HDD Horizontal Directional Drilling Motor

The Wenzel Downhole Tools HDD Motor is designed to offer reliable performance for both straight and directional drilling within the oil and gas industry, as well as for civil construction applications requiring trenchless horizontal directional drilling (HDD). Known for their operational longevity and efficiency, Wenzel tools are versatile to a wide range of drilling applications for the energy and construction industries.

Wenzel Drilling Motors continue to offer the highest level of quality to customers through superior designs, materials, and manufacturing processes. Optimized design features and the pursuit of technological advancements mean Wenzel tools offer exceptional performance.

Features and Benefits

- High allowable WOB (weight on bit) and load capacities.
- Equipped with 2° Fixed Bend Assembly.
- Features the HDD Driveline for shortened overall length.
- Inhouse manufactured components adhere to Wenzel's high standard of premium materials and quality production.
- Patented design.

Wenzel HDD Motor Specifications for Canadian Region

IMPERIAL

Nominal OD (inch)	Model	Bit Box to Fixed Bend (inch)	Overall Length (ft)	Hole Size (inch)	Max WOB* (lbs)	Max Bit Overpull* (lbs)	Absolute Body Overpull** (lbs)	Flow Range (GPM)	Speed Range (RPM)	Max Diff. Pressure (psi)	Torque at Max Diff. Pressure (ft.lbs)	Max Power (HP)
3 1/2	M6 7838	30	16.2	4 1/2 – 5 7/8	18 500	18 500	212 000	75-150	120-235	665	1 103	40
4 3/4	M5 7822	50	16.7 (17.6)[b]	5 7/8 – 7 7/8	54 000 (33 000)[a]	31 000	436 000	100-250	50-140	500	2 350	55
4 3/4	M5 7838	50	22.9 (23.8)[b]	5 7/8 – 7 7/8	54 000 (33 000)[a]	31 000	436 000	150-250	80-140	860	4 450	105
6 1/2	M6 7828	56	18.7 (19.6)[b]	7 7/8 – 9 7/8	91 000 (66 000)[a]	51 000	550 000	150-400	50-140	630	5 010	120
6 1/2	M6 7840	56	21.2 (22.1)[b]	7 7/8 – 9 7/8	91 000 (66 000)[a]	51 000	550 000	300-500	105-180	900	6 200	200
8	M6 7830	67	23.5	9 5/8 – 12 1/4	105 000	73 000	845 000	400-900	65-150	450	7 470	210

METRIC

Nominal OD (mm)	Model	Bit Box to Fixed Bend (m)	Overall Length (m)	Hole Size (mm)	Max WOB* (daN)	Max Bit Overpull* (daN)	Absolute Body Overpull** (daN)	Flow Range (lpm)	Speed Range (RPM)	Max Diff. Pressure (kPa)	Torque at Max Diff. Pressure (N.m)	Max Power (kW)
89	M6 7838	0.76	4.95	114 – 149	8 200	8 200	94 000	285-570	120-235	4 585	1 500	30
121	M5 7822	1.27	5.11 (5.38)[b]	149 – 200	24 000 (14 700)[a]	13 800	194 000	380-950	50-140	3 410	3 190	40
121	M5 7838	1.27	6.99 (7.26)[b]	149 – 200	24 000 (14 700)[a]	13 800	194 000	570-950	80-140	5 900	6 030	80
165	M6 7828	1.42	5.70 (5.97)[b]	200 – 251	40 500 (29 500)[a]	23 000	245 000	570-1510	50-140	4 340	6 790	90
165	M6 7840	1.42	6.46 (6.74)[b]	200 – 251	40 500 (29 500)[a]	23 000	245 000	1140-1890	105-180	6 210	8 410	150
203	M6 7830	1.70	7.16	244 – 311	47 000	32 000	376 000	1510-3410	65-150	3 100	10 130	160

Specifications for Canadian Region only *Operating Capacity **Static Capacity

[a] (WOB Capacity) in brackets refers to the single On Bottom Bearing option [b] 6 1/2" M6 using standard S22 Driveline & Adjustable (length in brackets)

Specifications are based on as new condition and are subject to change without notice