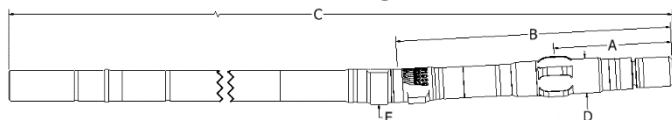


RVDF-70 : 5/6 Lobe 8.2 Stage



Dimensions

Bit to Stabilizer Center	A	30 in
Bit to Bend, ABH	B	68.4 in
Bit to Bend, Fixed	B	49 in
Bit to Top Sub	C	372 in
Body OD, Slick	D	7.25 in
Body OD, Stabilizer	D	7.25 in
Pad Radius, ABH	E	3.75 in
Pad Radius, Fixed	E	3.75 in
Bottom Connection	4-1/2 REG Box 4-1/2 IF Pin	
Top Connection	4-1/2 IF Box 4-1/2 XH Box	
Top Sub Float Bore	4R & 5R	

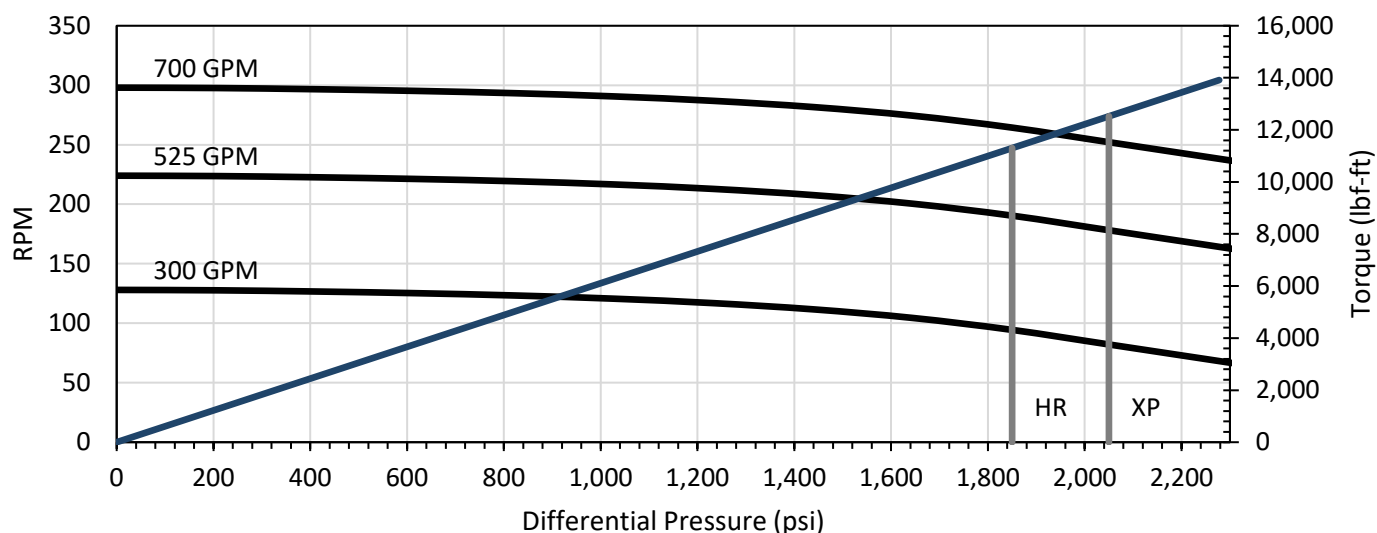
Recommended Operating Limits

Max WOB	160,000 lbf
Max Overpull, Backream	231,000 lbf
Max Overpull, Re-Run	319,000 lbf
Max Overpull, POOH	875,000 lbf

Performance Details

	HR	XP
Max Diff Pressure	1,850	2,050 psi
Max Torque	11,270	12,520 lbf-ft
Stall Torque	16,910	18,790 lbf-ft
Rotation	0.426	0.426 rev/gal
Flow Range	300-700	300-700 gpm
Speed Range	127-298	127-298 rpm

Theoretical Performance Curve



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

Predicted Build Rates (Adj.) – 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
0.39	-	-	-	2.3	2.5	3.0
0.78	3.0	2.4	-	4.5	4.6	5.2
1.15	5.3	4.7	2.2	6.5	6.7	7.3
1.50	7.5	6.9	4.4	8.5	8.6	9.2
1.83	9.5	9.0	6.5	10.3	10.4	11.0
2.12	11.3	10.8	8.3	11.9	12.0	12.6
2.38*	13.0	12.4	9.9	13.3	13.5	14.1
2.60*	14.3	13.8	11.3	14.6	14.7	15.3
2.77*	15.4	14.9	12.3	15.5	15.6	16.2
2.90*	16.2	15.7	13.2	16.2	16.3	16.9
2.97*	16.7	16.1	13.6	16.7	16.7	17.3
3.00*	16.8	16.3	13.8	16.8	16.9	17.5

*Bend Setting not recommended for Rotary Drilling

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
0.75	2.0	1.3	-	4.6	4.7	5.3
1.00	3.6	2.9	-	6.1	6.2	6.8
1.25	5.2	4.4	1.1	7.5	7.7	8.2
1.50	6.7	6.0	2.7	9.0	9.1	9.7
1.63	7.5	6.8	3.5	9.8	9.9	10.5
1.75	8.3	7.6	4.3	10.5	10.6	11.2
1.88	9.1	8.4	5.1	11.2	11.4	12.0
2.00	9.9	9.1	5.8	11.9	12.1	12.7
2.25*	11.4	10.7	7.4	13.4	13.5	14.1
2.38*	12.2	11.5	8.2	14.2	14.3	14.9
2.50*	13.0	12.3	9.0	14.9	15.0	15.6

*Bend Setting not recommended for Rotary Drilling