ALTITUDE

ELEVATION SERIES

TECHNICAL SPECIFICATIONS

ALTITUDE ENERGY PARTNERS

5.00”–6.63” Motors

5.00” Jaw–Clutch Motors

5.00” Flex Shaft Motors

5.25” Flex Shaft Motors

ALTITUDE ENERGY PARTNERS

5.75” Flex Shaft Motors

6.63” Jaw–Clutch Motors

6.63” Flex Shaft Motors

7.00”–9.63” Motors

7.00” Jaw–Clutch Motors

ALTITUDE ENERGY PARTNERS

7.00” SBTB Jaw–Clutch Motors

7.00” Flex Shaft Motors

7.25” Flex Shaft Motors

8.00” Jaw–Clutch Motors

8.38” Jaw–Clutch Motors

8.75” Flex Shaft Motors

9.63” Jaw-Clutch Motors

5.00” JAW–CLUTCH
6/7 LOBE 7.8 STAGE (DYNA–DRILL NBR–HR)

General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

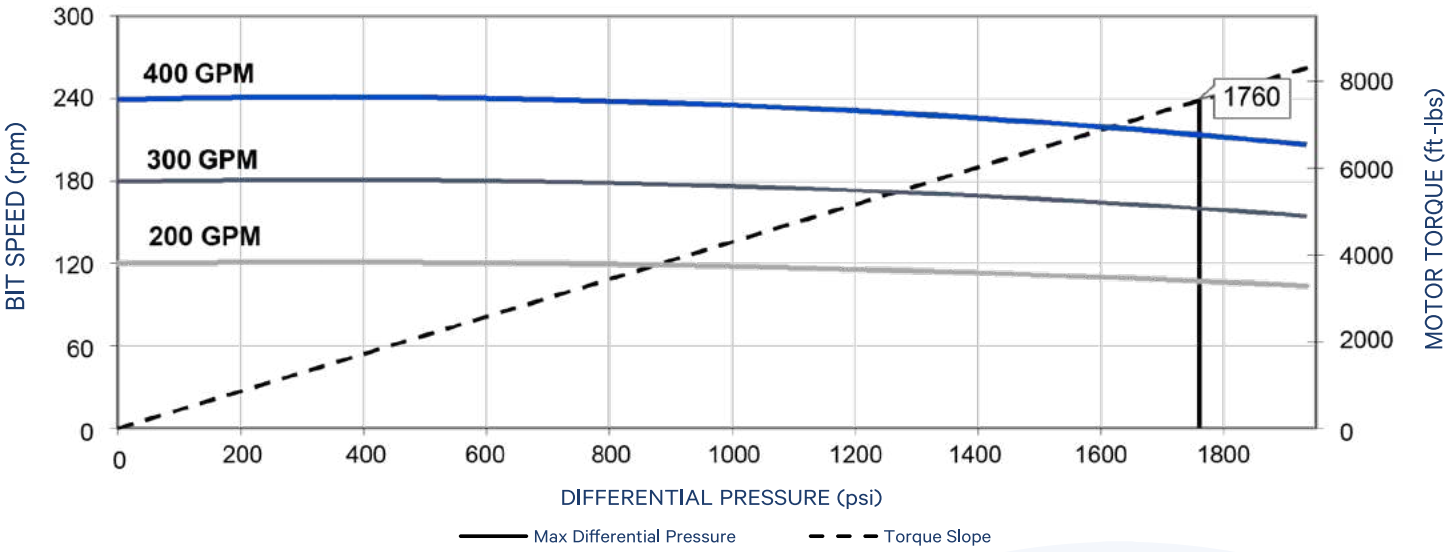
** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	31.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	200	400
Bit Speed (rpm)	120	240
Speed Ratio (rev/US Gal)	0.60	
Max Differential Pressure (psi)		1,760
Max Operating Torque (ft–lbs)		7,530
Torque Slope (ft–lbs/psi)	4.293	

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 7.8 STAGE (DYNA–DRILL NBR–HR)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.

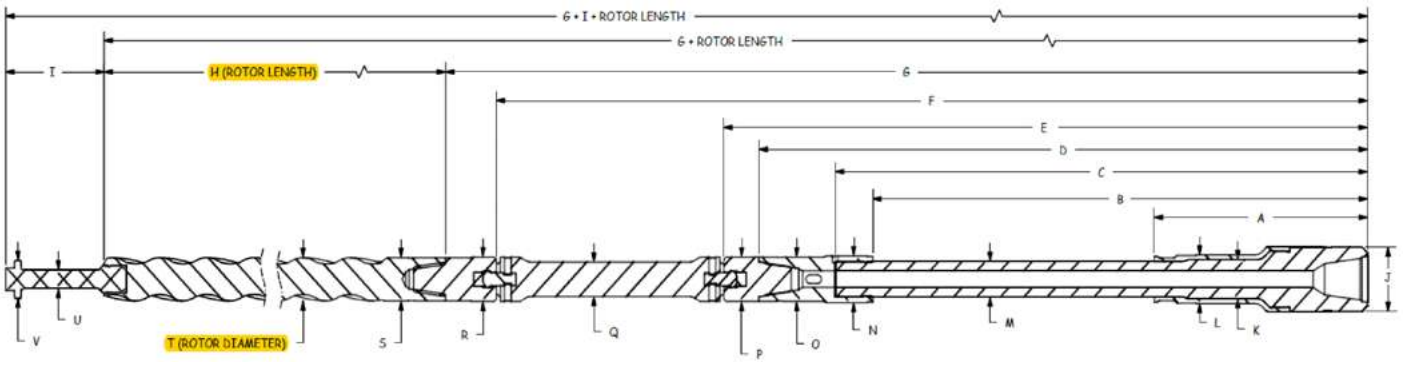
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100	0.2	100		100	2.4	100	2.7	100	3.2	100
0.75°	3.2		1.5				3.7		4.0		4.5	
1.00°	4.5		2.9				5.0		5.3		5.8	
1.25°	5.9		4.3		1.4		6.4		6.6		7.1	
1.50°	7.3		5.7		2.7		7.9		7.8		8.3	
1.75°	8.7		7.0		4.1		9.3	60	9.1		9.6	
2.00°	10.0	60	8.4	60	5.5		10.8	20	10.5	60	10.9	60
2.12°	10.7	40	9.1	40	6.1	80	11.5		11.2	40	11.5	40
2.25°	11.4	20	9.8	20	6.9	60	12.3		12.0	20	12.2	20
2.50°	12.8		11.2		8.2	20	13.8		13.5		13.4	
2.75°	14.2		12.5		9.6		15.2		15.0		14.7	
3.00°	15.5		13.9		11.0		16.7		16.4		16.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

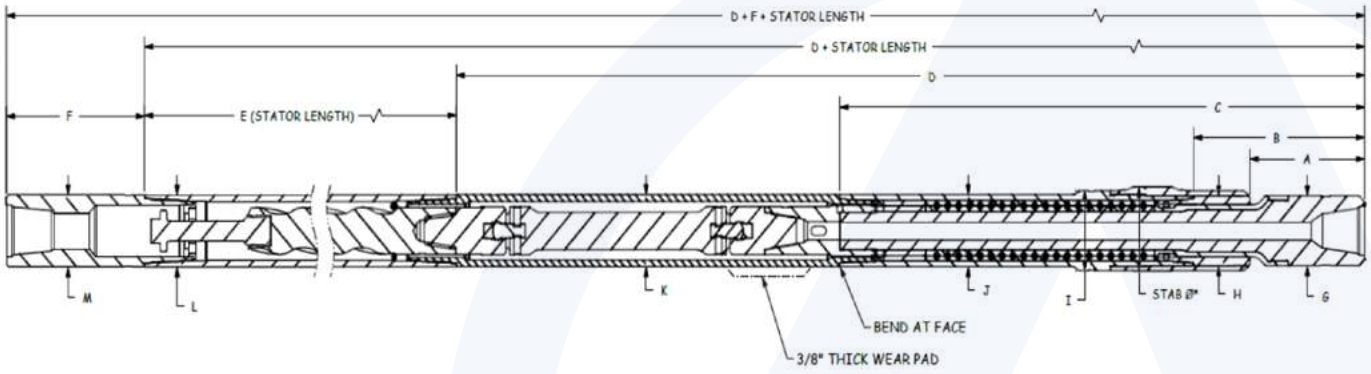
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 7.8 STAGE (DYNA–DRILL NBR–HR)



5.00” Jaw–Clutch 6/7 Lobe 7.8 Stage (Dyna–Drill NBR–HR) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	273.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.332	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 7.8 Stage (Dyna–Drill NBR–HR) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	280.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (VIKING VPX)

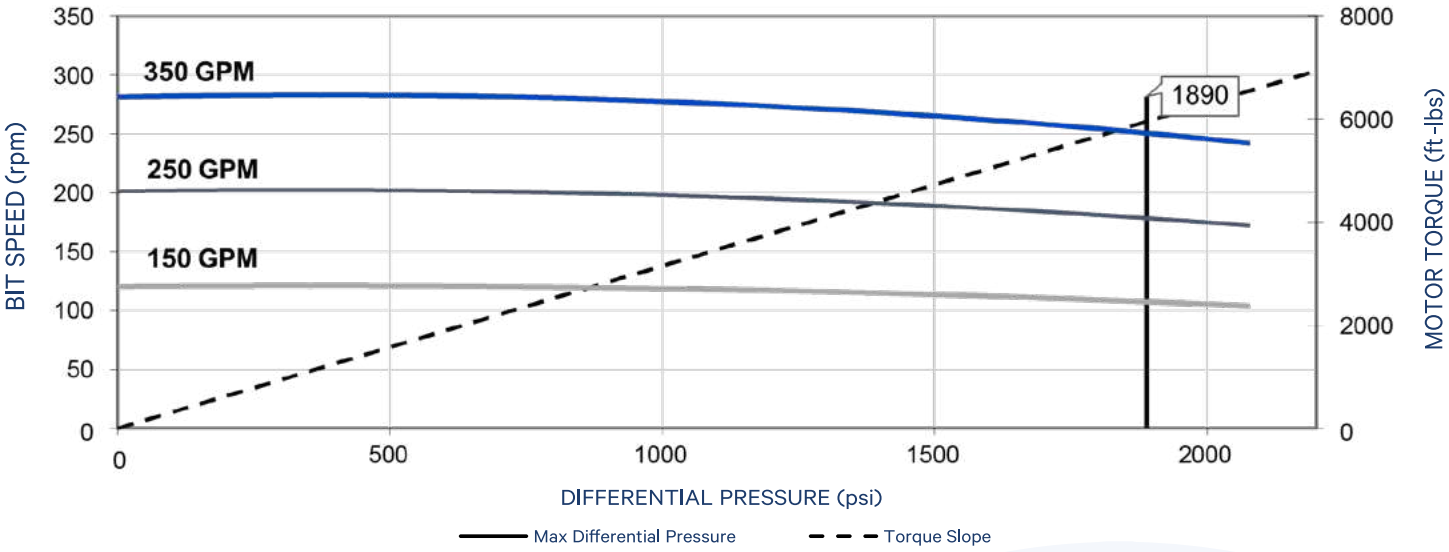
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	29.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	120	282
Speed Ratio (rev/US Gal)	0.806	
Max Differential Pressure (psi)		1,890
Max Operating Torque (ft–lbs)		5,960
Torque Slope (ft–lbs/psi)	3.15	

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (VIKING VPX)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

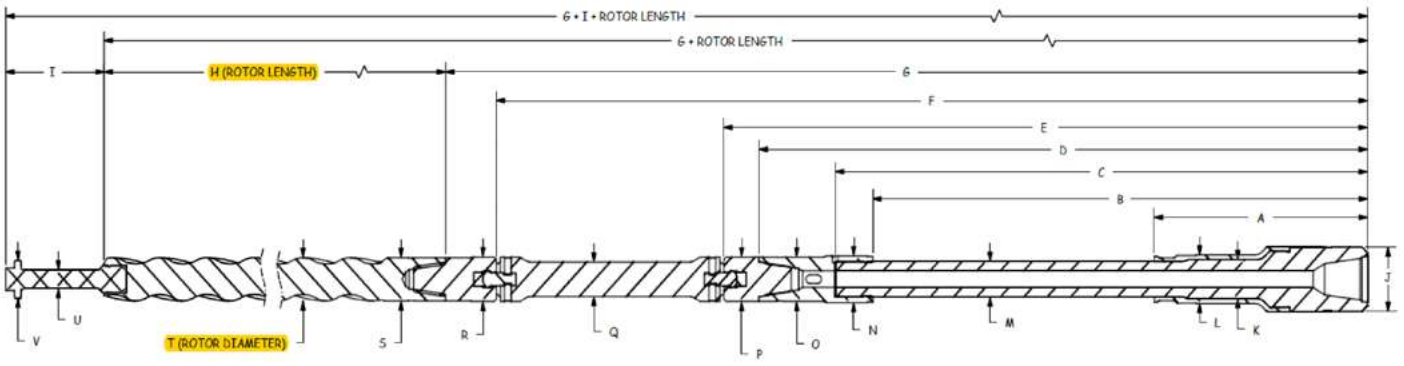
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.6	100	0.0	100		100	2.4	100	3.6	100	4.3	100
0.75°	3.4		1.3				3.7		5.3		6.0	
1.00°	5.2		3.1				5		7.0		7.7	
1.25°	7.0		4.9		1.2		6.4		8.6		9.3	
1.50°	8.8		6.7		3.1		7.9		10.3		11.0	
1.75°	10.6		8.5		4.9		9.3	60	12.0		12.6	
2.00°	12.4	60	10.4	60	6.7		10.8	20	13.9	60	14.3	60
2.12°	13.3	40	11.2	40	7.5	80	11.5		14.9	40	15.1	40
2.25°	14.2	20	12.2	20	8.5	60	12.3		15.9	20	16.0	20
2.50°	16.0		14.0		10.3	20	13.8		17.8		17.6	
2.75°	17.8		15.8		12.1		15.2		19.8		19.3	
3.00°	19.6		17.6		13.9		16.7		21.8		21.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

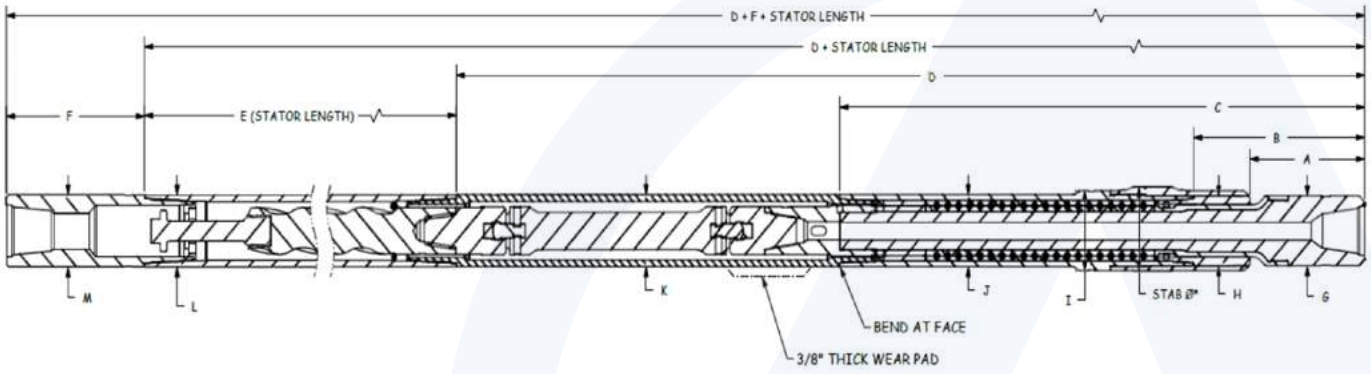
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (VIKING VPX)



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (Viking VPX) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	241.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.018	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (Viking VPX) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	250.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (FT-003)

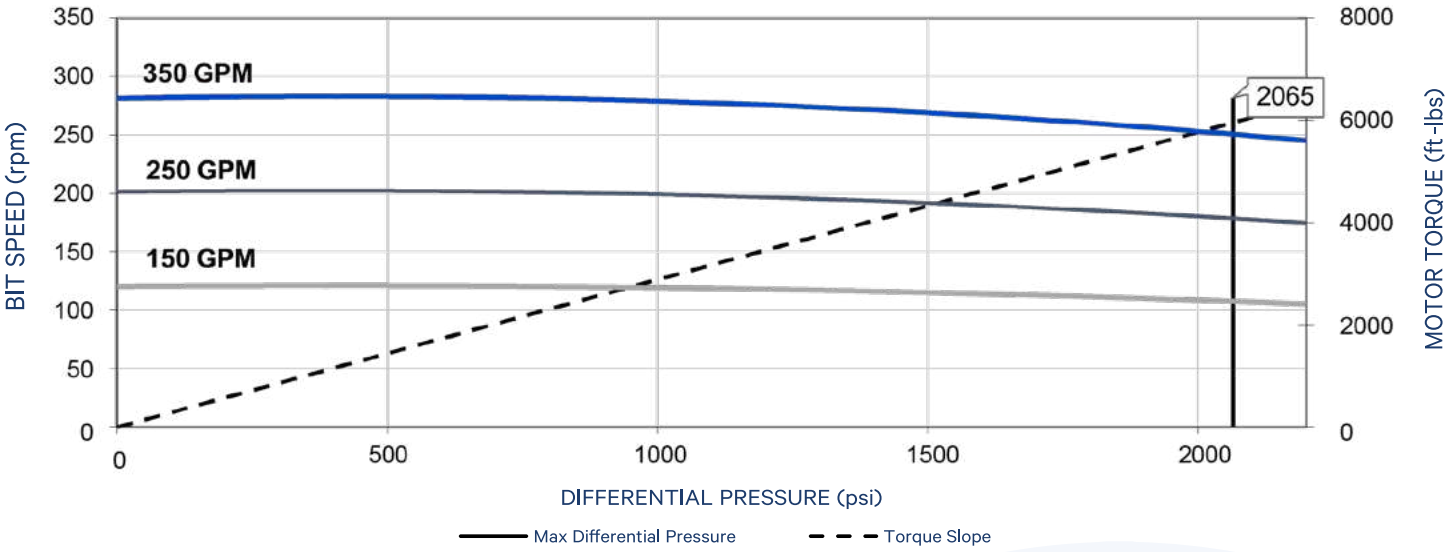
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	29.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	126	294
Speed Ratio (rev/US Gal)	0.84	
Max Differential Pressure (psi)		2,065
Max Operating Torque (ft–lbs)		5,897
Torque Slope (ft–lbs/psi)	2.954	

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

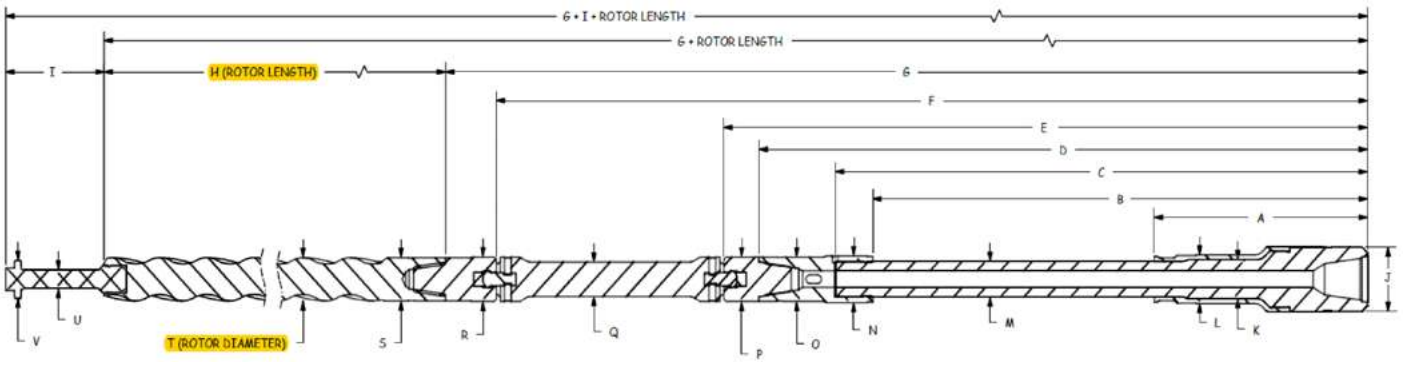
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.6	100	0.0	100		100	3.2	100	3.6	100	4.3	100
0.75°	3.4		1.3				4.9		5.3		6.0	
1.00°	5.2		3.1				6.6		7.0		7.7	
1.25°	7.0		4.9		1.2		8.4		8.6		9.3	
1.50°	8.8		6.7		3.1		10.4		10.3		11.0	
1.75°	10.6		8.5		4.9		12.4	60	12.0		12.6	
2.00°	12.4	60	10.4	60	6.7		14.3	20	13.9	60	14.3	60
2.12°	13.3	40	11.2	40	7.5	80	15.3		14.9	40	15.1	40
2.25°	14.2	20	12.2	20	8.5	60	16.3		15.9	20	16.0	20
2.50°	16.0		14.0		10.3	20	18.2		17.8		17.6	
2.75°	17.8		15.8		12.1		20.2		19.8		19.3	
3.00°	19.6		17.6		13.9		22.2		21.8		21.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

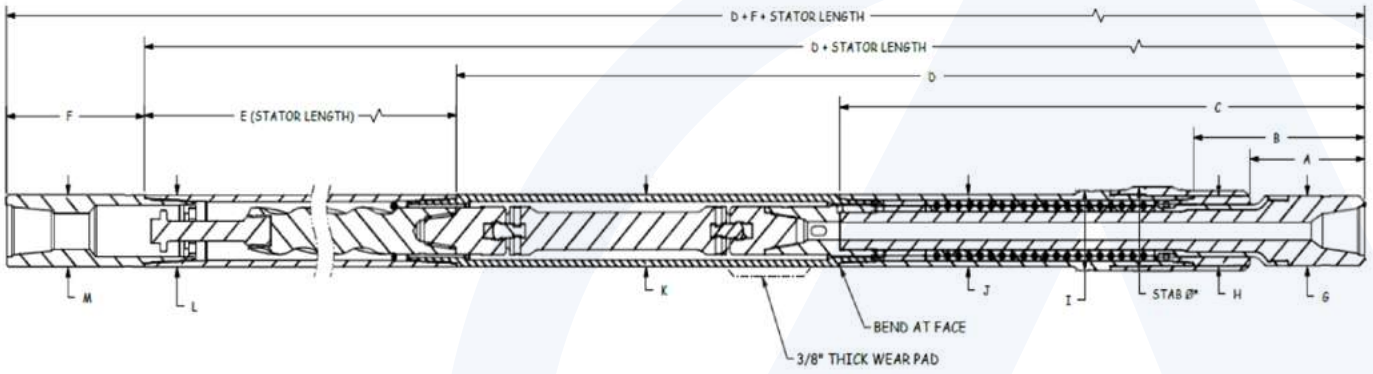
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (FT-003)



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	241.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.018	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	250.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (ABACO HPW)

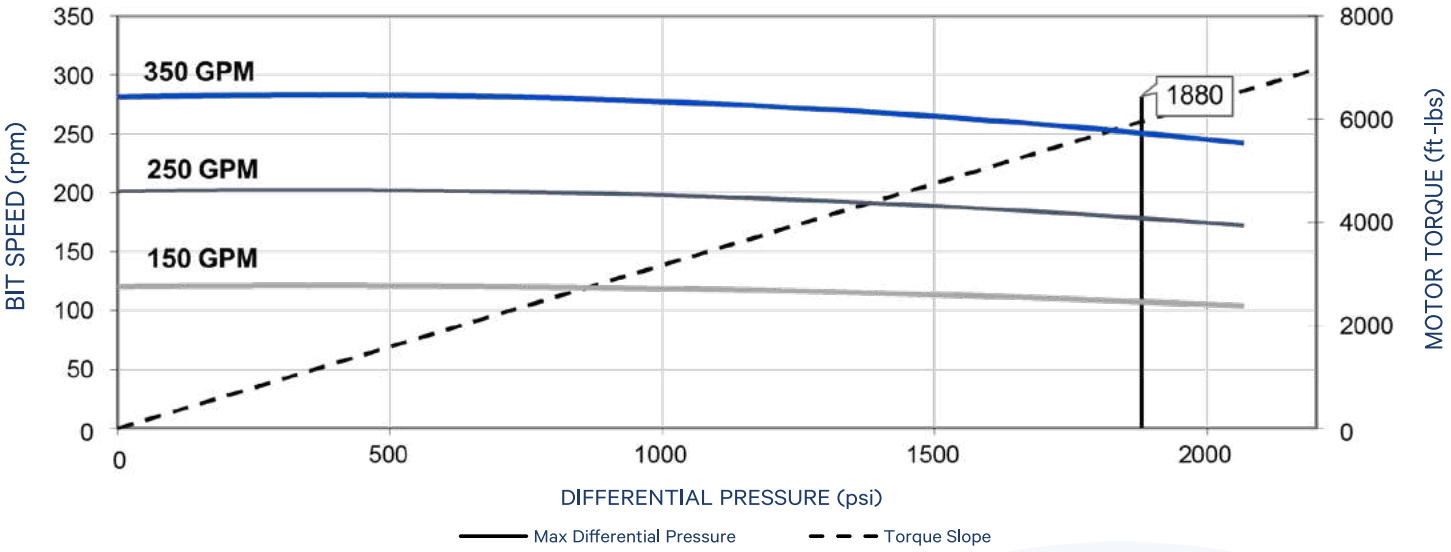
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	29.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	120	280
Speed Ratio (rev/US Gal)	0.79	
Max Differential Pressure (psi)		1,880
Max Operating Torque (ft–lbs)		6,110
Torque Slope (ft–lbs/psi)	3.25	

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (ABACO HPW)

Power Section Performance Curve ***



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Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.6	100	0.0	100		100	3.2	100	3.6	100	4.3	100
0.75°	3.4		1.3				4.9		5.3		6.0	
1.00°	5.2		3.1				6.6		7.0		7.7	
1.25°	7.0		4.9		1.2		8.4		8.6		9.3	
1.50°	8.8		6.7		3.1		10.4		10.3		11.0	
1.75°	10.6		8.5		4.9		12.4	60	12.0		12.6	
2.00°	12.4	60	10.4	60	6.7		14.3	20	13.9	60	14.3	60
2.12°	13.3	40	11.2	40	7.5	80	15.3		14.9	40	15.1	40
2.25°	14.2	20	12.2	20	8.5	60	16.3		15.9	20	16.0	20
2.50°	16.0		14.0		10.3	20	18.2		17.8		17.6	
2.75°	17.8		15.8		12.1		20.2		19.8		19.3	
3.00°	19.6		17.6		13.9		22.2		21.8		21.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

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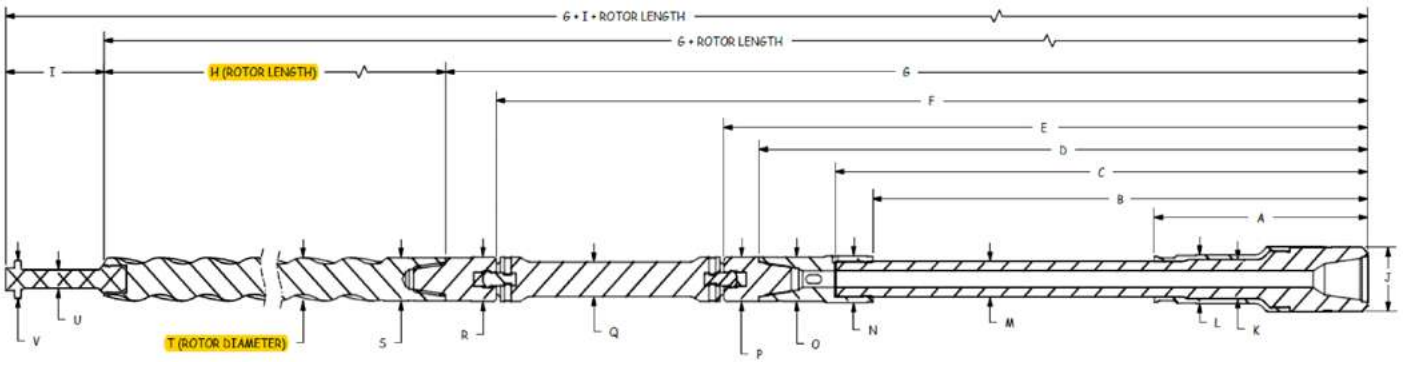
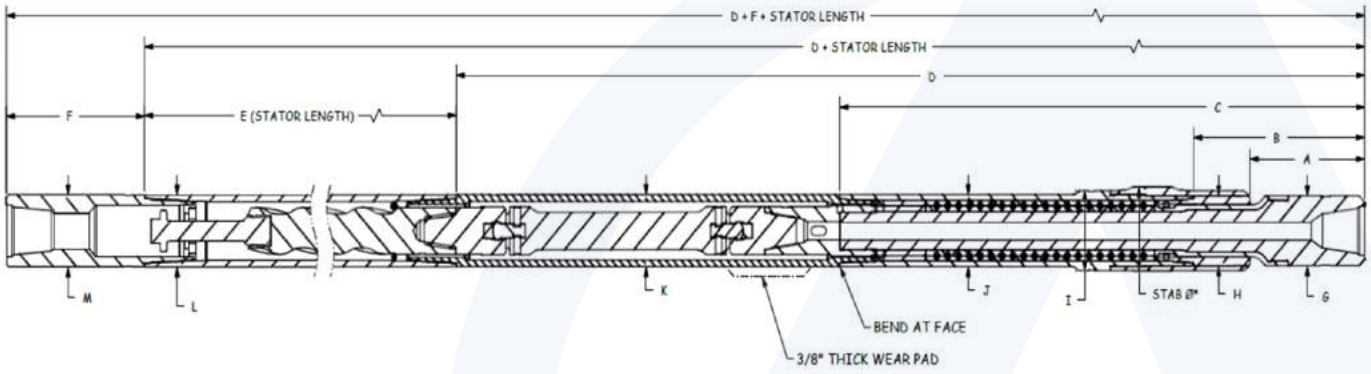
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 8.0 STAGE (ABACO HPW)



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (Abaco HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	241.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.018	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 8.0 Stage (Abaco HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	250.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (ABACO NBR–HPW)

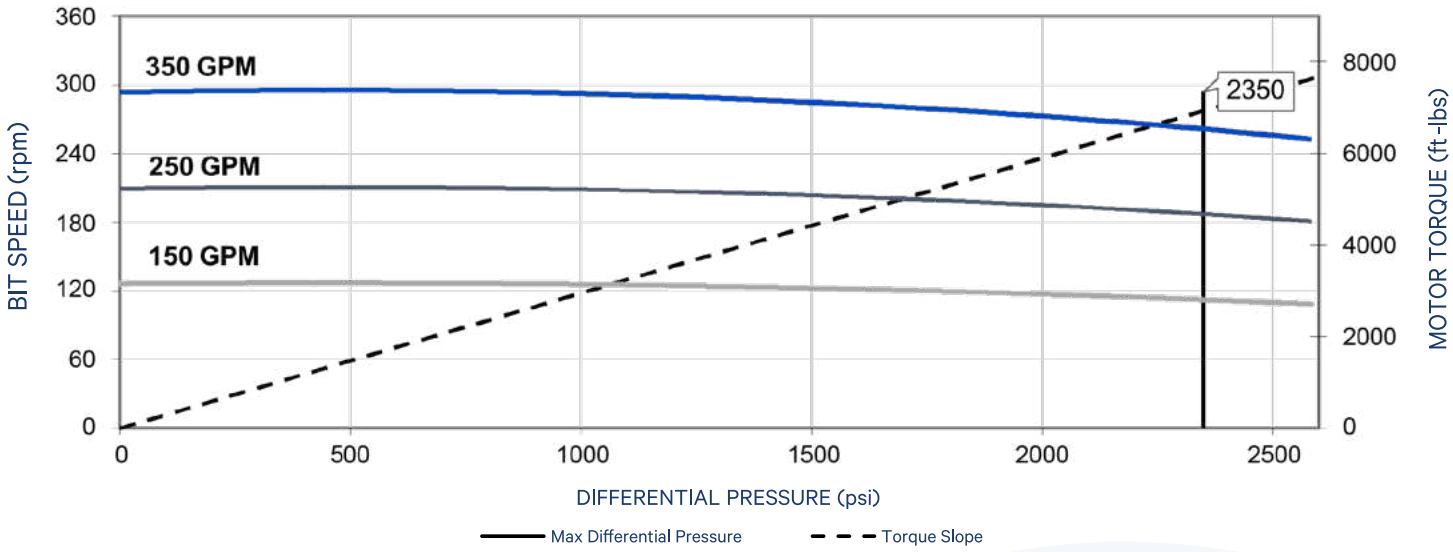
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	31.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	130	290
Speed Ratio (rev/US Gal)	0.84	
Max Differential Pressure (psi)		2,350
Max Operating Torque (ft–lbs)		6,940
Torque Slope (ft–lbs/psi)	2.95	

