

M520A high-efficiency REDA ESP pump

Improve lift, efficiency, and reliability in wells



Target production rate:
12,000 to 24,000 bbl/d at 60 Hz
[1,590 to 3,180 m³/d at 50 Hz]



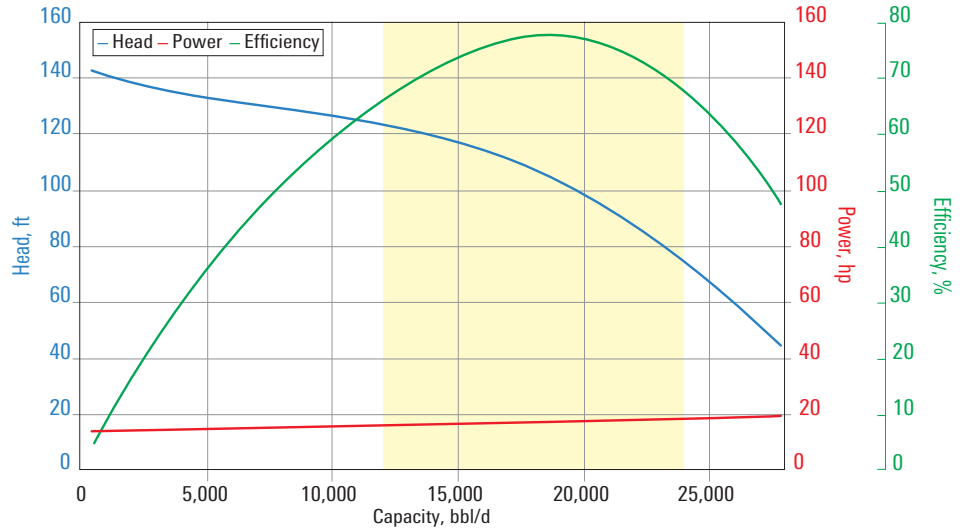
Casing diameter:
10¾ in or larger

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 of 12,000 to 24,000 bbl/d at 60 Hz [1,590 to 3,180 m³/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 H₂S, CO₂, or other corrosive elements
- Availability of thermally compensated pumps that enable high-temperature operations



M520A pump curve for 60 Hz with $sg = 1$.

M520A Pump Specifications

Best efficiency point (BEP)

Flow rate, bbl/d at 60 Hz [m ³ /d at 50 Hz]	18,670 [2,473.8]
Head per stage, ft at 60 Hz [m at 50 Hz]	104.81 [22.19]
Required power, hp at 60 Hz [hp at 50 Hz]	18.64 [10.79]
Efficiency, %	77.30

General

OD, in [mm]	8.62 [218.9]
Stage geometry	Mixed flow
Stage metallurgy	Ni-Resist®, 5530 alloy
Housing metallurgy	Carbon steel, Redalloy* premium alloy
Shaft diameter, in [mm]	1.37 [34.8]
Shaft material; rating at 60 Hz, hp	INCONEL 718; 1,536
Shaft radial support options	ES, [†] ARZ, [‡] FBH [§]
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.

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.