

SPIRA[®] Power Section Catalog



SPIRA
SYSTEMS LTD.



Spira Systems Ltd. is a privately owned Power Section manufacturing company, supplying the oil and gas drilling industry with premium quality products and superior customer service. In addition to conventional power sections, Spira Systems proudly brings the SPIRA® and SPIRA® TNT uniform-wall technology to North America. For over a decade, the benefits of SPIRA® uniform-wall power sections have been proven to provide exceptional reliability and performance throughout a broad range of drilling environments.

Our dedication to excellence is manifested in the way we design and manufacture power sections. Our precision measuring instruments coupled with years of industry experience equip our team with a competitive understanding of power section behaviour. Spira Systems leverages the operational expertise of a North American power section manufacturing team combined with Artemis' German engineering. Together we are committed to delivering exceptional quality stators, rotors and relines to the North American drilling motor industry.

www.spirasystems.com





www.spirasystems.com

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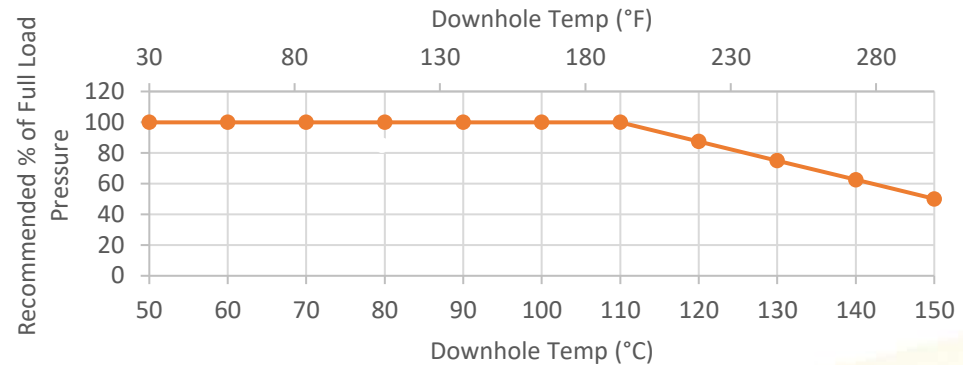
SPIRA-HRD

PROVEN PERFORMANCE AND LIFE

SPIRA®-HRD is our hard rubber compound with a demonstrated track record of maximizing torque for conventional stators. The SPIRA®-HRD rubber features:

- Excellent swell resistance in water, saturated brine, and oil based drilling fluids
- Optimized properties to minimize hysteresis heat buildup and stator chunking in demanding applications
- Excellent dynamic properties suitable for high flow and speed
- Exceptional wear resistance where drilling fluid has high concentration of solids or sand
- Superb rubber to tube bond strength
- Maximum recommended operating temperature 150°C (300°F). See chart below.

Maximum Pressure Differential Recommendation at Elevated Temperatures





Conventional HRD Power Sections

Conventional hard rubber (HRD) stators offer:

- More than 15 years of manufacturing stators with hard rubber
- Swell resistance in water, saturated brine, and oil based drilling fluids
- Highest rated wear resistance in the industry
- Offered in different stator sizes (STD, 1T, 1L)



SPIRA® Uniform-Wall Power Sections

SPIRA® uniform-wall power sections:

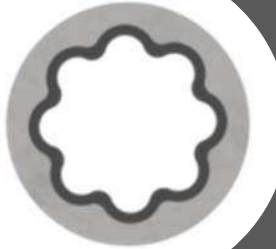
- Highest pressure differential per stage in the industry
- Even rubber swell delivers better performance at operating temperature
- Spiraled tube reduces wellbore stick and friction during drilling
- Formed tubes are capital-cost effective (20% less expensive than competition)
- Rental programs available



SPIRA® TNT (Tube-In-Tube) Uniform-Wall Power Sections

SPIRA® Tube-In-Tube (TNT) stators offer:

- High pressure differential per stage similar to SPIRA® uniform-wall
- More rigid stator bodies resist bending downhole
- Several interchangeable models with conventional stators
- No limits on the number of lobes or length
- Rental programs available



Uniform wall SPIRA® stators.

The next generation of power section handles higher temperatures, longer run times, and more aggressive drilling fluids. Here are four reasons to choose a SPIRA® uniform-wall stator:

1

DO MORE WITH LESS

- Handles higher pressures
- Delivers higher torque
- Shorter section
- Longer running life
- Less frequent relines
- Fewer trips to surface

2

PROFILE CONTROL

- Profile won't distort under heat
- Profile won't distort due to oil-based drilling fluids
- More precise fit
- Less leakage
- Higher efficiency

3

SPIRALED EXTERIOR

- Proprietary forming process
- Competitive capital cost
- Minimizes wellbore sticking
- Aids in wellbore cleaning

4

TEMP TOLERANCE

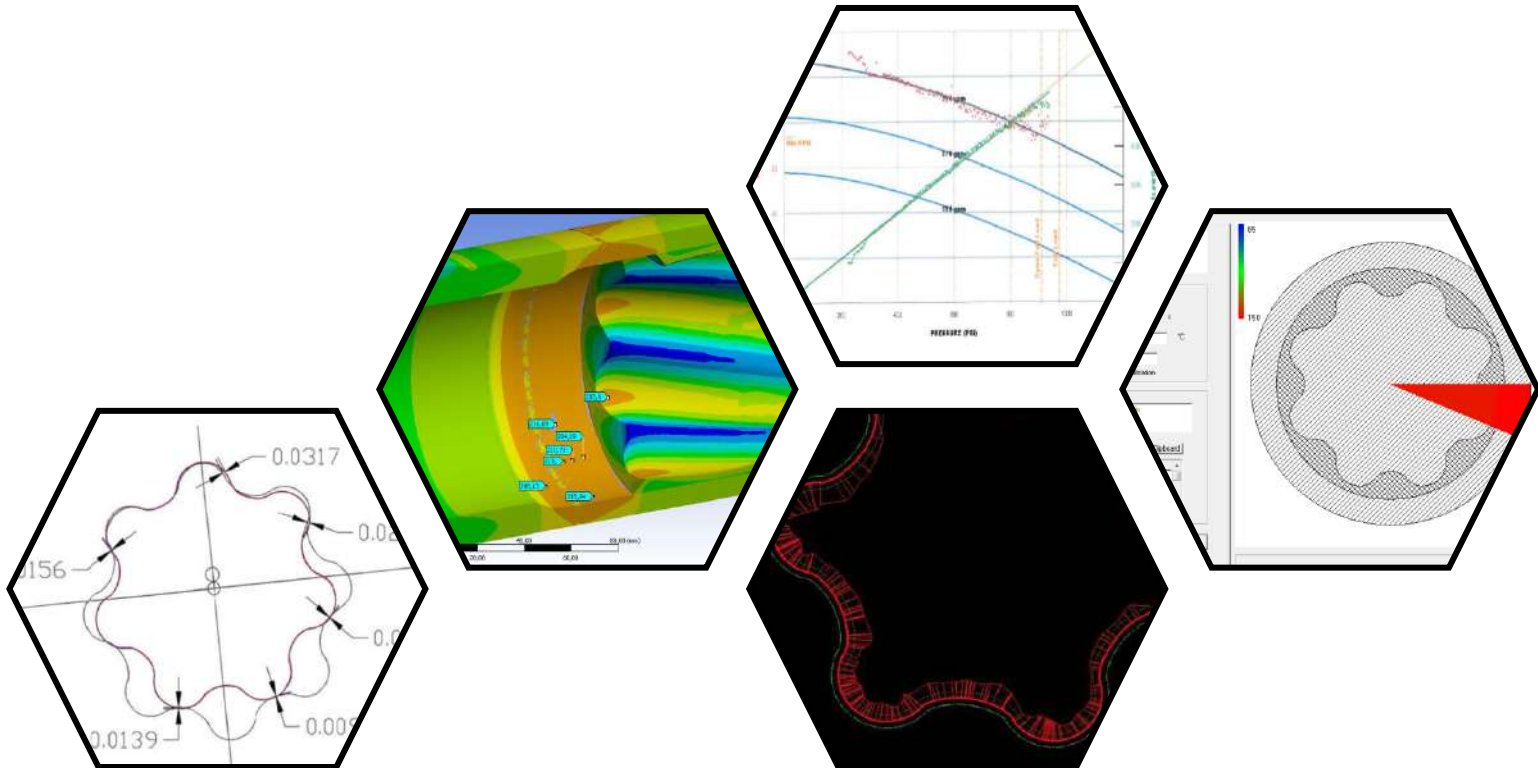
- Low hysteresis build-up
- Improved heat dissipation
- Manufactured with proprietary HRD rubber



Advanced Power Section Engineering

At Spira Systems, we believe in pushing the limits of our expertise. We are always finding new ways to educate and collaborate with customers to improve performance and understanding throughout the industry. This is why we choose to:

- Design our optimal fit around downhole conditions, not dyno conditions
- Measure true profile sizes using a no-contact Laser Measuring Machine
- Verify performance on a full-scale dynamometer



Conventional Performance Summary

Model	Size	Lobes	Stages	Tube OD (in)	Tube ID (in)	Stator Length (in)					Bit Speed (rev/gal) [rev/l]	Max Off Bottom Speed (RPM)	Optimal Flow Range (GPM) [lpm]	Max Flow Limit (GPM) [lpm]	Power at Max (HP) [kW]	Max Motor Pressure (psi) [kPa]	Max Torque Limit (ft-lb) [N-m]	Stall Torque (ft-lb) [N-m]
							Dyna-Drill	Abaco	Weatherford	NOV (Legacy R&M)								
SPS313565.0	3.13"	5/6	5	3.13	2.63	106.0		x		x	2.640 [0.697]	530	80-200 [310-760]	200 [760]	90 [65]	1200 [8100]	1250 [1700]	1850 [2500]
SPS475783.8	4.75"	7/8	3.8	4.75	3.75	187.0	x	x	x	x	0.521 [0.138]	130	150-250 [570-950]	300 [1140]	85 [65]	900 [6200]	4650 [6300]	6950 [9400]
SPS500566.7	5.00"	5/6	6.7	5.00	4.00	250.0		x			0.630 [0.166]	240	150-375 [570-1420]	400 [1520]	210 [155]	1550 [10900]	6350 [8600]	9500 [12900]
SPS500568.3	5.00"	5/6	8.3	5.00	3.75	242.6	x	x	x	x	1.000 [0.264]	300	100-300 [380-1140]	300 [1140]	210 [155]	1950 [13400]	5000 [6800]	7550 [10200]
SPS500677.0	5.00"	6/7	7	5.00	4.00	212.0	x	x		x	0.810 [0.214]	280	160-350 [610-1330]	350 [1330]	205 [155]	1650 [11300]	5250 [7100]	7850 [10600]
SPS500677.0 WFD	5.00"	6/7	7	5.00	4.00	212.0			x		0.820 [0.217]	290	160-350 [610-1330]	350 [1330]	200 [150]	1650 [11300]	5100 [6900]	7650 [10400]
SPS500678.0	5.00"	6/7	8	5.00	4.00	250.0	x	x	x	x	0.810 [0.214]	280	160-350 [610-1330]	350 [1330]	235 [175]	1900 [13000]	6000 [8100]	8950 [12200]
SPS500678.8	5.00"	6/7	8.8	5.00	4.00	275.0	x	x			0.660 [0.174]	230	150-350 [570-1330]	350 [1330]	305 [225]	2050 [14300]	7650 [10400]	11500 [15600]
SPS500679.0	5.00"	6/7	9	5.00	4.00	250.0		x			0.850 [0.225]	300	150-350 [570-1330]	350 [1330]	255 [190]	2100 [14600]	6200 [8400]	9250 [12600]
SPS500783.7	5.00"	7/8	3.7	5.00	4.00	235.0	x	x	x		0.368 [0.097]	130	150-350 [570-1330]	350 [1330]	105 [80]	850 [6000]	6000 [8100]	9000 [12200]
SPS500783.8	5.00"	7/8	3.8	5.00	3.75	187.0	x	x	x	x	0.521 [0.138]	130	150-250 [570-950]	300 [1140]	85 [65]	900 [6200]	4650 [6300]	6950 [9400]
SPS500784.5	5.00"	7/8	4.5	5.00	4.00	229.3	x	x			0.463 [0.122]	140	150-300 [570-1140]	300 [1140]	105 [80]	1050 [7300]	5500 [7400]	8200 [11200]
SPS500785.7	5.00"	7/8	5.7	5.00	4.00	250.0	x	x			0.522 [0.138]	190	200-370 [760-1410]	400 [1520]	165 [125]	1400 [9700]	6500 [8800]	9750 [13200]

Performance tables 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. Please visit www.spirasystems.com for most recent information.

Conventional Performance Summary

Model	Size	Lobes	Stages	Tube OD (in)	Tube ID (in)	Stator Length (in)	Compatibility				Bit Speed (rev/gal) [rev/l]	Max Off Bottom Speed (RPM)	Optimal Flow Range (GPM) [lpm]	Max Flow Limit (GPM) [lpm]	Power at Max (HP) [kW]	Max Motor Pressure (psi) [kPa]	Max Torque Limit (ft-lb) [N-m]	Stall Torque (ft-lb) [N-m]
							Dyna-Drill	Abaco	Weatherford	NOV (Legacy R&M)								
SPS500786.4	5.00"	7/8	6.4	5.00	3.88	235.0	x		x		0.630 [0.166]	190	150-300 [570-1140]	300 [1140]	145 [110]	1500 [10400]	5550 [7500]	8350 [11300]
SPS500896.0	5.00"	8/9	6	5.00	4.00	250.0	x	x	x		0.510 [0.135]	180	200-350 [760-1330]	350 [1330]	170 [130]	1400 [9700]	6900 [9400]	10350 [14100]
SPS5137810.0	5.13"	7/8	10	5.13	4.00	250.0					0.825 [0.218]	250	100-300 [380-1140]	320 [1220]	235 [175]	2450 [17000]	7150 [9700]	10750 [14600]
SPS513785.7	5.13"	7/8	5.7	5.13	4.00	250.0	x	x			0.522 [0.138]	190	200-370 [760-1410]	400 [1520]	165 [125]	1400 [9700]	6500 [8800]	9750 [13200]
SPS525788.5 FATBOY™	5.25"	7/8	8.5	5.25	4.10	275.0					0.518 [0.137]	220	200-425 [760-1610]	425 [1610]	325 [240]	2000 [13800]	10600 [14400]	15900 [21500]
SPS625784.8	6.25"	7/8	4.8	6.25	5.00	203.5	x	x	x	x	0.330 [0.087]	130	150-400 [570-1520]	500 [1900]	165 [125]	1150 [7800]	9000 [12200]	13500 [18300]
SPS650784.8	6.50"	7/8	4.8	6.50	5.00	203.5	x	x	x	x	0.330 [0.087]	130	150-400 [570-1520]	500 [1900]	165 [125]	1150 [7800]	9000 [12200]	13500 [18300]
SPS650786.0	6.50"	7/8	6	6.60	5.50	235.0	x	x	x		0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	290 [215]	1400 [9700]	12750 [17300]	19150 [26000]
SPS660675.0	6.60"	6/7	5	6.60	5.50	200.0	x	x	x	x	0.292 [0.077]	180	300-600 [1140-2280]	600 [2280]	240 [180]	1200 [8100]	9750 [13200]	14650 [19900]
SPS660785.0	6.60"	7/8	5	6.60	5.50	194.5	x	x	x	x	0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	240 [180]	1200 [8100]	10650 [14400]	15950 [21700]
SPS660785.7 SX2	6.60"	7/8	5.7	6.60	5.50	260.0	x	x	x	x	0.242 [0.064]	150	300-600 [1140-2280]	700 [2650]	290 [215]	1350 [9200]	14350 [19400]	21500 [29100]
SPS660786.0	6.60"	7/8	6	6.60	5.50	235.0	x	x	x		0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	290 [215]	1400 [9700]	12750 [17300]	19150 [26000]

Performance tables 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. Please visit www.spirasystems.com for most recent information.

Conventional Performance Summary

Model	Size	Lobes	Stages	Tube OD (in)	Tube ID (in)	Stator Length (in)	Compatibility				Bit Speed (rev/gal) [rev/l]	Max Off Bottom Speed (RPM)	Optimal Flow Range (GPM) [lpm]	Max Flow Limit (GPM) [lpm]	Power at Max (HP) [kW]	Max Motor Pressure (psi) [kPa]	Max Torque Limit (ft-lb) [N-m]	Stall Torque (ft-lb) [N-m]
							Dyna-Drill	Abaco	Weatherford	NOV (Legacy R&M)								
SPS675457.0	6.75"	4/5	7	6.75	5.50	210.0	x	x	x	x	0.494 [0.131]	300	300-600 [1140-2280]	600 [2280]	365 [270]	1650 [11300]	8800 [12000]	13250 [17900]
SPS675675.0	6.75"	6/7	5	6.75	5.50	200.0	x	x	x	x	0.292 [0.077]	180	300-600 [1140-2280]	600 [2280]	240 [180]	1200 [8100]	9750 [13200]	14650 [19900]
SPS675785.0	6.75"	7/8	5	6.75	5.50	194.5	x	x	x	x	0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	240 [180]	1200 [8100]	10650 [14400]	15950 [21700]
SPS675785.7 SX2	6.75"	7/8	5.7	6.75	5.50	260.0	x	x	x	x	0.242 [0.064]	150	300-600 [1140-2280]	700 [2650]	290 [215]	1350 [9200]	14350 [19400]	21500 [29100]
SPS675786.0	6.75"	7/8	6	6.75	5.50	235.0	x	x	x		0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	290 [215]	1400 [9700]	12750 [17300]	19150 [26000]
SPS675786.4	6.75"	7/8	6.4	6.75	5.50	245.0	x	x			0.270 [0.071]	160	300-600 [1140-2280]	650 [2470]	310 [230]	1500 [10400]	13650 [18500]	20450 [27700]
SPS6759108.0	6.75"	9/10	8	6.75	5.50	260.0	x	x	x		0.270 [0.071]	190	400-700 [1520-2650]	700 [2650]	450 [335]	1900 [13000]	17100 [23200]	25650 [34800]
SPS700678.4	7.00"	6/7	8.4	7.00	5.75	275.0		x			0.300 [0.079]	230	350-750 [1330-2840]	750 [2840]	460 [345]	1950 [13600]	16550 [22400]	24800 [33600]
SPS700785.7 SX2	7.00"	7/8	5.7	7.00	5.50	260.0	x	x	x	x	0.242 [0.064]	150	300-600 [1140-2280]	700 [2650]	290 [215]	1350 [9200]	14350 [19400]	21500 [29100]
SPS700787.3	7.00"	7/8	7.3	7.00	5.75	275.0					0.266 [0.070]	200	300-750 [1140-2840]	750 [2840]	465 [345]	1800 [12400]	17500 [23700]	26250 [35600]
SPS700788.5	7.00"	7/8	8.5	7.00	5.75	300.0	x	x			0.260 [0.069]	200	500-750 [1900-2840]	750 [2840]	530 [395]	2000 [13800]	19550 [26500]	29300 [39700]
SPS800784.0	8.00"	7/8	4	8.00	6.25	203.2	x	x	x	x	0.155 [0.041]	140	400-900 [1520-3410]	900 [3410]	290 [215]	950 [6500]	14800 [20100]	22250 [30100]
SPS800785.9	8.00"	7/8	5.9	8.00	6.25	300.0	x	x			0.155 [0.041]	140	400-900 [1520-3410]	900 [3410]	425 [315]	1400 [9600]	21850 [29600]	32800 [44500]

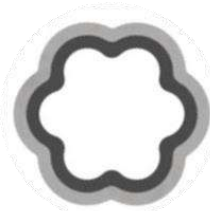
Performance tables are for reference only. Actual power section performance may vary depending on operating conditions (e.g. chosen rotor/stator interference fit, possible rubber swelling by drilling fluid, rotor and stator wear, actual downhole temperature, actual stator temperature, physical and chemical 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. Please visit www.spirasystems.com for most recent information.

