Baykal APHS 31120 CNC Hydraulic Pressbrake

The Baykal APHS range of pressbrakes minimizes your unit time costs with its speedy, sensitive, quality and superior bending ability.

Thanks to its monoblock welded body structure with static and dynamic rigidity, it provides a long operating life. APHS press brake uses reliable processes to add value to your most sensitive of works.
Features

- Rigidly welded, monoblock steel frame for minimum deflection under load.
- Downstroking bending beam with two cylinders made from high-quality forged steel and precisely honed.
- Ram travel fully supported in low friction fiber slideways.
- Full electronic synchronisation with proportional valve technology assuring maximum bend accuracy and repeatability through constant monitoring and correction of beam parallelism by a CNC system.
- Stroke-depth measurement through high-precision linear scales.
- CNC-controlled backgauge on ballscrew spindles with DC drive.
- Block-type European hydraulics.
- Compactly-wired electrical box with ventilation.
- Full conformity with EC Machinery Directive for safety and certified CE marking.
- Graphical control with full programming and machine control facilities in a user-friendly computer environment. Main features include:
  - Programmable multi-axis control.
  - Y1-Y2 cylinder axes.
  - X1-X2-R1-R2-Z1-Z2 backgauge axes.
  - CNC crowning axis.
  - Modular expansion for additional axes.
  - High memory capacity for program steps and tooling data.
  - High number of product and bend repeat possibility.
  - Direct graphical programming with automatic computation of all axis positions and bend sequence in full graphic simulation.
  - Product programming with direct angle input or in absolute dimensions. For each CNC program and bend sequence, the programmable and/or computed functions include: bending length/thickness, material selection, tooling selection, bend method, mute position, pinching point, pres force/speed, incremental travel and retraction of backgauge, dwell time, delay time for axes re-positioning, decompression stroke/speed, tilt adjustment, corrections on Y and X axes.
- Manual operation of all axes.
- Teach-in on all axes.
- Operator selectable languages.
- Integrated diagnostic software.
- Memory storage on USB flashdisk
- European-style top tool holders with wedges.
- Sectioned (gooseneck) punch and multi-vee die block. (all tooling precisely ground)
- Two-hand operation console with double foot-switch.
- Linear front-arm guides.
- Electrically-interlocked side and rear guards.

Technical Specification

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Model</td>
<td>APHS 31120</td>
</tr>
<tr>
<td>Capacity kN</td>
<td>1200</td>
</tr>
<tr>
<td>Motor output kW</td>
<td>11</td>
</tr>
<tr>
<td>Oil tank volume Ltr</td>
<td>140</td>
</tr>
<tr>
<td>Approach speed mm/sec</td>
<td>160</td>
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<tr>
<td>Working speed mm/sec</td>
<td>10</td>
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<tr>
<td>Return speed mm/sec</td>
<td>130</td>
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<tr>
<td>Weight kg</td>
<td>8400</td>
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<tr>
<td>Bending length mm</td>
<td>3100</td>
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<tr>
<td>Inside frames mm</td>
<td>2550</td>
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<tr>
<td>Side frame width mm</td>
<td>1590</td>
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<tr>
<td>Bed height mm</td>
<td>880</td>
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<tr>
<td>Pit depth E(^1) mm</td>
<td>-</td>
</tr>
<tr>
<td>Pit depth E(^2) mm</td>
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<tr>
<td>Machine height mm</td>
<td>2905</td>
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<tr>
<td>Daylight opening mm</td>
<td>540</td>
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<tr>
<td>Stroke mm</td>
<td>260</td>
</tr>
<tr>
<td>Table width mm</td>
<td>60</td>
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<tr>
<td>Throat gap mm</td>
<td>410</td>
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</tbody>
</table>

Options

- Manual or power-driven (CNC) crowning tables.
- Top tool manual quick-release clamps.
- Hydraulic tool clamping systems.
- Special tooling for customer applications:
  - Special-profile top and bottom tools.
  - Single-vee dies with table adapters.
- Front light guards or front laser protection for enhanced safety
Backgauge options:

(A) X-axis backgauge:
   Travelling on ballscrews
   AC-servo driven
   With 2 micrometric finger-stops which have height and lateral adjustment
   Range: 650 mm
   Speed: 330 mm/s
   Positioning accuracy: ±0.03 mm

(B) X-R axis backgauge:
   Travelling on ballscrews
   AC-servo driven
   With 2 micrometric finger-stops which have lateral adjustment
   Range
   X-axis: 650 mm
   R-axis: 160 mm
   Speed
   X-axis: 350 mm/s
   R-axis: 240 mm/s
   Positioning accuracy
   X-axis: ±0.03 mm
   R-axis: ±0.05 mm