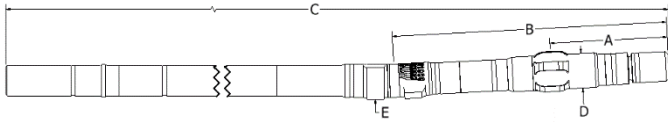


## RVEN-70 : 7/8 Lobe 3.3 Stage



### Dimensions

|                          |                                                |         |
|--------------------------|------------------------------------------------|---------|
| Bit to Stabilizer Center | A                                              | 27 in   |
| Bit to Bend, Fixed       | B                                              | 48 in   |
| Bit to Top Sub           | C                                              | 367 in  |
| Body OD, Slick           | D                                              | 7.0 in  |
| Body OD, Stabilizer      | D                                              | 7.5 in  |
| Pad Radius, Fixed        | E                                              | 3.75 in |
| Bottom Connection        | 4-1/2 REG Box<br>6-5/8 REG Box<br>4-1/2 IF Pin |         |
| Top Connection           | 4-1/2 IF Box<br>4-1/2 XH Box                   |         |
| Top Sub Float Bore       | 4R                                             |         |

### Recommended Operating Limits

|                        |             |
|------------------------|-------------|
| Max WOB                | 117,000 lbf |
| Max Overpull, Backream | 169,000 lbf |
| Max Overpull, Re-Run   | 325,000 lbf |
| Max Overpull, POOH     | 630,000 lbf |

### Predicted Build Rates (Fixed) – Degrees/100ft

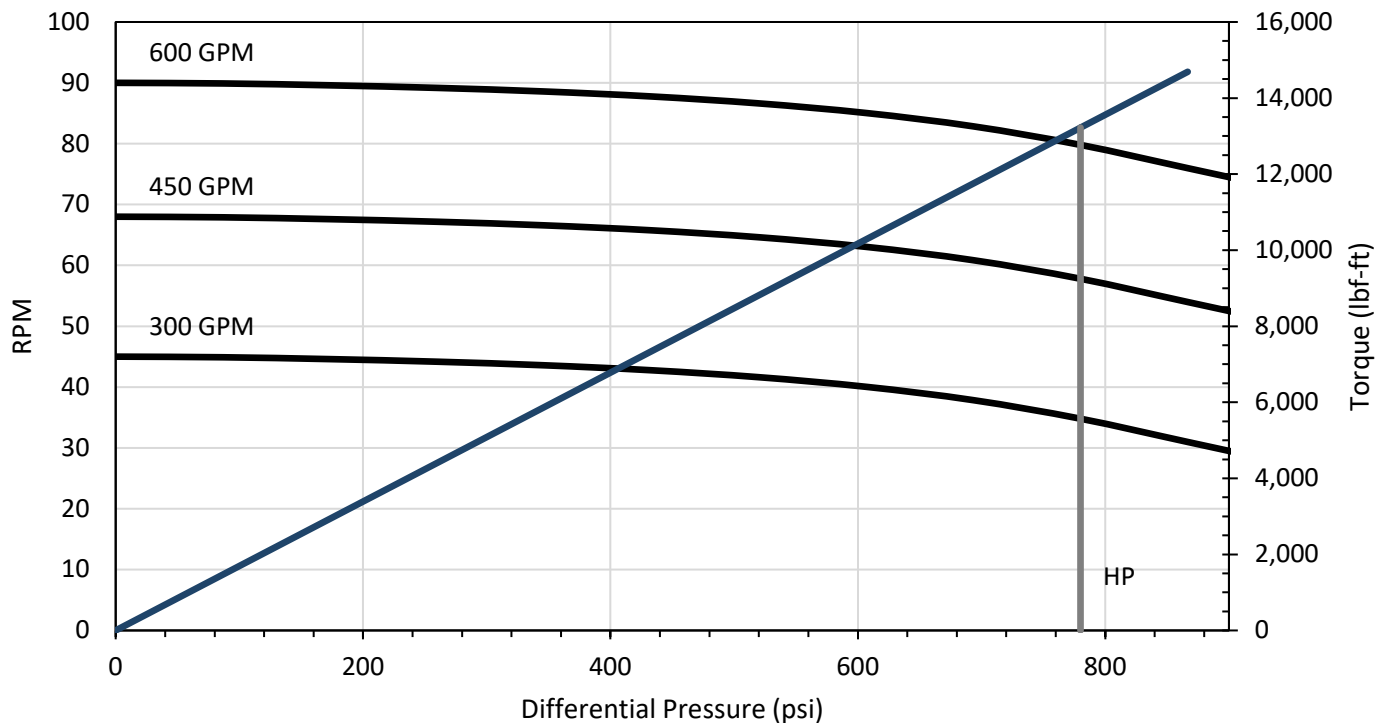
| Bend Setting | Slick Hole Size |       |       | Stabilized Hole Size |       |       |
|--------------|-----------------|-------|-------|----------------------|-------|-------|
| Deg          | 8 1/2           | 8 3/4 | 9 7/8 | 8 1/2                | 8 3/4 | 9 7/8 |
| 0.78         | 2.2             | 1.4   | 2.0   | 4.8                  | 4.9   | 5.5   |
| 1.15         | 4.5             | 3.8   | 0.4   | 7.0                  | 7.1   | 7.7   |
| 1.50         | 6.8             | 6.0   | 2.6   | 9.0                  | 9.2   | 9.8   |
| 1.75         | 8.3             | 7.6   | 4.2   | 10.5                 | 10.7  | 11.3  |
| 1.83         | 8.8             | 8.1   | 4.7   | 11.0                 | 11.1  | 11.7  |
| 2.00         | 9.9             | 9.2   | 5.8   | 12.0                 | 12.1  | 12.7  |
| 2.12         | 10.7            | 9.9   | 6.5   | 12.7                 | 12.8  | 13.4  |
| 2.25*        | 11.5            | 10.7  | 7.3   | 13.5                 | 13.6  | 14.2  |
| 2.38*        | 12.3            | 11.6  | 8.2   | 14.3                 | 14.4  | 15.0  |
| 2.50*        | 13.1            | 12.3  | 8.9   | 15.0                 | 15.1  | 15.7  |

\*Bend Setting not recommended for Rotary Drilling

### Performance Details

| HP                |               |
|-------------------|---------------|
| Max Diff Pressure | 780 psi       |
| Max Torque        | 13,150 lbf-ft |
| Stall Torque      | 20,710 lbf-ft |
| Rotation          | 0.150 rev/gal |
| Flow Range        | 300-600 gpm   |
| Speed Range       | 50-90 rpm     |

### Theoretical Performance Curve



Performance curves based on testing at 70°F. Actual field performance may vary with field operation conditions.