Spira/TNT Performance Summary

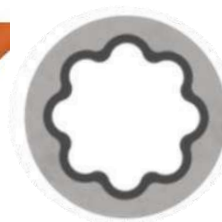
Model Type	Model	Size	Lobes	Stages	Tube OD (in)	Tube ID (in)	Stator Length (in)	Compatibility				Bit Speed (rev/gal) [rev/l]	Max Off Bottom Speed (RPM)	Optimal Flow Range (GPM) [lpm]	Max Flow Limit (GPM) [lpm]	Power at Max (HP) [kW]	Max Motor Pressure (psi) [kPa]	Max Torque Limit (ft-lb) [N-m]	Stall Torque (ft-lb) [N-m]
								Dyna-Drill	Abaco	Weatherford	NOV (Legacy R&M)								
Spira®	SPS500568.3-Spira®	5.00"	5/6	8.3	5.00	3.75	242.6	x	x	x	x	1.000 [0.264]	300	100-300 [380-1140]	300 [1140]	250 [185]	2400 [16600]	6200 [8400]	8350 [11400]
Spira TNT®	SPS500783.8-Spira TNT®	5.00"	7/8	3.8	5.00	3.75	187.0	x	x	x	x	0.521 [0.138]	160	150-300 [570-1140]	350 [1330]	125 [95]	1100 [7600]	5900 [8000]	7950 [10800]
Spira TNT®	SPS675785.0-Spira TNT®	6.75"	7/8	5	6.89	5.50	200.0	x	x	x	x	0.270 [0.071]	160	200-600 [760-2280]	650 [2470]	290 [215]	1450 [10000]	13150 [17800]	17750 [24100]
Spira®	SPS700565.3-Spira®	7.00"	5/6	5.3	6.93	5.50	235.8					0.304 [0.080]	180	200-600 [760-2280]	650 [2470]	385 [285]	1550 [10600]	15600 [21100]	21050 [28500]
Spira TNT®	SPS800784.0-Spira TNT®	8.00"	7/8	4	8.00	6.25	223.5	x	x	x	x	0.155 [0.041]	140	400-900 [1520-3410]	1000 [3790]	345 [255]	1150 [8000]	18300 [24800]	24700 [33500]



SPIRA®

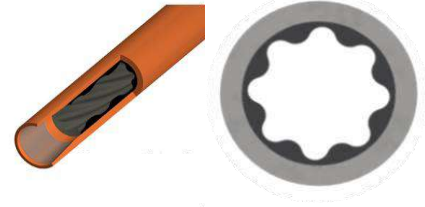


SPIRA® TNT



Power Sections

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Stator Specifications	
Overall Length in. [mm]	106.0 [2692]
Tube O.D. in. [mm]	3.13 [79]
Tube I.D. (Terminal) in. [mm]	2.63 [67]
Rubber Cutback Top in. [mm]	5.6 [142.2]
Rubber Cutback Btm in. [mm]	5.6 [142.2]
Weight lb [kg]	75 [35]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

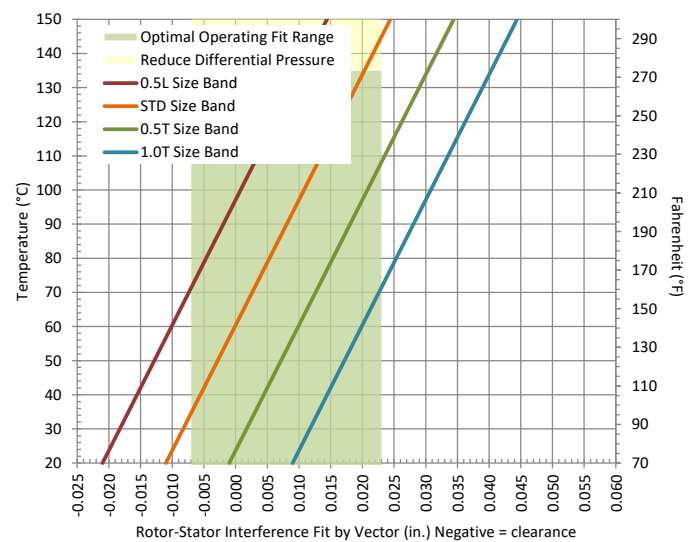
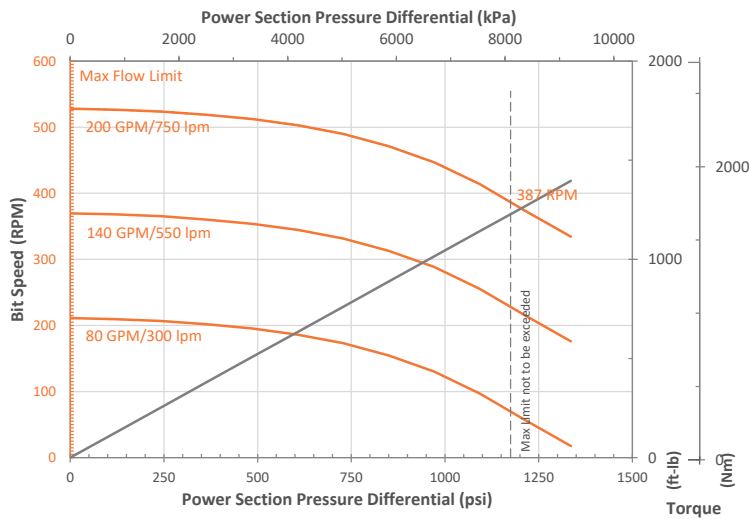
Rotor Specifications	
Overall Length in. [mm]	101.5 [2578]
Contour Length in. [mm]	97.0 [2464]
Major Diameter in. [mm]	2.073 [52.7]
Eccentricity in. [mm]	0.148 [3.8]
Head Diameter in. [mm]	1.850 [47]
Gunbored Weight lb [kg]	No bore option
Solid Weight lb [kg]	75 [34]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	80 - 200 [300 - 760]
Speed Range RPM	210 - 530
Torque Slope ft-lb/psi [Nm/kPa]	1.045 [0.205]
Rotation rev/Gal [rev/lit]	2.640 [0.697]
Stall Torque ft-lb [Nm]	1,850 [2,500]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,200 [8,100]
Torque ft-lbs [Nm]	1,250 [1,700]
Flow Rate GPM [lpm]	200 [750]
Full Load RPM	387 at 200 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	-0.011	1.788	95°F [35°C]	195°F [90°C]	295°F [145°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000146 [0.000263]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

Power Sections

22 East Lake Crescent N.E., Airdrie, Alberta, Canada, T4A 2H3
Ph: (587) 775-7777
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Stator Specifications	
Overall Length in. [mm]	187.0 [4750]
Tube O.D. in. [mm]	4.75 [121]
Tube I.D. (Terminal) in. [mm]	3.75 [95]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	505 [230]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

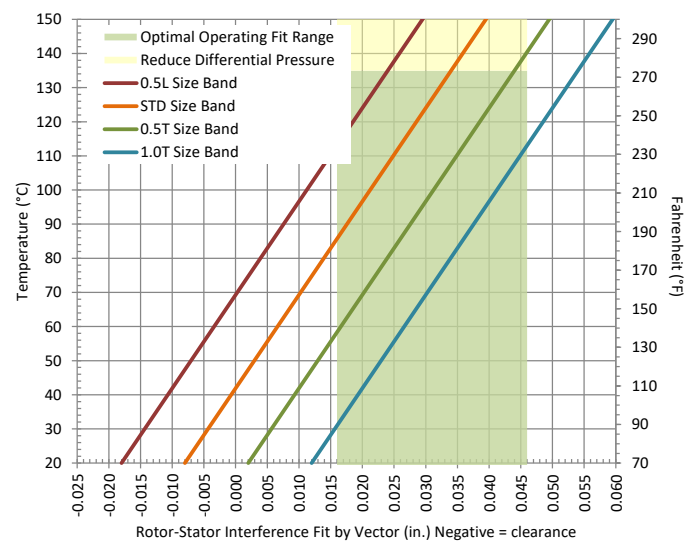
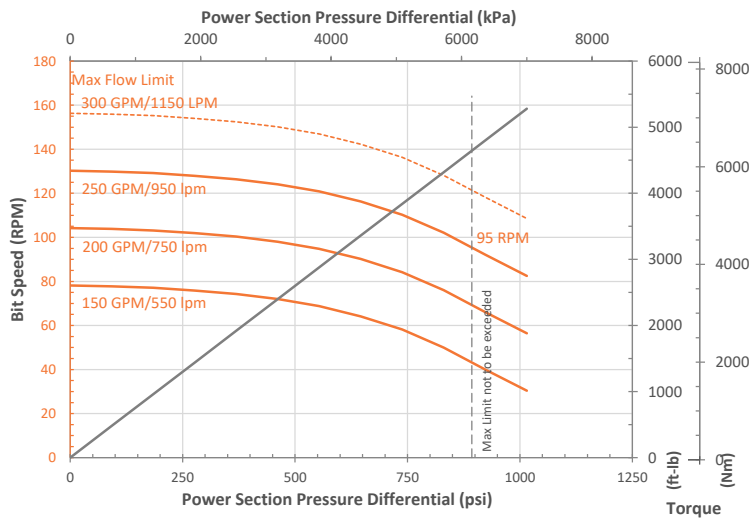
Rotor Specifications	
Overall Length in. [mm]	178.0 [4521]
Contour Length in. [mm]	172.3 [4375]
Major Diameter in. [mm]	2.945 [74.8]
Eccentricity in. [mm]	0.163 [4.1]
Head Diameter in. [mm]	2.750 [69.9]
Gunbored Weight lb [kg]	235 [107]
Solid Weight lb [kg]	274 [124]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 300 [570 - 1140]
Speed Range RPM	80 - 130
Torque Slope ft-lb/psi [Nm/kPa]	5.200 [1.023]
Rotation rev/Gal [rev/lit]	0.521 [0.138]
Stall Torque ft-lb [Nm]	6,950 [9,400]
Operating Parameters	
Max Diff Pressure psi [kPa]	900 [6,200]
Torque ft-lbs [Nm]	4,650 [6,300]
Flow Rate GPM [lpm]	250 [900]
Full Load RPM	95 at 250 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	0.012	2.607	90°F [30°C]	165°F [75°C]	240°F [115°C]
0.5T	0.002	2.617	140°F [60°C]	215°F [100°C]	290°F [140°C]
STD	-0.008	2.627	190°F [85°C]	260°F [130°C]	300°F [150°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000195 [0.000351]

Notes:

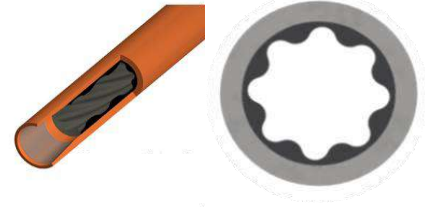
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

Power Sections

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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	

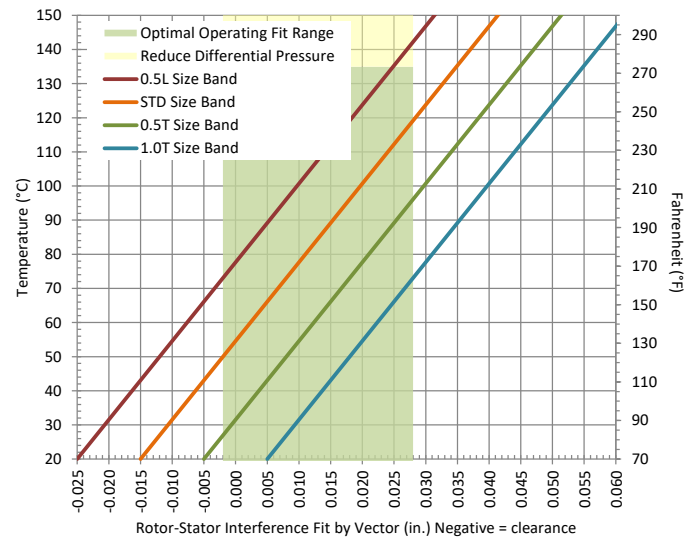
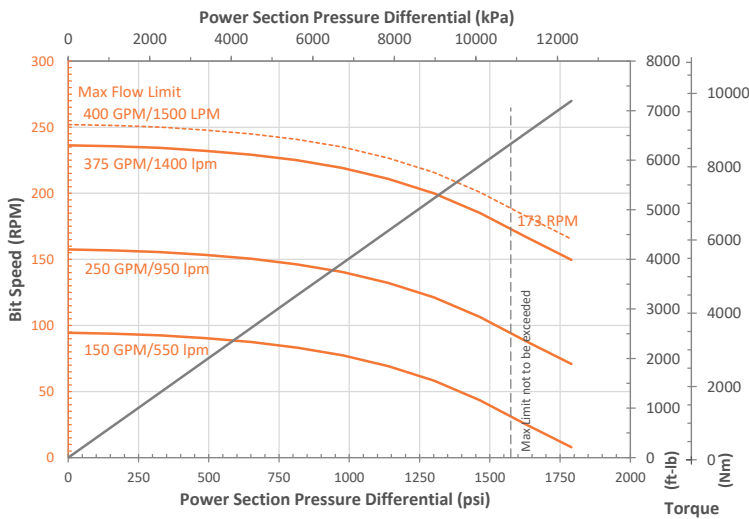
Rotor Specifications	
Overall Length in. [mm]	241.0 [6121]
Contour Length in. [mm]	235.0 [5969]
Major Diameter in. [mm]	3.120 [79.2]
Eccentricity in. [mm]	0.235 [6.0]
Head Diameter in. [mm]	2.900 [73.7]
Gunbored Weight lb [kg]	330 [150]
Solid Weight lb [kg]	383 [174]
Material (See note 4)	17-4 PH
Coating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

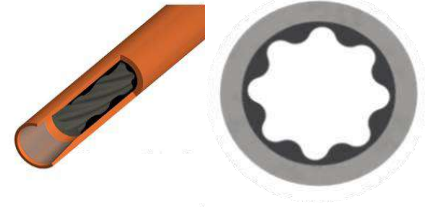
1. Negative fits indicate clearance fit at room temperature using nominal new rotor.
2. Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
3. Typical stator minor diameter tolerances are +/- 0.015.
4. Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	242.6 [6162]
Tube O.D. in. [mm]	5.00 [127]
Tube I.D. (Terminal) in. [mm]	3.75 [95]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	635 [290]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

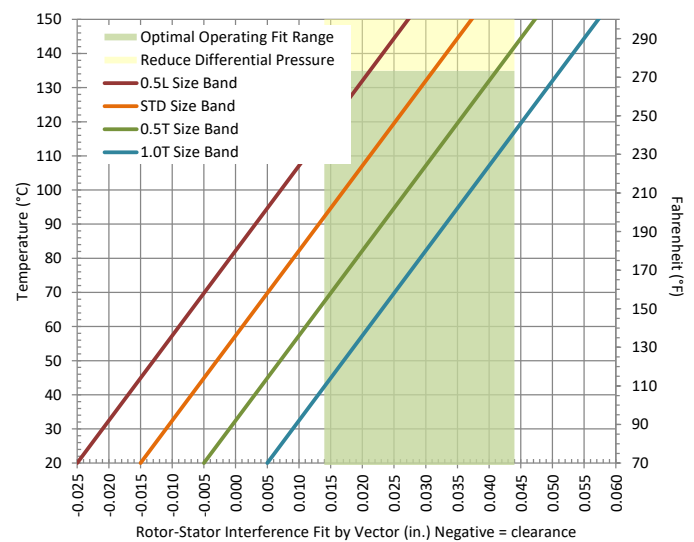
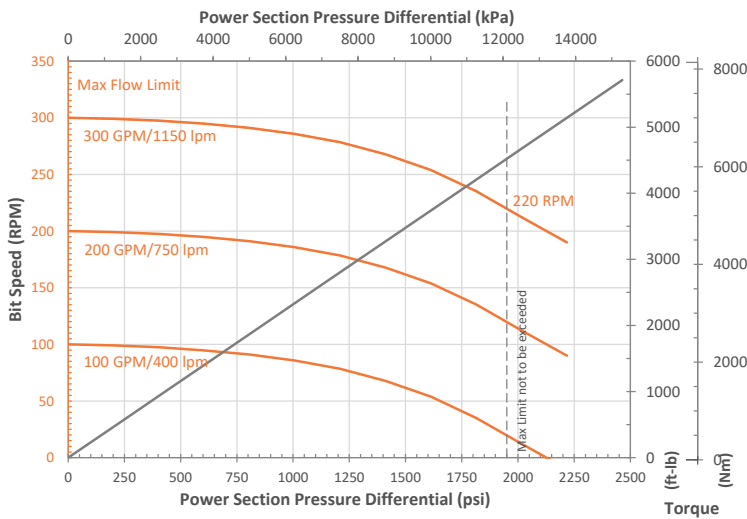
Rotor Specifications	
Overall Length in. [mm]	229.5 [5829]
Contour Length in. [mm]	223.0 [5664]
Major Diameter in. [mm]	2.916 [74.1]
Eccentricity in. [mm]	0.207 [5.3]
Head Diameter in. [mm]	2.750 [69.9]
Gunbored Weight lb [kg]	275 [125]
Solid Weight lb [kg]	325 [148]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	100 - 300 [380 - 1140]
Speed Range RPM	100 - 300
Torque Slope ft-lb/psi [Nm/kPa]	2.576 [0.507]
Rotation rev/Gal [rev/lit]	1.000 [0.264]
Stall Torque ft-lb [Nm]	7,550 [10,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,950 [13,400]
Torque ft-lbs [Nm]	5,000 [6,800]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	220 at 300 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	-	-	-	-	-
0.5T	-0.005	2.507	150°F [65°C]	220°F [105°C]	285°F [140°C]
STD	-0.015	2.517	195°F [90°C]	265°F [130°C]	300°F [150°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000215 [0.000387]

Notes:

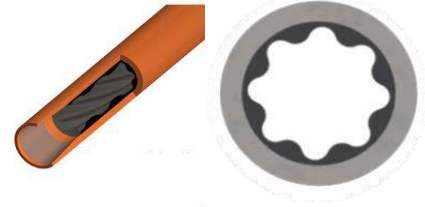
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	212.0 [5385]
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]	485 [220]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

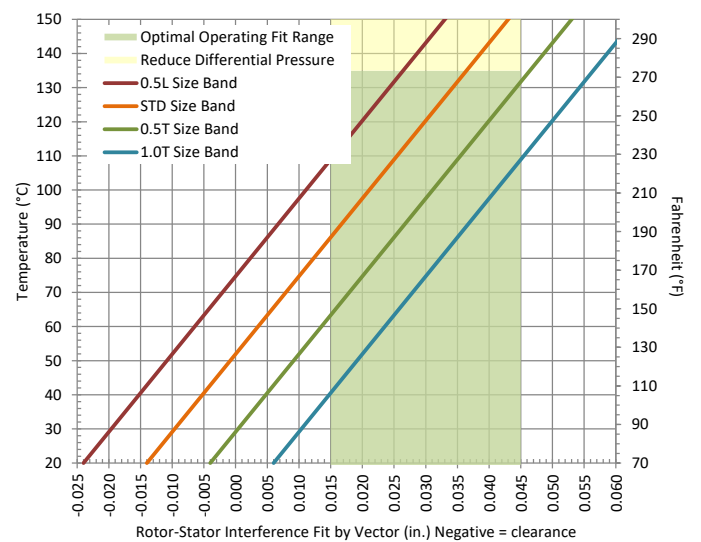
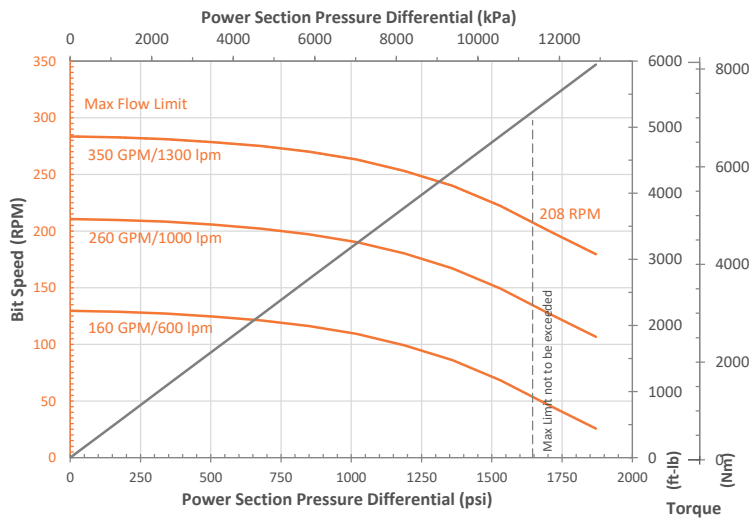
Rotor Specifications	
Overall Length in. [mm]	205.0 [5207]
Contour Length in. [mm]	197.3 [5010]
Major Diameter in. [mm]	3.018 [76.7]
Eccentricity in. [mm]	0.192 [4.9]
Head Diameter in. [mm]	3.125 [79.4]
Gunbored Weight lb [kg]	278 [126]
Solid Weight lb [kg]	321 [146]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	160 - 350 [610 - 1320]
Speed Range RPM	130 - 285
Torque Slope ft-lb/psi [Nm/kPa]	3.180 [0.625]
Rotation rev/Gal [rev/lit]	0.810 [0.214]
Stall Torque ft-lb [Nm]	7,850 [10,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,650 [11,300]
Torque ft-lbs [Nm]	5,250 [7,100]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	208 at 350 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	-	-	-	-	-
0.5T	-0.004	2.638	145°F [65°C]	205°F [95°C]	270°F [130°C]
STD	-	-	-	-	-
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000235 [0.000423]

Notes:

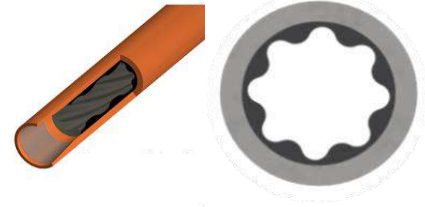
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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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 [255]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

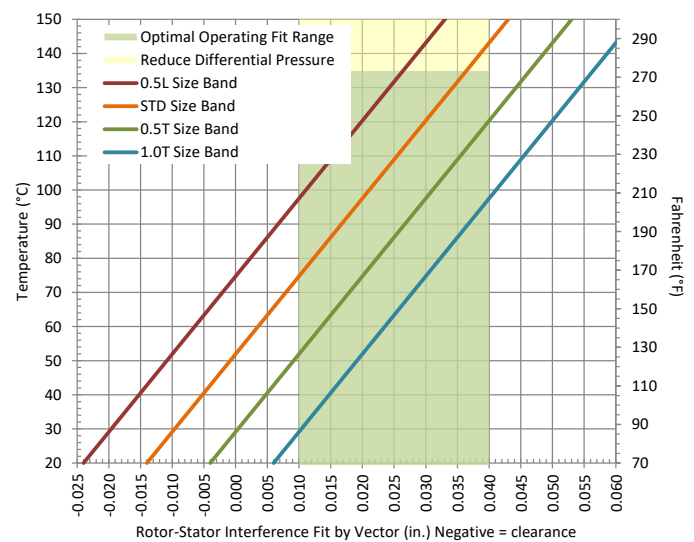
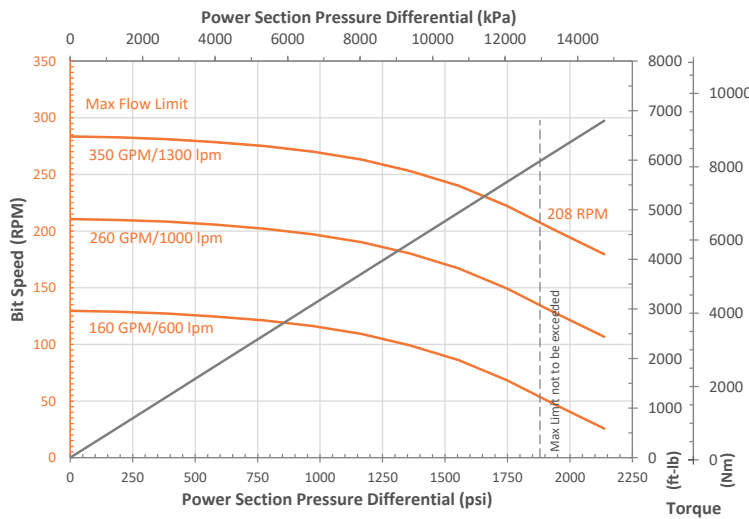
Rotor Specifications	
Overall Length in. [mm]	241.0 [6121]
Contour Length in. [mm]	235.0 [5969]
Major Diameter in. [mm]	3.018 [76.7]
Eccentricity in. [mm]	0.192 [4.9]
Head Diameter in. [mm]	3.000 [76.2]
Gunbored Weight lb [kg]	325 [147]
Solid Weight lb [kg]	378 [171]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	160 - 350 [610 - 1320]
Speed Range RPM	130 - 285
Torque Slope ft-lb/psi [Nm/kPa]	3.180 [0.625]
Rotation rev/Gal [rev/lit]	0.810 [0.214]
Stall Torque ft-lb [Nm]	8,950 [12,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,900 [13,000]
Torque ft-lbs [Nm]	6,000 [8,100]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	208 at 350 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	0.006	2.628	85°F [30°C]	145°F [65°C]	210°F [100°C]
0.5T	-0.004	2.638	125°F [50°C]	185°F [85°C]	250°F [120°C]
STD	-0.014	2.648	165°F [75°C]	225°F [110°C]	290°F [145°C]
0.5L	-0.024	2.658	210°F [100°C]	270°F [130°C]	330°F [165°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000235 [0.000423]

Notes:

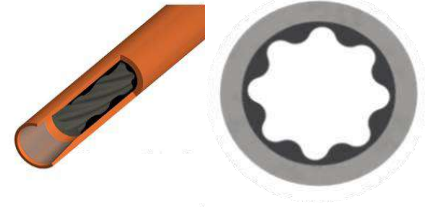
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	275.0 [6985]
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]	520 [235]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

