

## 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.)	300.0 [7620 mm]
Tube O.D. (in.)	7.00 [178 mm]
Tube I.D. at Terminal (in.)	5.75 [146 mm]
Rubber Cut Back Top (in.)	7.0
Rubber Cut Back Bott (in.)	7.0
Weight (kg)	445
Tube Material	4140-4145
To be threaded and ID Banded by customer	

Rotor Specifications	
Overall Length (in.)	294.0 [7468 mm]
Contour Length (in.)	288 [7315 mm]
Major Diameter (in.)	5.024
Eccentricity (in.)	0.268
Head Diameter (in.)	5.000
Bored Weight (kg)	484
Solid Weight (kg)	601
Material	17-4PH
Coating option 1	Chrome
Coating option 2	Carbide
To be threaded by customer	

Performance Specifications	
Flow Range (lpm)	1850 - 2800
Speed Range (RPM)	125 - 190
Torque Slope (ft-lb/kPa)	1.419
Rotation (rev/l)	0.069
Stall Torque (ft-lb)	29,300
Operating Parameters	
Max Diff Pressure (kPa)	13,800
Torque (ft-lb)	19,550
Flow Rate (lpm)	2,800
Full Load RPM	140 at 2800 lpm

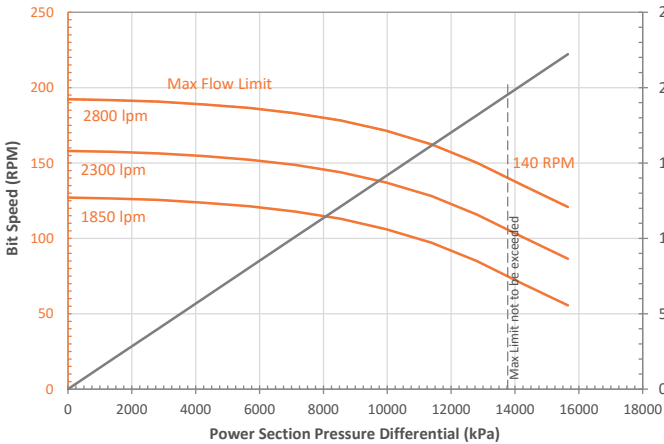
Minor Diameter Fit Details (at 20°C)					
Size Band	Nominal Fit (in.)**	Minor Dia (in.)*	Nominal Fit (in.)**	Minor Dia (in.)*	Operating Temp
	Vector Measurements		True Size Laser Measurements		Optimal
1.0T	0.023	4.465	0.030	4.458	20 - 70 °C
0.5T	0.013	4.475	0.020	4.468	30 - 85 °C
STD	0.003	4.485	0.010	4.478	45 - 100 °C
0.5L	-0.007	4.495	0.000	4.488	60 - 115 °C
1.0L	-	-	-	-	-
1.5L	-	-	-	-	-
2.0L	-	-	-	-	-
<b>Minor Shrinkage (in./°C)</b>					<b>0.00061</b>

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

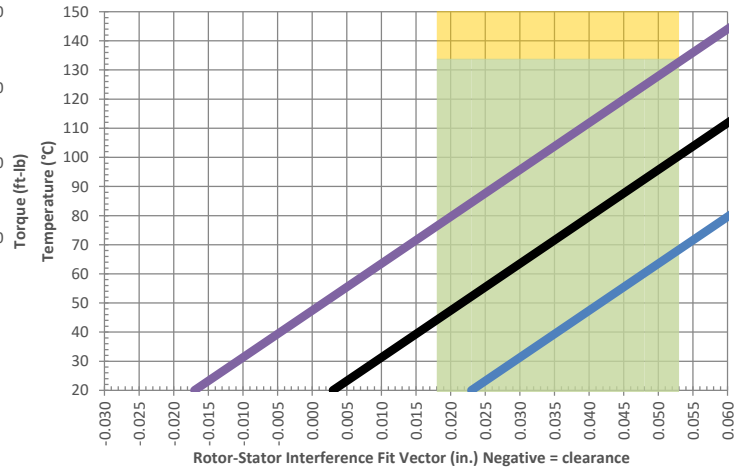
\*Approximate Vector/laser gauge conversion: 0.007 ± 0.005

\*\*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](http://www.spirasystems.com) for most up to date information.