

## **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.)	187.0 [4750 mm]			
Tube O.D. (in.)	5.00 [127 mm]			
Tube I.D. (in.)	3.75 [95 mm]			
Rubber Cut Back Top (in.)	8.0			
Rubber Cut Back Bottom (in.)	8.0			
Weight (kg)	220			
Tube Material	4140-4145			
To be threaded and ID Banded by customer				

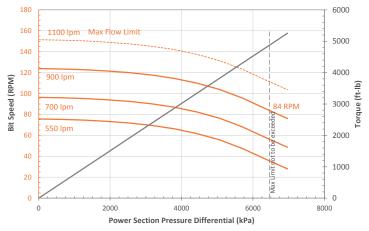
Rotor Specifications				
Overall Length (in.)	178.0 [4521 mm]			
Contour Length (in.)	172 [4375 mm]			
Major Diameter (in.)	2.945			
Eccentricity (in.)	0.163			
Head Diameter (in.)	2.750			
Bored Weight (kg)	107			
Solid Weight (kg)	124			
Material	17-4PH			
Coating option 1	Chrome			
Coating option 2	Carbide			
To be threaded by customer				

Performance Specifications					
Flow Range (lpm)	550 - 1100				
Speed Range (RPM)	75 - 125				
Torque Slope (ft-lb/kPa)	/kPa) 0.754				
Rotation (rev/l)	0.138				
Stall Torque (ft-lb)	6,450				
Operating Parameters					
Max Diff Pressure (kPa)	6,500				
Torque (ft-lb)	4,800				
Flow Rate (lpm)	900				
Full Load RPM	84 at 900 lpm				

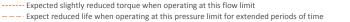
Minor Diameter Fit Details (at 20°C)							
	Nominal Fit (in.)**	Minor Dia (in.)*	Nominal Fit (in.)**	Minor Dia (in.)*	Operating Temp		
Size Band	Vector Measurements		True Size Las	ser Measurements	Optimal		
1.0T	0.012	2.607	0.022	2.597	45 - 75 °C		
0.5T	0.002	2.617	0.012	2.607	65 - 95 °C		
STD	-0.008	2.627	0.002	2.617	85 - 115 °C		
0.5L	-	-	-	-	-		
1.0L	-	-	-	-	-		
1.5L	-	-	-	-	-		
2.0L	-	-	-	-	-		
Minor Shrinkage (in./°C)			0.0	00045			

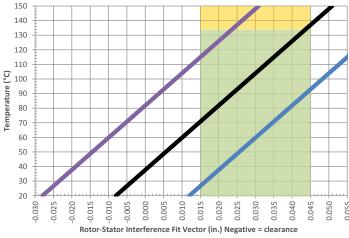
All default tolerances are +/- 0.015 unless otherwise explicitly agreed upon with Spira Systems. Call for availability of sizes not listed.

<sup>\*\*\*</sup>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





1. Choose desired operating temperature

2. Read across to middle of shaded region

3. Follow slope down to room temperature to determine which fit to order



■ 1L Size Band STD Size Band

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.

<sup>\*</sup>Approximate Vector/laser gauge conversion:  $0.010 \pm 0.005$ 

<sup>\*\*</sup>Negative fits indicate clearance fit at room temperature using nominal new rotor