Dependable and gently discharging

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 Maag Pump Systems 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.

Benefits of viscorex® gear pump:

- Excellent fill behaviour due to optimised inlet geometries
- Optimised flow channels
- Gentle treatment of polymer melts thanks to special gear teeth with low squeezing power
- High overall efficiency and hence minimised friction thanks to pioneering gear and bearing technology
- Low pulsation pumping even at high differential pressures
- Compact design

Typical pumping media:

- Cellulose acetate
- Elastomers
- Epoxy resin
- Phenolic resin
- Polycrylcnitrile
- Polyamide
- Polycarbonate
- Polyethylene Teraphthalate
- Polyethylene Teraphthalate
- Polymethylmethacrylate
- Polypropylene
- Polystyrene (incl. ABS, EPS)
- Polysulphone
- Silicone
- SBR Latex
- and others
Technical specifications:

- **Housing, cover**: Cast steel/corrosion resistant steel
- **Gear shafts**: Nitrided steel
- **Bearing**: Tool steel/special materials
- **Shaft seals**: • Single mechanical seal, heated
  • Double mechanical seal
  • vislip®
  • vispac®
  • viscoseal
- **Pump heating**: with heat transfer medium 350 °C, max. 25 bar for >14” size (max. 7 bar for 10” and 14” sizes)
- **Installation**: The viscorex® gear pump can be flanged directly under the reactor.
- **Viscosity**: to 20,000 Pas
- **Temperature**: to 350 °C
- **Suction side**: pumped media flow under vacuum or at an admission pressure to 10 bar.
- **Delivery side**: discharge pressure to 70 bar

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

### Typical application:

![Viscorex® Gear Pump Diagram](image-url)

### Pump specifications:

<table>
<thead>
<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>
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<tr>
<td>16”</td>
<td>13,700</td>
<td>450-1,100</td>
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<tr>
<td>20”</td>
<td>21,400</td>
<td>595-1,450</td>
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<tr>
<td>21”</td>
<td>29,009</td>
<td>721-1,771</td>
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<td>23”</td>
<td>40,267</td>
<td>866-2,245</td>
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<tr>
<td>25”</td>
<td>54,036</td>
<td>1,000-2,728</td>
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<td>29”</td>
<td>65,667</td>
<td>1,148-3,198</td>
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<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. Flange connections in accordance with DIN or ANSI standards.
** These data are reference values for polymer processes. Please contact Maag Pump Systems for your specific applications.