OVERVIEW

The C-Series Air-Hydraulic Press is a more cost and energy efficient alternative to the Full Hydraulic Press Machine.

These C-Series Units come in four sizes ranging from 2.5 ton to 15 ton capacity. Standard features include a full length power stroke, 2.0" adjustable down-stop, and an anti-rotation ram guide. These heavy duty C-frame Units can be mounted on a floor stand or bench top and have an adjustable force and speed control.

OPERATION

When the valve is energized, air enters the booster cylinder extending the booster ram. This transfers the oil into the ram cylinder, extending the cylinder rod down. Unlike other brands, hydraulic pressure is maintained throughout the entire stroke, not just a limited part of the stroke. When the valve is de-energized, the ram retract to full home position.

ADVANTAGES

- Fewer moving parts
- Less maintenance, less down time
- Less noise
- Full length power stroke
- Less heat
- Cost less than electric powered hydraulic presses

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>2.5 Ton Press</th>
<th>5.5 Ton Press</th>
<th>10 Ton Press</th>
<th>15 Ton Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tons at 100 psi Air</td>
<td>2.5</td>
<td>5.5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Power Ratio (No. x air line psi = Approx. Force)</td>
<td>50</td>
<td>110</td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td>Max. Ram Stroke (adjustable 2&quot; shorter)</td>
<td>5.1875&quot;</td>
<td>6&quot;</td>
<td>4&quot;</td>
<td>6&quot;</td>
</tr>
<tr>
<td>Cubic in. of Pressurized Air Per Full Stroke Cycle</td>
<td>577</td>
<td>1562</td>
<td>1865</td>
<td>4521</td>
</tr>
<tr>
<td>Air Cyl. Port Pipe Size - 4 Way Control Valve</td>
<td>.50&quot;</td>
<td>.75&quot;</td>
<td>.75&quot;</td>
<td>1.0&quot;</td>
</tr>
<tr>
<td>Return Force @ 100 psi</td>
<td>628</td>
<td>1080</td>
<td>1080</td>
<td>2003</td>
</tr>
</tbody>
</table>

Booster Cylinder

| Inside Diameter | 6" | 8" | 8" | 12" |
| Rod Diameter | 2.125" | 2.50" | 1.875" | 3.25" |
| Stroke | 10.250" | 15.625" | 18.500" | 20.187" |

Ram Cylinder

| Inside Diameter | 3" | 4" | 4" | 5.75" |
| Top Rod Diameter | 0.750" | 1.000" | 1.000" | 1.250" |
| Bottom Rod Diameter | 1.000" | 1.500" | 1.500" | 2.750" |
| Net Weight | 350 lbs. | 500 lbs. | 500 lbs. | 800 lbs. |
## C-Series Press Dimensions

