

Power Sections

22 East Lake Crescent N.E., Airdrie, Alberta, Canada, T4A 2H3 Ph: (587) 775-7777 www.spirasystems.com







Stator Specifications				
Overall Length (in.)	250.0 [6350 mm]			
Tube O.D. (in.)	4.75 [121 mm]			
Tube I.D. (in.)	4.00 [102 mm]			
Rubber Cut Back Top (in.)	8.0			
Rubber Cut Back Bottom (in.)	8.0			
Weight (kg)	185			
Tube Material	4140-4145			
To be threaded and ID Banded by customer				

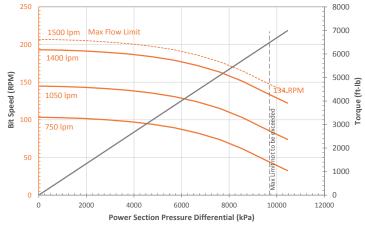
Rotor Specifications				
Overall Length (in.)	240.0 [6096 mm]			
Contour Length (in.)	234 [5944 mm]			
Major Diameter (in.)	3.144			
Eccentricity (in.)	0.168			
Head Diameter (in.)	3.250			
Bored Weight (kg)	170			
Solid Weight (kg)	194			
Material	17-4PH			
Coating option 1	Chrome			
Coating option 2	Carbide			
To be threaded by customer				

Performance Specifications					
Flow Range (lpm)	750 - 1500				
Speed Range (RPM) 105 - 195					
Torque Slope (ft-lb/kPa)	ue Slope (ft-lb/kPa) 0.669				
Rotation (rev/l)	0.138				
Stall Torque (ft-lb)	8,600				
Operating Parameters					
Max Diff Pressure (kPa)	9,700				
Torque (ft-lb)	6,400				
Flow Rate (lpm)	1,400				
Full Load RPM	134 at 1400 lpm				

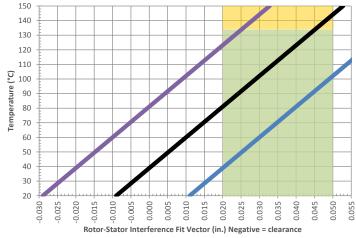
Minor Diameter Fit Details (at 20°C)								
	Nominal Fit (in.)**	Minor Dia (in.)*	Nominal Fit (in.)**	Minor Dia (in.)*	Operating Temp			
Size Band	Vector Measurements		True Size Las	ser Measurements	Optimal			
1.0T	0.011	2.797	0.016	2.792	55 - 85 °C			
0.5T	0.001	2.807	0.006	2.802	75 - 105 °C			
STD	-0.009	2.817	-0.004	2.812	95 - 125 °C			
0.5L	-0.019	2.827	-0.014	2.822	115 - 145 °C			
1.0L	-	-	-	-	-			
1.5L	-	-	-	-	-			
2.0L	-	-	-	-	-			
Minor Shrinkage (in./°C)			0.0	00048				

All default tolerances are +/- 0.015 unless otherwise explicitly agreed upon with Spira Systems. Call for availability of sizes not listed.

^{***}Best operating temperatures are based on new stators subject to normal thermal expansion conditions. Operators may wish to consider swell and run life when selecting sizes.



------ Expected slightly reduced torque when operating at this flow limit
--- Expect reduced life when operating at this pressure limit for extended periods of time



1. Choose desired operating temperature

2. Read across to middle of shaded region

Follow *slope* down to room temperature to determine which fit to order



1L Size Band
STD Size Band

1T Size Ban

Performance curves are for reference only. Actual power section performance may vary depending on operating conditions (e.g. chosen rotor/stator interference fit, possible rubber swelling by drilling fluid, rotor and stator wear, actual downhole temperature, actual stator temperature, physical and chemical properties of the drilling fluid and other factors encountered downhole). The torque may exceed that specified for the connected components. Operating above the recommended limits may result in damage to the power section and connected components which will be the liability of the operator. Data subject to change without notice. Visit www.spirasystems.com for most up to date information.

^{*}Approximate Vector/laser gauge conversion: 0.005 ± 0.005

^{**}Negative fits indicate clearance fit at room temperature using nominal new rotor