



SpiroStar Supreme™



SpiroStar™



FlexStar™

Rotor Dimensional Data

Length	238.50 in (6,058 mm)
Contour Length	232.13 in (5,896.10 mm)
Major Diameter	3.018 in (76.65 mm)
Eccentricity	0.192 in (4.88 mm)
Head Diameter	3.310 in (84.07 mm)
Weight	335 lbs (152 kg)
Material/Strength	17-4 PH / 150 ksi (1,034 Mpa)

Fits (in) (+ Compression / - Loose)

Size	Minor ¹	75° F	150° F	225° F	300° F	375° F
STD	2.639	-0.005	0.002	0.010	0.017	0.024
OS	2.645	-0.011	-0.004	0.004	0.011	0.018
2 OS	2.654	-0.020	-0.013	-0.005	0.002	0.009

Power Section Specifications

Flow Range	150 - 350 gpm (568 - 1,325 lpm)
Speed Ratio	0.81 rev/gal (0.214 rev/l)
No Load Bit Speed	122 - 284 rpm
No Load Pressure Drop	700 psi (48.3 bar)

Stator Dimensional Data

Length	257.45 in (6,539 mm)
Tube OD	5.00 in (127 mm)
Tube ID	3.920 in (99.57 mm)
Rubber Cutback Top	8.00 in (203 mm)
Rubber Cutback Bottom	18.50 in (470 mm)
Weight	660 lbs (300 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

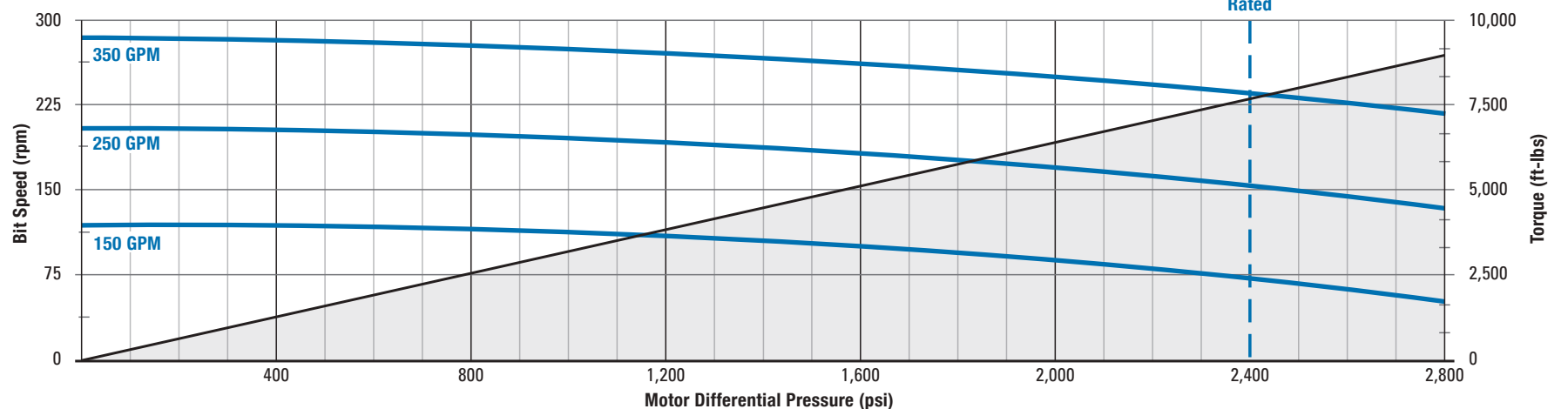
Fits (mm) (+ Compression / - Loose)

Size	Minor ¹	25° C	65° C	110° C	150° C	190° C
STD	67.031	-0.127	0.051	0.254	0.432	0.610
OS	67.183	-0.279	-0.101	0.102	0.280	0.458
2 OS	67.412	-0.508	-0.330	-0.127	0.051	0.229

Lobes: 6/7

Max Recommended Pressure	2,400 psi (165.5 bar)
Torque Slope	3.18 ft-lbs/psi (62.53 Nm/bar)
Torque @ Max Recommended Pressure	7,632 ft-lbs (10,347 Nm)
Power @ Max Recommended Pressure	340 hp (254 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.

Minor¹: Nominal Vector Gauge reading of stator elastomer minor diameter at 72°F (22°C).