

Spot Weld, Inc.  
2290 Wycliff Street  
St. Paul, MN 55114

Toll Free: 800-582-5229  
Ph: 651-646-1393  
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www.spotweldinc.com



**SPOTWELD Incorporated**  
Excellence in Resistance Welding

## PressRite Press/Projection Welders



### ABOUT US

With 35 years of service and experience, we have the best trained and most knowledgeable resistance welding technicians available anywhere, period. Contact our friendly staff with your welding problem, and we will work efficiently and quickly to solve nearly all of the most complicated resistance welding applications.

### BUILT TO YOUR NEEDS

Spot Weld, Incorporated can take your application specifications and build standard or special application spot welders to suit your needs. Just tell us the material you are welding, the metal thickness, and provide us with any special prints or sketches that communicate your welding needs. We'll take it from there!

### INTRODUCTION

Spot Weld's Press Rite resistance press/projection type welder is widely used by the metalworking industries today because of its extreme versatility. This general purpose machine represents a new high achievement in welder design and engineering, and embodies advantages which afford the greatest performance. Its modern design has incorporated ruggedness, accuracy, and reliable uninterrupted performance – all of which are of utmost importance to high production runs.

### PRESS RITE STANDARD SPECIFICATIONS

**KVA Sizes:** 30, 50, 75, 100 or 150

**Power Supply:** 220 or 440 V, 50 or 60 Hz

**Throat Depths:** 12", 18", 24" & 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.

### DESIGN

Spot Weld's Press Rite press/projection welder uses the same robust cam-follower ram design as the rest of our line of press style welders. The lower knee is adjustable up and down to provide the greatest adaptability for your parts. The lower knee tapers to allow optimum balance of stability and strength. Our projection welders use square arms to remove degrees of freedom during setup and to provide greater strength.

Designed for applications that include:

- Welding Studs or Weld Nuts / Projection Welding
- High Electrode Force Applications
- Using special tooling to fixture a part
- Frequent tooling changes

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## PressRite Features and Benefits

### ADAPTABILITY

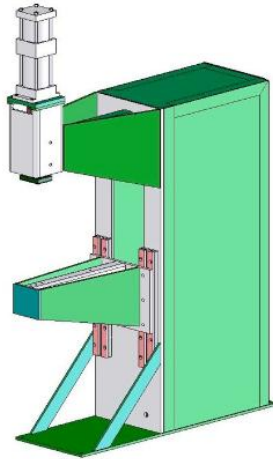
Experience being the best teacher, we have learned how to best align machinery with your needs. We take into account your production rate, your operators needs, electricity prerequisites, and of course your budget.

*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.



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

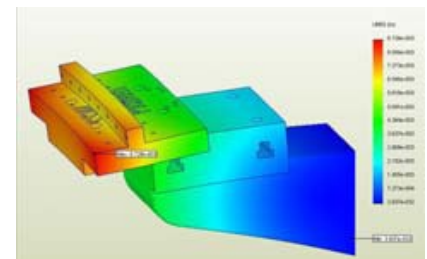
- **Adjustable, Retractable Cylinder**  
This type of cylinder incorporates the features of an adjustable stroke cylinder, plus a retraction feature. Operation of the retraction stroke can be controlled by the foot switch.
- **Electrodes / Electrode Holders / Tip Dressers**
- **Chillers, Coolant and Re-Circulators**
- **Electrolytic Grease**
- **Safety Equipment**
- **Rapid Fire**
- **Palm Buttons**
- **Disconnect Switch**
- **Constant Current**
- **Bowl Feeders**
- **Low-Ride Casters**

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
- 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

### SERVICES AVAILABLE

- Engineering & Design
- Custom Tooling & Fixtures
- Custom Machining
- Complete Machine Refurbishing
- Transformer Repair
- Installation and Setup
- Field Service & Maintenance
- Education / Training
- Technical Support



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## PROFESSIONALS

You get the individual attention you deserve at Spot Weld, Inc. You can rely on our courteous service. We know what we're talking about. If we don't have an answer, we'll say so, and then do our best to get it for you.

Call us with your questions about electrode tips, studs, holders or any kind of resistance spot weld equipment.

- Competitive Prices
- Large Stock
- High Quality
- Fast Delivery
- No Minimum Order

## GAURANTEE

All our machines carry a like-new one-year parts and labor guarantee.

If you're not satisfied, we take it back!

# 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 Press 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



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### Single-Phase Resistance Welding

Ferrous Alloy Gauge Thickness	Actual Thickness (in)	Low Carbon Steel	Galvanized Steel	Stainless Steel	Aluminum (1,2)
		KVA (Transformer Required)			
3	0.2391	100	*	*	*
4	0.2242	100	*	*	*
5	0.2092	50	*	*	*
6	0.1943	50	*	*	*
7	0.1793	50	*	*	*
8	0.1644	50	*	*	*
9	0.1495	50	*	*	*
10	0.1395	50	*	*	*
11	0.1196	30	75	150	150
12	0.1046	30	75	150	150
13	0.0897	30	50	100	150
14	0.0747	20	50	100	100
15	0.0673	20	50	100	100
16	0.0598	20	30	75	75
17	0.0538	20	30	75	75
18	0.0478	20	30	75	75
19	0.0418	20	30	75	75
20	0.0359	20	30	50	50
21	0.0329	10	30	50	50
22	0.0299	10	30	50	50
23	0.0269	10	30	50	50
24	0.0239	5	30	50	50
25	0.0209	5	30	30	50
26	0.0179	5	30	30	50
27	0.0164	5	30	30	30
28	0.0149	5	30	30	30
29	0.0135	5	30	30	30
30	0.0120	5	30	30	30

- \* 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)

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KVA 1-ph AC	24" Throat Amps
5	0 - 6,500
10	6,500 - 9,500
20	9,500 - 12,500
30	12,500 - 16,500
50	16,500 - 21,000
75	21,000 - 25,000
100	25,000 - 30,000
150	30,000 - 36,000
200	36,000 - 41,500
250	41,500 - 46,000
300	46,000 - 50,500
350	50,500 - 54,500
400	54,500 - 58,000
450	58,000 - 61,500
500	61,500 - 64,500