



SpiroStar Supreme™



SpiroStar™



FlexStar™

### Rotor Dimensional Data

Length	190.50 in (4,839 mm)
Contour Length	183.40 in (4,658 mm)
Major Diameter	4.328 in (109.93 mm)
Eccentricity	0.244 in (6.20 mm)
Head Diameter	4.50 in (114.30 mm)
Weight	605 lbs (275 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	3.846	-0.006	0.001	0.009	0.016	0.023
OS	-	-	-	-	-	-
2 OS	-	-	-	-	-	-

### Power Section Specifications

Flow Range	400 - 700 gpm (1,514 - 2,650 lpm)
Speed Ratio	0.18 rev/gal (0.048 rev/l)
No Load Bit Speed	72 - 126 rpm
No Load Pressure Drop	300 psi (20.68 bar)

### Stator Dimensional Data

Length	220.09 in (5,590 mm)
Tube OD	6.890 in (175.01 mm)
Tube ID	5.500 in (139.70 mm)
Rubber Cutback Top	8.00 in (177.80 mm)
Rubber Cutback Bottom	28.00 in (719.60 mm)
Weight	940 lbs (427 kg)
Material/Strength	4140 / 120 ksi (827 Mpa)

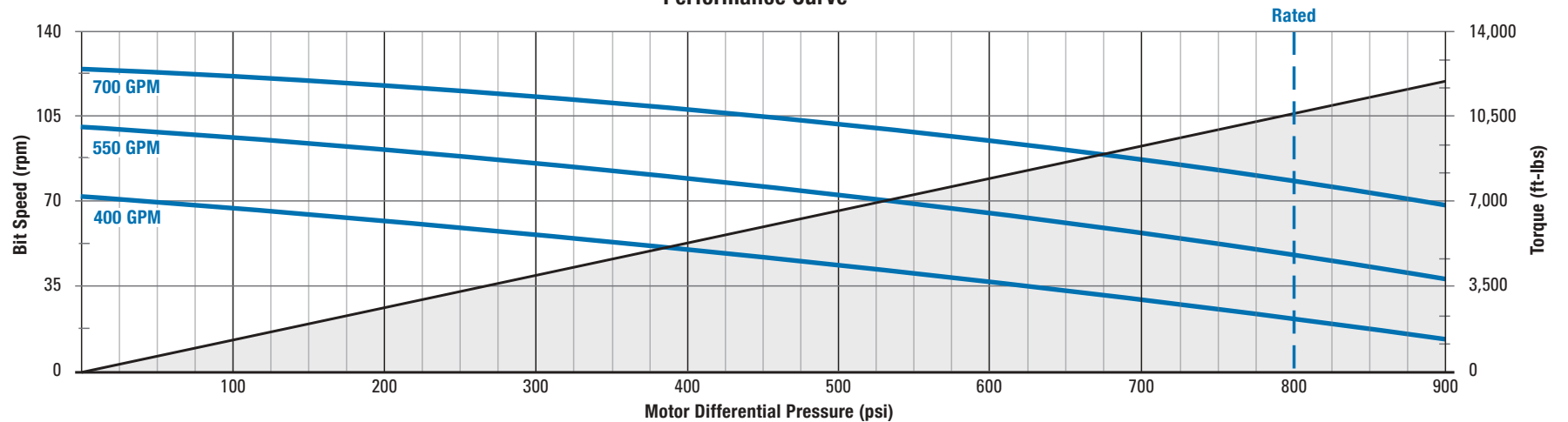
### Fits (mm) (+ Compression / - Loose)

Size	Minor <sup>1</sup>	25° C	65° C	110° C	150° C	190° C
STD	97.942	-0.152	0.026	0.229	0.407	0.585
OS	-	-	-	-	-	-
2 OS	-	-	-	-	-	-

Lobes: 7/8

Max Recommended Pressure	800 psi (55.2 bar)
Torque Slope	13.38 ft-lbs/psi (263.11 Nm/bar)
Torque @ Max Recommended Pressure	10,704 ft-lbs (14,512 Nm)
Power @ Max Recommended Pressure	155 hp (116 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).