

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 50m³hr / 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



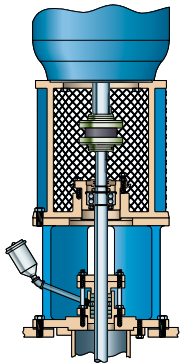
The LF3171 is specifically designed to provide superior performance for low flow flow high head sump applications. Its concentric (circular volute) casing and open radial vane impeller are designed to eliminate hydraulic and mechanical problems at throttled low flows. Radial loads are reduced as much 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.

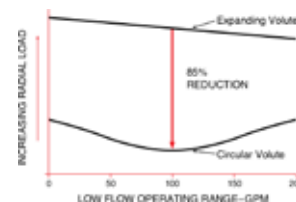
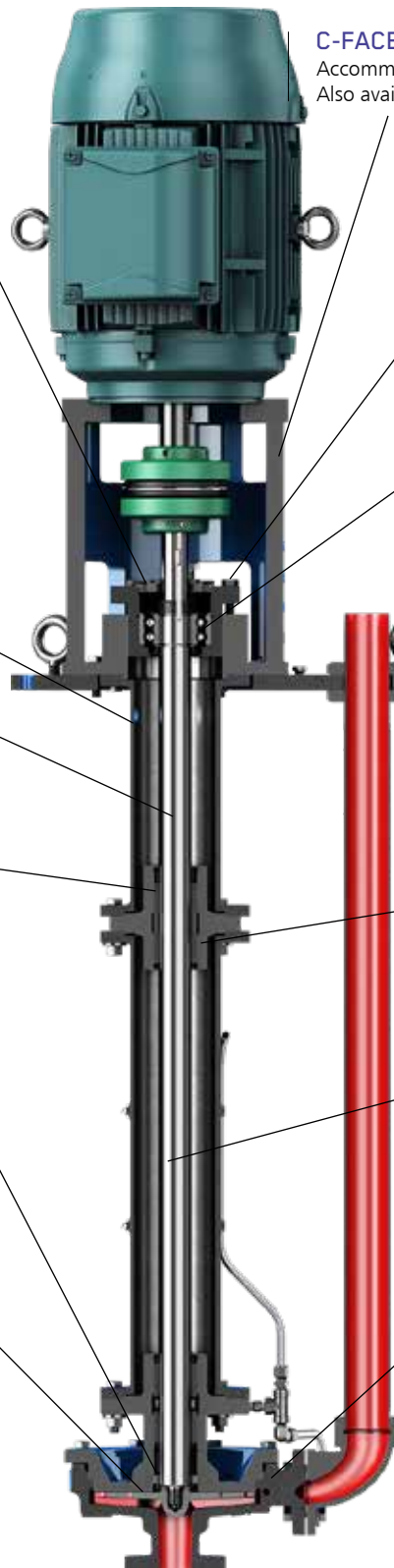
RADIAL VANE IMPELLER

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.

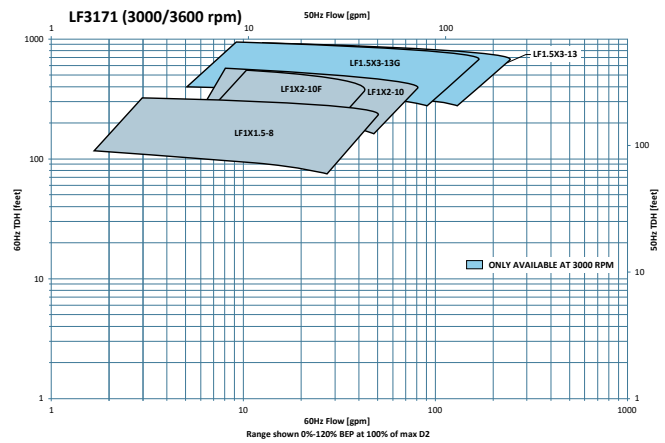
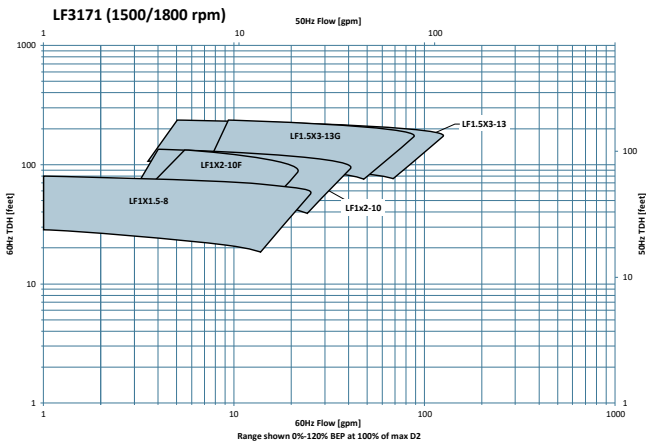


OPTIONAL STRAINER

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



Hydraulic Coverage



3171 family of pumps



Pump Type	Goulds Model	Capacity M ³ /Hr (GPM)	TDH Meters (Feet)	Temperature °C (°F)	Pit Depth Meters (Feet)
VS4	3171	722 (3180)	95 (344)	232 (450)	6 (20)
	API 3171	722 (3180)	160 (525)	232 (450)	6 (20)
	CV 3171	295 (1300)	126 (230)	232 (450)	6 (20)
	LF 3171	50 (220)	290 (950)	232 (450)	6 (20)
	NM 3171	284 (1250)	92 (300)	93 (200)	5 (16)



An ITT Brand

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