

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.) | 242.6 [6162 mm] |
| Tube O.D. (in.) | 4.75 [121 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) | 245 |
| Tube Material | 4140-4145 |
| To be threaded and ID Banded by customer | |

| Rotor Specifications | |
|----------------------------|-----------------|
| Overall Length (in.) | 229.5 [5829 mm] |
| Contour Length (in.) | 223 [5664 mm] |
| Major Diameter (in.) | 2.916 |
| Eccentricity (in.) | 0.207 |
| Head Diameter (in.) | 2.750 |
| Bored Weight (kg) | 125 |
| Solid Weight (kg) | 148 |
| Material | 17-4PH |
| Coating option 1 | Chrome |
| Coating option 2 | Carbide |
| To be threaded by customer | |

| Performance Specifications | |
|----------------------------|-----------------|
| Flow Range (lpm) | 350 - 1100 |
| Speed Range (RPM) | 90 - 290 |
| Torque Slope (ft-lb/kPa) | 0.374 |
| Rotation (rev/l) | 0.264 |
| Stall Torque (ft-lb) | 7,000 |
| Operating Parameters | |
| Max Diff Pressure (kPa) | 14,200 |
| Torque (ft-lb) | 5,200 |
| Flow Rate (lpm) | 1,100 |
| Full Load RPM | 198 at 1100 lpm |

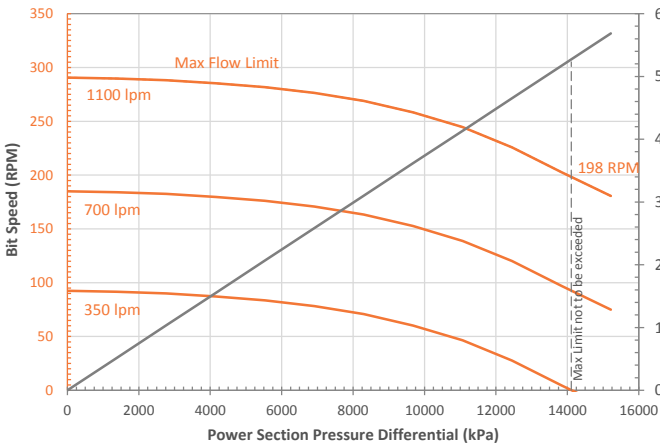
| Minor Diameter Fit Details (at 20°C) | | | | | |
|--------------------------------------|---------------------|------------------|---------------------|------------------|------------------------|
| Size Band | Nominal Fit (in.)** | Minor Dia (in.)* | Nominal Fit (in.)** | Minor Dia (in.)* | Operating Temp Optimal |
| 1.0T | - | - | - | - | - |
| 0.5T | -0.005 | 2.507 | 0.009 | 2.493 | 65 - 95 °C |
| STD | -0.015 | 2.517 | -0.001 | 2.503 | 85 - 115 °C |
| 0.5L | -0.025 | 2.527 | -0.011 | 2.513 | 105 - 135 °C |
| 1.0L | - | - | - | - | - |
| 1.5L | - | - | - | - | - |
| 2.0L | - | - | - | - | - |
| Minor Shrinkage (in./°C) | | | | | 0.00050 |

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

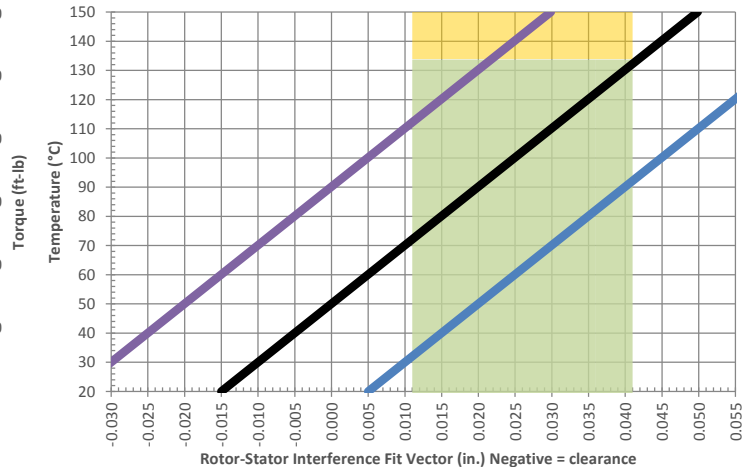
*Approximate Vector/laser gauge conversion: 0.014 ± 0.005

**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



- Choose desired operating temperature
 - Read across to middle of shaded region
 - 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.