HP-545 Series
HYDRAULIC PRESS
Fully Integrated, Stand Alone

BUILD A HYDRAULIC PRESS THAT IS WORTH THE INVESTMENT

OVERVIEW

HP-Series Hydraulic Press is our fully integrated, stand alone hydraulic press which represents current press technology by utilizing a high quality pressure compensating hydraulic power unit along with today’s current technology in Allen-Bradley programmable logic controllers.

WHAT MAKES US BETTER?

The HP-Series Hydraulic Press can be designed to meet your present application needs with the array of available options we offer. The open architectural control design also gives you the flexibility to add control integration and/or process monitoring features now or in the future.

ADVANTAGES

• Built To Meet Your Application Needs
• Open Architectural Control System Design
• Current AB Programmable Logic Controllers
• Hydraulic Unit Designed To Generate Minimal Heat
• Manufactured in the US
• Designed Using Heavy Duty Hydraulic Cylinders
• Built To Last Using Quality Control and Hydraulic Components

APPLICATIONS

Bushing/Bearing Insertion, Stud Insertion, Broaching, Swaging, Trimming, Assembly, Notching, Joining, Forming, and Fastening

SPECIFICATIONS (Standard)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Force Capacity</td>
<td>20 Tons</td>
<td>25 Tons</td>
<td>30 Tons</td>
<td>35 Tons</td>
<td>40 Tons</td>
<td>50 Tons</td>
</tr>
<tr>
<td>Stroke</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
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<tr>
<td>Throat</td>
<td>12.0&quot;</td>
<td>12.0&quot;</td>
<td>12.0&quot;</td>
<td>12.5&quot;</td>
<td>12.5&quot;</td>
<td>12.5&quot;</td>
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<tr>
<td>Advance (I.P.M.)</td>
<td>276</td>
<td>276</td>
<td>276</td>
<td>194</td>
<td>194</td>
<td>194</td>
</tr>
<tr>
<td>Return (I.P.M.)</td>
<td>220</td>
<td>220</td>
<td>220</td>
<td>172</td>
<td>172</td>
<td>172</td>
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</tbody>
</table>
# HP-Series Hydraulic Press Dimensions

<table>
<thead>
<tr>
<th>DIM KEY</th>
<th>DESCRIPTIONS</th>
<th>20-30 Ton</th>
<th>35-50 Ton</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>Ram Centerline to Frame</td>
<td>12.0&quot;</td>
<td>12.5&quot;</td>
</tr>
<tr>
<td>B</td>
<td>Table to Ram-Ram Up</td>
<td>14.62&quot;</td>
<td>14.62&quot;</td>
</tr>
<tr>
<td>C</td>
<td>Stroke of Cylinder</td>
<td>6.0&quot;</td>
<td>6.0&quot;</td>
</tr>
<tr>
<td>D</td>
<td>Table Length-Left to Right</td>
<td>26.5&quot;</td>
<td>26.5&quot;</td>
</tr>
<tr>
<td>E</td>
<td>Table Length-Front to Back</td>
<td>13.0&quot;</td>
<td>13.5&quot;</td>
</tr>
<tr>
<td>F</td>
<td>Table Thickness</td>
<td>2.62&quot;</td>
<td>2.62&quot;</td>
</tr>
<tr>
<td>G</td>
<td>Table to Floor</td>
<td>36.0&quot;</td>
<td>36.0&quot;</td>
</tr>
<tr>
<td>H</td>
<td>Width of &quot;U&quot; Slot</td>
<td>4.0&quot;</td>
<td>4.0&quot;</td>
</tr>
<tr>
<td>J</td>
<td>Cylinder Bore</td>
<td>6.0&quot;</td>
<td>8.0&quot;</td>
</tr>
<tr>
<td>K</td>
<td>Diameter of Ram</td>
<td>4.0&quot;</td>
<td>5.5&quot;</td>
</tr>
<tr>
<td>L</td>
<td>Tapped Hole Size</td>
<td>3-12&quot;</td>
<td>4-12&quot;</td>
</tr>
<tr>
<td>M</td>
<td>Depth of Ram Hole</td>
<td>4.0&quot;</td>
<td>5.5&quot;</td>
</tr>
<tr>
<td>N</td>
<td>Overall Depth</td>
<td>48.25&quot;</td>
<td>48.25&quot;</td>
</tr>
<tr>
<td>P</td>
<td>Projection of Cylinder</td>
<td>2.56&quot;</td>
<td>2.56&quot;</td>
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<tr>
<td>S</td>
<td>Base Width</td>
<td>28.5&quot;</td>
<td>28.5&quot;</td>
</tr>
<tr>
<td>T</td>
<td>Base Depth</td>
<td>38.62&quot;</td>
<td>38.62&quot;</td>
</tr>
<tr>
<td>U</td>
<td>Overall Height</td>
<td>72.0&quot;</td>
<td>72.0&quot;</td>
</tr>
<tr>
<td>V</td>
<td>Mounting Dimension</td>
<td>35.62&quot;</td>
<td>35.62&quot;</td>
</tr>
<tr>
<td>W</td>
<td>Mounting Dimension</td>
<td>26.5&quot;</td>
<td>26.5&quot;</td>
</tr>
<tr>
<td>X</td>
<td>Mounting Bolt Hole (4) Dia.</td>
<td>.75&quot;</td>
<td>.75&quot;</td>
</tr>
<tr>
<td>Y</td>
<td>Center Line of Ram to Front of Base</td>
<td>6.62&quot;</td>
<td>6.62&quot;</td>
</tr>
</tbody>
</table>

