SPIRA SYSTEMS LTD.

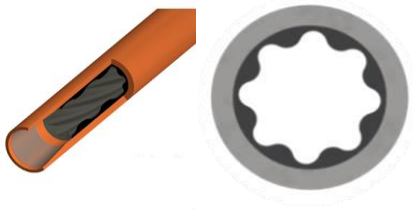
Power Sections

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

5.00 5/6 LOBES 6.7 STAGES

Model: SPS500566.7

Mixed Units



Stator Specifications		
Overall Length in. [mm]	250.0	[6350]
Tube O.D. in. [mm]	5.00	[127]
Tube I.D. (Terminal) in. [mm]	4.00	[102]
Rubber Cutback Top in. [mm]	8.0	[203.2]
Rubber Cutback Btm in. [mm]	8.0	[203.2]
Weight lb [kg]	555	[250]
Tube Material	4140-4145	
To be threaded and ID Banded by customer		

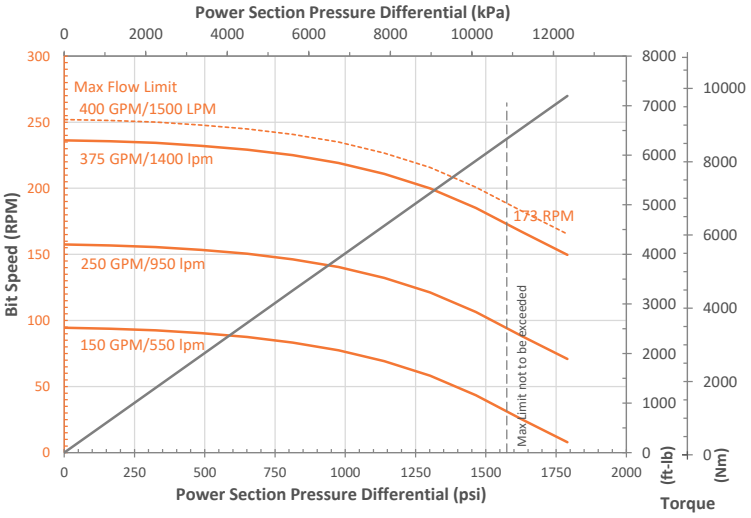
Rotor Specifications		
Overall Length in. [mm]	241.0	[6121]
Contour Length in. [mm]	235.0	[5969]
Major Diameter in. [mm]	3.120	[79.2]
Eccentricity in. [mm]	0.235	[6.0]
Head Diameter in. [mm]	2.900	[73.7]
Gunbored Weight lb [kg]	330	[150]
Solid Weight lb [kg]	383	[174]
Material (See note 4)	17-4 PH	
Coating Options	Chrome or Carbide	
To be threaded by customer		

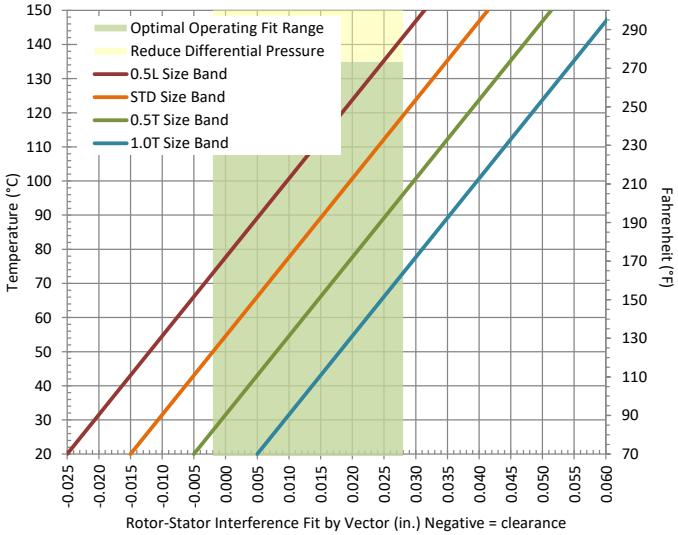
Performance Specifications		
Flow Range GPM [lpm]	150 - 400	[570 - 1510]
Speed Range RPM	95 - 235	
Torque Slope ft-lb/psi [Nm/kPa]	4.020	[0.791]
Rotation rev/Gal [rev/lit]	0.630	[0.166]
Stall Torque ft-lb [Nm]	9,500	[12,900]
Operating Parameters		
Max Diff Pressure psi [kPa]	1,550	[10,900]
Torque ft-lbs [Nm]	6,350	[8,600]
Flow Rate GPM [lpm]	375	[1,400]
Full Load RPM	173 at 375 GPM	

Minor Diameter Fit Details at 20°C [68°F] (See note 3)

Size Band	Vector Fit (in.) (see note 1)	Vector Measurement (in.)	Recommended Min Operating Temperature	Recommended Optimal Operating Temperature (see note 2)	Recommended Max Operating Temperature (see note 2)
1.0T	0.005	2.645	68 °F [20 °C]	105°F [40°C]	165°F [75°C]
0.5T	-0.005	2.655	85°F [30°C]	145°F [65°C]	210°F [100°C]
STD	-0.015	2.665	125°F [50°C]	185°F [85°C]	250°F [120°C]
0.5L	-0.025	2.675	165°F [75°C]	230°F [110°C]	290°F [145°C]
1.0L	-0.035	2.685	210°F [100°C]	270°F [135°C]	300°F [150°C]
			Minor Diameter Rate of Change (in/°F) [in/°C]		**0.000233 [0.000419]**

Notes:
1. Negative fits indicate clearance fit at room temperature using nominal new rotor.
2. Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
3. Typical stator minor diameter tolerances are +/- 0.015.
4. Material minimum yield to be discussed at time of order subject to availability.





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 for most up to date information.

Model last revised: 03/02/2023