<table>
<thead>
<tr>
<th>DIM KEY</th>
<th>DESCRIPTION</th>
<th>C-250</th>
<th>C-300</th>
<th>C-400</th>
<th>C-500</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Throat Depth</td>
<td>6.25</td>
<td>6.25</td>
<td>6.25</td>
<td>8.25</td>
</tr>
<tr>
<td>B</td>
<td>Daylight</td>
<td>12.00</td>
<td>14.43</td>
<td>14.43</td>
<td>14.00</td>
</tr>
<tr>
<td>C</td>
<td>Ram Diameter</td>
<td>1.000</td>
<td>1.500</td>
<td>1.500</td>
<td>2.750</td>
</tr>
<tr>
<td>D</td>
<td>Ram Mounting</td>
<td>.625 -11 x 1.25</td>
<td>.625 -11 x 1.25</td>
<td>.625 -11 x 1.25</td>
<td>1.25-12 x 1.88</td>
</tr>
<tr>
<td>E</td>
<td>Platen Width</td>
<td>12.50</td>
<td>14.00</td>
<td>14.00</td>
<td>18.00</td>
</tr>
<tr>
<td>F</td>
<td>Platen Depth</td>
<td>6.00</td>
<td>8.00</td>
<td>8.00</td>
<td>10.00</td>
</tr>
<tr>
<td>G</td>
<td>Platen Slot</td>
<td>0.62 x 1.50</td>
<td>0.75 x 1.50</td>
<td>0.75 x 1.50</td>
<td>1.25 x .88</td>
</tr>
<tr>
<td>H</td>
<td>Platen Radius</td>
<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
<td>2.25</td>
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<tr>
<td>J</td>
<td>Platen Thickness</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.25</td>
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<tr>
<td>K</td>
<td>Platen To Floor</td>
<td>7.12</td>
<td>9.00</td>
<td>9.00</td>
<td>9.00</td>
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<tr>
<td>M</td>
<td>Frame Width</td>
<td>9.50</td>
<td>11.00</td>
<td>11.00</td>
<td>15.25</td>
</tr>
<tr>
<td>N</td>
<td>Frame Depth</td>
<td>18.00</td>
<td>21.00</td>
<td>21.00</td>
<td>28.00</td>
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<tr>
<td>P</td>
<td>Frame Height</td>
<td>32.12</td>
<td>39.00</td>
<td>39.00</td>
<td>40.00</td>
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<tr>
<td>R</td>
<td>Mounting Hole Depth</td>
<td>10.00</td>
<td>13.00</td>
<td>13.00</td>
<td>16.00</td>
</tr>
<tr>
<td>S</td>
<td>Mounting Hole Width</td>
<td>11.25</td>
<td>12.75</td>
<td>12.75</td>
<td>17.00</td>
</tr>
<tr>
<td>T</td>
<td>Mounting Hole</td>
<td>0.53</td>
<td>0.62</td>
<td>0.62</td>
<td>0.65</td>
</tr>
<tr>
<td>U</td>
<td>Overall Width</td>
<td>23.75*</td>
<td>25.25*</td>
<td>25.25*</td>
<td>29.50*</td>
</tr>
<tr>
<td>V</td>
<td>Overall Height</td>
<td>39.50*</td>
<td>46.50*</td>
<td>48.00*</td>
<td>52.00*</td>
</tr>
<tr>
<td>W</td>
<td>Overall Depth</td>
<td>20.00*</td>
<td>23.12*</td>
<td>23.12*</td>
<td>29.75*</td>
</tr>
<tr>
<td>X</td>
<td>Back Foot Mounting</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.25</td>
</tr>
<tr>
<td>Y</td>
<td>Front Foot Mounting</td>
<td>5.00</td>
<td>4.00</td>
<td>4.00</td>
<td>6.75</td>
</tr>
</tbody>
</table>

* Denotes Approximate Dimensions
C-Series
AIR-HYDRAULIC PRESS

C-SERIES MODELS

Our objective is to offer you a solution to your assembly and forming needs. If our standard features or available options do not meet your application requirements, please consult our factory to see about us offering an affordable solution to meet your design needs.

STANDARD FEATURES

- No Hydraulic Power Unit or Electric Motor Needed
- Full Length Hydraulic Controlled Power Stroke
- 2.0” Adjustable Downstop (Stroke Adjustment)
- Anti-Rotation Ram Guide
- Flow Control (Speed Control)
- Heavy Duty Steel Welded C-Frame Construction
- Platen Cut-Out for Fixture and Part Accessibility

AVAILABLE OPTIONS

- Matching Floor Stands
- Two-Hand Non-Tie Down Control Packages
- Pressure / Dwell / Distance Return Options
- Jog Control Circuit
- Fault Circuit Control Package (E-FI)
- Increased Stroke Lengths
- Press Frame Modifications
- Cylinders sold separately

CUSTOM DESIGNED OPTIONS

- Light Curtains & Guarding Packages
- PLC Control Options
- 4-Post and 2-Post Designs
- Load Cell & Distance Monitoring Packages
- Selectable Modes of Operation
- Control Systems Designed for Future Expansion
- Custom Tooling and Fixture Packages
- Emergency Stop Control Circuit
- 24vDC Control Circuit
- Linear Position Transducer
- Custom Control Packages

ISO 9001 REGISTERED (WITH DESIGN)

Air-Hydraulics is committed to delivering quality products on time to achieve customer satisfaction. Air-Hydraulics uses a process approach to achieve this policy in accordance with ISO 9001 and is committed to continually improve at this process.

