9001 requirements.

Description

Output **CV** **DC**  Input **1** **60**
PHASE Hz

Base Unit Includes

- Magnum® 100L welding gun and 10 ft. (3.0m) cable assembly, with gas nozzle, .023"-.035" (0.6-0.9mm) cable liner and .023/.025" (0.6mm) contact tip.
- 10 ft. (3.0m) work cable and work clamp.
- 6 ft. (1.8m) input power cord with 230 volt, 50 amp NEMA Type 6-50P three-prong plug.
- Guide tubes and reversible drive roll ready to feed Lincoln's .025" (0.6mm), .030" (0.8mm) and .035" (0.9mm) diameter SuperArc L-56 MIG wire and .035" (0.9mm) diameter Innershield® NR®-211-MP flux-cored wire.
- Factory installed gas solenoid valve for MIG welding.
- Adjustable gas regulator and 4.5 ft. (1.37m) hose for argon and argon-blend gases. Gas regulator requires an S19298 adapter (sold separately) for use with CO₂ cylinders.
- 2 lb. (0.90kg) spool of .025" (0.6mm) SuperArc L-56 wire.
- .030" (0.8mm) contact tip.
- One-Pak™ includes everything above plus Welding Cart.

Recommended General Options

Welding Cart, Utility Cart, Small Canvas Cover, Replacement MIG Wire Drive Roll, Flux-Cored/MIG Wire Drive Roll, Flux-Cored Drive Roll, .035 Innershield® Welding Kit, .045" Innershield® Welding Kit, .035" Aluminum Welding Kit, Deluxe Adjustable Gas Regulator & Hose Kit

Order

K1875-1 SP-175T 208/230/1/60

K2302-1 SP-175T One-Pak™ with Welding Cart 208/230/1/60

TECHNICAL SPECIFICATIONS

Product Name	Product Number	Input Power	Rated Output Current/Voltage/Duty Cycle	Input Current @ Rated Output	Output Range	Dimensions H x W x D inches (mm)	Net Weight lbs. (kg)
SP-175T	K1875-1	208/230/1/60	130A/20V/30% (230V) 130A/20V/25% (208V)	22/20A	30-175A 50-400 ipm WFS (1.2-10.2 m/min) Max. OCV: 33V	12 x 9.75 x 16.5 (305 x 248 x 419)	57 (25.9)

A CLOSER LOOK

ADVANTAGE LINCOLN, CON'T.

- Adjustable brake spindle accommodates both 8" (200mm) diameter and 4" (100mm) diameter spools of wire.
- Built-in "burnback" function insures proper wire stick-out after each weld with no sticking of the wire in the weld puddle at the finish of the weld.
- Large filter capacitor and choke provide optimal DC characteristics for smooth welding performance.
- "Quick Release" idle pressure arm easily adjusts wire tension for positive wire feeding.
- Electronic and thermostatic protection from current overload and excessive operating temperatures.
- Engineered and built for dependable service and long life expectancy.
- CSA NRTL/C approved.

PERFORMANCE PLUS

SP-175T WELDING CAPABILITIES																	
Metal To Weld	Process	Weld Appearance	Wire Electrode	Wire Dia.	24ga. .024"	22ga. .030"	20ga. .036"	18ga. .048"	14ga. .075"	12ga. .105"	1/8" .125"	10ga. .135"	3/16" .188"	1/4" .25"	5/16" .313"	3/8" .375"	1/2" .50"
Mild Steel	Self-Shielded Flux-Cored ⁽¹⁾	Good. Slag must be removed.	Innershield NR-211-MP	.035	SINGLE PASS										M.P.*		
			Innershield NR-212 ⁽²⁾	.045											M.P.*		
	Gas-Shielded MIG ⁽¹⁾	Excellent. Little or no cleaning.	SuperArc L-56	.025	SINGLE PASS										*M.P. = Multiple Pass		
				.030												SINGLE PASS	
Aluminum	Gas-Shielded MIG ⁽¹⁾	Excellent. Little or no cleaning.	SuperGlaze 4043	.035	SINGLE PASS										P.H.**		
															**P.H. = Preheat to 250°F (121°C) required. Single pass.		

