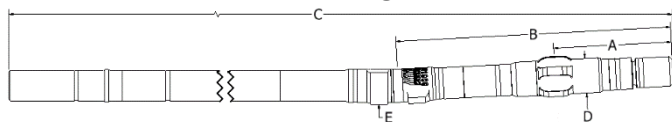


RVEN-70 : 5/6 Lobe 8.2 Stage



Dimensions

Bit to Stabilizer Center	A	27 in (0.7 m)
Bit to Bend, ABH	B	66.3 in (1.7 m)
Bit to Bend, Fixed	B	50 in (1.3 m)
Bit to Top Sub	C	382 in (9.7 m)
Body OD, Slick	D	7.0 in (178 mm)
Body OD, Stabilizer	D	7.5 in (191 mm)
Pad Radius, ABH	E	3.625 in (92 mm)
Pad Radius, Fixed	E	3.75 in (95 mm)
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	117,000 lbf (52,000 daN)
Max Overpull, Backream	169,000 lbf (75,200 daN)
Max Overpull, Re-Run	325,000 lbf (144,600 daN)
Max Overpull, POOH	630,000 lbf (280,000 daN)

Performance Details

HR

Max Diff Pressure	1,850 psi (13,000 kPa)
Max Torque	11,270 lbf-ft (15,300 N-m)
Stall Torque	16,910 lbf-ft (23,000 N-m)
Rotation	0.426 rev/gal (0.11 rev/L)
Flow Range	300-700 gpm (1140-2650 lpm)
Speed Range	127-298 rpm

Predicted Build Rates (ABH) – Degrees/100ft (30m)

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	8 1/2	8 3/4	9 7/8	8 1/2	8 3/4	9 7/8
Deg						
0.39	3.6	3.1	0.7	5.8	5.9	6.4
0.78	6.0	5.4	3.0	7.9	8.0	8.6
1.15	8.1	7.6	5.2	9.9	10.0	10.6
1.50	10.2	9.7	7.2	11.8	11.9	12.5
1.83	12.2	11.6	9.2	13.6	13.7	14.3
2.12	13.9	13.4	10.9	15.2	15.3	15.9
2.38*	15.4	14.9	12.5	16.6	16.7	17.3
2.60*	16.7	16.2	13.8	17.8	17.9	18.5
2.77*	17.7	17.2	14.8	18.7	18.8	19.4
2.90*	18.5	18.0	15.5	19.4	19.5	20.1
2.97*	18.9	18.4	15.9	19.8	19.9	20.5
3.00*	19.1	18.6	16.1	20.0	20.1	20.6

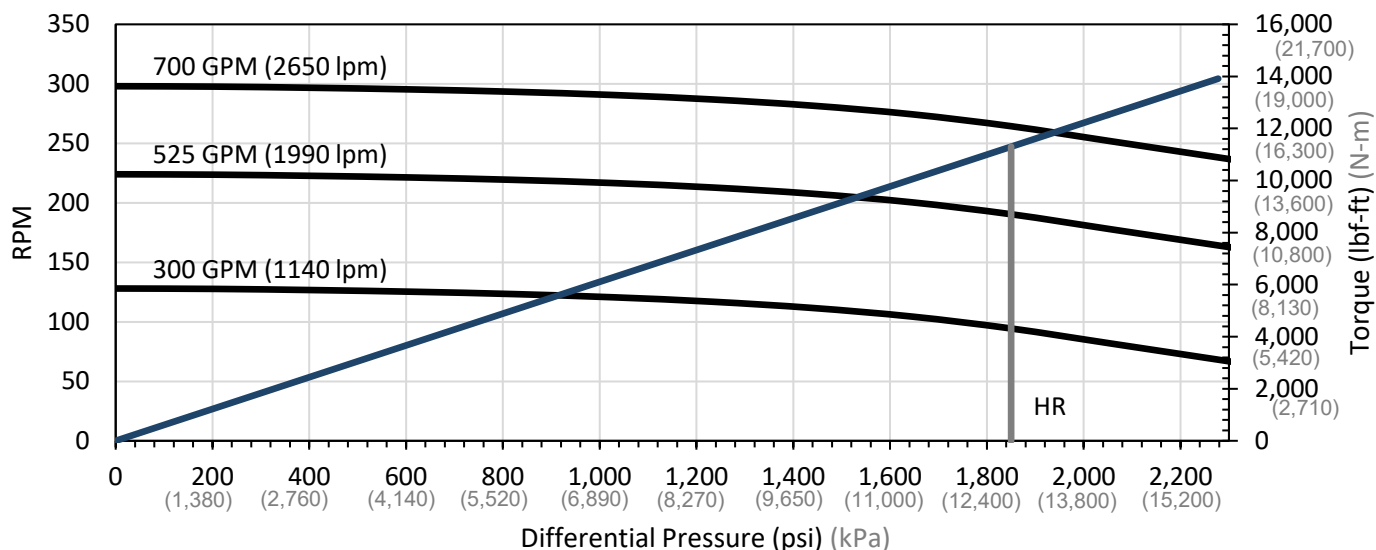
*Bend Setting not recommended for Rotary Drilling

Predicted Build Rates (Fixed) – Degrees/100ft (30m)

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	8 1/2	8 3/4	9 7/8	8 1/2	8 3/4	9 7/8
Deg						
0.78	5.8	5.2	2.2	8.1	8.2	8.8
1.15	8.0	7.3	4.3	10.2	10.3	10.9
1.50	10.0	9.3	6.3	12.2	12.3	12.9
1.75	11.4	10.8	7.8	13.7	13.8	14.3
1.83	11.9	11.2	8.2	14.1	14.2	14.8
2.00	12.9	12.2	9.2	15.1	15.2	15.8
2.12	13.6	12.9	9.9	15.8	15.9	16.4
2.25*	14.3	13.6	10.7	16.5	16.6	17.2
2.38*	15.1	14.4	11.4	17.2	17.4	17.9
2.50*	15.8	15.1	12.1	17.9	18.1	18.6

*Bend Setting not recommended for Rotary Drilling

Theoretical Performance Curve



Performance curves based on testing at 70°F (21°C). Actual field performance may vary with field operation conditions.