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.

### 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
- ATEX compliant

### Specifications

| 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

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

* HPS1000 with SAE engine adaptor
## HPS1000
High Pressure Triplex Pump

### Plunger Diameter mm

<table>
<thead>
<tr>
<th>Plunger Diameter mm</th>
<th>Gear ratio Input Speed (rpm)</th>
<th>Pump Speed rpm</th>
<th>Power Required kW</th>
<th>Nominal Flowrate lpm</th>
<th>Max Pressure psi</th>
<th>Nominal Flowrate gpm</th>
<th>Nominal Flowrate USGPM</th>
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### Additional Notes:
1. Flowrates indicated are swept volume Q will reduce by approximately 5% at full pressure.
2. Other gear ratios are available for specific applications, consult Hughes Pumps Ltd.
3. Pump stroke 50mm.

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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.