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

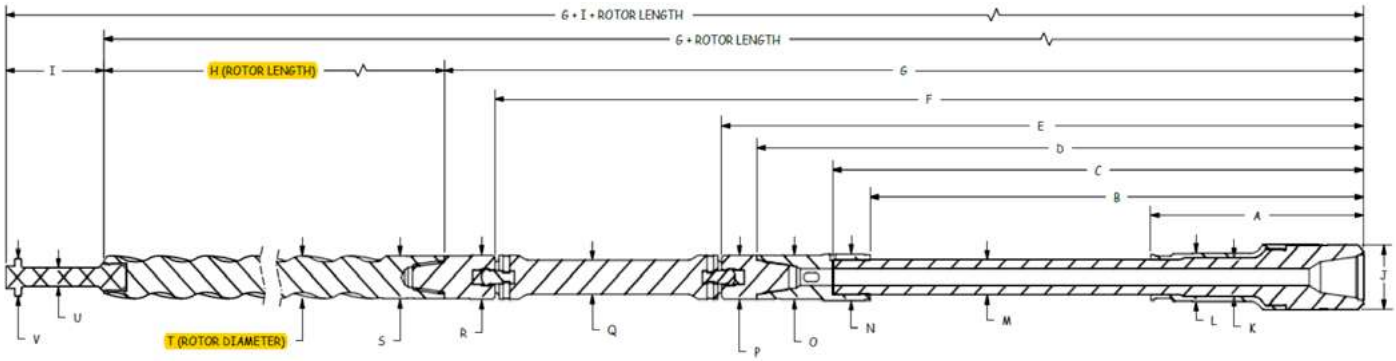
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100	0.2	100		100	2.5	100	2.8	100	3.3	100
0.75°	3.2		1.6				3.8		4.1		4.6	
1.00°	4.6		2.9				5.1		5.3		5.9	
1.25°	6.0		4.3		1.4		6.5		6.6		7.2	
1.50°	7.4		5.7		2.8		8.0		7.9		8.4	
1.75°	8.8		7.1		4.2		9.5	60	9.2		9.7	
2.00°	10.2	60	8.5	60	5.6		11.0	20	10.7	60	11.0	60
2.12°	10.8	40	9.2	40	6.2	80	11.7		11.4	40	11.7	40
2.25°	11.5	20	9.9	20	6.9	60	12.4		12.2	20	12.3	20
2.50°	12.9		11.3		8.3	20	13.9		13.7		13.6	
2.75°	14.3		12.7		9.7		15.4		15.2		14.9	
3.00°	15.7		14.1		11.1		16.9		16.7		16.2	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

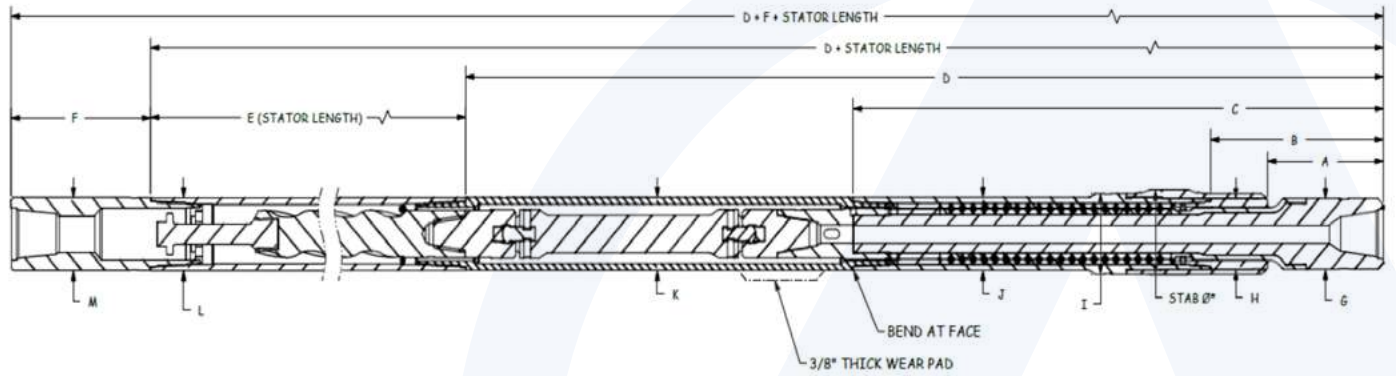
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (ABACO NBR–HPW)



5.00” Jaw–Clutch 6/7 Lobe 10.0 Stage (Abaco NBR–HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	266.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.256	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 10.0 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	275.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (DYNA–DRILL XP)

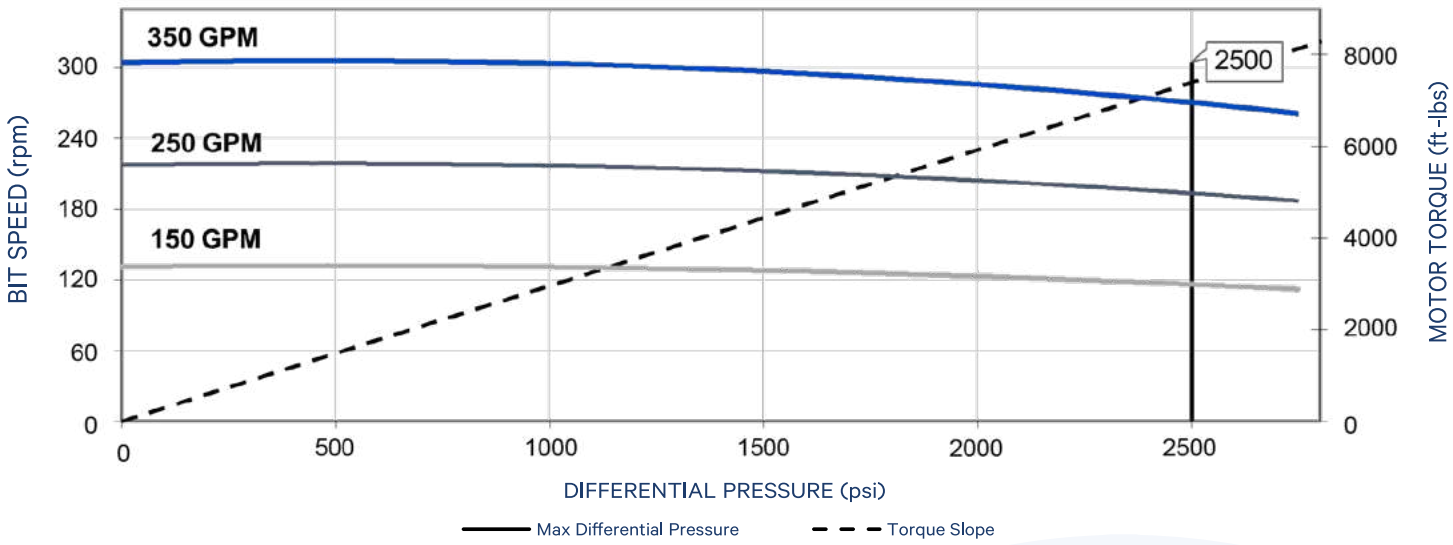
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	31.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	131	305
Speed Ratio (rev/US Gal)	0.87	
Max Differential Pressure (psi)		2,500
Max Operating Torque (ft–lbs)		7,400
Torque Slope (ft–lbs/psi)	2.95	

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

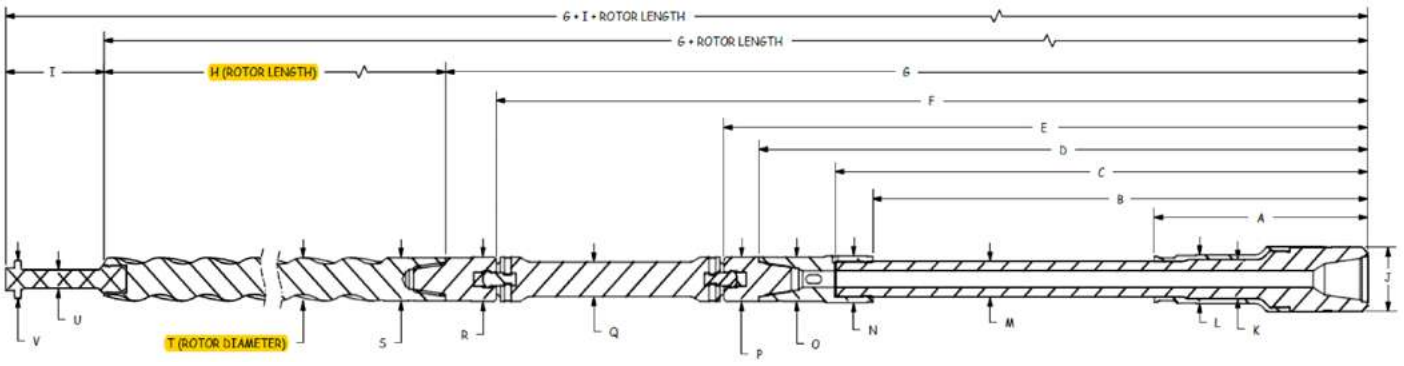
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100	0.2	100		100	2.5	100	2.8	100	3.3	100
0.75°	3.2		1.6				3.8		4.1		4.6	
1.00°	4.6		2.9				5.1		5.3		5.9	
1.25°	6.0		4.3		1.4		6.5		6.6		7.2	
1.50°	7.4		5.7		2.8		8.0		7.9		8.4	
1.75°	8.8		7.1		4.2		9.5	60	9.2		9.7	
2.00°	10.2	60	8.5	60	5.6		11.0	20	10.7	60	11.0	60
2.12°	10.8	40	9.2	40	6.2	80	11.7		11.4	40	11.7	40
2.25°	11.5	20	9.9	20	6.9	60	12.4		12.2	20	12.3	20
2.50°	12.9		11.3		8.3	20	13.9		13.7		13.6	
2.75°	14.3		12.7		9.7		15.4		15.2		14.9	
3.00°	15.7		14.1		11.1		16.9		16.7		16.2	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

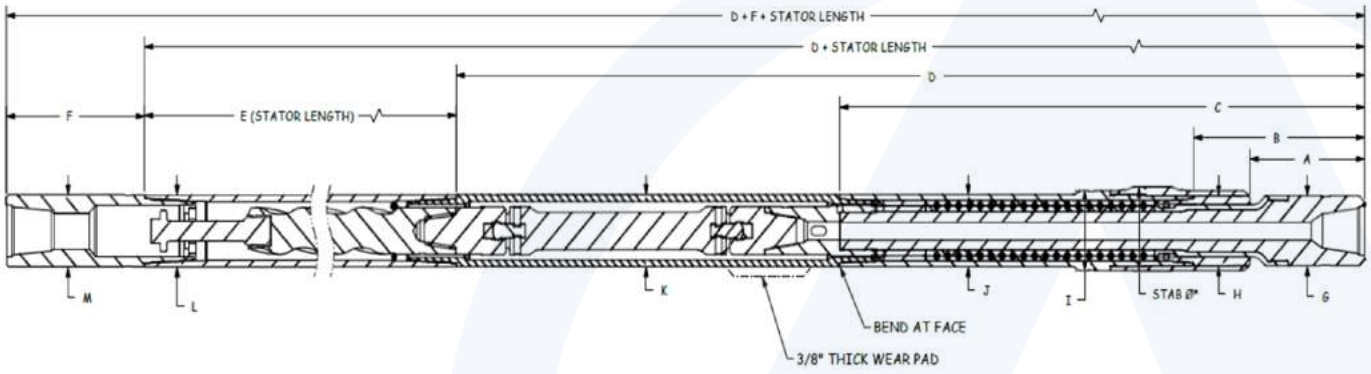
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
6/7 LOBE 10.0 STAGE (DYNA–DRILL XP)



5.00” Jaw–Clutch 6/7 Lobe 10.0 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	266.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.256	1.15	2.38



5.00” Jaw–Clutch 6/7 Lobe 10.0 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	275.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

5.00” JAW–CLUTCH
7/8 LOBE 2.6 STAGE (FT-003)

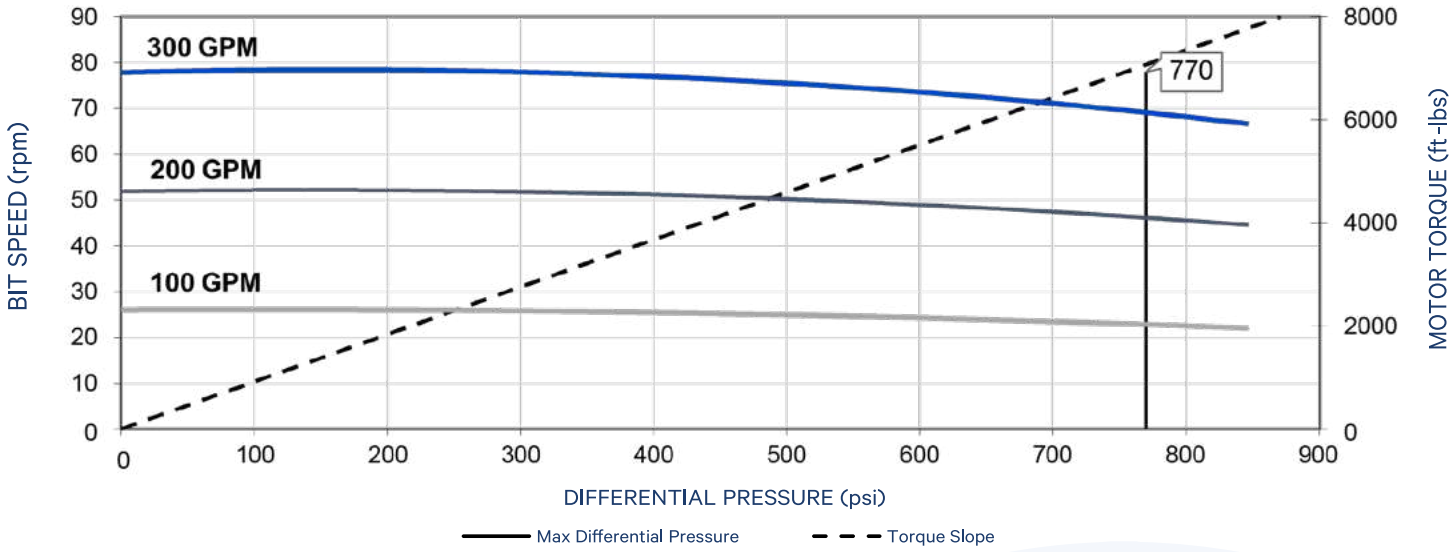
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	27.7	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	100	300
Bit Speed (rpm)	26	78
Speed Ratio (rev/US Gal)	0.260	
Max Differential Pressure (psi)		590
Max Operating Torque (ft–lbs)		7,079
Torque Slope (ft–lbs/psi)	9.63	

5.00” JAW–CLUTCH
7/8 LOBE 2.6 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

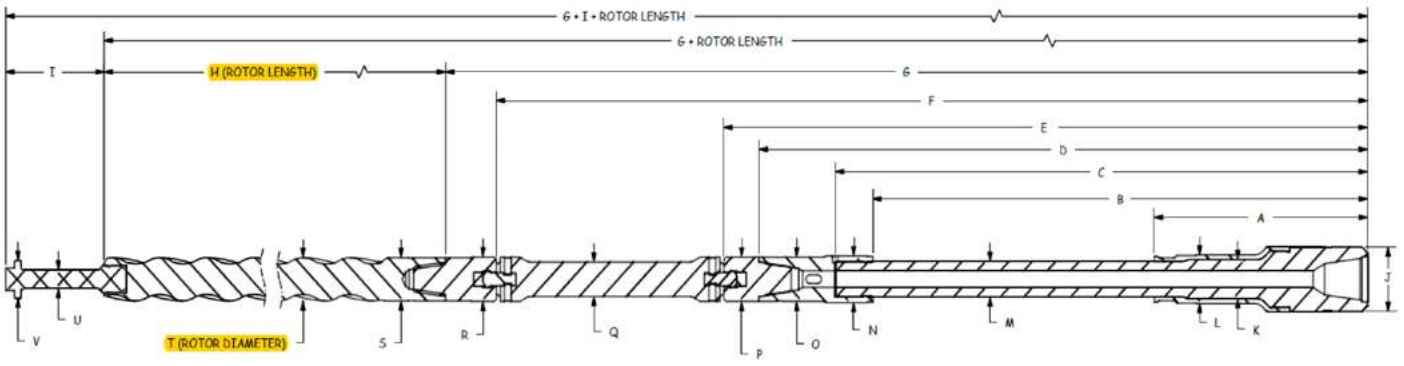
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.5		0.4				3.5		4.0		4.8	
0.75°	4.4		2.3				5.3		5.7		6.5	
1.00°	6.4	100	4.2	100			7.0	100	7.5	100	8.3	100
1.25°	8.3		6.1		2.2	100	8.9		9.2		10.0	
1.50°	10.2		8.0		4.1		11.0		11.0		11.8	
1.75°	12.1		9.9		6.0		13.1	60	12.8		13.6	
2.00°	14.0	60	11.8	60	7.9		15.2	20	14.7	60	15.3	60
2.12°	14.9	40	12.8	40	8.9	80	16.2		15.7	40	16.2	40
2.25°	15.9	20	13.8	20	9.9	60	17.3		16.8	20	17.1	20
2.50°	17.9		15.7		11.8	20	19.3		18.9		18.8	
2.75°	19.8		17.6		13.7		21.4		21.0		20.6	
3.00°	21.7		19.5		15.6		23.5		23.1		22.3	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

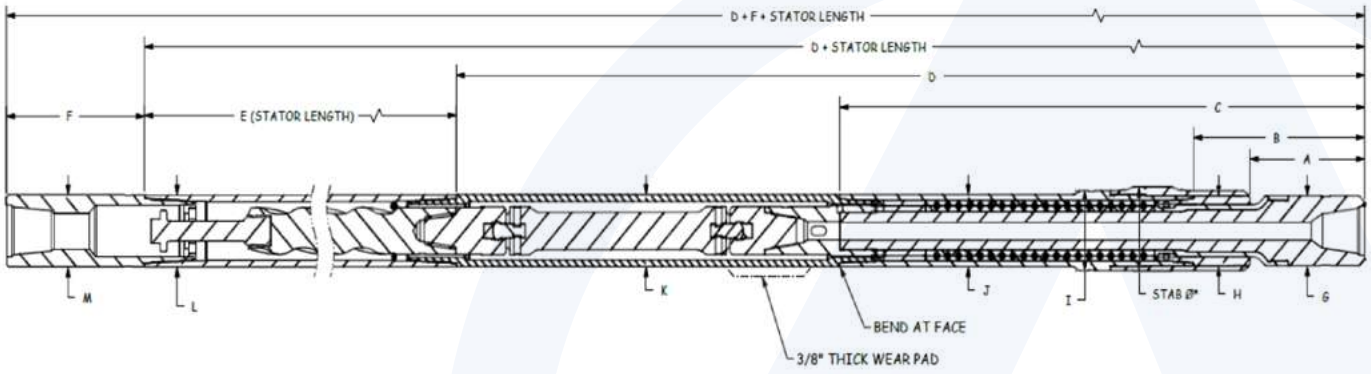
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 2.6 STAGE (FT-003)



5.00” Jaw–Clutch 7/8 Lobe 2.6 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	220.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.094	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 2.6 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	229.30	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 3.7 STAGE (DYNA–DRILL XP)

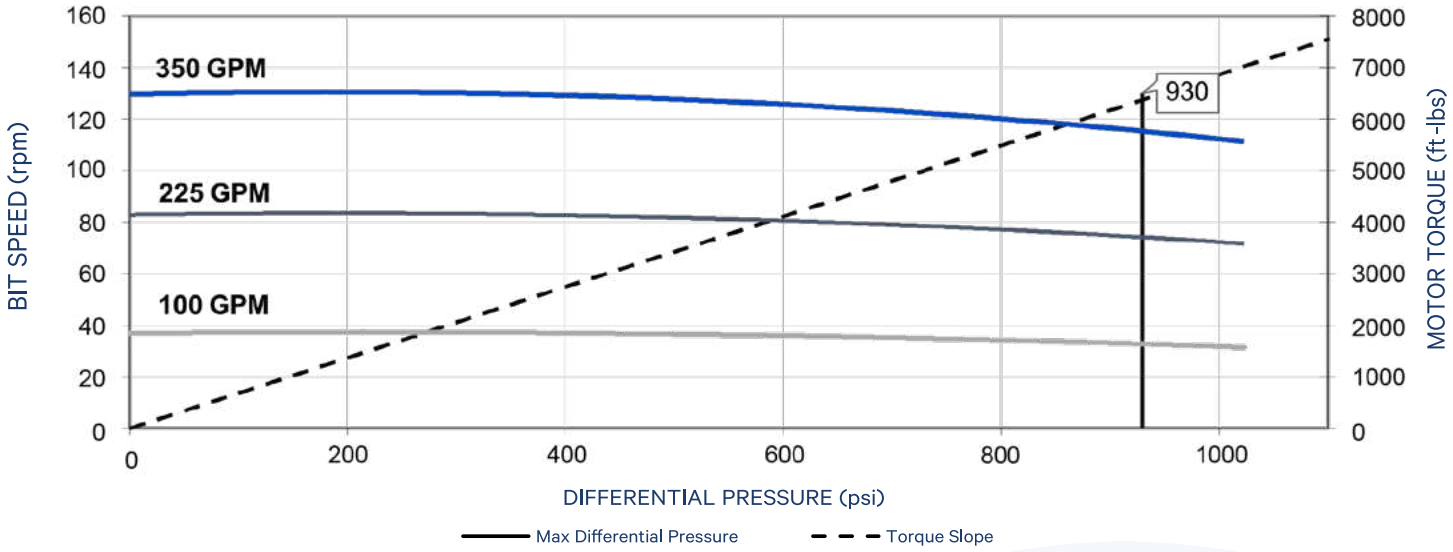
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	28.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	55	129
Speed Ratio (rev/US Gal)	0.368	
Max Differential Pressure (psi)		930
Max Operating Torque (ft–lbs)		6,380
Torque Slope (ft–lbs/psi)	6.901	

5.00” JAW–CLUTCH
7/8 LOBE 3.7 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

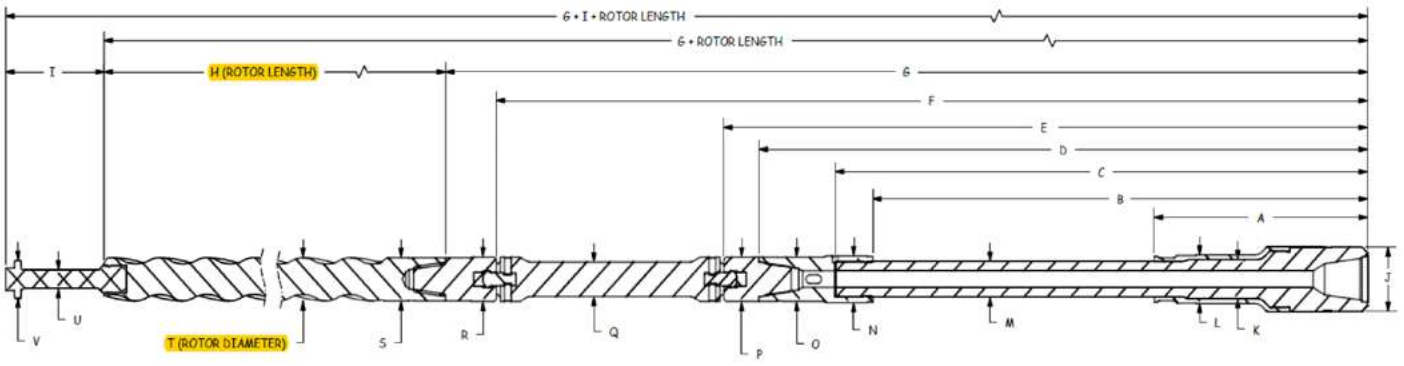
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.0	100	0.2	100		100	2.8	100	3.1	100	3.8	100
0.75°	3.6		1.7				4.2		4.6		5.2	
1.00°	5.1		3.3				5.6		6.0		6.6	
1.25°	6.7		4.8		1.5		7.2		7.4		8.1	
1.50°	8.2		6.4		3.1		8.9		8.9		9.5	
1.75°	9.8		7.9		4.6		10.6	60	10.3		10.9	
2.00°	11.3	60	9.5	60	6.2		12.2	20	11.9	60	12.3	60
2.12°	12.1	40	10.2	40	6.9	80	13.1		12.7	40	13.0	40
2.25°	12.9	20	11.0	20	7.7	60	13.9		13.6	20	13.8	20
2.50°	14.4		12.6		9.3	20	15.6		15.3		15.2	
2.75°	16.0		14.1		10.8		17.3		16.9		16.2	
3.00°	17.5		15.7		12.4		19.0		18.6		18.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

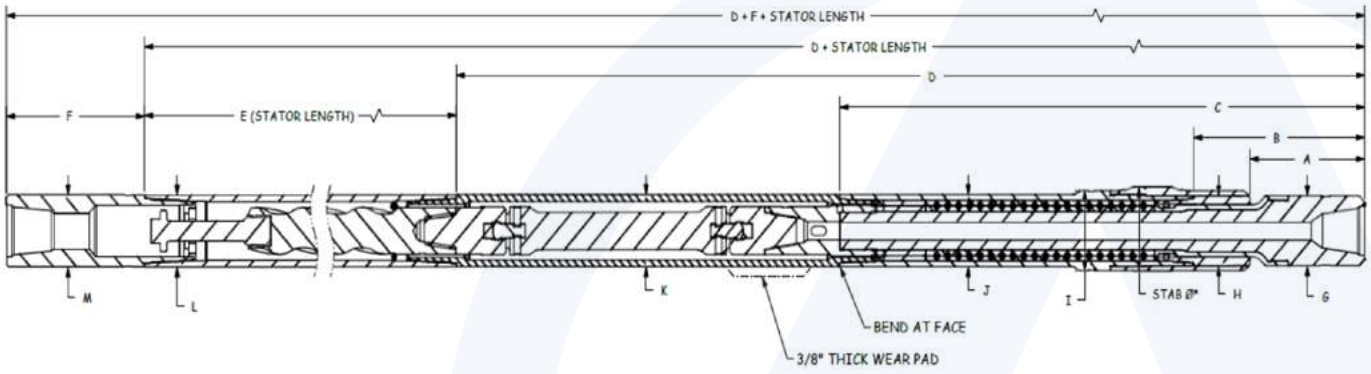
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 3.7 STAGE (DYNA–DRILL XP)



5.00” Jaw–Clutch 7/8 Lobe 3.7 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	214.80	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.12	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 3.7 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	235.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)

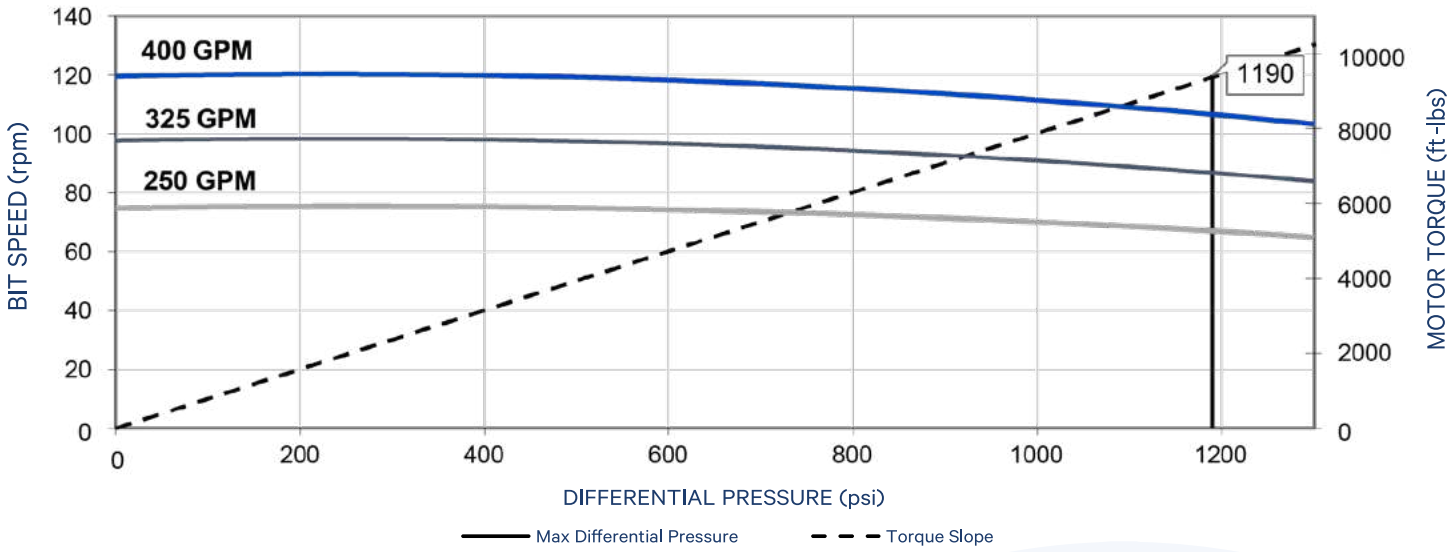
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	31.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	250	400
Bit Speed (rpm)	75	120
Speed Ratio (rev/US Gal)	0.300	
Max Differential Pressure (psi)	1,076	941
Max Operating Torque (ft–lbs)	9,371	8,195
Torque Slope (ft–lbs/psi)	8.709	

5.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

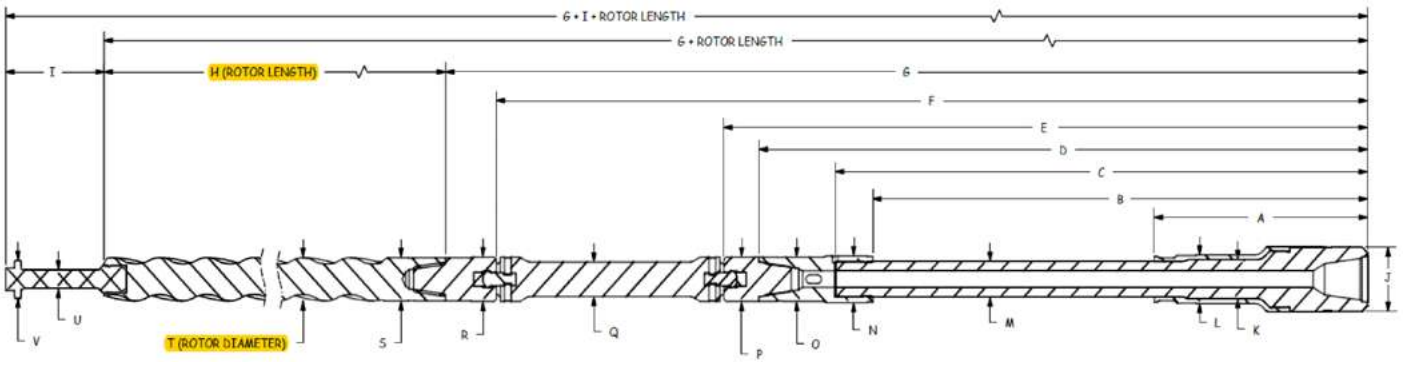
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.5	100	0.0	100		100	3.0	100	3.3	100	4.0	100
0.75°	3.2		1.2				4.6		4.9		5.5	
1.00°	4.8		2.9				6.1		6.5		7.1	
1.25°	6.5		4.6		1.2		7.9		8.0		8.7	
1.50°	8.2		6.3		2.9		9.7		9.6		10.2	
1.75°	9.9		8.0		4.5		11.5	60	11.2		11.8	
2.00°	11.6	60	9.7	60	6.2		13.4	20	13.0	60	13.4	60
2.12°	12.4	40	10.5	40	7.0	80	14.2		13.9	40	14.1	40
2.25°	13.3	20	11.4	20	7.9	60	15.2		14.9	20	14.9	20
2.50°	15.0		13.1		9.6	20	17.0		16.7		16.5	
2.75°	16.7		14.8		11.3		18.8		18.5		18.0	
3.00°	18.4		16.5		13.0		20.7		20.3		19.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

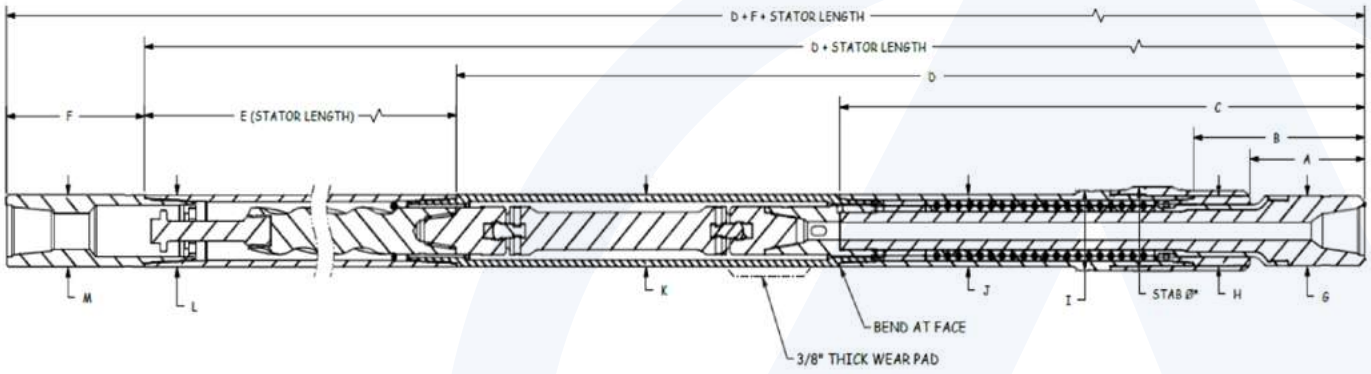
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)



5.00” Jaw–Clutch 7/8 Lobe 4.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	265.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.321	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	275.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 4.5 STAGE (DYNA–DRILL XP)

