

HPS3000

High Pressure Triplex Pump



HPS3000 with optional SAE engine adaptor

Upgraded performance

Maximum Flowrate	484 lpm at 250 bar (106.4 igpm / 128.2 usgpm at 3,625 psi)
Maximum Pressure	1400 bar at 85 lpm (20,300 psi at 18.6 igpm / 22.5 usgpm)
Maximum Power	225 kW (300hp)

See overleaf for performance options

A robust design, the HPS3000 has a specification producing a heavy duty capability for dealing with the more difficult problems in industry and shares critical components with the higher rated HPS5000 pump.

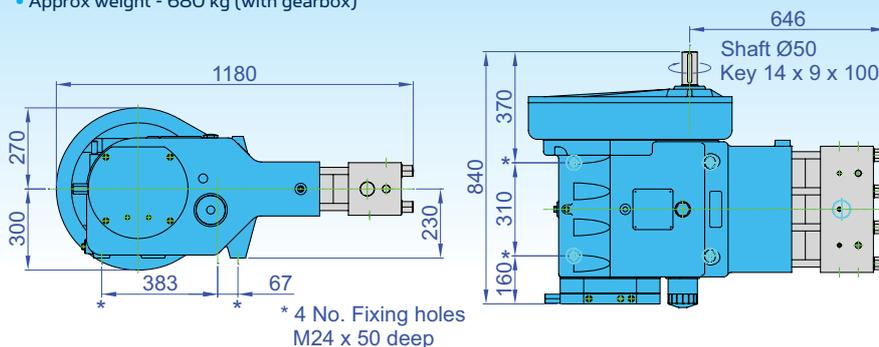
The close coupled, gear driven power end has pressure lubrication, filtration and oil cooling. An SAE 1 adaptor housing is available enabling the pump to be flange mounted to a diesel engine flywheel housing or electric motor ensuring extremely compact, perfectly

aligned installations and enclosing all moving parts.

For maximum hydraulic efficiency, the in-line valve arrangement is designed to minimise the unswept volume and prevents the adverse effects of cyclic stress within the head block, while allowing all working components to be easily removed on site for service.

This improved design is capable of high pressure to high volume with outstanding seal, plunger and valve life.

- General Dimensions - typical pump build
- Approx weight - 680 kg (with gearbox)



Features

- 431 stainless steel pump head
- Solid ceramic plungers & self adjusting seals
- Interchangeable plunger kits
- Hardened, alloy steel crankshaft with heavy duty steel backed white metal main bearings, supported between each connecting rod
- SG iron crankcase with pressure lubrication, filtration and oil cooling
- Forged connecting rods with low friction, shell type big end bearings and lead bronze lined small end bushes
- Gear driven, eliminating the need for belt drive
- Safety relief valve
- Pressure gauge

Build Options

- 316 stainless/Duplex steel pump head for seawater applications
- Choice of gear ratio to suit diesel engine or electric motor drive
- SAE 1 adaptor housing for flange mounting the pump to a diesel engine flywheel housing or electric motor
- Unloader valves
- Pressure adjusting valves (manual or actuated)
- Selector / Diverter valves (manual or actuated)
- Bare shaft pump only or complete unit build
- ATEX compliant Ex



HPS3000 as standard foot mounted version

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Plunger Diameter mm	Gear ratio Input Speed (rpm)			Pump Speed rpm	Power Required		Nominal Flowrate			Max Pressure	
	1500	1800	2050		kW	HP	lpm	igpm	usgpm	bar	psi
30	5.13			292	191	216	62	13.6	16.4	1400	20,300
		5.13		351	193	259	74	16.4	19.7		
	4.11			365	201	270	77	17.0	20.5		
			5.13	400	220	295	85	18.6	22.5		
35	5.13			292	180	241	84	18.6	22.4	1150	16,675
		5.13		351	216	290	101	22.3	26.8		
	4.11			365	225	301	105	23.2	27.9		
38	5.13			292	185	248	99	21.9	26.4	1000	14,500
		5.13		351	222	297	119	26.3	31.6		
	4.11			365	231	309	124	27.3	32.9		
40	5.13			292	184	247	110	24.2	29.2	900	13,050
		5.13		351	221	296	132	29.1	35.0		
	4.11			365	230	308	138	30.3	36.5		
45	5.13			292	181	243	140	30.7	37.0	700	10,150
		5.13		351	218	292	167	36.8	44.4		
	4.11			365	226	303	174	38.3	46.2		
50	5.13			292	182	244	172	37.9	45.6	570	8,265
		5.13		351	219	293	207	45.5	54.8		
	4.11			365	227	305	215	47.3	57.0		
55	5.13			292	182	244	208	45.9	55.2	470	6,815
		5.13		351	218	293	250	55.0	66.3		
	4.11			365	227	304	260	57.2	69.0		
60	5.13			292	184	247	248	54.6	65.7	400	5,800
		5.13		351	221	296	298	65.5	78.9		
	4.11			365	230	308	310	68.1	82.1		
65	5.13			292	186	250	291	64.0	77.1	345	5,003
		5.13		351	224	300	349	76.8	92.6		
	4.11			365	233	312	363	79.9	96.3		
70	5.13			292	182	244	338	74.3	89.5	290	4,205
		5.13		351	218	292	405	89.1	107.4		
	4.11			365	227	304	421	92.7	111.7		
75	5.13			292	180	241	388	85.3	102.7	250	3,625
		5.13		351	216	289	465	102.3	123.3		
	4.11			365	225	301	484	106.4	128.2		

Additional Notes. 1. Flowrates indicated are swept volume & will reduce by approximately 5% at full pressure
 2. Other gear ratios are available for specific applications, consult Hughes Pumps Ltd 3. Pump stroke 100mm

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In line with the Company's policy of research and development, alterations in design, dimensions and appearance are incorporated from time to time in order to ensure that important developments are included at the earliest opportunity. The Company, therefore, reserves the right to alter design, dimensions etc without notice.