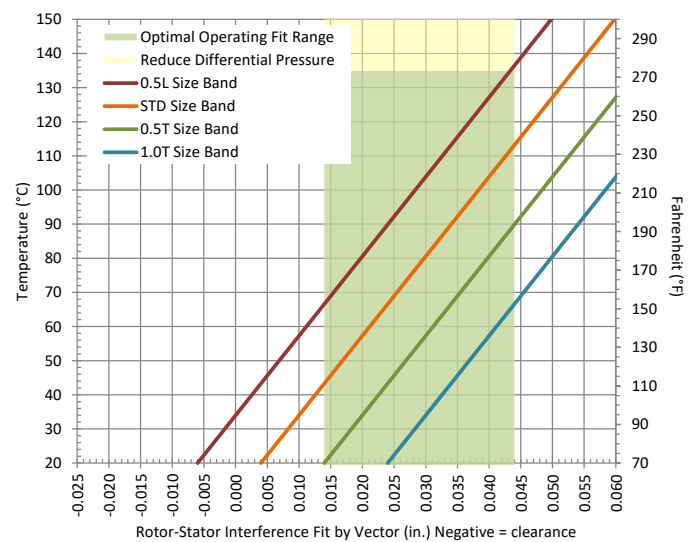
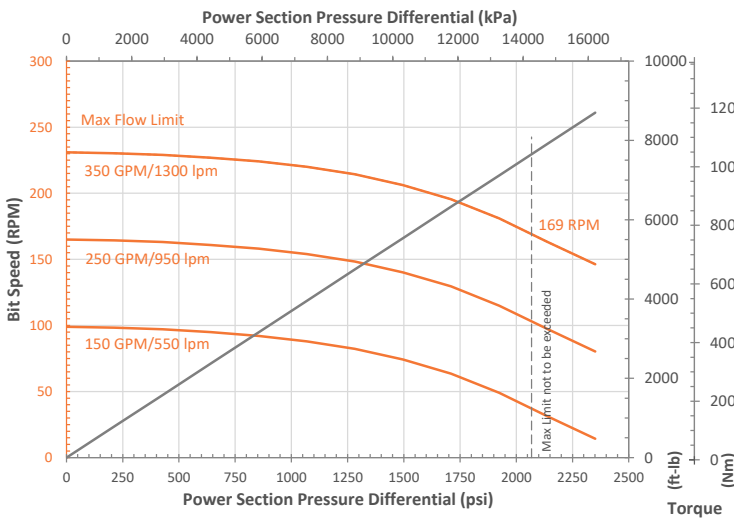
Rotor Specifications	
Overall Length in. [mm]	265.0 [6731]
Contour Length in. [mm]	258.0 [6553]
Major Diameter in. [mm]	3.298 [83.8]
Eccentricity in. [mm]	0.217 [5.5]
Head Diameter in. [mm]	2.900 [73.7]
Gunbored Weight lb [kg]	428 [194]
Solid Weight lb [kg]	487 [221]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 350 [570 - 1320]
Speed Range RPM	100 - 230
Torque Slope ft-lb/psi [Nm/kPa]	3.700 [0.728]
Rotation rev/Gal [rev/lit]	0.660 [0.174]
Stall Torque ft-lb [Nm]	11,500 [15,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,050 [14,300]
Torque ft-lbs [Nm]	7,650 [10,400]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	169 at 350 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.004	2.860	110°F [45°C]	175°F [80°C]	235°F [115°C]
0.5L	-0.006	2.870	150°F [65°C]	215°F [100°C]	280°F [135°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000233 [0.000420]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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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]	550 [250]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

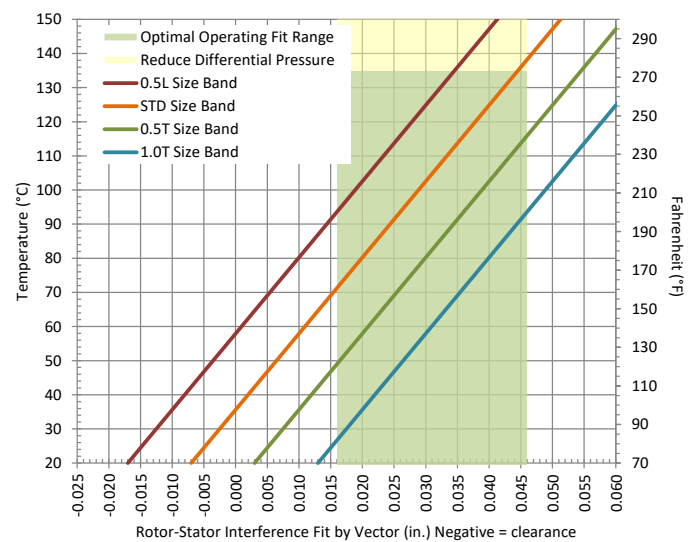
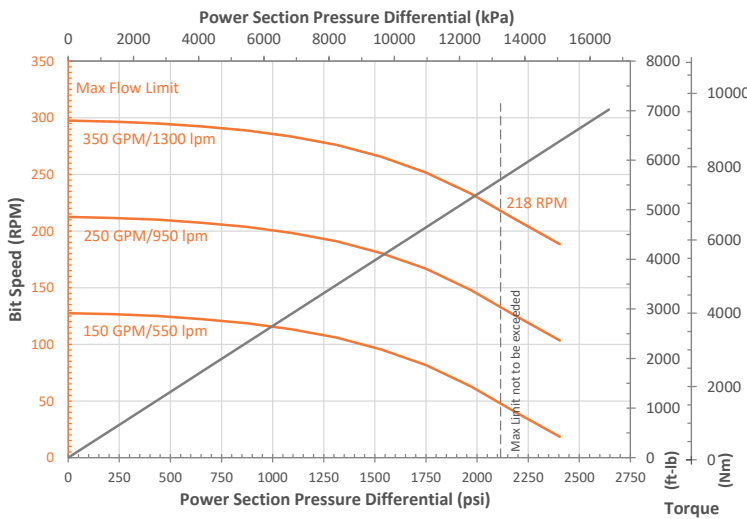
Rotor Specifications	
Overall Length in. [mm]	241.0 [6121]
Contour Length in. [mm]	235.0 [5969]
Major Diameter in. [mm]	3.190 [81]
Eccentricity in. [mm]	0.194 [4.9]
Head Diameter in. [mm]	2.900 [73.7]
Gunbored Weight lb [kg]	377 [171]
Solid Weight lb [kg]	430 [195]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 350 [570 - 1320]
Speed Range RPM	130 - 300
Torque Slope ft-lb/psi [Nm/kPa]	2.920 [0.574]
Rotation rev/Gal [rev/lit]	0.850 [0.225]
Stall Torque ft-lb [Nm]	9,250 [12,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,100 [14,600]
Torque ft-lbs [Nm]	6,200 [8,400]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	218 at 350 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	-0.007	2.810	160°F [70°C]	220°F [105°C]	280°F [140°C]
0.5L	-0.017	2.820	200°F [95°C]	260°F [130°C]	320°F [160°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000242 [0.000435]

Notes:

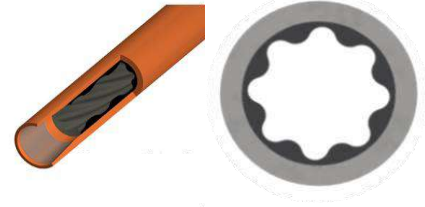
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

Power Sections

22 East Lake Crescent N.E., Airdrie, Alberta, Canada, T4A 2H3
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Stator Specifications	
Overall Length in. [mm]	235.0 [5969]
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]	520 [235]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

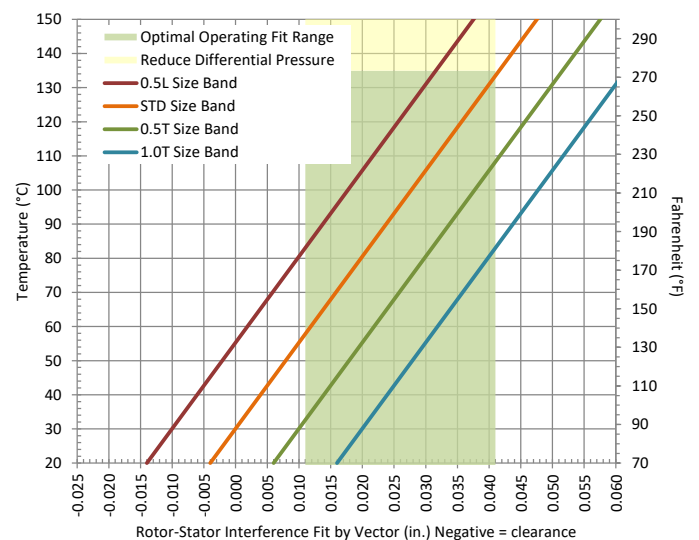
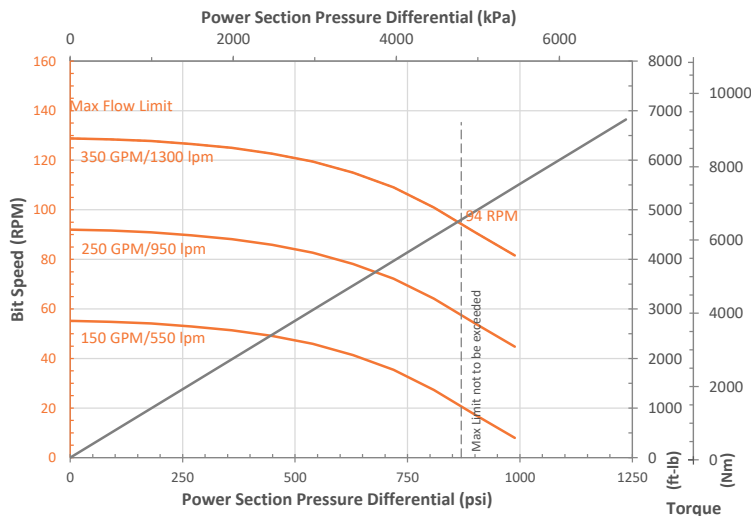
Rotor Specifications	
Overall Length in. [mm]	214.8 [5455]
Contour Length in. [mm]	208.3 [5290]
Major Diameter in. [mm]	3.122 [79.3]
Eccentricity in. [mm]	0.177 [4.5]
Head Diameter in. [mm]	3.250 [82.6]
Gunbored Weight lb [kg]	325 [147]
Solid Weight lb [kg]	372 [169]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 350 [570 - 1320]
Speed Range RPM	55 - 130
Torque Slope ft-lb/psi [Nm/kPa]	6.901 [1.357]
Rotation rev/Gal [rev/lit]	0.368 [0.097]
Stall Torque ft-lb [Nm]	9,000 [12,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	850 [6,000]
Torque ft-lbs [Nm]	6,000 [8,100]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	94 at 350 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	0.016	2.753	68°F [20°C]	110°F [45°C]	180°F [80°C]
0.5T	0.006	2.763	90°F [30°C]	160°F [70°C]	225°F [110°C]
STD	-0.004	2.773	135°F [55°C]	205°F [95°C]	270°F [135°C]
0.5L	-0.014	2.783	180°F [85°C]	250°F [120°C]	320°F [160°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000213 [0.000384]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	187.0 [4750]
Tube O.D. in. [mm]	5.00 [127]
Tube I.D. (Terminal) in. [mm]	3.75 [95]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	485 [220]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

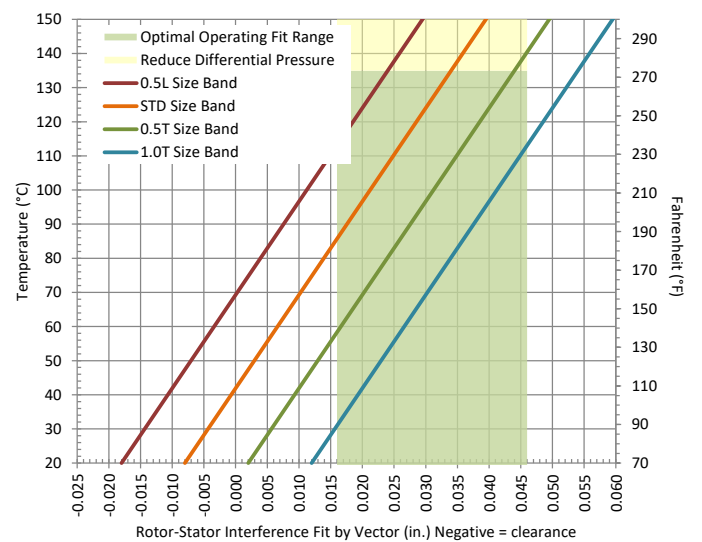
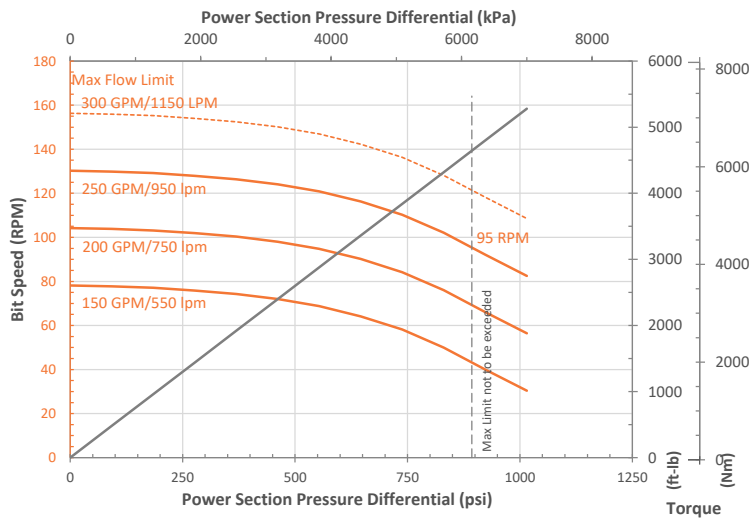
Rotor Specifications	
Overall Length in. [mm]	178.0 [4521]
Contour Length in. [mm]	172.3 [4375]
Major Diameter in. [mm]	2.945 [74.8]
Eccentricity in. [mm]	0.163 [4.1]
Head Diameter in. [mm]	2.750 [69.9]
Gunbored Weight lb [kg]	235 [107]
Solid Weight lb [kg]	274 [124]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 300 [570 - 1140]
Speed Range RPM	80 - 130
Torque Slope ft-lb/psi [Nm/kPa]	5.200 [1.023]
Rotation rev/Gal [rev/lit]	0.521 [0.138]
Stall Torque ft-lb [Nm]	6,950 [9,400]
Operating Parameters	
Max Diff Pressure psi [kPa]	900 [6,200]
Torque ft-lbs [Nm]	4,650 [6,300]
Flow Rate GPM [lpm]	250 [900]
Full Load RPM	95 at 250 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	0.012	2.607	90°F [30°C]	165°F [75°C]	240°F [115°C]
0.5T	0.002	2.617	140°F [60°C]	215°F [100°C]	290°F [140°C]
STD	-0.008	2.627	190°F [85°C]	260°F [130°C]	300°F [150°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000195 [0.000351]

Notes:

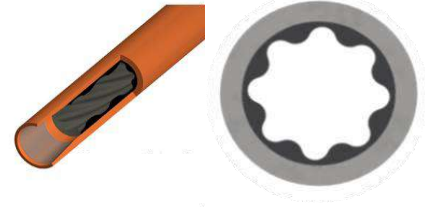
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	229.3 [5823]
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]	385 [175]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

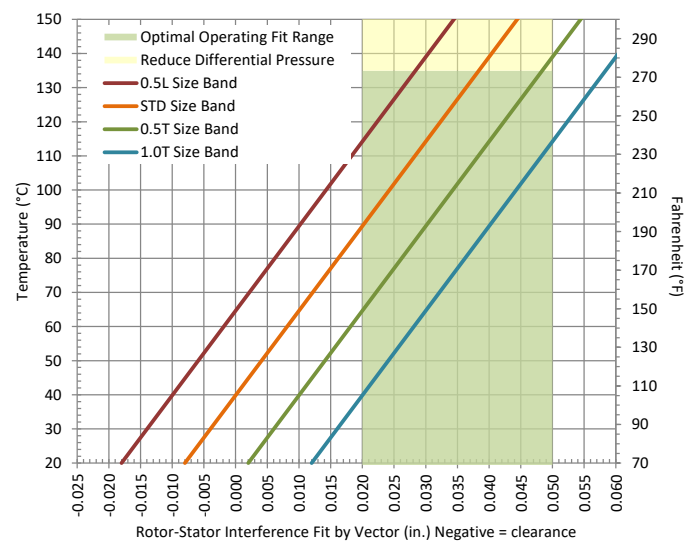
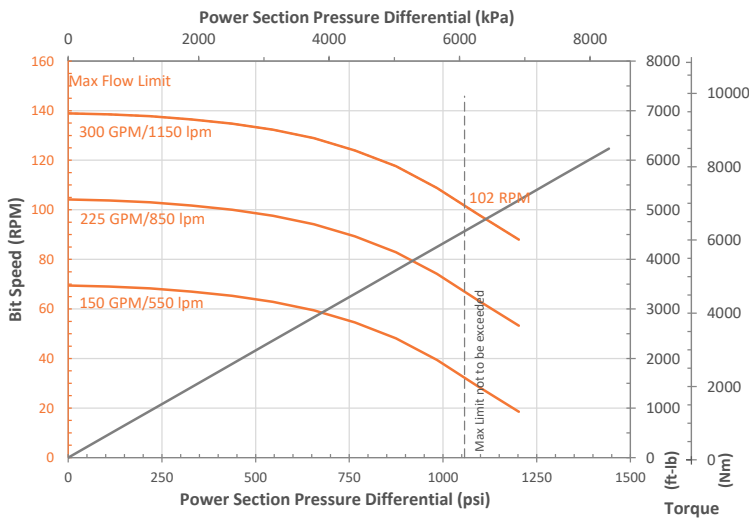
Rotor Specifications	
Overall Length in. [mm]	220.0 [5588]
Contour Length in. [mm]	214.3 [5442]
Major Diameter in. [mm]	3.091 [78.5]
Eccentricity in. [mm]	0.172 [4.4]
Head Diameter in. [mm]	2.750 [69.9]
Gunbored Weight lb [kg]	332 [151]
Solid Weight lb [kg]	380 [173]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 300 [570 - 1140]
Speed Range RPM	70 - 140
Torque Slope ft-lb/psi [Nm/kPa]	5.185 [1.020]
Rotation rev/Gal [rev/lit]	0.463 [0.122]
Stall Torque ft-lb [Nm]	8,200 [11,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,050 [7,300]
Torque ft-lbs [Nm]	5,500 [7,400]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	102 at 300 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	-	-	-	-	-
0.5T	0.002	2.745	150°F [65°C]	215°F [100°C]	285°F [140°C]
STD	-	-	-	-	-
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000216 [0.000388]

Notes:

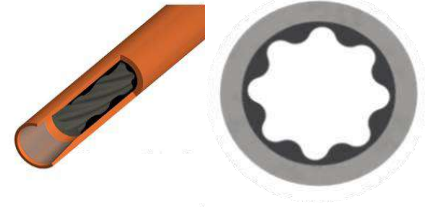
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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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]	550 [250]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

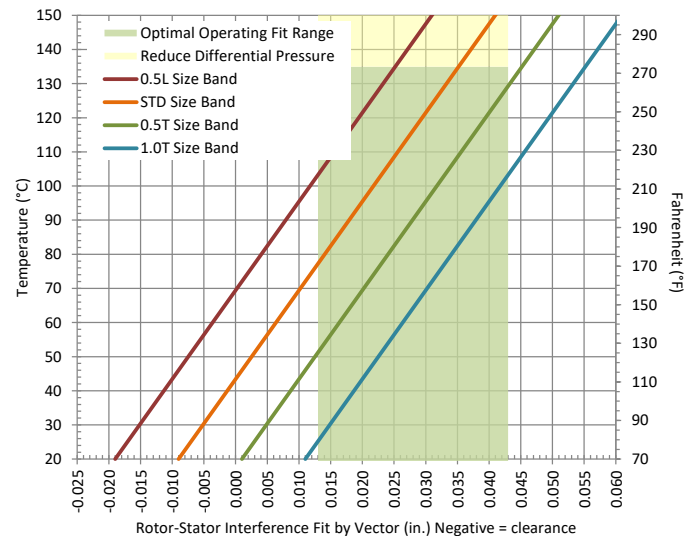
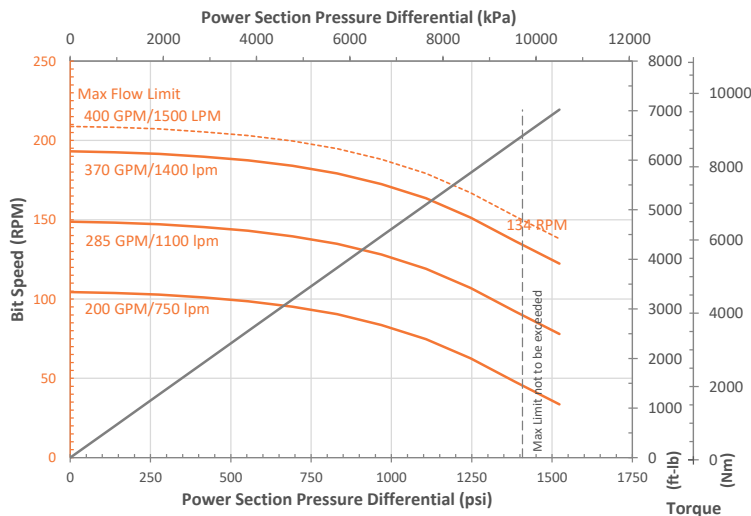
Rotor Specifications	
Overall Length in. [mm]	240.0 [6096]
Contour Length in. [mm]	234.0 [5944]
Major Diameter in. [mm]	3.144 [79.9]
Eccentricity in. [mm]	0.168 [4.3]
Head Diameter in. [mm]	3.250 [82.6]
Gunbored Weight lb [kg]	375 [170]
Solid Weight lb [kg]	428 [194]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	200 - 400 [760 - 1510]
Speed Range RPM	105 - 195
Torque Slope ft-lb/psi [Nm/kPa]	4.610 [0.907]
Rotation rev/Gal [rev/lit]	0.522 [0.138]
Stall Torque ft-lb [Nm]	9,750 [13,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	6,500 [8,800]
Flow Rate GPM [lpm]	370 [1,400]
Full Load RPM	134 at 370 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	0.011	2.797	75°F [25°C]	150°F [65°C]	220°F [105°C]
0.5T	0.001	2.807	125°F [50°C]	195°F [90°C]	265°F [130°C]
STD	-0.009	2.817	170°F [75°C]	240°F [115°C]	300°F [150°C]
0.5L	-0.019	2.827	220°F [105°C]	290°F [145°C]	300°F [150°C]
1.0L	-0.029	2.837	265°F [130°C]	300°F [150°C]	300°F [150°C]
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000205 [0.000370]

Notes:

