### D1700N ESP pump

**High-efficiency mixed-flow design**

**Casing diameter:** 5 1/2 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

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**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

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