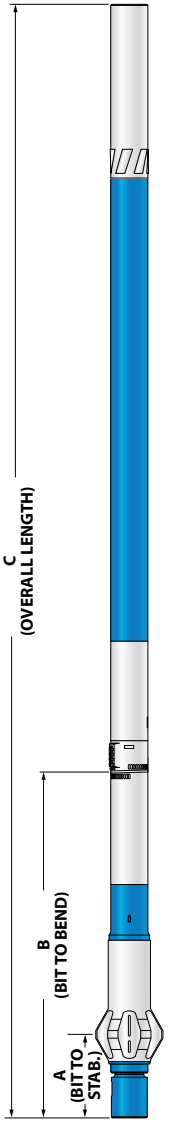
DYNOMAX DRILLING TOOLS INC

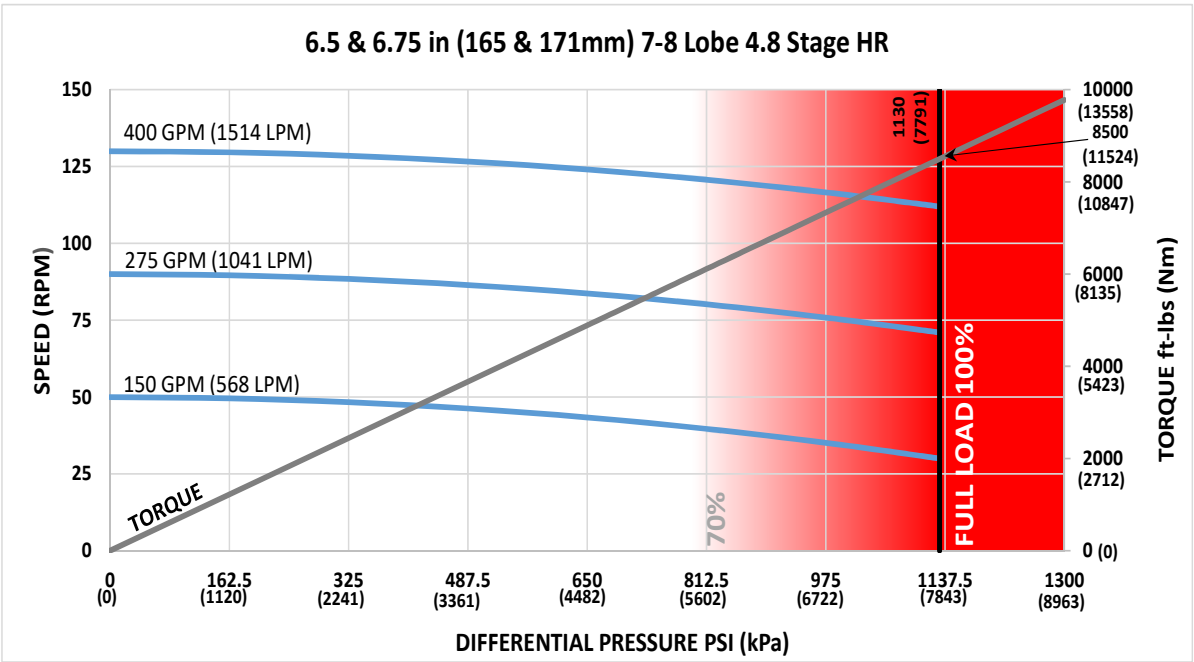
6.5 & 6.75 in (165 & 171mm) 7-8 Lobe 4.8 Stage HR
SERIES 1



Bit Size Range		7-7/8 - 9-7/8 in	200 - 251 mm
Bit Box Connection		4-1/2 REGULAR	
Dynamic Bearing Load On/Off Bottom		128500 lbf	57200 daN
Static Bearing Load On/Off Bottom		404500 lbf	179900 daN
Max. Overpull (For Re-run)		406900 lbf	181000 daN
Absolute Overpull		678200 lbf	301700 daN
Adjustable Makeup Torque		25000 ft-lbs	33900 Nm
Stab/Thread Protector Makeup Torque		12000 ft-lbs	16300 Nm
A = Bit to Stabilizer (Centre)		17.5 in	0.44 m
B = Bit to Bend	**Adjustable**	73 in	1.85 m
	Fixed	61.1 in	1.55 m
C = Overall (With Dump Sub)		334.6 in	8.5 m
Weight		2394 lb	1086 kg

Lobe Configuration	7-8 Lobe 4.8 Stage HR	
Displacement (No Load)	0.33 rev/gal	0.09 rev/l
Max. Differential (Full Load)	1130 psi	7791 kPa
Max. Torque	8500 ft-lbs	11524 Nm
Max. Power	181 HP	135 kW

Flow Rate		**Speed**
GPM	**LPM**	**RPM**
150	5568	30 - 50
275	1041	71 - 90
400	1514	112 - 130



Possible damage may occur when motor is run higher than 70% of Maximum Differential Pressure.