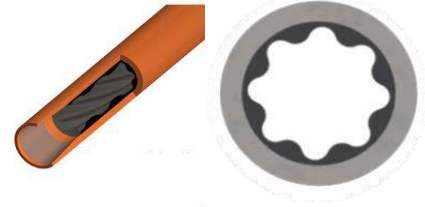
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	235.0 [5969]
Tube O.D. in. [mm]	5.00 [127]
Tube I.D. (Terminal) in. [mm]	3.88 [99]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	565 [255]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

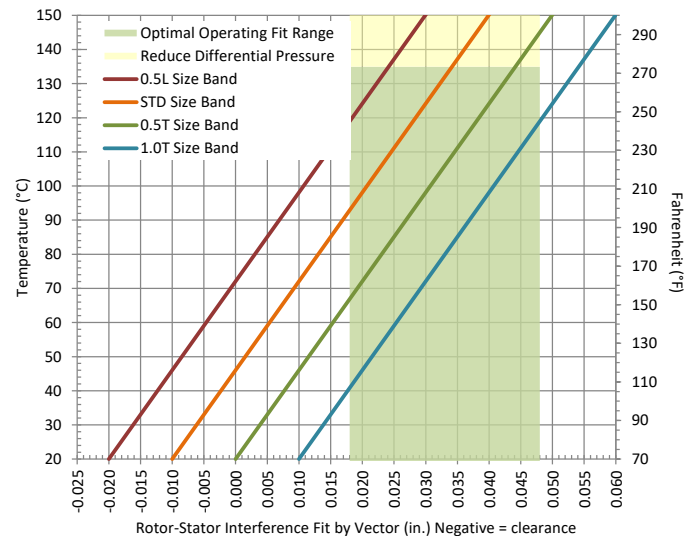
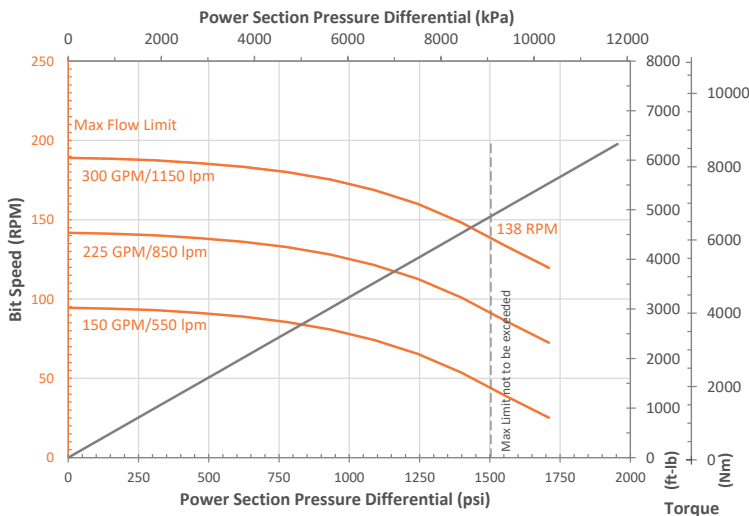
Rotor Specifications	
Overall Length in. [mm]	226.0 [5740]
Contour Length in. [mm]	220.0 [5588]
Major Diameter in. [mm]	3.029 [76.9]
Eccentricity in. [mm]	0.170 [4.3]
Head Diameter in. [mm]	3.250 [82.6]
Gunbored Weight lb [kg]	325 [147]
Solid Weight lb [kg]	375 [170]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 300 [570 - 1140]
Speed Range RPM	95 - 190
Torque Slope ft-lb/psi [Nm/kPa]	3.700 [0.728]
Rotation rev/Gal [rev/lit]	0.630 [0.166]
Stall Torque ft-lb [Nm]	8,350 [11,300]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,500 [10,400]
Torque ft-lbs [Nm]	5,550 [7,500]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	138 at 300 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	-	-	-	-	-
0.5T	0.000	2.689	155°F [70°C]	225°F [105°C]	295°F [145°C]
STD	-0.010	2.699	200°F [95°C]	270°F [135°C]	300°F [150°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000205 [0.000369]

Notes:

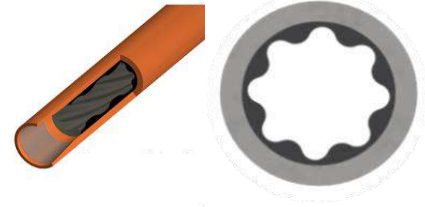
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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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]	550 [250]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

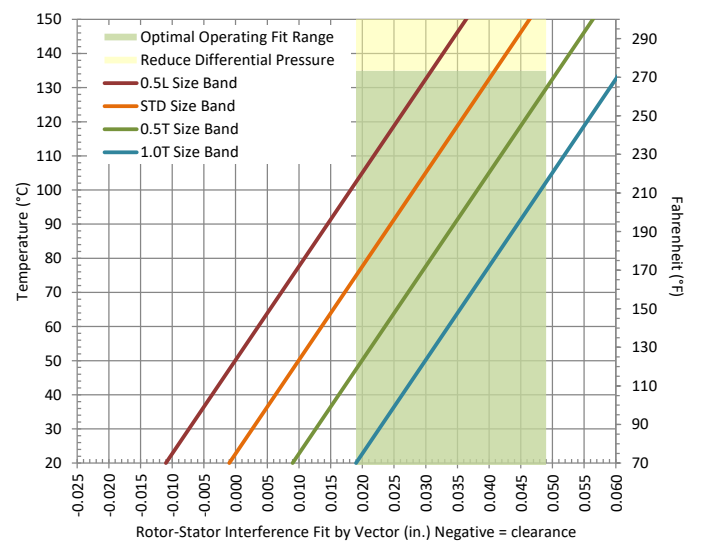
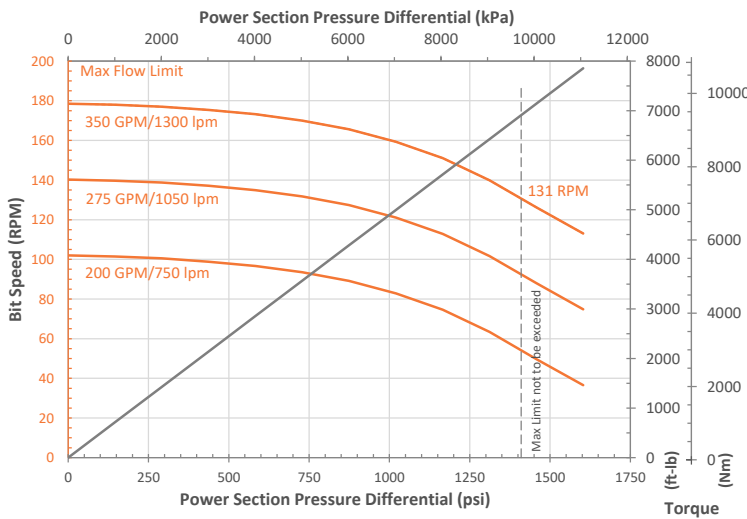
Rotor Specifications	
Overall Length in. [mm]	241.0 [6121]
Contour Length in. [mm]	235.0 [5969]
Major Diameter in. [mm]	3.198 [81.2]
Eccentricity in. [mm]	0.163 [4.1]
Head Diameter in. [mm]	3.380 [85.9]
Gunbored Weight lb [kg]	400 [181]
Solid Weight lb [kg]	453 [205]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	200 - 350 [760 - 1320]
Speed Range RPM	100 - 180
Torque Slope ft-lb/psi [Nm/kPa]	4.900 [0.964]
Rotation rev/Gal [rev/lit]	0.510 [0.135]
Stall Torque ft-lb [Nm]	10,350 [14,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	6,900 [9,400]
Flow Rate GPM [lpm]	350 [1,300]
Full Load RPM	131 at 350 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	-0.001	2.873	170°F [75°C]	240°F [115°C]	300°F [150°C]
0.5L	-0.011	2.883	220°F [105°C]	295°F [145°C]	300°F [150°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000195 [0.000352]

Notes:

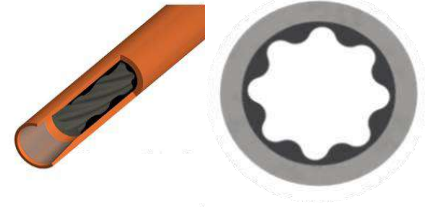
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	250.0 [6350]
Tube O.D. in. [mm]	5.13 [130]
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]	620 [280]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

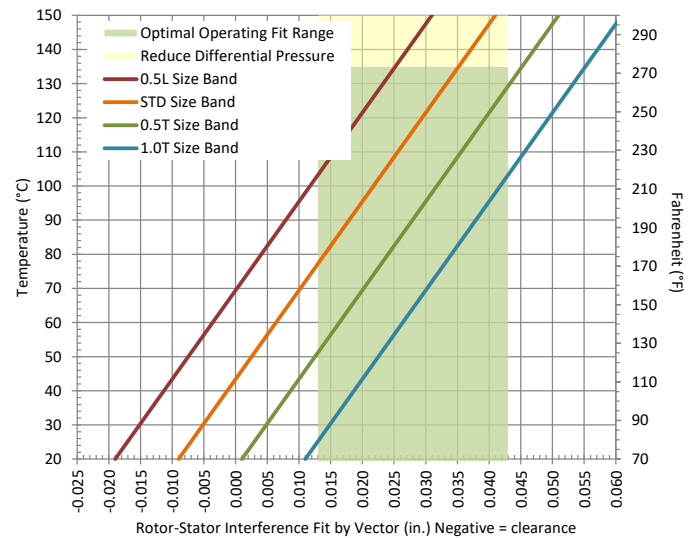
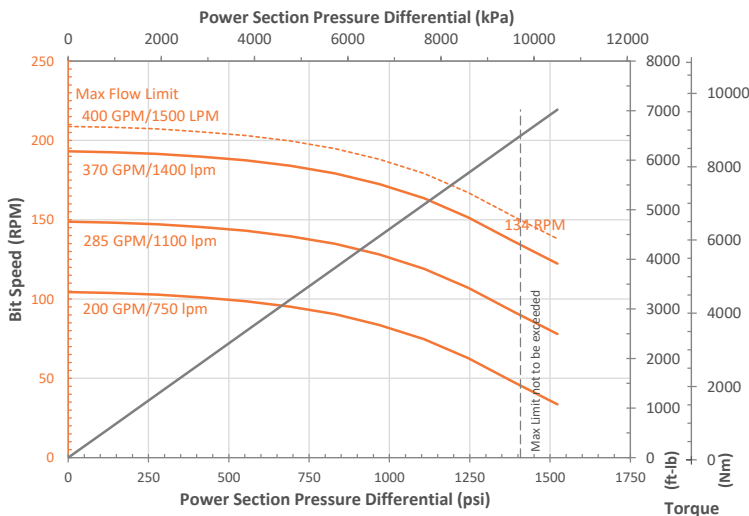
Rotor Specifications	
Overall Length in. [mm]	240.0 [6096]
Contour Length in. [mm]	234.0 [5944]
Major Diameter in. [mm]	3.144 [79.9]
Eccentricity in. [mm]	0.168 [4.3]
Head Diameter in. [mm]	3.250 [82.6]
Gunbored Weight lb [kg]	375 [170]
Solid Weight lb [kg]	428 [194]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	200 - 400 [760 - 1510]
Speed Range RPM	105 - 195
Torque Slope ft-lb/psi [Nm/kPa]	4.610 [0.907]
Rotation rev/Gal [rev/lit]	0.522 [0.138]
Stall Torque ft-lb [Nm]	9,750 [13,200]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	6,500 [8,800]
Flow Rate GPM [lpm]	370 [1,400]
Full Load RPM	134 at 370 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	0.011	2.797	75°F [25°C]	150°F [65°C]	220°F [105°C]
0.5T	0.001	2.807	125°F [50°C]	195°F [90°C]	265°F [130°C]
STD	-0.009	2.817	170°F [75°C]	240°F [115°C]	300°F [150°C]
0.5L	-0.019	2.827	220°F [105°C]	290°F [145°C]	300°F [150°C]
1.0L	-0.029	2.837	265°F [130°C]	300°F [150°C]	300°F [150°C]
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000205 [0.000370]

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.

Power Sections

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Stator Specifications	
Overall Length in. [mm]	250.0 [6350]
Tube O.D. in. [mm]	5.13 [130]
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]	615 [280]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

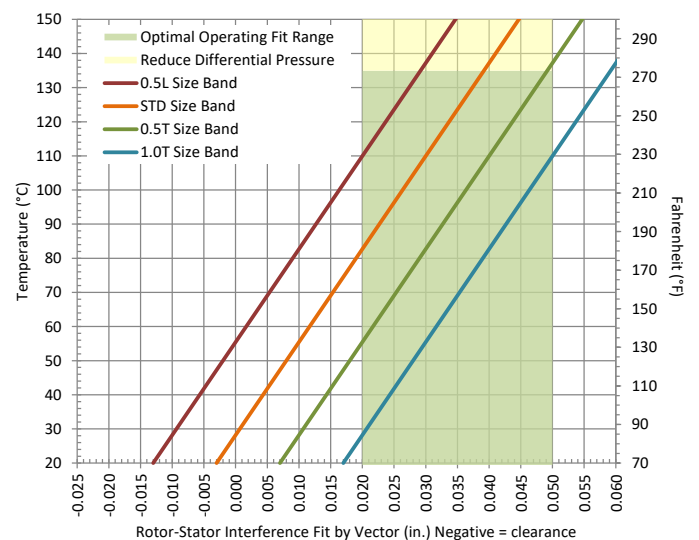
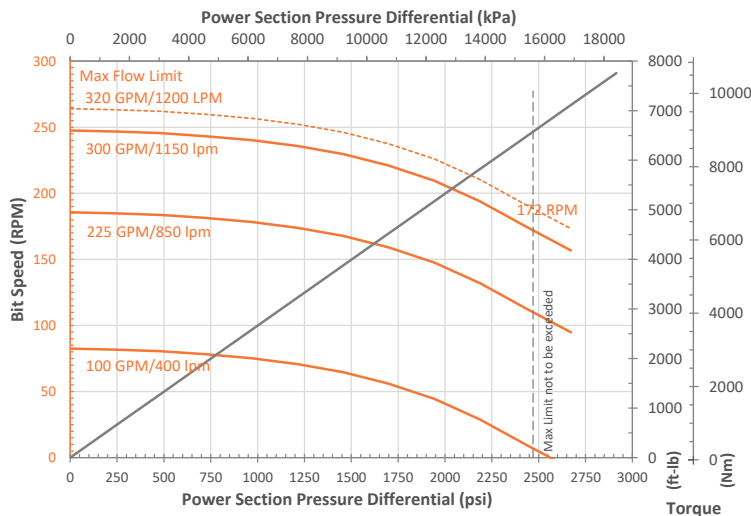
Rotor Specifications	
Overall Length in. [mm]	233.0 [5918]
Contour Length in. [mm]	256.3 [6509]
Major Diameter in. [mm]	3.212 [81.6]
Eccentricity in. [mm]	0.174 [4.4]
Head Diameter in. [mm]	3.500 [88.9]
Gunbored Weight lb [kg]	379 [172]
Solid Weight lb [kg]	430 [195]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	100 - 320 [380 - 1210]
Speed Range RPM	85 - 250
Torque Slope ft-lb/psi [Nm/kPa]	2.904 [0.571]
Rotation rev/Gal [rev/lit]	0.825 [0.218]
Stall Torque ft-lb [Nm]	10,750 [14,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,450 [17,000]
Torque ft-lbs [Nm]	7,150 [9,700]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	172 at 300 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	-	-	-	-	-
0.5L	-0.013	2.877	230°F [110°C]	300°F [150°C]	300°F [150°C]
1.0L	-0.023	2.887	280°F [135°C]	300°F [150°C]	300°F [150°C]
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000196 [0.000354]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	275.0 [6985]
Tube O.D. in. [mm]	5.25 [133]
Tube I.D. (Terminal) in. [mm]	4.10 [104]
Rubber Cutback Top in. [mm]	11.0 [279.4]
Rubber Cutback Btm in. [mm]	11.0 [279.4]
Weight lb [kg]	615 [280]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

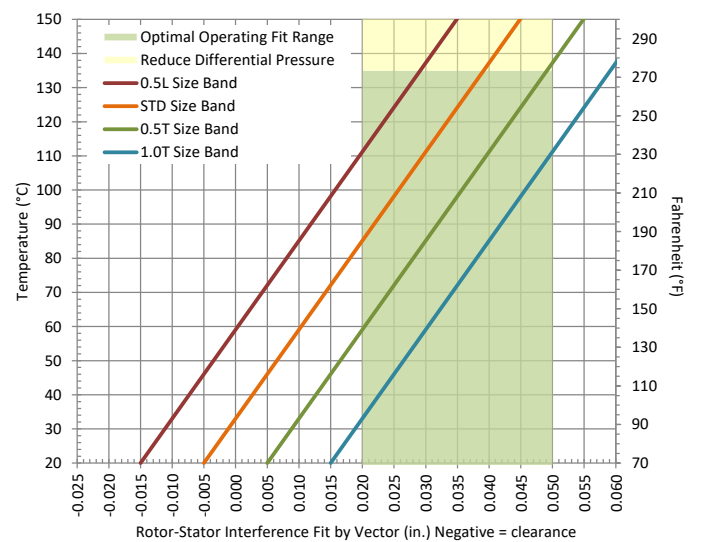
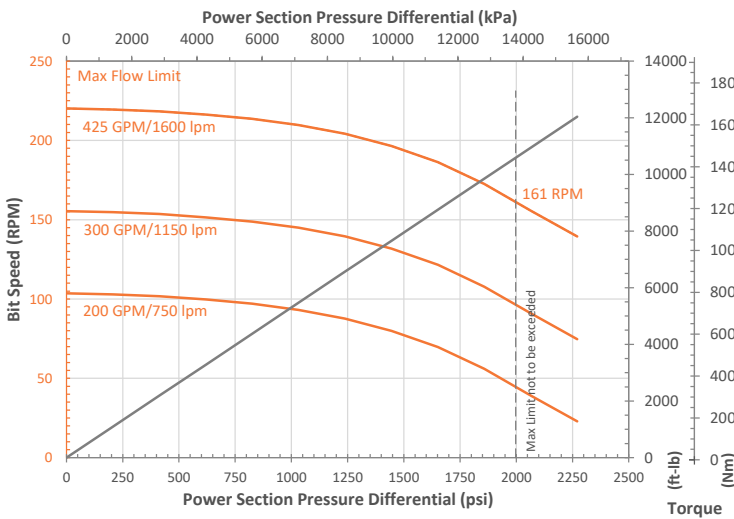
Rotor Specifications	
Overall Length in. [mm]	262.3 [6661]
Contour Length in. [mm]	256.3 [6509]
Major Diameter in. [mm]	3.609 [91.7]
Eccentricity in. [mm]	0.200 [5.1]
Head Diameter in. [mm]	3.500 [88.9]
Gunbored Weight lb [kg]	494 [224]
Solid Weight lb [kg]	552 [250]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	200 - 425 [760 - 1610]
Speed Range RPM	105 - 220
Torque Slope ft-lb/psi [Nm/kPa]	5.300 [1.042]
Rotation rev/Gal [rev/lit]	0.518 [0.137]
Stall Torque ft-lb [Nm]	15,900 [21,500]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,000 [13,800]
Torque ft-lbs [Nm]	10,600 [14,400]
Flow Rate GPM [lpm]	425 [1,600]
Full Load RPM	161 at 425 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	-	-	-	-	-
0.5T	0.005	3.205	140°F [60°C]	210°F [100°C]	280°F [135°C]
STD	-0.005	3.215	185°F [85°C]	255°F [125°C]	300°F [150°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000205 [0.000370]

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.

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Stator Specifications	
Overall Length in. [mm]	203.5 [5169]
Tube O.D. in. [mm]	6.25 [159]
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]	695 [315]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

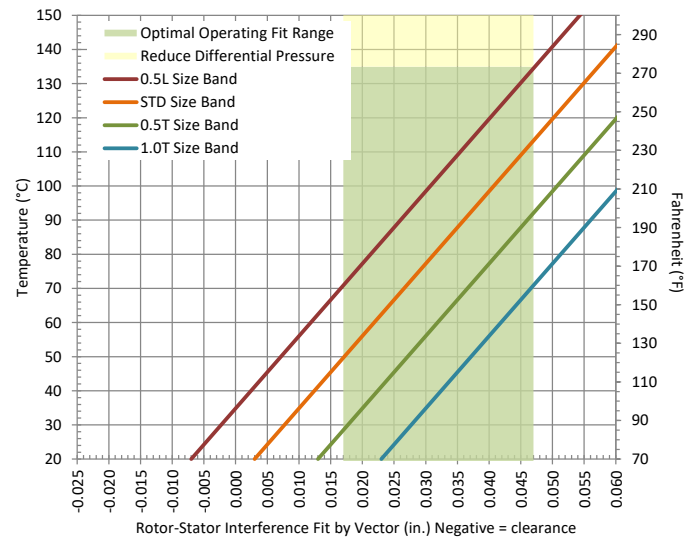
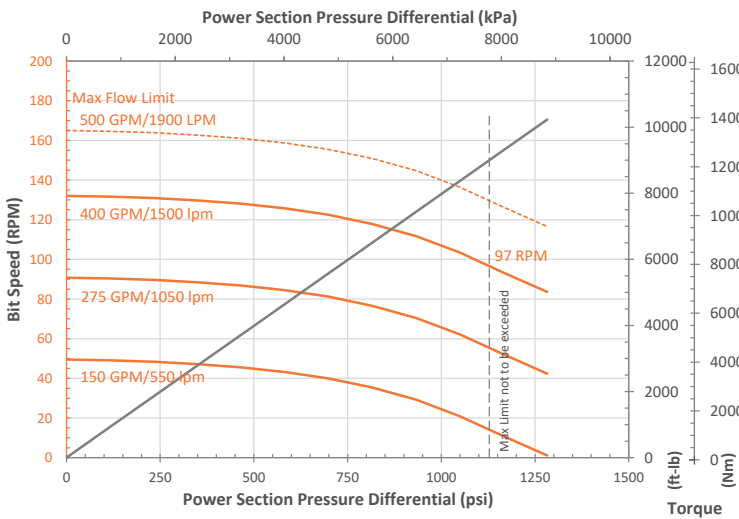
Rotor Specifications	
Overall Length in. [mm]	194.3 [4934]
Contour Length in. [mm]	187.8 [4769]
Major Diameter in. [mm]	3.980 [101.1]
Eccentricity in. [mm]	0.226 [5.7]
Head Diameter in. [mm]	3.500 [88.9]
Gunbored Weight lb [kg]	475 [215]
Solid Weight lb [kg]	542 [246]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 500 [570 - 1890]
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]	1,150 [7,800]
Torque ft-lbs [Nm]	9,000 [12,200]
Flow Rate GPM [lpm]	400 [1,500]
Full Load RPM	97 at 400 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.003	3.525	125°F [50°C]	180°F [80°C]	240°F [115°C]
0.5L	-0.007	3.535	160°F [70°C]	220°F [105°C]	275°F [135°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000256 [0.000461]

Notes:

