

Extending operating range

The revolutionary Centrilift FLEXPump™ series multistage centrifugal pumps, offered by Baker Hughes, 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 pump design

The 538FLEXPump27 pump is a new model in the FLEXPump portfolio; it delivers unmatched performance for flow rates from 3,300 B/D to as low as 750 B/D (437 to 99 m3/d at 50 Hz). This hydraulically proficient mixed-flow design lowers the horsepower requirement over the entire flow range, producing higher efficiency than pumps from competitors.

The optimized mixed-flow path with the wide stage vane opening enables the operators to produce low flow rate wells with high challenging sand and gas content, in which the radial flow pump is less efficient and less durable.

To learn how the Centrilift 538FLEXPump27 pump can increase efficiency and reduce OPEX in wells in low-flow regimes, contact your Baker Hughes representative or visit bakerhugehs.com.

Applications

- · Low-flow regimes
- · Unconventional oil and gas fields
- · Conventional or mature oil fields
- · Horizontal or deviated wells
- · High-temperature and ultrahigh-temperature applications (CENtigrade™ elevated temperature production systems version)

Benefits

- · Reduces pump plugging, improves solids handling
- Enhances gas handling ability
- Offers wider operating range in extreme low-flow conditions
- Reduces OPEX and power costs via higher pump efficiency
- · Provides wider stage vane openings
- · Offers flexibility with extended range design

Specifications for 538FLEXPump 27 pump	
Series	538
Outer diameter (OD), in. (mm)	5.38 (136.65)
Standard stage alloy	Ni−Resist™
Stage geometry	Mixed-flow
Flow range, B/D at 60 Hz (m³/d at 50 Hz)	750-3,300 (99-437)
Head per stage at best efficiency point (BEP), ft at 60 Hz (m at 50 Hz)	59 (12.5)
Power per stage at BEP, bhp (kW at 50 Hz)	1.8 (0.75)
Efficiency at BEP, %	68
Burst pressure, psi (kPa)	5,627 (38,797)
Standard housing alloys	Carbon steel and 9Cr-1Mo
Standard shaft alloys	Inconel®
Shaft diameter, in. (mm)	0.875 (22.225)
Abrasion-resistant options	Stabilized severe duty (SSD), stabilized extreme duty (SXD), compression stabilized harsh duty (CSHD)
Radial and axial bearing material	Tungsten carbide
Construction	SSD, SXD, CSHD





