



SpiroStar Supreme™



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FlexStar™

### Rotor Dimensional Data

Length	196.30 in (4,986 mm)
Contour Length	188.11 in (4,777 mm)
Major Diameter	5.432 in (137.97 mm)
Eccentricity	0.234 in (5.94 mm)
Head Diameter	5.485 in (139.31 mm)
Weight	875 lbs (397 kg)
Material/Strength	17-4 PH / 150 ksi (1,034 Mpa)

### Fits (in) (+ Compression / - Loose)

Size	Minor <sup>1</sup>	75° F	150° F	225° F	300° F	375° F
STD	4.583	0.005	0.013	0.020	0.027	0.035
OS	-	-	-	-	-	-
20S	-	-	-	-	-	-

### Power Section Specifications

Flow Range	400 - 900 gpm (1,514 - 3,407 lpm)
Speed Ratio	0.16 rev/gal (0.042 rev/l)
No Load Bit Speed	64 - 144rpm
No Load Pressure Drop	500 psi (32.75 bar)

### Stator Dimensional Data

Length	223.20 in (5,669 mm)
Tube OD	8.000 in (203.20 mm)
Tube ID	6.252 in (158.80 mm)
Rubber Cutback Top	8.00 in (203 mm)
Rubber Cutback Bottom	28.00 in (711.20 mm)
Weight	1,285 lbs (583 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

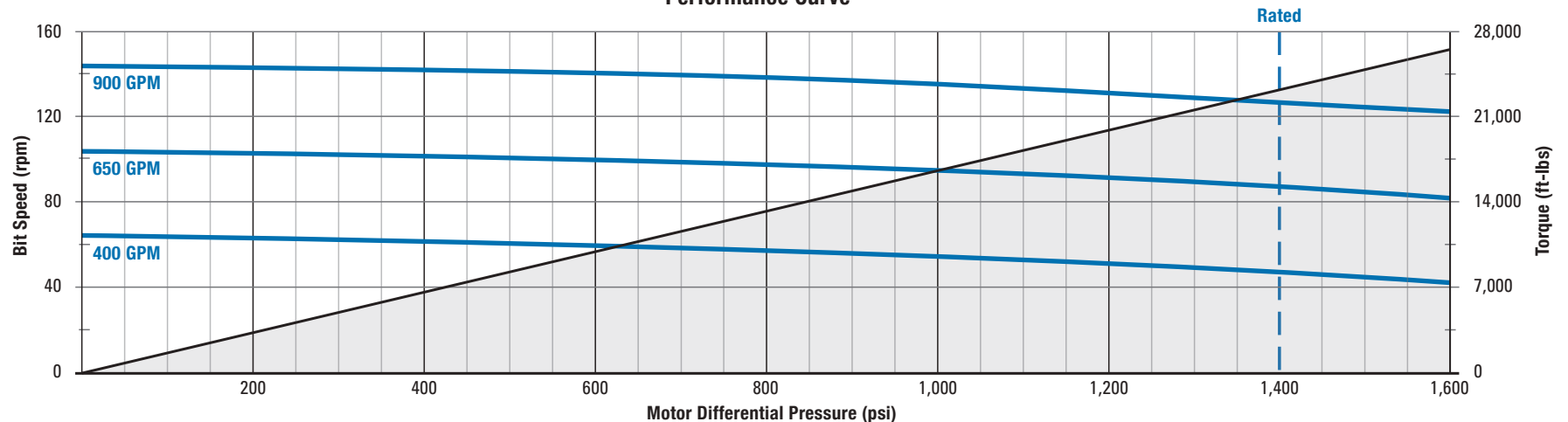
### Fits (mm) (+ Compression / - Loose)

Size	Minor <sup>1</sup>	25° C	65° C	110° C	150° C	190° C
STD	116.40	0.127	0.300	0.495	0.667	0.841
OS	-	-	-	-	-	-
20S	-	-	-	-	-	-

Lobes: 7/8

Max Recommended Pressure	1,400 psi (96.5 bar)
Torque Slope	16.5 ft-lbs/psi (325.25 Nm/bar)
Torque @ Max Recommended Pressure	23,156 ft-lbs (31,395 Nm)
Power @ Max Recommended Pressure	560 hp (418 kW)

### Performance Curve



Disclaimer: The Performance Curve and Performance Data published by BICO Drilling Tools are based on recorded dynamometer data at surface temperature (72 degF) on a standard fit configuration between rotor and stator, with clean water, and are presented as a reference to the potential power of the power section and or motor. Downhole conditions such as highly elevated bottom hole temperatures and different drilling/intervention fluids shall require adjusted loose fits that may produce reduced power during surface (dynamometer) testing and will achieve the expected torque and speed values when reaching planned conditions. Contact BICO for the adjusted performance curves.

Minor<sup>1</sup>: Nominal Vector Gauge reading of stator elastomer minor diameter at 72°F (22°C).