

PRODUCT SPEC SHEET

TITAN 22 PERFORMANCE DRILLING MOTOR

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



GENERAL SPECIFICATIONS							
Length	31.6 ft (9.63 m)	30.9 ft (9.42 m)	27.6 ft (8.41 m)	31.3 ft (9.54 m)	33.8 ft (10.3 m)	29.6 ft (9.02 m)	33.8 ft (10.3 m)
OD	5 in (127 mm)			6.626 in (168 mm)			
Recommended Hole Sizes	6 - 6 1/4 in (152 - 159 mm)			7 7/8 - 8 3/4 in (200 - 222 mm)			
Max Bend Angle	2.38°						
BEARING SECTION							
Bit to Bend Length	40.6 in (1.031 m)			49 in (1.244 m)			
Bit Box Connection	3 1/2 in API Reg. Box			4 1/2 in API Reg. Box			
Max WOB	30,000 lbs (13,345 DaN)			60,000 lbs (26,689 DaN)			
Max Overpull for Rerun	60,000 lbs (26,689 DaN)			105,000 lbs (46,706 DaN)			
Overpull to Yield Motor	120,000 lbs (53,379 DaN)			210,000 lbs (93,413 DaN)			
Max Bit Pressure Drop	750 psi (5,171 kPa)			1,000 psi (6,894 kPa)			
Opt. Bit Pressure Drop	100-600 psi (690 - 4,136 kPa)			100 - 750 psi (690 - 5,171 kPa)			
LCM Capability	40 lb nut plug						
POWER SECTION							
Lobe Configuration	6/7	7/8	7/8	4/5	7/8	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 (7,760 kPa)	1,580 psi (10,860 kPa)	740 psi (5,120 kPa)	1,130 psi (7,760 kPa)	1,440 psi (9,930 kPa)
Stall Diff Pressure	2,700 psi (18,620 kPa)	1,050 psi (7,210 kPa)	1,690 psi (11,630 kPa)	2,360 psi (16,290 kPa)	1,110 psi (7,680 kPa)	1,690 psi (11,630 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)	9,090 ft-lbs (12,330 Nm)	14,110 ft-lbs (19,130 Nm)	10,460 ft-lbs (14,190 Nm)	13,390 psi (18,160 Nm)
Stall Torque	8,580 ft-lbs (11,630 Nm)	8,190 ft-lbs (11,110 Nm)	6,680 ft-lbs (9,060 Nm)	13,630 ft-lbs (18,490 Nm)	21,160 ft-lbs (28,690 Nm)	15,690 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)		300-600 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)	0.64 rev/gal (0.17 rev/L)	0.50 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 (1.54 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)	9.30 ft-lb/psi (1.83 Nm/kPa)	

Specifications are subject to change without notice.