Dependable and gentle 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 vacorex® gear pump is the ideal solution for such applications. The high efficiency and long service life will enhance the capacity of your production plant’s capacity and availability.

There are three types to choose from:

- **vacorex® GP** for a broad application range
- **vacorex® HV** with 25% higher pumping volume than the GP model
- **vacorex® HP** for differential pressures of up to 300 bar

Benefits of the vacorex® gear pump:

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

Typical pumping media:

- Polyethylene Teraphthalate
- Polybutylene Teraphthalate
- Polyamide
- Polycarbonate
- Cellulose acetate
- Polycrylicnitrile
- Silicone
- Oil additives
- SBR Latex
- Phenolic resin
- Polymethylmethacrylate
- Epoxy resin
- Polystyrene (incl. ABS, EPS)
- Polysulphone
- Elastomers
- Polyolefine
- and others
**Technical specifications:**

- **Housing, cover:** Stainless steel / carbon steel
- **Gear shafts:** Nitrided steel / tool steel
- **Bearing:** Tool steel / special materials
- **Shaft seals:**
  - Single mechanical seal, heated
  - Double mechanical seal with barrier system
  - vislip®
  - vispac®
  - visco seal
- **Pump heating:** with heat transfer medium max. 350 °C, max. 25 bar.
- **Installation:** The vacorex® gear pump can be flanged directly under the reactor.
- **Viscosity:** to 20,000 Pas
- **Temperature:** to 350 °C
- **Suction side:** pumped materials flow under vacuum or at an admission pressure to 10 bar.
- **Delivery side:** discharge pressure to 300 bar

**Typical application:** Discharging and granulation

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**Table:**

<table>
<thead>
<tr>
<th>Pump size</th>
<th>vacorex® GP</th>
<th>vacorex® HV***</th>
<th>vacorex® HP***</th>
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<tbody>
<tr>
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<td>Spec. volume [cm³/rev]</td>
<td>Capacity** [m³/day]</td>
<td>Spec. volume [cm³/rev]</td>
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</table>

*Larger pump sizes are available upon request. Flange connections in accordance with DIN or ANSI standards.*

**Notes:**

- The data are reference values of the polymer processes. Please contact Maag Pump Systems for specific applications.
- *Available from size 180.*

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