ADJUSTABLE BUILD RATE

Hole Size	SLICK				STABILIZED			
	7-7/8 (200mm)	8-1/2 (216mm)	8-3/4 (222mm)	9-7/8 (251mm)	7-7/8 (200mm)	8-1/2 (216mm)	8-3/4 (222mm)	9-7/8 (251mm)
BEND ANGLE	Degrees per 100 Feet (30m)				Degrees per 100 Feet (30m)			
0.39	1.4	-	-	-	2.2	2.7	2.8	-
0.78	4.3	2.7	2.1	-	4.6	5.0	5.2	6.1
1.15	7.1	5.5	4.9	2.0	7.1	7.3	7.5	8.3
1.50	9.8	8.2	7.5	4.6	9.8	9.5	9.6	10.5
1.83	12.3	10.7	10.0	7.1	12.3	11.5	11.7	12.5
2.12	14.5	12.9	12.2	9.3	14.5	13.2	13.4	14.3
2.38	16.5	14.9	14.2	11.3	16.5	14.9	15.0	15.9
2.60	18.1	16.5	15.9	13.0	18.1	16.5	16.4	17.2
2.77	19.4	17.8	17.2	14.3	19.4	17.8	17.4	18.3
2.90	20.4	18.8	18.2	15.2	20.4	18.8	18.2	19.1
2.97	20.9	19.3	18.7	15.8	20.9	19.3	18.7	19.5
3.00	21.2	19.6	18.9	16.0	21.2	19.6	18.9	19.7

Note: Stabilizers are 1/8" undergage

FBH BUILD RATE

Hole Size	SLICK				STABILIZED			
	7-7/8 (200mm)	8-1/2 (216mm)	8-3/4 (222mm)	9-7/8 (251mm)	7-7/8 (200mm)	8-1/2 (216mm)	8-3/4 (222mm)	9-7/8 (251mm)
BEND ANGLE	Degrees per 100 Feet (30m)				Degrees per 100 Feet (30m)			
1.25	7.6	5.7	4.9	1.5	7.8	8.3	8.5	9.4
1.50	9.5	7.6	6.8	3.4	9.5	9.9	10.1	11.0
1.75	11.4	9.5	8.7	5.3	11.4	11.5	11.7	12.6
2.00	13.3	11.4	10.6	7.2	13.3	13.1	13.3	14.2
2.25	15.1	13.3	12.5	9.1	15.1	14.7	14.9	15.8
2.50	17.0	15.2	14.4	11.0	17.0	16.4	16.5	17.4

This information is for reference only. Build rates are theoretical calculations using three-point geometry and new motor builds. Actual rate predictions will depend on formation characteristics, bit profiles, and WOB.

For custom motor configurations and build rates, please contact your DYNOMAX office.

