



VIKING

Power Technologies

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Conventional Power Section

475 78 38

4.75" OD 7/8 Lobes 3.8 Stages

Rotor Specification

Overall Length	178.00 in.
Contour Length	172.25 in.
Head Length	5.75 in.
Head Diameter	2.75 in.
Major Diameter	2.945 in.
Eccentric	0.163 in.
Material	17-4 PH
Weight	279 lbs.
Thread Form	Contact Factory

Stator Specification

Overall Length	187.00 in.
Contour Length	171.00 in.
Tube O.D.	4.75 in.
Tube I.D.	3.75 in.
Cutback (Band / Non-Band)	8.00 / 8.00 in.
Stages	3.8
Material	4140 HT
Weight	384 lbs.
Thread Form	Contact Factory

Downhole Performance Specifications

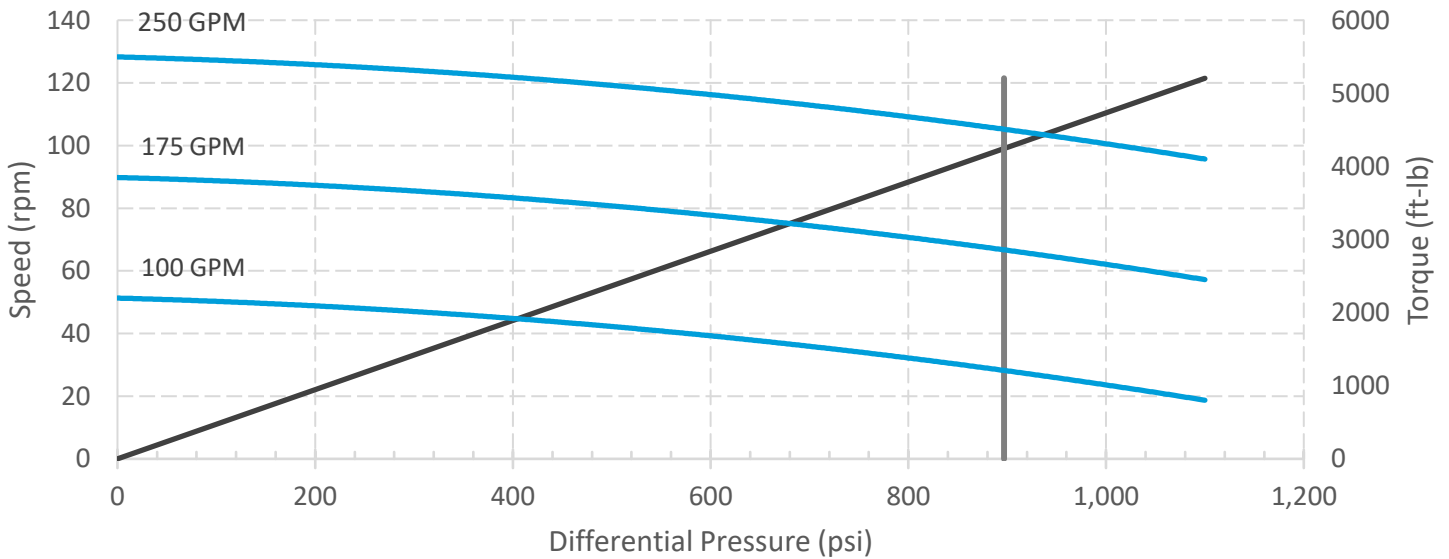
Torque Slope	4.73 ft-lbs/psi	Max Diff. Pressure	900 psi
Flow Range	100 - 250 gpm	Max Torque	4,240 ft-lbs
Speed Range	51 - 128 rpm	Speed (Max Diff. & Flow)	105 rpm
Rotation	0.513 rev/gal	Max HP	85 hp
Off-Bottom Pressure	130 psi	Stall Diff. Pressure	1,410 psi
		Stall Torque	6,670 ft-lbs

Dyno Performance

			900 psi
			3,420 ft-lbs
			90 rpm
			60 hp

Elastomer Performance

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
1.0 Undersize						
Standard	2.622	-0.003	135 - 230 °F	2.639	-0.020	190 - 265 °F
0.5 Oversize						
1.0 Oversize	2.631	-0.012	175 - 270 °F	2.647	-0.028	215 - 295 °F
1.5 Oversize						
2.0 Oversize	2.639	-0.020	215 - 305 °F	2.654	-0.035	245 - 320 °F



Power section performance curves are for reference only. Actual performance will vary with different downhole conditions and rotor/stator fits. If operated above the optimal differential pressure, stator life will be reduced. Optimal load power calculation is based on maximum RPM and optimal load torque. Information contained in this document is subject to change without notice.



