

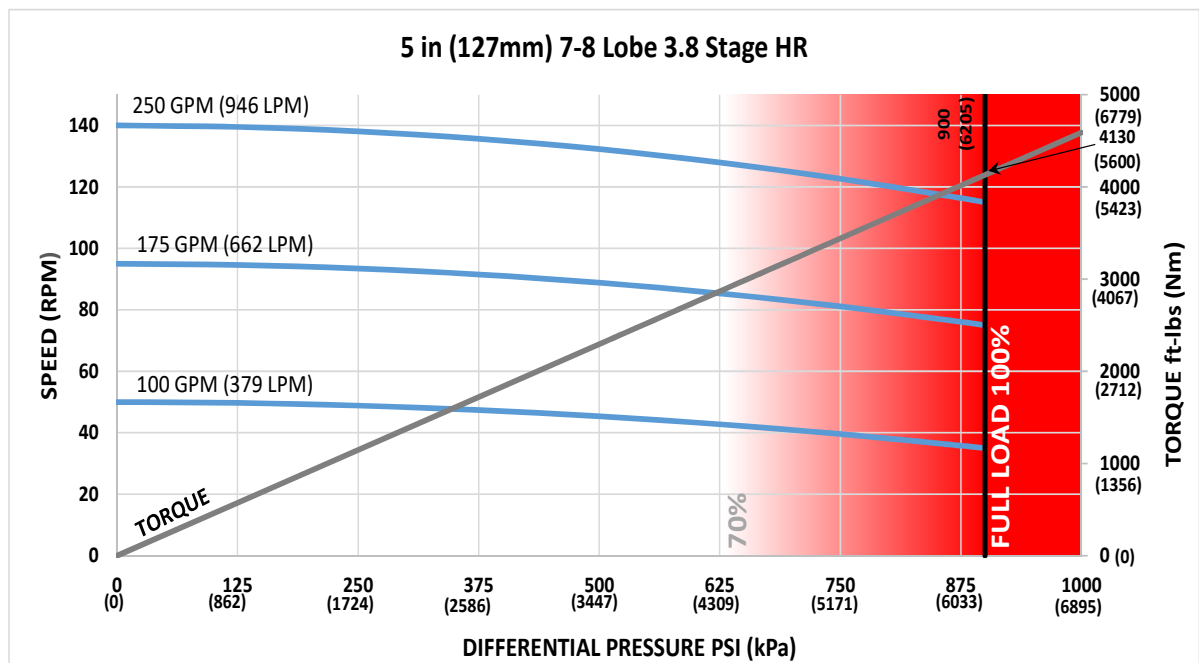
5.5 in (140mm) Bottom w/ 5 in (127mm) 7-8 Lobe 3.8 Stage HR SERIES 1



Bit Size Range	6-3/4 - 8-1/2 in	171 - 216 mm
Bit Box Connection	3-1/2 REGULAR	
Dynamic Bearing Load On/Off Bottom	82090 lbf	36500 daN
Static Bearing Load On/Off Bottom	289185 lbf	128600 daN
Max. Overpull (For Re-run)	243000 lbf	108100 daN
Absolute Overpull	405000 lbf	180200 daN
Adjustable Makeup Torque	13000 ft-lbs	17600 Nm
Stab/Thread Protector Makeup Torque	7000 ft-lbs	9500 Nm
A = Bit to Stabilizer (Centre)	15.8 in	0.4 m
B = Bit to Bend	Adjustable 57 in	1.45 m
	Fixed 46.6 in	1.18 m
C = Overall (With Dump Sub)	305.03 in	7.75 m
Weight	1315 lb	596 kg

Lobe Configuration	7-8 Lobe 3.8 Stage HR	
Displacement (No Load)	0.54 rev/gal	0.14 rev/l
Max. Differential (Full Load)	900 psi	6205 kPa
Max. Torque	4130 ft-lbs	5600 Nm
Max. Power	90 HP	67 kW