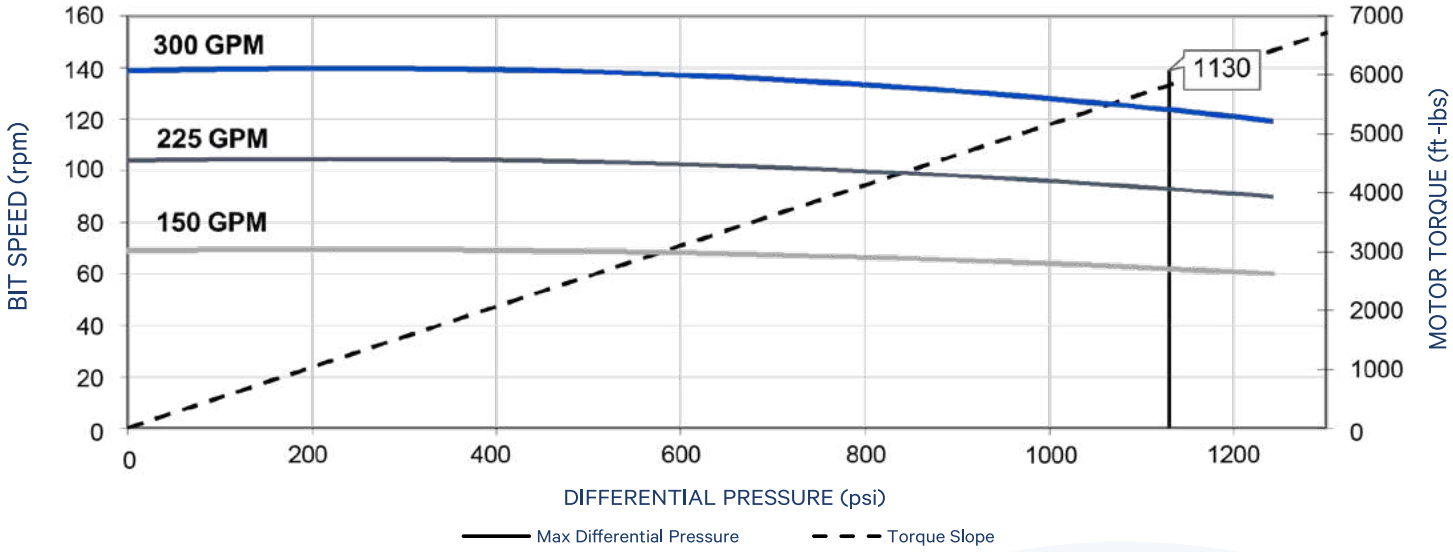
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	27.7	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	300
Bit Speed (rpm)	69	139
Speed Ratio (rev/US Gal)	0.463	
Max Differential Pressure (psi)		1,130
Max Operating Torque (ft–lbs)		5,830
Torque Slope (ft–lbs/psi)	5.185	

5.00” JAW–CLUTCH
7/8 LOBE 4.5 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

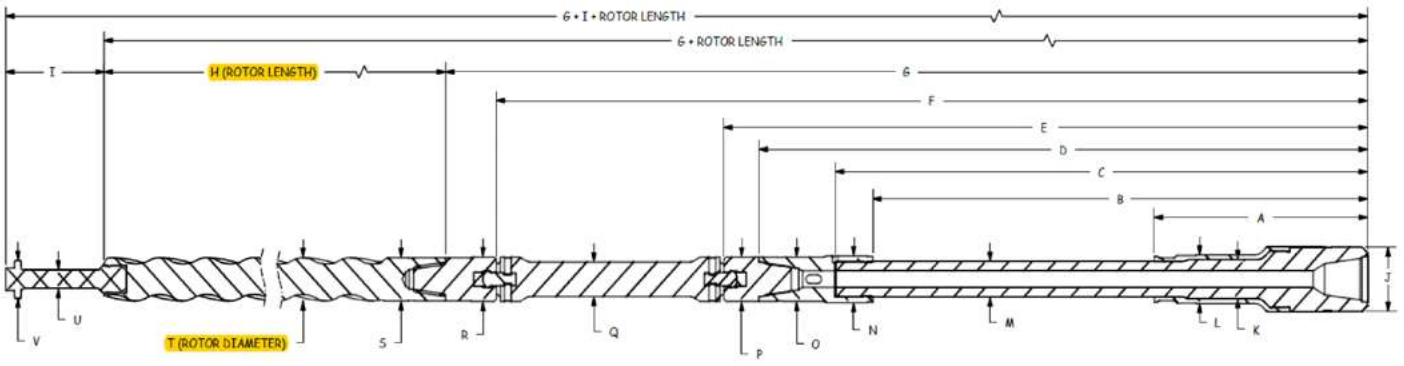
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.5		0.4				3.5		4.0		4.8	
0.75°	4.4		2.3				5.3		5.7		6.5	
1.00°	6.4	100	4.2	100			7.0	100	7.5	100	8.3	100
1.25°	8.3		6.1		2.2	100	8.9		9.2		10.0	
1.50°	10.2		8.0		4.1		11.0		11.0		11.8	
1.75°	12.1		9.9		6.0		13.1	60	12.8		13.6	
2.00°	14.0	60	11.8	60	7.9		15.2	20	14.7	60	15.3	60
2.12°	14.9	40	12.8	40	8.9	80	16.2		15.7	40	16.2	40
2.25°	15.9	20	13.8	20	9.9	60	17.3		16.8	20	17.1	20
2.50°	17.9		15.7		11.8	20	19.3		18.9		18.8	
2.75°	19.8		17.6		13.7		21.4		21.0		20.6	
3.00°	21.7		19.5		15.6		23.5		23.1		22.3	
3.00°	17.8		16.0		12.6		19.3		19.0		18.4	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

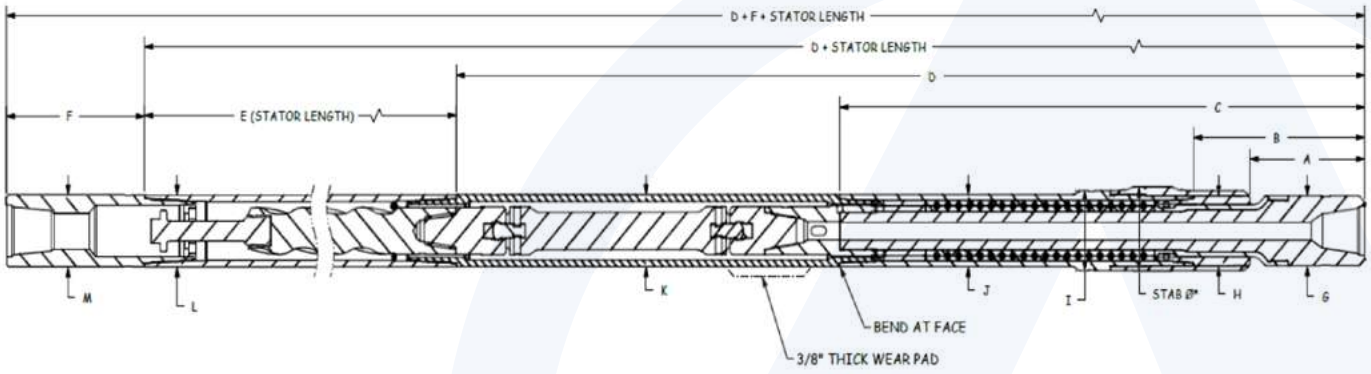
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” JAW–CLUTCH
7/8 LOBE 4.5 STAGE (DYNA–DRILL XP)



5.00” Jaw–Clutch 7/8 Lobe 4.5 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	220.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.09	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 4.5 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	229.30	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

5.00” JAW–CLUTCH
7/8 LOBE 7.0 STAGE (FT-003)

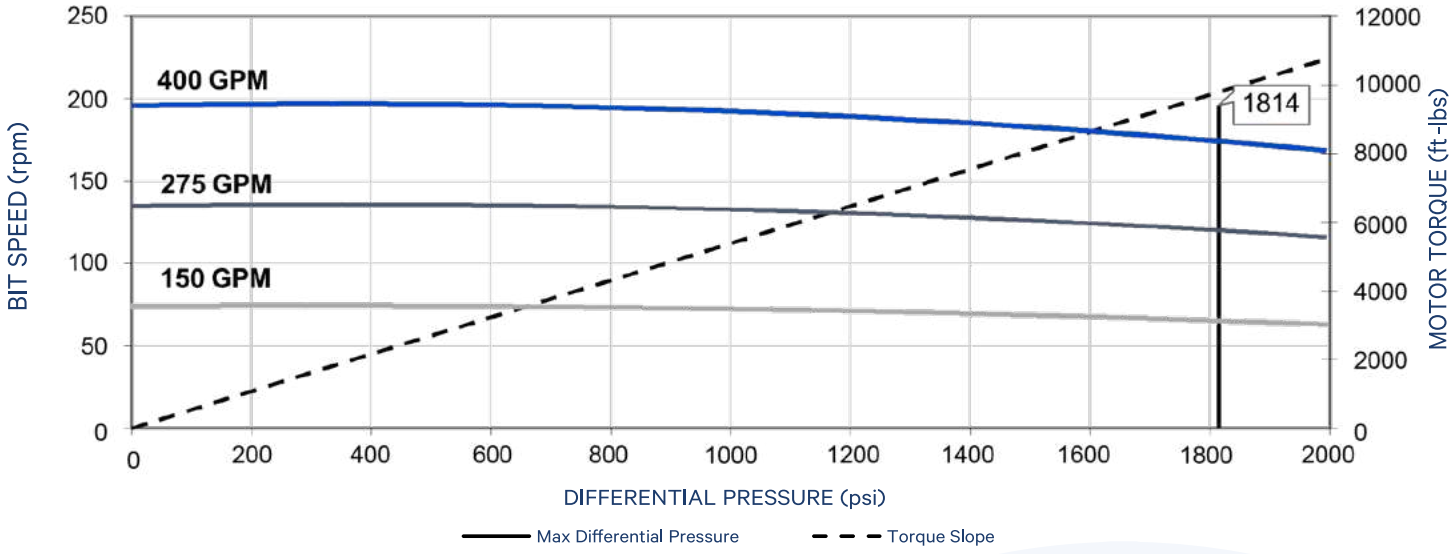
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	31.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	400
Bit Speed (rpm)	73	194
Speed Ratio (rev/US Gal)	0.49	
Differential Pressure (psi)	1,814	1,613
Operating Torque (ft–lbs)	9,783	8,699
Torque Slope (ft–lbs/psi)	5.39	

5.00” JAW–CLUTCH
7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



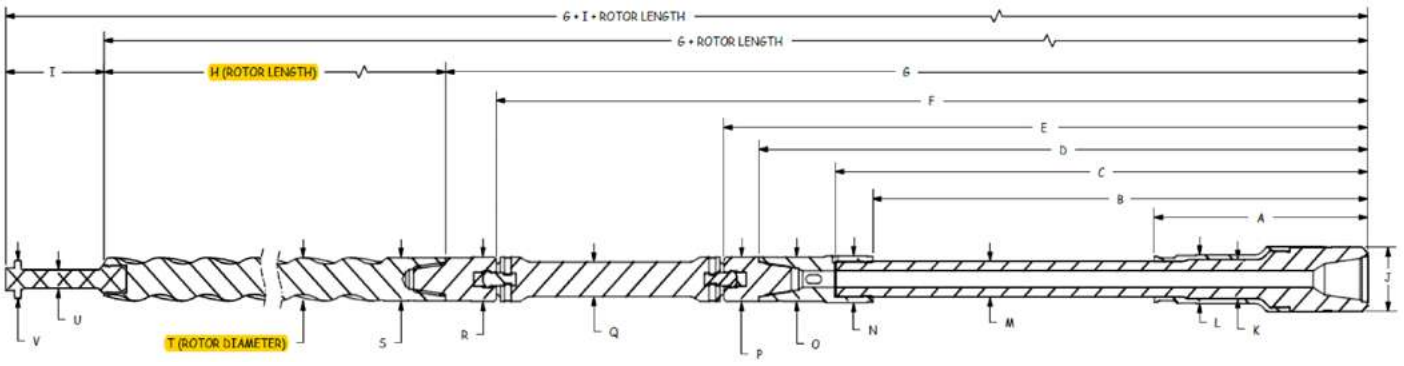
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100	0.2	100		100	2.5	100	2.8	100	3.3	100
0.75°	3.2		1.6				3.8		4.1		4.6	
1.00°	4.6		2.9				5.1		5.3		5.9	
1.25°	6.0		4.3		1.4		6.5		6.6		7.2	
1.50°	7.4		5.7		2.8		8.0		7.9		8.4	
1.75°	8.8		7.1		4.2		9.5	60	9.2		9.7	
2.00°	10.2	60	8.5	60	5.6		11.0	20	10.7	60	11.0	60
2.12°	10.8	40	9.2	40	6.2	80	11.7		11.4	40	11.7	40
2.25°	11.5	20	9.9	20	6.9	60	12.4		12.2	20	12.3	20
2.50°	12.9		11.3		8.3	20	13.9		13.7		13.6	
2.75°	14.3		12.7		9.7		15.4		15.2		14.9	
3.00°	15.7		14.1		11.1		16.9		16.7		16.2	

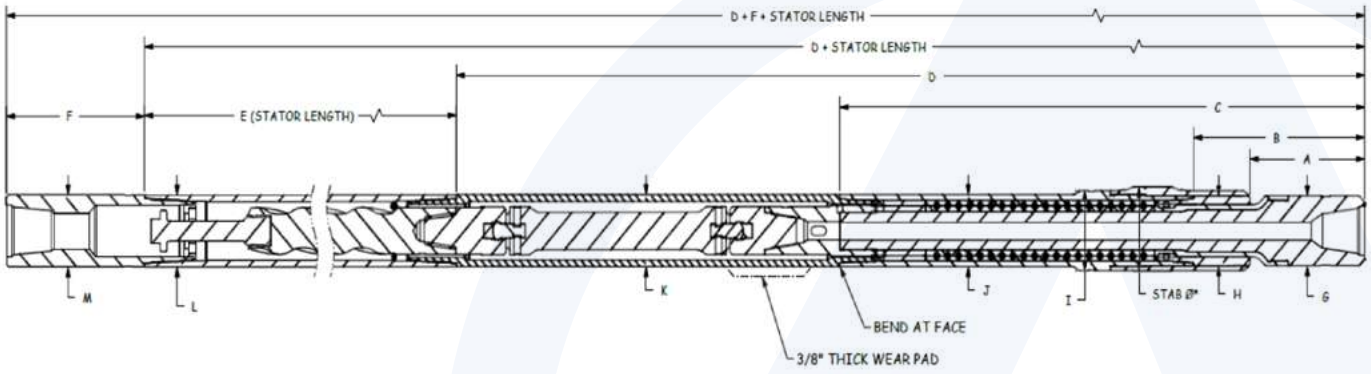
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

5.00” JAW–CLUTCH
7/8 LOBE 7.0 STAGE (FT-003)



5.00” Jaw–Clutch 7/8 Lobe 7.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.3	37.6	41.17	53.12	56.12	77.12	81.69	267.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.321	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	275.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

5.00” JAW–CLUTCH
7/8 LOBE 8.2 STAGE (DYNA–DRILL XP)

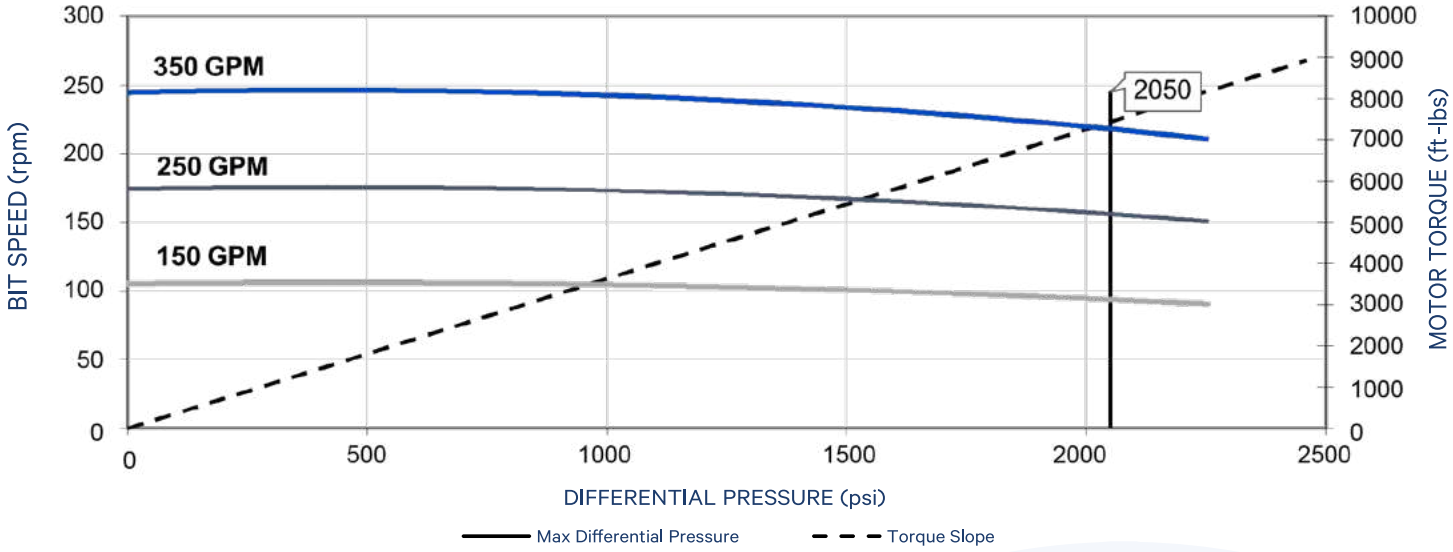
General Data			
Bit Sizes (in)	6 – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	10,000	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	5.28	
Bit to Bend Length (FBH) (ft)	4.26	
Nominal Length (ft)	29.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	105	245
Speed Ratio (rev/US Gal)	0.70	
Max Differential Pressure (psi)		2,050
Max Operating Torque (ft–lbs)		7,440
Torque Slope (ft–lbs/psi)	3.631	

5.00” JAW–CLUTCH
7/8 LOBE 8.2 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



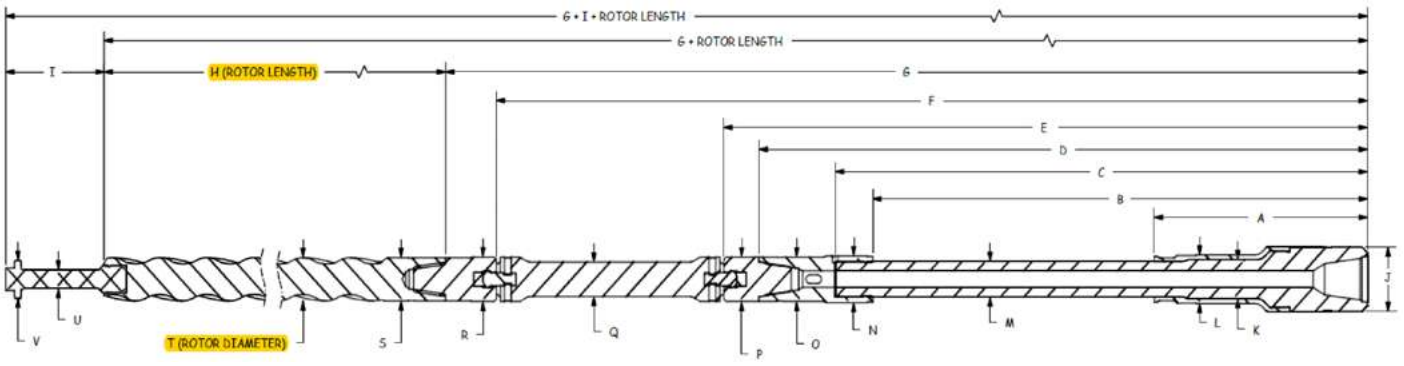
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ⅛		6 ¾		7 ⅞		6 ⅛		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.4	100	0.3	100		100	3.3	100	3.7	100	4.4	100
0.75°	4.2		2.2				5.0		5.4		6.1	
1.00°	6.0		4.0				6.7		7.1		7.8	
1.25°	7.9		5.8		2.1		8.5		8.8		9.5	
1.50°	9.7		7.6		3.9		10.5		10.4		11.2	
1.75°	11.5		9.4		5.7		12.4	60	12.1		12.8	
2.00°	13.3	60	11.3	60	5.7		14.4	20	14.0	60	14.5	60
2.12°	14.2	40	12.1	40	7.5	80	15.3		17.9	40	15.3	40
2.25°	15.1	20	13.1	20	9.4	60	16.4		16.0	20	16.2	20
2.50°	17.0		14.9		11.2	20	18.3		17.9		17.9	
2.75°	18.8		16.7		13.0		20.3		19.9		19.6	
3.00°	20.6		18.5		14.8		22.3		21.9		21.1	

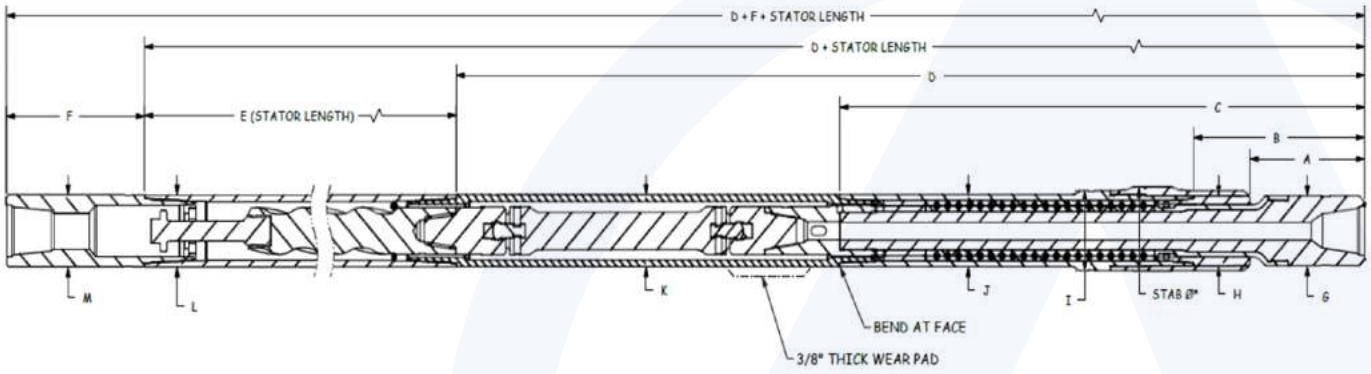
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

5.00” JAW–CLUTCH
7/8 LOBE 8.2 STAGE (DYNA–DRILL XP)



5.00” Jaw–Clutch 7/8 Lobe 8.2 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
20.30	37.60	41.17	53.12	56.12	77.12	81.69	235.00	9.00	4.88	3.03
L	M	N	O	P	Q	R	S	T	U	V
3.69	2.77	3.53	3.38	3.50	2.75	3.50	3.13	3.35	1.15	2.38



5.00” Jaw–Clutch 7/8 Lobe 8.2 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
11.74	16.55	46.94	81.64	250.00	21.50	4.88
H	Stabilizer (1)	I (2)	J	K	L	M
4.88		5.75	5.00	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

5.00” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)

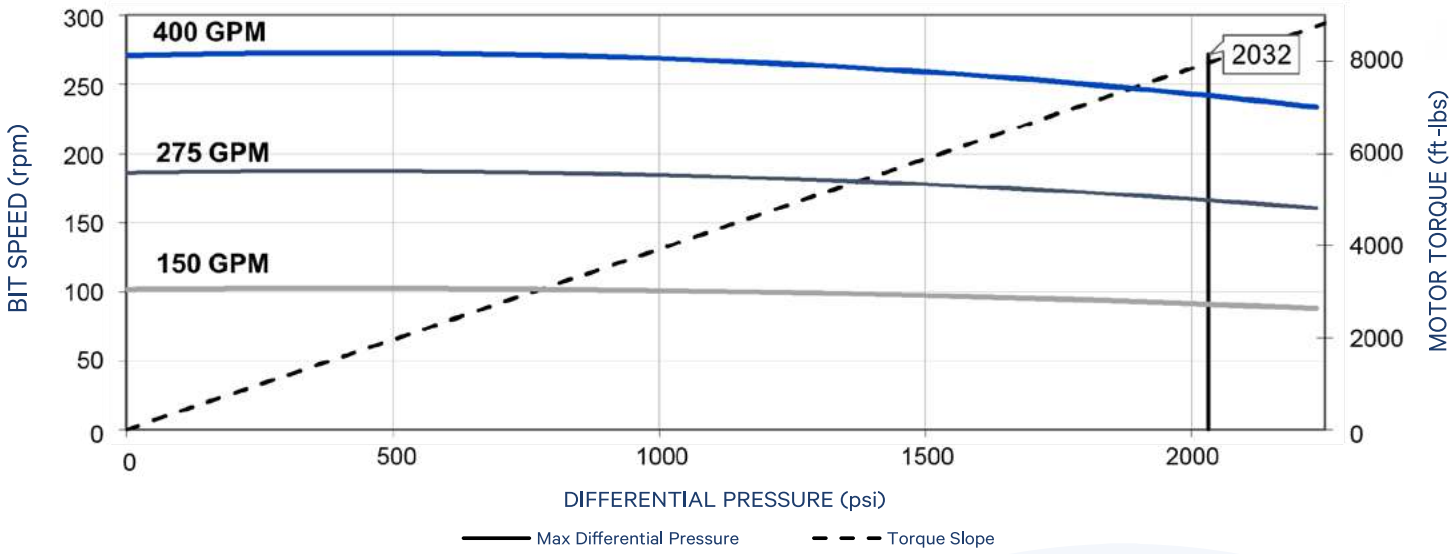
General Data			
Bit Sizes (in)	6 – 6 ¾		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	3.97	
Nominal Length (ft)	33.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	400
Bit Speed (rpm)	101	271
Speed Ratio (rev/US Gal)	0.68	
Max Differential Pressure (psi)	2,159	2,024
Max Operating Torque (ft–lbs)	7,978	7,479
Torque Slope (ft–lbs/psi)	3.695	

5.00” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

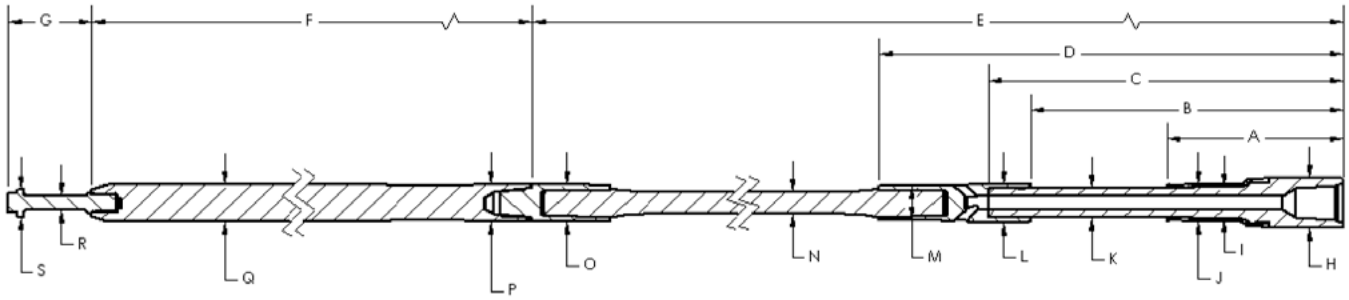
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6		6 ⅛		6 ¾		6		6 ⅛		6 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.4		2.0				2.7		2.8		3.1	
0.75°	4.0		3.6		1.7		4.2	100	4.3		4.6	
1.00°	5.6	100	5.2	100	3.3	100	5.7		5.8	100	6.1	100
1.25°	7.2		6.8		4.9		7.3		7.3		7.5	
1.50°	8.7		8.3		6.5		9.0	60	9.0		9.0	
1.75°	10.3	60	9.9	60	8.0		10.7	20	10.6	60	10.5	
2.00°	11.3	20	11.5	20	9.6	60	12.4		12.3	20	12.0	60
2.12°	12.6		12.3		10.4	40	13.2		13.1		12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

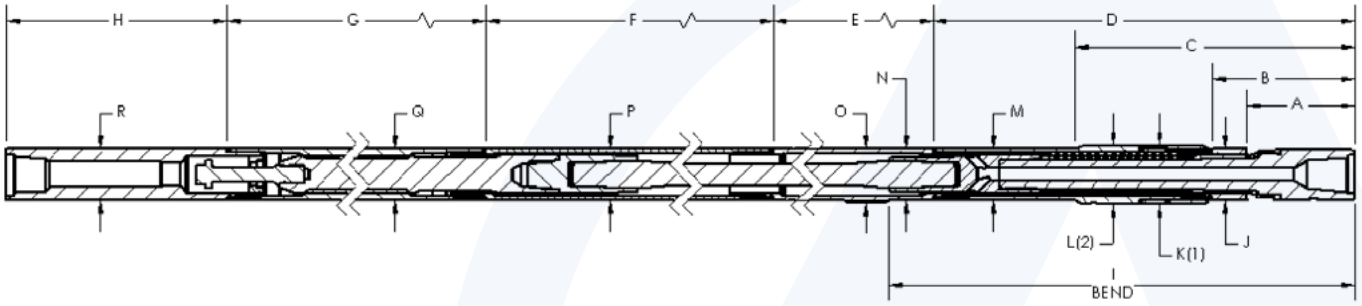
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)



5.00” Flex Shaft 6/7 Lobe 8.8 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
16.74	31.6	35.5	44.38	111.38	264	12.75	4.88	3.68	3.68	2.77
L	M	N	O	P	Q	R	S			
3.73	3.25	2.18	3.06	3.06	3.298	1.15	2.38			



5.00” Flex Shaft 6/7 Lobe 8.8 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
9.74	12.99	23.79	43.38	34.78	33.20	275	21.50	47.58
J	K (1)	L (2)	M	N	O	P	Q	R
4.88	5.75	5.75	5.00	5.00	5.38	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.00” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

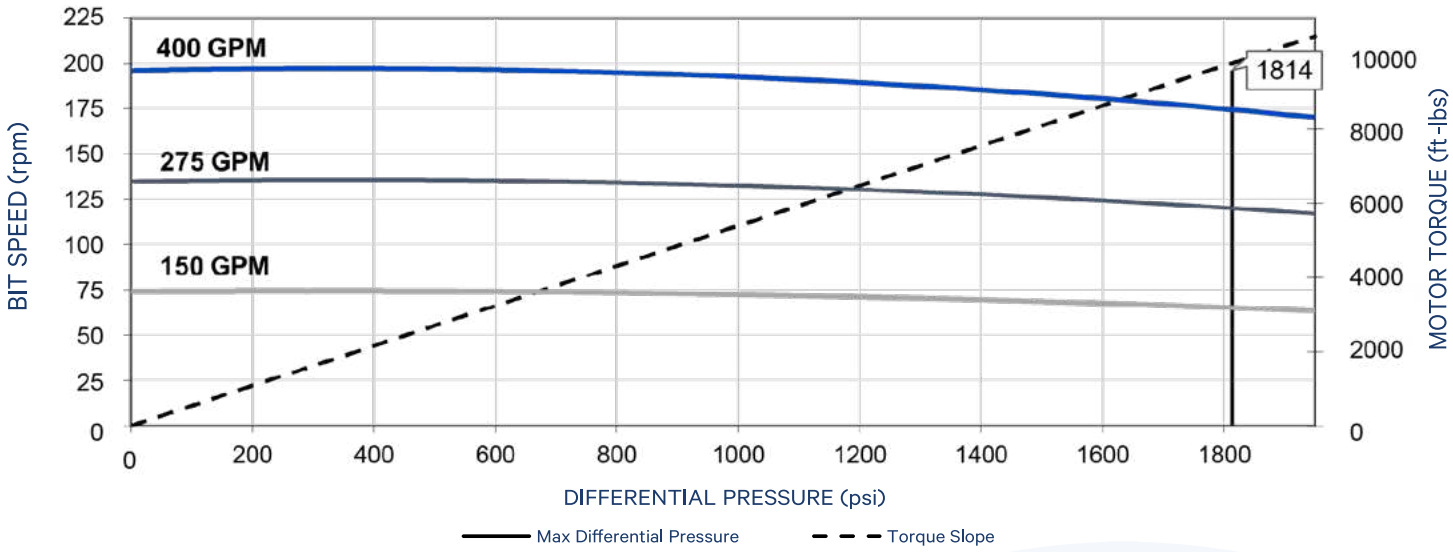
General Data			
Bit Sizes (in)	6 – 6 ¾		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	40,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	20,250
Torque–External Connections (ft–lbs)	10,900	Max Bit Pull (lbs) With Damage *	200,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	425,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	3.97	
Nominal Length (ft)	33.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	400
Bit Speed (rpm)	73	194
Speed Ratio (rev/US Gal)	0.49	
Max Differential Pressure (psi)	1,814	1,613
Max Operating Torque (ft–lbs)	9,783	8,699
Torque Slope (ft–lbs/psi)	5.39	

