



VIKING

Power Technologies

5203 Aeropark Dr., Houston, TX 77032 USA
 Tel: (832)-957-3200 Email: sales@vikingpt.com

DuraTorque Power Section

500 78 38 DT

5.00" 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.	5.00 in.
Tube I.D.	4.00 in.
Cutback (Band / Non-Band)	8.00 / 8.00 in.
Stages	3.8
Material	4140 HT
Weight	416 lbs.
Thread Form	Contact Factory

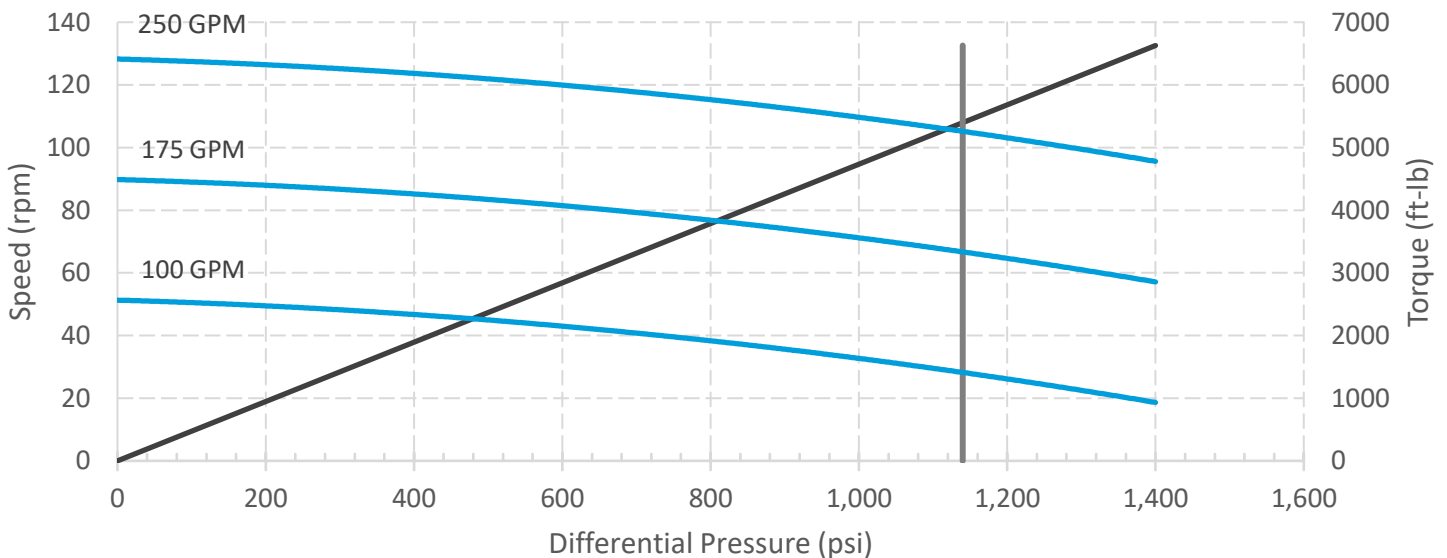
Downhole Performance Specifications

Torque Slope	4.73 ft-lbs/psi	Max Diff. Pressure	1,140 psi	1,140 psi
Flow Range	100 - 250 gpm	Max Torque	5,400 ft-lbs	4,360 ft-lbs
Speed Range	51 - 128 rpm	Speed (Max Diff. & Flow)	105 rpm	90 rpm
Rotation	0.513 rev/gal	Max HP	110 hp	75 hp
Off-Bottom Pressure	130 psi	Stall Diff. Pressure	1,790 psi	
		Stall Torque	8,470 ft-lbs	

Dyno Performance

Elastomer Performance

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
	Temperature Slope 0.000159 in/°F			Temperature Slope 0.000194 in/°F		
1.0 Undersize						
Standard	2.624	-0.005	175 - 290 °F	2.636	-0.017	215 - 310 °F
0.5 Oversize						
1.0 Oversize						
1.5 Oversize						
2.0 Oversize						



