

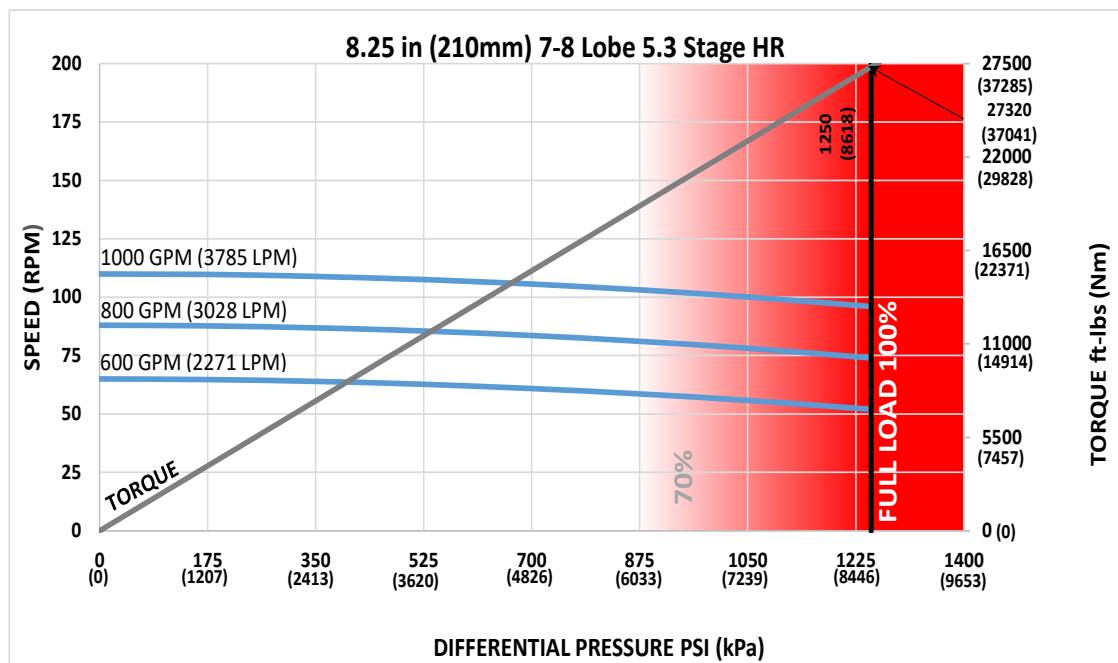
9.62 in (244mm) Bottom w/ 8.25 in (210mm) 7-8 Lobe 5.3 Stage HR SERIES 1



| | | |
|--|---|--------------|
| Bit Size Range | 12-1/4 - 17-1/2 in | 311 - 445 mm |
| Bit Box Connection | 6-5/8 or 7-5/8 REGULAR | |
| Dynamic Bearing Load On/Off Bottom | 240975 lbf | 107200 daN |
| Static Bearing Load On/Off Bottom | 852600 lbf | 379300 daN |
| Max. Overpull (For Re-run) | 741100 lbf | 329700 daN |
| Absolute Overpull | 1235100 lbf | 549400 daN |
| Adjustable Makeup Torque | 60000 ft-lbs | 81300 Nm |
| Stab/Thread Protector Makeup Torque | 38000 ft-lbs | 51500 Nm |
| A = Bit to Stabilizer (Centre) | 20.1 in | 0.51 m |
| B = Bit to Bend | Adjustable 87.4 in Fixed 87.3 in | 2.22 m |
| C = Overall (With Dump Sub) | 457.1 in | 11.61 m |
| Weight | 5704 lb | 2587 kg |

| | | |
|--------------------------------------|-----------------------|------------|
| Lobe Configuration | 7-8 Lobe 5.3 Stage HR | |
| Displacement (No Load) | 0.11 rev/gal | 0.03 rev/l |
| Max. Differential (Full Load) | 1250 psi | 8618 kPa |
| Max. Torque | 27320 ft-lbs | 37041 Nm |
| Max. Power | 499 HP | 372 kW |

| Flow Rate | | Speed |
|-----------|------|----------|
| GPM | LPM | RPM |
| 600 | 2271 | 52 - 65 |
| 800 | 3028 | 74 - 88 |
| 1000 | 3785 | 96 - 110 |



