

HPS1000

High Pressure Triplex Pump



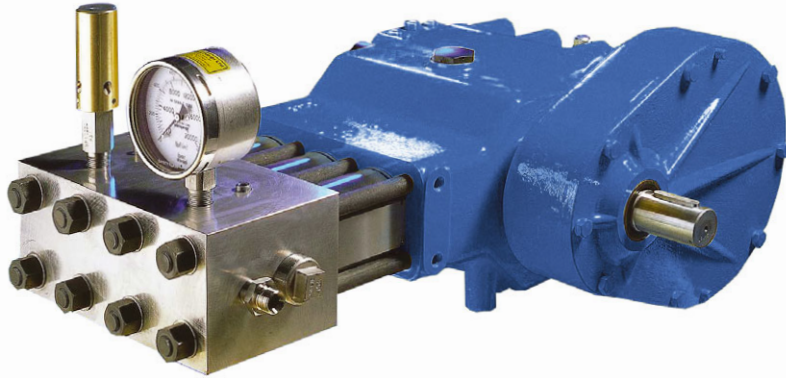
Water Jetting Solutions

Features

- 431 stainless steel pump head
- Solid ceramic plungers & self adjusting seals
- Interchangeable plunger kits
- Hardened, alloy steel crankshaft with heavy duty roller and 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 steel pump head for seawater applications
- Choice of gear ratio to suit diesel engine or electric motor drive
- SAE adaptor housings (SAE 2 or 3) for flange mounting the pump to a diesel engine flywheel housing or electric motor
- Available without gearbox for low speed direct drive
- Bareshaft pump only or complete unit build



Maximum Flowrate	185 lpm at 220 bar (40.6 igpm / 49.0 usgpm at 3,190 psi)
Maximum Pressure	1400 bar at 30 lpm (20,300 psi at 6.5 igpm / 7.8 usgpm)
Maximum Power	75 kW (100hp)

See overleaf for performance options

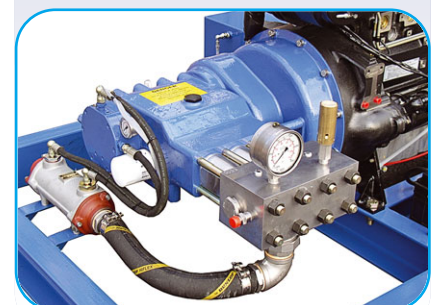
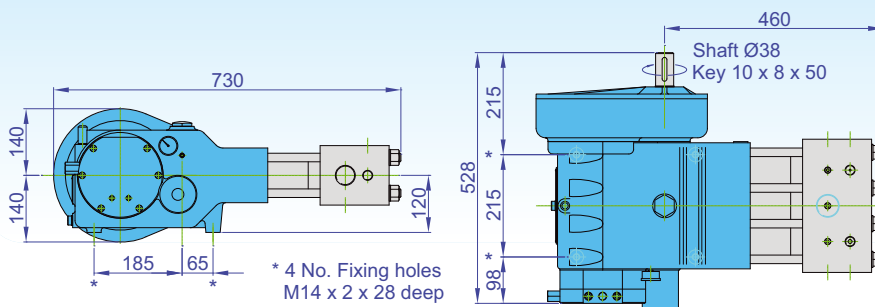
A robust design, the HPS1000 has a specification producing a heavy duty capability for dealing with the more difficult problems in industry.

The close coupled, gear driven power end has pressure lubrication, filtration and oil cooling. SAE adaptor housings are 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 - 230 kg (with gearbox)



HPS1000 with SAE engine adaptor

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Plunger Diameter mm	Gear ratio Input Speed (rpm)			Pump Speed rpm	Power Required		Nominal Flowrate			Max Pressure	
	1500	1800	2000		kW	HP	lpm	igpm	usgpm	bar	psi
20	4.00			375	55	74	21	4.7	5.6	1400	20,300
	3.45			435	64	86	25	5.4	6.5		
		4.00		450	66	89	25	5.6	6.8		
			4.00	500	74	99	28	6.2	7.5		
		3.45		522	77	103	30	6.5	7.8		
22	2.87			523	77	103	30	6.5	7.8	1000	14,500
	4.00			375	48	64	26	5.6	6.8		
	3.45			435	55	74	30	6.5	7.9		
		4.00		450	57	77	31	6.8	8.2		
			4.00	500	63	85	34	7.5	9.1		
25	2.87			522	66	89	36	7.9	9.5	900	13,050
	4.00			375	55	74	33	7.3	8.8		
	3.45			435	64	86	38	8.5	10.2		
		4.00		450	66	89	40	8.8	10.5		
			4.00	500	74	99	44	9.7	11.7		
28	2.87			522	77	103	46	10.1	12.2	700	10,150
	4.00			375	54	72	42	9.1	11.0		
	3.45			435	63	84	48	10.6	12.8		
		4.00		450	65	87	50	11.0	13.2		
			4.00	500	72	97	55	12.2	14.7		
30	2.87			522	75	101	58	12.7	15.3	600	8,700
	4.00			375	53	71	48	10.5	12.6		
	3.45			435	62	83	55	12.2	14.7		
		4.00		450	64	85	57	12.6	15.2		
			4.00	500	71	95	64	14.0	16.9		
35	2.87			522	74	99	66	14.6	17.6	450	6,525
	4.00			375	54	73	65	14.3	17.2		
	3.45			435	63	84	75	16.6	20.0		
		4.00		450	65	87	78	17.1	20.7		
			4.00	500	72	97	87	19.0	23.0		
40	2.87			522	75	101	90	19.9	23.9	350	5,075
	4.00			375	55	74	85	18.7	22.5		
	3.45			435	64	86	98	21.6	26.1		
		4.00		450	66	89	102	22.4	27.0		
			4.00	500	73	99	113	24.9	30.0		
45	2.87			522	77	103	118	26.0	31.3	270	3,915
	4.00			375	54	72	107	23.6	28.4		
	3.45			435	62	84	124	27.4	33.0		
		4.00		450	65	87	129	28.3	34.1		
			4.00	500	72	96	143	31.5	37.9		
50	2.87			522	75	101	149	32.8	39.6	220	3,190
	4.00			375	54	73	133	29.2	35.1		
	3.45			435	63	84	154	33.8	40.7		
		4.00		450	65	87	159	35.0	42.1		
			4.00	500	72	97	177	38.9	46.8		
	3.45		522	75	101	184	40.6	48.9			
	2.87		523	75	101	185	40.6	49.0			

Additional Notes. 1. Flowrates indicated are swept volume & will be reduce by approximately 5% at full pressure
 2. Other gear ratios are available for specific applications, consult Hughes Pumps Ltd 3. Pump stroke 60mm

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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.