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.	127.0 mm
Tube I.D.	101.6 mm
Cutback (Band / Non-Band)	203.2 / 203.2 mm
Stages	3.8
Material	4140 HT
Weight	189 kgs
Thread Form	Contact Factory

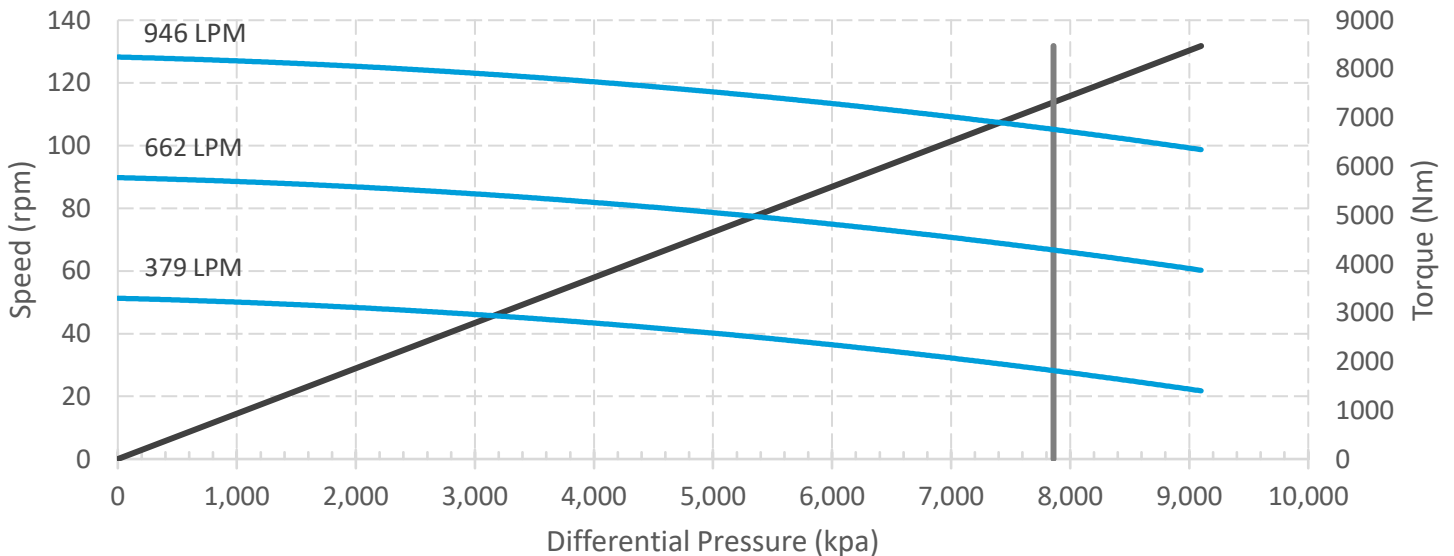
Downhole Performance Specifications

Torque Slope	0.93 Nm/kPa	Max Diff. Pressure	7860 kPa	7860 kPa
Flow Range	379 - 946 lpm	Max Torque	7321 Nm	5911 Nm
Speed Range	51 - 128 rpm	Speed (Max Diff. & Flow)	105 rpm	90 rpm
Rotation	0.1355 rev/liter	Max HP	82 kW	56 kW
Off-Bottom Pressure	896 kPa	Stall Diff. Pressure	12342 kPa	
		Stall Torque	11484 Nm	

Dyno Performance

Elastomer Performance

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
1.0 Undersize						
Standard	66.65	-0.13	79 - 143 °C	66.95	-0.43	102 - 154 °C
0.5 Oversize						
1.0 Oversize						
1.5 Oversize						
2.0 Oversize						



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.