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

ADJUSTABLE BUILD RATE

| Hole Size | SLICK | | | | STABILIZED | | | |
|-------------------|----------------------------|------------|------------|----------------|----------------------------|------------|------------|----------------|
| | 12-1/4 (311mm) | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) | 12-1/4 (311mm) | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) |
| BEND ANGLE | Degrees per 100 Feet (30m) | | | | Degrees per 100 Feet (30m) | | | |
| 0.39 | - | - | - | - | 2.6 | 3.3 | - | - |
| 0.78 | 1.8 | - | - | - | 4.4 | 5.1 | 5.9 | 6.4 |
| 1.15 | 3.8 | 1.1 | - | - | 6.1 | 6.8 | 7.5 | 8.1 |
| 1.50 | 5.7 | 3.0 | - | - | 7.7 | 8.4 | 9.1 | 9.7 |
| 1.83 | 7.5 | 4.9 | 1.8 | - | 9.2 | 9.9 | 10.7 | 11.2 |
| 2.12 | 9.1 | 6.4 | 3.4 | 1.1 | 10.5 | 11.2 | 12.0 | 12.6 |
| 2.38 | 10.5 | 7.9 | 4.8 | 2.5 | 11.7 | 12.4 | 13.2 | 13.7 |
| 2.60 | 11.7 | 9.1 | 6.0 | 3.7 | 12.7 | 13.4 | 14.2 | 14.7 |
| 2.77 | 12.7 | 10.0 | 6.9 | 4.6 | 13.5 | 14.2 | 14.9 | 15.5 |
| 2.90 | 13.4 | 10.7 | 7.7 | 5.4 | 14.1 | 14.8 | 15.5 | 16.1 |
| 2.97 | 13.8 | 11.1 | 8.0 | 5.7 | 14.4 | 15.1 | 15.8 | 16.4 |
| 3.00 | 13.9 | 11.3 | 8.2 | 5.9 | 14.5 | 15.2 | 16.0 | 16.6 |

Note: Stabilizers are 1/8" undergauge

FBH BUILD RATE

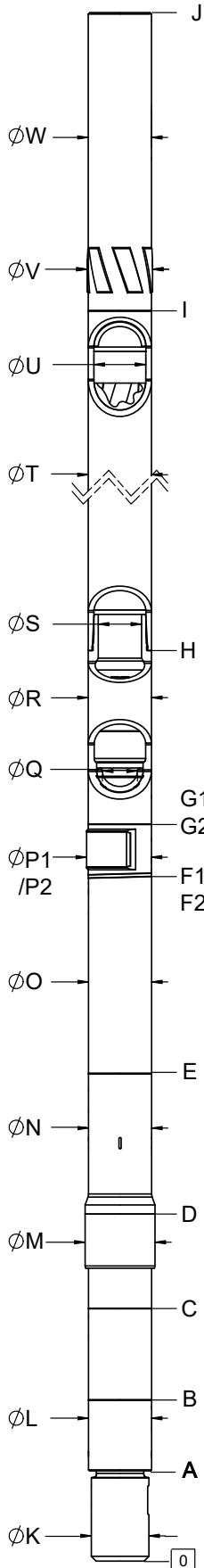
| Hole Size | SLICK | | | | STABILIZED | | | |
|-------------------|----------------------------|------------|------------|----------------|----------------------------|------------|------------|----------------|
| | 12-1/4 (311mm) | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) | 12-1/4 (311mm) | 14 (356mm) | 16 (406mm) | 17-1/2 (445mm) |
| BEND ANGLE | Degrees per 100 Feet (30m) | | | | Degrees per 100 Feet (30m) | | | |
| 1.50 | 4.7 | 2.0 | - | - | 6.6 | 7.2 | 8.0 | 8.6 |
| 1.75 | 6.1 | 3.4 | 0.3 | - | 7.7 | 8.4 | 9.1 | 9.7 |
| 2.00 | 7.4 | 4.8 | 1.7 | - | 8.8 | 9.5 | 10.3 | 10.9 |
| 3.00 | 8.8 | 6.1 | 3.1 | 0.8 | 10.0 | 10.7 | 11.4 | 12.0 |
| 3.50 | 10.2 | 7.5 | 4.4 | 2.1 | 11.1 | 11.8 | 12.6 | 13.2 |
| 4.00 | 11.6 | 8.9 | 5.8 | 3.5 | 12.3 | 12.9 | 13.7 | 14.3 |

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.

