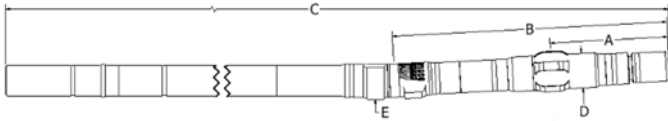


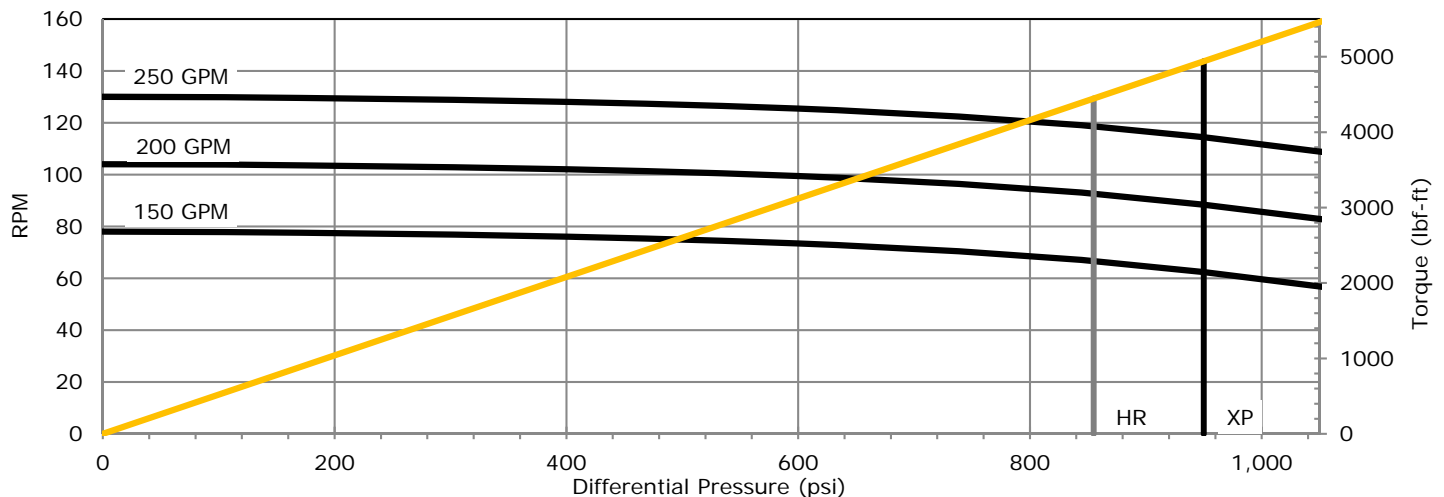
RVDF-50 : 7/8 Lobe 3.8 Stage

Dimensions

Bit to Stabilizer Center	A	30 in
Bit to Bend, ABH	B	52.8 in
Bit to Bend, Fixed	B	42.3 in
Bit to Top Sub	C	300 in
Body OD, Slick	D	5.06 in
Body OD, Stabilizer	D	5.06 in
Pad Radius, ABH	E	2.66 in
Pad Radius, Fixed	E	2.67 in
Bottom Connection	3-1/2 REG Box 3-1/2 IF Pin 3-1/2 Athens Pin	
Top Connection	3-1/2 REG Box 3-1/2 IF Box 3-1/2 XH Box	
Top Sub Float Bore	2F-3R, 3F, 3-1/2 IF	

Recommended Operating Limits

Max WOB	60,000 lbf
Max Overpull, Backream	87,000 lbf
Max Overpull, Re-Run	125,000 lbf
Max Overpull, POOH	421,000 lbf

Performance Details	HR	XP
Max Diff Pressure	860	950 psi
Max Torque	4,450	4,900 lbf-ft
Stall Torque	6,670	7,340 lbf-ft
Rotation	0.521	0.521 rev/gal
Flow Range	150-250	150-250 gpm
Speed Range	78-140	78-140 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	6	6 1/4	6 3/4	6	6 1/4
0.39	-	-	-	2.5	2.7	3.1
0.78	4.2	3.2	1.2	5.3	5.5	5.9
1.15	7.2	6.2	4.3	7.9	8.2	8.6
1.50	10.1	9.1	7.2	10.4	10.7	11.1
1.83	12.8	11.8	9.9	12.8	13.0	13.5
2.12	15.2	14.2	12.3	15.2	15.1	15.6
2.38*	17.3	16.4	14.4	17.3	17.0	17.4
2.60*	19.1	18.2	16.2	19.1	18.6	19.0
2.77*	20.5	19.6	17.6	20.5	19.8	20.2
2.90*	21.6	20.6	18.7	21.6	20.7	21.1
2.97*	22.2	21.2	19.3	22.2	21.2	21.6
3.00*	22.4	21.4	19.5	22.4	21.4	21.9

*Bend Setting not recommended for Rotary Drilling

Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	Deg	6	6 1/4	6 3/4	6	6 1/4
0.75	3.5	2.3	-	5.3	5.5	6.0
1.15	6.8	5.6	3.3	8.3	8.5	9.0
1.50	9.6	8.5	6.1	10.9	11.2	11.6
1.75	11.7	10.5	8.2	12.8	13.0	13.5
1.83	12.4	11.2	8.8	13.4	13.6	14.1
2.00	13.8	12.6	10.2	14.7	14.9	15.4
2.12	14.7	13.6	11.2	15.6	15.8	16.2
2.25*	15.8	14.6	12.3	16.6	16.8	17.2
2.38*	16.9	15.7	13.4	17.5	17.8	18.2
2.50*	17.9	16.7	14.4	18.4	18.7	19.1

*Bend Setting not recommended for Rotary Drilling