



FLEXPumpER extended range pump

Increase ESP system efficiency with exclusive pump design for unconventional oil wells

The **FLEXPumpER™ extended range pump** from Baker Hughes, a GE company (BHGE), provides an unmatched operating range for steep production declines. This pump is designed to expand the operating range of the **ProductionWave™ FLEXible production solution** for unconventional oil wells.

As unconventional production rates decline, operators typically switch out pumping units or artificial lift production methods. The FLEXPumpER pump eliminates this requirement with a flow range from 2,900 to 50 barrels per day—the industry's widest operating range for a single pump. The innovative stage design maximizes production while extending electrical submersible pumping (ESP) system run life.

Improving efficiency with ATM design

The production stream in unconventional oil plays typically contains high levels of gas entrained in the fluid. The advanced design of the FLEXPumpER pump stages features patent-pending advanced turbulence

mitigation (ATM) technology to increase pumping efficiency and reduce gas locking.

A redesigned bearing system allows the pump to withstand elevated temperatures generated during short-term operations with gas slugs. In addition to these features, particle swirl suppression ribs in the diffuser provide abrasion resistance by reducing the buildup of abrasives that can cause erosive wear.

This pump design expands the ESP system's operational flexibility for the duration of an unconventional oil well's production cycle. This pump operates more efficiently in a wider flow range to reduce operating costs, improve reliability, and optimize production in changing downhole conditions.

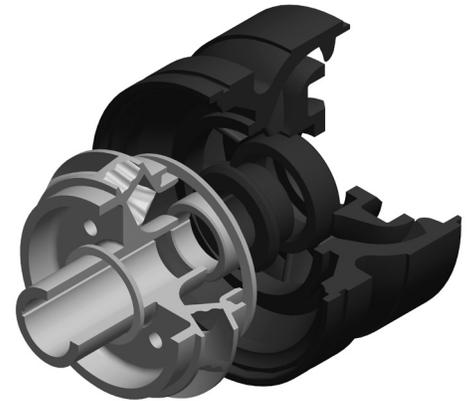
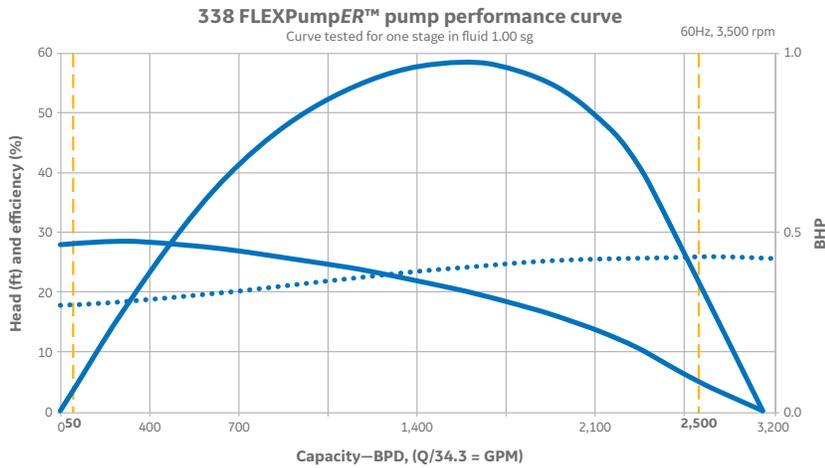
Contact your BHGE representative today or visit bhge.com to find out how the exclusive FLEXPumpER advanced turbulence mitigation technology and improved bearing system can increase ESP system efficiency, reduce costly workovers, and increase run life in unconventional oil wells with rapidly changing flow rates.

Applications

- Unconventional resource plays
- Wells with quickly changing flow rates, high gas/oil ratios (GOR), and high solids content

Benefits

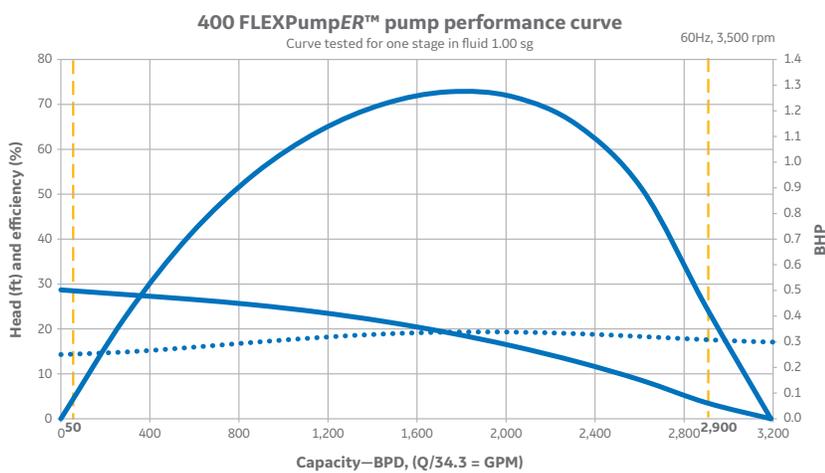
- Patent-pending ATM design
 - Improves hydraulic performance
 - Reduces pump plugging
 - Reduces gas locking
- Improved bearing system
 - Allows ESP system to withstand elevated temperatures during short-term operations with gas slugs
- Higher ESP system efficiency
 - Reduces OPEX
- Wide operating range
 - Adapts to changing well conditions
 - Enhances reliability
 - Reduces pulling costs
- Improved hydraulic thrust balancing
 - Increases reliability
- Mixed-flow design
 - Improves gas handling
 - Increases ESP uptime and production by reducing gas locking and well cycling



Patented technology

FLEXPumpER technology offers:

- Wider operating range
- Higher efficiency
- Longer run life



Specifications

	400 Series	338 Series
Stage material	Ni-resist	Ni-resist
Stage geometry	Mixed flow	Mixed flow
Abrasion resistance	SSD 1:4, SXD	SSD 1:4
Shaft diameter	11/16-in.	11/16-in.
Housing pressure	5,627 psi	5,850 psi
Minimum flow	50 B/D	50 B/D
Maximum flow	2,900 B/D	2,500 B/D
BEP head	19.5 ft	20.5 ft
BEP efficiency	74%	61.4%
BEP horsepower	0.38 BHP	0.38 BHP
Construction	Floating (no shimming required)	Floating (no shimming required)

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