

## 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.)	5.00 [127 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)	250
Tube Material	4140-4145
To be threaded and ID Banded by customer	

Rotor Specifications	
Overall Length (in.)	241.0 [6121 mm]
Contour Length (in.)	235 [5969 mm]
Major Diameter (in.)	3.120
Eccentricity (in.)	0.235
Head Diameter (in.)	2.900
Bored Weight (kg)	150
Solid Weight (kg)	174
Material	17-4PH
Coating option 1	Chrome
Coating option 2	Carbide
To be threaded by customer	

Performance Specifications	
Flow Range (lpm)	550 - 1500
Speed Range (RPM)	90 - 235
Torque Slope (ft-lb/kPa)	0.583
Rotation (rev/l)	0.166
Stall Torque (ft-lb)	8,800
Operating Parameters	
Max Diff Pressure (kPa)	11,400
Torque (ft-lb)	6,600
Flow Rate (lpm)	1,400
Full Load RPM	160 at 1400 lpm

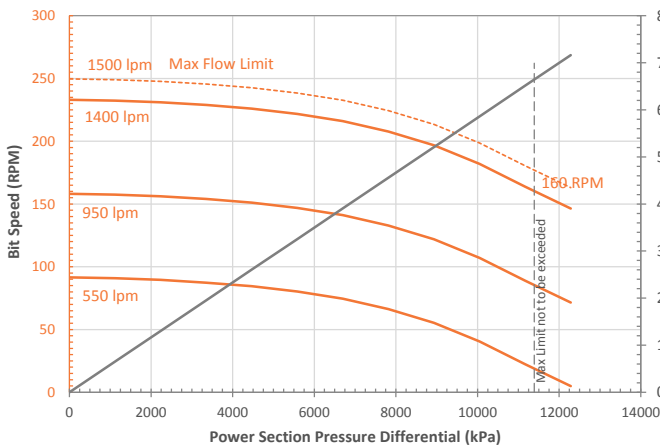
Minor Diameter Fit Details (at 20°C)					
Size Band	Nominal Fit (in.)**	Minor Dia (in.)*	Nominal Fit (in.)**	Minor Dia (in.)*	Operating Temp Optimal
	Vector Measurements		True Size Laser Measurements		
1.0T	-	-	-	-	-
0.5T	-0.005	2.655	0.007	2.643	65 - 95 °C
STD	-0.015	2.665	-0.003	2.653	85 - 115 °C
0.5L	-0.025	2.675	-0.013	2.663	100 - 130 °C
1.0L	-0.035	2.685	-0.023	2.673	120 - 150 °C
1.5L	-0.045	2.695	-0.033	2.683	135 - 165 °C
2.0L	-	-	-	-	-
<b>Minor Shrinkage (in./°C)</b>				<b>0.00054</b>	

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

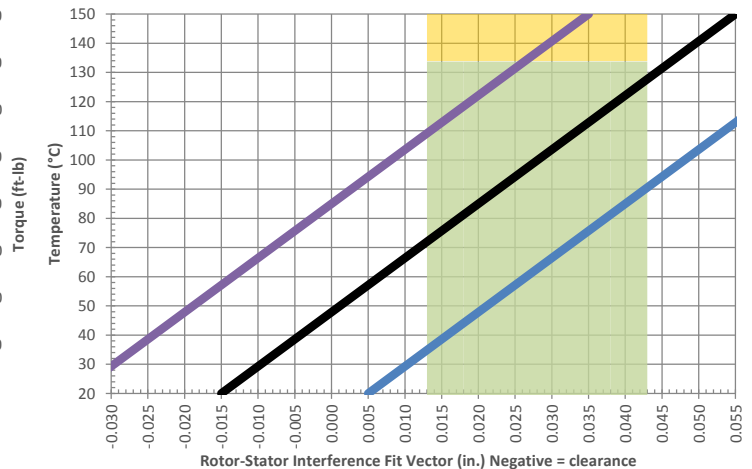
\*Approximate Vector/laser gauge conversion: 0.012 ± 0.005

\*\*Negative fits indicate clearance fit at room temperature using nominal new rotor

\*\*\*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
  3. Follow **slope** down to room temperature to determine which fit to order
- Acceptable Fit at Reduced Diff
  - Optimal Operating Fit Range
  - 1L Size Band
  - STD Size Band
  - 1T 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.