



VIKING

Power Technologies

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DuraTorque Power Section

800 78 59 DT

8.00" OD 7/8 Lobes 5.9 Stages

Rotor Specification

Overall Length	284.50 in.
Contour Length	276.50 in.
Head Length	8.00 in.
Head Diameter	4.75 in.
Major Diameter	5.186 in.
Eccentric	0.293 in.
Material	17-4 PH
Weight	1,378 lbs.
Thread Form	Contact Factory

Stator Specification

Overall Length	300.00 in.
Contour Length	284.00 in.
Tube O.D.	8.00 in.
Tube I.D.	6.25 in.
Cutback (Band / Non-Band)	8.00 / 8.00 in.
Stages	5.9
Material	4140 HT
Weight	1,778 lbs.
Thread Form	Contact Factory

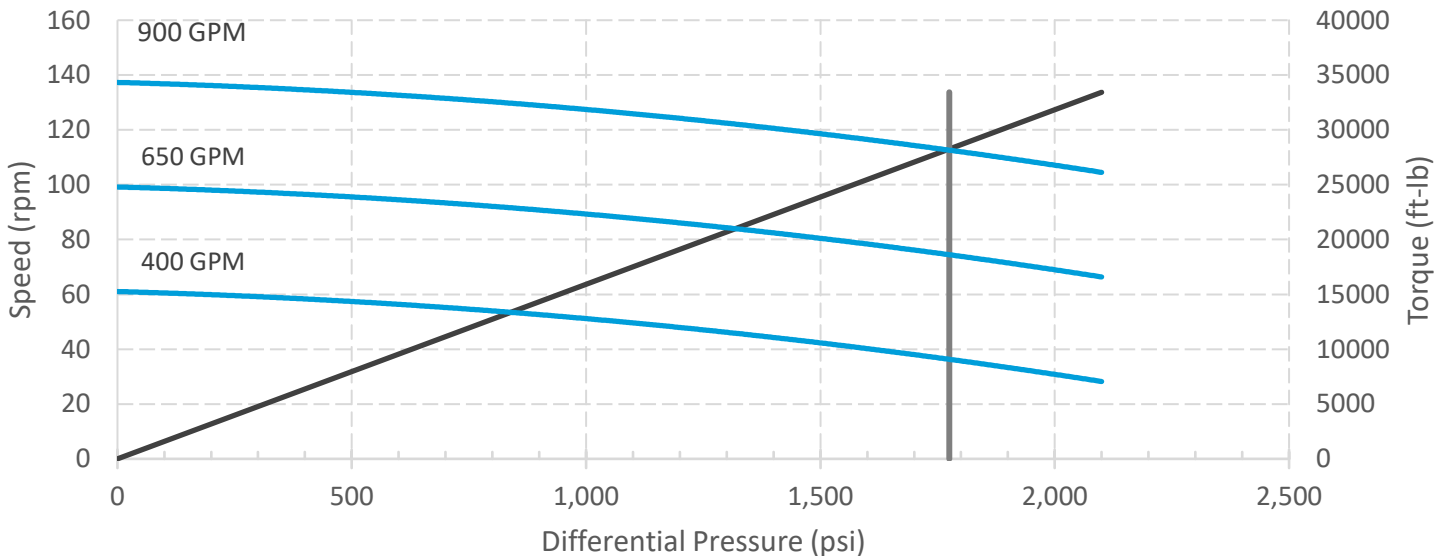
Downhole Performance Specifications

Torque Slope	15.92 ft-lbs/psi	Max Diff. Pressure	1,780 psi	1,780 psi
Flow Range	400 - 900 gpm	Max Torque	28,260 ft-lbs	22,790 ft-lbs
Speed Range	61 - 137 rpm	Speed (Max Diff. & Flow)	113 rpm	97 rpm
Rotation	0.153 rev/gal	Max HP	605 hp	420 hp
Off-Bottom Pressure	120 psi	Stall Diff. Pressure	2,790 psi	
		Stall Torque	44,410 ft-lbs	

Dyno Performance

Elastomer Performance

	007			VPX		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
	Temperature Slope 0.000157 in/°F			Temperature Slope 0.000192 in/°F		
1.0 Undersize	4.580	0.020	75 - 185 °F	4.592	0.008	105 - 225 °F
Standard	4.595	0.005	130 - 280 °F	4.606	-0.006	175 - 295 °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	7226.3 mm
Contour Length	7023.1 mm
Head Length	203.2 mm
Head Diameter	120.65 mm
Major Diameter	131.72 mm
Eccentric	7.44 mm
Material	17-4 PH
Weight	625 kgs
Thread Form	Contact Factory