5.00” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

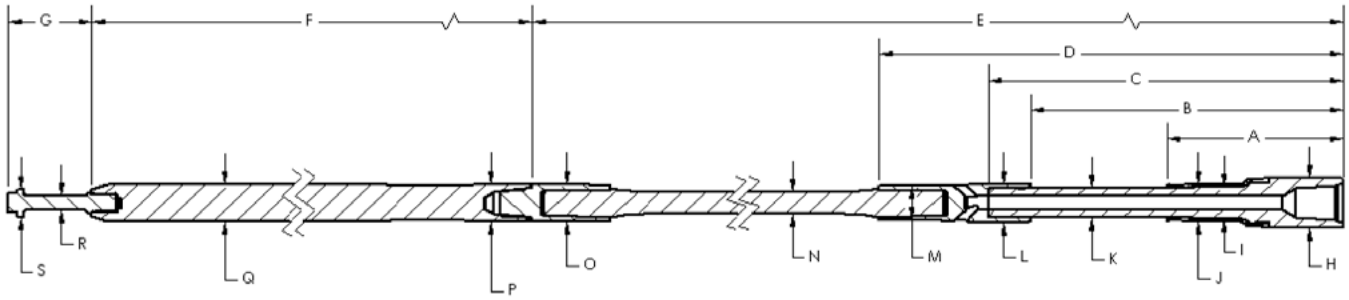
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6		6 ⅛		6 ¾		6		6 ⅛		6 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.4		2.0				2.7		2.8		3.1	
0.75°	4.0		3.6		1.7		4.2	100	4.3		4.6	
1.00°	5.6	100	5.2	100	3.3	100	5.7		5.8	100	6.1	100
1.25°	7.2		6.8		4.9		7.3		7.3		7.5	
1.50°	8.7		8.3		6.5		9.0	60	9.0		9.0	
1.75°	10.3	60	9.9	60	8.0		10.7	20	10.6	60	10.5	
2.00°	11.3	20	11.5	20	9.6	60	12.4		12.3	20	12.0	60
2.12°	12.6		12.3		10.4	40	13.2		13.1		12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

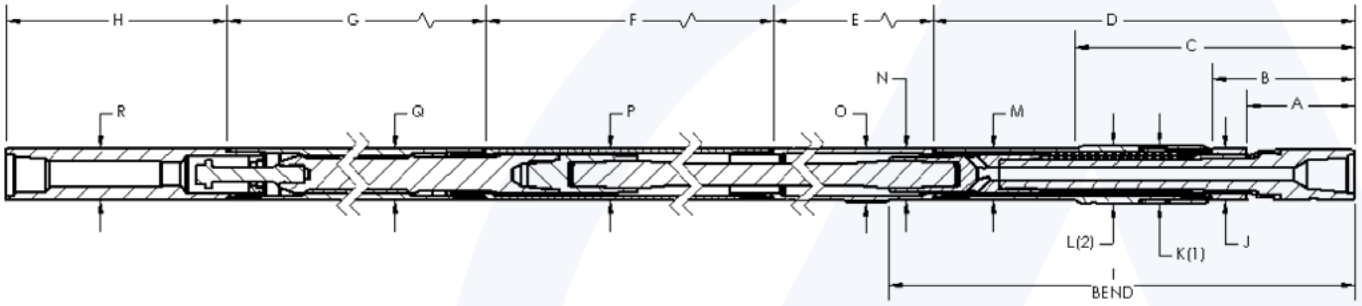
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.00” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)



5.00” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
16.74	31.6	35.5	44.38	111.38	264	12.75	4.88	3.68	3.68	2.77
L	M	N	O	P	Q	R	S			
3.73	3.25	2.18	3.06	3.06	3.321	1.15	2.38			



5.00” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
9.74	12.99	23.79	43.38	34.78	33.20	275	21.50	47.58
J	K (1)	L (2)	M	N	O	P	Q	R
4.88	5.75	5.75	5.00	5.00	5.38	5.00	5.00	5.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.25” FLEX SHAFT
5/6 LOBE 9.9 STAGE (ABACO NBR-HPW)

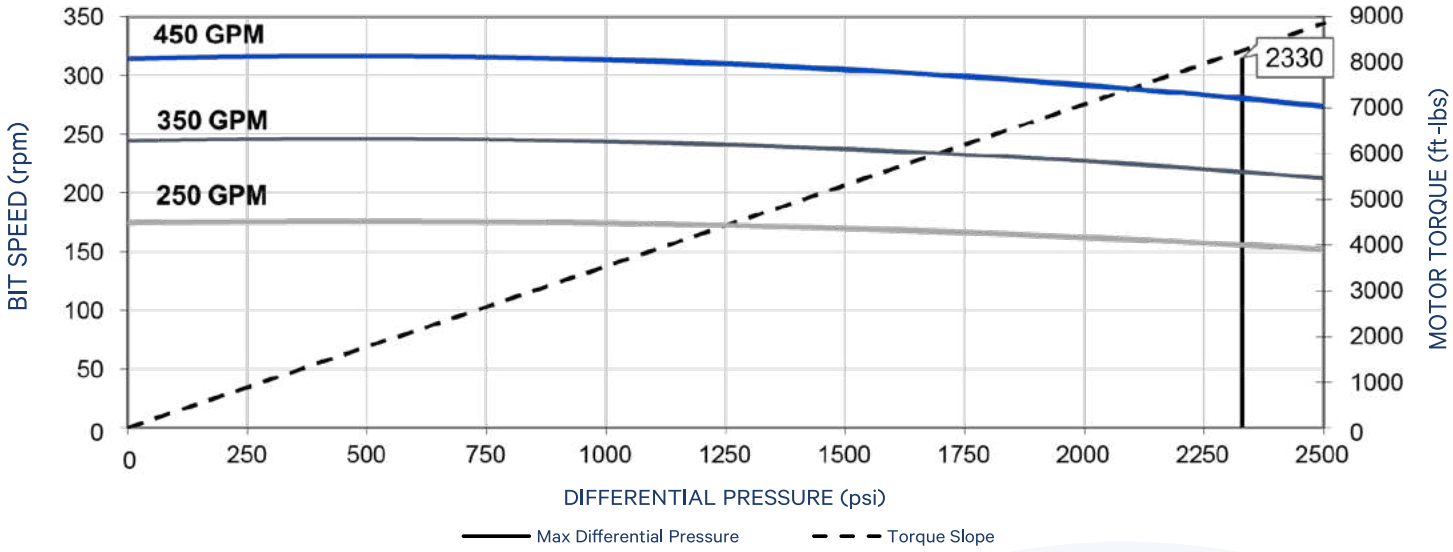
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	250	450
Bit Speed (rpm)	180	320
Speed Ratio (rev/US Gal)	0.70	
Max Differential Pressure (psi)		2,330
Max Operating Torque (ft–lbs)		8,260
Torque Slope (ft–lbs/psi)	3.55	

5.25” FLEX SHAFT
5/6 LOBE 9.9 STAGE (ABACO NBR-HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

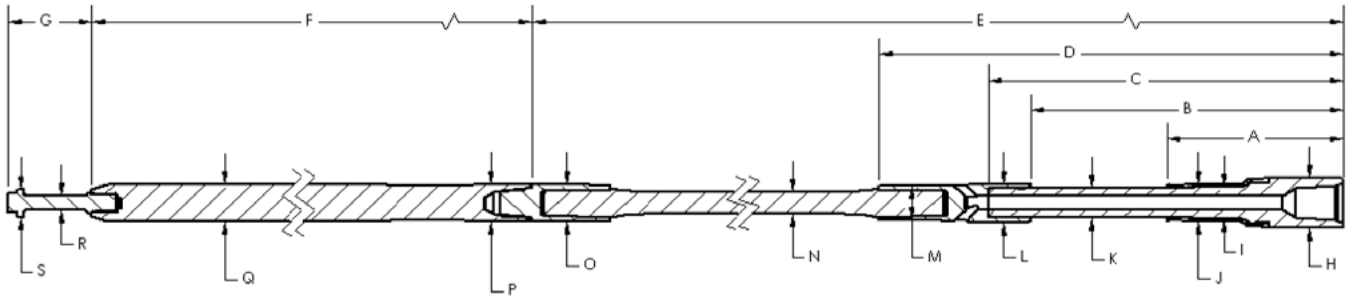
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

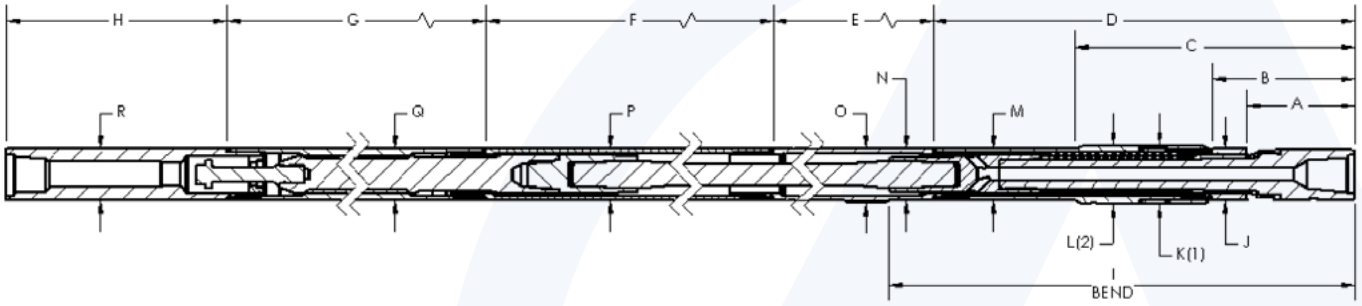
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.25” FLEX SHAFT
5/6 LOBE 9.9 STAGE (ABACO NBR-HPW)



5.25” Flex Shaft 5/6 Lobe 9.9 Stage (Abaco NBR-HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
18.74	36.88	40.63	50.63	122.63	267.00	10.88	5.13	3.28	3.94	3.02
L	M	N	O	P	Q	R	S			
3.98	3.43	2.31	3.40	3.13	3.441	1.15	2.63			



5.25” Flex Shaft 5/6 Lobe 9.9 Stage (Abaco NBR-HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)

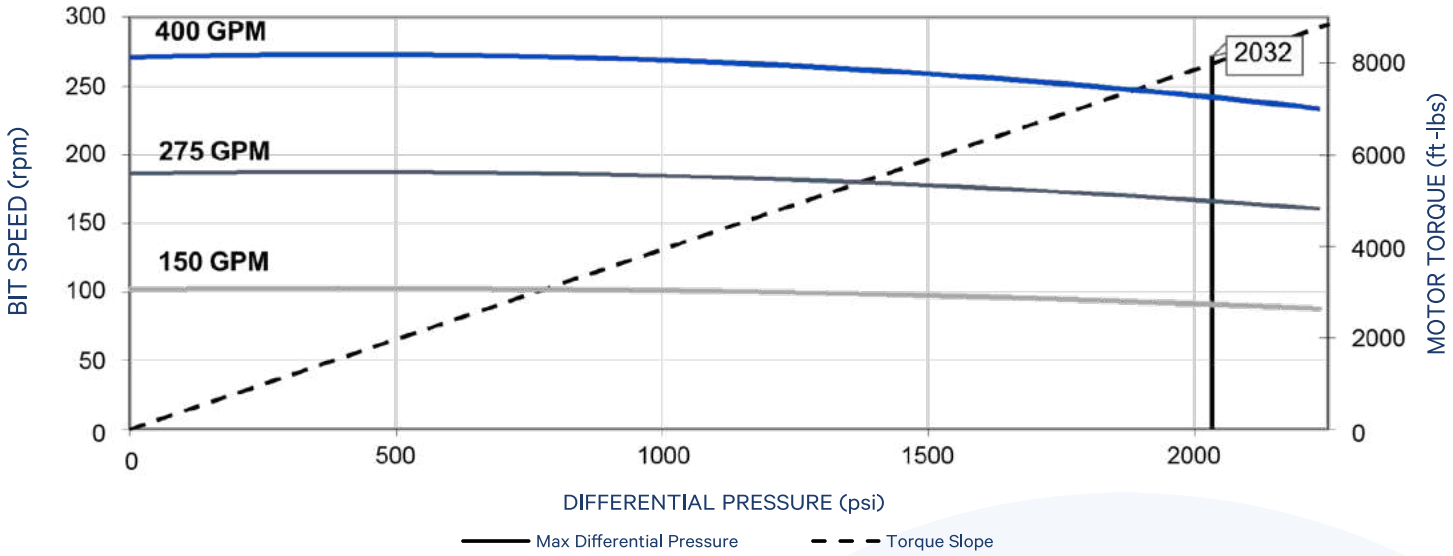
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	400
Bit Speed (rpm)	101	271
Speed Ratio (rev/US Gal)	0.68	
Differential Pressure (psi)	2,159	2,024
Operating Torque (ft–lbs)	7,978	7,479
Torque Slope (ft–lbs/psi)	3.695	

5.25” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

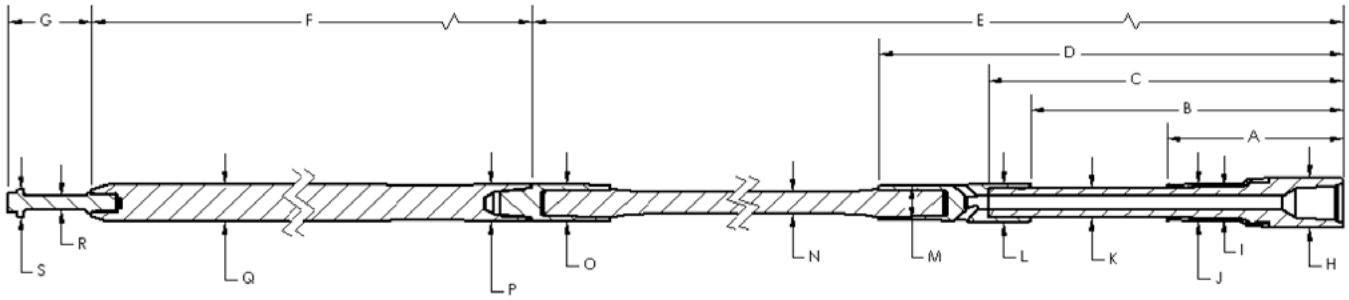
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

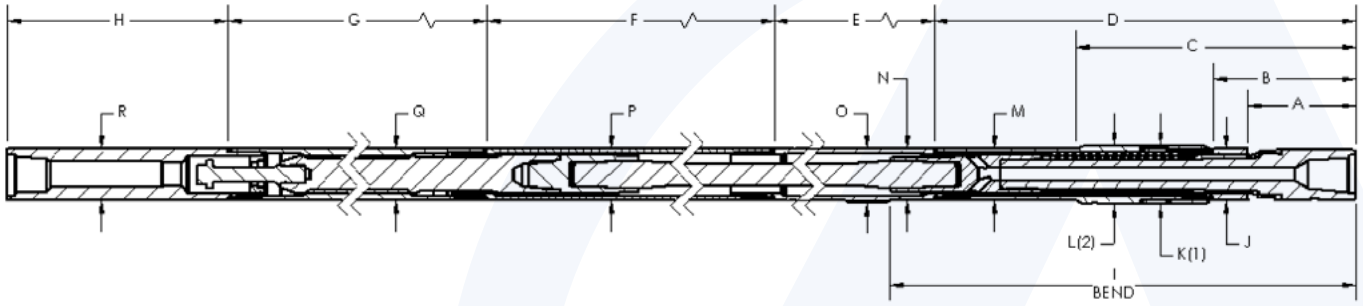
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 8.8 STAGE (FT-003)



5.25” Flex Shaft 6/7 Lobe 8.8 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	265.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	2.298	1.15	2.63	



5.25” Flex Shaft 6/7 Lobe 8.8 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO NBR-HPW)

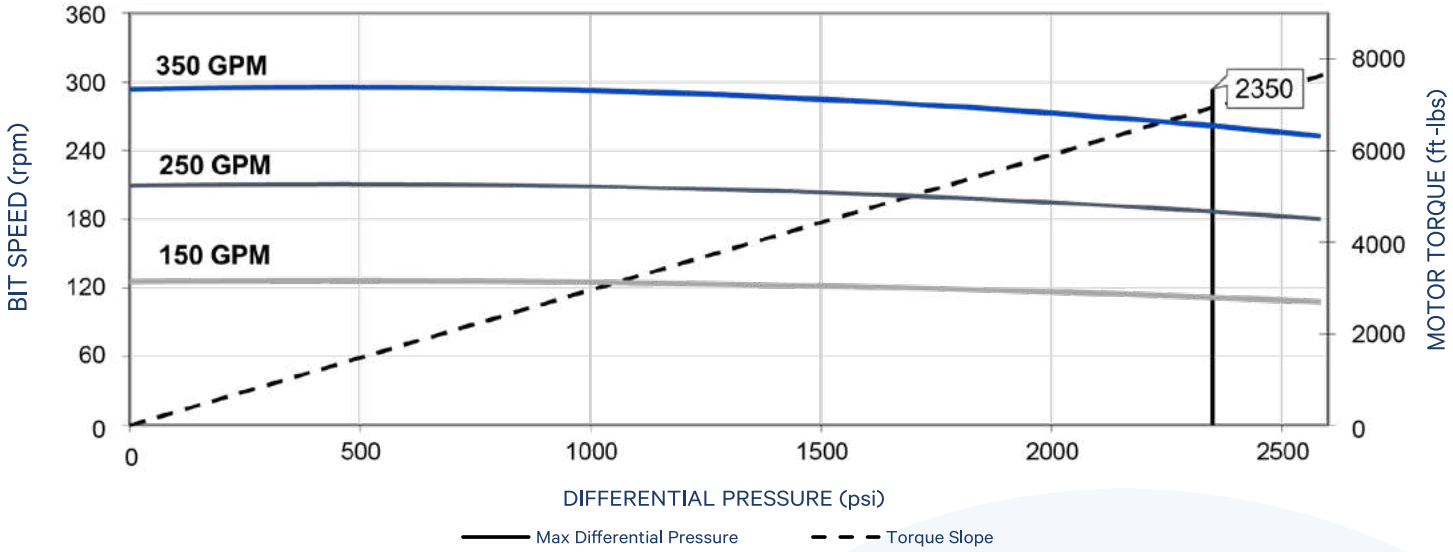
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	130	290
Speed Ratio (rev/US Gal)	0.84	
Max Differential Pressure (psi)		2,350
Max Operating Torque (ft–lbs)		6,940
Torque Slope (ft–lbs/psi)	2.95	

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO NBR-HPW)

Power Section Performance Curve ***



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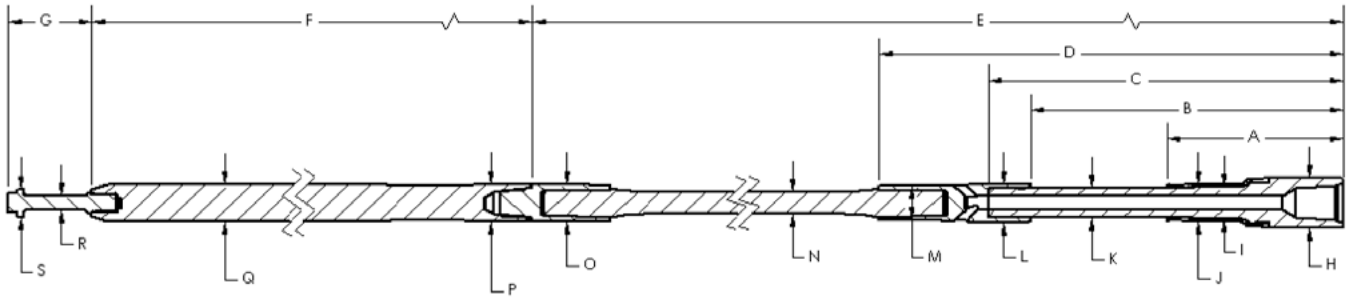
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

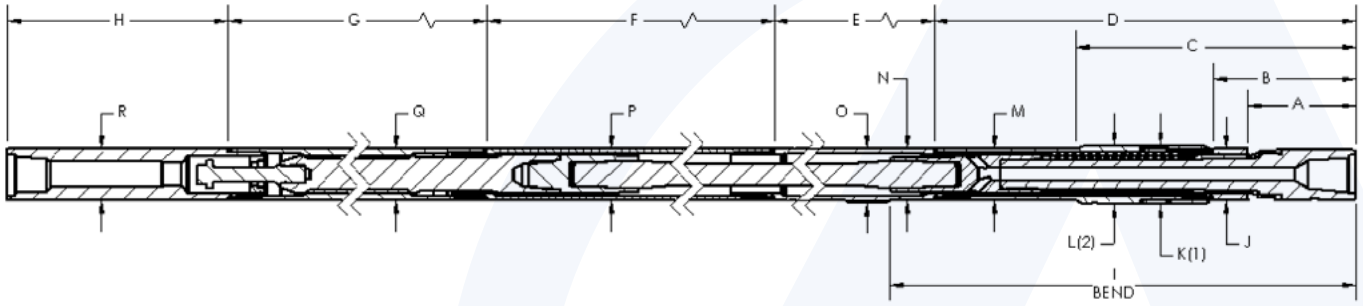
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO NBR-HPW)



5.25” Flex Shaft 6/7 Lobe 10.0 Stage (Abaco NBR-HPW) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	266.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	3.256	1.15	2.63	



5.25” Flex Shaft 6/7 Lobe 10.0 Stage (Abaco NBR-HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO HPT-OPTIFIT)

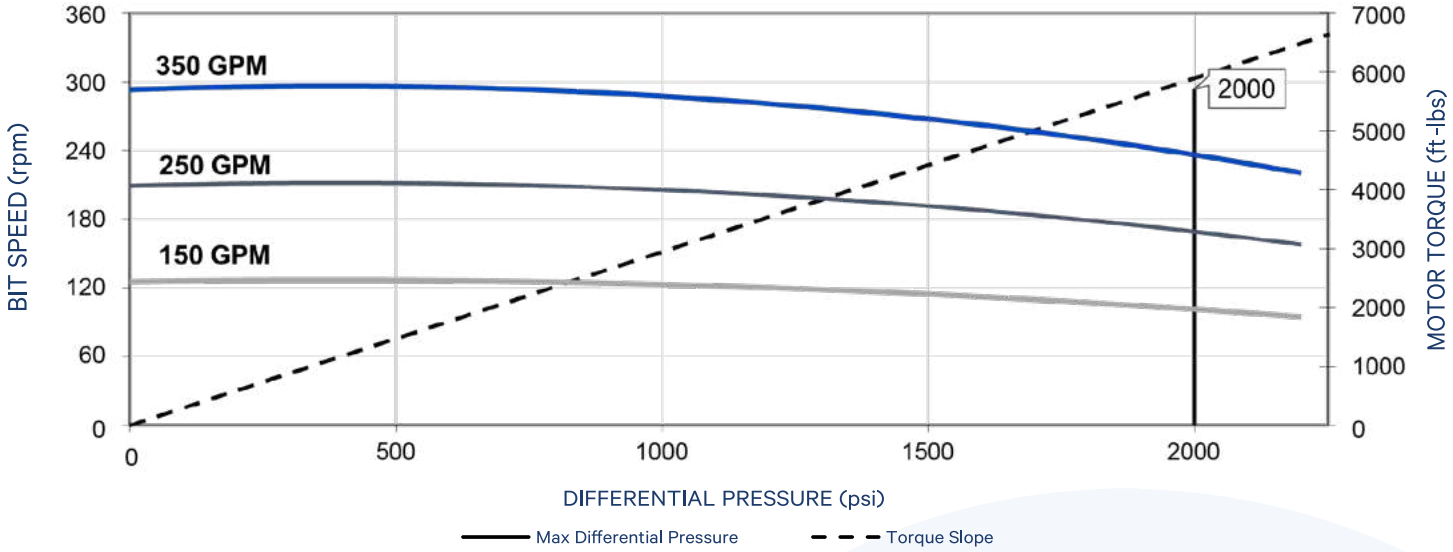
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	130	290
Speed Ratio (rev/US Gal)	0.84	
Max Differential Pressure (psi)		2,000
Max Operating Torque (ft–lbs)		5,900
Torque Slope (ft–lbs/psi)	2.95	

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO HPT-OPTIFIT)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

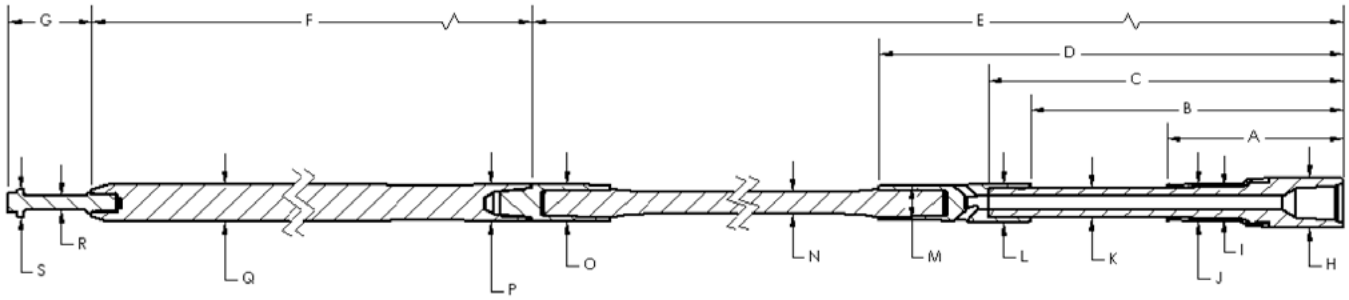
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

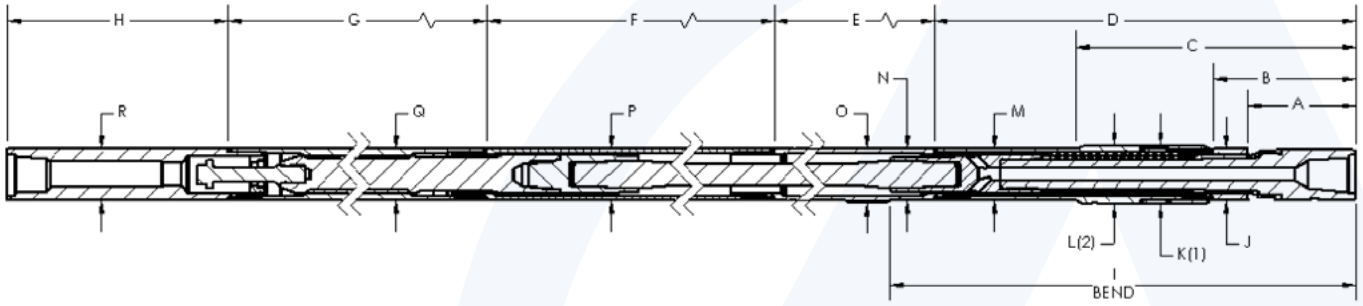
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 10.0 STAGE (ABACO HPT-OPTIFIT)



5.25” Flex Shaft 6/7 Lobe 10.0 Stage (Abaco HPT-OptiFit) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	266.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	3.256	1.15	2.63	



5.25” Flex Shaft 6/7 Lobe 10.0 Stage (Abaco HPT-OptiFit) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 11.7 STAGE (FT-003)

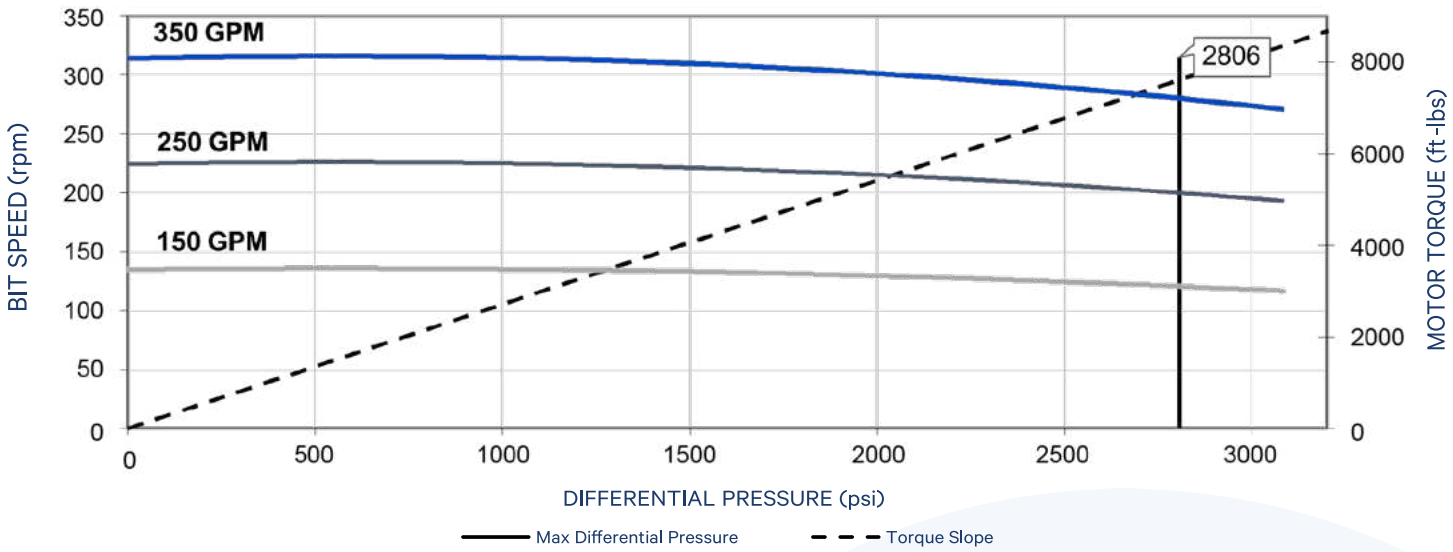
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	350
Bit Speed (rpm)	135	315
Speed Ratio (rev/US Gal)	0.90	
Differential Pressure (psi)	2,806	2,704
Operating Torque (ft–lbs)	7,604	7,328
Torque Slope (ft–lbs/psi)	2.71	

5.25” FLEX SHAFT
6/7 LOBE 11.7 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

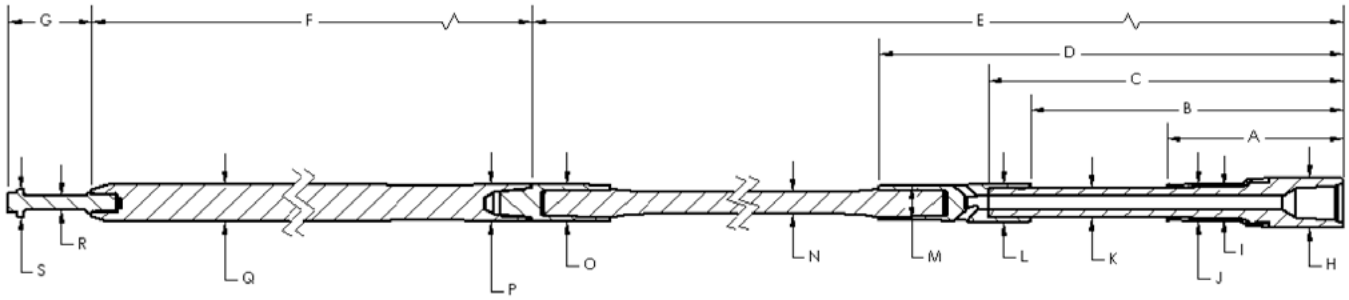
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

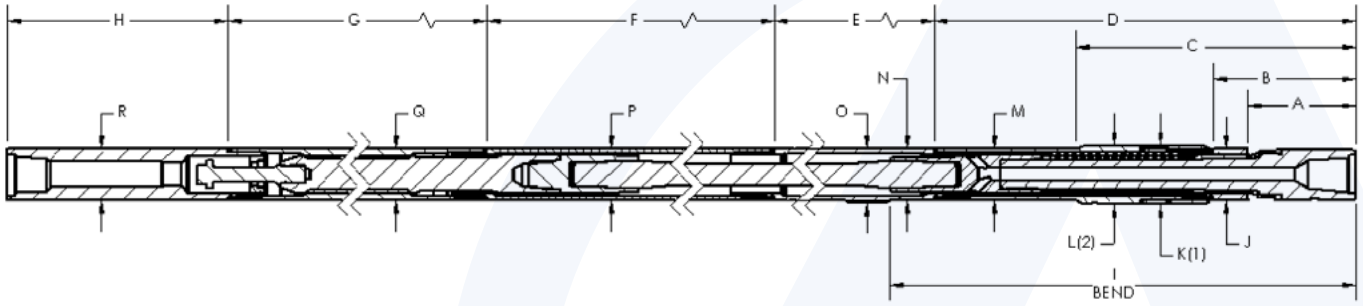
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.25” FLEX SHAFT
6/7 LOBE 11.7 STAGE (FT-003)



5.25” Flex Shaft 6/7 Lobe 11.7 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	267.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	3.321	1.15	2.63	



5.25” Flex Shaft 6/7 Lobe 11.7 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.25” X 5.00” COMBO FLEX SHAFT
7/8 LOBE 4.0 STAGE (FT-003)

