

# Power Sections

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



Stator Specifications	
	Inches
Overall Length	198.0
Tube O.D.	4.75
Tube I.D.	3.88
Rubber Cut Back Top	8.0
Rubber Cut Back Bottom	8.0
Weight (lb)	490
Tube Material	4140-4145

To be threaded and ID Banded by customer

Rotor Specifications	
	Inches
Overall Length	186.0
Contour Length	180
Major Diameter	3.041
Eccentricity	0.169
Head Diameter	2.750
Gunbored Weight (lb)	265
Solid Weight (lb)	306
Material	17-4PH
Coating option 1	Chrome
Coating option 2	Carbide

To be threaded by customer

Performance Specifications	
Flow Range (GPM)	150 - 300
Speed Range (RPM)	95 - 190
Torque Slope (ft-lbs/psi)	3.193
Rotation (rev/Gal)	0.630
Stall Torque (ft-lbs)	5,200
Operating Parameters	
Max Diff Pressure (psi)	1,250
Torque (ft-lbs)	3,900
Flow Rate (GPM)	300
Full Load RPM	131 at 300 GPM

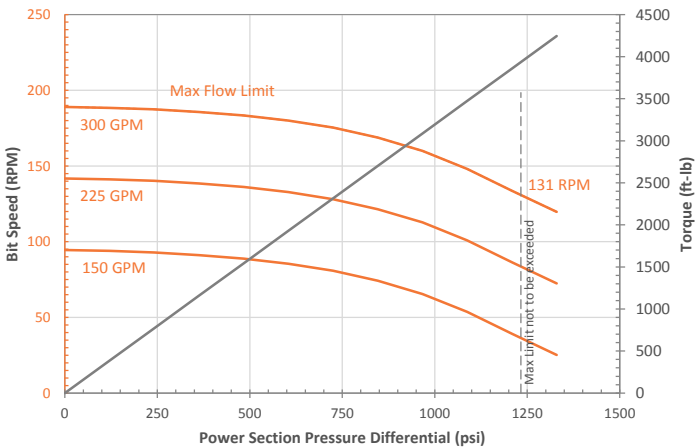
Minor Diameter Fit Details (at 68°F)					
Size Band	Nominal Fit (in.)**	Minor Dia (in.)*	Nominal Fit (in.)**	Minor Dia (in.)*	Operating Temp Optimal
1.0T	0.013	2.690	0.021	2.682	110 - 165 °F
0.5T	0.003	2.700	0.011	2.692	150 - 200 °F
STD	-0.007	2.710	0.001	2.702	185 - 240 °F
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
1.5L	-	-	-	-	-
2.0L	-	-	-	-	-
Minor Shrinkage (in./°F)					0.00026

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

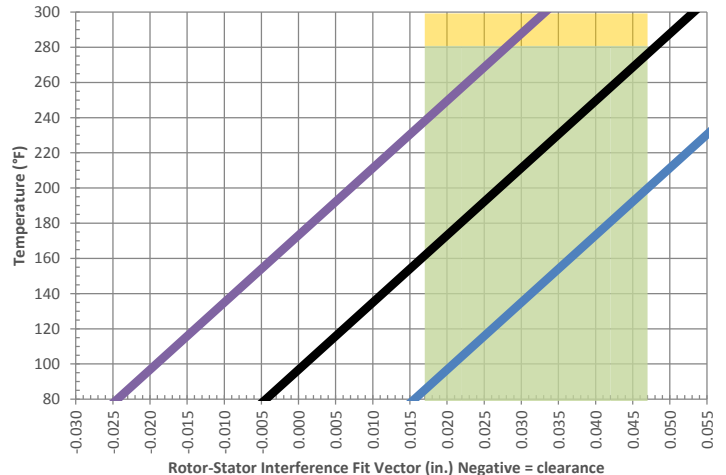
\*Approximate Vector/laser gauge conversion: 0.008 ± 0.005

\*\*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.