

HPS1000

High Pressure Triplex Pump



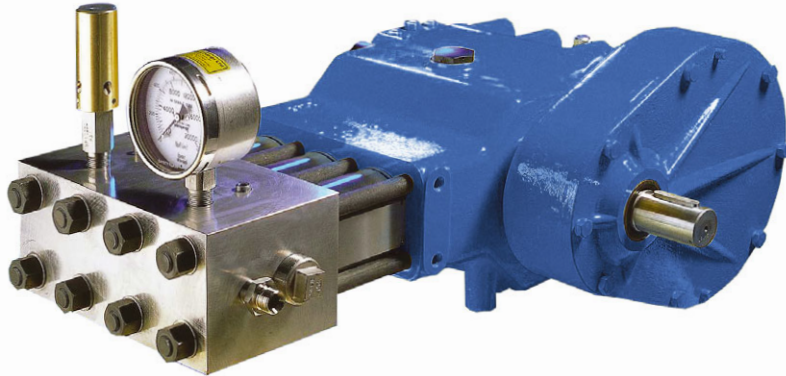
Water Jetting Solutions

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

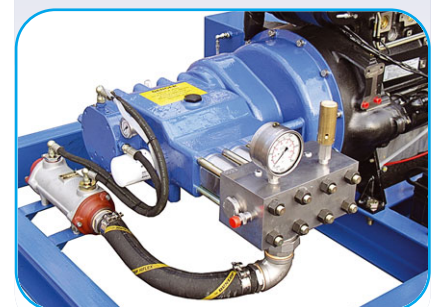
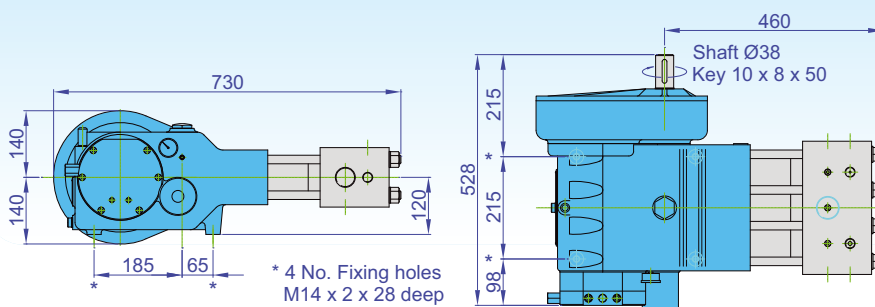
A robust design, the HPS1000 has a specification producing a heavy duty capability for dealing with the more difficult problems in industry.

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
	3.67			409	60	81	23	5.1	6.1		
		4.00		450	66	89	25	5.6	6.8		
		3.67		490	72	97	28	6.1	7.4		
			4.00	500	74	99	28	6.2	7.5		
22	2.89			519	76	102	29	6.5	7.8	1000	14,500
	4.00			375	48	64	26	5.6	6.8		
	3.67			409	52	70	28	6.1	7.4		
		4.00		450	57	77	31	6.8	8.2		
		3.67		490	62	83	34	7.4	8.9		
25			4.00	500	63	85	34	7.5	9.1	900	13,050
	2.89			519	66	88	36	7.8	9.4		
	4.00			375	55	74	33	7.3	8.8		
	3.67			409	60	81	36	7.9	9.6		
		4.00		450	66	89	40	8.8	10.5		
28			4.00	490	72	97	43	9.5	11.5	700	10,150
			4.00	500	74	99	44	9.7	11.7		
	2.89			519	77	103	46	10.1	12.2		
	4.00			375	54	72	42	9.1	11.0		
	3.67			409	59	79	45	10.0	12.0		
30			4.00	450	65	87	50	11.0	13.2	600	8,700
			4.00	490	71	95	54	12.0	14.4		
			4.00	500	72	97	55	12.2	14.7		
	2.89			519	75	101	58	12.7	15.2		
	4.00			375	53	71	48	10.5	12.6		
35	3.67			409	58	78	52	11.4	13.8	450	6,525
		4.00		450	64	85	57	12.6	15.2		
		3.67		490	69	93	62	13.7	16.5		
			4.00	500	71	95	64	14.0	16.9		
	2.89			519	74	99	66	14.5	17.5		
40	4.00			375	54	73	65	14.3	17.2	350	5,075
	3.67			409	59	79	71	15.6	18.8		
		4.00		450	65	87	78	17.1	20.7		
		3.67		490	71	95	85	18.7	22.5		
			4.00	500	72	97	87	19.0	23.0		
45	2.89			519	75	101	90	19.8	23.8	270	3,915
	4.00			375	55	74	85	18.7	22.5		
	3.67			409	60	81	92	20.3	24.5		
		4.00		450	66	89	102	22.4	27.0		
		3.67		490	72	97	111	24.4	29.4		
50			4.00	500	73	99	113	24.9	30.0	220	3,190
			4.00	519	76	102	117	25.8	31.1		
	4.00			375	54	72	107	23.6	28.4		
	3.67			409	59	79	117	25.7	31.0		
		4.00		450	65	87	129	28.3	34.1		
50			4.00	490	70	94	140	30.9	37.2	220	3,190
			4.00	500	72	96	143	31.5	37.9		
	2.89			519	74	100	149	32.7	39.4		
	4.00			375	54	73	133	29.2	35.1		
	3.67			409	59	79	144	31.8	38.3		
50			4.00	450	65	87	159	35.0	42.1	220	3,190
			4.00	490	71	95	173	38.1	45.9		
			4.00	500	72	97	177	38.9	46.8		
	2.89			519	75	100	183	40.3	48.6		
			4.00	519	75	100	183	40.3	48.6		

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 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.