



SpiroStar Supreme™



SpiroStar™



FlexStar™

Rotor Dimensional Data

Length	234 in (5,944 mm)
Contour Length	227.42 in (5,776 mm)
Major Diameter	3.354 in (85.19 mm)
Eccentricity	0.173 in (4.39 mm)
Head Diameter	3.450 in (87.63 mm)
Weight	440 lbs (200 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	3.022	-0.014	-0.007	0.001	0.008	0.015
OS	-	-	-	-	-	-
2 OS	-	-	-	-	-	-

Power Section Specifications

Flow Range	150 - 350 gpm (568 - 1,325 lpm)
Speed Ratio	0.69 rev/gal (0.182 rev/l)
No Load Bit Speed	104 - 242 rpm
No Load Pressure Drop	600 psi (41.4 bar)

Stator Dimensional Data

Length	252.90 in (6,426 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	530 lbs (241 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

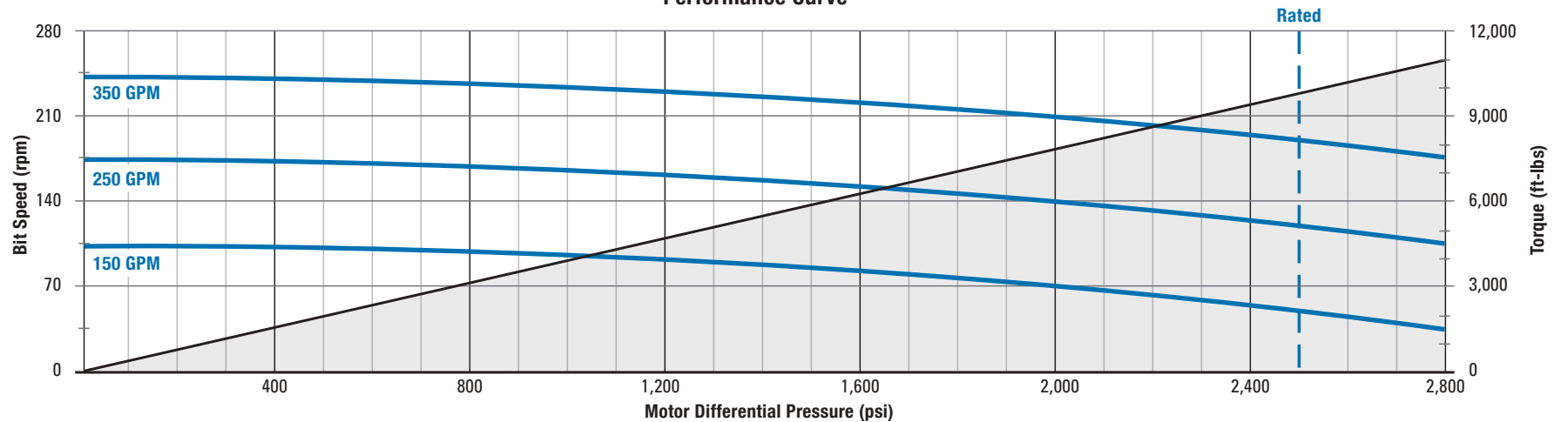
Fits (mm) (+ Compression / - Loose)

Size	Minor ¹	25° C	65° C	110° C	150° C	190° C
STD	76.759	-0.356	-0.178	0.025	0.203	0.381
OS	-	-	-	-	-	-
2 OS	-	-	-	-	-	-

Lobes: 6/7

Max Recommended Pressure	2,500 psi (172.4 bar)
Torque Slope	3.92 ft-lbs/psi (77.08 Nm/bar)
Torque @ Max Recommended Pressure	9,800 ft-lbs (13,287 Nm)
Power @ Max Recommended Pressure	349 hp (260 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).