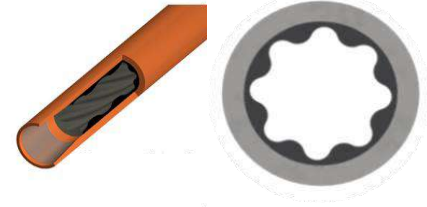
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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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	

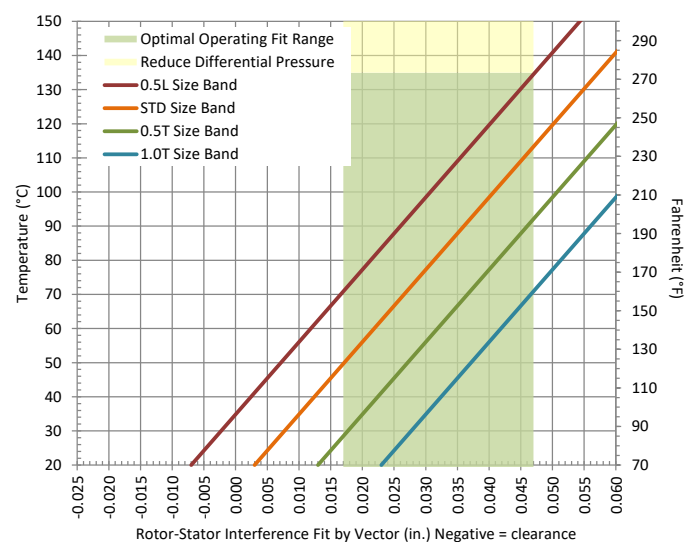
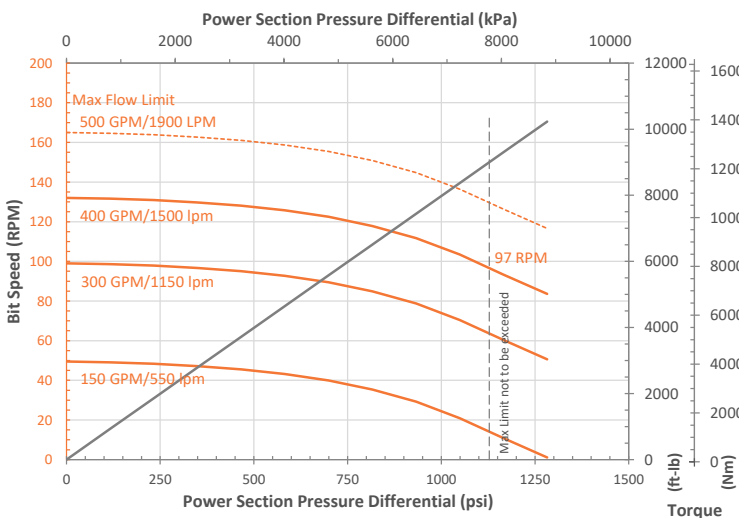
Rotor Specifications	
Overall Length in. [mm]	194.3 [4934]
Contour Length in. [mm]	187.8 [4769]
Major Diameter in. [mm]	3.980 [101.1]
Eccentricity in. [mm]	0.226 [5.7]
Head Diameter in. [mm]	3.500 [88.9]
Gunbored Weight lb [kg]	475 [215]
Solid Weight lb [kg]	542 [246]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 500 [570 - 1890]
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]	1,150 [7,800]
Torque ft-lbs [Nm]	9,000 [12,200]
Flow Rate GPM [lpm]	400 [1,500]
Full Load RPM	97 at 400 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.003	3.525	125°F [50°C]	180°F [80°C]	240°F [115°C]
0.5L	-0.007	3.535	160°F [70°C]	220°F [105°C]	275°F [135°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000256 [0.000461]

Notes:

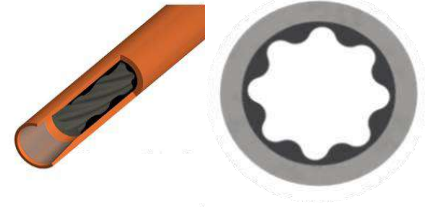
1. Negative fits indicate clearance fit at room temperature using nominal new rotor.
2. Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
3. Typical stator minor diameter tolerances are +/- 0.015.
4. Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	235.0 [5969]
Tube O.D. in. [mm]	6.60 [168]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	775 [350]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

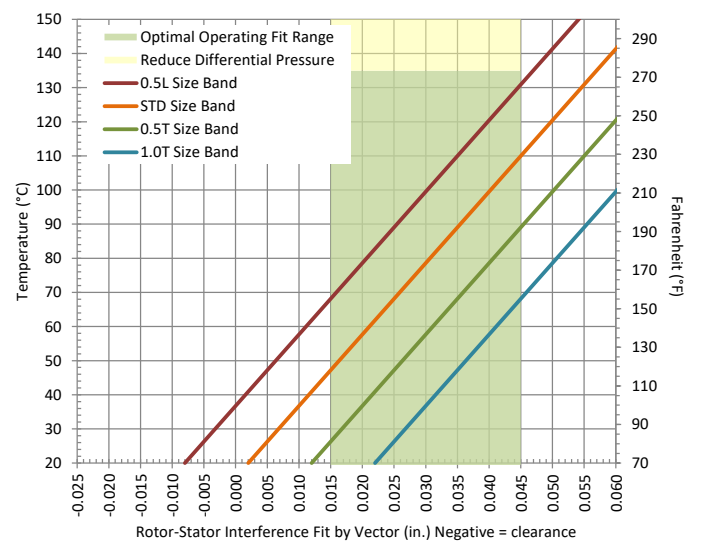
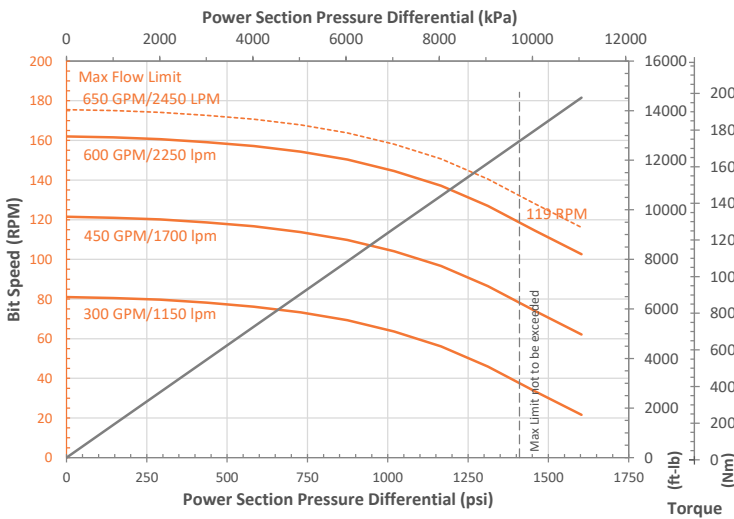
Rotor Specifications	
Overall Length in. [mm]	223.0 [5664]
Contour Length in. [mm]	216.0 [5486]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	610 [277]
Solid Weight lb [kg]	806 [366]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	19,150 [26,000]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	12,750 [17,300]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	-	-	-	-	-
0.5T	0.012	3.996	80°F [25°C]	135°F [55°C]	190°F [90°C]
STD	0.002	4.006	115°F [45°C]	170°F [80°C]	230°F [110°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000468]

Notes:

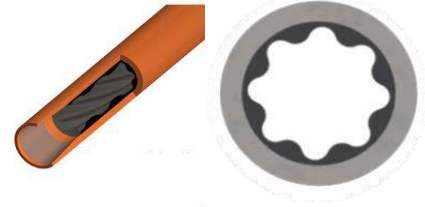
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	200.0 [5080]
Tube O.D. in. [mm]	6.60 [168]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	670 [305]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

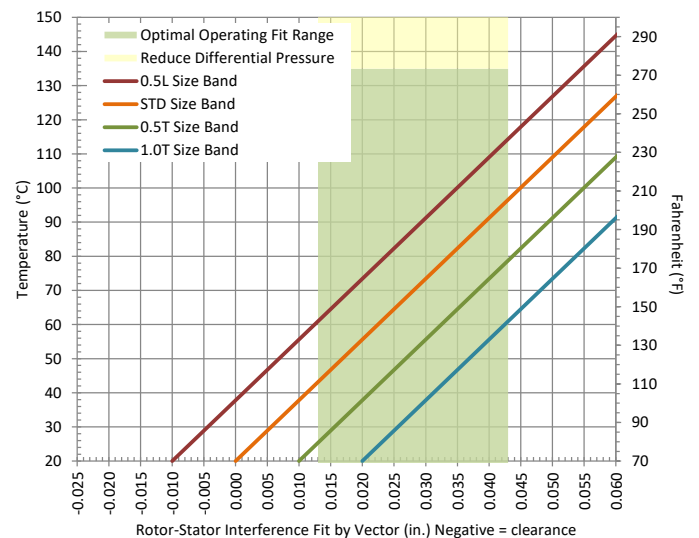
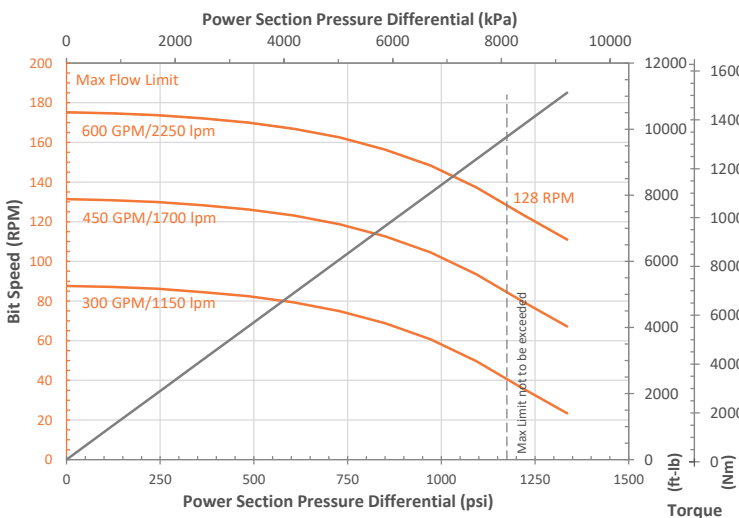
Rotor Specifications	
Overall Length in. [mm]	194.0 [4928]
Contour Length in. [mm]	188.0 [4775]
Major Diameter in. [mm]	4.316 [109.6]
Eccentricity in. [mm]	0.288 [7.3]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	440 [200]
Solid Weight lb [kg]	611 [277]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 600 [1140 - 2270]
Speed Range RPM	90 - 175
Torque Slope ft-lb/psi [Nm/kPa]	8.313 [1.635]
Rotation rev/Gal [rev/lit]	0.292 [0.077]
Stall Torque ft-lb [Nm]	14,650 [19,900]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,200 [8,100]
Torque ft-lbs [Nm]	9,750 [13,200]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	128 at 600 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.000	3.740	110°F [45°C]	160°F [70°C]	205°F [95°C]
0.5L	-0.010	3.750	140°F [60°C]	190°F [90°C]	240°F [115°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000306 [0.000551]

Notes:

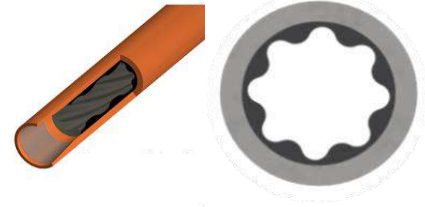
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	194.5 [4940]
Tube O.D. in. [mm]	6.60 [168]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	640 [290]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

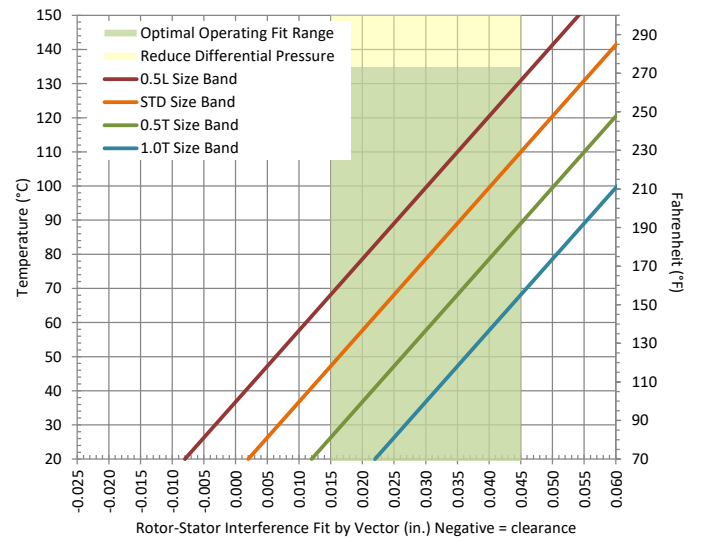
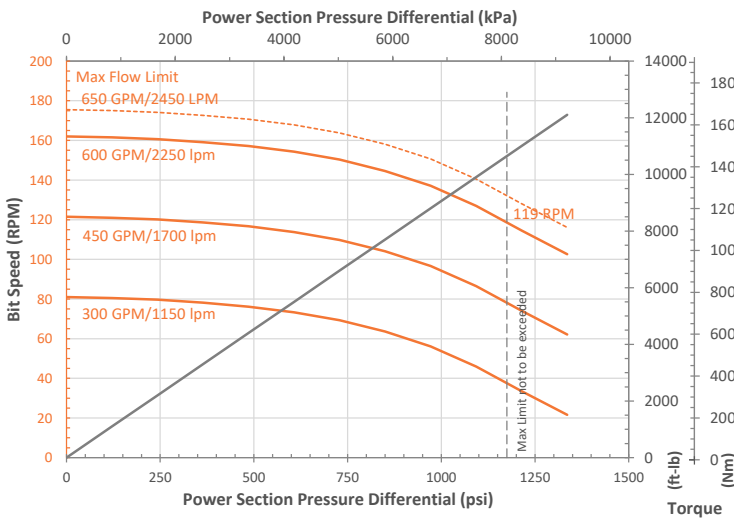
Rotor Specifications	
Overall Length in. [mm]	188.0 [4775]
Contour Length in. [mm]	181.0 [4597]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	510 [231]
Solid Weight lb [kg]	675 [306]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	15,950 [21,700]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,200 [8,100]
Torque ft-lbs [Nm]	10,650 [14,400]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	0.022	3.986	68°F [20°C]	95°F [35°C]	155°F [65°C]
0.5T	0.012	3.996	80°F [25°C]	135°F [55°C]	190°F [90°C]
STD	0.002	4.006	115°F [45°C]	170°F [80°C]	230°F [110°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000468]

Notes:

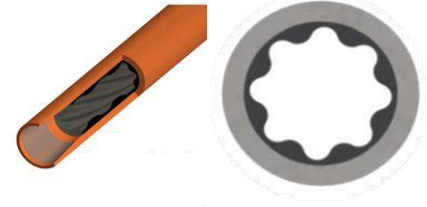
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

Power Sections

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Stator Specifications	
Overall Length in. [mm]	260.0 [6604]
Tube O.D. in. [mm]	6.60 [168]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	620 [280]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

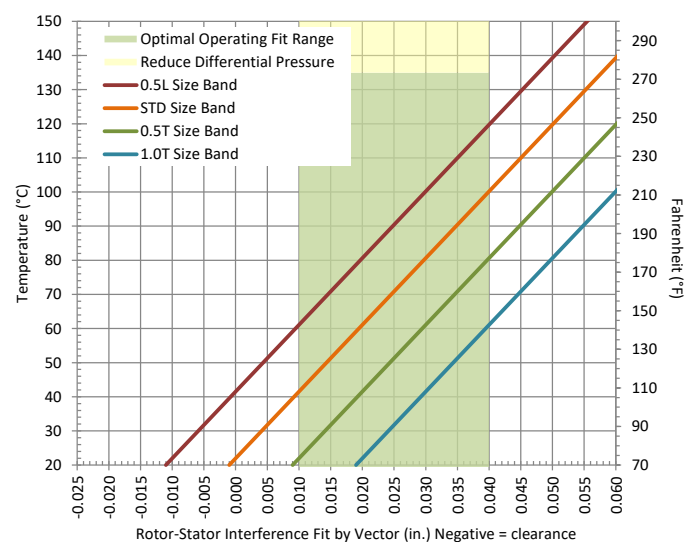
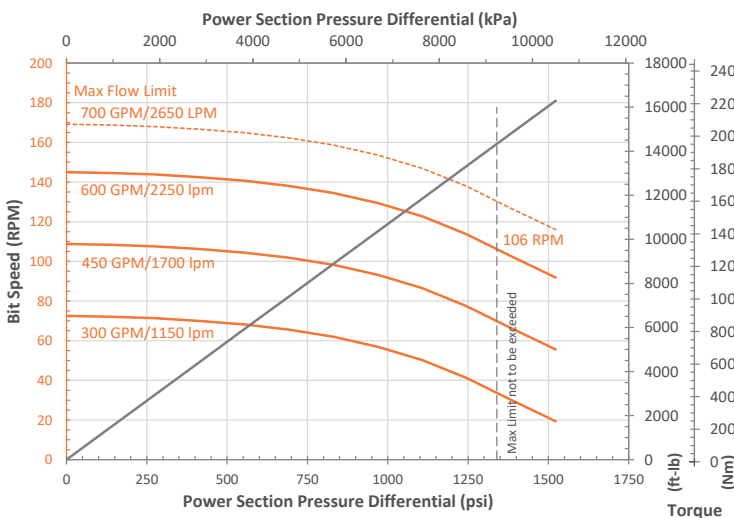
Rotor Specifications	
Overall Length in. [mm]	252.0 [6401]
Contour Length in. [mm]	245.0 [6223]
Major Diameter in. [mm]	4.644 [118]
Eccentricity in. [mm]	0.247 [6.3]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	748 [339]
Solid Weight lb [kg]	970 [440]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 700 [1140 - 2650]
Speed Range RPM	75 - 145
Torque Slope ft-lb/psi [Nm/kPa]	10.698 [2.104]
Rotation rev/Gal [rev/lit]	0.242 [0.064]
Stall Torque ft-lb [Nm]	21,500 [29,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,350 [9,200]
Torque ft-lbs [Nm]	14,350 [19,400]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	106 at 600 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	0.019	4.132	68°F [20°C]	90°F [30°C]	140°F [60°C]
0.5T	0.009	4.142	70°F [20°C]	125°F [50°C]	175°F [80°C]
STD	-0.001	4.152	105°F [40°C]	160°F [70°C]	210°F [100°C]
0.5L	-0.011	4.162	140°F [60°C]	195°F [90°C]	250°F [120°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000278 [0.000500]

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.

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Stator Specifications	
Overall Length in. [mm]	235.0 [5969]
Tube O.D. in. [mm]	6.60 [168]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	775 [350]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

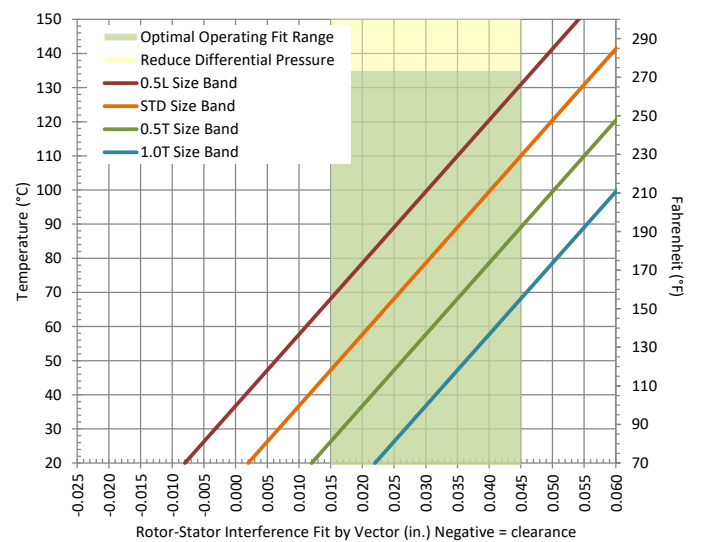
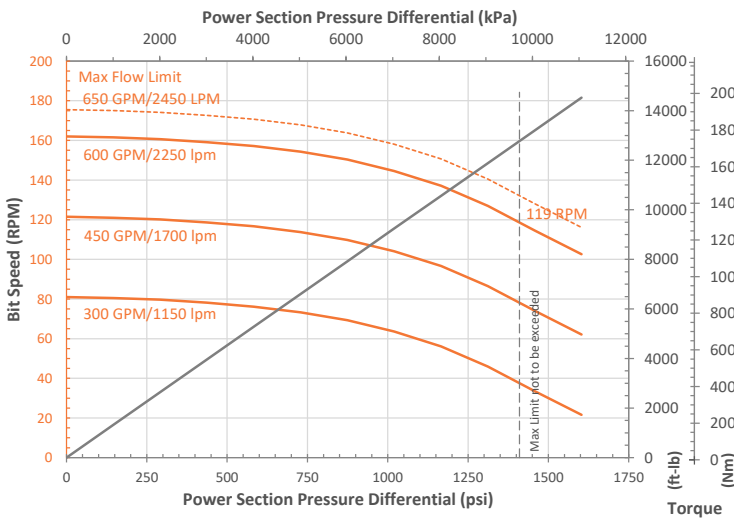
Rotor Specifications	
Overall Length in. [mm]	223.0 [5664]
Contour Length in. [mm]	216.0 [5486]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	610 [277]
Solid Weight lb [kg]	806 [366]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	19,150 [26,000]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	12,750 [17,300]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	-	-	-	-	-
0.5T	0.012	3.996	80°F [25°C]	135°F [55°C]	190°F [90°C]
STD	0.002	4.006	115°F [45°C]	170°F [80°C]	230°F [110°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000468]

Notes:

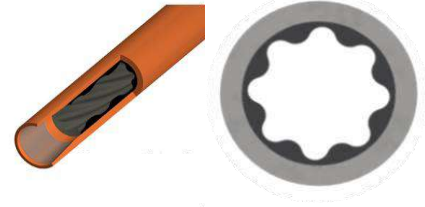
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	210.0 [5334]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	7.5 [190.5]
Rubber Cutback Btm in. [mm]	7.5 [190.5]
Weight lb [kg]	800 [365]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

