Goulds LF 3171
Low Flow, High Head Vertical Sump Pump
LF 3171

Goulds Model LF 3171
Low Flow – High Head Vertical Sump Pump

- Capacities to 50m³/hr / 220 GPM
- Heads to 290 m / 950 ft.
- Temperatures to 232°C / 450°F
- Pit Depths to 6 m / 20 ft.

Design Features

- Self-Priming
- Rugged Double Row Thrust Bearing
- Heavy Duty One-Piece Shaft
- External Impeller Adjustment
- Concentric (Circular) Casing
- Radial Impeller
- Sealless Design
- Optional Vapor Proof Construction
- Available in a wide range of Alloys

Services

- General Sump
- Lift Pump
- Tank Unloading
- Condensate
- Drum Pump
- Drain Pump
- Hydrocarbons / Oily Water
- Molten Sulfur
- Batch & Specialty Chemicals Sumps

The LF3171 is specifically designed to provide superior performance for low flow high head sump applications. Its concentric (circular volute) casing and open radial vane impeller are designed to eliminate hydraulic and mechanical problems at throttled low flows. Radial loads are reduced as much as 85% versus standard volutes at low flows.
LF 3171 Vertical Sump and Process Pumps

Heavy Duty Design Features for a Wide Range of Services.

LABYRINTH BEARING SEAL
Prevents premature bearing failure due to lubricant contamination.

C-FACE MOTOR MOUNTING
Accommodates readily available C-face motors. Also available for P-base and IEC motors.

CONTINUOUS HIGH PERFORMANCE
Original high efficiency maintained by simple external adjustment resulting in long-term energy savings.

DOUBLE ROW THRUST BEARING
Grease lubricated – carries pump thrust load, sealed for outdoor installation.

DISCHARGE LOCKED TO PUMP SUPPORT PLATE FOR STRENGTH

ANY MOUNTING REQUIREMENTS
Met by support plate and optional pit cover. Float switches, alternators and other control devices can be easily mounted.

STEADY BEARING HOUSING
Precision machined register fit of column, bearing housing and casing assures positive bearing and shaft alignment. Completely interchangeable with all lineshaft bearing options.

HEAVY DUTY ONE-PIECE SHAFT
With closely spaced steady bearings assures long life and low maintenance.

CIRCULAR VOLUTE CASING
Reduce radial loads. Fully machined discharge and volute provide maximum efficiency and precise control of hydraulics at low flows.

OPTIONAL UPPER STUFFING BOX

HEAVY COLUMN PIPE
Provides rigid support for pump and bearings.

LINESHAFT STEADY BEARING
Self-lubricating carbon / graphite bearing furnished as standard – best for handling water, corrosives, solvents and high temperature liquids.

RESTRICTOR BUSHING
Close running bushing to prevent pressure loss from casing.

RADIAL VANE IMPELLER
Open radial design produces high head at low flow with reduced pulsation, vibration and vane stress. Full shroud for superior vane strength when operating at low flows. Balance holes reduce thrust.

OPTIONAL STRAINER
Recommended for services where solids larger than the discharge of the pump can potentially enter the casing.
Hydraulic Coverage

3171 family of pumps

<table>
<thead>
<tr>
<th>Pump Type</th>
<th>Goulds Model</th>
<th>Capacity M³/Hr (GPM)</th>
<th>TDH Meters (Feet)</th>
<th>Temperature °C (°F)</th>
<th>Pit Depth Meters (Feet)</th>
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