Flow Rate		Speed
GPM	LPM	RPM
100	5379	35 - 50
175	662	75 - 95
250	946	115 - 140



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

ADJUSTABLE BUILD RATE

Hole Size	SLICK				STABILIZED			
	6-3/4 (171mm)	7-1/4 (184mm)	7-7/8 (200mm)	8-1/2 (216mm)	6-3/4 (171mm)	7-1/4 (184mm)	7-7/8 (200mm)	8-1/2 (216mm)
BEND ANGLE	Degrees per 100 Feet (30m)				Degrees per 100 Feet (30m)			
0.39	0.9	-	-	-	2.9	3.3	3.9	-
0.78	4.1	2.4	0.2	-	5.6	6.1	6.6	7.2
1.15	7.2	5.4	3.3	1.1	8.2	8.6	9.2	9.8
1.50	10.1	8.3	6.2	4.0	10.6	11.1	11.7	12.2
1.83	12.8	11.1	8.9	6.7	13.0	13.4	14.0	14.5
2.12	15.2	13.5	11.3	9.1	15.2	15.4	16.0	16.6
2.38	17.4	15.7	13.5	11.3	17.4	17.3	17.8	18.4
2.60	19.2	17.5	15.3	13.1	19.2	18.8	19.4	19.9
2.77	20.6	18.9	16.7	14.5	20.6	20.0	20.6	21.1
2.90	21.7	20.0	17.8	15.6	21.7	20.9	21.5	22.0
2.97	22.3	20.6	18.4	16.2	22.3	21.4	22.0	22.5
3.00	22.6	20.8	18.6	16.4	22.6	21.6	22.2	22.7

Note: Stabilizers are 1/8" undergauge

FBH BUILD RATE

Hole Size	SLICK				STABILIZED			
	6-3/4 (171mm)	7-1/4 (184mm)	7-7/8 (200mm)	8-1/2 (216mm)	6-3/4 (171mm)	7-1/4 (184mm)	7-7/8 (200mm)	8-1/2 (216mm)
BEND ANGLE	Degrees per 100 Feet (30m)				Degrees per 100 Feet (30m)			
1.25	7.4	5.4	2.8	0.2	9.3	9.8	10.3	10.9
1.50	9.5	7.4	4.9	2.3	11.1	11.6	12.2	12.7
1.75	11.6	9.5	6.9	4.4	13.0	13.4	14.0	14.6
2.00	13.7	11.6	9.0	6.4	14.8	15.3	15.8	16.4
2.25	15.7	13.7	11.1	8.5	16.6	17.1	17.7	18.2
2.50	17.8	15.8	13.2	10.6	18.5	18.9	19.5	20.1

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.

FISHING DIMENSIONS

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



EXTERNALS		USC	SI
END CAP	A	8.5	0.22
BEARING HOUSING	B	--	--
PISTON HOUSING	C	12.3	0.31
STABILIZER SHOULDER	D	25.7	0.65
KICK/FIXED HOUSING	E	37.8	0.96
BIT TO BEND (ADJUSTABLE)	F1	57.0	1.45
ADAPTOR HOUSING (ADJUSTABLE)	G1	70.0	1.78
BIT TO BEND (FIXED)	F2	46.6	1.18
ADAPTOR HOUSING (FIXED)	G2	56.3	1.43
STATOR START	H	86.9	2.21
STATOR END	I	273.9	6.96
OVERALL LENGTH	J	305.0	7.75
BIT BOX ϕ	K	4.70	119.4
END CAP/BEARING HOUSING ϕ	L	5.50	139.7
THREAD PROTECTOR ϕ	M	6.00	152.4
PISTON HOUSING ϕ	N	5.50	139.7
KICK/FIXED HOUSING ϕ	O	5.50	139.7
PAD (ADJUSTABLE) ϕ	P1	5.88	149.4
PAD (FIXED) ϕ	P2	5.88	149.4
ADJUSTABLE MANDREL PIN ϕ	Q	3.31	84.1
ADAPTOR HOUSING ϕ	R	5.50	139.7
ADAPTOR PIN ϕ	S	3.35	85.1
STATOR TUBE OUTER ϕ	T	5.00	127.0
STATOR TUBE INNER ϕ	U	3.75	95.3
ROTOR CATCH SUB BLADE ϕ	V	5.25	133.4
ROTOR CATCH SUB ϕ	W	5.00	127.0



INTERNALS		USC	SI
BIT BOX	A	7.9	0.20
THRUST SHOULDER	B	16.7	0.42
WASHPIPE START	C	20.2	0.51
HEX END	D	24.5	0.62
BEARING ASSEMBLY ADAPTOR	E	36.5	0.93
BAA CAP	F	49.0	1.24
ROTOR ADAPTOR CAP	G	80.8	2.05
ROTOR START	H	86.9	2.21
ROTOR END	I	264.9	6.73
CATCH STEM	J	276.8	7.03
BIT BOX ϕ	K	4.70	119.4
MANDREL ϕ	L	4.13	104.9
THRUST ϕ	M	3.60	91.4
WASHPIPE LARGE ϕ	N	4.38	111.3
WASHPIPE SMALL ϕ	O	3.50	88.9
BEARING ASSEMBLY ADAPTOR ϕ	P	3.90	99.1
DRIVESHAFT ϕ	Q	2.16	54.9
ROTOR ADAPTOR ϕ	R	3.90	99.1
ROTOR MAJOR DIA. ϕ	S	2.95	74.8
ROTOR CATCH STEM ϕ	T	2.13	54.0

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

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.