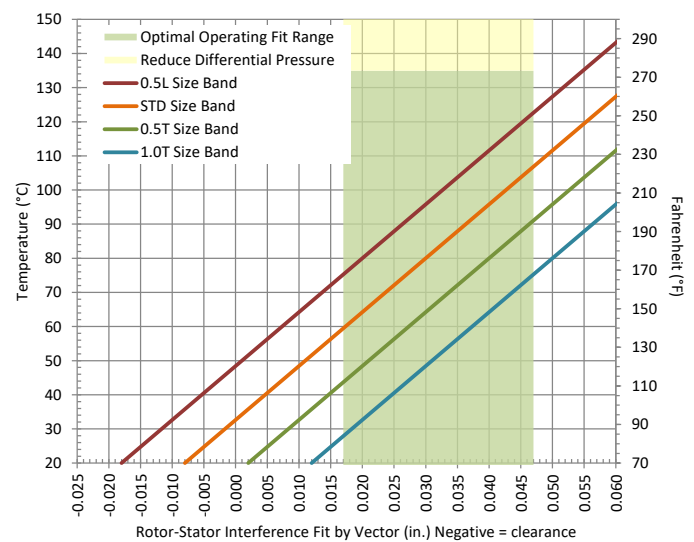
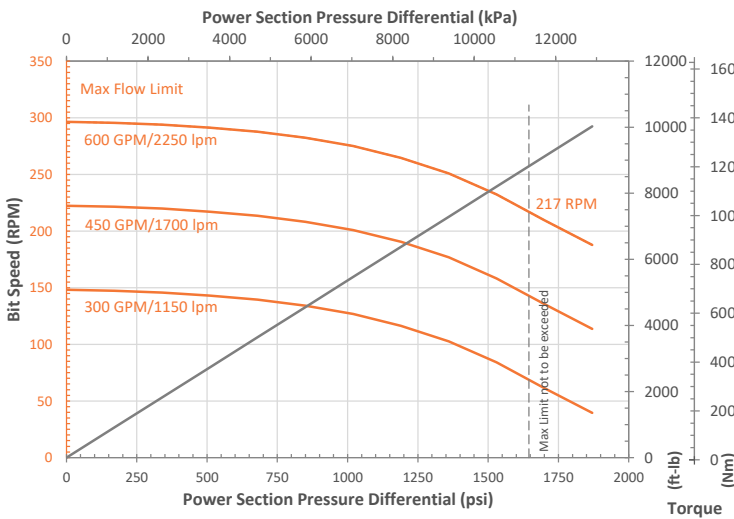
Rotor Specifications	
Overall Length in. [mm]	202.5 [5144]
Contour Length in. [mm]	195.5 [4966]
Major Diameter in. [mm]	4.220 [107.2]
Eccentricity in. [mm]	0.355 [9.0]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	385 [175]
Solid Weight lb [kg]	563 [255]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 600 [1140 - 2270]
Speed Range RPM	150 - 295
Torque Slope ft-lb/psi [Nm/kPa]	5.360 [1.054]
Rotation rev/Gal [rev/lit]	0.494 [0.131]
Stall Torque ft-lb [Nm]	13,250 [17,900]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,650 [11,300]
Torque ft-lbs [Nm]	8,800 [12,000]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	217 at 600 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	0.012	3.498	85°F [30°C]	125°F [50°C]	170°F [75°C]
0.5T	0.002	3.508	110°F [45°C]	155°F [70°C]	195°F [90°C]
STD	-0.008	3.518	140°F [60°C]	180°F [85°C]	225°F [105°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000344 [0.000619]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	200.0 [5080]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	760 [345]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

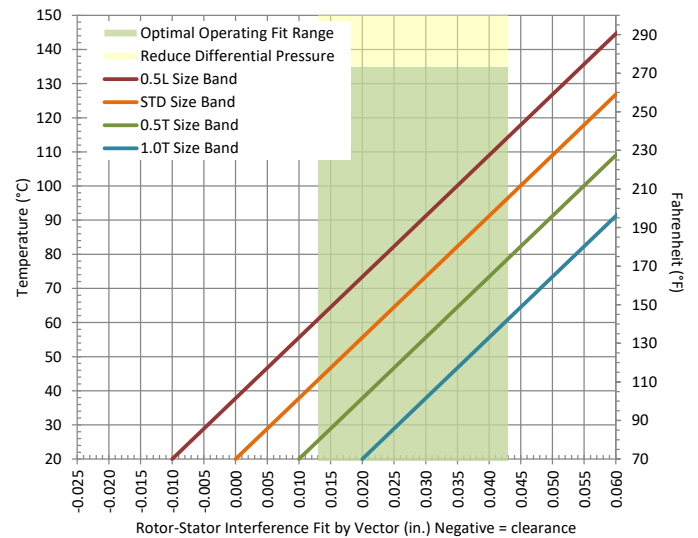
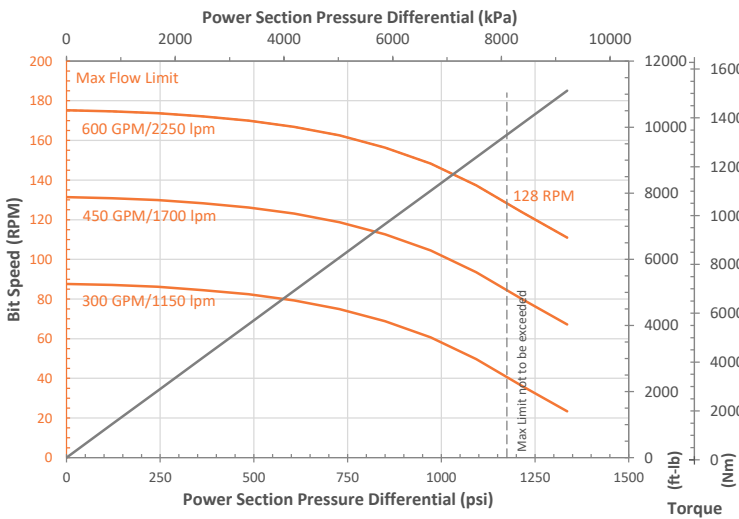
Rotor Specifications	
Overall Length in. [mm]	194.0 [4928]
Contour Length in. [mm]	188.0 [4775]
Major Diameter in. [mm]	4.316 [109.6]
Eccentricity in. [mm]	0.288 [7.3]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	440 [200]
Solid Weight lb [kg]	611 [277]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 600 [1140 - 2270]
Speed Range RPM	90 - 175
Torque Slope ft-lb/psi [Nm/kPa]	8.313 [1.635]
Rotation rev/Gal [rev/lit]	0.292 [0.077]
Stall Torque ft-lb [Nm]	14,650 [19,900]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,200 [8,100]
Torque ft-lbs [Nm]	9,750 [13,200]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	128 at 600 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.000	3.740	110°F [45°C]	160°F [70°C]	205°F [95°C]
0.5L	-0.010	3.750	140°F [60°C]	190°F [90°C]	240°F [115°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000306 [0.000551]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	194.5 [4940]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	640 [290]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

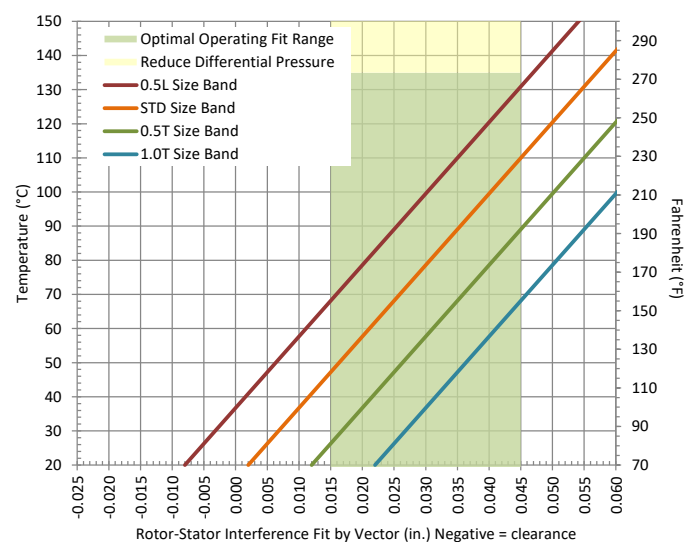
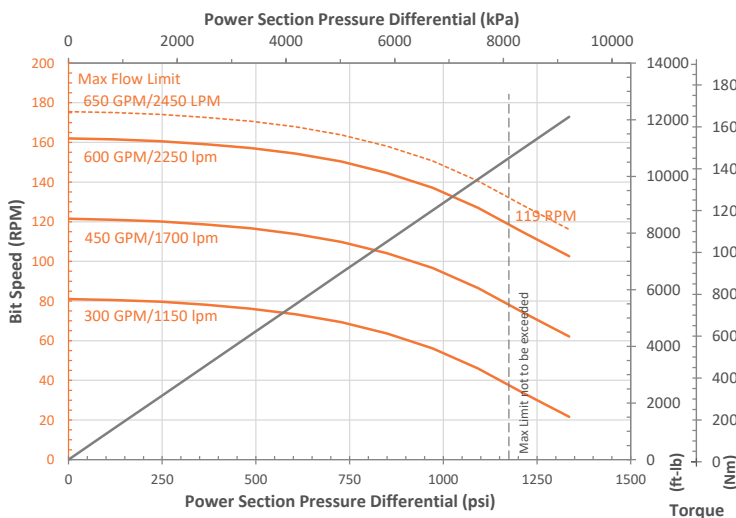
Rotor Specifications	
Overall Length in. [mm]	188.0 [4775]
Contour Length in. [mm]	181.0 [4597]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	510 [231]
Solid Weight lb [kg]	675 [306]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	15,950 [21,700]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,200 [8,100]
Torque ft-lbs [Nm]	10,650 [14,400]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	0.022	3.986	68°F [20°C]	95°F [35°C]	155°F [65°C]
0.5T	0.012	3.996	80°F [25°C]	135°F [55°C]	190°F [90°C]
STD	0.002	4.006	115°F [45°C]	170°F [80°C]	230°F [110°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000468]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	260.0 [6604]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	735 [335]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

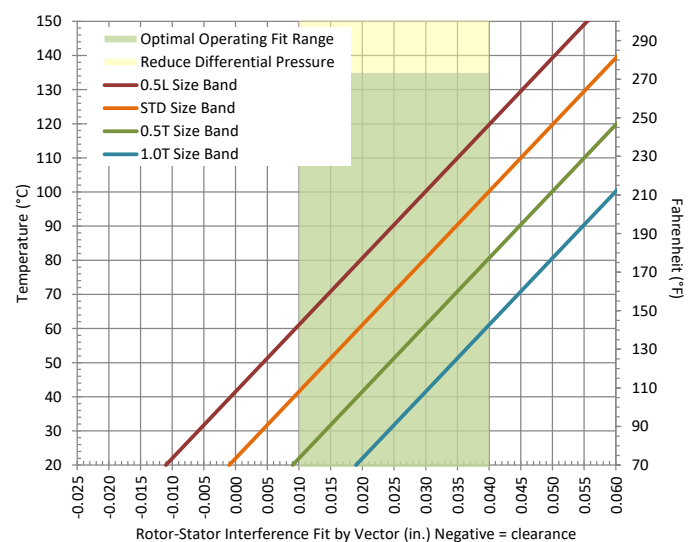
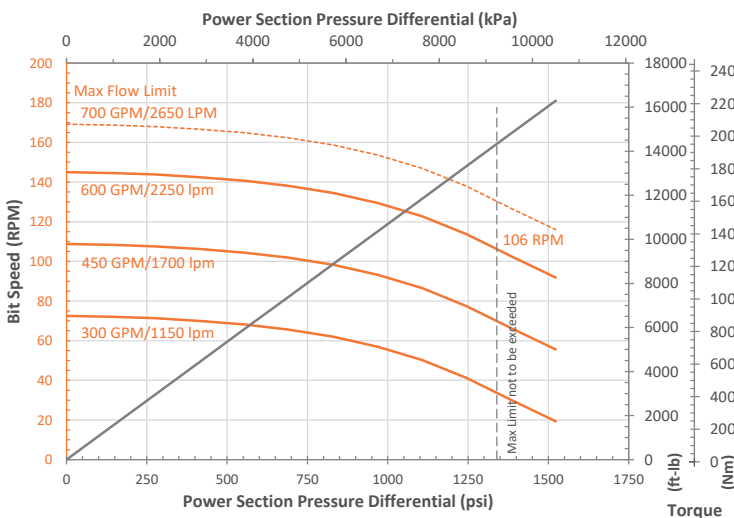
Rotor Specifications	
Overall Length in. [mm]	252.0 [6401]
Contour Length in. [mm]	245.0 [6223]
Major Diameter in. [mm]	4.644 [118]
Eccentricity in. [mm]	0.247 [6.3]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	748 [339]
Solid Weight lb [kg]	970 [440]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 700 [1140 - 2650]
Speed Range RPM	75 - 145
Torque Slope ft-lb/psi [Nm/kPa]	10.698 [2.104]
Rotation rev/Gal [rev/lit]	0.242 [0.064]
Stall Torque ft-lb [Nm]	21,500 [29,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,350 [9,200]
Torque ft-lbs [Nm]	14,350 [19,400]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	106 at 600 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	0.019	4.132	68°F [20°C]	90°F [30°C]	140°F [60°C]
0.5T	0.009	4.142	70°F [20°C]	125°F [50°C]	175°F [80°C]
STD	-0.001	4.152	105°F [40°C]	160°F [70°C]	210°F [100°C]
0.5L	-0.011	4.162	140°F [60°C]	195°F [90°C]	250°F [120°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000278 [0.000500]

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.

Power Sections

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Stator Specifications	
Overall Length in. [mm]	235.0 [5969]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	875 [400]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

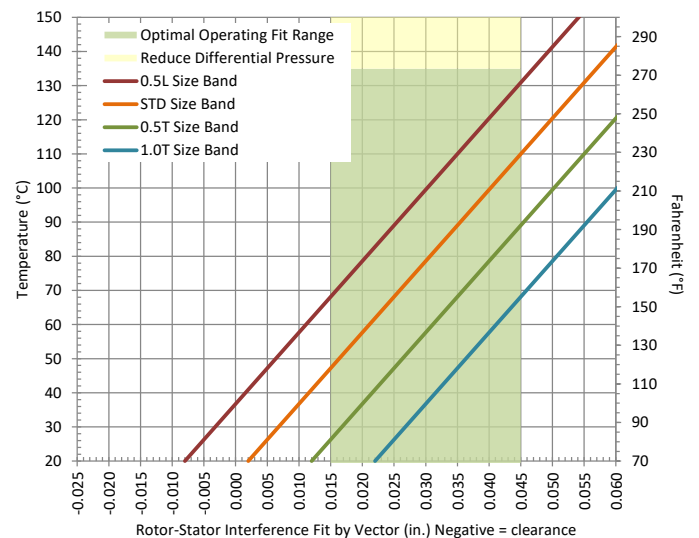
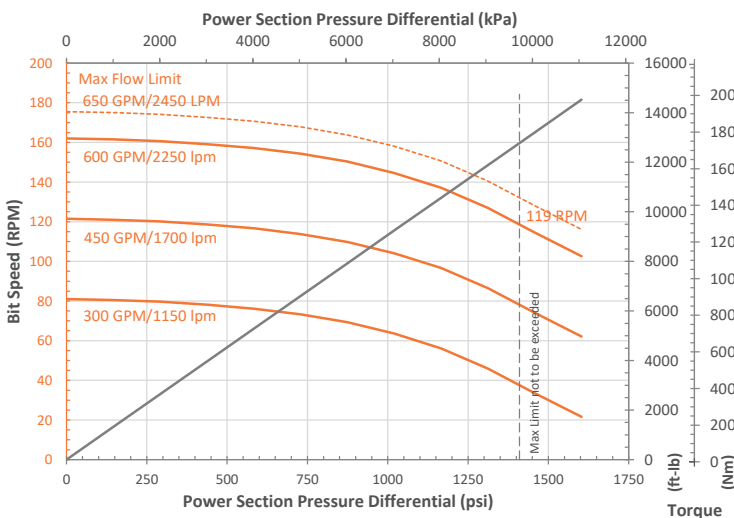
Rotor Specifications	
Overall Length in. [mm]	223.0 [5664]
Contour Length in. [mm]	216.0 [5486]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	610 [277]
Solid Weight lb [kg]	806 [366]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	19,150 [26,000]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,700]
Torque ft-lbs [Nm]	12,750 [17,300]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	-	-	-	-	-
0.5T	0.012	3.996	80°F [25°C]	135°F [55°C]	190°F [90°C]
STD	0.002	4.006	115°F [45°C]	170°F [80°C]	230°F [110°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000468]

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.

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Stator Specifications	
Overall Length in. [mm]	245.0 [6223]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	835 [380]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

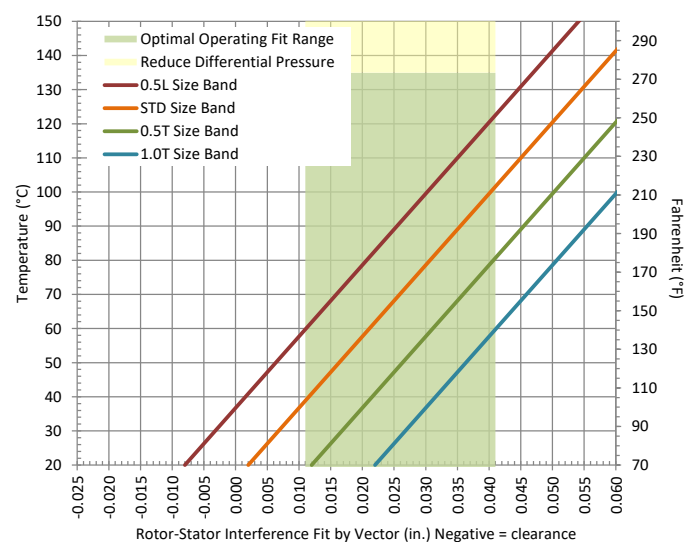
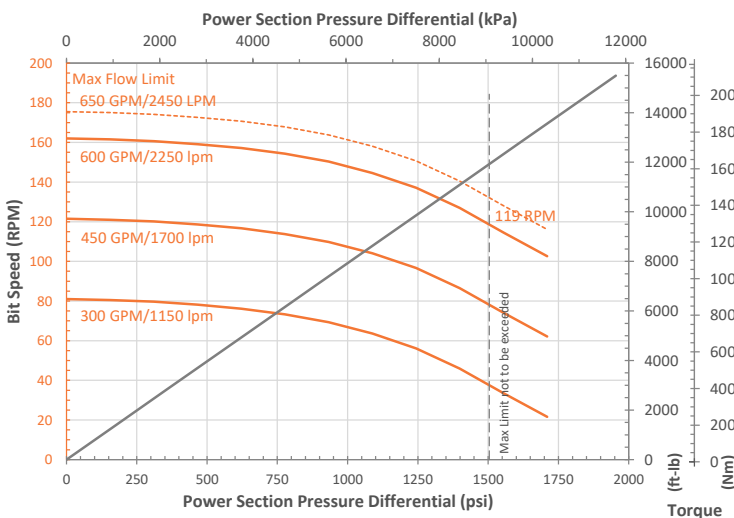
Rotor Specifications	
Overall Length in. [mm]	238.5 [6058]
Contour Length in. [mm]	231.5 [5880]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	646 [293]
Solid Weight lb [kg]	856 [388]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 650 [1140 - 2460]
Speed Range RPM	80 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	20,450 [27,700]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,500 [10,400]
Torque ft-lbs [Nm]	13,650 [18,500]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	119 at 600 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	-	-	-	-	-
0.5T	0.012	3.996	68 °F [20 °C]	120°F [50°C]	175°F [80°C]
STD	0.002	4.006	100°F [40°C]	155°F [70°C]	215°F [100°C]
0.5L	-0.008	4.016	140°F [60°C]	195°F [90°C]	250°F [120°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000260 [0.000467]

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.

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Stator Specifications	
Overall Length in. [mm]	260.0 [6604]
Tube O.D. in. [mm]	6.75 [171]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	820 [370]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

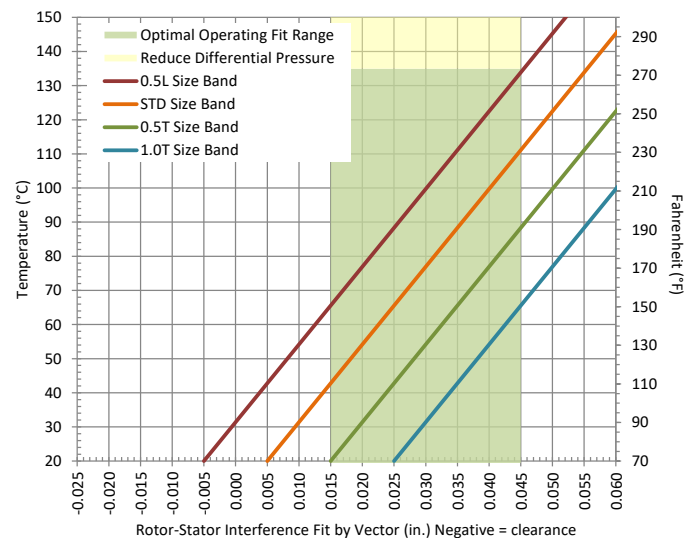
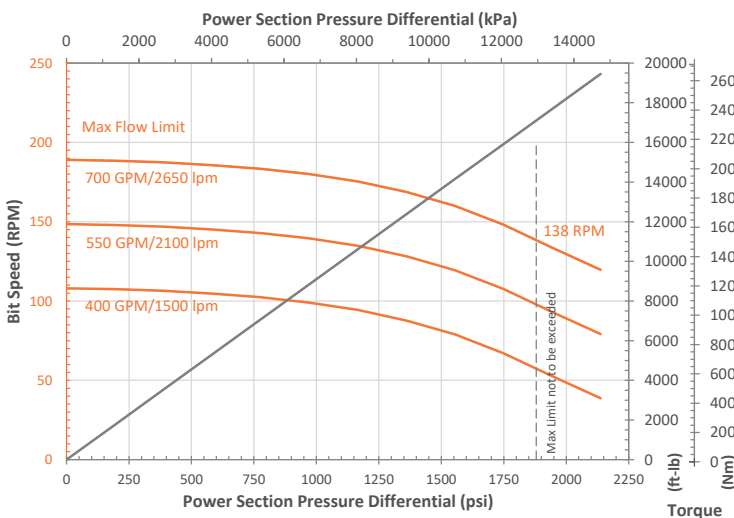
Rotor Specifications	
Overall Length in. [mm]	252.0 [6401]
Contour Length in. [mm]	245.0 [6223]
Major Diameter in. [mm]	4.830 [122.7]
Eccentricity in. [mm]	0.224 [5.7]
Head Diameter in. [mm]	4.625 [117.5]
Gunbored Weight lb [kg]	865 [392]
Solid Weight lb [kg]	1087 [493]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	400 - 700 [1510 - 2650]
Speed Range RPM	110 - 190
Torque Slope ft-lb/psi [Nm/kPa]	9.100 [1.789]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	25,650 [34,800]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,900 [13,000]
Torque ft-lbs [Nm]	17,100 [23,200]
Flow Rate GPM [lpm]	700 [2,600]
Full Load RPM	138 at 700 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	-	-	-	-	-
0.5T	0.015	4.368	70°F [20°C]	130°F [55°C]	195°F [90°C]
STD	0.005	4.378	110°F [45°C]	170°F [80°C]	235°F [110°C]
0.5L	-0.005	4.388	150°F [65°C]	215°F [100°C]	275°F [135°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000239 [0.000430]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.

