HEAVY DUTY SPECIFICATIONS

Available in large capacities, with water cooled transformer, and heavy duty frame, as indicated below.

**KVA Sizes:** 100, 150, 200 or 250

**Throat Depths:** 24", 30", 36" & 42"

**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

INTRODUCTION

Spot Weld’s Press Rite Heavy Duty Projection type Resistance Welders are 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 rate.

DESIGN

These machines are designed for applications that require more current and more force than standard equipment is intended.

The Press Rite Heavy Duty Projection Welder uses the same sturdy C-channel from our Standard machines, but adds two concrete-filled structural steel tubes to the outside to ensure that this frame is the most rigid of any other press welder on the market today. This machine is capable of welding with up to a 12" diameter bore air cylinder, and forces exceeding 10,000lbs. This machine can be built with transformers exceeding 500KVA.
PressRite HD Features and Benefits

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

- Unique frame design for each throat dimension, providing 1:1 ratio of cylinder force to electrode force.
- Robust frame design
- Adjustable lower arm
- 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 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**

**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.

**SERVICES AVAILABLE**
- Engineering & Design
- Custom Tooling & Fixtures
- Custom Machining
- Complete Machine Refurbishing
- Transformer Repair
- Installation and Setup
- Field Service & Maintenance
- Education / Training
- Technical Support
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 preludes. JIB electrical specifications can be included as an extra.
### Single-Phase Resistance Welding

<table>
<thead>
<tr>
<th>KVA 1-ph AC</th>
<th>24&quot; Throat</th>
<th>Ferrous Alloy Gauge Thickness</th>
<th>Actual Thickness (in)</th>
<th>Low Carbon Steel</th>
<th>Galvanized Steel</th>
<th>Stainless Steel</th>
<th>Aluminum (1,2)</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)