October 25, 2022

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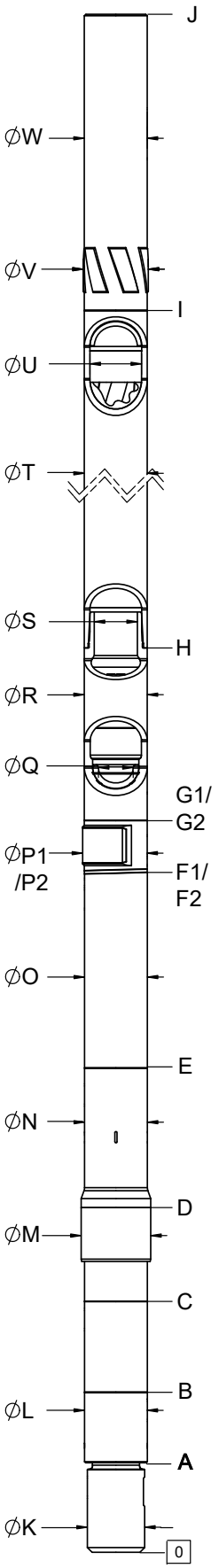
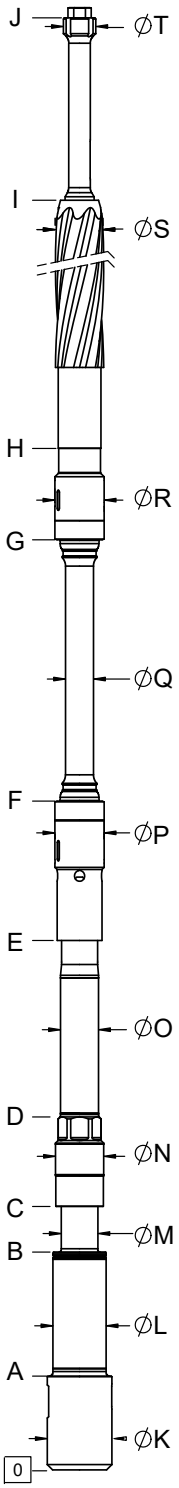


FISHING DIMENSIONS

USC - IMPERIAL (Lengths, Diameters = in)
SI - METRIC (Lengths = m, Diameters = mm)

EXTERNALS		USC	SI
END CAP	A	9.9	0.25
BEARING HOUSING	B	17.5	0.44
PISTON HOUSING	C	27.3	0.69
STABILIZER SHOULDER	D	37.9	0.96
KICK/FIXED HOUSING	E	51.3	1.30
BIT TO BEND (ADJUST-ABLE)	F1	73.0	1.85
ADAPTOR HOUSING (ADJUSTABLE)	G1	78.8	2.00
BIT TO BEND (FIXED)	F2	61.1	1.55
ADAPTOR HOUSING (FIXED)	G2	73.5	1.87
STATOR START	H	98.1	2.49
STATOR END	I	301.6	7.66
OVERALL LENGTH	J	334.6	8.50
BIT BOX Ø	K	6.38	162.1
END CAP/BEARING HOUSING Ø	L	6.56	166.6
THREAD PROTECTOR Ø	M	7.13	181.1
PISTON HOUSING Ø	N	6.81	173.0
KICK/FIXED HOUSING Ø	O	6.81	173.0
PAD (ADJUSTABLE) Ø	P1	7.13	181.1
PAD (FIXED) Ø	P2	7.13	181.1
ADJUSTABLE MANDREL PIN Ø	Q	3.88	98.6
ADAPTOR HOUSING Ø	R	6.81	173.0
ADAPTOR PIN Ø	S	4.80	121.9
STATOR TUBE OUTER Ø	T	6.50	165.1
STATOR TUBE INNER Ø	U	5.00	127.0
ROTOR CATCH SUB BLADE Ø	V	6.75	171.5
ROTOR CATCH SUB Ø	W	6.56	166.6



INTERNALS		USC	SI
BIT BOX	A	9.3	0.24
THRUST SHOULDER	B	21.3	0.54
WASHPIPE START	C	25.4	0.65
HEX END	D	33.5	0.85
BEARING ASSEMBLY ADAPTOR	E	49.6	1.26
BAA CAP	F	63.4	1.61
ROTOR ADAPTOR CAP	G	89.1	2.26
ROTOR START	H	98.2	2.49
ROTOR END	I	292.5	7.43
CATCH STEM	J	310.0	7.87
BIT BOX Ø	K	6.38	162.1
MANDREL Ø	L	4.75	120.7
THRUST Ø	M	3.38	85.9
WASHPIPE LARGE Ø	N	4.38	111.3
WASHPIPE SMALL Ø	O	3.63	92.2
BEARING ASSEMBLY ADAPTOR Ø	P	4.86	123.4
DRIVESHAFT Ø	Q	2.76	70.1
ROTOR ADAPTOR Ø	R	4.86	123.4
ROTOR MAJOR DIA. Ø	S	3.98	101.1
ROTOR CATCH STEM Ø	T	3.19	81.0

This information is for reference only. Assemblies are displayed in an "Adjustable Conifguration"

Rotor Catch and Rotor Catch Float Sub Lengths may vary based on configuration, and use of Dump Subs or combination Rotor Catch and Float Housings.

If any additional information is required, please contact your local DYNOMAX office.

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