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Stator Specifications	
Overall Length in. [mm]	275.0 [6985]
Tube O.D. in. [mm]	7.00 [178]
Tube I.D. (Terminal) in. [mm]	5.75 [146]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	775 [350]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

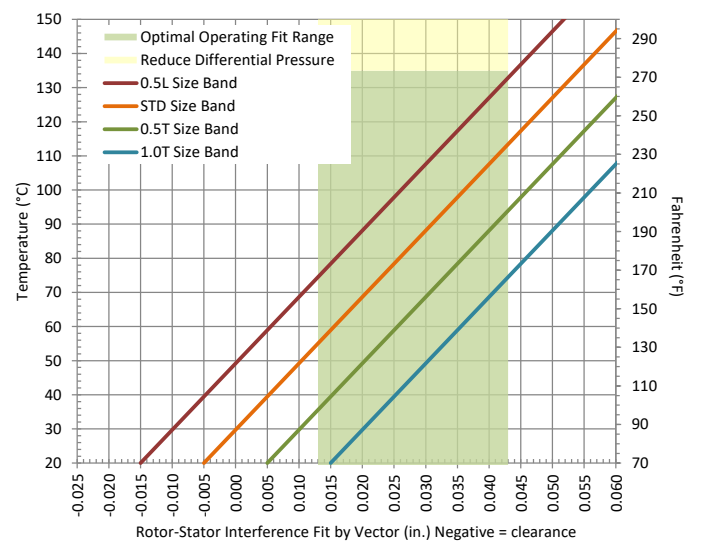
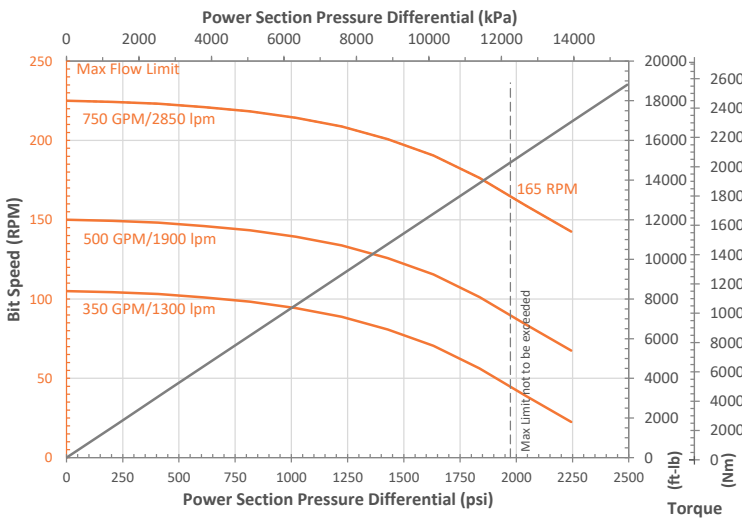
Rotor Specifications	
Overall Length in. [mm]	267.0 [6782]
Contour Length in. [mm]	259.0 [6579]
Major Diameter in. [mm]	4.747 [120.6]
Eccentricity in. [mm]	0.302 [7.7]
Head Diameter in. [mm]	4.750 [120.7]
Gunbored Weight lb [kg]	797 [362]
Solid Weight lb [kg]	1032 [468]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	350 - 750 [1320 - 2840]
Speed Range RPM	105 - 225
Torque Slope ft-lb/psi [Nm/kPa]	8.380 [1.648]
Rotation rev/Gal [rev/lit]	0.300 [0.079]
Stall Torque ft-lb [Nm]	24,800 [33,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,950 [13,600]
Torque ft-lbs [Nm]	16,550 [22,400]
Flow Rate GPM [lpm]	750 [2,800]
Full Load RPM	165 at 750 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	-0.005	4.148	130°F [55°C]	185°F [85°C]	235°F [115°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000279 [0.000502]

Notes:

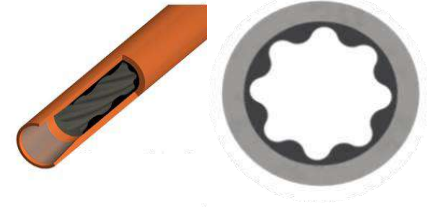
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	260.0 [6604]
Tube O.D. in. [mm]	7.00 [178]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	935 [425]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

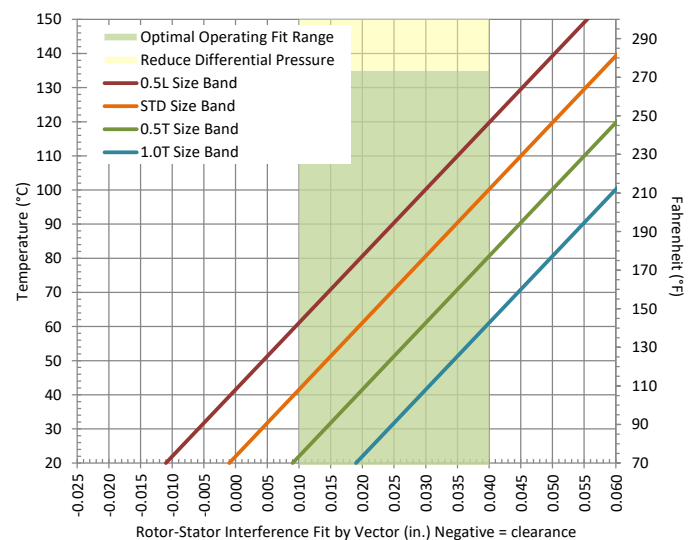
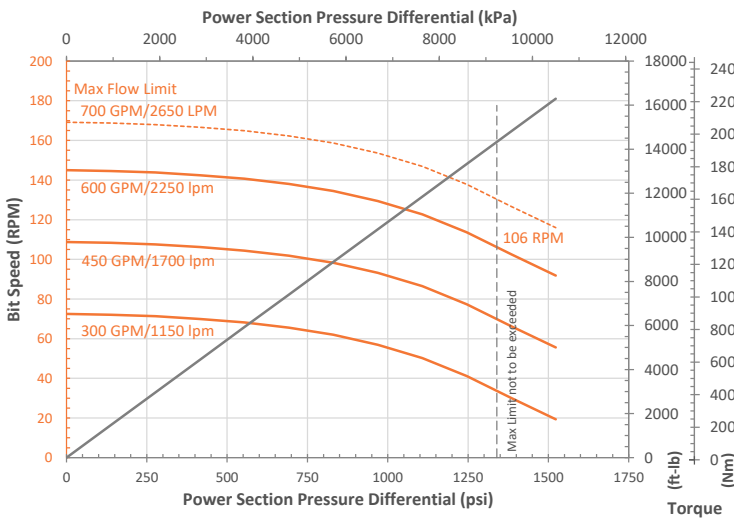
Rotor Specifications	
Overall Length in. [mm]	252.0 [6401]
Contour Length in. [mm]	245.0 [6223]
Major Diameter in. [mm]	4.644 [118]
Eccentricity in. [mm]	0.247 [6.3]
Head Diameter in. [mm]	4.500 [114.3]
Gunbored Weight lb [kg]	748 [339]
Solid Weight lb [kg]	970 [440]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 700 [1140 - 2650]
Speed Range RPM	75 - 145
Torque Slope ft-lb/psi [Nm/kPa]	10.698 [2.104]
Rotation rev/Gal [rev/lit]	0.242 [0.064]
Stall Torque ft-lb [Nm]	21,500 [29,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,350 [9,200]
Torque ft-lbs [Nm]	14,350 [19,400]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	106 at 600 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	0.019	4.132	68°F [20°C]	90°F [30°C]	140°F [60°C]
0.5T	0.009	4.142	70°F [20°C]	125°F [50°C]	175°F [80°C]
STD	-0.001	4.152	105°F [40°C]	160°F [70°C]	210°F [100°C]
0.5L	-0.011	4.162	140°F [60°C]	195°F [90°C]	250°F [120°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000278 [0.000500]

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.

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Stator Specifications	
Overall Length in. [mm]	275.0 [6985]
Tube O.D. in. [mm]	7.00 [178]
Tube I.D. (Terminal) in. [mm]	5.75 [146]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	1070 [485]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

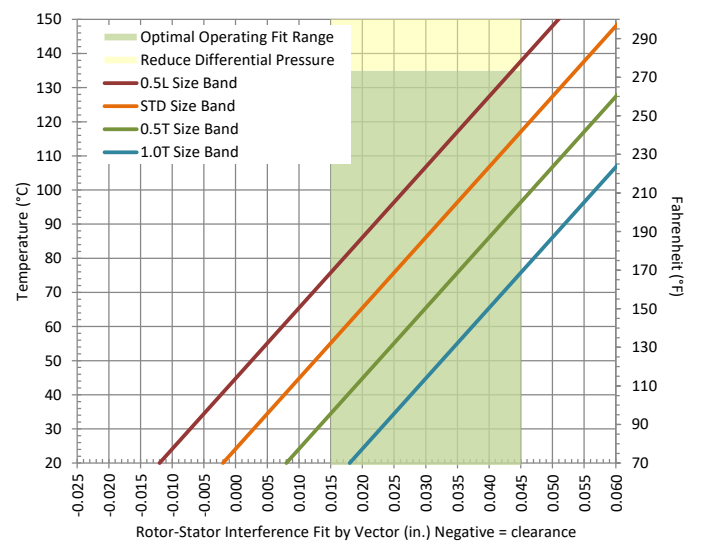
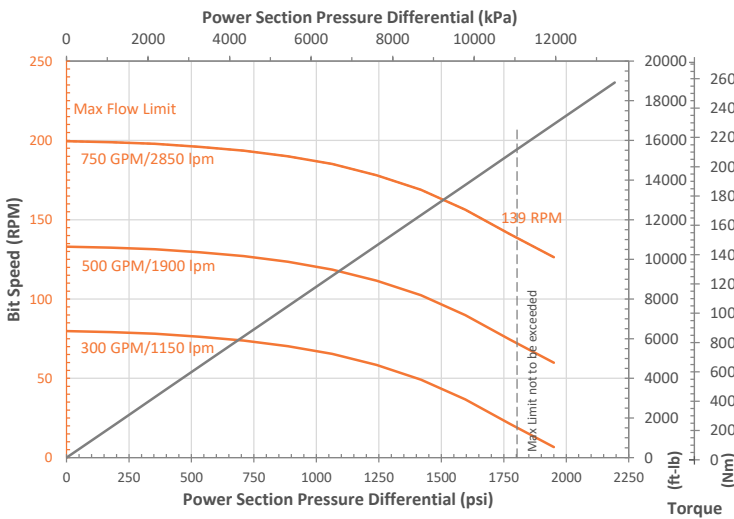
Rotor Specifications	
Overall Length in. [mm]	268.0 [6807]
Contour Length in. [mm]	260.0 [6604]
Major Diameter in. [mm]	4.752 [120.7]
Eccentricity in. [mm]	0.257 [6.5]
Head Diameter in. [mm]	4.750 [120.7]
Gunbored Weight lb [kg]	845 [383]
Solid Weight lb [kg]	1081 [490]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	300 - 750 [1140 - 2840]
Speed Range RPM	80 - 200
Torque Slope ft-lb/psi [Nm/kPa]	9.700 [1.907]
Rotation rev/Gal [rev/lit]	0.266 [0.070]
Stall Torque ft-lb [Nm]	26,250 [35,600]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,800 [12,400]
Torque ft-lbs [Nm]	17,500 [23,700]
Flow Rate GPM [lpm]	750 [2,800]
Full Load RPM	139 at 750 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	-	-	-	-	-
0.5T	0.008	4.230	95°F [35°C]	150°F [65°C]	205°F [95°C]
STD	-0.002	4.240	130°F [55°C]	185°F [85°C]	240°F [115°C]
0.5L	-0.012	4.250	170°F [75°C]	225°F [105°C]	280°F [140°C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000263 [0.000473]

Notes:

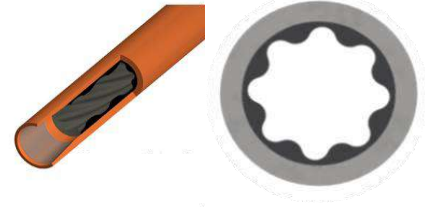
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	300.0 [7620]
Tube O.D. in. [mm]	7.00 [178]
Tube I.D. (Terminal) in. [mm]	5.75 [146]
Rubber Cutback Top in. [mm]	7.0 [177.8]
Rubber Cutback Btm in. [mm]	7.0 [177.8]
Weight lb [kg]	985 [445]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

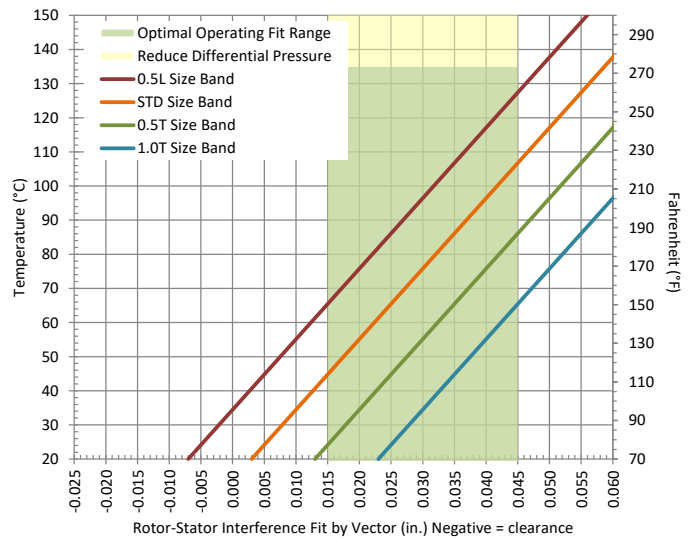
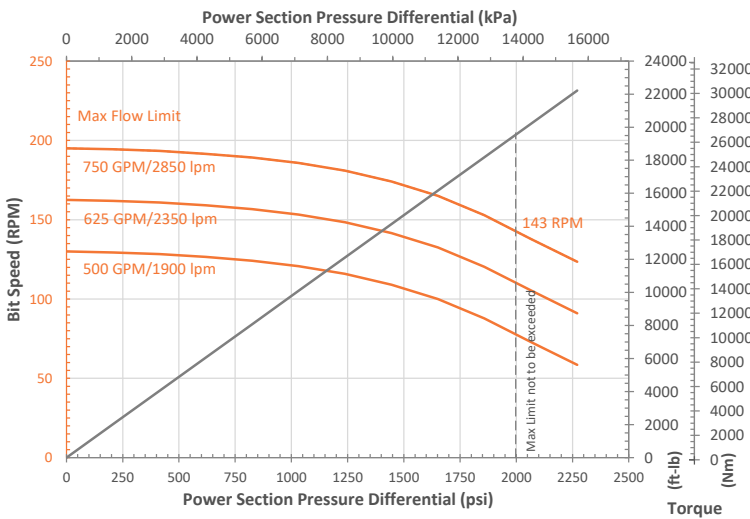
Rotor Specifications	
Overall Length in. [mm]	294.0 [7468]
Contour Length in. [mm]	288.0 [7315]
Major Diameter in. [mm]	5.024 [127.6]
Eccentricity in. [mm]	0.268 [6.8]
Head Diameter in. [mm]	5.000 [127]
Gunbored Weight lb [kg]	1067 [484]
Solid Weight lb [kg]	1326 [601]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	500 - 750 [1890 - 2840]
Speed Range RPM	130 - 195
Torque Slope ft-lb/psi [Nm/kPa]	9.783 [1.924]
Rotation rev/Gal [rev/lit]	0.260 [0.069]
Stall Torque ft-lb [Nm]	29,300 [39,700]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,000 [13,800]
Torque ft-lbs [Nm]	19,550 [26,500]
Flow Rate GPM [lpm]	750 [2,800]
Full Load RPM	143 at 750 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	0.023	4.465	68°F [20°C]	95°F [35°C]	150°F [65°C]
0.5T	0.013	4.475	75°F [25°C]	130°F [55°C]	185°F [85°C]
STD	0.003	4.485	110°F [45°C]	170°F [75°C]	225°F [105°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000264 [0.000474]

Notes:

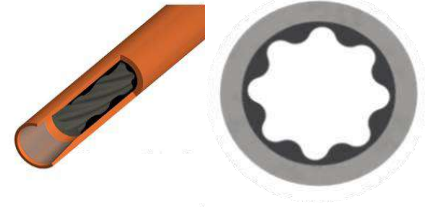
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

Power Sections

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Stator Specifications	
Overall Length in. [mm]	203.2 [5161]
Tube O.D. in. [mm]	8.00 [203]
Tube I.D. (Terminal) in. [mm]	6.25 [159]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	1205 [545]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

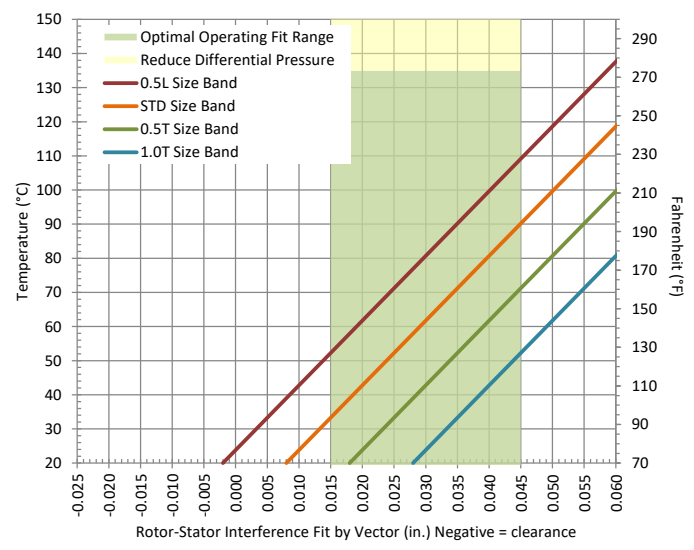
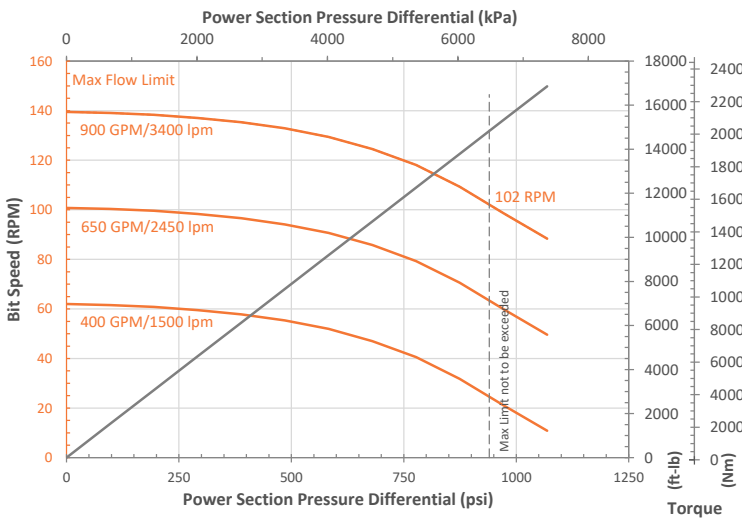
Rotor Specifications	
Overall Length in. [mm]	196.3 [4985]
Contour Length in. [mm]	188.3 [4782]
Major Diameter in. [mm]	5.186 [131.7]
Eccentricity in. [mm]	0.293 [7.4]
Head Diameter in. [mm]	4.750 [120.7]
Gunbored Weight lb [kg]	760 [345]
Solid Weight lb [kg]	933 [423]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	400 - 900 [1510 - 3410]
Speed Range RPM	60 - 140
Torque Slope ft-lb/psi [Nm/kPa]	15.770 [3.101]
Rotation rev/Gal [rev/lit]	0.155 [0.041]
Stall Torque ft-lb [Nm]	22,250 [30,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	950 [6,500]
Torque ft-lbs [Nm]	14,800 [20,100]
Flow Rate GPM [lpm]	900 [3,400]
Full Load RPM	102 at 900 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	0.028	4.572	68 °F [20 °C]	75 °F [25 °C]	125 °F [50 °C]
0.5T	0.018	4.582	68 °F [20 °C]	110 °F [45 °C]	160 °F [70 °C]
STD	0.008	4.592	90 °F [35 °C]	145 °F [60 °C]	195 °F [90 °C]
0.5L	-0.002	4.602	125 °F [50 °C]	180 °F [80 °C]	230 °F [110 °C]
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000288 [0.000519]

Notes:

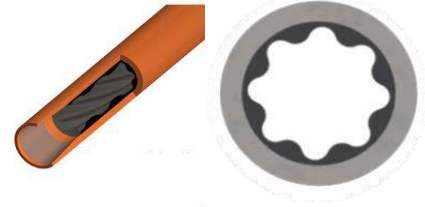
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	300.0 [7620]
Tube O.D. in. [mm]	8.00 [203]
Tube I.D. (Terminal) in. [mm]	6.25 [159]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	1800 [815]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

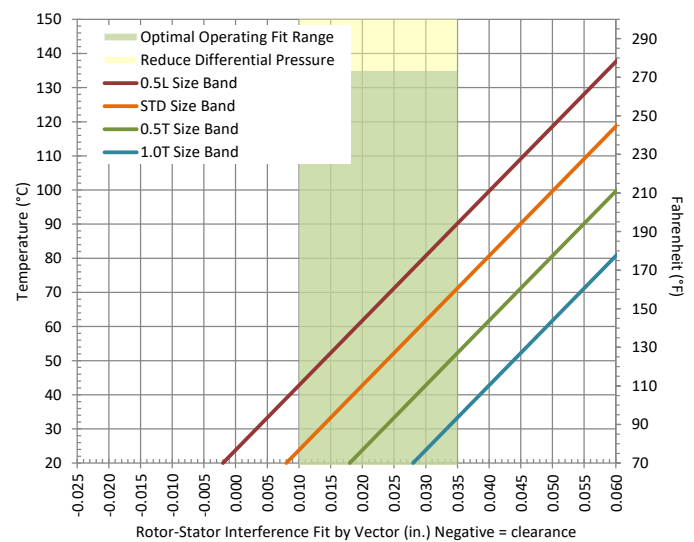
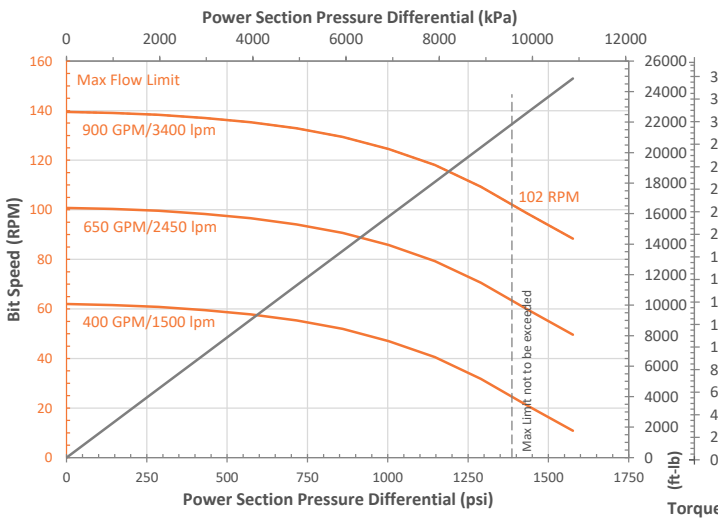
Rotor Specifications	
Overall Length in. [mm]	284.5 [7226]
Contour Length in. [mm]	276.5 [7023]
Major Diameter in. [mm]	5.186 [131.7]
Eccentricity in. [mm]	0.293 [7.4]
Head Diameter in. [mm]	5.250 [133.4]
Gunbored Weight lb [kg]	1096 [497]
Solid Weight lb [kg]	1346 [611]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	400 - 900 [1510 - 3410]
Speed Range RPM	60 - 140
Torque Slope ft-lb/psi [Nm/kPa]	15.770 [3.101]
Rotation rev/Gal [rev/lit]	0.155 [0.041]
Stall Torque ft-lb [Nm]	32,800 [44,500]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,400 [9,600]
Torque ft-lbs [Nm]	21,850 [29,600]
Flow Rate GPM [lpm]	900 [3,400]
Full Load RPM	102 at 900 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	-	-	-	-	-
0.5T	0.018	4.582	68 °F [20 °C]	75 °F [25 °C]	125 °F [50 °C]
STD	0.008	4.592	75 °F [25 °C]	110 °F [45 °C]	160 °F [70 °C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000288 [0.000519]

