

D1700N ESP pump

High-efficiency mixed-flow design



Casing diameter:
5½ in or larger



Target production rate:
600–2,650 bbl/d at 60 Hz
[75–350 m³/d at 50 Hz]

Where it is used

- Conventional offshore and land wells
- Gassy production
- Abrasive or sandy production
- High-temperature environments

How it improves wells

- Improves reliability with engineering improvements that manage downthrust and improve radial stability
- Reduces operating costs with high pump efficiency
- Increases production by maximizing uptime
- Lowers total cost of ownership
- Shorter pump length (up to 40% less pump required than DN1750)
- Increases lift per stage

How it works

Proprietary fluid modeling software and stage redesign have been used to create the industry's most advanced mixed-flow ESP stage. The D1700N can handle a wide range of flow rates for 400 Series REDA* ESP pumps with an increased efficiency across the entire envelope.

The drastically increased head per stage enables using a shorter pump length, reducing total cost of ownership. The D1700N is the ideal solution for wells with 5.5-in casing or larger and target production from 600 to 2,650 bbl/d at 60 Hz.

What it replaces

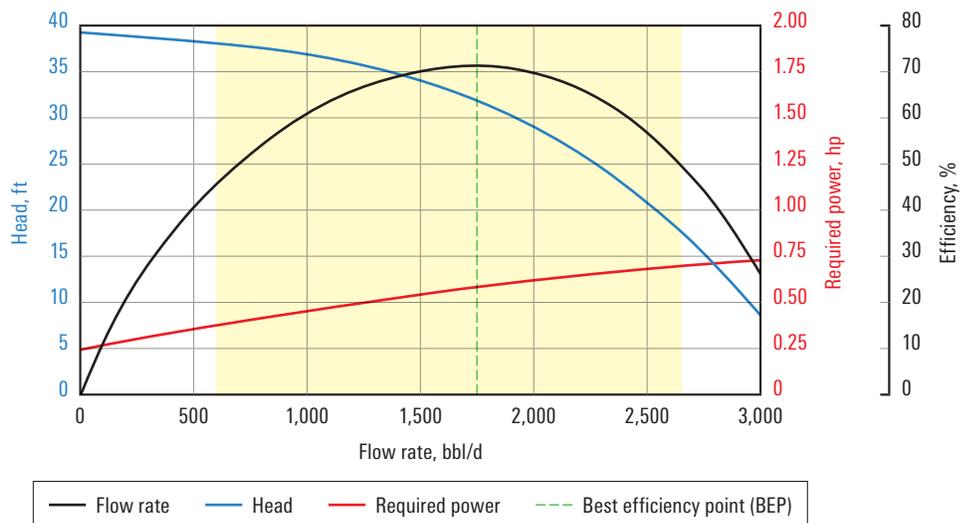
The D1700N offers a step change for customers in the industry's most common ESP operating profile with improvements to system reliability, production flexibility, and operating expenditure that have remained unchanged for 40 years.

Designed to further improve on the unparalleled DN1750 performance and track record, this new pump is an enhanced-compression construction

and factory shimmed. A high-strength shaft, improved downthrust handling, and REDA Gard* submersible pump stage design for abrasives handling increase the reliability of the ESP.

What else I should know

- Partial enhanced compression design (eCD)
- Mixed-flow design
- Wide operating range
- Abrasion-resistant bearing configurations



D1700N ESP Pump Specifications

Best efficiency point (BEP)

Flow rate, bbl/d at 60 Hz [m³/d at 50 Hz]	1,739 [232]
Head per stage, ft at 60 Hz [m at 50 Hz]	31.89 [22.14]
Required power, hp [W]	0.58 [433]
Efficiency, %	71

General

OD, in [mm]	4.00 [101.6]
Stage geometry	Mixed flow
Recommended operating range, bbl/d at 60 Hz [m³/d at 50 Hz]	600–2,650 [75–350]
Burst pressure, psi [kPa]	6,000 [41,368]
Stage metallurgy	Ni-Resist® or 5530 high-nickel, corrosion-resistant alloy
Housing metallurgy	Carbon steel, Redalloy® high-nickel alloy
Shaft material	High-strength MONEL® or INCONEL® 718
Radial bearing material	Tungsten carbide
Pump construction	Compression design, factory shimmed