



SpiroStar Supreme™



SpiroStar™



FlexStar™

Rotor Dimensional Data

Length	91.58 in (2,326.13 mm)
Contour Length	87.88 in (2,232.15 mm)
Major Diameter	2.118 in (53.80 mm)
Eccentricity	0.122 in (3.10 mm)
Head Diameter	2.06 in (52.32 mm)
Weight	55 lbs (22 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	1.874	0.000	0.004	0.008	0.012	0.016
OS	-	-	-	-	-	-
20S	-	-	-	-	-	-

Power Section Specifications

Flow Range	110 - 230 gpm (416 - 871 lpm)
Speed Ratio	1.34 rev/gal (0.35 rev/l)
No Load Bit Speed	147 - 308 rpm
No Load Pressure Drop	400 psi (27.58 bar)

Stator Dimensional Data

Length	99.98 in (2,539.50 mm)
Tube OD	3.126 in (79.40 mm)
Tube ID	2.626 in (66.70 mm)
Rubber Cutback Top	7 in (177.80 mm)
Rubber Cutback Bottom	7 in (177.80 mm)
Weight	90 lbs (41 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

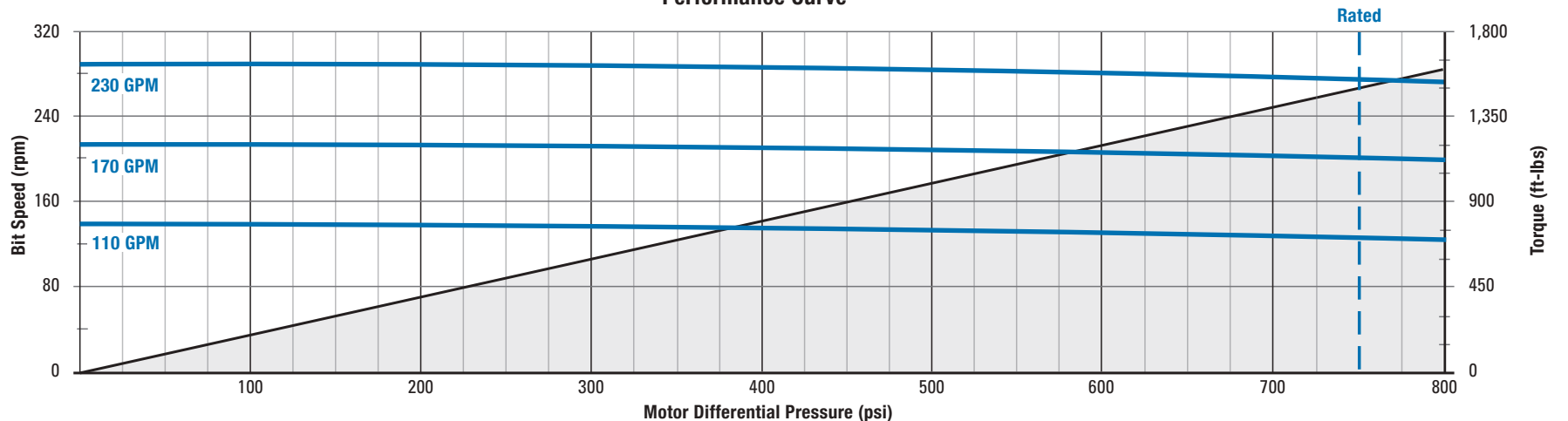
Fits (mm) (+ Compression / - Loose)

Size	Minor ¹	25° C	65° C	110° C	150° C	190° C
STD	36.195	0.000	0.102	0.203	0.305	0.406
OS	-	-	-	-	-	-
20S	-	-	-	-	-	-

Lobes: 7/8

Max Recommended Pressure	750 psi (51.7 bar)
Torque Slope	2.00 ft-lbs/psi (39.90 Nm/bar)
Torque @ Max Recommended Pressure	1,500 ft-lbs (2,034 Nm)
Power @ Max Recommended Pressure	84 hp (63 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).