# HDP 340 High Pressure Pump series

**Design criteria**

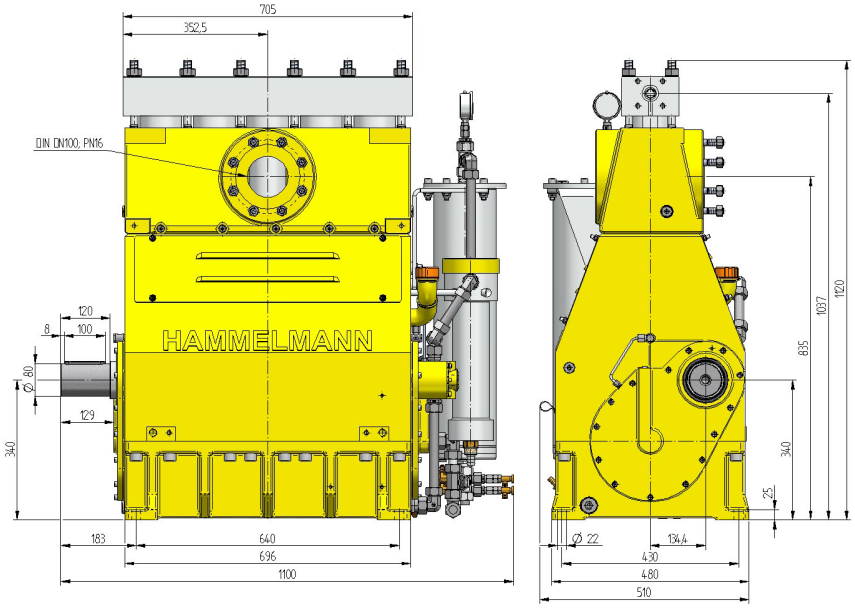
Hammelmann high pressure pumps are built to operate at the continuous maximum duty stated in the performance parameters. Just compare the crankshaft speed, average plunger speed, plunger diameter and power rating.




### High pressure pump

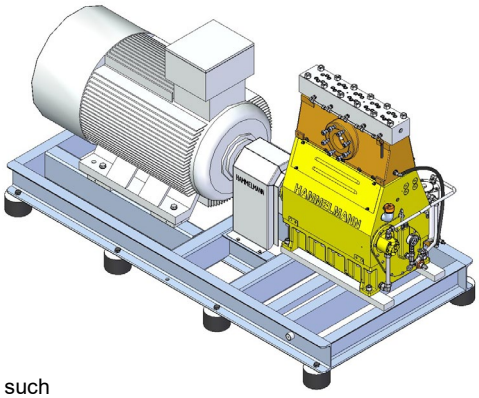
Weight: approx. 1070 kg

ENERGY EFFICIENT




### Stationary unit with electric motor

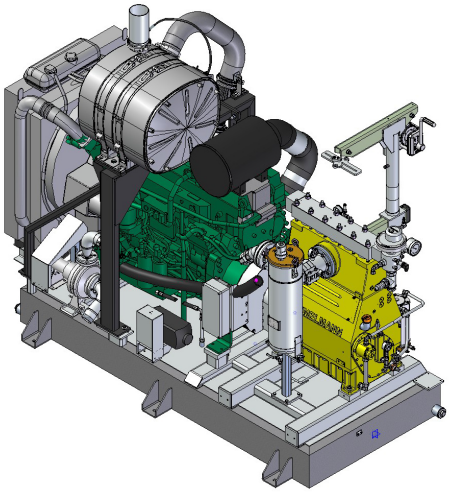
Length: 2900 mm
Width: 1290 mm
Height: 1750 mm
Weight: approx. 3800 kg at 340 kW



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.

### Stationary unit with diesel engine

Length: 3060 mm
Width: 1570 mm
Height: 2600 mm
Weight: approx. 4500 kg with full fuel tank



## Features

- Power ratings up to 340 kW
- Vertical 5 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

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# Technical data, series HDP 340