Rotor Specification

Overall Length	4521.2 mm
Contour Length	4375.2 mm
Head Length	146.1 mm
Head Diameter	69.85 mm
Major Diameter	74.80 mm
Eccentric	4.14 mm
Material	17-4 PH
Weight	126 kgs
Thread Form	Contact Factory

Stator Specification

Overall Length	4749.8 mm
Contour Length	4343.4 mm
Tube O.D.	120.7 mm
Tube I.D.	95.3 mm
Cutback (Band / Non-Band)	203.2 / 203.2 mm
Stages	3.8
Material	4140 HT
Weight	174 kgs
Thread Form	Contact Factory

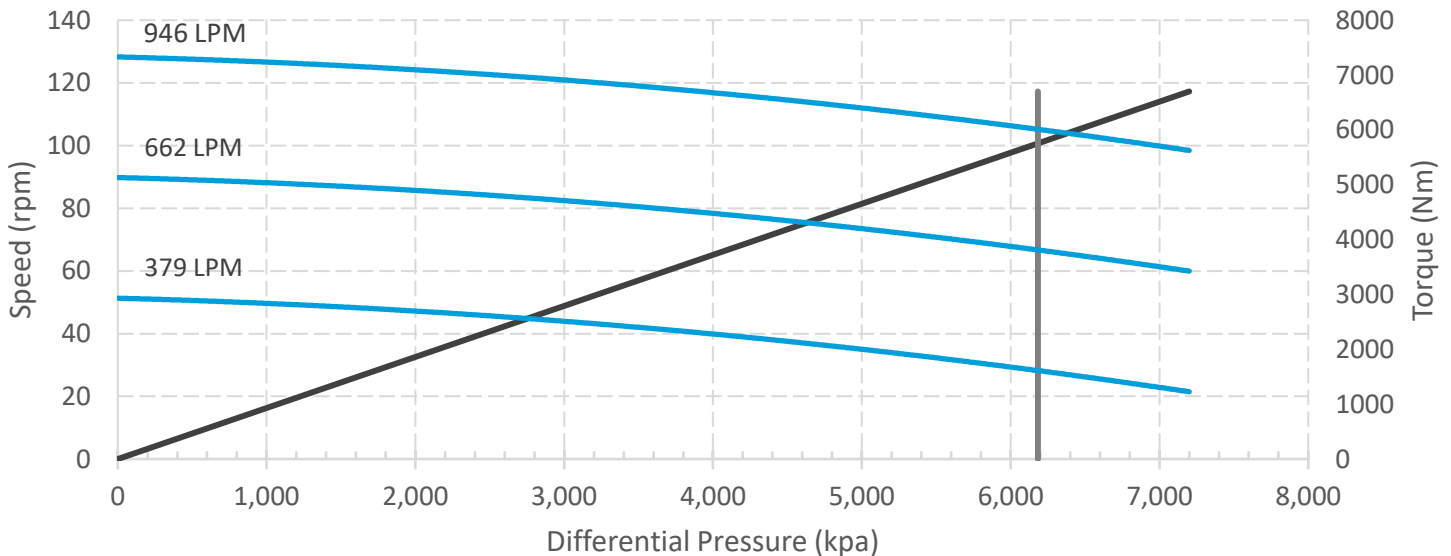
Downhole Performance Specifications

Torque Slope	0.93 Nm/kPa	Max Diff. Pressure	6205 kPa	6205 kPa
Flow Range	379 - 946 lpm	Max Torque	5749 Nm	4637 Nm
Speed Range	51 - 128 rpm	Speed (Max Diff. & Flow)	105 rpm	90 rpm
Rotation	0.1355 rev/liter	Max HP	63 kW	45 kW
Off-Bottom Pressure	896 kPa	Stall Diff. Pressure	9722 kPa	
		Stall Torque	9043 Nm	

Dyno Performance

Elastomer Performance

	007			VPX		
	Temperature Slope 0.010058 mm/°C			Temperature Slope 0.012299 mm/°C		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
1.0 Undersize						
Standard	66.60	-0.08	57 - 110 °C	67.03	-0.51	88 - 129 °C
0.5 Oversize						
1.0 Oversize	66.83	-0.30	79 - 132 °C	67.23	-0.71	102 - 146 °C
1.5 Oversize						
2.0 Oversize	67.03	-0.51	102 - 152 °C	67.41	-0.89	118 - 160 °C



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