



SpiroStar Supreme™



SpiroStar™



FlexStar™

### Rotor Dimensional Data

Length	53.20 in (1,351.28 mm)
Contour Length	50.50 in (1,283.20 mm)
Major Diameter	1.063 in (27 mm)
Eccentricity	0.076 in (1.93 mm)
Head Diameter	1.125 in (28.58 mm)
Weight	13 lbs (6 kg)
Material/Strength	17-4 / 100 ksi (689 Mpa)

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

Size	Minor <sup>1</sup>	75° F	150° F	225° F	300° F	375° F
STD	0.902	0.009	0.012	0.015	0.018	0.021
OS*	0.902	0.000	0.003	0.006	0.009	0.012
2OS**	0.902	-0.010	-0.007	-0.004	-0.001	0.002

\*US Rotor with STD Stator. \*\*2US Rotor with STD Stator.

### Power Section Specifications

Flow Range	20 - 40 gpm (76 - 151 lpm)
Speed Ratio	10.82 rev/gal (2.86 rev/l)
No Load Bit Speed	216 - 433 rpm
No Load Pressure Drop	300 psi (20.68 bar)

### Stator Dimensional Data

Length	57.52 in (1,461 mm)
Tube OD	1.685 in (42.80 mm)
Tube ID	1.287 in (32.69 mm)
Rubber Cutback Top	3.50 in (88.90 mm)
Rubber Cutback Bottom	3.50 in (88.90 mm)
Weight	15 lbs (7 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

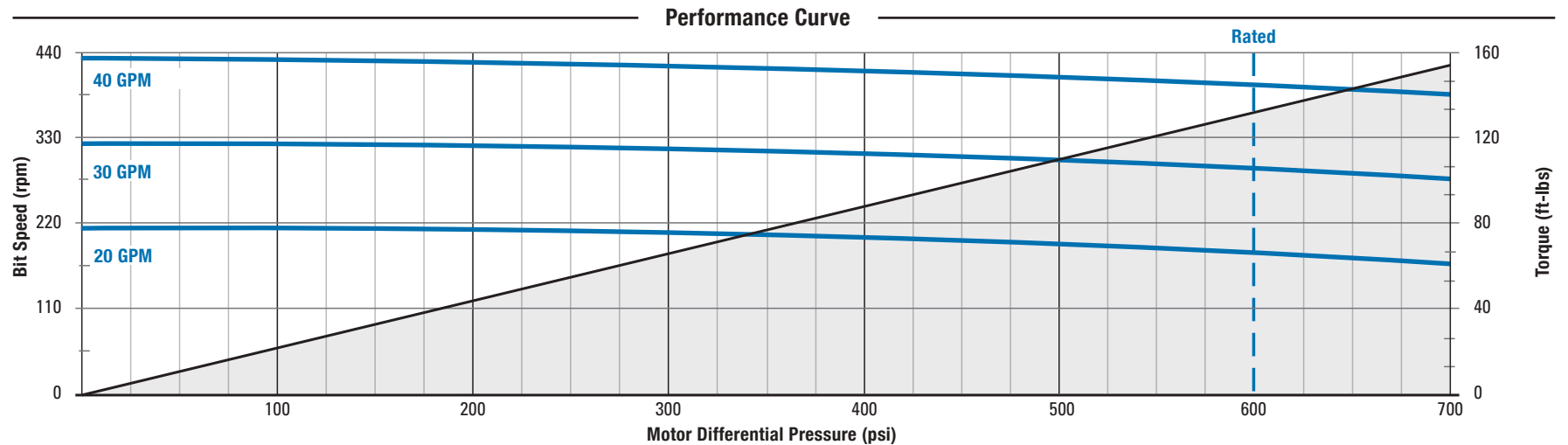
### Fits (mm) (+ Compression / - Loose)

Size	Minor <sup>1</sup>	25° C	65° C	110° C	150° C	190° C
STD	22.911	0.229	0.026	0.229	0.407	0.585
OS*	22.911	0.000	0.076	0.152	0.229	0.305
2OS**	22.911	-0.254	-0.178	-0.102	-0.025	0.051

\*US Rotor with STD Stator. \*\*2US Rotor with STD Stator.

Lobes: 5/6

Max Recommended Pressure	600 psi (41.4 bar)
Torque Slope	0.22 ft-lbs/psi (4.33 Nm/bar)
Torque @ Max Recommended Pressure	132 ft-lbs (179 Nm)
Power @ Max Recommended Pressure	10 hp (7 kW)



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).