PLASTICS INDUSTRY
APPLICATIONS FOR HASKEL PRODUCTS

OUR PRODUCTS ARE BACKED BY OUTSTANDING TECHNICAL SUPPORT, AN EXCELLENT REPUTATION FOR RELIABILITY AND WORLDWIDE DISTRIBUTION

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Haskel in the Plastics Industry

Haskel manufactures one of the world’s largest ranges of high-pressure used either as bare product or incorporated into power packs and sy injection and blow molding. Some examples of applications are shown is available on request. Our technical sales engineers can also help with

GAS BOOSTERS

Blowing Agent Metering System

Direct gas foaming can give expanded polystyrene (EPS) a performance edge over expanding polystyrene (EPS) which opens up many new applications in packaging and insulation materials. The EPP foaming process offers material with higher resistance (up to 130°C), microwave capability, improved stability and durability, smooth surface and excellent recycling properties. Haskel’s gas metering systems meet all of the process demands.

- Haskel air driven pumps and boosters are used for injection of:
  - CO₂
  - Butane
  - N₂
  - Pentane
  - as blowing agents used in polypropylene production.

- Haskel systems can pump the blowing agent either in gaseous or liquid form and controls flow from bulk storage to the injection point.

- Haskel’s complete intrinsically safe systems provide blowing agent control through all stages and comprises:
  - Pressurization unit for up to 400 bar (5800 psi)
  - Gas booster for gas injection
  - Pump for liquid injection
  - System pressure control
  - Closed loop mass flow control
  - Injection pressure control

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Liquid pumps, gas boosters and air amplifiers. These products are being
tems for a variety of plastics manufacturing processes, such as gas
here along with basic product details. More detailed technical literature
advice on product choice and packaged systems.

**AIR AMPLIFIERS**

**Injection Blow Moldings**

- Haskel amplifiers offer a fast and efficient method of
  blow molding small plastic containers (i.e., PET
  bottles) from 1 ml to 1.5 litre sizes.
- They are available in a wide range of sizes, pressure
  and flow rates and can be driven by air or hydraulics,
  depending upon the application requirements.
- They will boost standard plant air supply to storage
  pressure and volume required to blow mold product
  in the cavity mold.
- They operate on simple drive to output ratios of from
  2:1 to 15:1.

Typically:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SUPPLY PRESSURE bar/psi</th>
<th>OUTLET PRESSURE bar/psi</th>
<th>FLOW RATE Nl/min/Scfm</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAD-2</td>
<td>6/90</td>
<td>12/175</td>
<td>370/13</td>
</tr>
<tr>
<td>8AD-2.8</td>
<td>6/90</td>
<td>15/220</td>
<td>1130/40</td>
</tr>
<tr>
<td>8AD-5</td>
<td>6/90</td>
<td>30/435</td>
<td>450/16</td>
</tr>
</tbody>
</table>

**Air Sleeves**

**Plastic Printing Air Sleeve Fitting and Removal**

Offset litho and rotary letterpress methods are used
to print plastic films and wallpapers. Tapered print
cylinders can be "floated" onto the printing mandrel
using compressed air from the normal shop air line
which has been boosted by a Haskel air amplifier.
This ensures a tight fit for accurate print register and
also avoids the need for a costly high-pressure
compressor yet achieves the same result at a fraction
of the cost using readily available air supply.
LIQUID PUMPS

Chemical Injection

Haskel air driven or electric liquid pumps are ideal for injection and metering of accurately dosed dyes and colors. Liquid pressures of up to 690 bar (10,000 psi) and injection rates of between 0.5 - 250 litres per day can be accommodated within the range. Bare pumps with integral pneumatic timers or fully engineered skids can be provided.

Power Clamping

Many molding and injection processes require power clamping. Haskel air driven pumps are capable of holding high pressures indefinitely without consuming power and have established themselves as the most reliable hydraulic pumps to use for many types of machine tool, molding and injection equipment clamping applications.