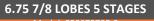


Power Sections

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



Canadian Oilfield Units





| Stator Specifications | | | | |
|--|-----------------|--|--|--|
| | | | | |
| Overall Length (in.) | 194.5 [4940 mm] | | | |
| Tube O.D. (in.) | 6.75 [171 mm] | | | |
| Tube I.D. at Terminal (in.) | 5.50 [140 mm] | | | |
| Rubber Cut Back Top (in.) | 8.0 | | | |
| Rubber Cut Back Bott (in.) | 8.0 | | | |
| Weight (kg) | 290 | | | |
| Tube Material | 4140-4145 | | | |
| | | | | |
| | | | | |
| | | | | |
| To be threaded and ID Banded by customer | | | | |

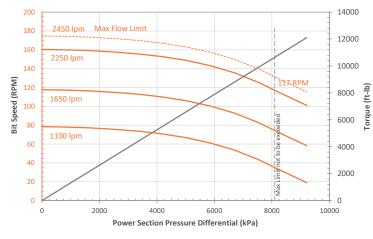
| Rotor Specifications | | | | |
|----------------------------|-----------------|--|--|--|
| | | | | |
| Overall Length (in.) | 188.0 [4775 mm] | | | |
| Contour Length (in.) | 181 [4597 mm] | | | |
| Major Diameter (in.) | 4.520 | | | |
| Eccentricity (in.) | 0.256 | | | |
| Head Diameter (in.) | 4.000 | | | |
| Bored Weight (kg) | 231 | | | |
| Solid Weight (kg) | 306 | | | |
| Material | 17-4PH | | | |
| Coating option 1 | Chrome | | | |
| Coating option 2 | Carbide | | | |
| To be threaded by customer | | | | |

| Performance Specifications | | | | | | |
|----------------------------|-----------------|--|--|--|--|--|
| | | | | | | |
| Flow Range (lpm) | 1100 - 2450 | | | | | |
| Speed Range (RPM) | 80 - 160 | | | | | |
| Torque Slope (ft-lb/kPa) | 1.314 | | | | | |
| Rotation (rev/l) | 0.071 | | | | | |
| Stall Torque (ft-lb) | 15,950 | | | | | |
| | | | | | | |
| Operating Parameters | | | | | | |
| Max Diff Pressure (kPa) | 8,100 | | | | | |
| Torque (ft-lb) | 10,650 | | | | | |
| Flow Rate (Ipm) | 2,250 | | | | | |
| Full Load RPM | 117 at 2250 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 Laser Measurements | | Optimal | |
| 1.0T | - | - | - | - | - | |
| 0.5T | 0.012 | 3.996 | 0.019 | 3.989 | 30 - 85 °C | |
| STD | 0.002 | 4.006 | 0.009 | 3.999 | 45 - 105 °C | |
| 0.5L | -0.008 | 4.016 | -0.001 | 4.009 | 60 - 120 °C | |
| 1.0L | - | - | - | - | - | |
| 1.5L | - | - | - | - | - | |
| 2.0L | - | - | - | - | - | |
| Minor Shrinkage (in./°C) | | | 0.0 | 0060 | | |

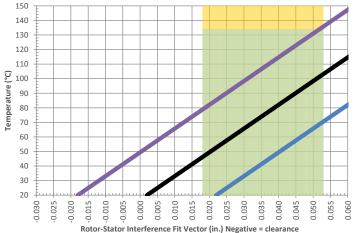
All default tolerances are +/- 0.015 unless otherwise explicitly agreed upon with Spira Systems. Call for availability of sizes not listed.

^{***}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

 $---\cdot$ Expect reduced life when operating at this pressure limit for extended periods of time



1. Choose desired operating temperature

Read across to middle of shaded region
 Follow *slope* down to room temperature to determine which fit to order



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.

^{*}Approximate Vector/laser gauge conversion: 0.007 ± 0.005

^{**}Negative fits indicate clearance fit at room temperature using nominal new rotor