⁽¹⁾The use of the MIG or flux-cored process on thicker materials than recommended can result in welds of poor quality. The welds may appear to be fine, but may lack the fusion necessary to give a strong weld. This is called "cold casting" or "cold lapping" and is somewhat similar to a cold solder joint. Weld failure may result.

MAGNUM 100L GUN EXPENDABLE PARTS		
Part	Description	Product Number
Magnum™ 100L Gun & Cable Assembly, 10 ft. (3.0m) cable length	.035" (0.9mm) flux-cored wire .023-.035" (0.6-0.9mm) MIG wire and flux-cored wire	K530-3 K530-5 ⁽¹⁾
Cable Liner	.035-.045" (0.9-1.2mm) .023-.035" (0.6-0.9mm) .035" (0.9mm) Non-Metallic (Aluminum)	KP1937-1 ⁽³⁾ KP1937-3 ⁽¹⁾⁽²⁾ KP1959-1 ⁽⁴⁾
Gas Diffuser		KP2040-1 ⁽¹⁾
Contact Tips	.023/.025" (0.6mm) Standard Duty .030" (0.8mm) Standard Duty .035" (0.9mm) Standard Duty .045" (1.2mm) Standard Duty .023/.025" (0.6mm) Tapered .030" (0.8mm) Tapered .035" (0.9mm) Tapered .045" (1.2mm) Tapered .035" (0.9mm) Aluminum	KP2039-1 ⁽¹⁾ KP2039-2 ⁽¹⁾ KP2039-3 ⁽²⁾ KP2039-4 ⁽³⁾ KP2052-1 KP2052-2 KP2052-3 KP2052-4 KP2078-1 ⁽⁴⁾
Gas Nozzle	1/2" (12.7mm) Fixed – Tip Flush 3/8" (9.5mm) Fixed – Tip Recessed 1/2" (12.7mm) Fixed – Tip Recessed 5/8" (15.9mm) Fixed – Tip Recessed	KP1938-1 ⁽¹⁾ KP1942-1 KP1942-2 KP1942-3
Gasless Nozzle		KP1939-1 ⁽²⁾⁽³⁾
Gun Tube Assembly	(60°)	KP2038-1 ⁽¹⁾

⁽¹⁾Included with SP-175T. ⁽²⁾Included with K549-1 .035 Innershield Welding Kit. ⁽³⁾Included with K549-2 .045" Innershield Welding Kit.

⁽⁴⁾Included with K664-2 .035" Aluminum Welding Kit.

TOTAL SOLUTION

For MIG welding on mild or stainless steel:

- Properly orient the drive rolls and install the correct contact tip for selected wire diameter. Included with the SP-175T: .023/.025" contact tip, .030" contact tip and 2 lb. spool of .025" SuperArc L-56 wire (other contact tips & wire types/sizes sold separately).
- Obtain appropriate shielding gas – steel: CO₂ or Ar/CO₂, stainless: Ar/He/CO₂ (sold separately). The gas regulator that comes with the SP-175T is suitable for argon and argon-blend gases. For welding procedures requiring straight CO₂ shielding gas, purchase adapter for the existing regulator or order K586-1 Deluxe Adjustable Gas Regulator and Hose Kit.
- Use electrode positive (DC+) polarity.

For FCAW-SS welding on mild steel:

- For .035" diameter wire, properly orient the drive rolls and install .035" contact tip (not included with SP-175T). For convenience,

order K549-1 .035" Innershield Welding Kit. Order KP1884-1 knurled drive roll for better wire feedability.

- For .045" diameter wire, install .045" drive roll, contact tip and cable liner. For convenience, order K549-2 .045 Innershield Welding Kit.
- Shielding gas is not required with Lincoln's Innershield wire.
- Use electrode negative (DC-) polarity.

For MIG welding on aluminum:

- Order K664-2 .035" Aluminum Welding Kit. Install non-metallic cable liner, aluminum contact tip, drive roll and spool of aluminum wire.
- Obtain 100% Argon shielding gas (sold separately). The gas regulator that comes with the SP-175T is suitable for argon and argon-blend gases.
- Use electrode positive (DC+) polarity.