**Note:** The above dimensions are standard specifications. Please consult factory for modifications.
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**

- Robust steel welded frame
- Heavy duty hydraulic cylinder
- Quality hydraulic power unit with pressure compensating pump designed for generating minimal heat
- Air over oil heat exchanger
- Suction line strainer
- Combination temperature / level gauge
- 240/480V TEFC Motor
- 480-240/120V fuse transformer
- Cylinder cushion
- Fused outputs to solenoids
- Two-hand / Non-tie down actuators with Auto Ram
- Return Options
- Expandable Allen-Bradley programmable logic controller
- Auto/Jog selector switch
- Emergency stop circuit
- NEMA 12 main electrical enclosure with an open architectural design for future expansion

**AVAILABLE OPTIONS**

- Additional stroke cylinders
- Double rod cylinders
- Frame dimensions designed to suit
- Machining of press platen bed
- Custom designed hydraulic circuits
- Custom designed control circuits
- Custom Designed Guarding
- Custom Designed Tooling
- Dwell timing features
- Left or right mounting of electrical enclosure
- HMI display
- Press force and distance monitoring
- More add-on technology can be integrated into this system at your convenience. Please contact us to find out more.
HP-Series Hydraulic Press comes standard with dual electric actuators and Allen-Bradley programmable logic controller with one of the following auto ram return options (please specify):

**Auto Ram Return Options:**
(Includes one of the following)

**Adjustable Distance Return**
Operator initiates and maintains the actuators at the same time to start the press cycle. The ram extends to the pre-set distance of the limit sensor. When the limit sensor is initiated, the ram retracts.

**Adjustable Pressure Return**
Operator initiates and maintains the actuators at the same time to start the press cycle. As the ram begins to meet resistance, the cylinder pressure rises. When the pre-set pressure is reached, the ram retracts. Pressure is adjustable to meet your application requirements.

**Adjustable Pressure or Adjustable Distance Return**
Operator initiates and maintains the actuators at the same time to start the press cycle. The ram extends until either the limit sensor or press sensor setting is reached, the ram retracts. This circuit allows for full desire stroke, but insures retract if a premature jam-up occurs.

**Adjustable Pressure and Adjustable Distance Return**
Operator initiates and maintains the actuators at the same time to start the press cycle. The ram extends until both the limit sensor is made and pressure sensor is reached, the ram retracts.

**Pressure Initiated / Timer Delay Return**
Operator initiates and maintains the actuators at the same time to start the press cycle. As the ram begins to meet resistance, the cylinder pressure rises. When the pre-set pressure is reached, an adjustable timer is initiated. Once the timer is complete, the ram retracts.

Custom Designed Control Circuits / Process Monitoring / Guarding Options (are available)
Please consult factory to discuss your project specification requirements

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**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.

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

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