



VIKING

Power Technologies

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Conventional Power Section

675 45 70

6.75" OD 4/5 Lobes 7.0 Stages

Rotor Specification

| | |
|----------------|-----------------|
| Overall Length | 202.50 in. |
| Contour Length | 195.50 in. |
| Head Length | 7.00 in. |
| Head Diameter | 4.00 in. |
| Major Diameter | 4.220 in. |
| Eccentric | 0.355 in. |
| Material | 17-4 PH |
| Weight | 579 lbs. |
| Thread Form | Contact Factory |

Stator Specification

| | |
|---------------------------|-----------------|
| Overall Length | 214.00 in. |
| Contour Length | 198.00 in. |
| Tube O.D. | 6.75 in. |
| Tube I.D. | 5.50 in. |
| Cutback (Band / Non-Band) | 8.00 / 8.00 in. |
| Stages | 7.0 |
| Material | 4140 HT |
| Weight | 809 lbs. |
| Thread Form | Contact Factory |

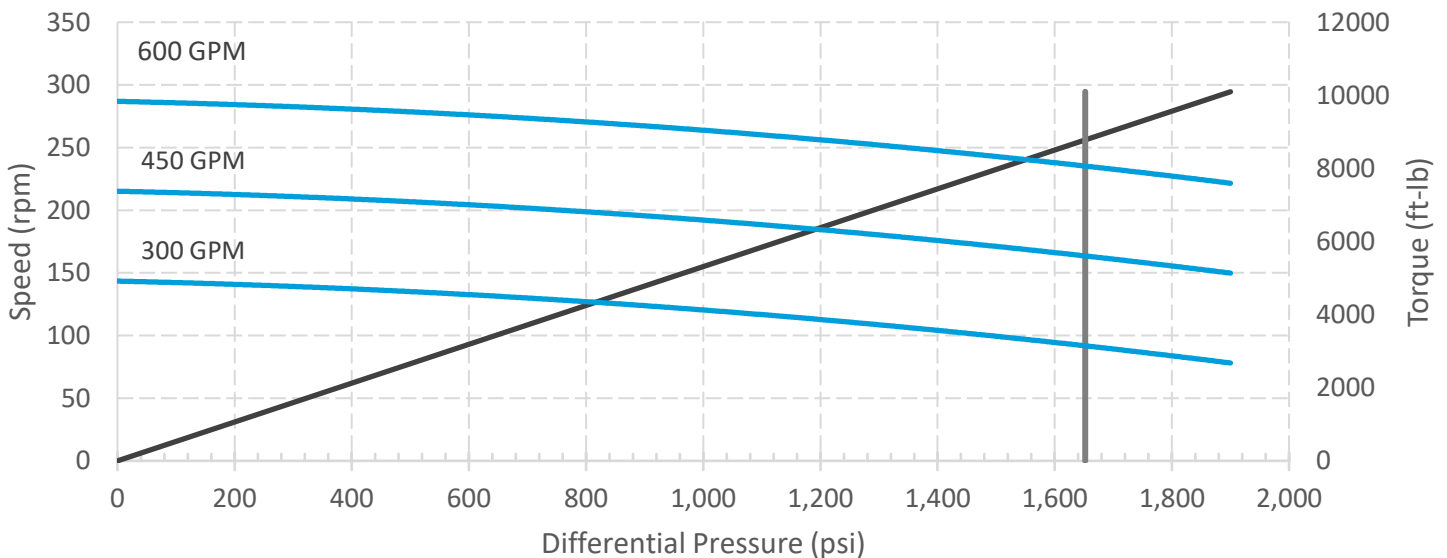
Downhole Performance Specifications

| | | | | |
|---------------------|-----------------|--------------------------|---------------|--------------|
| Torque Slope | 5.31 ft-lbs/psi | Max Diff. Pressure | 1,650 psi | 1,650 psi |
| Flow Range | 300 - 600 gpm | Max Torque | 8,780 ft-lbs | 7,080 ft-lbs |
| Speed Range | 143 - 287 rpm | Speed (Max Diff. & Flow) | 235 rpm | 202 rpm |
| Rotation | 0.478 rev/gal | Max HP | 395 hp | 270 hp |
| Off-Bottom Pressure | 150 psi | Stall Diff. Pressure | 2,590 psi | |
| | | Stall Torque | 13,770 ft-lbs | |

Dyno Performance

Elastomer Performance

| | 007 | | | VPX | | |
|---------------|----------------------------------|-------------|---------------------|----------------------------------|-------------|---------------------|
| | Minor | Nominal Fit | Optimal Temperature | Minor | Nominal Fit | Optimal Temperature |
| | Temperature Slope 0.000332 in/°F | | | Temperature Slope 0.000406 in/°F | | |
| 1.0 Undersize | 3.503 | 0.007 | 110 - 220 °F | 3.528 | -0.018 | 165 - 255 °F |
| Standard | 3.516 | -0.006 | 150 - 260 °F | 3.540 | -0.030 | 195 - 285 °F |
| 0.5 Oversize | | | | | | |
| 1.0 Oversize | 3.535 | -0.025 | 205 - 315 °F | 3.559 | -0.049 | 240 - 330 °F |
| 1.5 Oversize | | | | | | |
| 2.0 Oversize | 3.563 | -0.053 | 290 - 320 °F | 3.592 | -0.082 | 320 - 375 °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 | 5143.5 mm |
| Contour Length | 4965.7 mm |
| Head Length | 177.8 mm |
| Head Diameter | 101.60 mm |
| Major Diameter | 107.19 mm |
| Eccentric | 9.02 mm |
| Material | 17-4 PH |
| Weight | 263 kgs |
| Thread Form | Contact Factory |

