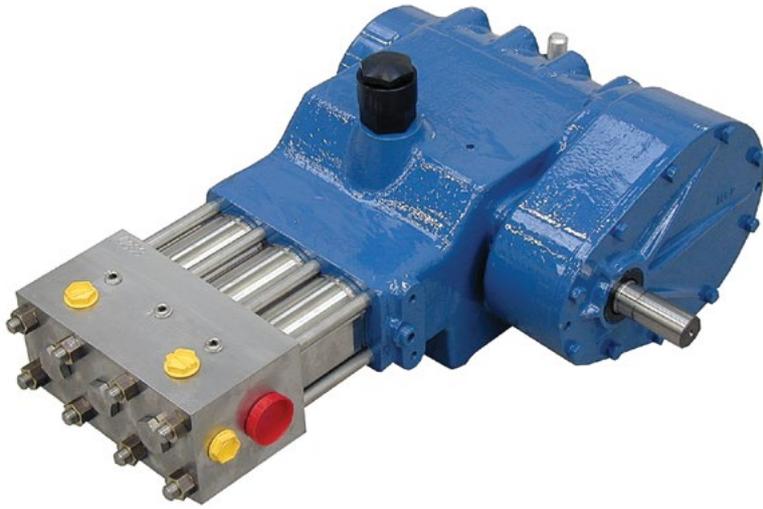


HPS 650

High Pressure Triplex Pump



High & Ultra High Pressure Technology



Upgraded performance

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 splash lubrication 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	103 lpm at 250 bar (22.6 igpm / 27.2 usgpm at 3,625 psi)
Maximum Pressure	1000 bar at 27 lpm (14,500 psi at 6.0 igpm / 7.2 usgpm)
Maximum Power	48 kW (65hp)

See overleaf for performance options

The versatile HPS650 model offers a wide range of flows and pressures and shares critical components with the HPS400 pump.

The close coupled, gear driven power end has splash lubrication 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.

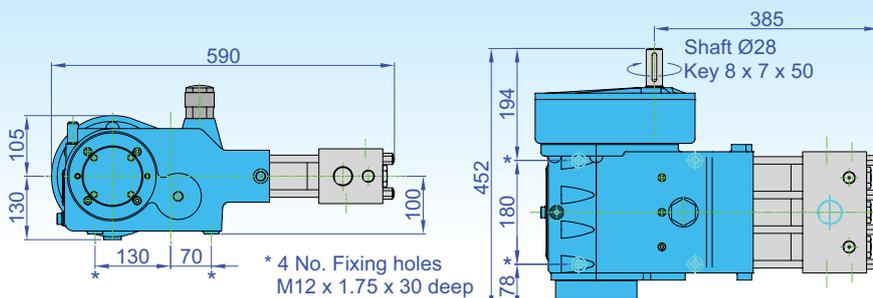
For maximum hydraulic efficiency, the in-line valve arrangement is designed to minimise the unswept volume and prevents the adverse effects of cyclic stress within the head block, while allowing all working components to be easily removed on site for service.

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 3, 4 or 5) for flange mounting the pump to a diesel engine flywheel housing or electric motor
- Available without gearbox for low speed direct drive
- 40mm stroke crankshaft for reduced flow/power
- Bareshaft pump only or complete unit build
- ATEX compliant

- General Dimensions - typical pump build
- Approx weight - 117 kg (with gearbox)



HPS650 with SAE engine adaptor

HPS 650

High Pressure Triplex Pump



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Plunger Diameter mm	Gear ratio Input Speed (rpm)			Pump Speed rpm	Power Required		Nominal Flowrate			Max Pressure	
	1500	1800	2100		kW	HP	lpm	igpm	usgpm	bar	psi
18	2.83			530	34	45	18	4.0	4.8	1000	14,500
		2.83		636	41	54	22	4.8	5.8		
	2.28			658	42	56	23	5.0	6.0		
			2.83	742	47	64	26	5.6	6.8		
	1.92			781	50	67	27	5.9	7.1		
	2.28		789	50	68	27	6.0	7.2			
20	2.83			530	33	45	22	4.9	6.0	800	11,600
		2.83		636	40	54	27	5.9	7.1		
	2.28			658	41	56	28	6.1	7.4		
			2.83	742	47	63	31	6.9	8.3		
	1.92			781	49	66	33	7.3	8.8		
	2.28		789	50	67	33	7.4	8.9			
22	2.83			530	33	44	27	6.0	7.2	650	9,425
		2.83		636	39	53	33	7.2	8.7		
	2.28			658	41	55	34	7.4	9.0		
			2.83	742	46	62	38	8.4	10.1		
	1.92			781	48	65	40	8.8	10.6		
	2.28		789	49	66	41	8.9	10.7			
25	2.83			530	33	44	35	7.7	9.3	500	7,250
		2.83		636	39	52	42	9.3	11.2		
	2.28			658	40	54	44	9.6	11.6		
			2.83	742	46	61	49	10.8	13.0		
	1.92			781	48	64	52	11.4	13.7		
	2.28		789	49	65	52	11.5	13.9			
28	2.83			530	33	44	44	9.7	11.7	400	5,800
		2.83		636	39	53	53	11.6	14.0		
	2.28			658	41	54	55	12.0	14.5		
			2.83	742	46	61	62	13.6	16.3		
	1.92			781	48	65	65	14.3	17.2		
	2.28		789	49	65	66	14.4	17.4			
30	2.83			530	33	44	51	11.1	13.4	350	5,075
		2.83		636	39	53	61	13.4	16.1		
	2.28			658	41	55	63	13.8	16.6		
			2.83	742	46	62	71	15.6	18.8		
	1.92			781	48	65	75	16.4	19.8		
	2.28		789	49	66	75	16.6	20.0			
35	2.83			530	32	43	69	15.1	18.2	250	3,625
		2.83		636	38	51	83	18.2	21.9		
	2.28			658	40	53	85	18.8	22.6		
			2.83	742	45	60	96	21.2	25.5		
	1.92			781	47	63	101	22.3	26.9		
	2.28		789	48	64	103	22.6	27.2			

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, including input speed up to 2700 rpm. Consult Hughes Pumps Ltd 3. Pump stroke 45mm

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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.