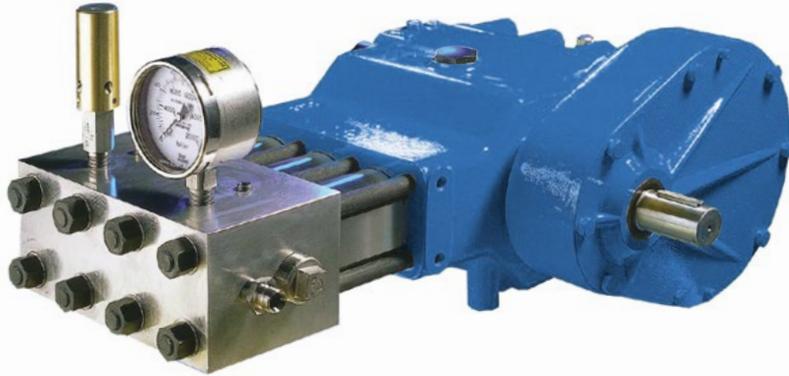


HPS1000

High Pressure Triplex Pump



High & Ultra High Pressure Technology



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

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.

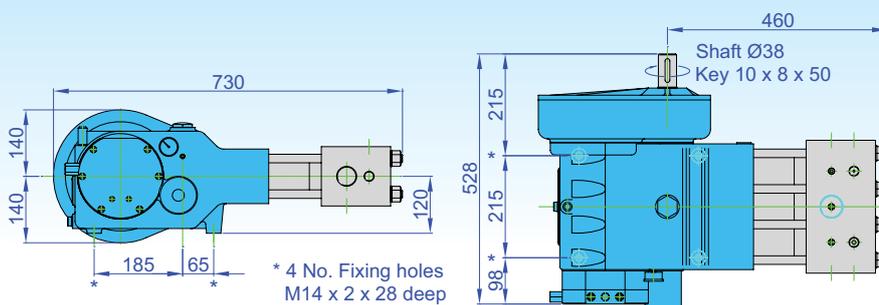
For maximum hydraulic efficiency, the in-line valve arrangement is designed to minimise the unswept volume and prevents the adverse effects of cyclic stress within the head block, while allowing all working components to be easily removed on site for service.

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

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
- ATEX compliant

- General Dimensions - typical pump build
- Approx weight - 230 kg (with gearbox)



HPS1000 with SAE engine adaptor

HPS1000

High Pressure Triplex Pump



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	71	95	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	57	77	26	5.6	6.8	1200	17,400
	3.67			409	62	83	28	6.1	7.4		
		4.00		450	69	92	31	6.8	8.2		
	3.12			481	73	98	33	7.2	8.7		
		3.67		490	75	100	34	7.4	8.9		
		4.00	500	76	102	34	7.5	9.1			
24	4.00			375	57	76	31	6.7	8.1	1000	14,500
	3.67			409	62	83	33	7.3	8.8		
		4.00		450	68	91	37	8.1	9.7		
	3.12			481	73	97	39	8.6	10.4		
		3.67		490	74	99	40	8.8	10.6		
		4.00	500	76	101	41	9.0	10.8			
26	4.00			375	55	74	36	7.9	9.5	830	12,035
	3.67			409	60	81	39	8.6	10.4		
		4.00		450	66	89	43	9.5	11.4		
	3.12			481	71	95	46	10.1	12.2		
		3.67		490	72	97	47	10.3	12.4		
		4.00	500	74	99	48	10.5	12.7			
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	93	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	58	77	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	70	93	83	18.3	22.1		
		3.67		490	71	95	85	18.7	22.5		
		4.00	500	72	97	87	19.0	23.0			
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	28.8		
		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	92	138	30.3	36.5		
		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	45.0		
		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

Hughes Pumps Limited

Spring Gardens, Washington, West Sussex, RH20 3BS UK
 Tel: +44 (0) 1903 892358 Fax: +44(0) 1903 892062
 www.hughes-pumps.co.uk sales@hughes-pumps.co.uk



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.