

HPS1000

High Pressure Triplex Pump



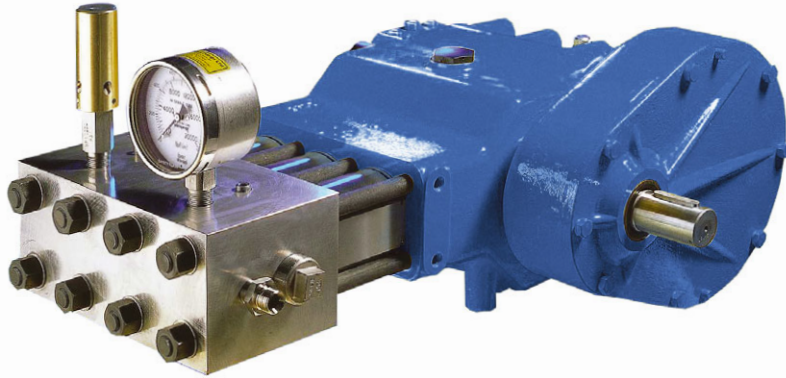
Water Jetting Solutions

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	177 lpm at 220 bar (38.9 igpm / 46.8 usgpm at 3,190 psi)
Maximum Pressure	1400 bar at 28 lpm (20,300 psi at 6.2 igpm / 7.5 usgpm)
Maximum Power	75 kW (100hp)

See overleaf for performance options

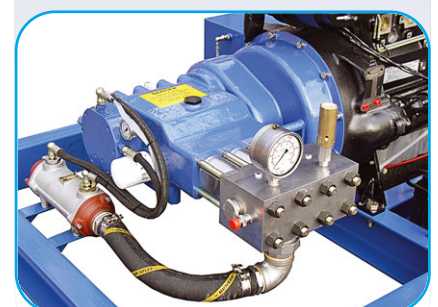
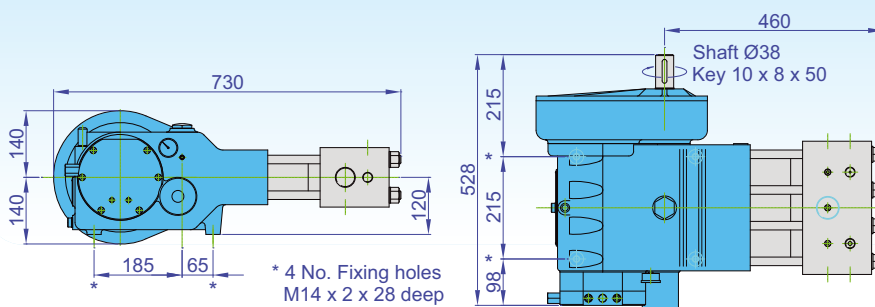
A robust design, the HPS1000 has a specification producing a heavy duty capability for dealing with the more difficult problems in industry.

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		
	3.12			481	70	94	27	6.0	7.2		
		3.67		490	72	97	28	6.1	7.4		
		4.00	500	74	99	28	6.2	7.5			
22	4.00			375	48	64	26	5.6	6.8	1000	14,500
	3.67			409	52	70	28	6.1	7.4		
		4.00		450	57	77	31	6.8	8.2		
	3.12			481	61	82	33	7.2	8.7		
		3.67		490	62	83	34	7.4	8.9		
		4.00	500	63	85	34	7.5	9.1			
25	4.00			375	55	74	33	7.3	8.8	900	13,050
	3.67			409	60	81	36	7.9	9.6		
		4.00		450	66	89	40	8.8	10.5		
	3.12			481	71	95	42	9.3	11.2		
		3.67		490	72	97	43	9.5	11.5		
		4.00	500	74	99	44	9.7	11.7			
28	4.00			375	54	72	42	9.1	11.0	700	10,150
	3.67			409	59	79	45	10.0	12.0		
		4.00		450	65	87	50	11.0	13.2		
	3.12			481	69	92	53	11.7	14.1		
		3.67		490	71	95	54	12.0	14.4		
		4.00	500	72	97	55	12.2	14.7			
30	4.00			375	53	71	48	10.5	12.6	600	8,700
	3.67			409	58	78	52	11.4	13.8		
		4.00		450	64	85	57	12.6	15.2		
	3.12			481	68	91	61	13.5	16.2		
		3.67		490	69	93	62	13.7	16.5		
		4.00	500	71	95	64	14.0	16.9			
35	4.00			375	54	73	65	14.3	17.2	450	6,525
	3.67			409	59	79	71	15.6	18.8		
		4.00		450	65	87	78	17.1	20.7		
	3.12			481	71	95	85	18.7	22.5		
		3.67		490	72	97	87	19.0	23.0		
		4.00	500	75	101	90	19.8	23.8			
40	4.00			375	55	74	85	18.7	22.5	350	5,075
	3.67			409	60	81	92	20.3	24.5		
		4.00		450	66	89	102	22.4	27.0		
	3.12			481	71	95	109	23.9	28.7		
		3.67		490	72	97	111	24.4	29.4		
		4.00	500	73	99	113	24.9	30.0			
45	4.00			375	54	72	107	23.6	28.4	270	3,915
	3.67			409	59	79	117	25.7	31.0		
		4.00		450	65	87	129	28.3	34.1		
	3.12			481	69	93	138	30.3	36.4		
		3.67		490	70	94	140	30.9	37.2		
		4.00	500	72	96	143	31.5	37.9			
50	4.00			375	54	73	133	29.2	35.1	220	3,190
	3.67			409	59	79	144	31.8	38.3		
		4.00		450	65	87	159	35.0	42.1		
	3.12			481	69	93	170	37.4	44.9		
		3.67		490	71	95	173	38.1	45.9		
		4.00	500	72	97	177	38.9	46.8			

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.