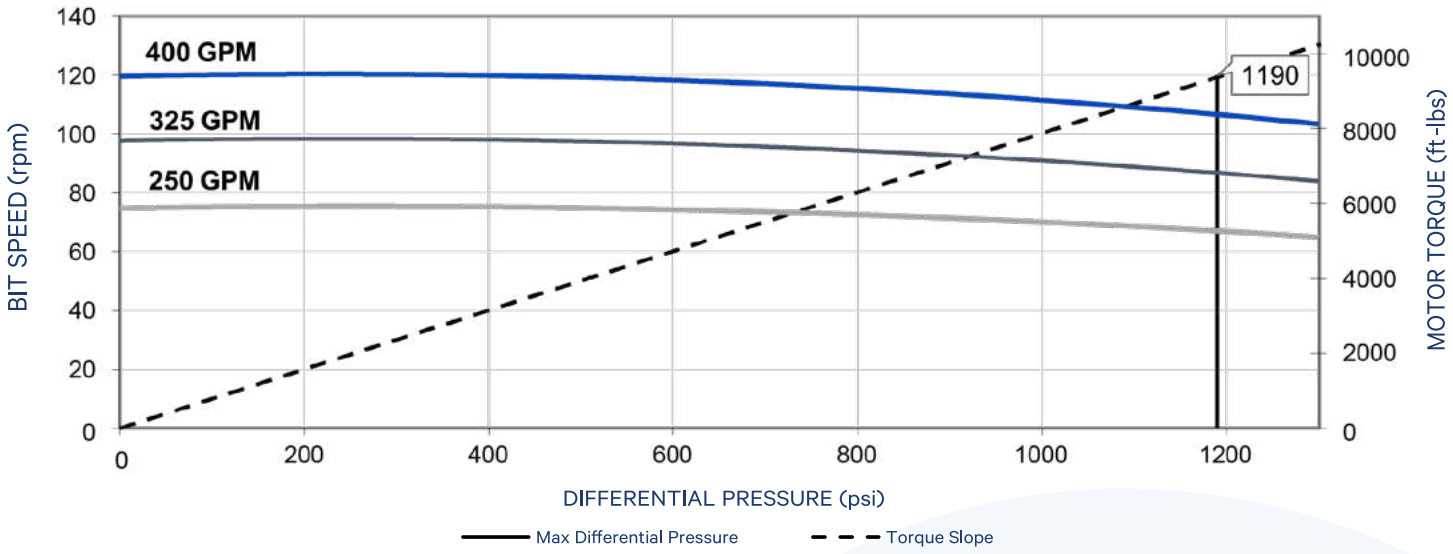
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ Reg Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	250	400
Bit Speed (rpm)	75	120
Speed Ratio (rev/US Gal)	0.300	
Differential Pressure (psi)	1,076	941
Operating Torque (ft–lbs)	9,371	8,195
Torque Slope (ft–lbs/psi)	8.709	

5.25” X 5.00” COMBO FLEX SHAFT
7/8 LOBE 4.0 STAGE (FT-003)

Power Section Performance Curve ***



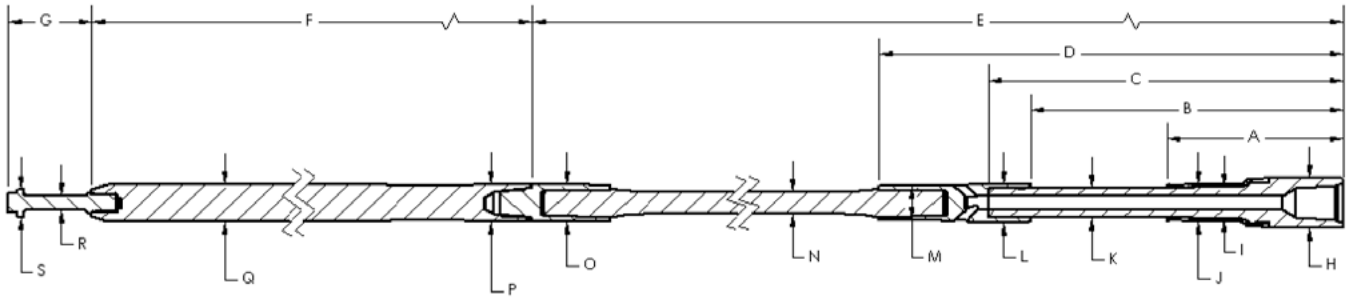
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

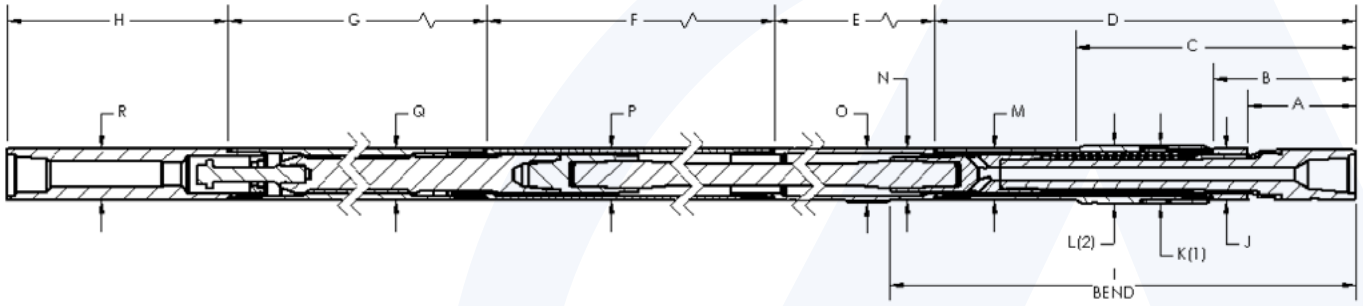
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

5.25” X 5.00” COMBO FLEX SHAFT 7/8 LOBE 4.0 STAGE (FT-003)



5.25” x 5.00” Combo Flex Shaft 7/8 Lobe 4.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	264.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	3.321	1.15	2.63	



5.25” x 5.00” Combo Flex Shaft 7/8 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.25” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

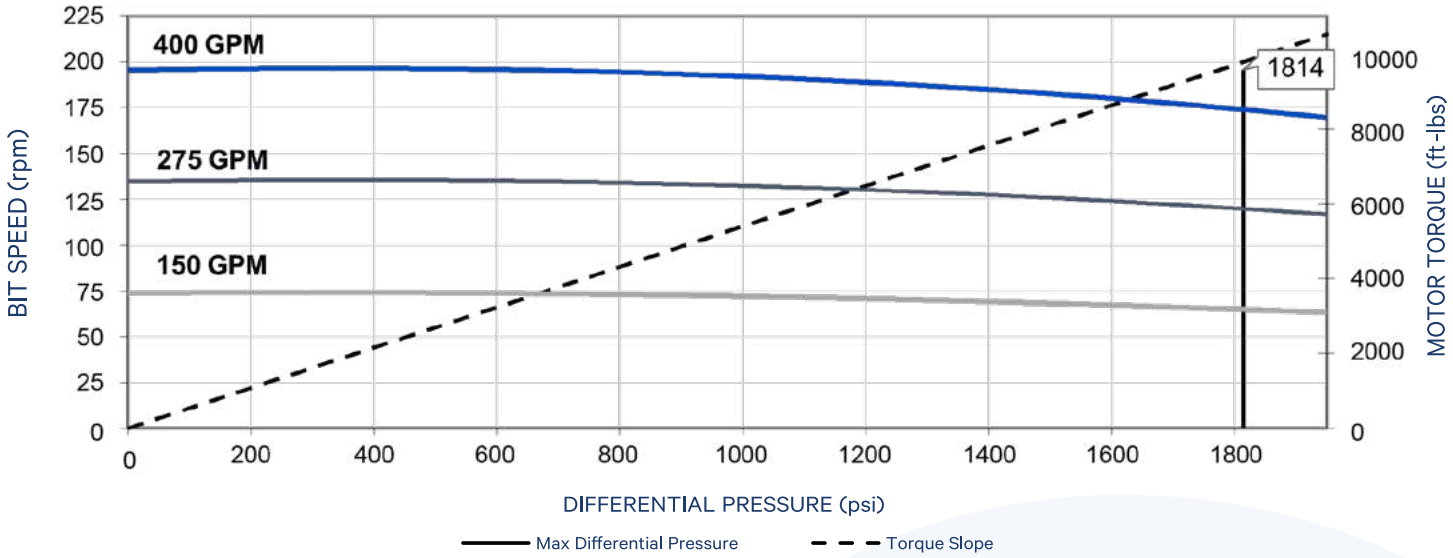
General Data			
Bit Sizes (in)	6 ½ – 7 ⅞		
Bit Connection	3 ½ Reg Box UXT39 Pin	Ultimate WOB (lbs) With Flow *	43,500
Top Connection	3 ½ IF Box UXT39 Box	Operational Max WOB (lbs) With Flow **	21,750
Torque–External Connections (ft–lbs)	12,500	Max Bit Pull (lbs) With Damage *	210,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	440,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.43	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	150	400
Bit Speed (rpm)	73	194
Speed Ratio (rev/US Gal)	0.49	
Differential Pressure (psi)	1,814	1,613
Operating Torque (ft–lbs)	9,783	8,699
Torque Slope (ft–lbs/psi)	5.39	

5.25” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



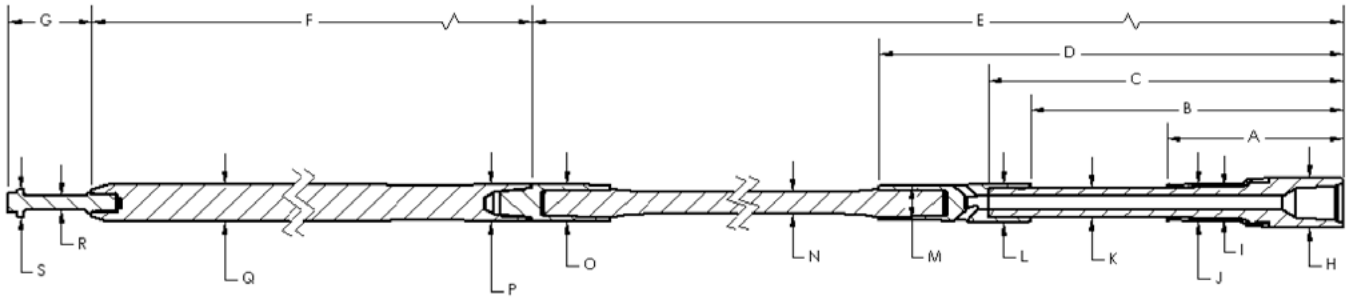
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	6 ½		6 ¾		7 ⅞		6 ½		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.4	100		100		100	2.9	100	3.0	100	3.5	100
0.75°	1.9		1.2				4.3		4.5		5.0	
1.00°	3.4		2.8				5.8		5.9		6.4	
1.25°	5.0		4.3		1.3		7.2		7.3		7.8	
1.50°	6.5		5.8		2.8		8.6		8.7		9.2	
1.75°	8.0		7.4		4.3		10.3	60	10.2	60	10.7	
2.00°	9.6	60	8.9	60	5.9	60	11.9	40	11.8	40	12.1	60
2.12°	10.3	40	9.6	40	6.6	40	12.7	20	12.6	20	12.8	40

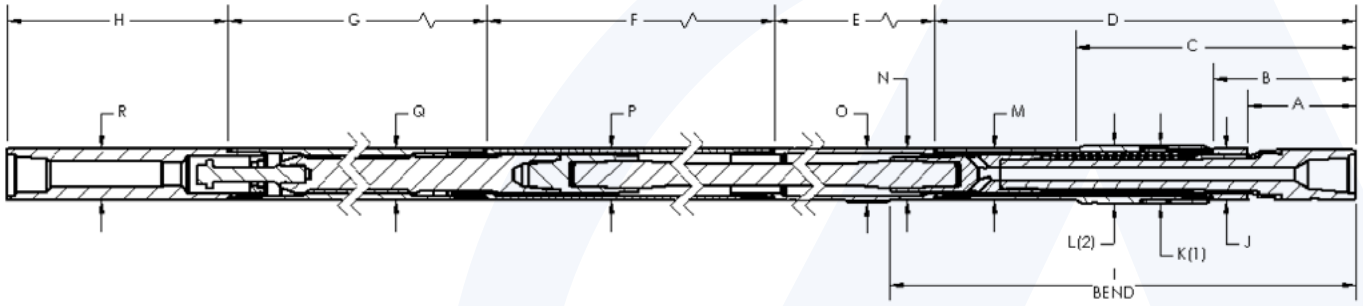
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

5.25” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)



5.25” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
18.74	36.88	40.63	50.63	122.63	267.00	10.88	5.13	3.28	3.94
K	L	M	N	O	P	Q	R	S	
3.02	3.98	3.43	2.31	3.40	3.13	3.321	1.15	2.63	



5.25” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.74	14.99	31.63	49.63	16.80	56.20	275.00	21.75	53.88
J	K (1)	L (2)	M	N	O	P	Q	R
5.13	6.00	6.00	5.25	5.25	5.50	5.25	5.25	5.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.75” FLEX SHAFT
0.58 REV/GALLON (FT-003)

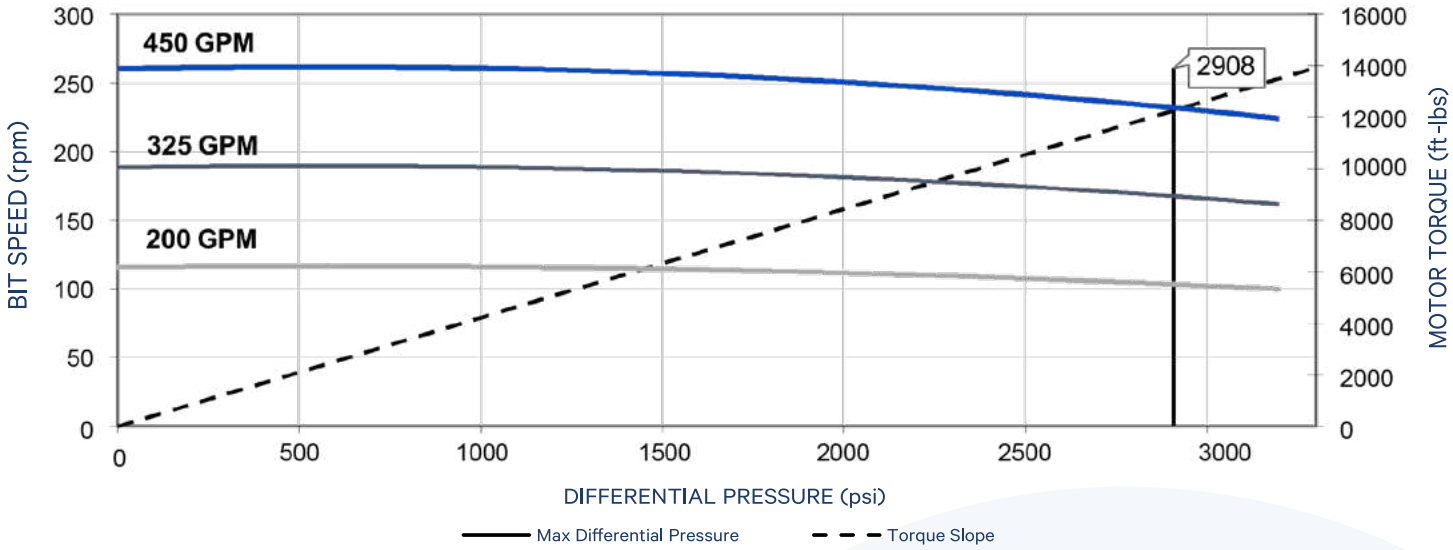
General Data			
Bit Sizes (in)	6 ¾ – 7 ⅞		
Bit Connection	NC40 Box NC40 Pin	Ultimate WOB (lbs) With Flow *	62,500
Top Connection	DS42 Box (3 ½ IF Float)	Operational Max WOB (lbs) With Flow **	31,250
Torque–External Connections (ft–lbs)	20,500	Max Bit Pull (lbs) With Damage *	250,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.02	
Nominal Length (ft)	37.17	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	200	450
Bit Speed (rpm)	115	260
Speed Ratio (rev/US Gal)	0.58	
Differential Pressure (psi)	2,908	2,776
Operating Torque (ft–lbs)	12,263	11,706
Torque Slope (ft–lbs/psi)	4.217	

5.75” FLEX SHAFT
0.58 REV/GALLON (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

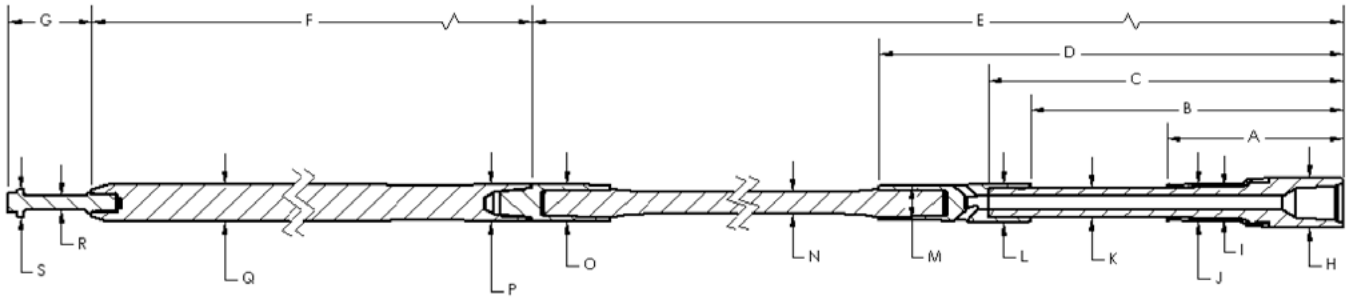
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^								
Bend Angle (Deg)	Hole Size (in) – Slick				Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)			
	6 ¾		7 ⅞		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4		0.0		2.1		2.4	
0.75°	2.6		0.4		3.2		3.5	
1.00°	3.8	100	1.6		4.4	100	4.6	
1.12°	4.4		2.2	100	5.1		5.2	100
1.25°	5.0		2.8		5.7		5.7	
1.50°	6.1	60	4.0		6.9	60	6.8	
1.75°	7.3	20	5.1		8.2	40	7.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

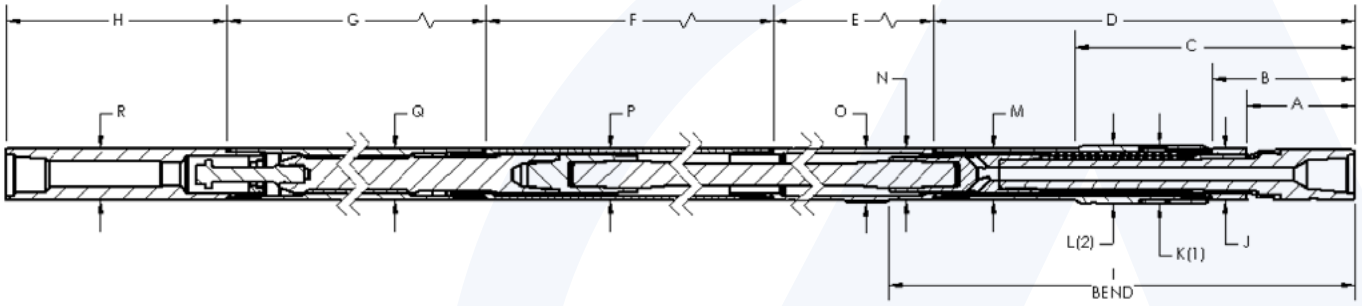
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.75” FLEX SHAFT
0.58 REV/GALLON (FT-003)



5.75” Flex Shaft 0.58 Rev/Gallon (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
19.18	38.36	42.96	58.30	136.80	280.00	11.80	5.63	3.60	4.25
K	L	M	N	O	P	Q	R	S	
3.34	4.35	3.88	2.44	4.25	4.25	3.81	1.63	3.13	



5.75” Flex Shaft 0.58 Rev/Gallon (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.68	15.43	32.18	55.80	34.80	56.35	275.00	22.38	60.25
J	K (1)	L (2)	M	N	O	P	Q	R
5.75	6.50	6.50	5.75	5.75	6.00	5.75	5.75	5.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

5.75” FLEX SHAFT
0.72 REV/GALLON (FT-003)

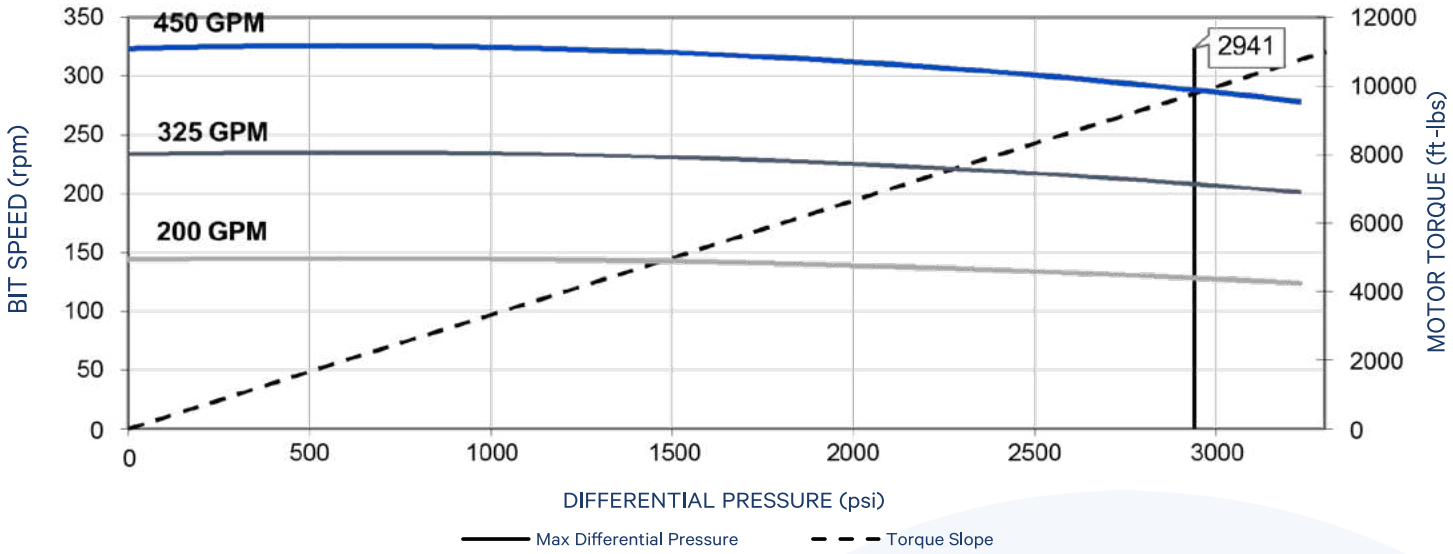
General Data			
Bit Sizes (in)	6 ¾ – 7 ⅞		
Bit Connection	NC40 Box NC40 Pin	Ultimate WOB (lbs) With Flow *	62,500
Top Connection	DS42 Box (3 ½ IF Float)	Operational Max WOB (lbs) With Flow **	31,250
Torque–External Connections (ft–lbs)	20,500	Max Bit Pull (lbs) With Damage *	250,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.02	
Nominal Length (ft)	37.17	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	200	450
Bit Speed (rpm)	143	322
Speed Ratio (rev/US Gal)	0.72	
Differential Pressure (psi)	2,941	2,846
Operating Torque (ft–lbs)	9,773	9,457
Torque Slope (ft–lbs/psi)	3.323	

5.75” FLEX SHAFT
0.72 REV/GALLON (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

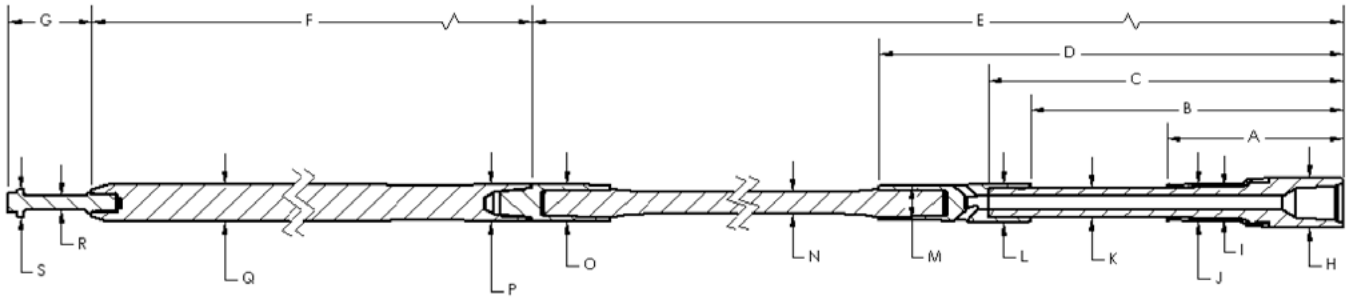
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^								
Bend Angle (Deg)	Hole Size (in) – Slick				Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)			
	6 ¾		7 ⅞		6 ¾		7 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4	100	0.0	100	2.1	100	2.4	100
0.75°	2.6		0.4		3.2		3.5	
1.00°	3.8		1.6		4.4		4.6	
1.12°	4.4		2.2		5.1		5.2	
1.25°	5.0		2.8		5.7		5.7	
1.50°	6.1	60	4.0		6.9	60	6.8	
1.75°	7.3	20	5.1		8.2	40	7.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

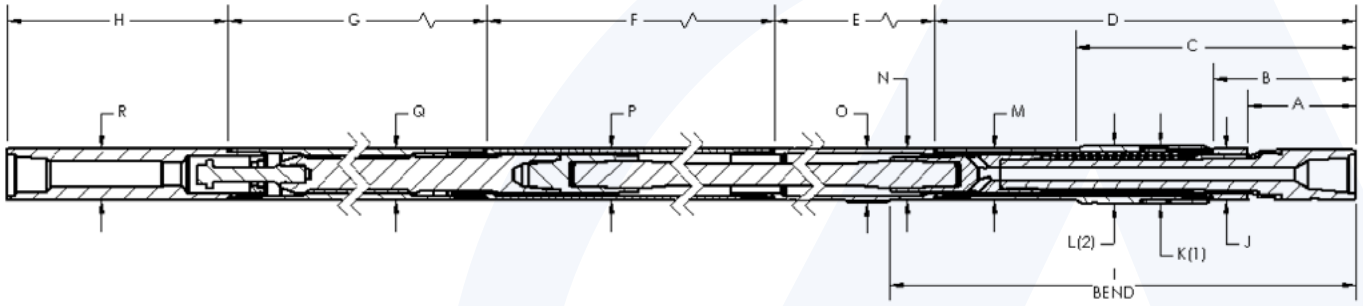
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

5.75” FLEX SHAFT
0.72 REV/GALLON (FT-003)



5.75” Flex Shaft 0.72 Rev/Gallon (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
19.18	38.36	42.96	58.30	136.80	280.00	11.80	5.63	3.60	4.25
K	L	M	N	O	P	Q	R	S	
3.34	4.35	3.88	2.44	4.25	4.25	3.76	1.63	3.13	



5.75” Flex Shaft 0.72 Rev/Gallon (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
11.68	15.43	32.18	55.80	34.80	56.35	275.00	22.38	60.25
J	K (1)	L (2)	M	N	O	P	Q	R
5.75	6.50	6.50	5.75	5.75	6.00	5.75	5.75	5.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

6.63” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

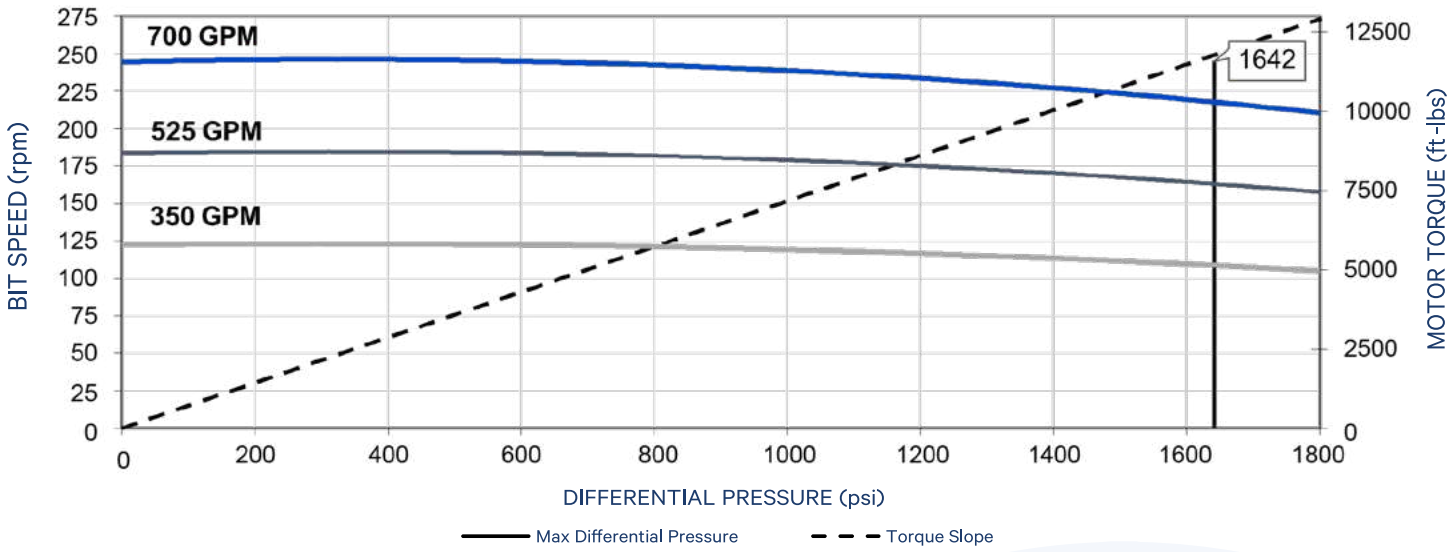
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	110,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	55,000
Torque–External Connections (ft–lbs)	32,500	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	725,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	32.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	700
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.35	
Differential Pressure (psi)	1,708	1,643
Operating Torque (ft–lbs)	11,772	11,324
Torque Slope (ft–lbs/psi)	6.892	

6.63” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

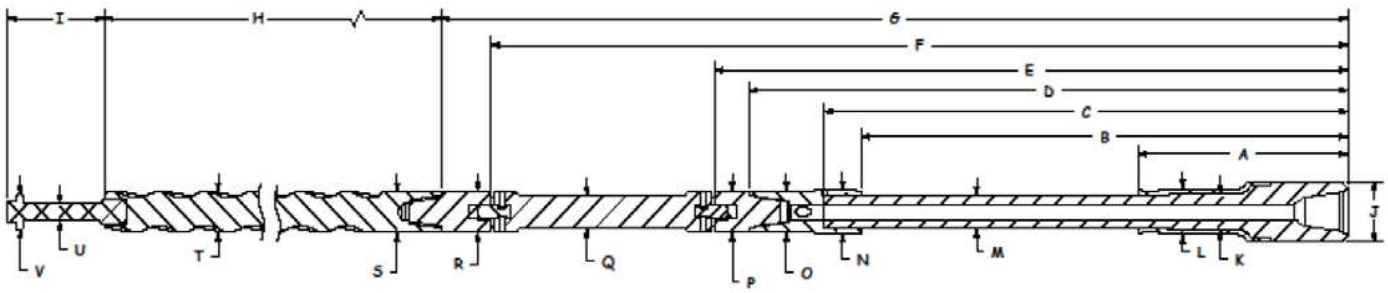
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.0						3.0		3.3		3.5	
0.75°	3.6		2.3		1.6		4.5		4.8		4.9	
1.00°	5.3	100	4.0	100	3.4	100	6.0	100	6.3	100	6.4	100
1.25°	6.9		5.8		5.1		7.7		7.8		7.9	
1.50°	8.5		7.5		6.9		9.5		9.3		9.4	
1.75°	10.1	60	9.3		8.6		11.3	60	11.0		10.9	
2.00°	11.7	20	11.0	60	10.4	60	13.0	20	12.7	60	12.6	60
2.12°	12.5		11.9	40	11.2	40	13.9		13.6	40	13.4	40
2.25°	13.4		12.8	20	12.1	20	14.8		14.5	20	14.4	20
2.50°	15.0		14.5		13.9		16.6		16.3		16.1	
2.75°	16.6		16.3		15.6		18.4		18.0		17.9	
3.00°	18.2		18.0		17.4		20.1		19.8		19.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

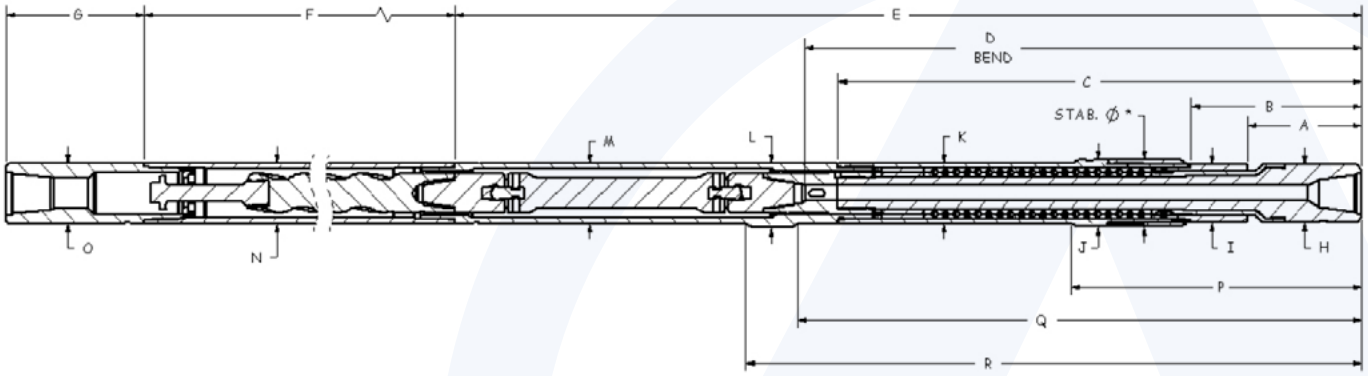
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