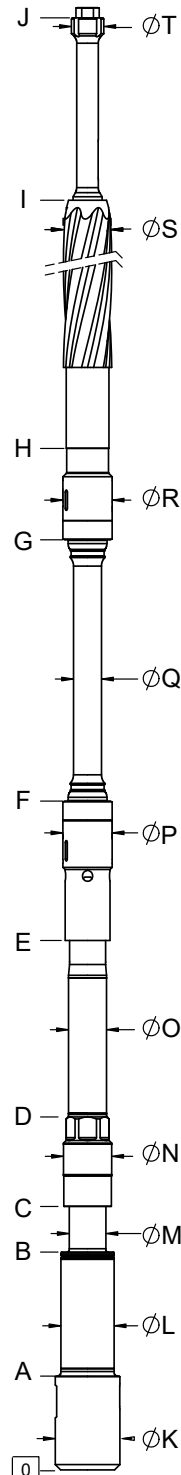
For custom motor configurations and build rates, please contact your DYNOMAX office.

FISHING DIMENSIONS

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



| EXTERNALS | | USC | SI |
|------------------------------|----|-------|-------|
| END CAP | A | 10.8 | 0.27 |
| BEARING HOUSING | B | 21.3 | 0.54 |
| PISTON HOUSING | C | 32.1 | 0.82 |
| STABILIZER SHOULDER | D | 44.6 | 1.13 |
| KICK/FIXED HOUSING | E | 59.5 | 1.51 |
| BIT TO BEND (ADJUSTABLE) | F1 | 87.4 | 2.22 |
| ADAPTOR HOUSING (ADJUSTABLE) | G1 | 95.5 | 2.43 |
| BIT TO BEND (FIXED) | F2 | 87.3 | 2.22 |
| ADAPTOR HOUSING (FIXED) | G2 | 95.4 | 2.42 |
| STATOR START | H | 119.6 | 3.04 |
| STATOR END | I | 419.6 | 10.66 |
| OVERALL LENGTH | J | 457.1 | 11.61 |
| BIT BOX Ø | K | 9.00 | 228.6 |
| END CAP/BEARING HOUSING Ø | L | 9.62 | 244.3 |
| THREAD PROTECTOR Ø | M | 10.75 | 273.1 |
| PISTON HOUSING Ø | N | 9.62 | 244.3 |
| KICK/FIXED HOUSING Ø | O | 9.62 | 244.3 |
| PAD (ADJUSTABLE) Ø | P1 | 10.13 | 257.3 |
| PAD (FIXED) Ø | P2 | 10.13 | 257.3 |
| ADJUSTABLE MANDREL PIN Ø | Q | 5.60 | 142.2 |
| ADAPTOR HOUSING Ø | R | 9.62 | 244.3 |
| ADAPTOR PIN Ø | S | 5.65 | 143.5 |
| STATOR TUBE OUTER Ø | T | 8.25 | 209.6 |
| STATOR TUBE INNER Ø | U | 6.50 | 165.1 |
| ROTOR CATCH SUB BLADE Ø | V | 8.25 | 209.6 |
| ROTOR CATCH SUB Ø | W | 8.00 | 203.2 |



| INTERNALS | | USC | SI |
|----------------------------|---|-------|-------|
| BIT BOX | A | 10.0 | 0.25 |
| THRUST SHOULDER | B | 25.1 | 0.64 |
| WASHPIPE START | C | 30.8 | 0.78 |
| HEX END | D | 39.7 | 1.01 |
| BEARING ASSEMBLY ADAPTOR | E | 57.3 | 1.46 |
| BAA CAP | F | 75.8 | 1.93 |
| ROTOR ADAPTOR CAP | G | 109.3 | 2.78 |
| ROTOR START | H | 119.1 | 3.03 |
| ROTOR END | I | 411.1 | 10.44 |
| CATCH STEM | J | 427.1 | 10.85 |
| BIT BOX Ø | K | 9.00 | 228.6 |
| MANDREL Ø | L | 7.75 | 196.9 |
| THRUST Ø | M | 5.53 | 140.5 |
| WASHPIPE LARGE Ø | N | 7.00 | 177.8 |
| WASHPIPE SMALL Ø | O | 5.75 | 146.1 |
| BEARING ASSEMBLY ADAPTOR Ø | P | 7.10 | 180.3 |
| DRIVESHAFT Ø | Q | 3.89 | 98.8 |
| ROTOR ADAPTOR Ø | R | 7.10 | 180.3 |
| ROTOR MAJOR DIA. Ø | S | 5.51 | 140.0 |
| ROTOR CATCH STEM Ø | T | 4.38 | 111.3 |

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.