Stator Specification

Overall Length	7620.0 mm
Contour Length	7213.6 mm
Tube O.D.	203.2 mm
Tube I.D.	158.8 mm
Cutback (Band / Non-Band)	203.2 / 203.2 mm
Stages	5.9
Material	4140 HT
Weight	806 kgs
Thread Form	Contact Factory

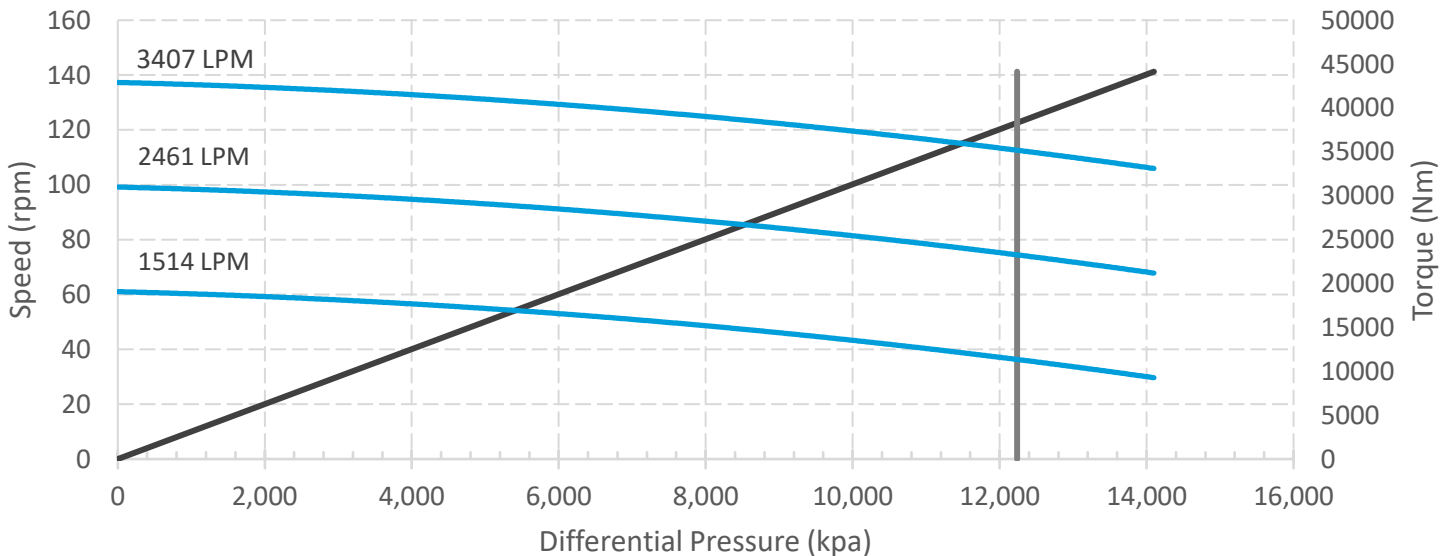
Downhole Performance Specifications

Torque Slope	3.13 Nm/kPa	Max Diff. Pressure	12273 kPa	12273 kPa
Flow Range	1514 - 3407 lpm	Max Torque	38315 Nm	30899 Nm
Speed Range	61 - 137 rpm	Speed (Max Diff. & Flow)	113 rpm	97 rpm
Rotation	0.0404 rev/liter	Max HP	451 kW	313 kW
Off-Bottom Pressure	827 kPa	Stall Diff. Pressure	19236 kPa	
		Stall Torque	60212 Nm	

Dyno Performance

Elastomer Performance

	007			VPX		
	Temperature Slope 0.007178 mm/°C			Temperature Slope 0.008778 mm/°C		
	Minor	Nominal Fit	Optimal Temperature	Minor	Nominal Fit	Optimal Temperature
1.0 Undersize	116.33	0.51	24 - 85 °C	116.64	0.20	41 - 107 °C
Standard	116.71	0.13	54 - 138 °C	116.99	-0.15	79 - 146 °C
0.5 Oversize						
1.0 Oversize						
1.5 Oversize						
2.0 Oversize						



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