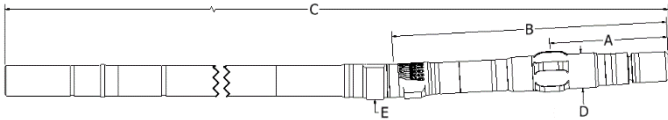


Intentionally left blank

RVTF-67 : 4/5 Lobe 7.0 Stage



Dimensions

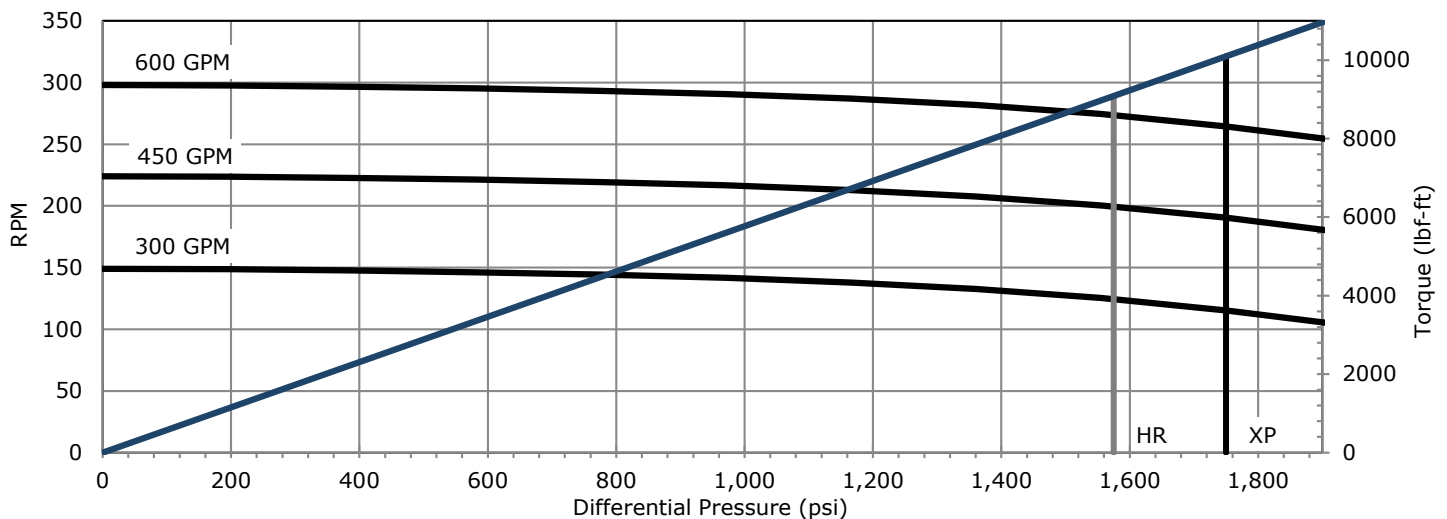
Bit to Stabilizer Center	A	33 in
Bit to Bend, ABH	B	73.6 in
Bit to Bend, Fixed	B	60.4 in
Bit to Top Sub	C	330 in
Body OD, Slick	D	6.87 in
Body OD, Stabilizer	D	6.87 in
Pad Radius, ABH	E	3.63 in
Pad Radius, Fixed	E	3.56 in
Bottom Connection	4-1/2 REG Box 4-1/2 IF Pin	
Top Connection	4-1/2 IF Box 4-1/2 XH Box	
Top Sub Float Bore	4R & 5R	

Recommended Operating Limits

Max WOB	127,000 lbf
Max Overpull, Backream	183,000 lbf
Max Overpull, Re-Run	183,000 lbf
Max Overpull, POOH	751,000 lbf

Performance Details	HR	XP
Max Diff Pressure	1,580	1,740 psi
Max Torque	9,090	10,000 lbf-ft
Stall Torque	13,630	15,000 lbf-ft
Rotation	0.497	0.497 rev/gal
Flow Range	300-600	300-600 gpm
Speed Range	149-300	149-300 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	-	-	-	2.9	3.1	3.9
0.78	2.9	2.3	-	5.3	5.5	6.2
1.15	5.5	4.9	2.3	7.5	7.7	8.5
1.50	8.0	7.4	4.8	9.7	9.8	10.6
1.83	10.3	9.7	7.1	11.7	11.8	12.6
2.12	12.3	11.8	9.1	13.4	13.6	14.4
2.38*	14.2	13.6	10.9	15.0	15.2	15.9
2.60*	15.7	15.1	12.5	16.3	16.5	17.3
2.77*	16.9	16.3	13.7	17.4	17.5	18.3
2.90*	17.8	17.2	14.6	18.2	18.3	19.1
2.97*	18.3	17.7	15.1	18.6	18.7	19.5
3.00*	18.5	17.9	15.3	18.8	18.9	19.7

*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	1.7	-	-	5.3	5.5	6.3
1.00	3.5	2.8	-	6.9	7.1	7.9
1.25	5.3	4.6	1.4	8.5	8.7	9.5
1.50	7.0	6.3	3.2	10.1	10.3	11.1
1.63	7.9	7.2	4.1	11.0	11.1	11.9
1.75	8.8	8.1	4.9	11.7	11.9	12.7
1.88	9.7	9.0	5.9	12.6	12.7	13.5
2.00	10.5	9.8	6.7	13.3	13.5	14.3
2.25*	12.3	11.6	8.5	14.9	15.1	15.8
2.38*	13.2	12.5	9.4	15.7	15.9	16.7
2.50*	14.0	13.3	10.2	16.5	16.7	17.4

*Bend Setting not recommended for Rotary Drilling