



# VIKING

Power Technologies

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

## DuraTorque Power Section

500 56 83 DT

5.00" OD 5/6 Lobes 8.3 Stages

### Rotor Specification

Overall Length	229.50 in.
Contour Length	223.00 in.
Head Length	6.50 in.
Head Diameter	3.13 in.
Major Diameter	2.916 in.
Eccentric	0.207 in.
Material	17-4 PH
Weight	332 lbs.
Thread Form	Contact Factory

### Stator Specification

Overall Length	242.60 in.
Contour Length	226.60 in.
Tube O.D.	5.00 in.
Tube I.D.	4.00 in.
Cutback (Band / Non-Band)	8.00 / 8.00 in.
Stages	8.3
Material	4140 HT
Weight	542 lbs.
Thread Form	Contact Factory

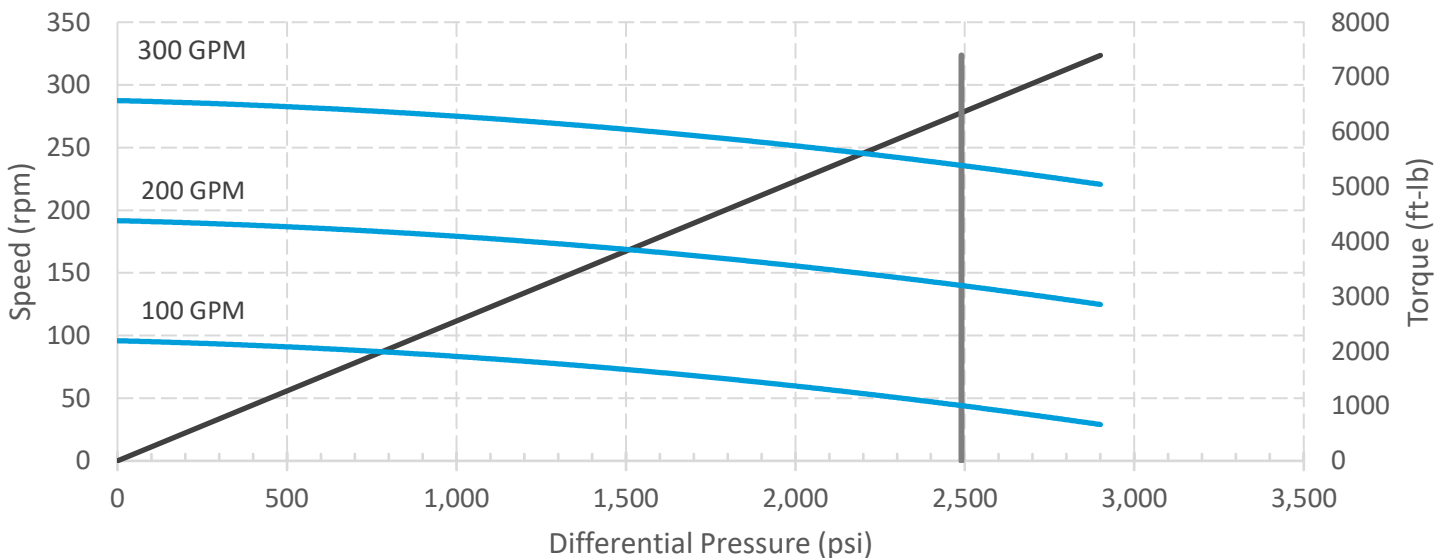
### Downhole Performance Specifications

Torque Slope	2.55 ft-lbs/psi	Max Diff. Pressure	2,490 psi	2,490 psi
Flow Range	100 - 300 gpm	Max Torque	6,350 ft-lbs	5,120 ft-lbs
Speed Range	96 - 287 rpm	Speed (Max Diff. & Flow)	236 rpm	202 rpm
Rotation	0.958 rev/gal	Max HP	285 hp	195 hp
Off-Bottom Pressure	106 psi	Stall Diff. Pressure	3,910 psi	
		Stall Torque	9,970 ft-lbs	