Notes:

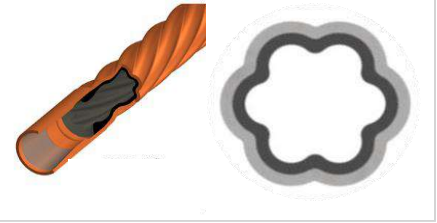
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	242.6 [6162]
Tube O.D. in. [mm]	5.00 [127]
Tube I.D. (Terminal) in. [mm]	3.75 [95]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	9.3 [236.2]
Weight lb [kg]	410 [185]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

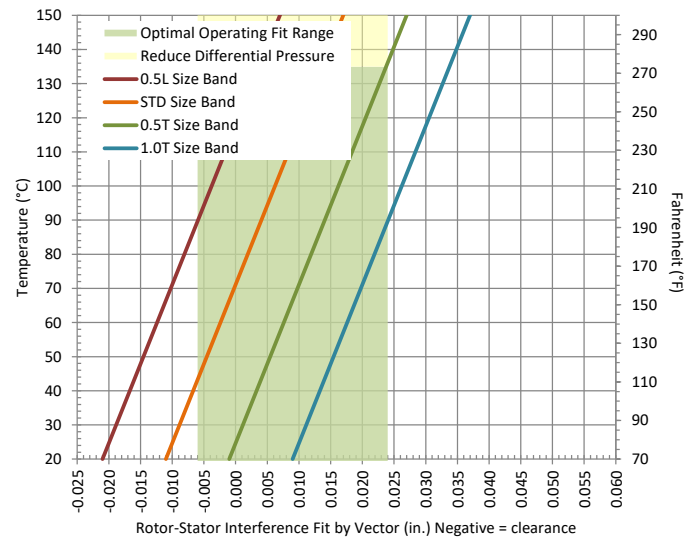
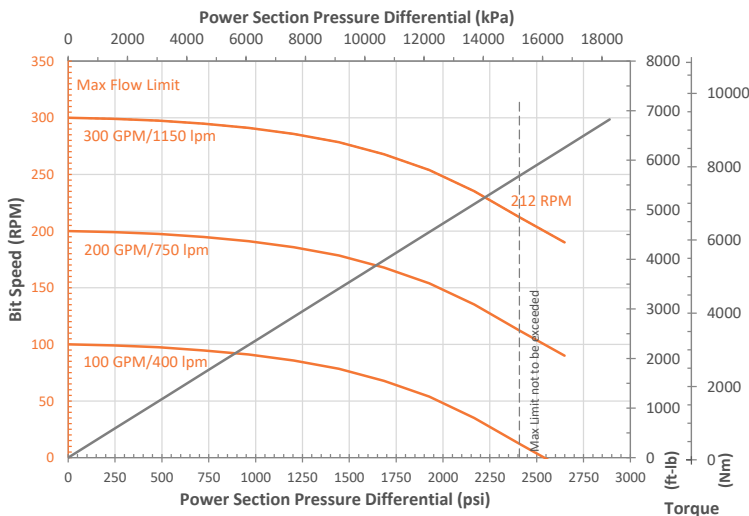
Rotor Specifications	
Overall Length in. [mm]	229.5 [5829]
Contour Length in. [mm]	223.0 [5664]
Major Diameter in. [mm]	2.916 [74.1]
Eccentricity in. [mm]	0.207 [5.3]
Head Diameter in. [mm]	3.125 [79.4]
Gunbored Weight lb [kg]	275 [125]
Solid Weight lb [kg]	325 [148]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	100 - 300 [380 - 1140]
Speed Range RPM	100 - 300
Torque Slope ft-lb/psi [Nm/kPa]	2.576 [0.507]
Rotation rev/Gal [rev/lit]	1.000 [0.264]
Stall Torque ft-lb [Nm]	8,350 [11,400]
Operating Parameters	
Max Diff Pressure psi [kPa]	2,400 [16,600]
Torque ft-lbs [Nm]	6,200 [8,400]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	212 at 300 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	-	-	-	-	-
0.5T	-0.001	2.503	68 °F [20 °C]	175 °F [80 °C]	300 °F [150 °C]
STD	-	-	-	-	-
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000153 [0.000276]

Notes:

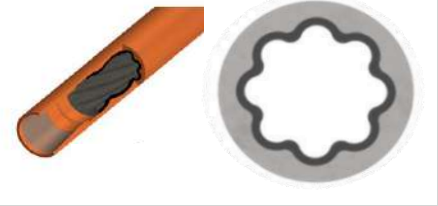
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	187.0 [4750]
Tube O.D. in. [mm]	5.00 [127]
Tube I.D. (Terminal) in. [mm]	3.75 [95]
Rubber Cutback Top in. [mm]	8.0 [203.2]
Rubber Cutback Btm in. [mm]	8.0 [203.2]
Weight lb [kg]	475 [215]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

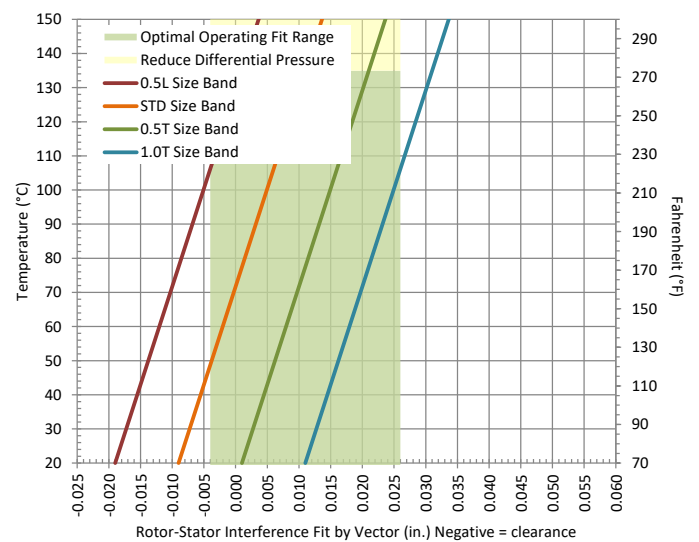
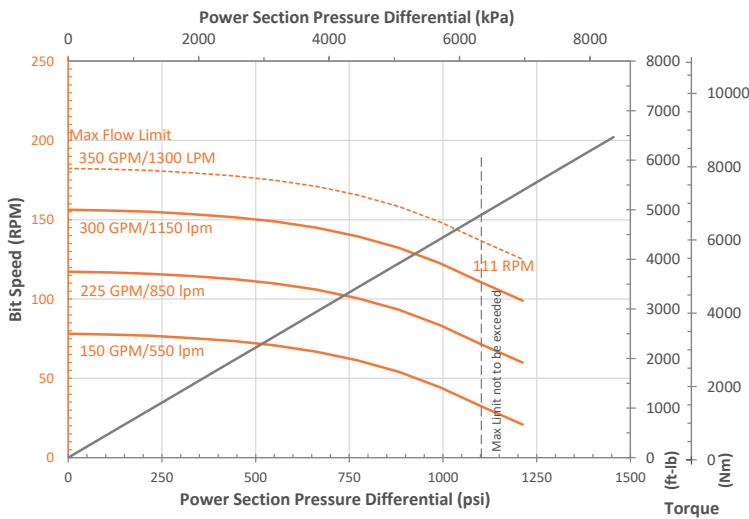
Rotor Specifications	
Uses Conv. Rotors	
Overall Length in. [mm]	178.0 [4521]
Contour Length in. [mm]	172.3 [4375]
Major Diameter in. [mm]	2.945 [74.8]
Eccentricity in. [mm]	0.163 [4.1]
Head Diameter in. [mm]	2.750 [69.9]
Gunbored Weight lb [kg]	235 [107]
Solid Weight lb [kg]	274 [124]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	150 - 350 [570 - 1320]
Speed Range RPM	80 - 155
Torque Slope ft-lb/psi [Nm/kPa]	5.333 [1.049]
Rotation rev/Gal [rev/lit]	0.521 [0.138]
Stall Torque ft-lb [Nm]	7,950 [10,800]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,100 [7,600]
Torque ft-lbs [Nm]	5,900 [8,000]
Flow Rate GPM [lpm]	300 [1,100]
Full Load RPM	111 at 300 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	-	-	-	-	-
0.5T	0.001	2.618	68 °F [20 °C]	165 °F [75 °C]	300 °F [150 °C]
STD	-	-	-	-	-
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000124 [0.000223]

Notes:

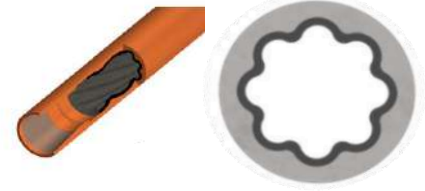
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	200.0 [5080]
Tube O.D. in. [mm]	6.89 [175]
Tube I.D. (Terminal) in. [mm]	5.50 [140]
Rubber Cutback Top in. [mm]	10.0 [254]
Rubber Cutback Btm in. [mm]	10.0 [254]
Weight lb [kg]	850 [385]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

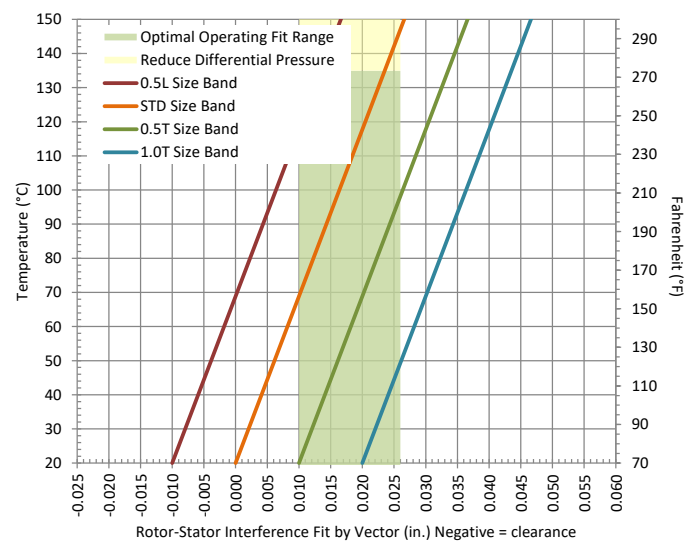
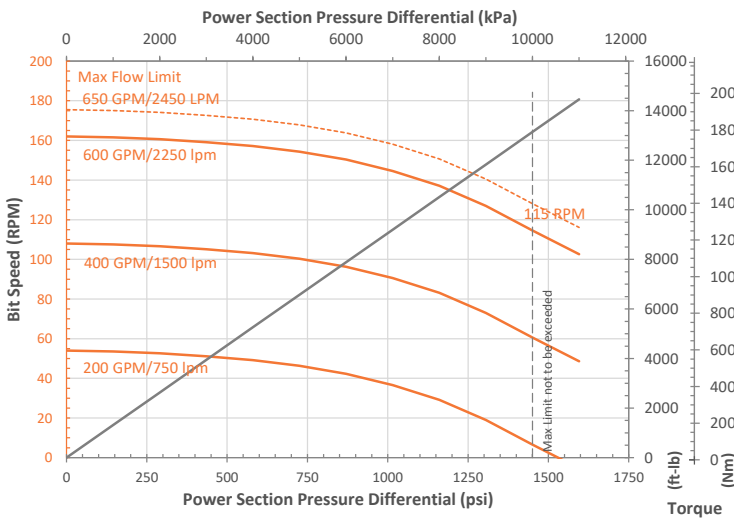
Rotor Specifications	
Uses Conv. Rotors	
Overall Length in. [mm]	188.0 [4775]
Contour Length in. [mm]	181.0 [4597]
Major Diameter in. [mm]	4.520 [114.8]
Eccentricity in. [mm]	0.256 [6.5]
Head Diameter in. [mm]	4.000 [101.6]
Gunbored Weight lb [kg]	510 [231]
Solid Weight lb [kg]	675 [306]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	200 - 650 [760 - 2460]
Speed Range RPM	55 - 160
Torque Slope ft-lb/psi [Nm/kPa]	9.060 [1.782]
Rotation rev/Gal [rev/lit]	0.270 [0.071]
Stall Torque ft-lb [Nm]	17,750 [24,100]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,450 [10,000]
Torque ft-lbs [Nm]	13,150 [17,800]
Flow Rate GPM [lpm]	600 [2,250]
Full Load RPM	115 at 600 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.000	4.008	155°F [70°C]	165°F [75°C]	295°F [145°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000146 [0.000262]

Notes:

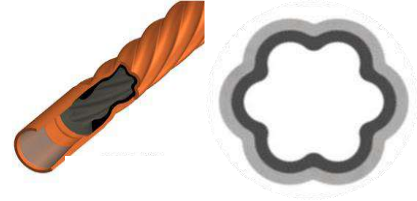
- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- Material minimum yield to be discussed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

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Stator Specifications		
Overall Length in. [mm]	235.8 [5989]	
Tube O.D. in. [mm]	6.93 [176]	
Tube I.D. (Terminal) in. [mm]	5.50 [140]	
Rubber Cutback Top in. [mm]	10.0 [254]	
Rubber Cutback Btm in. [mm]	10.0 [254]	
Weight lb [kg]	740 [335]	
Tube Material	4140-4145	
To be threaded and ID Banded by customer		

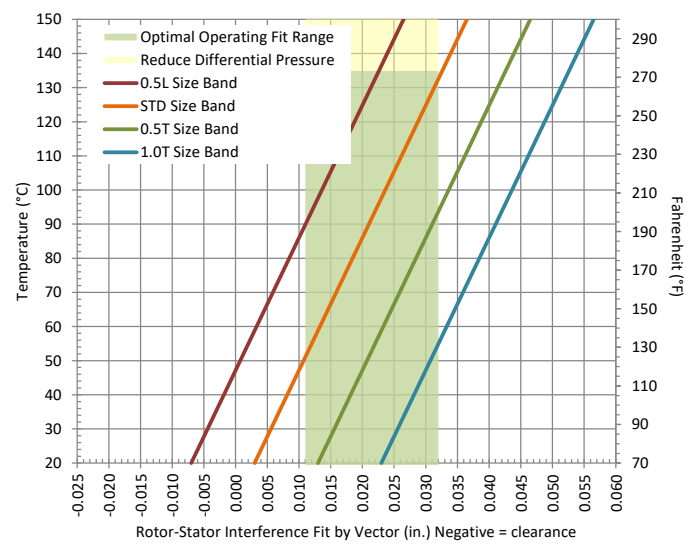
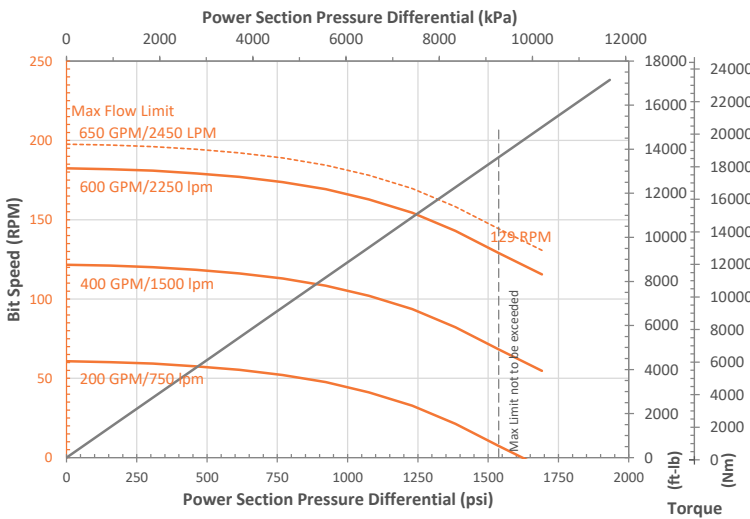
Rotor Specifications		
Overall Length in. [mm]	228.0 [5790]	
Contour Length in. [mm]	221.0 [5612]	
Major Diameter in. [mm]	Call Spira	Call Spira
Eccentricity in. [mm]	Call Spira	Call Spira
Head Diameter in. [mm]	4.000 [101.6]	
Gunbored Weight lb [kg]	550 [249]	
Solid Weight lb [kg]	751 [340]	
Material (See note 4)	17-4 PH	
Coating Options	Chrome or Carbide	
To be threaded by customer		

Performance Specifications		
Flow Range GPM [lpm]	200 - 650 [760 - 2460]	
Speed Range RPM	60 - 180	
Torque Slope ft-lb/psi [Nm/kPa]	10.138 [1.994]	
Rotation rev/Gal [rev/lit]	0.304 [0.080]	
Stall Torque ft-lb [Nm]	21,050 [28,500]	
Operating Parameters		
Max Diff Pressure psi [kPa]	1,550 [10,600]	
Torque ft-lbs [Nm]	15,600 [21,100]	
Flow Rate GPM [lpm]	600 [2,250]	
Full Load RPM	129 at 600 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.003	3.835	120°F [50°C]	160°F [70°C]	270°F [130°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000184 [0.000330]

Notes:

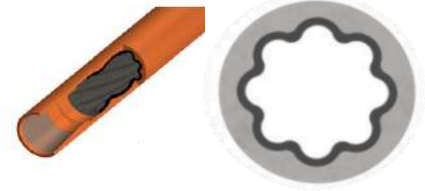
1. Negative fits indicate clearance fit at room temperature using nominal new rotor.
2. Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
3. Typical stator minor diameter tolerances are +/- 0.015.
4. Material minimum yield to be discussed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

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Stator Specifications	
Overall Length in. [mm]	223.5 [5677]
Tube O.D. in. [mm]	8.00 [203]
Tube I.D. (Terminal) in. [mm]	6.25 [159]
Rubber Cutback Top in. [mm]	18.0 [457.2]
Rubber Cutback Btm in. [mm]	18.0 [457.2]
Weight lb [kg]	1425 [645]
Tube Material	4140-4145
To be threaded and ID Banded by customer	

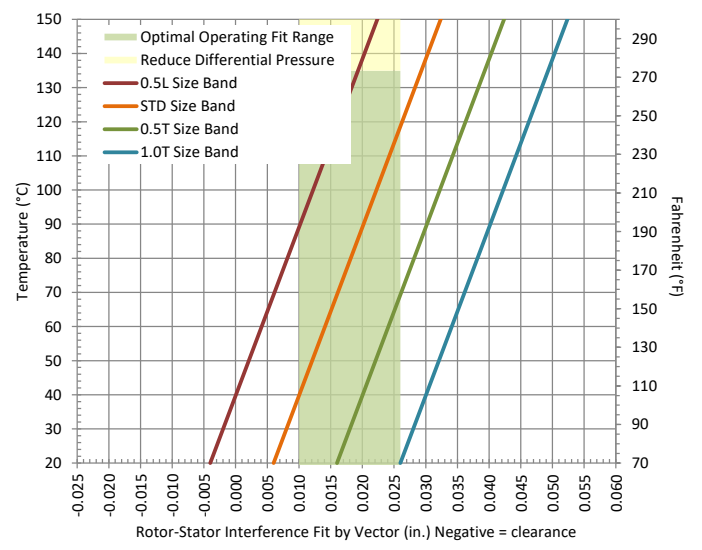
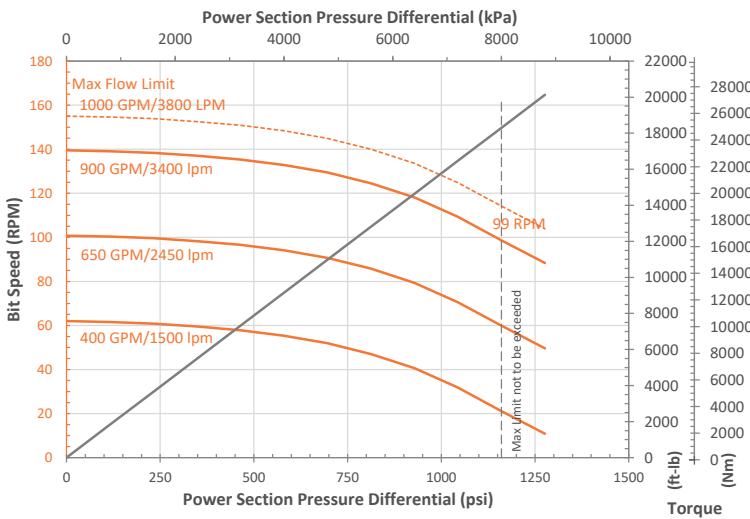
Rotor Specifications	
Uses Conv. Rotors	
Overall Length in. [mm]	196.3 [4985]
Contour Length in. [mm]	188.3 [4782]
Major Diameter in. [mm]	5.186 [131.7]
Eccentricity in. [mm]	0.293 [7.4]
Head Diameter in. [mm]	4.750 [120.7]
Gunbored Weight lb [kg]	760 [345]
Solid Weight lb [kg]	933 [423]
Material (See note 4)	17-4 PH
Coating Options	Chrome or Carbide
To be threaded by customer	

Performance Specifications	
Flow Range GPM [lpm]	400 - 1000 [1510 - 3790]
Speed Range RPM	60 - 140
Torque Slope ft-lb/psi [Nm/kPa]	15.770 [3.101]
Rotation rev/Gal [rev/lit]	0.155 [0.041]
Stall Torque ft-lb [Nm]	24,700 [33,500]
Operating Parameters	
Max Diff Pressure psi [kPa]	1,150 [8,000]
Torque ft-lbs [Nm]	18,300 [24,800]
Flow Rate GPM [lpm]	900 [3,400]
Full Load RPM	99 at 900 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	-	-	-	-	-
0.5T	-	-	-	-	-
STD	0.006	4.594	105°F [40°C]	115°F [45°C]	245°F [120°C]
0.5L	-	-	-	-	-
1.0L	-	-	-	-	-
Minor Diameter Rate of Change (in/°F) [in/°C]					0.000144 [0.000260]

Notes:

- Negative fits indicate clearance fit at room temperature using nominal new rotor.
- Reduce differential pressure by 20% for temperatures above 250°F (125°C) and by 40% for temperatures above 285°F (140°C)
- Typical stator minor diameter tolerances are +/- 0.015.
- 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.