

**General Dimensional Data** Motor: B5 Transmission: Articulated

|   |                                     |
|---|-------------------------------------|
| A - Bit to Center of Stabilizer Blade   | 21.6 in (549 mm)                    |
| B - Bit to Bend                         | 46.9 in (1191 mm)                   |
| C - Overall Motor Length                | 30.3 ft (9.2 m)                     |
| D - Max OD of Motor at Stabilizer Upset | 5.38 in (136.7 mm)                  |
| E - Radius at Kickpad                   | 2.84 in (72.1 mm)                   |
| Common Top Connection                   | XT39 or 3-1/2 IF                    |
| Common Bottom Connection                | 3-1/2 REG                           |
| Recommended Bit Sizes                   | 6 in to 6-3/4 in (152.4 - 171.5 mm) |
| Estimated Weight                        | 1600 lbs (726 kg)                   |

**Motor Loads**

|                           | Continuous Operation | Ultimate Loading  |
|---------------------------|----------------------|-------------------|
| WOB - lbs (kg)            | 44,000 (20,000)      | -                 |
| Backreaming - lbs (kg)    | 15,200 (6,890)       | -                 |
| Bit Overpull* - lbs (kg)  | 112,000 (50,800)     | 458,000 (207,745) |
| Body Overpull* - lbs (kg) | 229,000 (103,870)    | 545,000 (247,000) |

**\*While Not Operating**

Continuous Loads - Lay motor down if exceeded  
 Ultimate Loads - Motor may part if exceeded

**Power Section Specifications**

Lobes: 6/7

|                       |                                 |                                   |                               |
|-----------------------|---------------------------------|-----------------------------------|-------------------------------|
| Flow Range            | 150 - 350 gpm (568 - 1,325 lpm) | Max Recommended Pressure          | 2400 psi (165.5 bar)          |
| Speed Ratio           | .81 rev/gal (.214 rev/l)        | Torque Slope                      | 3.18 ft-lb/psi (62.53 Nm/bar) |
| No Load Bit Speed     | 122 - 284 rpm                   | Torque @ Max Recommended Pressure | 7,632 ft-lbs (10,347 Nm)      |
| No Load Pressure Drop | 700 psi (48.26 bar)             | Power @ Max Recommended Pressure  | 340 hp (254 kW)               |

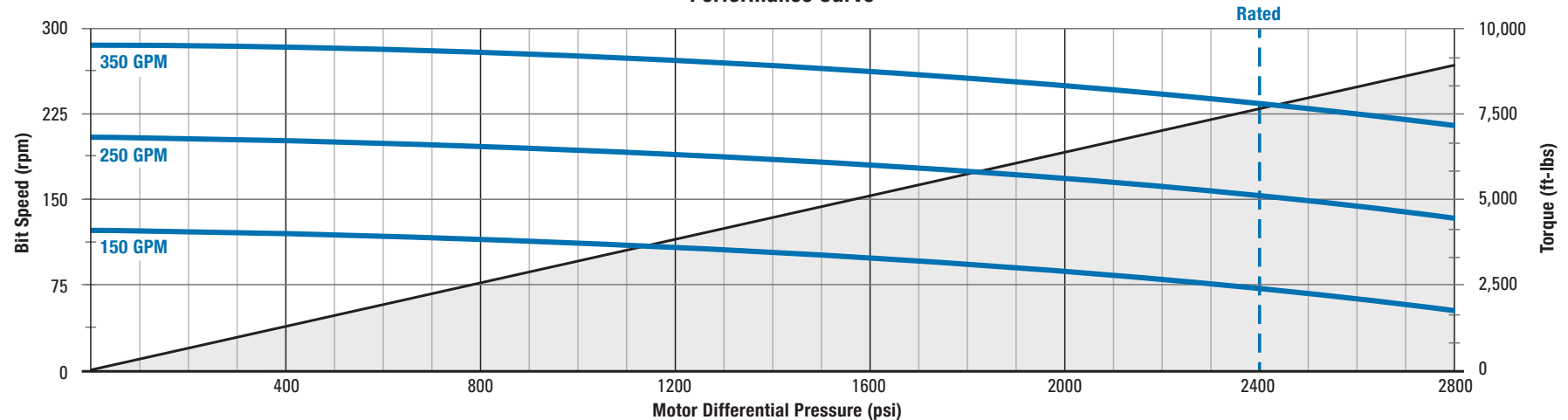
**Predicted Build Rates**

Degrees / 100 ft (30 m)

| Bend Angle | Slick Motor Hole Size (in) |       |       | Stabilized 1/8" UG Hole Size (in) |       |       | Stabilized 1/4" UG Hole Size (in) |       |       |
|------------|----------------------------|-------|-------|-----------------------------------|-------|-------|-----------------------------------|-------|-------|
|            | 6                          | 6-1/2 | 6-3/4 | 6                                 | 6-1/2 | 6-3/4 | 6                                 | 6-1/2 | 6-3/4 |
| 1.50       | 9.4                        | 7.2   | 6.1   | 9.8                               | 9.5   | 9.3   | 6.1                               | 5.8   | 5.6   |
| 1.75       | 11.5                       | 9.3   | 8.2   | 12.2                              | 11.9  | 11.7  | 8.5                               | 8.2   | 8.0   |
| 1.83       | 12.2                       | 10.0  | 8.9   | 13.0                              | 12.6  | 12.5  | 9.3                               | 8.9   | 8.8   |
| 2.00       | 13.6                       | 11.4  | 10.3  | 14.6                              | 14.3  | 14.1  | 10.9                              | 10.6  | 10.4  |
| 2.12       | 14.7                       | 12.4  | 11.3  | 15.8                              | 15.4  | 15.3  | 12.1                              | 11.7  | 11.5  |
| 2.25       | -                          | 13.5  | 12.4  | -                                 | 16.7  | 16.5  | 13.3                              | 13.0  | 12.8  |
| 2.38       | -                          | 14.6  | 13.5  | -                                 | 17.9  | 17.7  | 14.5                              | 14.2  | 14.0  |
| 2.50       | -                          | 15.7  | 14.6  | -                                 | -     | 18.9  | 15.7                              | 15.4  | 15.2  |
| 3.00       | -                          | -     | 18.8  | -                                 | -     | -     | -                                 | 20.1  | 20.0  |

\*This condensed Build Rate table is the result of a theoretical geometry analysis of the motor and is presented as guideline for job design and planning. Due to the extensive variability in drilling BHA design, formation characteristics and other external factors, BICO cannot guarantee the values stated in the Build Rate table.

**Performance Curve**



Disclaimer: The Performance Curve and Performance Data published by BICO Drilling Tools are based on recorded dynamometer data at surface temperature (72 degF) on a standard fit configuration between rotor and stator, with clean water, and are presented as a reference to the potential power of the power section and or motor. Downhole conditions such as highly elevated bottom hole temperatures and different drilling/intervention fluids shall require adjusted loose fits that may produce reduced power during surface (dynamometer) testing and will achieve the expected torque and speed values when reaching planned conditions. Contact BICO for the adjusted performance curves.