DRIVE ROLL KITS FOR MILD AND STAINLESS STEEL WIRES

Drive Roll	Groove 1	Groove 2
KP665-035 ⁽¹⁾	.023-.025 Smooth (Solid Wire)	.030-.035 Smooth (Solid Wire)
KP1884-1	.023-.025 Smooth (Solid Wire)	.035 Knurled (Flux-Cored Wire)
KP665-045C ⁽²⁾	.035 Knurled (Flux-Cored Wire)	.045 Knurled (Flux-Cored Wire)

⁽¹⁾Included with SP-175T.

⁽²⁾Included in K549-2, .045 Innershield Welding Kit.

RECOMMENDED OPTIONS

GENERAL OPTIONS



Welding Cart

Lightweight cart stores and transports welder, 80 cubic foot shielding gas cylinder, welding cables and accessories. Includes an angled top shelf for easy access to controls, lower tray for added storage capacity, a sturdy fixed handle and convenient cable wrap hanger.

Order K2275-1.



Utility Cart

Heavy duty cart stores and transports welder, 150 cubic foot shielding gas cylinder, welding cables and accessories. Includes stable platforms for welder and gas bottle platform, lower tray for added storage capacity and adjustable height handle.

Order K520.



Small Canvas Cover

Protect your machine when not in use. Made from attractive red canvas that is flame retardant, mildew resistant and water repellent. Includes a convenient side pocket to hold welding torch or gun.

Order K2377-1



MIG Wire Drive Roll

For feeding .023-.025" and .035" solid wire. One included with welder.

Order KP665-035.



Flux-Cored/MIG Wire Drive Roll

For feeding .023-.025" solid wire and .035" flux-cored wire.

Order KP1884-1.



Flux-Cored Wire Drive Roll

For feeding .035" (0.9mm) and .045" (1.2mm) flux-cored wire.

Order KP665-045C.

RECOMMENDED OPTIONS

GENERAL OPTIONS, CONT.



.035" Innershield® Welding Kit
Includes everything needed for Magnum™ 100L gun and cable to use .035" (0.9mm) diameter flux-cored wire. Includes a contact tip, gasless nozzle, cable liner, and a 10 lb. (4.5kg) spool of .035" (0.9mm) Innershield® NR®-211-MP wire. **Order K549-1.**



.035" Aluminum Welding Kit
Includes drive roll, non-metallic cable liner and contact tips (qty. 6) for feeding .035" (0.9mm) aluminum MIG wire. Also includes 1 lb. spool of SuperGlaze™ 4043 aluminum MIG wire. **Order K664-2.**



.045" Innershield® Welding Kit
Includes everything needed for Magnum™ 100L gun and cable to use .045" (1.2mm) diameter flux-cored wire. Includes a .045" knurled drive roll, contact tip, gasless nozzle, cable liner, and a 10 lb. (4.5kg) spool of .045" Innershield® NR®-211-MP wire. **Order K549-2.**



Deluxe Adjustable Gas Regulator & Hose Kit
Accommodates CO₂, argon or argon-blend gas cylinders. Includes a cylinder pressure gauge, dual scale flow gauge and 4.3 ft. (1.3m) gas hose. **Order K586-1.**

SP-175T ORDER FORM

PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE
SP-175T 208/230/1/60	K1875-1		
SP-175T One-Pak™ with Welding Cart 208/230/1/60	K2302-1		
Recommended General Options			
Welding Cart	K2275-1		
Utility Cart	K520		
Small Canvas Cover	K2377-1		
MIG Wire Drive Roll ⁽¹⁾	KP665-035 ⁽¹⁾		
Flux-Cored/MIG Wire Drive Roll	KP1884-1		
Flux-Cored Wire Drive Roll ⁽²⁾	KP665-045C ⁽²⁾		
.035" Innershield® Welding Kit	K549-1		
.045" Innershield® Welding Kit	K549-2		
.035" Aluminum Welding Kit	K664-2		
Deluxe Adjustable Gas Regulator & Hose Kit	K586-1		
TOTAL:			

⁽¹⁾ Included with SP-175T.

⁽²⁾ Included in K549-2, .045" Innershield Welding Kit.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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