Stator Specification

| | |
|---------------------------|------------------|
| Overall Length | 5435.6 mm |
| Contour Length | 5029.2 mm |
| Tube O.D. | 171.5 mm |
| Tube I.D. | 139.7 mm |
| Cutback (Band / Non-Band) | 203.2 / 203.2 mm |
| Stages | 7.0 |
| Material | 4140 HT |
| Weight | 367 kgs |
| Thread Form | Contact Factory |

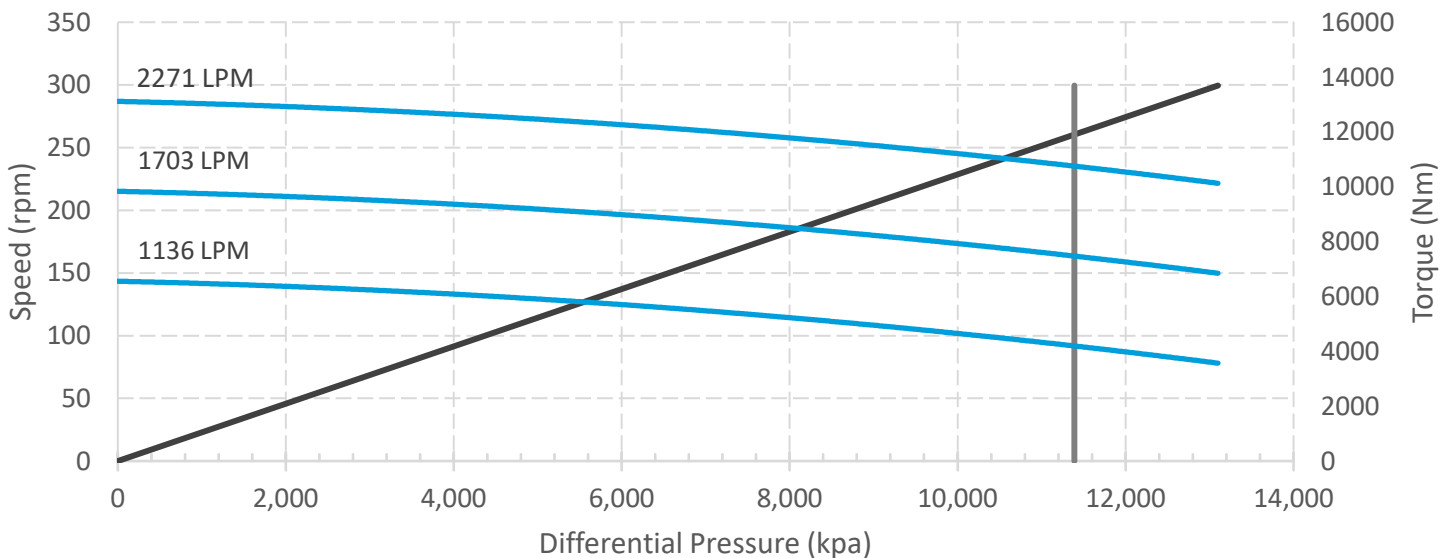
Downhole Performance Specifications

| | | | | |
|---------------------|------------------|--------------------------|-----------|-----------|
| Torque Slope | 1.05 Nm/kPa | Max Diff. Pressure | 11376 kPa | 11376 kPa |
| Flow Range | 1136 - 2271 lpm | Max Torque | 11904 Nm | 9599 Nm |
| Speed Range | 143 - 287 rpm | Speed (Max Diff. & Flow) | 235 rpm | 202 rpm |
| Rotation | 0.1263 rev/liter | Max HP | 295 kW | 201 kW |
| Off-Bottom Pressure | 1,034 kPa | Stall Diff. Pressure | 17857 kPa | |
| | | Stall Torque | 18670 Nm | |

Dyno Performance

Elastomer Performance

| | 007 | | | VPX | | |
|---------------|----------------------------------|-------------|---------------------|----------------------------------|-------------|---------------------|
| | Minor | Nominal Fit | Optimal Temperature | Minor | Nominal Fit | Optimal Temperature |
| | Temperature Slope 0.015179 mm/°C | | | Temperature Slope 0.018562 mm/°C | | |
| 1.0 Undersize | 88.98 | 0.18 | 43 - 104 °C | 89.61 | -0.46 | 74 - 124 °C |
| Standard | 89.31 | -0.15 | 66 - 127 °C | 89.92 | -0.76 | 91 - 141 °C |
| 0.5 Oversize | | | | | | |
| 1.0 Oversize | 89.79 | -0.64 | 96 - 157 °C | 90.40 | -1.24 | 116 - 166 °C |
| 1.5 Oversize | | | | | | |
| 2.0 Oversize | 90.50 | -1.35 | 143 - 160 °C | 91.24 | -2.08 | 160 - 191 °C |



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