

Centrilift 538FLEXPump47 pump

Improve ESP performance
in dynamic well conditions

Expanding possibilities

The new Centrilift FLEXPump™ series multistage centrifugal pumps have the industry's highest efficiency and widest operating range, providing operators with the operational flexibility required in dynamic well conditions. The advanced-engineering hydraulic designs of the pump stages maximize production while extending electrical submersible pumping (ESP) system run life.

Improving operating range and efficiency

The 538FLEXPump47 pump, a model in the FLEXPump family, delivers unmatched performance for flow rates from 6,000 B/D to as low as 2,400 B/D. This hydraulically proficient mixed-flow design lowers the horsepower requirement over the entire flow range, producing higher efficiency than pumps from competitors.

Advancing innovations

The new design of the 538FLEXPump47 pump was developed using Computational Fluid Dynamic (CFD)

simulation software. The simulation work resulted in patent-pending design concepts, which reduce the thrust profile throughout the pump. This increases the operating range to the widest in the industry at this flow rate.

The new design concepts also include heavier vane and wall constructions to reduce pump wear over the life of the well. Mixed-flow stages, which have wider vane openings, improve the dependability of the pumps when solids are entrained in the production stream. For abrasive or scale-prone applications, the FLEXPump series of pumps are available in Stabilized Normal Duty (SND), Stabilized Heavy Duty (SHD), Stabilized Severe Duty (SSD), and Stabilized Xtreme Duty (SXD).

Contact Baker Hughes today or visit bakerhughes.com to learn more about how the FLEXPump series pumps deliver operational flexibility in dynamic well conditions.

Applications

- Conventional oil fields
- Unconventional oil and gas fields
- Horizontal or deviated wells
- Mature oil fields

Features and Benefits

- Patented-pending technology
 - Reduces thrust profile
- Higher pump efficiency
 - Reduces power costs
- Wider operating range
 - Expands operational flexibility in dynamic well conditions
- Advanced-engineering hydraulic design
 - Increases system run life by reducing thrust
- Heavier vane and wall construction
 - Decreases erosive wear
- Floater construction
 - Increases reliability in the event of high gas inflow

Specifications

538FLEXPump47 Pump

Series	538
OD, in (mm)	5.38 (136.65)
Standard stage alloy	Ni-Resist™
Stage geometry	Mixed flow
Flow range, bbl/d at 60 Hz (m³/d at 50 Hz)	2,400 to 6,000 (318 to 795)
Head per stage at BEP, ft at 60 Hz (m at 50 Hz)	50.3 (10.7)
Power per stage at BEP, bhp (kW at 50 Hz)	2.6 (1.12)
Efficiency at best efficiency point (BEP), %	71.3
Burst pressure, psi (kPa)	5,627 (38,797)
Standard housing alloys	Carbon steel and 9Cr-1Mo
Standard shaft alloys	Monel® and Inconel®
Shaft diameter, in (mm)	0.875 (22.225)
Abrasion resistant options	SND, SHD, SSD, SXD
Radial and axial bearing material	Tungsten carbide
Construction	Floater (No shimming required)