MODEL C-250
2.5 TONS
@ 100 psi of Factory Supplied Air
5-3/16” Overall Stroke
with 2.0” Stroke Adjustment
12.00” Daylight Opening
6.25” Throat Depth

MODEL C-300
5.5 TONS
@ 100 psi of Factory Supplied Air
6.00” Overall Stroke
with 2.0” Stroke Adjustment
14.43” Daylight Opening
6.25” Throat Depth

MODEL C-400
10 TONS
@ 100 psi of Factory Supplied Air
4.00” Overall Stroke
with 2.0” Stroke Adjustment
14.43” Daylight Opening
6.25” Throat Depth

MODEL C-500
15 TONS
@ 100 psi of Factory Supplied Air
6.00” Overall Stroke
with 2.0” Stroke Adjustment
14.00” Daylight Opening
8.25” Throat Depth
C-SERIES STANDARD CONTROL PACKAGES

**EDP** = Electric Logic
(110v electricity required)

**DP** = Pneumatic Logic
(No electricity required)

**EDP-1 or DP-1**: Basic two-hand non-tie down control package with single regulator
Operator initiates and maintains both actuators at the same time to advance the press stroke. Once the operator releases one or both actuators, the ram returns to home position.

**EDP-AS-1 or DP-AS-1**: Basic two-hand non-tie down control package with dual regulator (adjust retract pressure)
Operator initiates and maintains both actuators at the same time to advance the press stroke. Once the operator releases one or both actuators, the ram returns to home position.

**EDP-1-NP or DP-1-NP**: Two-hand non-tie down control package with jog control
Operator initiates and maintains both actuators at the same time to advance the press stroke. If the operator releases one of both actuators during the downward stroke, the ram stops downward motion. The operator can either proceed with the downward cycle by re-initiating the actuators until the auto ram return option is meet (see auto ram return options), or the operator can manually retract the ram to home position by pressing the manual ram return button
(Note: includes P-TD or E-TD Pressure with Timer Return as the standard auto ram return option)

**EDP-AS-2 or DP-AS-2**: Two-hand non-tie down control package with low force approach stroke and an adjustable hydraulic intensified boost stroke
Operation: Operator initiates and maintains both actuators at the same time to advance the press stroke under a low force approach stroke. Once the adjustable limit switch is met, the control system shifts into a hydraulic intensified boost/power stroke. Once the operator releases one or both actuators, the ram returns to home position

**Auto Ram Return Options:**
(Add to the above standard control packages – excluding the DP-1-NP or EDP-1-NP)

- **E-TD or P-TD**: Pressure with Timer Return
  Pressure sensor initiates an adjustable press dwell timer which returns the ram

- **E-DR or P-DR**: Distance with Timer Return
  Distance sensor initiates and adjustable press dwell timer which returns the ram

- **E-PSRO or P-PSRO**: Pressure Only Return
  Pressure sensor only initiates the return of the ram

- **E-F**: Fault Circuit (only available in electric logic)
  Fault indicator with reset for short stroke notification (press stroke did not complete the normal cycle). Pressure sensor initiates an adjustable press dwell timer which returns the ram. Also, includes illuminated manual reset indicator

- **E-FIRR**: Ram Capture (only available in electric logic)
  Pressure initiated ram capture (muting); allowing the operator to remove their hands from the actuators and an adjustable press dwell timer returns the ram.
  Complete with illuminated ram capture indicator and manual retract button

Other Available Options
(please consult factory)

- 24vDC Control Circuit
- Programmable Logic Controller (PLC)
- Emergency Stop Control Circuit
- Light Curtains and Guarding
- Rod End Load Cell
- Linear Position Transducer
- Press Force and Distance Monitoring
- Custom Designed Control Systems

**Note**: All control packages are assembled complete with necessary F-R-L unit, air lock-out valve, flow control valve, directional valve and exhaust mufflers.

www.airhydraulics.com
info@airhydraulics.com
Phone: 1-800-837-4355