HDP 250 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.

Features

- Power ratings up to 335 HP
- Vertical 5 cylinder design
- Wide variety of complementary ancillaries

Quality and reliability

- Stainless steel stress free pump head
- Cross head piston bellows seal
- Choice of application specific seal assemblies
- Solid ceramic or tungsten carbide plungers
- Choice of bronze or stainless steel suction chamber
- Crank section calculation by 'Finite element method' ensures long working life under continuous load
- Crankshaft supported by 3 bearings and incorporating twin helical speed reducing gears
- Pressurised oil lubrication system with oil cooler/filter

Dimensions: inches

High pressure pump
Weight: approx. 2,360 lbs

Stationary unit with diesel engine
Length: 102 in.
Width: 95 in.
Height: 89 in.
Weight: approx. 9,040 lbs at 335 HP

Stationary unit with electric motor
Length: 98 in.
Width: 51 in.
Height: 57 in.
Weight: approx. 6,835 lbs at 335 HP

Main dimensions without accessories such as suction line, pressure regulator etc. All shown as right side drive. Detailed dimensional drawings and weights available on request.
### Technical data, series HDP 250

#### Performance parameters

<table>
<thead>
<tr>
<th>Q [GPM]</th>
<th>150</th>
<th>175</th>
<th>215</th>
<th>270</th>
<th>335</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Operating pressure [psig]</td>
<td>D</td>
<td>r.p.m.</td>
<td></td>
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<tr>
<td>8.5</td>
<td>26100</td>
<td>32600</td>
<td>39600</td>
<td>43500</td>
<td></td>
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<tr>
<td>10.0</td>
<td>21800</td>
<td>26100</td>
<td>32600</td>
<td>41300</td>
<td></td>
</tr>
<tr>
<td>12.2</td>
<td>21800</td>
<td>26100</td>
<td>34100</td>
<td>43500</td>
<td></td>
</tr>
<tr>
<td>11.1</td>
<td>19600</td>
<td>23900</td>
<td>30500</td>
<td>37700</td>
<td></td>
</tr>
<tr>
<td>13.2</td>
<td>19600</td>
<td>23900</td>
<td>31200</td>
<td>37700</td>
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</tr>
<tr>
<td>15.9</td>
<td>16600</td>
<td>24700</td>
<td>32600</td>
<td></td>
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</tr>
</tbody>
</table>

- Rod force: 18,435 pound force / kN 82
- Stroke: 2.95 inch
- Mean piston speed at n₁:
  - 390 r.p.m. = 3.2 feet/sec
  - 465 r.p.m. = 3.8 feet/sec
  - 555 r.p.m. = 4.6 feet/sec

#### Type designations

<table>
<thead>
<tr>
<th>Sealing system</th>
<th>D</th>
<th>HDP Type</th>
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<tbody>
<tr>
<td>Hydrodynamic with tungsten carbide plungers</td>
<td>17.5 + 20</td>
<td>254</td>
</tr>
<tr>
<td>Hydrodynamic with solid ceramic plungers</td>
<td>25</td>
<td>253</td>
</tr>
<tr>
<td>Labyrinth with solid ceramic plungers</td>
<td>30 – 70</td>
<td>252</td>
</tr>
<tr>
<td>Packed sleeves with solid ceramic plungers</td>
<td>30 – 70</td>
<td>257</td>
</tr>
</tbody>
</table>

D = Plunger dia. [mm]

Hammelmann Corp. 600 Progress Road, Dayton, Ohio 45449
Phone: (001) 937-859-8777
Fax: (001) 937-859-9188
eMail: mail@hammelmann.com • http://www.hammelmann.com

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