SeamRite Seam Welders

SEAM RITE STANDARD SPECIFICATIONS

KVA Sizes: 30, 50, 75, 100, 150 or 250
Power Supply: 220 or 440 V, 50 or 60 Hz
Throat Depths: 12", 18", 24" or 30"
Electrode Holders: Water cooled furnished as standard on all machines.
Frame: Rugged, heavy gauge, one-piece, all steel body, strongly reinforced with welded stiffeners and ribs on heavy duty base.
Foot Switch: Air Operated
Double Acting Cylinder and Roller Bearing Slide: The standard Press Rite or ram is made of lightweight, flame hardened steel. Accurately machined guide surfaces travel on anti-friction roller bearings for low inertia, friction free movement. Slide bearings are provided with initial adjustment and wear take up.

ABOUT

Resistance seam welding is the process of using a resistance seam welder to weld “continuously” in a line or a curve along metal. Though it is possible, it is a common misconception that a seam welder is actually running with a continuous flow of current. More commonly, a seam welder is “pulsing”, much like a spot welder. A seam welder, in essence then, is similar to using a spot welder to weld multiple overlapping welds.

Of all of the types of standard welding equipment on the market, resistance seam welders are needlessly some of the most complicated to purchase. At Spot Weld, Inc., we make it our goal to help you understand the process and get the right equipment for you.
ADAPTABLE
Experience being the best teacher, we have learned how to best align machinery with your needs. We take into account your production rate, your operators needs, electricity prerequisites, and of course your budget.

Confused by all the options available to you? Let us help you select from a long list of resistance welding styles:

- Single-Phase A/C
- Three-Phase A/C
- Medium Frequency Direct Current (MFDC) Inverter
- Seam Welding
- Rapid-Fire Welding
- Capacitive Discharge

ONE STOP SHOPPING
Our in-house capabilities include 3D solid modeling (CAD), Finite Element (stress) Analysis, CNC prototyping, MIG & TIG (GMAW & GTAW) welding, plasma cutting, Horizontal and vertical milling, lathe work, and engineering skills make all this work for you.

Types of Seam Welders

We have spent 30 years gaining the knowledge required to develop our own seam welders. We offer both Circumferential and Longitudinal models, with knurl drives, direct drives, with filtered re-circulating drip pans, and special tooling that is compatible with our equipment. We also always endeavor to have a wide selection of used seam welders on hand to refurbish, should the need arise for a more economical solution.

Circumferential Seam Welder

A Spot Weld, Inc. Press Rite Circumferential Resistance Seam Welder uses our own proprietary seam head design. The head design is at the same time simple, easy to maintain, easily re-buildable, and carries a very high amperage rating for its size.

Longitudinal Seam Welder

A Spot Weld, Inc. Press Rite Longitudinal Resistance Seam Welder uses an upper drive wheel with a lower idling wheel. The lower wheel uses a yolk and bushing design, with replaceable inserts to allow repairs to damaged or poorly maintained surfaces.

Note: Standard Press Rite Seam Welders are gear & chain driven, with knurlers optional. (Knurlers are for welding coated materials such as galvanized, aluminized, and galvanneal).
SeamRite Features and Benefits

Some of the key features that set our machine ahead of the competition are:

• Robust frame design
• Adjustable upper ram, precision CNC manufactured, with 8 heavy duty cam follower guides to maintain the tightest of tolerances
• Adjustable lower arm for adjusting the welding gap
• Robust roller bearing pillow blocks
• Fully re-buildable
• Precision air system
• Exclusive use of copper core, water cooled transformers
• All copper is a minimum 99.9% pure, or RWMA class
• Designed and built in the USA

The main frame is high quality welded steel construction styled for trim appearance and functional design. The slim design requires a minimum of floor space. The upper arm extension is built integrally with the frame. The lower knee is steel, and supports the transformer; this allows the transformer to move up and down with the lower knee. A removable rear cover permits ready access to the frame interior for inspection and maintenance.

Optional Equipment

• **Adjustable, Retractable Cylinder**
  This type of cylinder incorporates the features of an adjustable stroke cylinder, plus a retraction feature. Operation of the retraction stroke can be controlled by the foot switch.

• **Electrodes / Electrode Holders / Tip Dressers**

• **Chillers, Coolant and Re-Circulators**

• **Electrolytic Grease**

• **Safety Equipment**

• **Rapid Fire**

• **Palm Buttons**

• **Disconnect Switch**

• **Constant Current**

• **Bowl Feeders**

• **Low-Ride Casters**
Methods of Operation

- **Transformer**
  The “heart of the welder” the Rocker Rite transformer is built to RWMA automotive and appliance standards. Transformer secondaries are of cast copper with integral, non-corrosive water cooling pipes. Class “F” insulation is used throughout. The transformer is bonded and sealed with high temperature varnish baked on each coil. The resulting unit is a high power factor, high efficiency transformer with low leakage reactance. All transformers provided are water cooled.

- **Supply Voltage and Frequency**
  The Seam Rite type machine can be supplied for any one standard voltage supply of 220, 380, 440, or 550 volts, 50 or 60 cycles, single phase. Dual voltage, special voltages or frequencies are available as extras.

- **MFDC (Medium Frequency DC) - Optional**
  Precisely controlled heating is required to achieve consistent, reliable welds. The medium frequency inverter achieves this level of control by precisely managing and monitoring weld parameters. The higher frequency permits much faster (1000 times per second) process control, which again results in better weld quality

- **Air Accessories**
  Standard Equipment included air pressure regulator, gauge, lubricator, speed control valve, and solenoid valve for control of the cylinder.

- **Electrical Accessories**
  Standard electrical accessories include a two stage foot switch. Dual palm buttons are available as options.

- **Controls**
  Standard NEMA controls are mounted to the right side of the welder frame unless special tooling or customer preference precludes. JIB electrical specifications can be included as an extra.
### Single-Phase Resistance Welding

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<th>Actual Thickness (in)</th>
<th>Low Carbon Steel</th>
<th>Galvanized Steel</th>
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<th>KVA (Transformer Required)</th>
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* Not recommended. Inquire regarding three-phase.

1. Go by thickness on chart, not gauge.
2. Aluminum will spatter using single phase welding.

**Note:** The above represents a 12" throat depth for gauge sizes shown. For each additional 6" of Throat Depth, subtract 1 (one) less gauge size. (Ex. For 16 ga. material, with an increase from 12" to 24" throat depth, is 16 ga. minus 2 gauge sizes = 18 ga. material)