



SpiroStar Supreme™



SpiroStar™



FlexStar™

Rotor Dimensional Data

Length	91 in (2,311.40 mm)
Contour Length	86.50 in (2,197.10 mm)
Major Diameter	1.676 in (42.57 mm)
Eccentricity	0.118 in (3.00 mm)
Head Diameter	1.80 in (45.72 mm)
Weight	36 lbs (16.40 kg)
Material/Strength	17-4 PH / 100 ksi (689 Mpa)

Fits (in) (+ Compression / - Loose)

Size	Minor ¹	75° F	150° F	225° F	300° F	375° F
STD	1.425	0.015	0.018	0.021	0.024	0.027
OS	1.450	-0.005	-0.002	0.001	0.004	0.007
2OS*	1.450	-0.010	-0.007	-0.004	-0.001	0.002

*US Rotor with OS Stator.

Power Section Specifications

Flow Range	60 - 130 gpm (227 - 492 lpm)
Speed Ratio	3.87 rev/gal (1.02 rev/l)
No Load Bit Speed	232 - 503 rpm
No Load Pressure Drop	450 psi (31.03 bar)

Stator Dimensional Data

Length	98.40 in (2,499.36 mm)
Tube OD	2.874 in (73 mm)
Tube ID	2.165 in (55 mm)
Rubber Cutback Top	6.90 in (175.26 mm)
Rubber Cutback Bottom	6.90 in (175.26 mm)
Weight	44 lbs (20 kg)
Material/Strength	4140 PH / 120 ksi (827 Mpa)

Fits (mm) (+ Compression / - Loose)

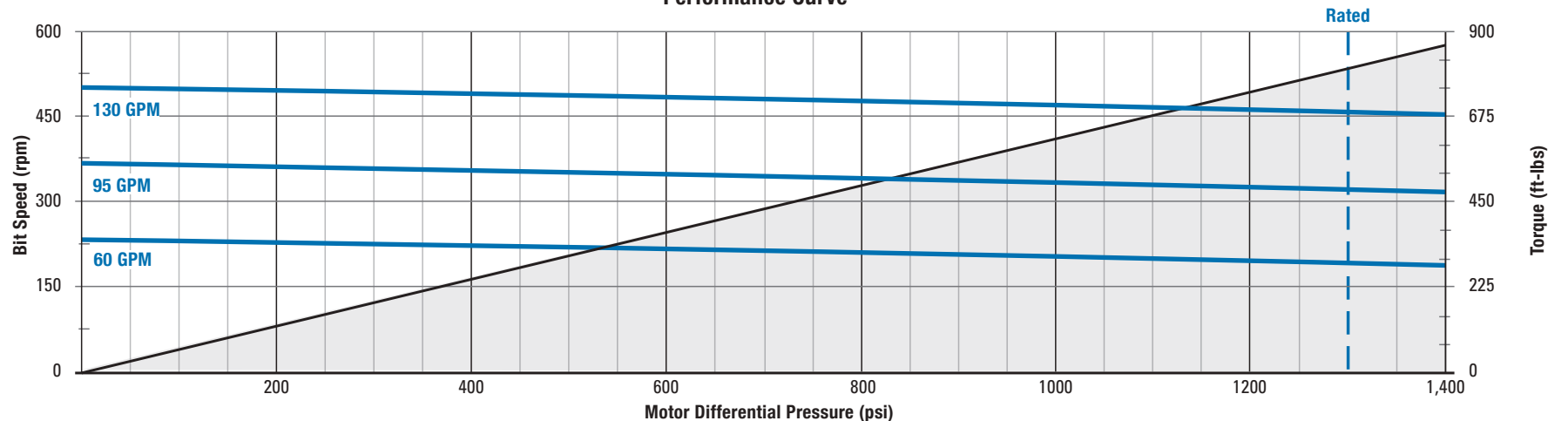
Size	Minor ¹	25° C	65° C	110° C	150° C	190° C
STD	36.195	0.381	0.457	0.533	0.610	0.686
OS	36.830	-0.127	-0.051	0.025	0.102	0.178
2OS*	36.830	-0.254	-0.178	-0.102	-0.025	0.051

*US Rotor with OS Stator.

Lobes: 5/6

Max Recommended Pressure	1,300 psi (89.63 bar)
Torque Slope	0.62 ft-lbs/psi (12.19 Nm/bar)
Torque @ Max Recommended Pressure	806 ft-lbs (688 Nm)
Power @ Max Recommended Pressure	77 hp (56 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).