6.63” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)



6.63” Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
24.15	56.03	60.28	68.88	72.38	99.20	104.40	266.00	11.25	6.55	3.94
L	M	N	O	P	Q	R	S	T	U	V
4.92	3.58	4.75	4.50	4.50	3.50	4.50	4.38	4.67	1.88	3.80



6.63” Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.15	19.65	60.28	64.25	97.65	275.00	22.38	6.55	6.55
J (1)	K	L	M	N	O	P	Q	R
7.50	6.63	6.88	6.63	6.63	6.63	33.53	64.63	69.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

6.63” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

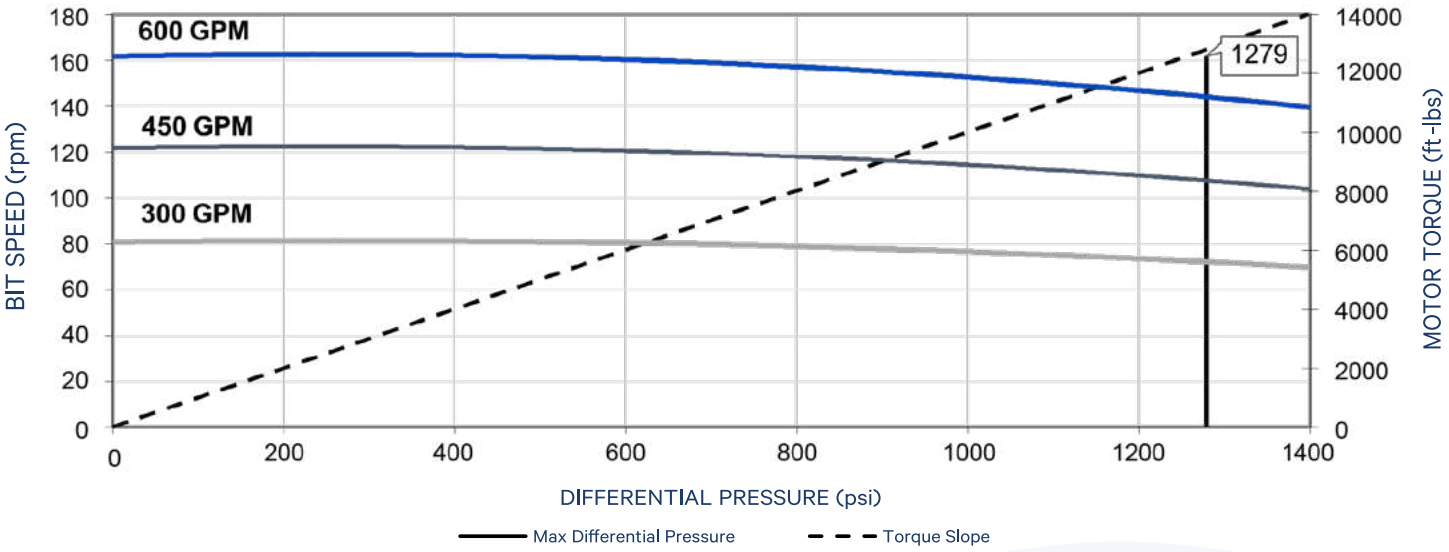
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	110,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	55,000
Torque–External Connections (ft–lbs)	32,500	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	725,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	27.0	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,279
Max Operating Torque (ft–lbs)		12,813
Torque Slope (ft–lbs/psi)	9.02	

6.63” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

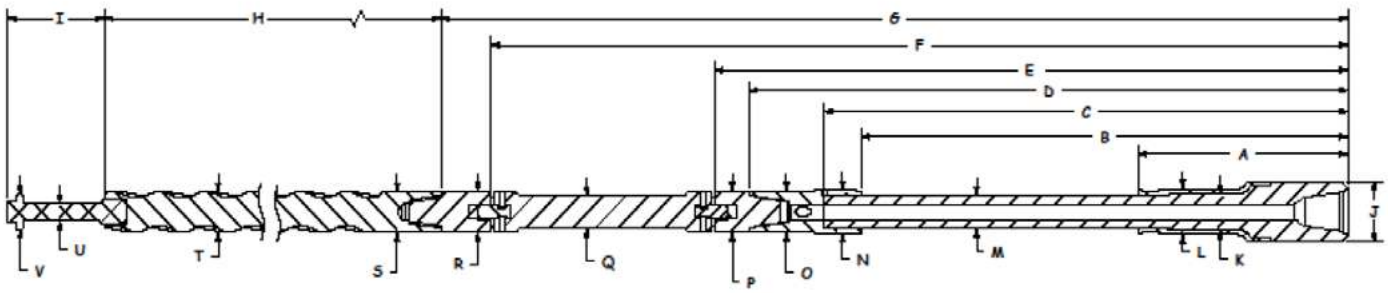
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.4						3.7		4.2		4.4	
0.75°	4.4		2.6		1.8		5.5		6.0		6.2	
1.00°	6.4	100	4.5	100	3.8	100	7.2	100	7.7	100	7.9	100
1.25°	8.3		6.5		5.7		9.4		9.5		9.7	
1.50°	10.3		8.4		7.7		11.6		11.2		11.4	
1.75°	12.3	60	10.4		9.7		13.8	60	13.3		13.2	
2.00°	14.2	20	12.4	60	11.6	60	16.0	20	15.5	60	15.3	60
2.12°	15.2		13.3	40	12.6	40	17.0		16.5	40	16.3	40
2.25°	16.2		14.3	20	13.6	20	18.2		17.7	20	17.5	20
2.50°	18.1		16.3		15.6		20.3		19.9		19.7	
2.75°	20.1		18.3		17.5		22.5		22.0		21.8	
3.00°	22.1		20.2		19.5		24.7		24.2		24.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

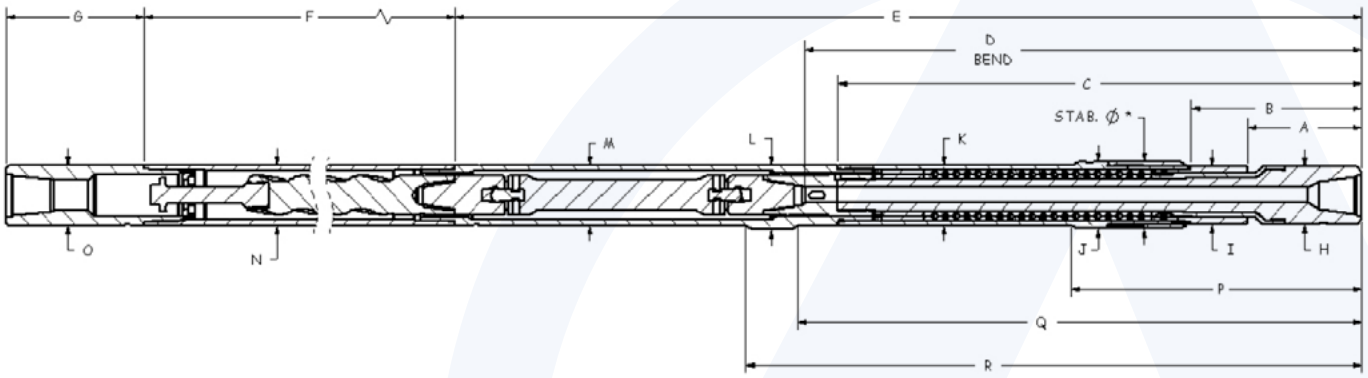
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

6.63” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)



6.63” Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
24.15	56.03	60.28	68.88	72.38	99.20	104.40	188.00	11.25	6.55	3.94
L	M	N	O	P	Q	R	S	T	U	V
4.92	3.58	4.75	4.50	4.50	3.50	4.50	4.38	4.52	1.88	3.80



6.63” Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.15	19.65	60.28	64.25	97.65	204.00	22.38	6.55	6.55
J (1)	K	L	M	N	O	P	Q	R
7.50	6.63	6.88	6.63	6.63	6.63	33.53	64.63	69.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

6.63” JAW–CLUTCH
7/8 LOBE 6.4 STAGE (FT-003)

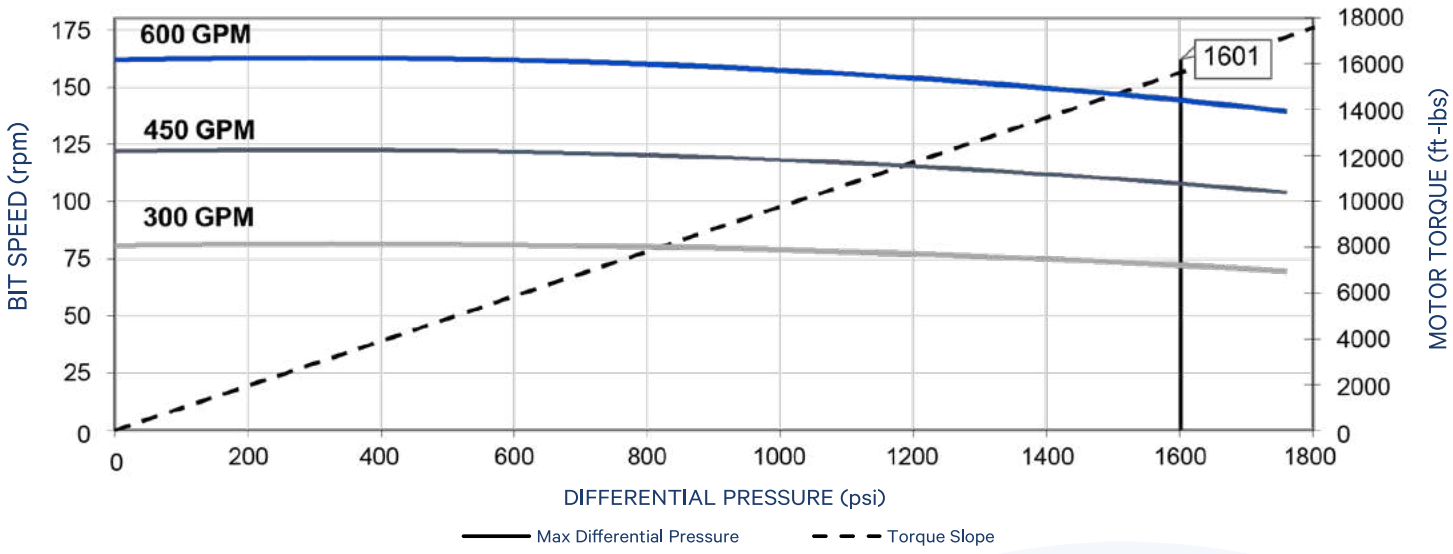
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	110,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	55,000
Torque–External Connections (ft–lbs)	32,500	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	725,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	30.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,601
Max Operating Torque (ft–lbs)		15,639
Torque Slope (ft–lbs/psi)	9.02	

6.63” JAW–CLUTCH
7/8 LOBE 6.4 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

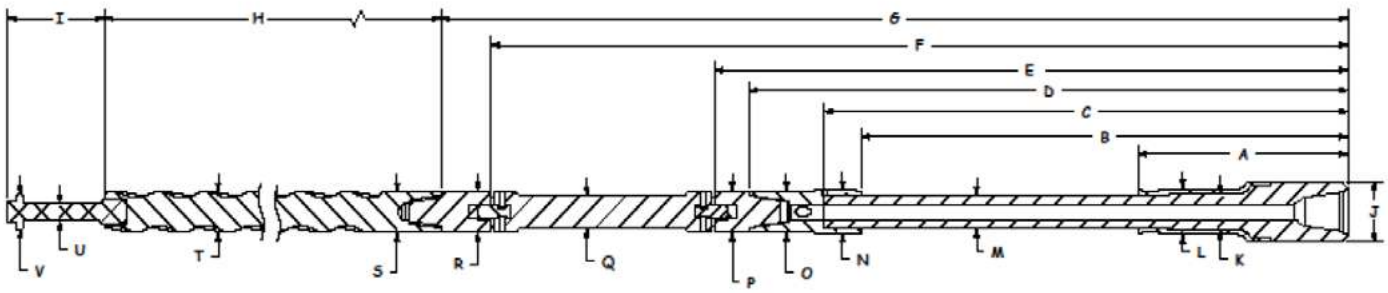
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.2						3.3		3.7		3.8	
0.75°	3.9		2.3		1.6		4.9		5.2		5.4	
1.00°	5.7	100	4.0	100	3.4	100	6.4	100	6.8	100	7.0	100
1.25°	7.4		5.8		5.1		8.4		8.4		8.6	
1.50°	9.2		7.5		6.9		10.3		10.0		10.1	
1.75°	10.9	60	9.3		8.6		12.2	60	11.8		11.7	
2.00°	12.7	20	11.0	60	10.4	60	14.1	20	13.8	60	13.6	60
2.12°	13.5		11.9	40	11.2	40	15.1		14.7	40	14.5	40
2.25°	14.4		12.8	20	12.1	20	16.1		15.7	20	15.5	20
2.50°	16.2		14.5		13.9		18.0		17.6		17.5	
2.75°	17.9		16.3		15.6		19.9		19.5		19.4	
3.00°	19.7		18.0		17.4		21.8		21.5		21.3	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

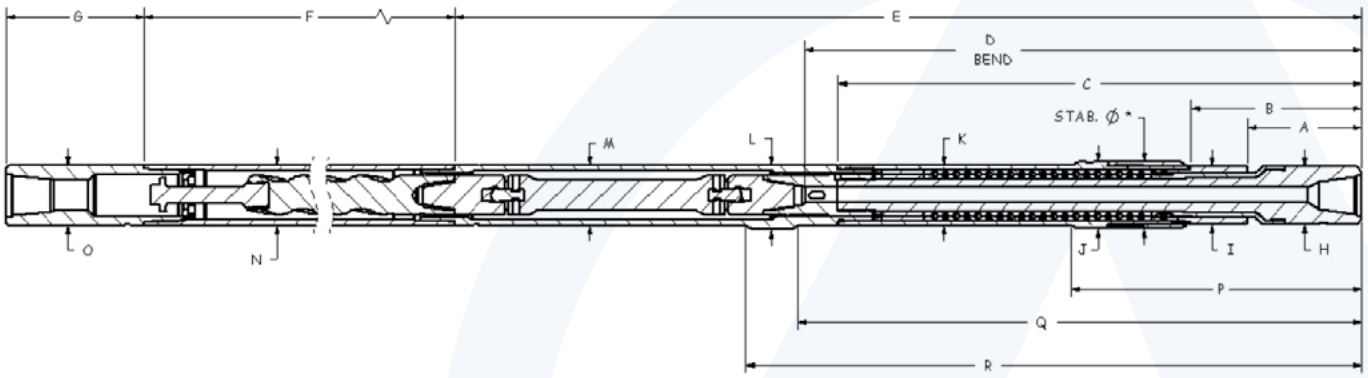
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

6.63” JAW–CLUTCH
7/8 LOBE 6.4 STAGE (FT-003)



6.63” Jaw–Clutch 7/8 Lobe 6.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
24.15	56.03	60.28	68.88	72.38	99.20	104.40	238.50	11.25	6.55	3.94
L	M	N	O	P	Q	R	S	T	U	V
4.92	3.58	4.75	4.50	4.50	3.50	4.50	4.38	4.52	1.88	3.80



6.63” Jaw–Clutch 7/8 Lobe 6.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.15	19.65	60.28	64.25	97.65	245.00	22.38	6.55	6.55
J (1)	K	L	M	N	O	P	Q	R
7.50	6.63	6.88	6.63	6.63	6.63	33.53	64.63	69.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

6.63” FLEX SHAFT
5/6 LOBE 8.4 STAGE (FT-003)

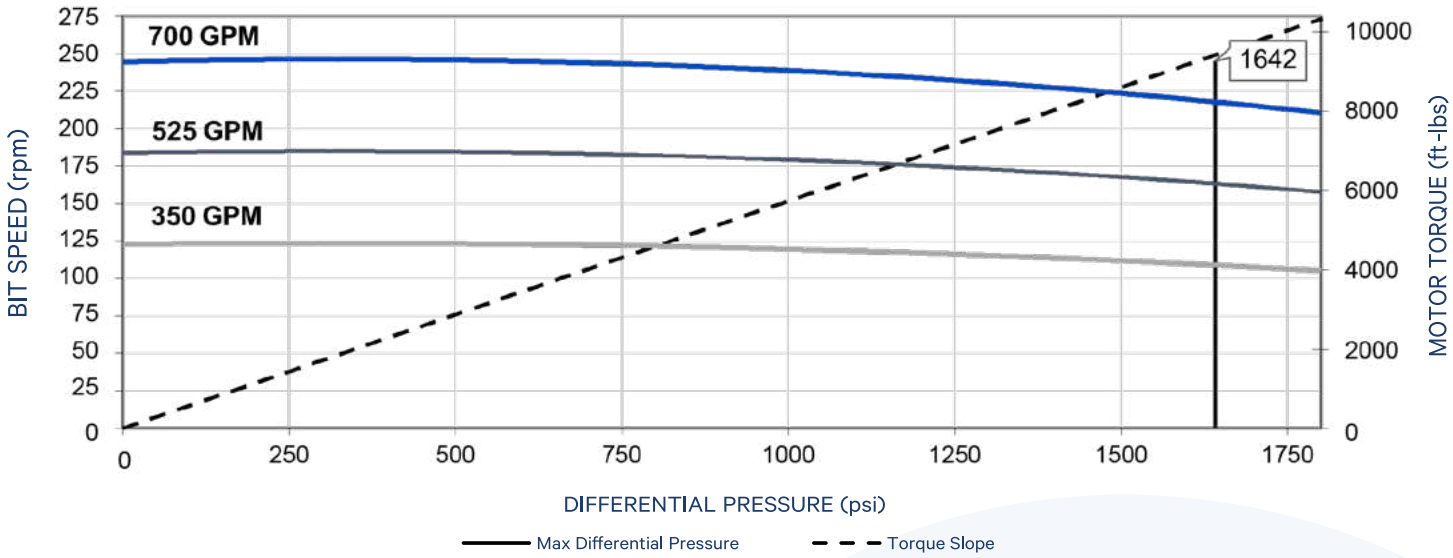
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	85,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	42,500
Torque–External Connections (ft–lbs)	25,000	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.19	
Nominal Length (ft)	36.8	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	700
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.35	
Differential Pressure (psi)	1,708	1,643
Operating Torque (ft–lbs)	11,772	11,324
Torque Slope (ft–lbs/psi)	6.892	

6.63” FLEX SHAFT
5/6 LOBE 8.4 STAGE (FT-003)

Power Section Performance Curve ***



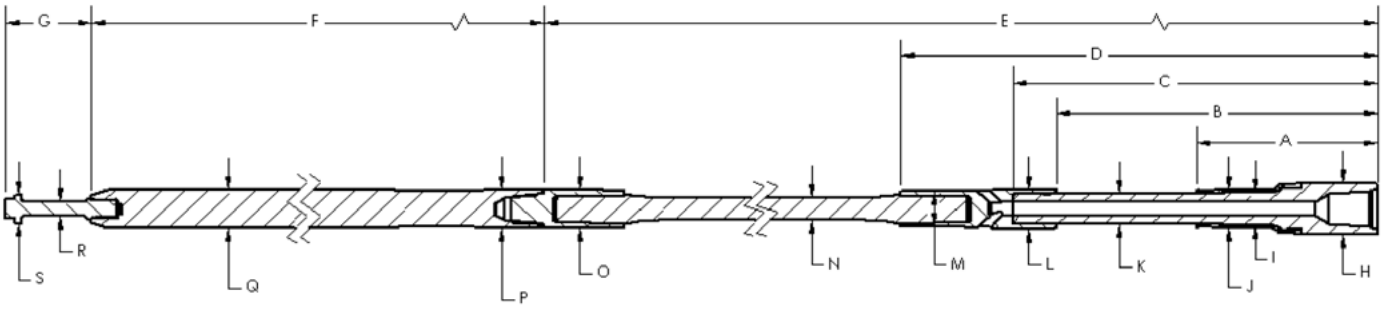
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100		100		100	2.7	100	2.9	100	3.0	100
0.75°	3.2		1.8		1.3		4.0		4.3		4.4	
1.00°	4.7		3.3		2.7		5.4		5.6		5.7	
1.25°	6.1		4.7		4.2		6.9		7.0		7.1	
1.50°	7.6		6.2		5.6		8.5		8.3		8.4	
1.75°	9.1	60	7.6		7.1		10.0	60	9.8		9.8	
2.00°	10.5	20	9.1	60	8.5	60	11.6	20	11.4	60	11.2	60
2.12°	11.2		9.8	40	9.2	40	12.4		12.1	40	12.0	40

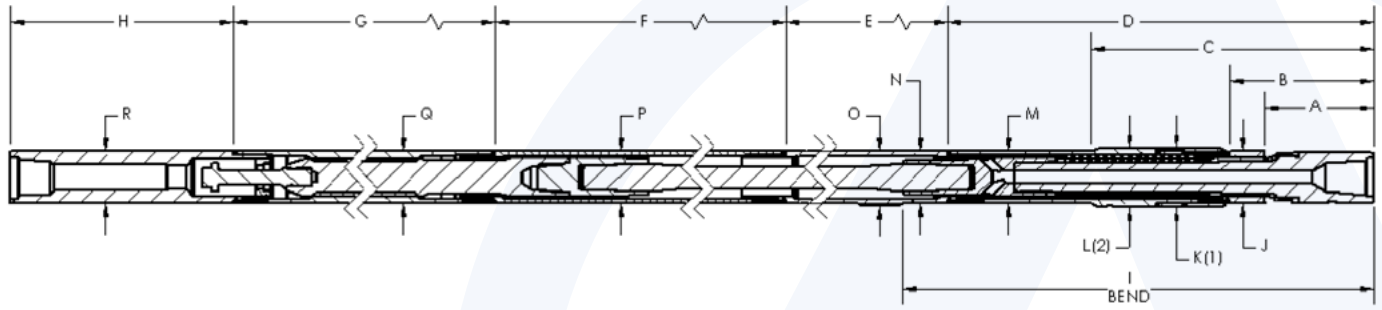
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

6.63” FLEX SHAFT
5/6 LOBE 8.4 STAGE (FT-003)



6.63” Flex Shaft 5/6 Lobe 8.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.63	38.75	43.00	59.25	144.25	266.00	11.28	6.55	3.94	4.90
K	L	M	N	O	P	Q	R	S	
3.58	4.95	4.50	2.69	4.25	4.25	4.67	1.88	3.80	



6.63” Flex Shaft 5/6 Lobe 8.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.38	17.38	31.25	58.00	17.88	68.38	275.00	22.38	62.00
J	K (1)	L (2)	M	N	O	P	Q	R
6.55	7.50	7.50	6.63	6.63	7.25	6.63	6.63	6.63

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

6.63” FLEX SHAFT
7/8 LOBE 5.0 STAGE (FT-003)

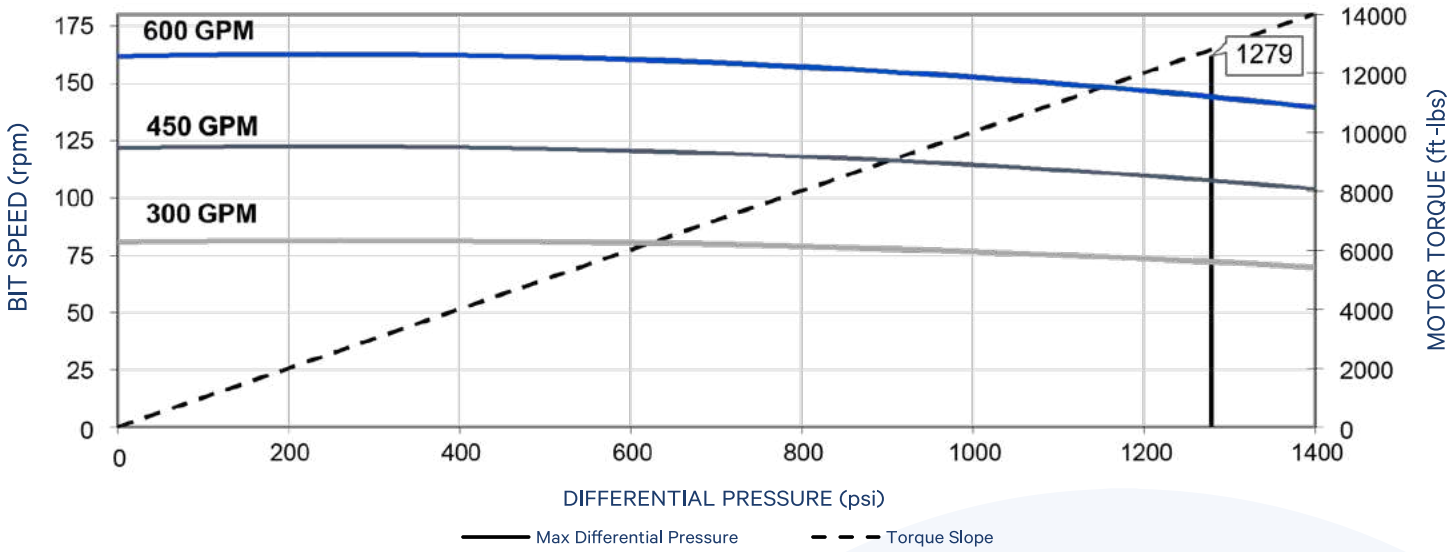
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	85,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	42,500
Torque–External Connections (ft–lbs)	25,000	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.19	
Nominal Length (ft)	30.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,279
Max Operating Torque (ft–lbs)		12,813
Torque Slope (ft–lbs/psi)	9.02	

6.63” FLEX SHAFT
7/8 LOBE 5.0 STAGE (FT-003)

Power Section Performance Curve ***



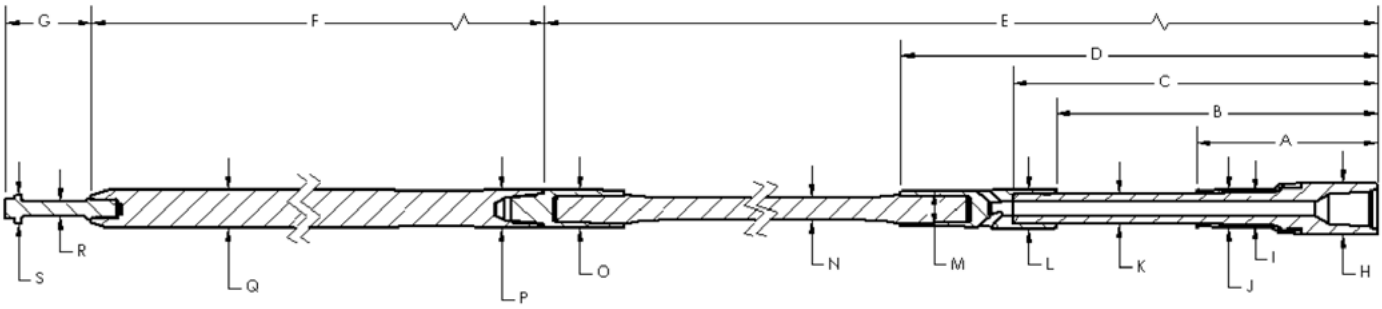
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.1	100		100		100	3.2	100	3.6	100	3.7	100
0.75°	3.8		2.2		1.3		4.8		5.1		5.3	
1.00°	5.6		3.9		3.2		6.4		6.7		6.9	
1.25°	7.3		5.6		4.9		8.2		8.3		8.4	
1.50°	9.0		7.3		6.7		10.1		9.9		10.0	
1.75°	10.7	60	9.1		8.4		12.0	60	11.6		11.6	
2.00°	12.4	20	10.8	60	10.1	60	13.9	20	13.5	60	13.3	60
2.12°	13.3		11.6	40	10.9	40	14.8		14.4	40	14.3	40

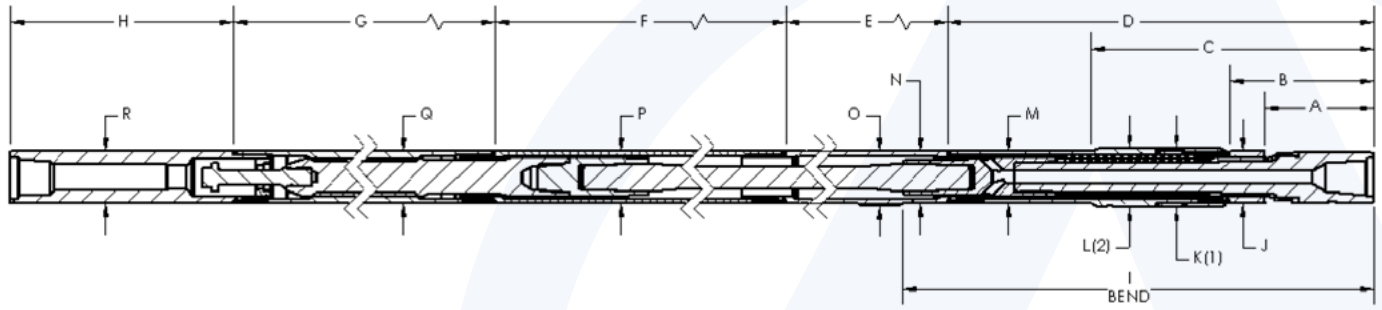
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

6.63” FLEX SHAFT
7/8 LOBE 5.0 STAGE (FT-003)



6.63” Flex Shaft 7/8 Lobe 5.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.63	38.75	43.0	59.25	144.25	188.00	11.28	6.55	3.94	4.90
K	L	M	N	O	P	Q	R	S	
3.58	4.95	4.50	2.69	4.25	4.38	4.52	1.88	3.80	



6.63” Flex Shaft 7/8 Lobe 5.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.38	17.38	31.25	58.00	17.88	68.38	204.00	22.38	62.0
J	K (1)	L (2)	M	N	O	P	Q	R
6.55	7.50	7.50	6.63	6.63	7.25	6.63	6.63	6.63

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

6.63” FLEX SHAFT
7/8 LOBE 6.4 STAGE (FT-003)

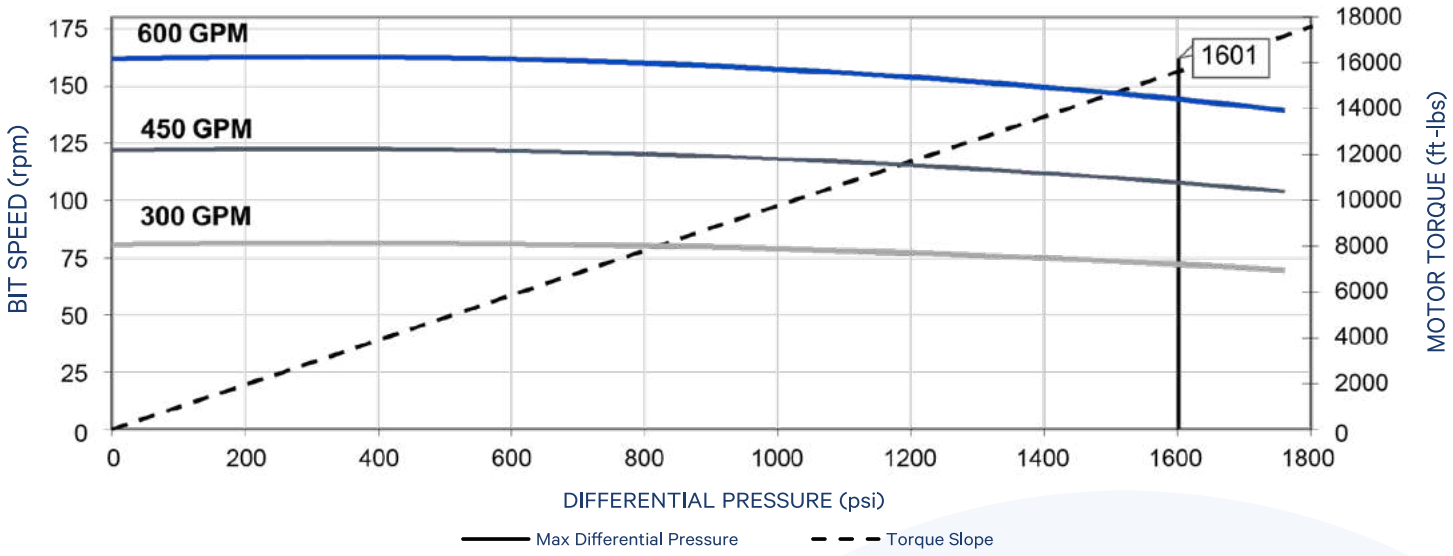
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	85,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	42,500
Torque–External Connections (ft–lbs)	25,000	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.19	
Nominal Length (ft)	34.9	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,601
Max Operating Torque (ft–lbs)		15,639
Torque Slope (ft–lbs/psi)	9.02	

6.63” FLEX SHAFT
7/8 LOBE 6.4 STAGE (FT-003)

