Schlumberger

GN2100 high-efficiency REDA ESP pump

Improve lift, efficiency, and reliability in oil wells

Target production rate:
1,650 to 2,700 bbl/d at 60 Hz
[218 to 358 m^3/d at 50 Hz]

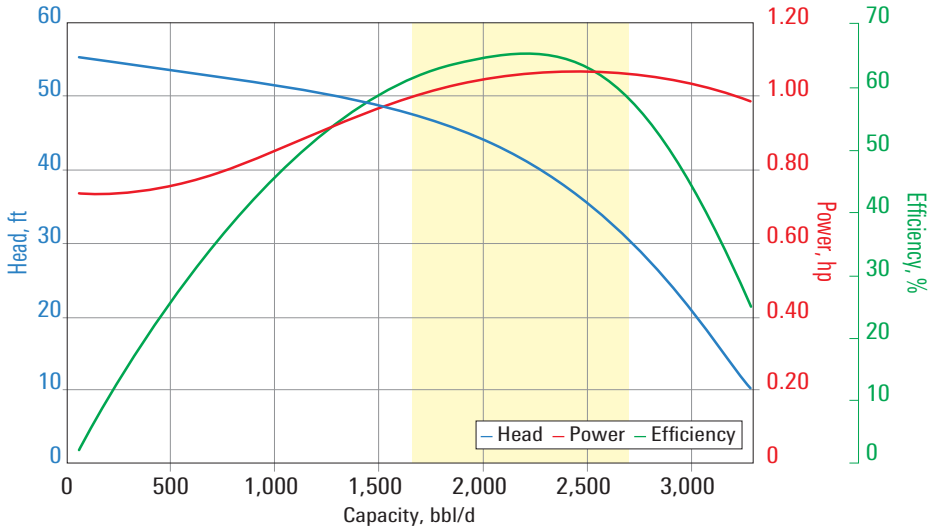
Casing diameter:
6⅝ in or larger

Benefits

- Reduces power consumption with high-efficiency design
- Improves reliability and extends system run life in abrasive applications

Features

- Application flexibility to accommodate production rates from 1,650 to 2,700 bbl/d at 60 Hz [218 to 358 m^3/d at 50 Hz]
- Compression pump with factory shimming
- Optimized hydraulic designs based on computational fluid dynamics (CFD)
- High-strength MONEL® and INCONEL® shafts
- Patented abrasion-resistant bearing configuration for reliability in sandy wells and other demanding applications
- Compliant-mounted radial bearing systems that minimize vibration and wear
- Availability of corrosion-resistant coatings and stainless steel construction for wells with H_2S, CO_2, or other corrosive elements
- Availability of thermally compensated pumps that enable high-temperature operations



GN2100 pump curve for 60 Hz with sg = 1.

GN2100 Pump Specifications	
Best efficiency point (BEP)	
Flow rate, bbl/d at 60 Hz [m^3/d at 50 Hz]	2,200 [291.6]
Head per stage, ft at 60 Hz [m at 50 Hz]	41.72 [8.83]
Required power, hp at 60 Hz [hp at 50 Hz]	1.07 [0.62]
Efficiency, %	63.37
General	
OD, in [mm]	5.13 [130.3]
Stage geometry	Radial flow
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,† ARZ‡
Pump construction	Enhanced compression design, factory-shimmed

† Enhanced stability option with tungsten carbide bushing.
‡ ARZ abrasion-resistant zirconia bearing, tungsten carbide bushing, and sleeve.
All specifications are subject to change without notice.

Additional information

Factory-shimmed high-strength shafts increase pump reliability. Factory shimming enables precise shaft setting to match REDA* Maximus* install-ready ESP motors and protectors and reduce installation time by at least 60%.

The patented ARZ abrasion-resistant tungsten carbide bearings and compression-ring construction provide advanced radial stability even in the most challenging conditions, minimizing vibration, ensuring smooth operation, and reducing wear. The compliant-mounted bearings repeatedly show less wear in tests and actual field performance over a wide range of well conditions as compared with alternative bearing materials.