

Thru-Tubing Intervention

CTD[®] Motor with ForceFlex[™] Technology

The Weatherford *CTD* positive displacement motor (PDM) is engineered to ensure reliable delivery of the optimal horsepower to the bit. Weatherford's proprietary power section is specifically designed to address the concerns of thru-tubing operations. The power section converts hydraulic energy of the drilling fluid to the mechanical horsepower necessary to rotate a bit. Using Weatherford's *ForceFlex* Technology elastomer, the high-torque power section minimizes stalls and allows the operator to focus on other aspects of the operation. The *CTD* motor is dynamometer-tested and delivered with a chart of its characteristics.

Weatherford's PDMs are among the most powerful and reliable in the industry.

Applications

- Heavy-duty milling
- Coiled-tubing drilling
- Tubing cutting
- Underreaming
- Plug removal

Features, Advantages and Benefits

- Rugged design, with fully sealed and pressure-balanced bearing assembly, provides unparalleled longevity, reducing the need for costly replacements.
- Unique high-torque power sections minimize stalls, saving time and allowing the operator to focus on other aspects of the operation.
- Unique design of the *CTD* motor enhances performance in demanding environments, preventing costly fishing operations.
- Elevated weight-on-bit ratings effectively manage the higher loads experienced in heavy-duty milling and drilling applications, enhancing safety and reducing costs.
- Unique elastomer compound delivers improved compatibility with multiphase fluids, providing long life and improved performance.

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CTD[®] Motor with ForceFlex[™] Technology

Features, Advantages and Benefits

- Built-in safety mechanisms minimize risk of leaving fish in a well, reducing fish-replacement costs.
- High-performance power output maximizes penetration rates, reducing rig time.

Specifications

Performance

OD (in./ <i>mm</i>)	Maximum Torque Output (ft-lb/ <i>N•m</i>)	Maximum Bit Pressure Drop (psi/ <i>MPa</i>)	Minimum Flow Rate (GPM/ <i>LPM</i>)	Maximum Flow Rate (GPM/ <i>LPM</i>)	Speed Range (RPM)	Maximum Weight on Bit (Ib/ <i>kg</i>)	Maximum Temperature (°F/°C)	Maximum Overpull (lb/ <i>kg</i>)
2-7/8	1,448	2,000	60	120	220 to 460	18,240	300	34,000
73.025	<i>1,</i> 963	13.79	227.12	454.25		<i>8,274</i>	<i>14</i> 9	<i>15,422</i>
3-1/2	2,625	2,000	80	160	190 to 400	26,000	300	50,000
88.900	3,558	13.79	302.83	605.67		<i>11,793</i>	<i>14</i> 9	<i>22,680</i>

Equipment

						Makeup Torque		
OD (in./ <i>mm</i>)	Overall Length (ft/ <i>m</i>)	Configuration	Stages	Weight (lb/ <i>kg</i>)	Standard Thread Connections	Top Connection (ft-lb/ <i>N•m</i>)	Bottom Connection (ft-lb/ <i>N•m</i>)	Bit Size Range (in./ <i>mm</i>)
2-7/8 73.025	10.5 <i>3.21</i>	7:8	3.6	168 76.20	2 3/8-in. PAC	2,693 3,651		3-1/4 to 4-3/4 82.55 to 120.65
3-1/2 88.900	11.8 3.59	7:8	5.0	250 113.39	2 3/8-in. API Reg	2,908 <i>3,943</i>		3-7/8 to 5-1/4 98.43 to 133.35

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