The OHMA Air over Oil Weld Cylinder operates using an “air over oil” intensification principle to produce non-shock welding force. This method of operation allows the cylinder to remain compact while providing numerous advantages to resistance welding applications.

**OHMA® Advantages**

- A low impact, fast approach stroke to the work piece minimizes tool skidding, breakage & wear as well as part deformation.
- The controllable force output feature enables the OHMA cylinder output force to be matched to the application.
- Its compact construction allows the cylinder to be easily positioned in confined work spaces.
- The OHMA cylinder’s method of operation automatically compensates for variable part positions. It strokes until it meets the work and then develops the necessary work force. Variable part positioning will not affect force output or power stroke distance when the part is within the cylinder’s initial advance stroke range.
- The cylinder’s small bore size uses a fraction of the air used by conventional pneumatic cylinders thus realizing substantial savings in operating costs.
- This dependable, low maintenance system has been designed for real world conditions. Its ease of use and control makes it the ideal choice for your next application.
- Models range from 1-3/4” to 2-5/8” bore size; weld forces range from 500 to 6600 lbs.

**Cylinder Components**

- Manifold
- Advance Port
- Intensifier Port
- Barrel
- Intensifier Piston
- Middle Separator
- High Pressure Seal
- Wiper Seal
- Working Piston
- Bleeder
- Wiper Retainer Ring
- Front Block
- Return Port

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The standard OHMA Air over Oil Weld Cylinders is supplied in the following range of sizes and specifications:

<table>
<thead>
<tr>
<th>Bore Size</th>
<th>OHMA® Weld Cylinder</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in)</td>
<td>(mm)</td>
</tr>
<tr>
<td>1.75</td>
<td>44.5</td>
</tr>
<tr>
<td>2</td>
<td>50.8</td>
</tr>
<tr>
<td>2.625</td>
<td>66.7</td>
</tr>
</tbody>
</table>

* Maximum Force calculated using 100 psi air pressure.

**System Requirements**

The following items must be provided in order to properly operate an OHMA cylinder:

- 1 CenterLine Fluid Reservoir or a compatible substitute
- 2 Four-way Valves or 1 Three-way Valve & 1 Four-way Valve
- 1 Air Supply Filter
- 1 Air Regulator (2 Regulators for Delicate Touch)
- A method of independently sequencing the two valves to produce the desired sequence of operation. This can normally be achieved with the use of two timers.

For additional information & a complete line of our product brochures, visit www.cntrline.com.