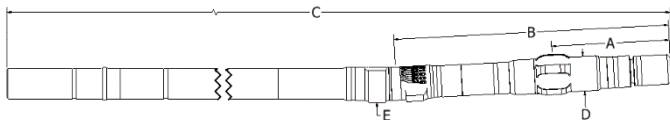


RVEN-86 : 9/10 Lobe 3.0 Stage



Dimensions

Bit to Stabilizer Center	A	NA	in
Bit to Bend, Fixed	B	76	in
Bit to Bend, ABH	B	94	in
Bit to Top Sub	C	406	in
Body OD, Slick	D	8.62	in
Pad Radius, Fixed	E	4.43	in
Pad Radius, ABH	E	4.25	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	197,000	lbf
Max Overpull, Backream	285,000	lbf
Max Overpull, Re-Run	286,000	lbf
Max Overpull, POOH	847,000	lbf

Performance Details	HR	XP
Max Diff Pressure	680	750 psi
Max Torque	16,580	18,420 lbf-ft
Stall Torque	24,860	27,630 lbf-ft
Rotation	0.112	0.112 rev/gal
Flow Range	400-900	400-900 gpm
Speed Range	45-101	45-101 rpm

Predicted Build Rates (Adj.) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
Deg	9 7/8	10 5/8	12 1/4	9 7/8	10 5/8	12 1/4
0.39	1.2	-	-	1.9	2.2	2.8
0.78	3.4	2.3	-	3.6	3.9	4.6
1.15	5.5	4.4	2.0	5.5	5.6	6.3
1.50	7.5	6.4	4.0	7.5	7.2	7.9
1.83	9.4	8.3	5.9	9.4	8.7	9.4
2.12	11.1	9.9	7.5	11.1	10.1	10.7
2.38*	12.5	11.4	9.0	12.5	11.4	11.9
2.60*	13.8	12.7	10.2	13.8	12.7	12.9
2.77*	14.8	13.6	11.2	14.8	13.6	13.7
2.90*	15.5	14.4	12.0	15.5	14.4	14.3
2.97*	15.9	14.8	12.4	15.9	14.8	14.6
3.00*	16.1	14.9	12.5	16.1	14.9	14.7

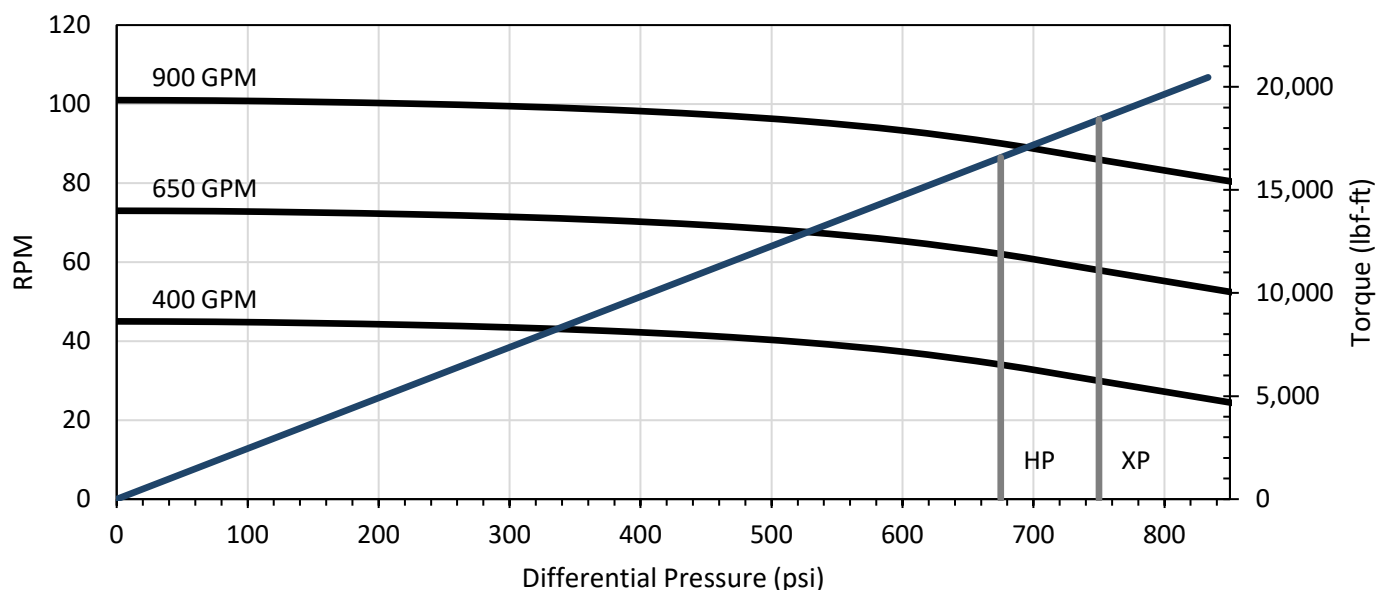
*Bend Setting not recommended for Rotary Drilling

Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
Deg	9 7/8	10 5/8	12 1/4	9 7/8	10 5/8	12 1/4
0.78	2.2	-	-	3.8	4.2	4.8
1.15	4.3	3.0	-	5.6	5.9	6.6
1.50	6.3	5.0	2.1	7.3	7.6	8.3
1.75	7.8	6.4	3.5	8.5	8.8	9.5
1.83	8.2	6.9	4.0	8.9	9.2	9.9
2.00	9.2	7.8	4.9	9.7	10.0	10.7
2.12	9.9	8.5	5.6	10.3	10.6	11.3
2.25*	10.6	9.3	6.3	10.9	11.2	11.9
2.38*	11.4	10.0	7.1	11.6	11.9	12.6
2.50*	12.0	10.7	7.8	12.1	12.5	13.1

*Bend Setting not recommended for Rotary Drilling

Theoretical Performance Curve



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