### Dyno Performance

### Elastomer Performance

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
	Temperature Slope 0.000168 in/°F			Temperature Slope 0.000205 in/°F		
1.0 Undersize	2.507	-0.004	160 - 270 °F	2.520	-0.017	210 - 295 °F
Standard	2.514	-0.011	205 - 310 °F	2.526	-0.023	235 - 325 °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	5829.3 mm
Contour Length	5664.2 mm
Head Length	165.1 mm
Head Diameter	79.38 mm
Major Diameter	74.07 mm
Eccentric	5.25 mm
Material	17-4 PH
Weight	151 kgs
Thread Form	Contact Factory

**Stator Specification**

Overall Length	6162.0 mm
Contour Length	5755.6 mm
Tube O.D.	127.0 mm
Tube I.D.	101.6 mm
Cutback (Band / Non-Band)	203.2 / 203.2 mm
Stages	8.3
Material	4140 HT
Weight	246 kgs
Thread Form	Contact Factory

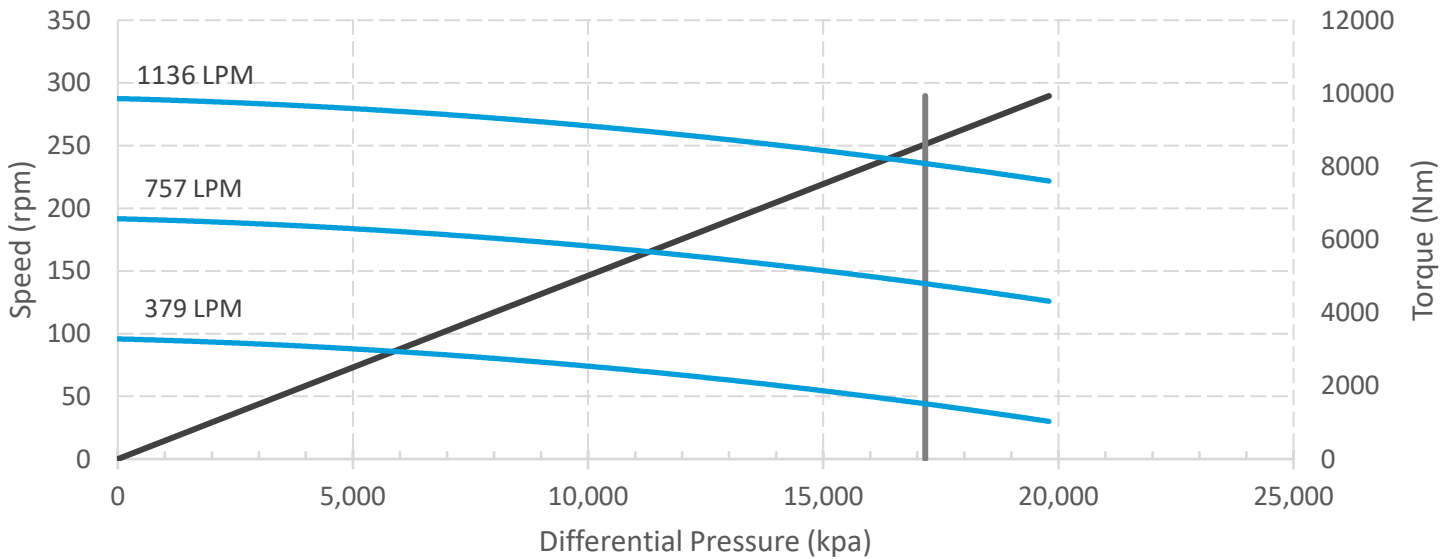
**Downhole Performance Specifications**

Torque Slope	0.50 Nm/kPa	Max Diff. Pressure	17168 kPa	17168 kPa
Flow Range	379 - 1136 lpm	Max Torque	8609 Nm	6942 Nm
Speed Range	96 - 287 rpm	Speed (Max Diff. & Flow)	236 rpm	202 rpm
Rotation	0.2531 rev/liter	Max HP	213 kW	145 kW
Off-Bottom Pressure	731 kPa	Stall Diff. Pressure	26959 kPa	
		Stall Torque	13518 Nm	

**Dyno Performance**

**Elastomer Performance**

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
	Temperature Slope 0.007681 mm/°C			Temperature Slope 0.009373 mm/°C		
1.0 Undersize	63.68	-0.10	71 - 132 °C	64.01	-0.43	99 - 146 °C
Standard	63.86	-0.28	96 - 154 °C	64.16	-0.58	113 - 163 °C
0.5 Oversize						
1.0 Oversize						
1.5 Oversize						
2.0 Oversize						



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