

## 6.50 7/8 LOBES 4.8 STAGES

Stator Specifications		
Overall Length in. [mm]	203.5	[5169]
Tube O.D. in. [mm]	6.50	[165]
Tube I.D. (Terminal) in. [mm]	5.00	[127]
Rubber Cutback Top in. [mm]	8.0	[203.2]
Rubber Cutback Btm in. [mm]	8.0	[203.2]
Weight lb [kg]	840	[380]
Tube Material	4140-4145	
To be threaded and ID Banded by customer		

Rotor Specifications		
Overall Length in. [mm]	194.2	[4933]
Contour Length in. [mm]	188.2	[4780]
Major Diameter in. [mm]	3.980	[101.1]
Eccentricity in. [mm]	0.226	[5.7]
Head Diameter in. [mm]	4.000	[101.6]
Gunbored Weight lb [kg]	475	[215]
Solid Weight lb [kg]	542	[246]
Material (See note 3)	17-4 PH	
Coating Options	Chrome or Carbide	
To be threaded by customer		

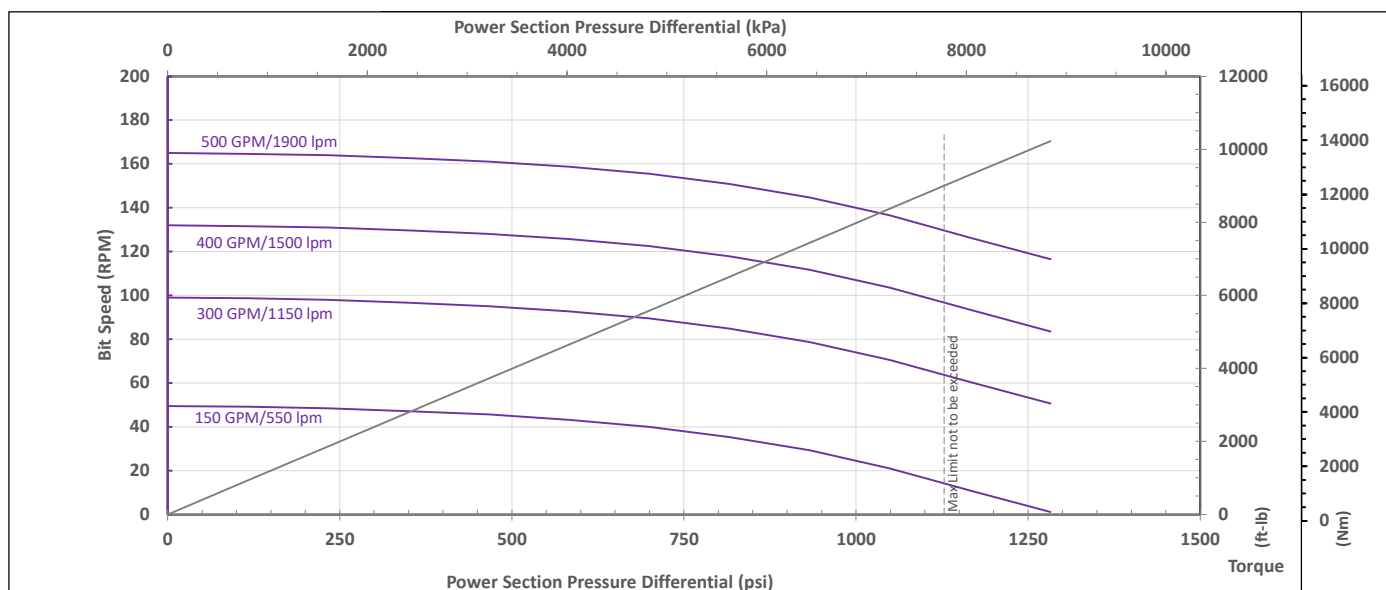
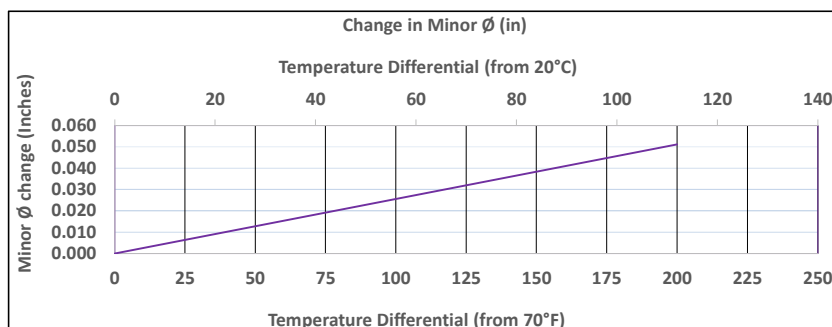
**Notes:**

1. Reduce differential pressure 20% for temps above 250°F (125°C) and 40% for temps above 285°F (140°C)
2. Typical stator minor diameter tolerances are +/- 0.015
3. Material minimum yield to be discussed at time of order subject to availability
4. Negative fit indicates clearance

Minor Ø Fit Details at 70°F (20°C) (See Note 2)		
PARADIGM 89 HRD		
Size Band	Vector Fit See note 4	Vector (in) See note 4
1.0T	-	-
0.5T	-	-
STD	0.003	3.525
0.5L	-0.007	3.535
1.0L	-	-
Minor Shrinkage (in/°F) [in/°C]		0.000256 [0.000461]

Performance Specifications		
Flow Range GPM [lpm]	150 - 500	[570 - 1510]
Speed Range RPM	50 - 130	
Torque Slope ft-lb/psi [Nm/kPa]	7.977	[1.569]
Rotation rev/Gal [rev/lit]	0.330	[0.087]
Stall Torque ft-lb [Nm]	13,500	[18,300]

Operating Parameters		
Max Diff Pressure psi [kPa]	1150	[7,800]
Torque ft-lbs [Nm]	9,000	[12,200]
Max Flow Rate GPM [lpm]	500	[1,500]
Full Load RPM	130 at 500 GPM	



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 the operator may be liable for. Data subject to change without notice. Visit [www.spirasystems.com](http://www.spirasystems.com) for most up to date information.