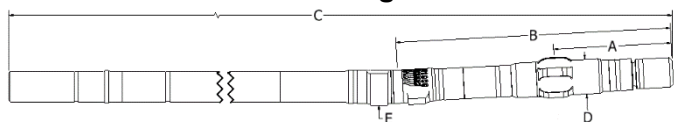


RVEN-50 : 7/8 Lobe 4.5 Stage



Dimensions

Bit to Stabilizer Center	A	11.1 in
Bit to Bend, ABH	B	52 in
Bit to Bend, Fixed	B	53 in
Bit to Top Sub	C	338 in
Body OD, Slick	D	5.0 in
Body OD, Stabilizer	D	5.7 in
Pad Radius, Fixed & ABH	E	2.75 in
3-1/2 REG Box		
3-1/2 IF Pin		
XT39		
NC35		
3-1/2 IF Box		
4 FH Box		
3-1/2 IF		

Recommended Operating Limits

Max WOB	46,000 lbf
Max Overpull, Backream	67,000 lbf
Max Overpull, Re-Run	137,000 lbf
Max Overpull, POOH	331,000 lbf

Performance Details

NED3

Max Diff Pressure	1,240 psi
Max Torque	6,420 lbf-ft
Stall Torque	9,630 lbf-ft
Rotation	0.460 rev/gal
Flow Range	150-330 gpm
Speed Range	75-150 rpm

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

Bend Setting	Slick			Stabilized		
	Hole Size			Hole Size		
Deg	6	6 1/4	6 3/4	6	6 1/4	6 3/4
0.39	1.4	-	-	1.6	1.7	2.0
0.78	4.1	3.3	1.6	4.1	4.1	4.4
1.15	6.7	5.9	4.2	6.7	6.3	6.6
1.50	9.1	8.3	6.6	9.1	8.4	8.7
1.83	11.4	10.6	8.9	11.4	10.6	10.7
2.12	13.4	12.6	10.9	13.4	12.6	12.5
2.38*	15.2	14.4	12.7	15.2	14.4	14.1
2.60*	16.7	15.9	14.3	16.7	15.9	15.4
2.77*	17.9	17.1	15.4	17.9	17.1	16.4
2.90*	18.8	18.0	16.3	18.8	18.0	17.2
2.97*	19.3	18.5	16.8	19.3	18.5	17.6
3.00*	19.5	18.7	17.0	19.5	18.7	17.8

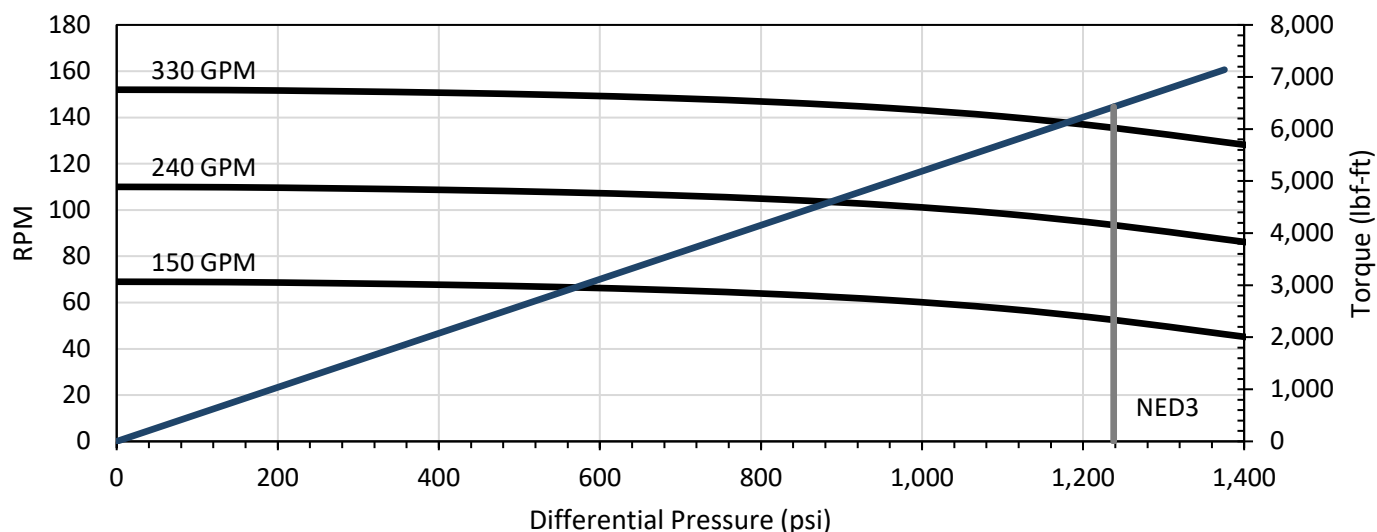
*Bend Setting not recommended for Rotary Drilling

Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick			Stabilized		
	Hole Size			Hole Size		
Deg	6	6 1/4	6 3/4	6	6 1/4	6 3/4
0.78	4.1	3.3	1.7	4.1	4.1	4.4
1.15	6.7	5.9	4.3	6.7	6.3	6.6
1.50	9.1	8.3	6.7	9.1	8.4	8.7
1.75	10.9	10.1	8.4	10.9	10.1	10.2
1.83	11.4	10.6	9.0	11.4	10.6	10.7
2.00	12.6	11.8	10.2	12.6	11.8	11.7
2.12	13.4	12.6	11.0	13.4	12.6	12.5
2.25*	14.3	13.5	11.9	14.3	13.5	13.2
2.38*	15.2	14.4	12.8	15.2	14.4	14.0
2.50*	16.1	15.3	13.6	16.1	15.3	14.8

*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.