**Performance parameters (Standard design)**

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

| HDP | Q [l/min] | Required power rating [kW] / Operating pressure [bar] 110 | 132 | 200 | 250 | 300 | 340 | D | r. p. m. n 1 | n 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 344 | 27,2/24,2* | 2300* | 2800* | 4200* | 4500* | | | | 1500 | 411 |
| | 33,0/29,1* | 1920 | 2300* | 3500* | 4400* | 4500* | | 15 | 1500/1800 | 493 |
| | 39,0/35,0* | 1600 | 1920 | 2900* | 3600* | 4400* | 4500* | | 1800/2150 | 591 |
| | 37/33* | 1700 | 2000* | 3100* | | | | | 1500 | 411 |
| | 44/40* | 1410 | 1700 | 2600* | 3200* | | | 17,5 | 1500/1800 | 493 |
| | 53/47* | 1180 | 1410 | 2100 | 2700* | 3200* | | | 1800/2150 | 591 |
| | 45/40* | 1400 | 1670 | 2500* | 3000* | | | | 1500 | 411 |
| | 54/48* | 1160 | 1400 | 2100* | 2600* | 3000* | | 19,3 | 1500/1800 | 493 |
| | 65/58* | 970 | 1160 | 1760 | 2200* | 2600* | 3000* | | 1800/2150 | 591 |
| | 48/43* | 1300 | 1550 | 2400* | 2800* | | | | 1500 | 411 |
| | 58/51* | 1080 | 1300 | 1960 | 2500* | 2800* | | 20 | 1500/1800 | 493 |
| | 70/61* | 900 | 1080 | 1640 | 2100* | 2500* | 2800* | | 1800/2150 | 591 |
| 343 | 72 | 830 | 1000 | 1510 | 1800 | | | | 1500 | 411 |
| | 86 | 700 | 830 | 1260 | 1570 | 1800 | | 25 | 1500/1800 | 493 |
| | 103 | 580 | 700 | 1050 | 1310 | 1570 | 1780 | | 1800/2150 | 591 |
| | 89 | 660 | 800 | 1200 | 1430 | | | | 1500 | 411 |
| | 107 | 550 | 660 | 1000 | 1250 | 1430 | | 28 | 1500/1800 | 493 |
| | 128 | 460 | 550 | 840 | 1040 | 1250 | 1420 | | 1800/2150 | 591 |
| 342 | 101 | 580 | 700 | 1050 | 1240 | | | | 1500 | 411 |
| | 122 | 480 | 580 | 870 | 1100 | 1240 | | 30 | 1500/1800 | 493 |
| | 146 | 400 | 480 | 730 | 910 | 1100 | 1240 | | 1800/2150 | 591 |
| | 127 | 480 | 570 | 860 | 1030 | | | | 1500 | 411 |
| | 152 | 400 | 480 | 720 | 900 | 1030 | | 33 | 1500/1800 | 493 |
| | 182 | 330 | 400 | 600 | 750 | 900 | 1020 | | 1800/2150 | 591 |
| | 139 | 420 | 510 | 770 | 910 | | | | 1500 | 411 |
| | 167 | 350 | 420 | 640 | 800 | 910 | | 35 | 1500/1800 | 493 |
| | 200 | 300 | 350 | 530 | 670 | 800 | 910 | | 1800/2150 | 591 |
| | 184 | 320 | 400 | 600 | 700 | | | | 1500 | 411 |
| | 221 | 270 | 320 | 500 | 610 | 700 | | 40 | 1500/1800 | 493 |
| | 265 | 230 | 270 | 410 | 510 | 610 | 700 | | 1800/2150 | 591 |
| | 235 | 260 | 310 | 470 | 550 | | | | 1500 | 411 |
| | 282 | 210 | 260 | 400 | 480 | 550 | | 45 | 1500/1800 | 493 |
| | 338 | 180 | 210 | 320 | 400 | 500 | 550 | | 1800/2150 | 591 |
| | 294 | 210 | 250 | 380 | 450 | | | | 1500 | 411 |
| | 352 | 170 | 210 | 310 | 400 | 450 | | 50 | 1500/1800 | 493 |
| | 422 | 140 | 170 | 260 | 330 | 400 | 450 | | 1800/2150 | 591 |
| | 355 | 170 | 210 | 310 | 370 | | | | 1500 | 411 |
| | 426 | 140 | 170 | 260 | 320 | 370 | | 55 | 1500/1800 | 493 |
| | 511 | 120 | 140 | 220 | 270 | 320 | 370 | | 1800/2150 | 591 |
| | 418 | 140 | 170 | 260 | 310 | | | | 1500 | 411 |
| | 502 | 120 | 140 | 220 | 270 | 310 | | 60 | 1500/1800 | 493 |
| | 602 | 100 | 120 | 180 | 230 | 270 | 310 | | 1800/2150 | 591 |
| | 491 | 120 | 150 | 220 | 270 | | | | 1500 | 411 |
| | 589 | 100 | 120 | 200 | 230 | 270 | | 65 | 1500/1800 | 493 |
| | 706 | 100 | 100 | 160 | 200 | 230 | 260 | | 1800/2150 | 591 |
| | 569 | 110 | 130 | 200 | 230 | | | | 1500 | 411 |
| | 683 | 100 | 110 | 160 | 200 | 230 | | 70 | 1500/1800 | 493 |
| | 819 | 70 | 100 | 130 | 170 | 200 | 230 | | 1800/2150 | 591 |
| | 744 | 80 | 100 | 150 | 180 | | | | 1500 | 411 |
| | 892 | 70 | 80 | 120 | 150 | 180 | | 80 | 1500/1800 | 493 |
| | 1069 | 60 | 70 | 100 | 130 | 150 | 170 | | 1800/2150 | 591 |

* Ultra high pressure

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

- Rod force: 88 kN
- Stroke: 75 mm
- Mean piston speed at $n_2$
  411r.p.m. = 1,02 m/sec
  493 r.p.m. = 1,23 m/sec
  591 r.p.m. = 1,48 m/sec

Typical high-pressure pump units



- Stationary diesel unit in BDF-Container with workshop



- Stationary electric unit



- Electric unit in container

ENERGY EFFICIENT

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

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