

# High Pressure Pump Series HDP 750

## 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. 3700 kg

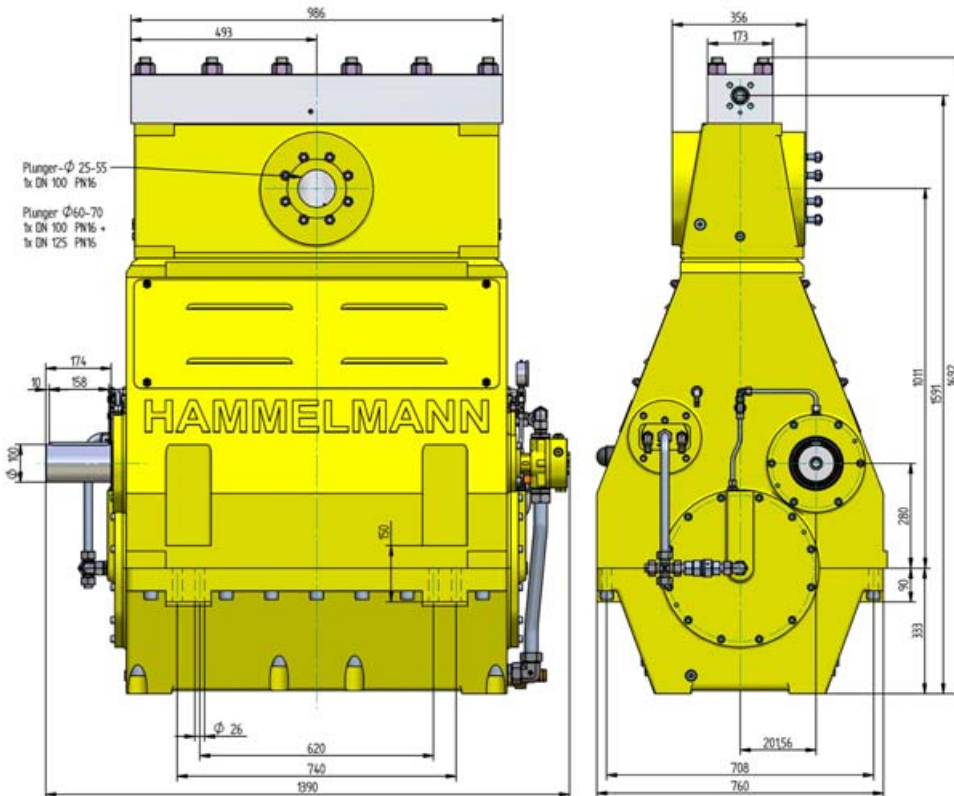


## Features

- Power ratings up to 750 kW
- Vertical 5 cylinder design
- Wide variety of complementary ancillaries

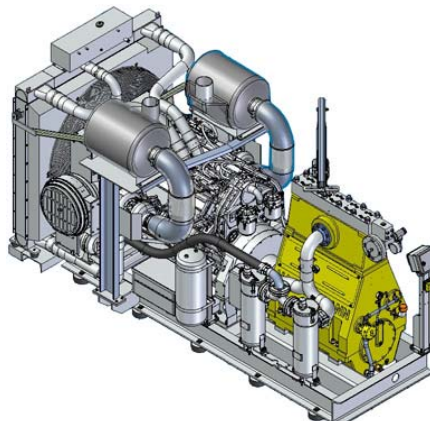
## Quality and reliability

- Stainless steel pump head free of alternating stress
- 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
- Twin helical integral reduction gear with crankshaft supported by 4 bearings
- Pressurised oil lubrication system with oil cooler/filter



## Stationary unit with diesel engine

Length: 3970 mm  
Width: 2100 mm  
Height: 2225 mm  
Weight: approx. 9200 kg  
at 839 kW and  
without full fuel tank



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.

# HDP 750 series, technical data

## Performance parameters

Q [l/min]	Required power rating [kW]						D	r.p.m.		
	500	560	600	650	700	750		n 1	n 2	
Operating pressure [bar]										
88 105 128	3000 2500 2100						28	1500 1500/1800 1800	315 380 465	
139 166 203	1850 1500 1250	2000 1700 1400						35	1500 1500/1800 1800	315 380 465
183 220 268	1400 1150 980	1600 1300 1100							40	1500 1500/1800 1800
234 281 342	1100 930 770	1250 1030 860					45			1500 1500/1800 1800
292 350 427	910 750 620	1020 840 700						50		1500 1500/1800 800
357 429 522	750 620 510	840 690 580							55	1500 1500/1800 1800
430 516 628	630 520 430	710 580 480					60			1500 1500/1800 1800
509 611 745	540 440 370	600 500 410						65		1500 1500/1800 1800
591 709 864	460 380 320	520 430 350							70	1500 1500/1800 1800
772 926 1128	350 290 240	400 330 270					80			1500 1500/1800 1800
977 1172 1428	280 230 190	310 260 210						90		1500 1500/1800 1800
1206 1447 1763	230 180 150	250 210 170							100	1500 1500/1800 1800

D = Piston/Plunger dia. [mm]  
n1 = Motor/Engine r.p.m. [1/min]  
n2 = Crankshaft r.p.m.[1/min]

## Type designations

Sealing system	D	HDP Type
Hydrodynamic with tungsten carbide plungers	28 - 35	754
Hydrodynamic with solid ceramic plungers	40	753
Labyrinth with solid ceramic plungers	45 - 100	752
Packed sleeves with solid ceramic plungers	45 - 100	757

D = Plunger dia. [mm]

- Rod force: 200 kN
- Stroke: 100 mm
- Mean piston speed at n<sub>2</sub>  
315 r.p.m. = 1,06 m/sec  
380 r.p.m. = 1,27 m/sec  
465 r.p.m. = 1,54 m/sec

Typical high pressure pump units



- Stationary unit with diesel motor



- Diesel unit in container with workshop



- Stationary unit with electric motor

Conversion table

Rating	1 kW	= 1.34 HP
Op. pressure	1 bar	= 14.5 psi
Flow rate	1 l	= 0.264 US gallon
	1 l	= 0.22 Imp. gallon