Power Section Performance Curve ***



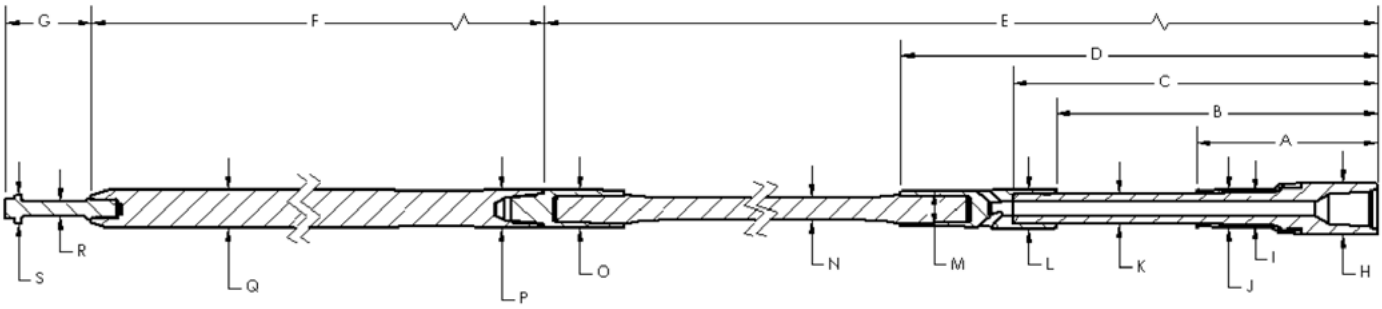
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.9						2.9		3.2		3.3	
0.75°	3.5		2.0		1.4		4.3		4.6		4.7	
1.00°	5.0	100	3.5	100	2.9	100	5.7	100	6.0	100	6.2	100
1.25°	6.6		5.1		4.5		7.4		7.5		7.6	
1.50°	8.1		6.6		6.0		9.1		8.9		9.0	
1.75°	9.7	60	8.2		7.6		10.8	60	10.5		10.4	
2.00°	11.2	20	9.7	60	9.1	60	12.5	20	12.2	60	12.1	60
2.12°	12.0		10.5	40	9.9	40	13.3		13.0	40	12.9	40

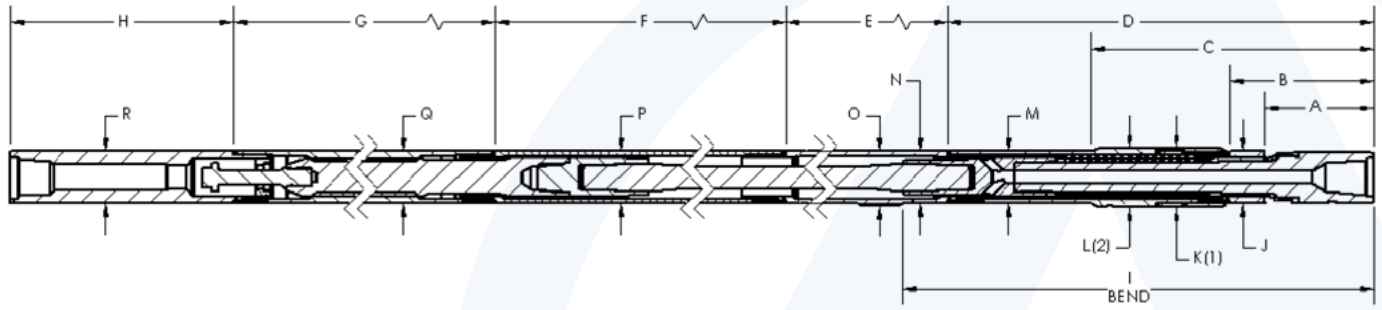
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

6.63” FLEX SHAFT
7/8 LOBE 6.4 STAGE (FT-003)



6.63” Flex Shaft 7/8 Lobe 6.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.63	38.75	43.0	59.25	144.25	238.50	11.28	6.55	3.94	4.90
K	L	M	N	O	P	Q	R	S	
3.58	4.95	4.50	2.69	4.25	4.38	4.52	1.88	3.80	



6.63” Flex Shaft 7/8 Lobe 6.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.38	17.38	31.25	58.00	17.88	68.38	245.00	22.38	62.00
J	K (1)	L (2)	M	N	O	P	Q	R
6.55	7.50	7.50	6.63	6.63	7.25	6.63	6.63	6.63

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

6.63” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)

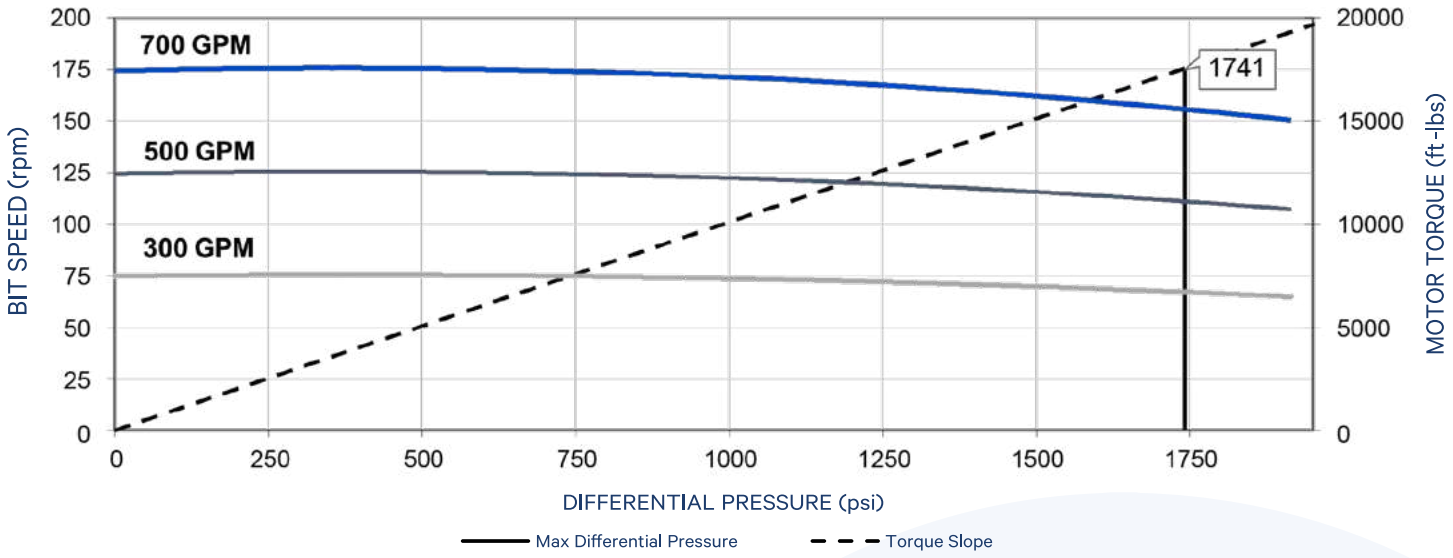
General Data			
Bit Sizes (in)	7 ⅞ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	85,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	42,500
Torque–External Connections (ft–lbs)	25,000	Max Bit Pull (lbs) With Damage *	380,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	500,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	5.19	
Nominal Length (ft)	36.8	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	74	172
Speed Ratio (rev/US Gal)	0.25	
Differential Pressure (psi)	1,883	1,741
Operating Torque (ft–lbs)	19,009	17,575
Torque Slope (ft–lbs/psi)	10.095	

6.63” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)

Power Section Performance Curve ***



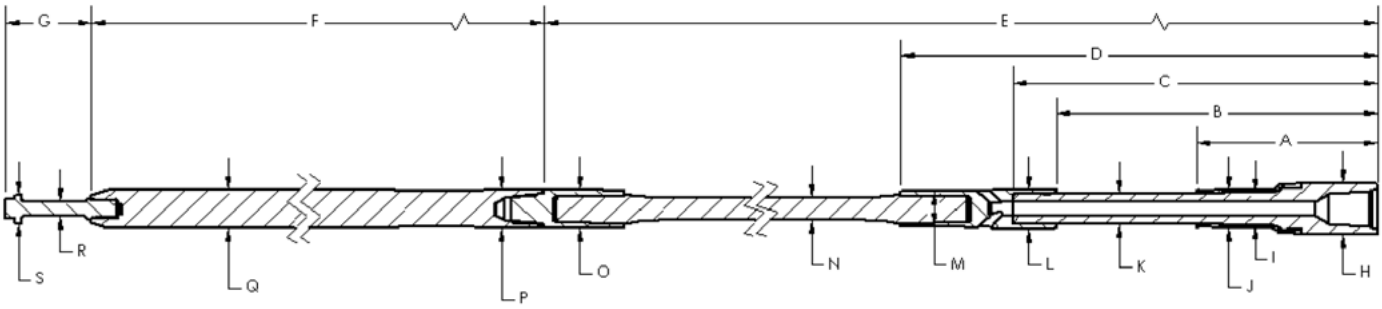
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	7 ⅞		8 ½		8 ¾		7 ⅞		8 ½		8 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.8	100		100		100	2.7	100	2.9	100	3.0	100
0.75°	3.2		1.8		1.3		4.0		4.3		4.4	
1.00°	4.7		3.3		2.7		5.4		5.6		5.7	
1.25°	6.1		4.7		4.2		6.9		7.0		7.1	
1.50°	7.6		6.2		5.6		8.5		8.3		8.4	
1.75°	9.1	60	7.6		7.1		10.0	60	9.8		9.8	
2.00°	10.5	20	9.1	60	8.5	60	11.6	20	11.4	60	11.2	60
2.12°	11.2		9.8	40	9.2	40	12.4		12.1	40	12.0	40

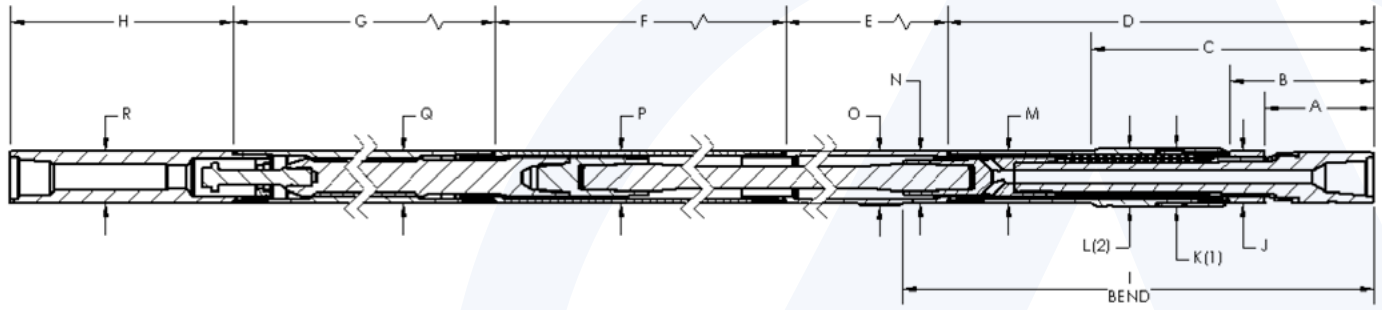
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

6.63” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)



6.63” Flex Shaft 7/8 Lobe 6.9 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.63	38.75	43.00	59.25	144.25	266.00	11.28	6.55	3.94	4.90
K	L	M	N	O	P	Q	R	S	
3.58	4.95	4.50	2.69	4.25	4.25	4.67	1.88	3.80	



6.63” Flex Shaft 7/8 Lobe 6.9 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.38	17.38	31.25	58.00	17.88	68.38	275.00	22.38	62.00
J	K (1)	L (2)	M	N	O	P	Q	R
6.55	7.50	7.50	6.63	6.63	7.25	6.63	6.63	6.63

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

7.00” JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)

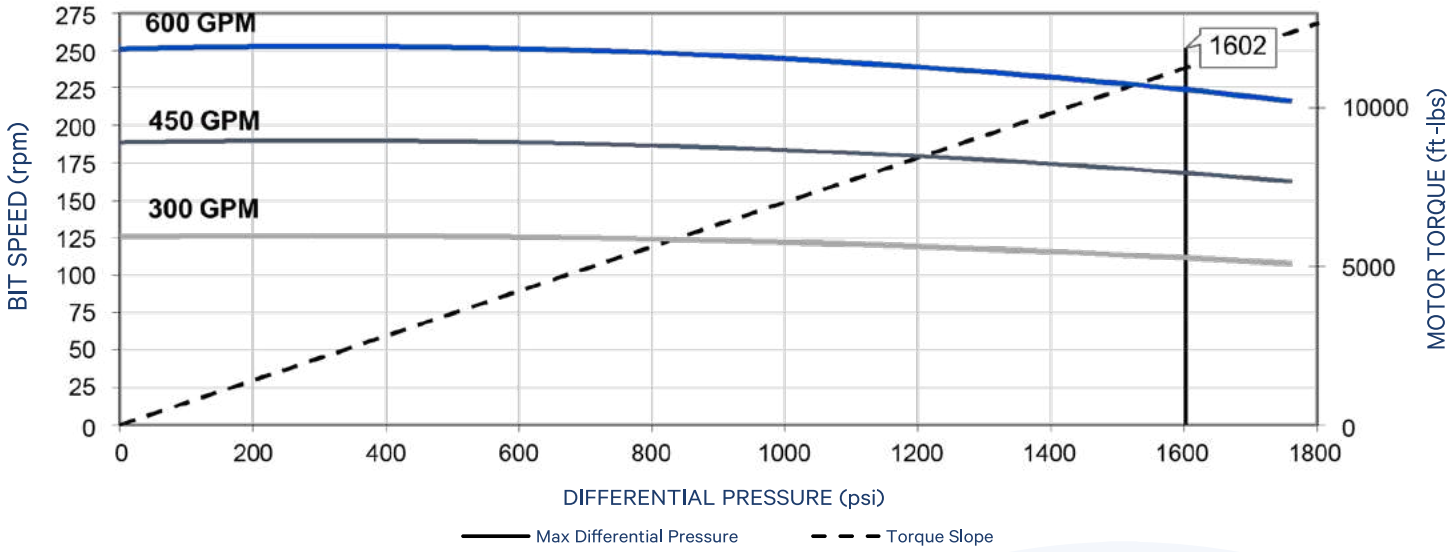
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	30.7	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.41	
Max Differential Pressure (psi)	1,708	1,602
Max Operating Torque (ft–lbs)	11,772	9,436
Torque Slope (ft–lbs/psi)	5.708	

7.00” JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)

Power Section Performance Curve ***



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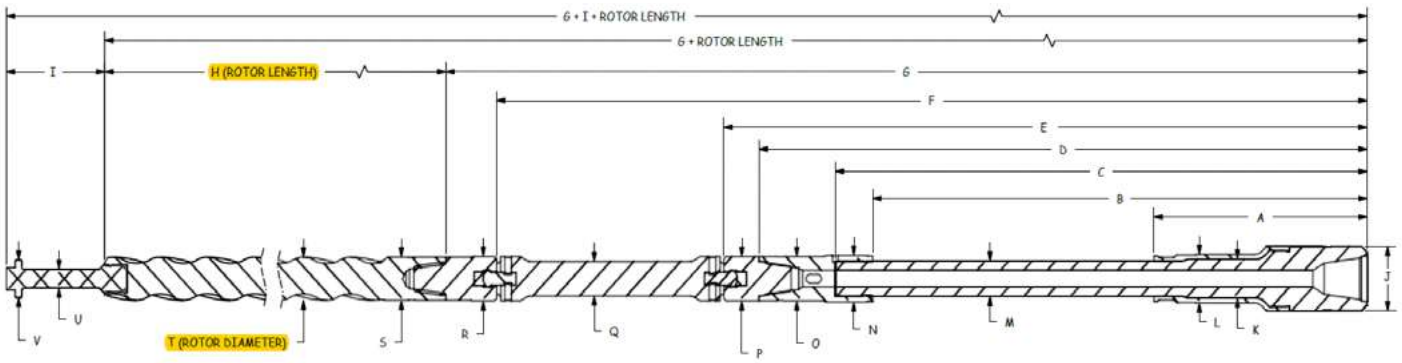
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	3.3	100	3.5	100	4.1	100	3.3	100	3.5	100	4.1	100
0.75°	5.0		5.1		5.7		5.0		5.1		5.7	
1.00°	6.6		6.7		7.4		6.6		6.7		7.4	
1.25°	8.2		8.3		9.0		8.2		8.3		9.0	
1.50°	9.8		9.9		10.6		9.8		9.9		10.6	
1.75°	11.5		11.6		12.2		11.5		11.6		12.2	
2.00°	13.4	60	13.2	60	13.8		13.4	60	13.2	60	13.8	
2.12°	14.3	40	14.1	40	14.6	80	14.3	40	14.1	40	14.6	80
2.25°	15.2	20	15.1	20	15.4	60	15.2	20	15.1	20	15.4	60
2.50°	17.1		17.0		17.1	20	17.1		17.0		17.1	20
2.75°	19.0		18.8		18.7		19.0		18.8		18.7	
3.00°	20.8		20.7		20.3		20.8		20.7		20.3	

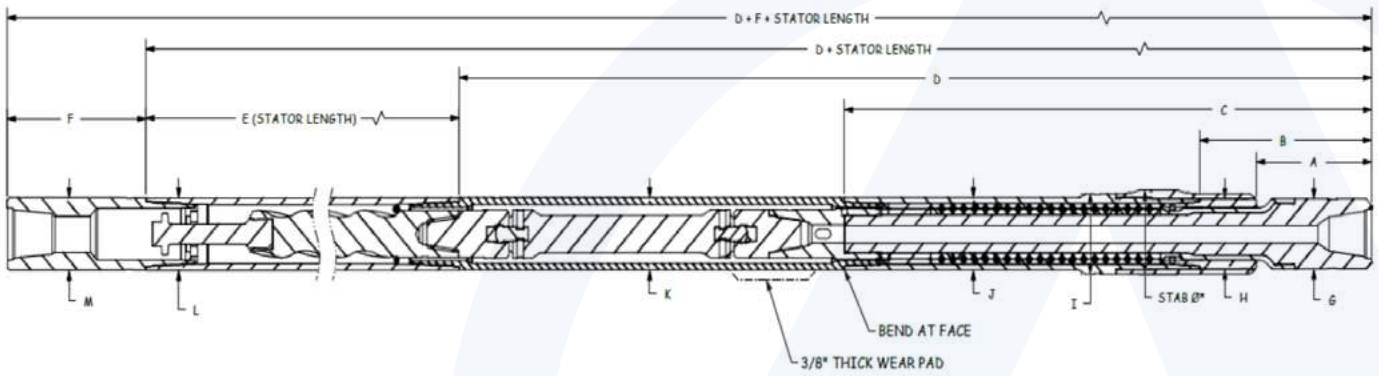
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)



7.00” Jaw–Clutch 5/6 Lobe 8.2 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	233.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.371	1.88	3.80



7.00” Jaw–Clutch 5/6 Lobe 8.2 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	246.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

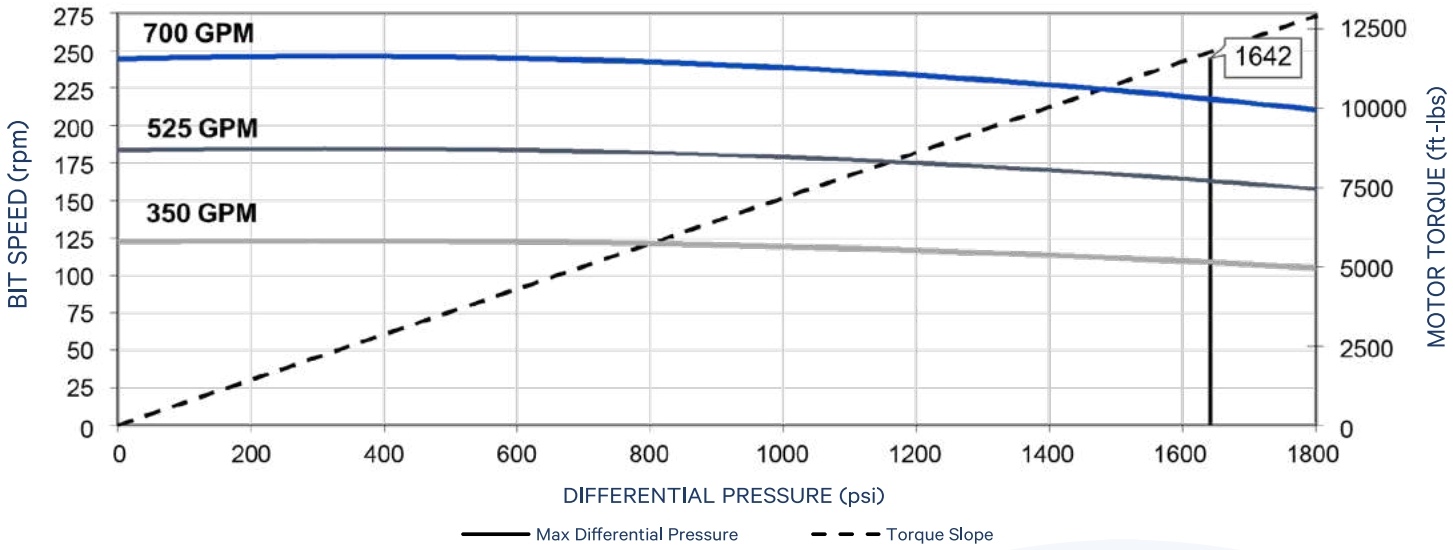
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	33.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	700
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.35	
Differential Pressure (psi)	1,708	1,643
Operating Torque (ft–lbs)	11,772	11,324
Torque Slope (ft–lbs/psi)	6.892	

7.00” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

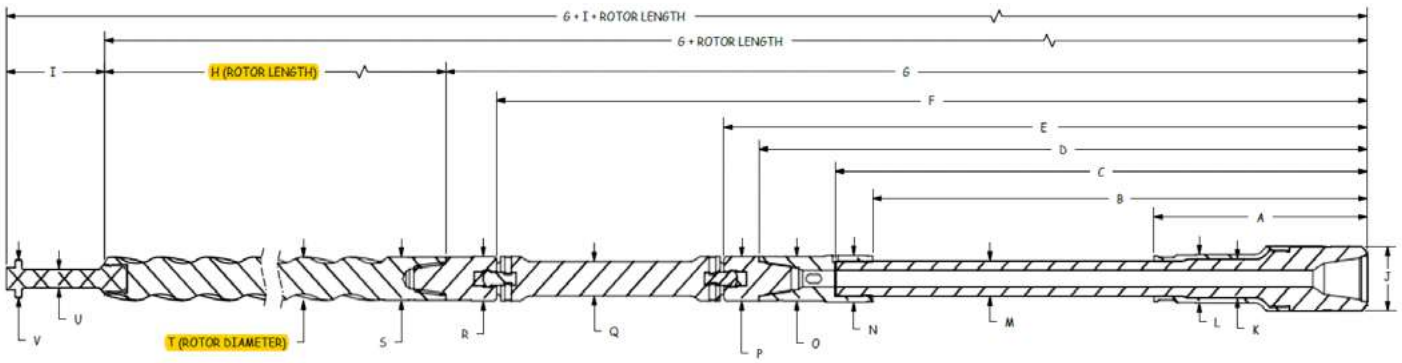
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4		0.8				3.1		3.2		3.8	
0.75°	3.0		2.4				4.6		4.7		5.3	
1.00°	4.6	100	4.0	100	1.3		6.0	100	6.2	100	6.7	
1.25°	6.2		5.6		2.9	100	7.5		7.6		8.2	100
1.50°	7.8		7.2		4.5		9.3		9.2		9.7	
1.75°	9.4		8.8		6.1		11.0		10.9		11.1	
2.00°	11.1	60	10.4	60	7.7		12.8	60	12.7	60	12.6	
2.12°	11.8	40	11.2	40	8.5	80	13.6	40	13.5	40	13.3	80
2.25°	12.7	20	12.1	20	9.3	60	14.6	20	14.4	20	14.1	60
2.50°	14.3		13.7		10.9	20	16.3		16.2		15.6	20
2.75°	15.9		15.3		12.5		18.1		17.9		17.4	
3.00°	17.5		16.9		14.2		19.8		19.7		19.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

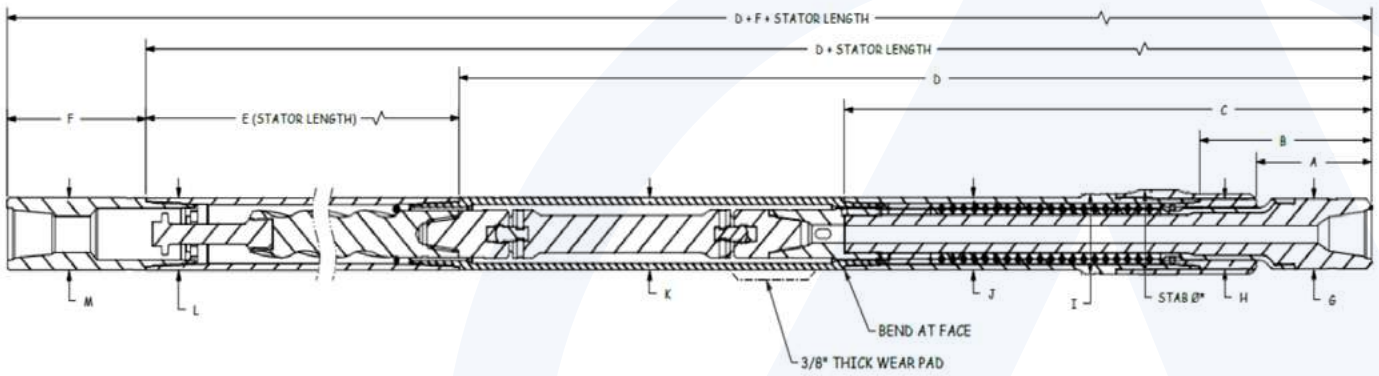
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)



7.00” Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.573	1.88	3.80



7.00” Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	275.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” JAW-CLUTCH
SSX 5/6 LOBE 8.6 STAGE (ABACO HPW)

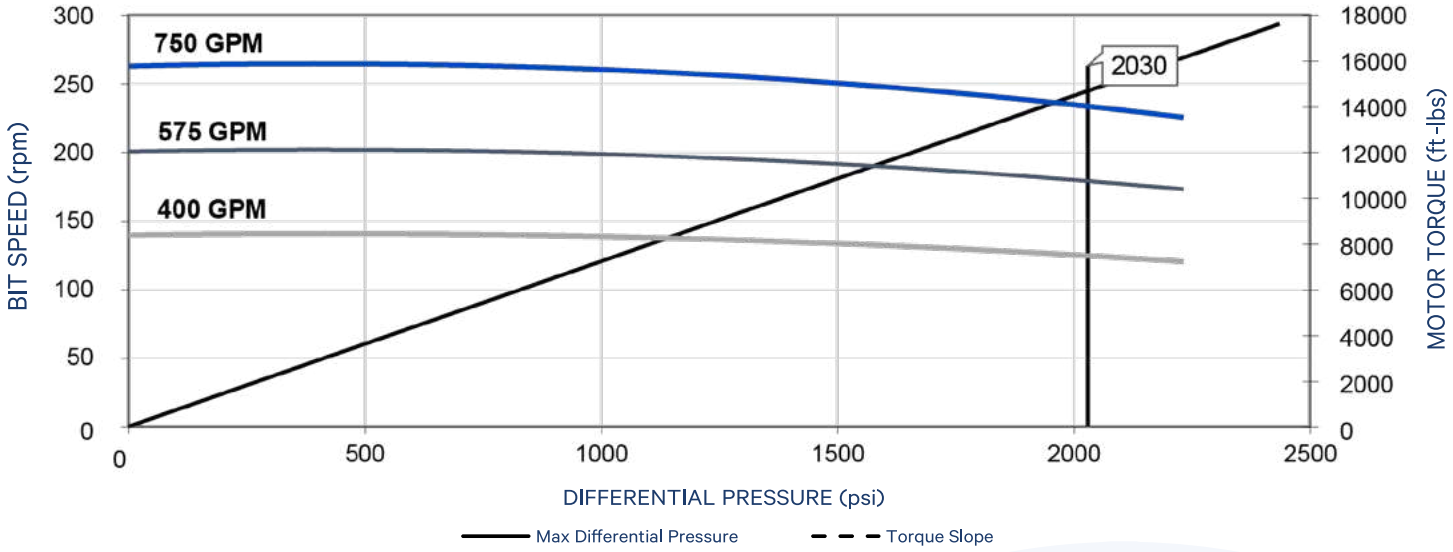
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.47	
Nominal Length (ft)	32.15	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	140	260
Speed Ratio (rev/US Gal)	0.35	
Max Differential Pressure (psi)		2,030
Max Operating Torque (ft–lbs)		14,660
Torque Slope (ft–lbs/psi)	7.25	

7.00” JAW-CLUTCH
SSX 5/6 LOBE 8.6 STAGE (ABACO HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

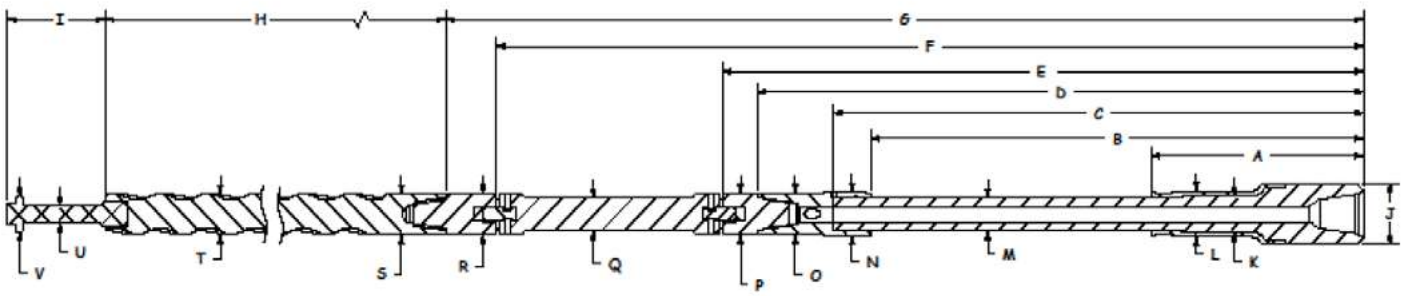
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	2.7	100	2.8	100	3.2	100
0.75°	0.6						4.0		4.1		4.6	
1.00°	2.1		1.4				5.4		5.5		5.9	
1.25°	3.5		2.9				6.7		6.8		7.3	
1.50°	5.0		4.4		1.5		8.2		8.2		8.6	
1.75°	6.5	60	5.9		3.0		9.8	60	9.7		10.0	
2.00°	8.0	20	7.3	60	4.4	60	11.5	20	11.3	60	11.3	60
2.12°	8.7		8.0	20	5.1	20	12.2		12.1	20	12.0	20

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

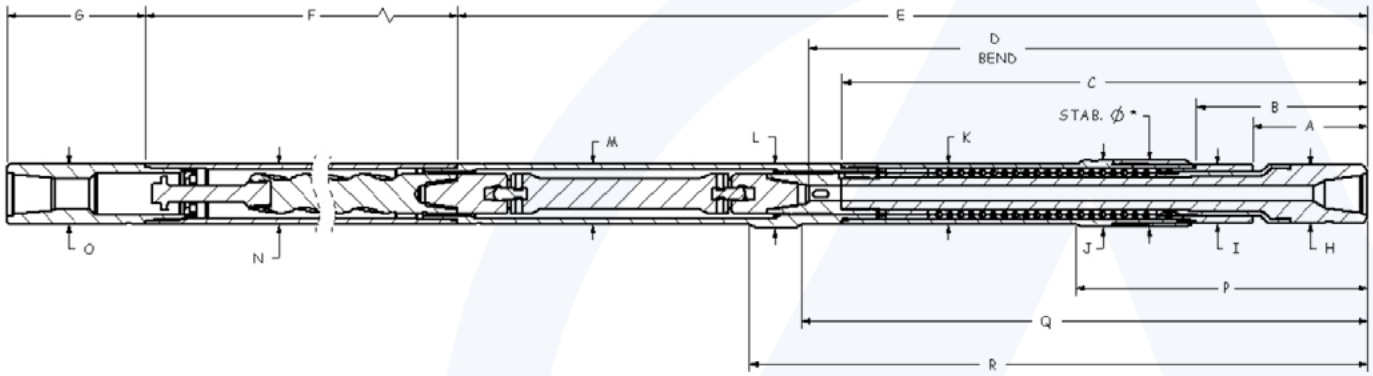
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW-CLUTCH
SSX 5/6 LOBE 8.6 STAGE (ABACO HPW)



7.00” SSX Jaw-Clutch 5/6 Lobe 8.6 Stage (Abaco HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
21.41	36.16	41.34	52.92	56.92	82.66	88.41	263	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.87	5.33	4.68	5.00	4.00	5.00	4.25	4.703	1.88	3.80



7.00” SSX Jaw-Clutch 5/6 Lobe 8.6 Stage (Abaco HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.03	16.91	49.66	53.63	88.41	275	22.38	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.19	7.00	7.00	7.00	32.53	53.63	59.35

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” JAW–CLUTCH
5/6 LOBE 9.4 STAGE (FT-003)

