

RC4000 REDA Continuum extended-life ESP pump

Improve lift, efficiency, and reliability in all oil wells

-  **Target production rate:**
3,500 to 7,000 bbl/d at 60 Hz
[560 to 1,120 m³/d at 50 Hz]
-  **Casing diameter:**
5½ in or larger

Where it is used

- Wells with casings 5½ in or larger
- Gassy production environments, including slug flow
- Abrasive production environments
- Reservoirs with uncertain productivity
- Wells with frequent stops and starts
- Wells with steep production decline
- Unconventional and tight reservoirs
- Conventional oil wells

How it improves wells

- Improves ESP system reliability
- Increases uptime and extends system run life
- Improves cash flow through accelerated production and continuous operation
- Reduces operating cost through superior hydraulic efficiency
- Enhances performance in gassy and abrasive applications
- Lowers total cost of ownership

How it works

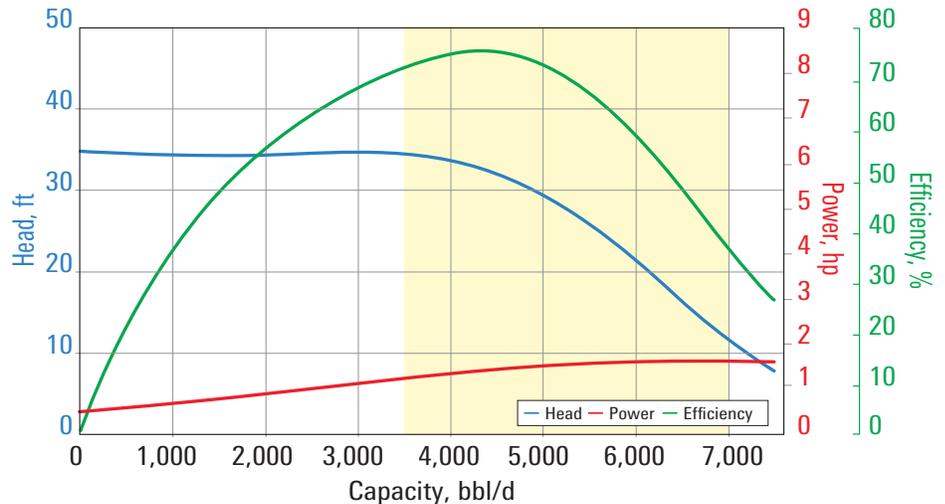
REDA Continuum* extended-life ESP pumps significantly improve lift, efficiency, lifetime, and power consumption in unconventional and conventional oil wells with very low flow rates, transient and slug flow, solids and abrasives, frequent stops and starts, and production uncertainty.

What it replaces

Conventional ESP pumps and early conversion to rod lift.

What else I should know

The latest generation of Continuum pumps has been fully redesigned, the culmination of four



RC4000 pump curve for 60 Hz with $sg = 1$.

RC4000 Pump Specifications

Best efficiency point (BEP)

Flow rate, bbl/d at 60 Hz [m ³ /d at 50 Hz]	4,310 [575]
Head per stage, ft at 60 Hz [m at 50 Hz]	32.83 [6.95]
Required power, hp [W]	1.39 [600]
Efficiency, %	75.17

General

OD, in [mm]	4.00 [101.6]
Stage geometry	Mixed flow
Recommended operating range, bbl/d at 60 Hz [m ³ /d at 50 Hz]	3,500 to 7,000 [560 to 1,120]
Burst pressure, psi [kPa]	6,000 [41,368]
Stage metallurgy	Ni-Resist [®] , 5530 alloy
Housing metallurgy	Carbon steel, Redalloy [®] premium alloy
Shaft diameter, in [mm]	0.87 [22.1]
Shaft material; rating at 60 Hz, hp	INCONEL [®] 718; 492
Shaft radial support options	ES-TT, [†] ARZ-TT, [†] FBH-TT [§]
Radial bearing material	Tungsten carbide
Pump construction	Enhanced compression design, factory-shimmed

[†] Enhanced stability option with tungsten carbide bushing.

[‡] ARZ abrasion-resistant zirconia bearing, tungsten carbide bushing, and sleeve.

[§] Full bearing housing and tungsten carbide bushing.

years of sustained improvement efforts involving analysis of thousands of pumps. For example, the newest pumps feature advanced tungsten carbide radial bearing design that prevents sand jams and bearing spinning, which reduces vibrations and significantly improves sand and gas handling.

Continuum pumps perform across a wider operating range as compared with conventional ESP pumps. The result is extended lifetime as production declines, which reduces opex and capex for replacement and alternative artificial lift solutions.