viscorex®
Extraction pump
for the polymer industry

Polymer processes require units that gently discharge low and high-viscosity plastic melts from reactors and degassing equipment. Thanks to excellent fill behaviour and short residence times, the viscorex® gear pump is the ideal solution for such applications. Its high efficiency and long service life will enhance the capacity and availability of your production line. viscorex® gear pumps efficiently convey plastic melts with a constant, precise flow.

Your benefits
- Excellent fill behaviour due to optimized inlet geometries
- Optimized flow channels
- Gentle treatment of polymer melts thanks to special gear teeth with low squeezing power
- High overall efficiency and hence minimized friction thanks to pioneering gear and bearing technology
- Low pulsation pumping even at high differential pressures
- Compact design
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**Technical specifications:**

<table>
<thead>
<tr>
<th>Housing, cover:</th>
<th>Cast steel/corrosion resistant steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear shafts:</td>
<td>Nitrided steel</td>
</tr>
<tr>
<td>Bearing:</td>
<td>Tool steel/special materials</td>
</tr>
</tbody>
</table>

**Shaft seals:**
- Single mechanical seal, heated
- Double mechanical seal
- vislip®
- vispac®
- viscosel

**Pump heating:**
With heat transfer medium max. 350°C, max. 12 bar for > 14" sizes (max. 7 bar for 10", 12" and 14" sizes)

**Installation:**
The vacorex® gear pump can be flanged directly under the reactor

**Application limits:**

<table>
<thead>
<tr>
<th>Viscosity:</th>
<th>To 20,000 Pas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature:</td>
<td>To 350°C</td>
</tr>
<tr>
<td>Suction side:</td>
<td>Pumped media flow under vacuum or at an admission pressure to 10 bar</td>
</tr>
<tr>
<td>Delivery side:</td>
<td>Discharge pressure up to 70 bar (Higher pressure available upon request against extra charge.)</td>
</tr>
</tbody>
</table>

**Typical pumping media:**
- Cellulose acetate
- Elastomers
- Epoxy resin
- Phenolic resin
- Polyacrylicnitrile
- Polyamide
- Polycarbonate
- Polybutylene terephthalate
- Polyethylene terephthalate
- Polyethylene/terephthalate
- Polypropylene
- Polystyrene (incl. ABS, EPS)
- Polysulphone
- Silicone
- SBR Latex
- And others

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**Pump size**

<table>
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<tr>
<th>Pump size</th>
<th>Spec. volume [cm³/rev]</th>
<th>Capacity** [m³/day]</th>
</tr>
</thead>
<tbody>
<tr>
<td>10”</td>
<td>3,170</td>
<td>86.5-420</td>
</tr>
<tr>
<td>12”</td>
<td>5,100</td>
<td>220-610</td>
</tr>
<tr>
<td>14”</td>
<td>7,900</td>
<td>350-820</td>
</tr>
<tr>
<td>16”</td>
<td>13,700</td>
<td>450-1,100</td>
</tr>
<tr>
<td>20”</td>
<td>21,400</td>
<td>595-1,450</td>
</tr>
<tr>
<td>21”</td>
<td>29,009</td>
<td>721-1,771</td>
</tr>
<tr>
<td>23”</td>
<td>40,267</td>
<td>866-2,245</td>
</tr>
<tr>
<td>25”</td>
<td>54,036</td>
<td>1,000-2,728</td>
</tr>
<tr>
<td>29”</td>
<td>65,667</td>
<td>1,148-3,198</td>
</tr>
<tr>
<td>32”</td>
<td>89,458</td>
<td>1,420-4,091</td>
</tr>
<tr>
<td>36”</td>
<td>132,700</td>
<td>1,882-5,584</td>
</tr>
</tbody>
</table>

* Larger pump sizes and in between sizes are available upon request.
** These data are reference values for polymer processes.

Please contact Maag Pump Systems AG for your specific applications.

The maximum flow capacity and the maximum discharge pressure of the pump are dependent on the characteristics of the medium to be pumped.