Scientific Drilling’s Titan 22 performance drilling motor is designed for the most extreme drilling environments in the industry. It has been engineered to run with the highest torque power sections, delivering ultimate reliability and durability in all sections of the well. The Titan 22 also features a unique Ti-Flex™ Titanium Flex Shaft and bearing pack assembly to deliver optimal performance in a wide range of applications.

**DELIVERING THE ULTIMATE VALUE**

- Enhanced WOB capacity supporting increased and consistent ROP for superior drilling performance
- Rugged driveline design for ultra-high power torque sections delivering maximized reliability
- Full rotational capabilities in all sections of the well ensuring optimal wellbore integrity
- Innovative Ti-Flex™ Titanium Flex Shaft and bearing assembly, for increased durability and extended tool life

**TARGET APPLICATIONS**

- Performance Drilling
- Extended Reach Laterals
- Factory Drilling in Shale Reservoirs
- One Run Applications
- Laminated Formations

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**GENERAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Power Section</th>
<th>Bearing Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bit to Bend Length</strong></td>
<td>40.6 in (1.031 m)</td>
</tr>
<tr>
<td><strong>Bit Box Connection</strong></td>
<td>3½ in API Reg. Box</td>
</tr>
<tr>
<td><strong>Max WOB</strong></td>
<td>30,000 lbs (13,345 DaN)</td>
</tr>
<tr>
<td><strong>Max Overpull for Rerun</strong></td>
<td>60,000 lbs (26,689 DaN)</td>
</tr>
<tr>
<td><strong>Overpull to Yield Motor</strong></td>
<td>105,000 lbs (46,706 DaN)</td>
</tr>
<tr>
<td><strong>Max Bit Pressure Drop</strong></td>
<td>750 psi (5,171 kPa)</td>
</tr>
<tr>
<td><strong>Opt. Bit Pressure Drop</strong></td>
<td>100 - 600 psi (690 - 4,136 kPa)</td>
</tr>
<tr>
<td><strong>LCM Capability</strong></td>
<td>40 lb nut plug</td>
</tr>
</tbody>
</table>

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**Power Section**

- **Lobe Configuration:** 6/7, 7/8, 7/8, 4/5, 7/8, 7/8
- **Stages:** 8.0, 3.1, 5.0, 7.0, 3.3, 5.0, 6.4
- **Max Diff Pressure:** 1,800 psi (12,410 kPa), 700 psi (4,810 kPa), 1,130 psi (7,600 kPa), 1,380 psi (9,500 kPa), 1,130 psi (7,600 kPa), 1,440 psi (9,900 kPa)
- **Stall Diff Pressure:** 2,700 psi (18,620 kPa), 1,050 psi (7,210 kPa), 1,610 psi (11,030 kPa), 2,360 psi (16,290 kPa), 1,110 psi (7,600 kPa), 1,610 psi (11,030 kPa), 2,160 psi (14,890 kPa)
- **Torque at Max Diff Pressure:** 5,720 ft-lbs (7,760 Nm), 5,460 ft-lbs (7,410 Nm), 4,460 ft-lbs (6,040 Nm), 9,050 ft-lbs (12,330 Nm), 4,110 ft-lbs (5,490 Nm), 10,460 ft-lbs (14,190 Nm), 13,390 ft-lbs (18,150 Nm)
- **Stall Torque:** 8,080 ft-lbs (11,630 Nm), 8,160 ft-lbs (11,710 Nm), 6,680 ft-lbs (9,060 Nm), 11,630 ft-lbs (16,290 Nm), 16,690 ft-lbs (21,280 Nm), 20,090 ft-lbs (27,240 Nm)
- **Flow Range:** 150-350 gal/min (570 - 1,320 L/min), 100 - 275 gal/min (378 - 1,040 L/min), 300 - 500 gal/min (1,140 - 2,270 L/min)
- **Speed Range:** 121-290 RPM, 47 - 95 RPM, 64 - 180 RPM, 149 - 300 RPM, 42 - 84 RPM, 86-180 RPM
- **Speed Ratio:** 0.81 rev/gal (0.21 rev/L), 0.32 rev/gal (0.08 rev/L), 0.59 rev/gal (0.13 rev/L), 0.14 rev/gal (0.04 rev/L), 0.29 rev/gal (0.08 rev/L)
- **Torque Slope:** 3.18 ft-lb/psi (0.63 Nm/kPa), 7.83 ft-lb/psi (1.43 Nm/kPa), 3.96 ft-lb/psi (0.78 Nm/kPa), 5.77 ft-lb/psi (1.14 Nm/kPa), 19 ft-lb/psi (3.74 Nm/kPa), 30 ft-lb/psi (6.13 Nm/kPa)

Specifications are subject to change without notice.

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