HDP 200 High Pressure Pump Series

Design criteria

Hammelmann high pressure pumps are built to operate at the continuous maximum duty stated in the performance parameters. Just compare the crankshaft speed, average plunger speed, plunger diameter and power rating.

High pressure pump
Weight: approx. 525 kg

Features
- Power ratings up to 200 kW
- Vertical 3 cylinder design
- Wide variety of complementary ancillaries

Quality and reliability
- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Stainless steel pump head free of alternating stress
- Integral speed reduction gear
- Pressurised oil lubrication system with oil cooler/filter
- Bellows form hermetic seal between the suction chamber and crank section
- Solid ceramic or tungsten carbide plungers
- Choice of application specific seal assemblies
- Choice of bronze (standard) or stainless steel suction chamber

Stationary unit with electric motor
Length: 2038 mm
Width: 850 mm
Height: 1380 mm
Weight: approx. 2000 kg at 160 kW

Main dimensions without accessories such as suction line, pressure regulator etc. Detailed dimensional drawings and weights available on request.

Stationary unit with diesel motor
Length: 2560 mm
Width: 1540 mm
Height: 2050 mm
Weight: approx. 3200 kg at 235 kW with full fuel tank
## HDP 200 series, technical data

### Performance parameters (Standard design)

Note: Actual flow rates for water as pumped medium (volumetric efficiency has already been taken into account).

### Conversion table

- **D** = Piston/Plunger dia. [mm]
- **n1** = Motor/Engine r.p.m.
- **n2** = Crankshaft r.p.m.

<table>
<thead>
<tr>
<th>HDP</th>
<th>Q [l/min]</th>
<th>Required power rating [kW]</th>
<th>Operating pressure [bar]</th>
<th>D</th>
<th>r.p.m.</th>
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</thead>
<tbody>
<tr>
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<td>75</td>
<td>90</td>
<td>110</td>
<td>132</td>
</tr>
<tr>
<td>204</td>
<td>21/20*</td>
<td>1900</td>
<td>2300*</td>
<td>2850*</td>
<td>3200*</td>
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<td>25/23*</td>
<td>1550</td>
<td>1900</td>
<td>2350*</td>
<td>2800*</td>
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<td>30/28*</td>
<td>1350</td>
<td>1600</td>
<td>2000*</td>
<td>2350*</td>
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<td>29/28*</td>
<td>1450</td>
<td>1750</td>
<td>2100*</td>
<td>2500*</td>
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<td>34/33*</td>
<td>1200</td>
<td>1450</td>
<td>1750</td>
<td>2150*</td>
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<td>41/40*</td>
<td>1000</td>
<td>1200</td>
<td>1500</td>
<td>1750</td>
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</tbody>
</table>

*Ultra high pressure

### Typical high pressure pump units
- Rod force: 88 kN
- Stroke: 75 mm
- Mean piston speed at n2: 416 r.p.m. = 1.04 m/sec
  495 r.p.m. = 1.24 m/sec
  593 r.p.m. = 1.48 m/sec

### Road going trailer or stationary units with sound damping cover

- Mobile unit with electric motor
- 10 or 20 foot sound damped container versions

Hammelmann pumps convert 93 to 98% of the shaft power to hydraulic energy.

** The dynamic high pressure sealing extends the advantages of the labyrinth design with further increased efficiency.

*** Special ceramic plungers up to max. 3000 bar,

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