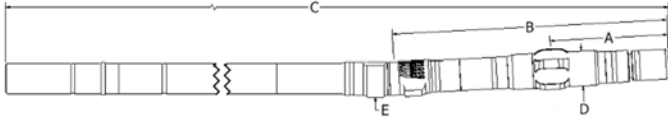


### RVMA-85 : 7/8 Lobe 5.9 Stage



#### Dimensions

Bit to Stabilizer Center	A	39 in
Bit to Bend, ABH	B	90 in
Bit to Bend, Fixed	B	76 in
Bit to Top Sub	C	452 in
Body OD, Slick	D	8.50 in
Body OD, Stabilizer	D	9.50 in
Pad Radius, ABH	E	4.56 in
Pad Radius, Fixed	E	4.34 in
Bottom Connection	6-5/8 REG Box 6-5/8 REG Pin	
Top Connection	6-5/8 REG Box	
Top Sub Float Bore	5F-6R	

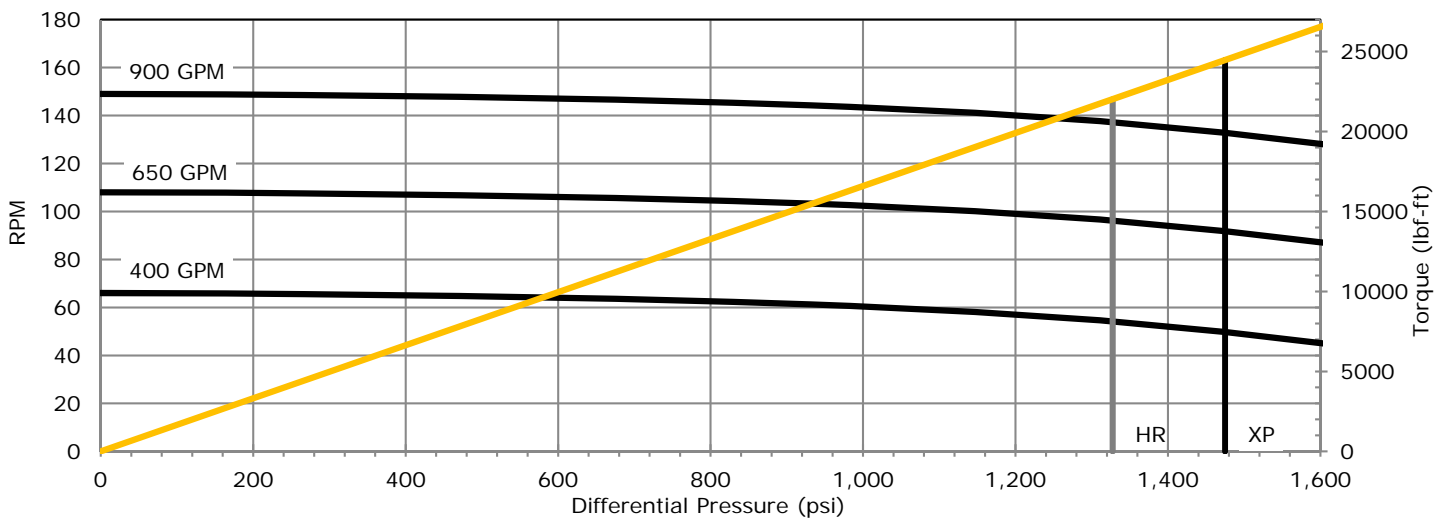
#### Recommended Operating Limits

Max WOB	164,000 lbf
Max Overpull, Backream	236,000 lbf
Max Overpull, Re-Run	440,000 lbf
Max Overpull, POOH	1,172,000 lbf

#### Performance Details

	HR	XP
Max Diff Pressure	1,330	1,460 psi
Max Torque	22,020	24,220 lbf-ft
Stall Torque	33,030	36,330 lbf-ft
Rotation	0.166	0.166 rev/gal
Flow Range	400-900	400-900 gpm
Speed Range	66-150	66-150 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	9 7/8	10 5/8	12 1/4	9 7/8	10 5/8
<b>0.39</b>	1.3	-	-	2.0	2.3	3.0
<b>0.78</b>	3.4	2.3	-	3.8	4.1	4.8
<b>1.15</b>	5.5	4.3	1.9	5.6	5.9	6.6
<b>1.50</b>	7.4	6.3	3.8	7.4	7.5	8.2
<b>1.83</b>	9.2	8.1	5.6	9.2	9.1	9.8
<b>2.12</b>	10.8	9.7	7.2	10.8	10.5	11.1
<b>2.38*</b>	12.2	11.1	8.7	12.2	11.7	12.4
<b>2.60*</b>	13.4	12.3	9.9	13.4	12.8	13.4
<b>2.77*</b>	14.4	13.2	10.8	14.4	13.6	14.2
<b>2.90*</b>	15.1	13.9	11.5	15.1	14.2	14.8
<b>2.97*</b>	15.5	14.3	11.9	15.5	14.5	15.2
<b>3.00*</b>	15.6	14.5	12.1	15.6	14.6	15.3

\*Bend Setting not recommended for Rotary Drilling

#### Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	Deg	9 7/8	10 5/8	12 1/4	9 7/8	10 5/8
<b>0.78</b>	2.3	1.0	-	4.0	4.3	4.9
<b>1.15</b>	4.3	3.0	-	5.8	6.1	6.8
<b>1.50</b>	6.3	5.0	2.2	7.5	7.8	8.5
<b>1.75</b>	7.6	6.3	3.5	8.8	9.1	9.7
<b>1.83</b>	8.1	6.8	4.0	9.2	9.5	10.1
<b>2.00</b>	9.0	7.7	4.9	10.0	10.3	11.0
<b>2.12</b>	9.7	8.4	5.6	10.6	10.9	11.6
<b>2.25*</b>	10.4	9.1	6.3	11.2	11.5	12.2
<b>2.38*</b>	11.1	9.8	7.0	11.9	12.2	12.8
<b>2.50*</b>	11.7	10.4	7.6	12.5	12.8	13.4

\*Bend Setting not recommended for Rotary Drilling