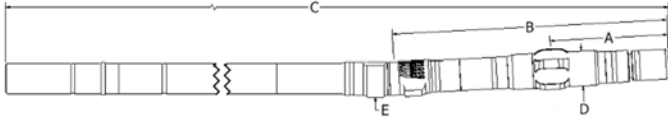


RVEN-70 : 7/8 Lobe 5.0 Stage



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 6-5/8 REG Box 4-1/2 IF Pin	
Top Connection	4-1/2 IF Box 4-1/2 XH Box	
Top Sub Float Bore	4R	

Recommended Operating Limits

Max WOB	49,000 lbf
Max Overpull, Backream	71,000 lbf
Max Overpull, Re-Run	325,000 lbf
Max Overpull, POOH	630,000 lbf

Predicted Build Rates (Fixed) – Degrees/100ft

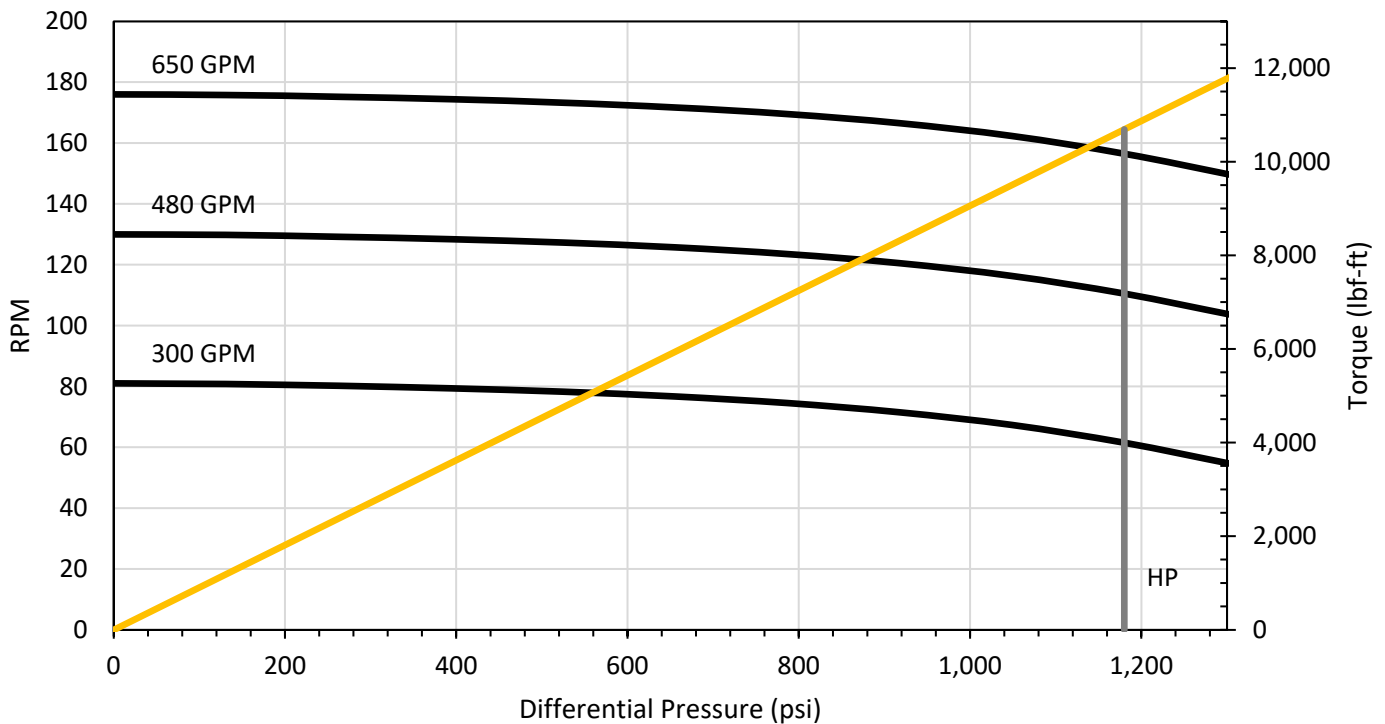
Bend Setting	Slick Hole Size			Stabilized Hole Size		
	Deg	8 1/2	8 3/4	9 7/8	8 1/2	8 3/4
0.78	2.6	1.7	2.2	5.6	5.8	6.6
1.15	5.3	4.4	0.5	8.1	8.3	9.1
1.50	7.9	7.0	3.1	10.5	10.6	11.4
1.75	9.7	8.8	4.9	12.1	12.3	13.1
1.83	10.3	9.4	5.5	12.7	12.9	13.7
2.00	11.5	10.6	6.7	13.8	14.0	14.8
2.12	12.4	11.5	7.6	14.6	14.8	15.6
2.25*	13.3	12.5	8.5	15.5	15.7	16.5
2.38*	14.3	13.4	9.5	16.4	16.6	17.4
2.50*	15.2	14.3	10.4	17.2	17.4	18.2

*Bend Setting not recommended for Rotary Drilling

Performance Details

	HP
Max Diff Pressure	1,180 psi
Max Torque	10,650 lbf-ft
Stall Torque	16,770 lbf-ft
Rotation	0.270 rev/gal
Flow Range	300-650 gpm
Speed Range	80-180 rpm

Theoretical Performance Curve



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