S1500N ESP pump

High-reliability pump, reinforced to improve ESP performance in sandy environments

Casing diameter: 7 in or larger

Target production rate: 800–2,350 bbl/d at 60 Hz
[106–305 m³/d at 50 Hz]

Applications
- Conventional offshore and land wells
- Abrasive or sandy production

How it improves wells
Improves ESP performance and lifetime in sandy environments

How it works
The S1500N pump has a modified compression design that reduces risk of sand erosion and ensures a smoother flow transition at a key area of flow passage. This eliminates the performance losses common for conventional pumps in conditions that promote sand production.

What it replaces
Conventional ESP pumps

Additional information
From simplifying installation to meeting temperature and viscosity demands, Schlumberger has the right ESP for conventional, unconventional, high-temperature, intervention-constrained, and offshore requirements. Maximize production, increase run life, and ultimately reduce system life cycle costs with a selection of fit-for-purpose ESP systems.

Access to Schlumberger engineering expertise further optimizes ESP well performance. Conveniently located assembly, repair, and testing centers provide quick delivery and assistance in all major oil and gas operating areas. Artificial Lift Surveillance Centers monitor alarms 24/7/365 for rapid diagnostics, recommendations, and troubleshooting.

S1500N Pump Specifications

Best efficiency point (BEP)
- Flow rate, bbl/d at 60 Hz: 1,718
- Head per stage, ft at 60 Hz: 54.22
- Required power, hp: 1.22
- Efficiency, %: 56.26

General
- OD, in [mm]: 5.38 [136]
- Stage geometry: Mixed flow
- Recommended operating range, bbl/d at 60 Hz [m³/d at 50 Hz]: 800–2,300 [106–305]
- Burst pressure, psi [kPa]: 6,000 [41,368]
- Stage metallurgy: Ni-Resist® or 5530 high-nickel, corrosion-resistant alloy

Housing metallurgy: Carbon steel or Redalloy® premium alloy

Shaft diameter, in [mm]: 0.87 [22]

Shaft material rating at 60 Hz, hp: 410 (INCONEL® 718)

Shaft radial support option: ARZ abrasion-resistant zirconia bearing; tungsten carbide bushing and sleeve

Radial bearing material: Tungsten carbide

Pump construction: Modified compression design, factory shimmed

S1500N pump performance curve at 60 Hz with sg=1.

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