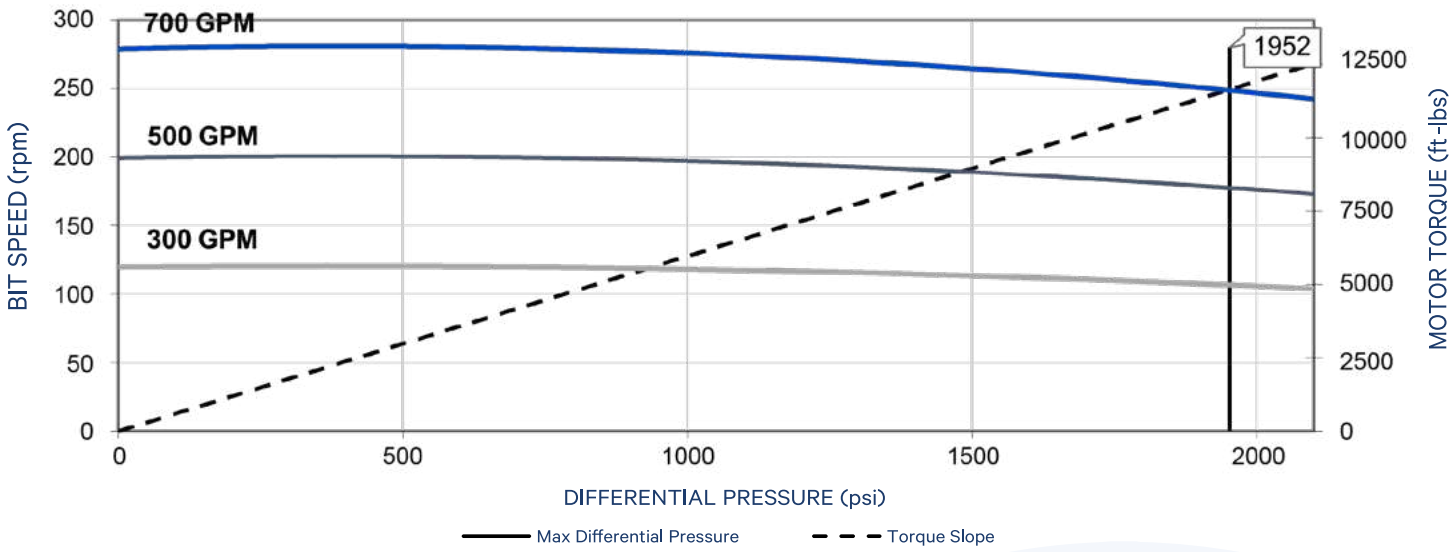
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	33.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	119	246
Speed Ratio (rev/US Gal)	0.40	
Differential Pressure (psi)	1,952	1,643
Operating Torque (ft–lbs)	11,644	11,324
Torque Slope (ft–lbs/psi)	5.965	

7.00” JAW–CLUTCH
5/6 LOBE 9.4 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

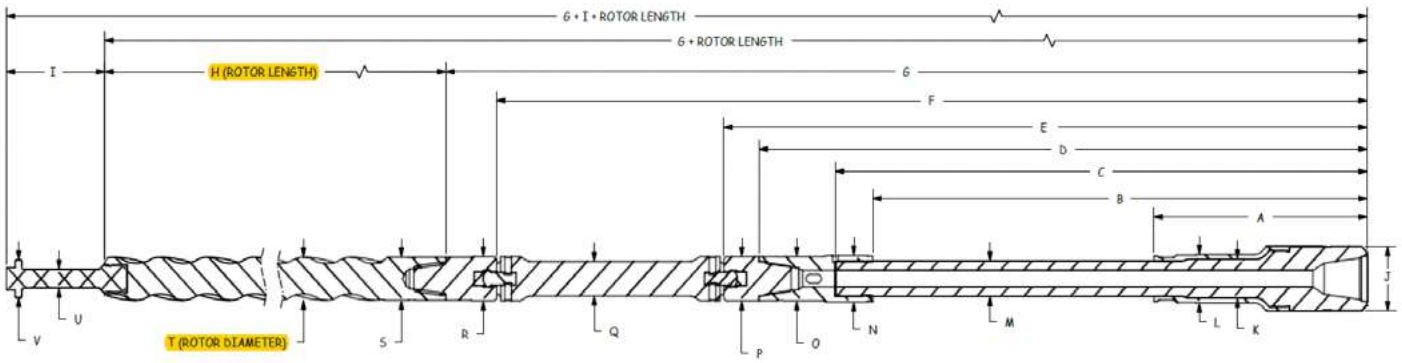
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4	100	0.8	100		100	3.1	100	3.2	100	3.8	100
0.75°	3.0		2.4				4.6		4.7		5.3	
1.00°	4.6		4.0		1.3		6.0		6.2		6.7	
1.25°	6.2		5.6		2.9		7.5		7.6		8.2	
1.50°	7.8		7.2		4.5		9.3		9.2		9.7	
1.75°	9.4		8.8		6.1		11.0		10.9		11.1	
2.00°	11.1	60	10.4	60	7.7		12.8	60	12.7	60	12.6	
2.12°	11.8	40	11.2	40	8.5	80	13.6	40	13.5	40	13.3	80
2.25°	12.7	20	12.1	20	9.3	60	14.6	20	14.4	20	14.1	60
2.50°	14.3		13.7		10.9	20	16.3		16.2		15.6	20
2.75°	15.9		15.3		12.5		18.1		17.9		17.4	
3.00°	17.5		16.9		14.2		19.8		19.7		19.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

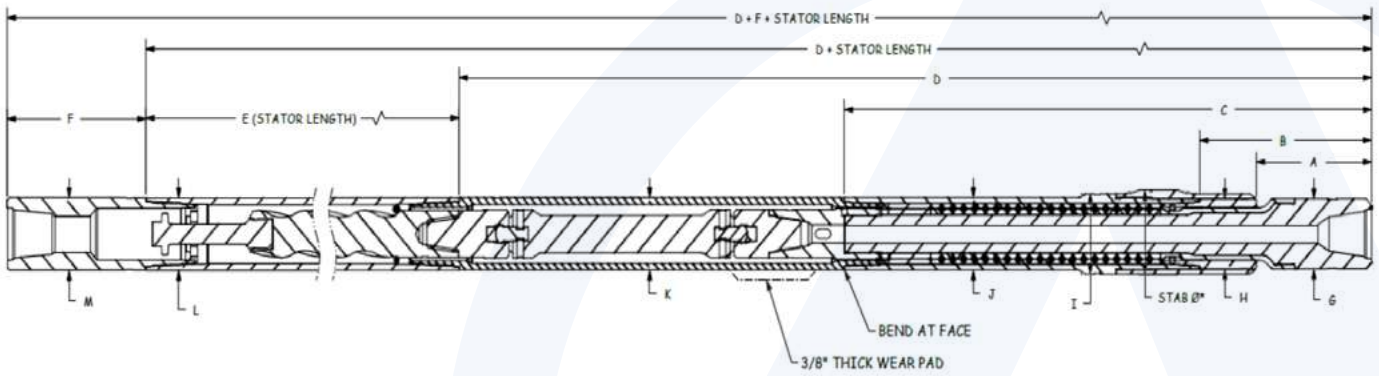
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
5/6 LOBE 9.4 STAGE (FT-003)



7.00” Jaw–Clutch 5/6 Lobe 9.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.522	1.88	3.80



7.00” Jaw–Clutch 5/6 Lobe 9.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	275.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” SSX JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)

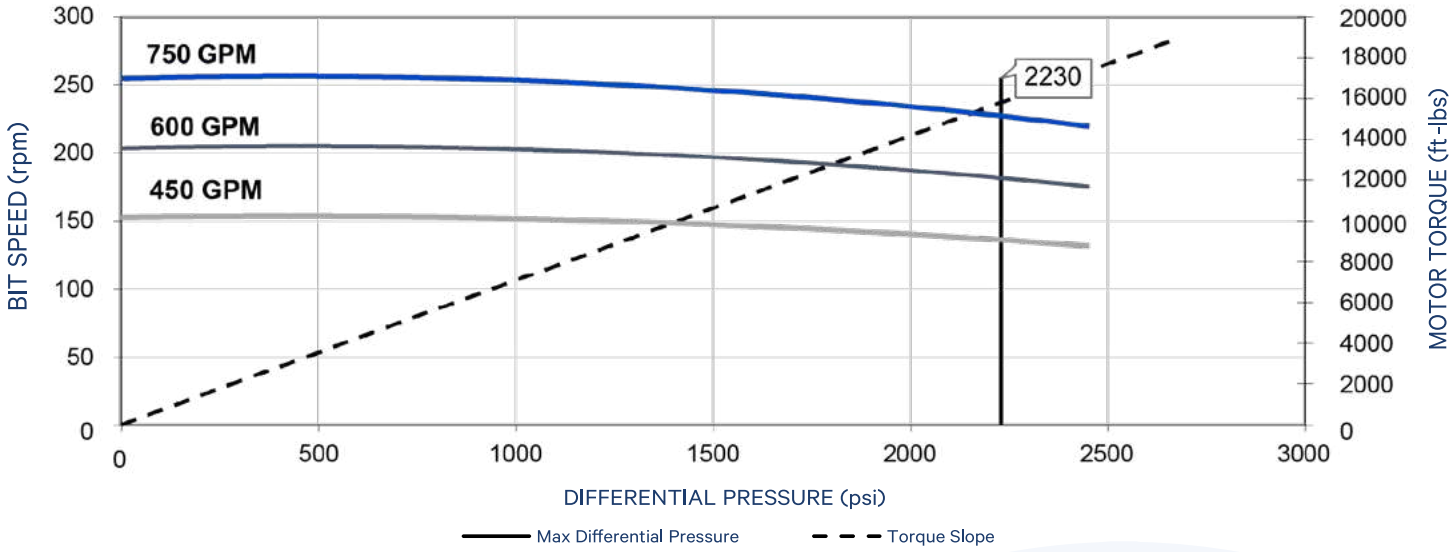
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.47	
Nominal Length (ft)	34.23	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	450	750
Bit Speed (rpm)	155	258
Speed Ratio (rev/US Gal)	0.344	
Max Differential Pressure (psi)		2,230
Max Operating Torque (ft–lbs)		15,790
Torque Slope (ft–lbs/psi)	7.07	

7.00” SSX JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

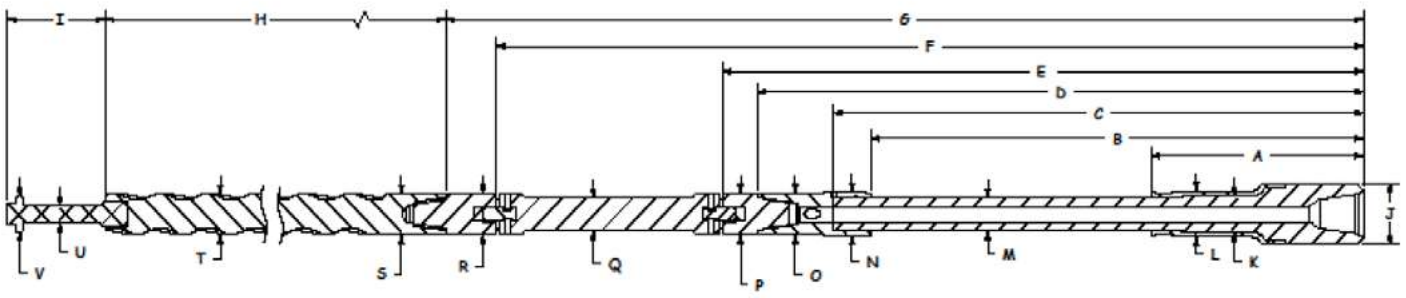
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	2.7	100	2.8	100	3.2	100
0.75°	0.6						4.0		4.1		4.6	
1.00°	2.1		1.4				5.4		5.5		5.9	
1.25°	3.5		2.9				6.7		6.8		7.3	
1.50°	5.0		4.4		1.5		8.2		8.2		8.6	
1.75°	6.5	60	5.9		3.0		9.8	60	9.7		10.0	
2.00°	8.0	20	7.3	60	4.4	60	11.5	20	11.3	60	11.3	60
2.12°	8.7		8.0	20	5.1	20	12.2		12.1	20	12.0	20

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

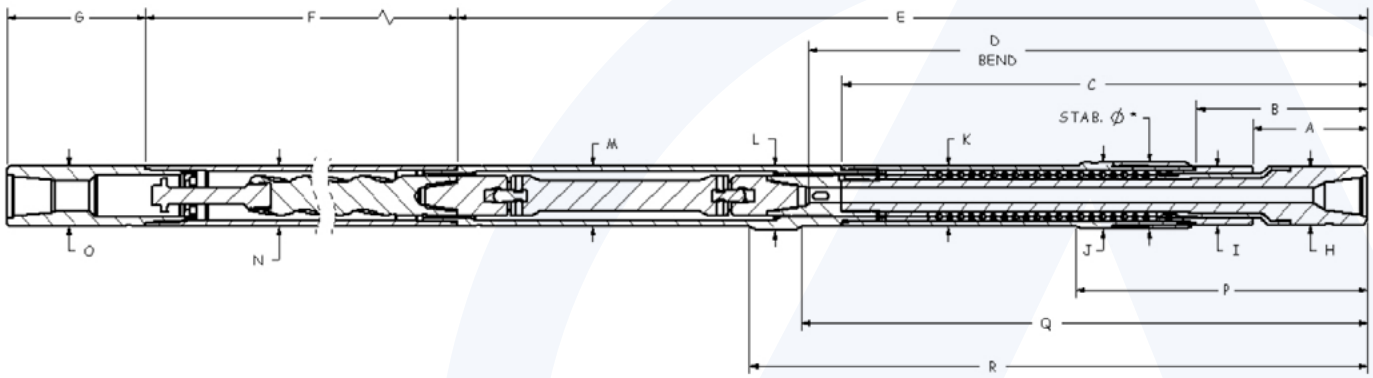
^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SSX JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)



7.00” SSX Jaw–Clutch 5/6 Lobe 9.5 Stage (Viking VPX) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
21.41	36.16	41.34	52.92	56.92	82.66	88.41	288	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.87	5.33	4.88	5.00	4.00	5.00	4.38	4.558	1.88	3.80



7.00” SSX Jaw–Clutch 5/6 Lobe 9.5 Stage (Viking VPX) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.03	16.91	49.66	53.63	88.41	300	22.38	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.19	7.00	7.00	7.00	32.53	53.63	59.35

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)

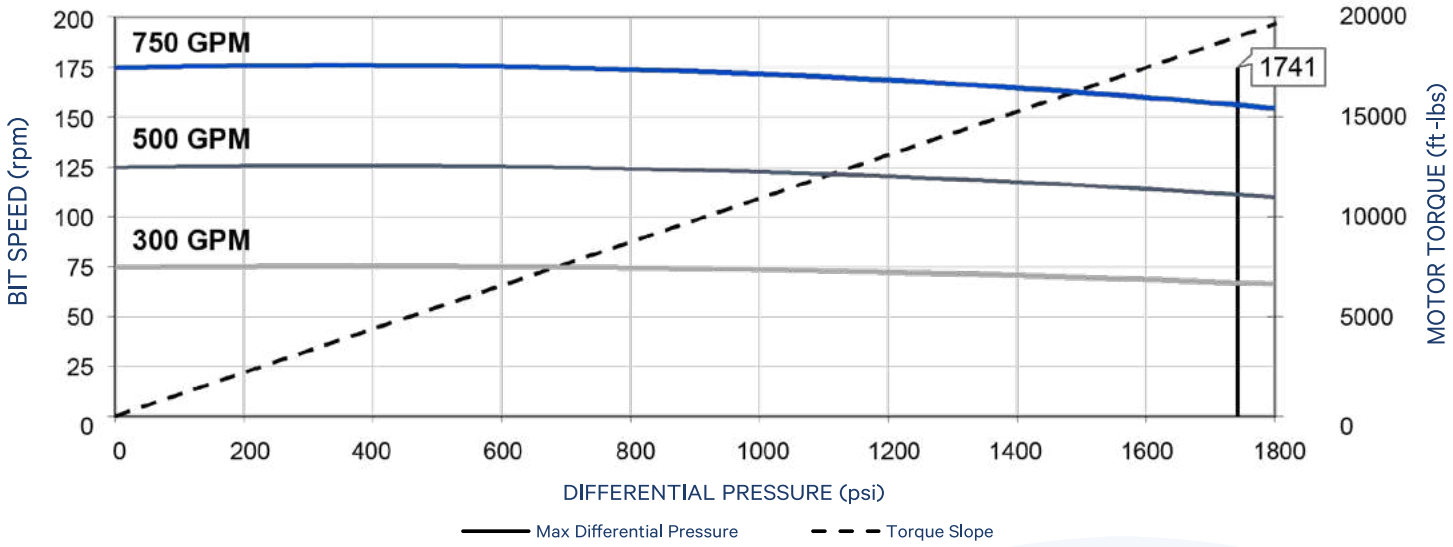
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	33.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	90	170
Speed Ratio (rev/US Gal)	0.230	
Max Differential Pressure (psi)		1,530
Max Operating Torque (ft–lbs)		16,680
Torque Slope (ft–lbs/psi)	10.92	

7.00” JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

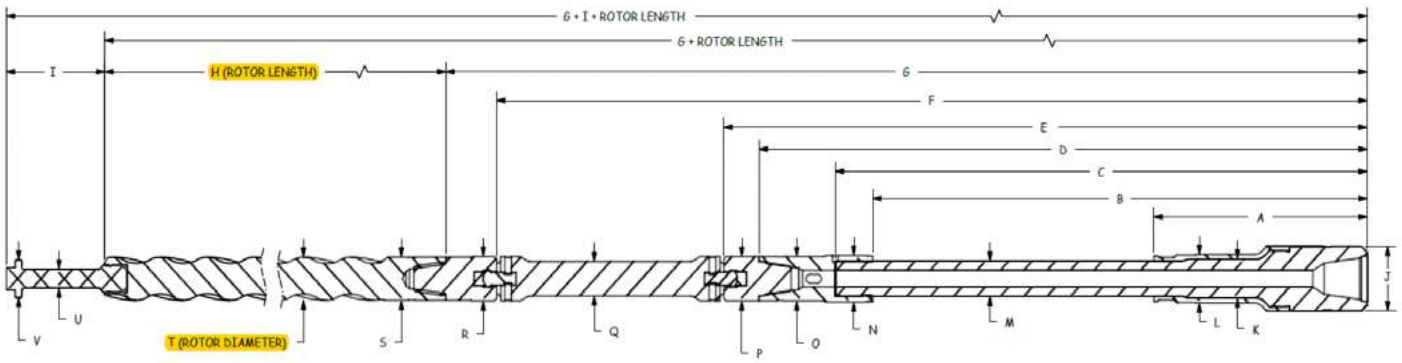
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4	100	0.8	100		100	3.1	100	3.2	100	3.8	100
0.75°	3.0		2.4				4.6		4.7		5.3	
1.00°	4.6		4.0		1.3		6.0		6.2		6.7	
1.25°	6.2		5.6		2.9		7.5		7.6		8.2	
1.50°	7.8		7.2		4.5		9.3		9.2		9.7	
1.75°	9.4		8.8		6.1		11.0		10.9		11.1	
2.00°	11.1	60	10.4	60	7.7		12.8	60	12.7	60	12.6	
2.12°	11.8	40	11.2	40	8.5	80	13.6	40	13.5	40	13.3	80
2.25°	12.7	20	12.1	20	9.3	60	14.6	20	14.4	20	14.1	60
2.50°	14.3		13.7		10.9	20	16.3		16.2		15.6	20
2.75°	15.9		15.3		12.5		18.1		17.9		17.4	
3.00°	17.5		16.9		14.2		19.8		19.7		19.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

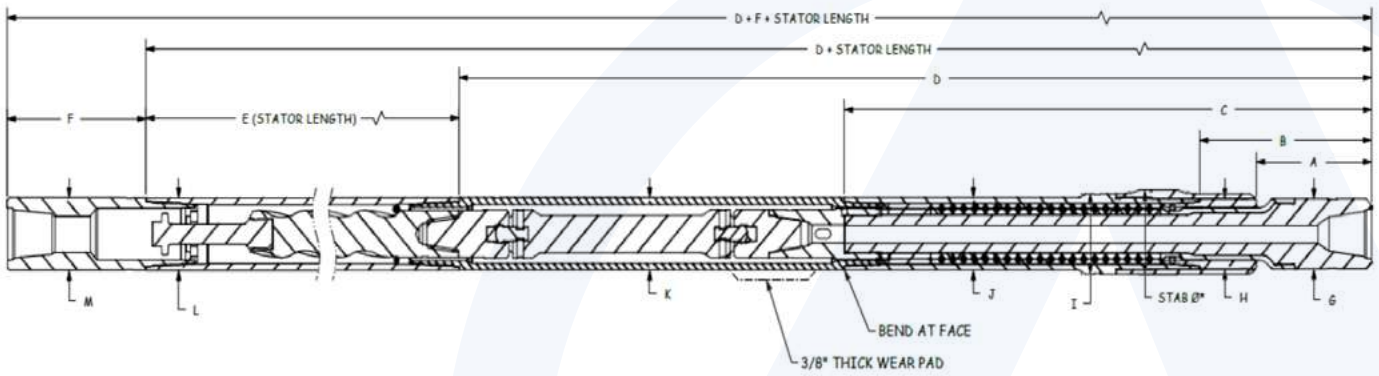
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)



7.00” Jaw–Clutch 6/7 Lobe 6.5 Stage (Abaco NBR-HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	267.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.747	1.88	3.80



7.00” Jaw–Clutch 6/7 Lobe 6.5 Stage (Abaco NBR-HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	275.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

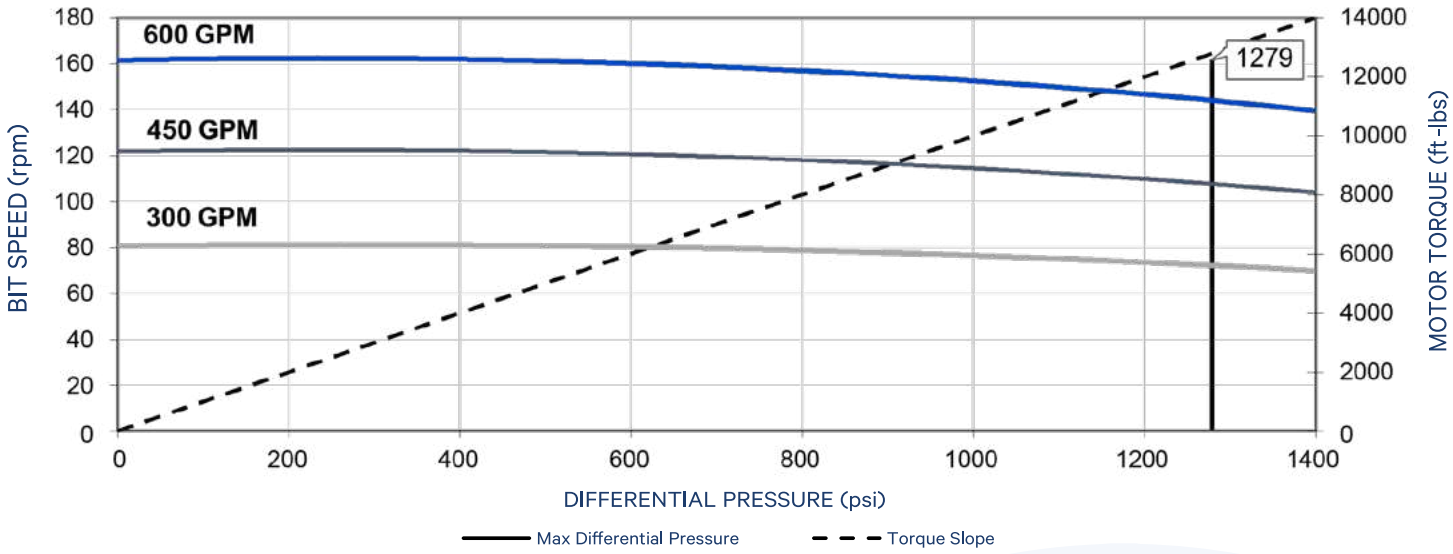
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	27.3	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,279
Max Operating Torque (ft–lbs)		12,813
Torque Slope (ft–lbs/psi)	9.005	

7.00” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

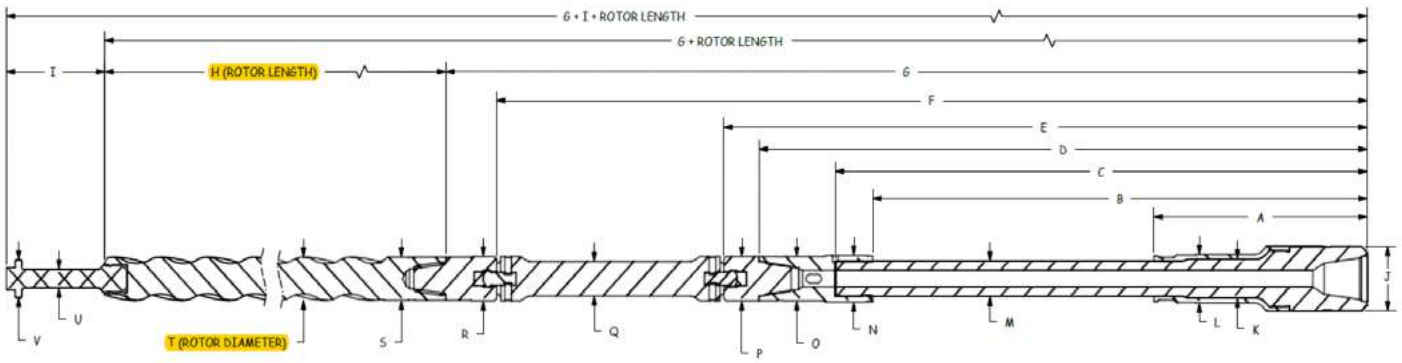
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.7	100	1.0	100		100	3.9	100	4.1	100	4.9	100
0.75°	3.6		2.9				5.6		5.8		6.6	
1.00°	5.6		4.9		1.6		7.3		7.5		8.4	
1.25°	7.5		6.8		3.5		9.1		9.3		10.1	
1.50°	9.5		8.7		5.5		11.3		11.1		11.9	
1.75°	11.4		10.7		7.4		13.4		13.3		13.6	
2.00°	13.4	60	12.6	60	9.3		15.6	60	15.4	60	15.3	
2.12°	14.3	40	13.6	40	10.3	80	16.6	40	16.4	40	16.2	80
2.25°	15.3	20	14.6	20	11.3	60	17.8	20	17.6	20	17.1	60
2.50°	17.2		16.5		13.2	20	19.9		19.7		18.9	20
2.75°	19.2		18.4		15.2		22.1		21.9		21.0	
3.00°	21.1		20.4		17.1		24.2		24.0		23.2	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

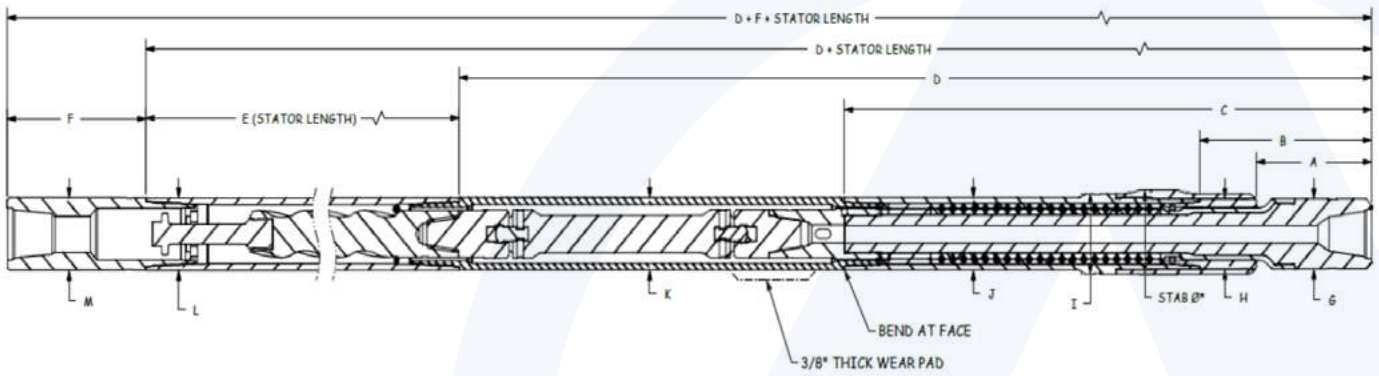
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)



7.00” Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	188.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.52	1.88	3.80



7.00” Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	204.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” JAW–CLUTCH
7/8 LOBE 6.9 STAGE (FT-003)

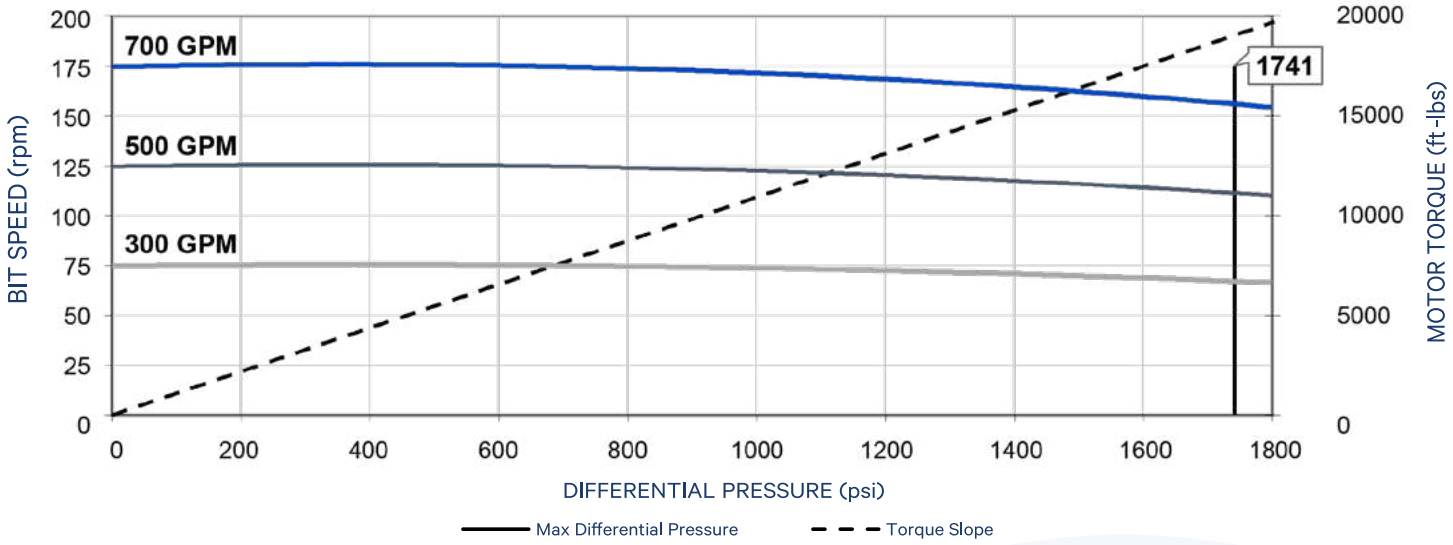
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	33.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	74	172
Speed Ratio (rev/US Gal)	0.25	
Differential Pressure (psi)	1,883	1,741
Operating Torque (ft–lbs)	19,009	17,575
Torque Slope (ft–lbs/psi)	10.095	

7.00” JAW–CLUTCH
7/8 LOBE 6.9 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

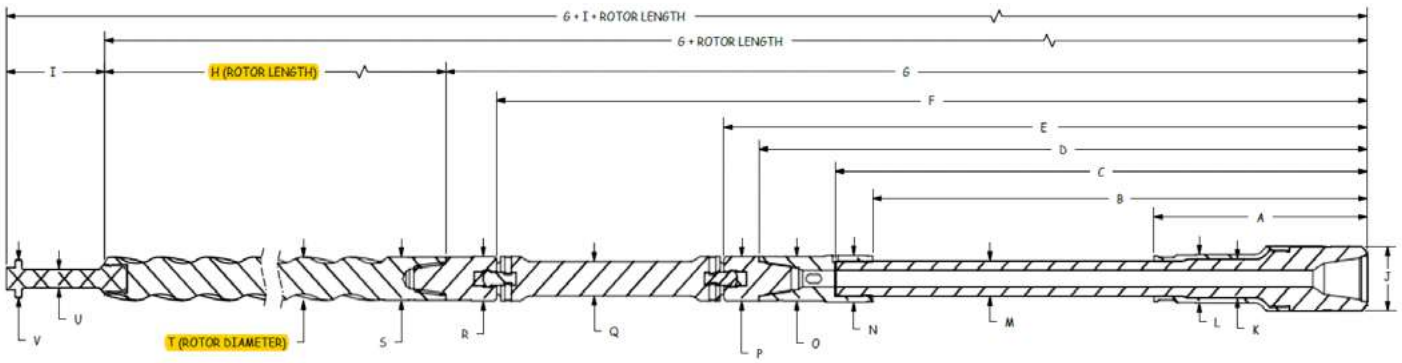
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.4		0.8				3.1		3.2		3.8	
0.75°	3.0		2.4				4.6		4.7		5.3	
1.00°	4.6	100	4.0	100	1.3		6.0	100	6.2	100	6.7	
1.25°	6.2		5.6		2.9	100	7.5		7.6		8.2	100
1.50°	7.8		7.2		4.5		9.3		9.2		9.7	
1.75°	9.4		8.8		6.1		11.0		10.9		11.1	
2.00°	11.1	60	10.4	60	7.7		12.8	60	12.7	60	12.6	
2.12°	11.8	40	11.2	40	8.5	80	13.6	40	13.5	40	13.3	80
2.25°	12.7	20	12.1	20	9.3	60	14.6	20	14.4	20	14.1	60
2.50°	14.3		13.7		10.9	20	16.3		16.2		15.6	20
2.75°	15.9		15.3		12.5		18.1		17.9		17.4	
3.00°	17.5		16.9		14.2		19.8		19.7		19.1	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

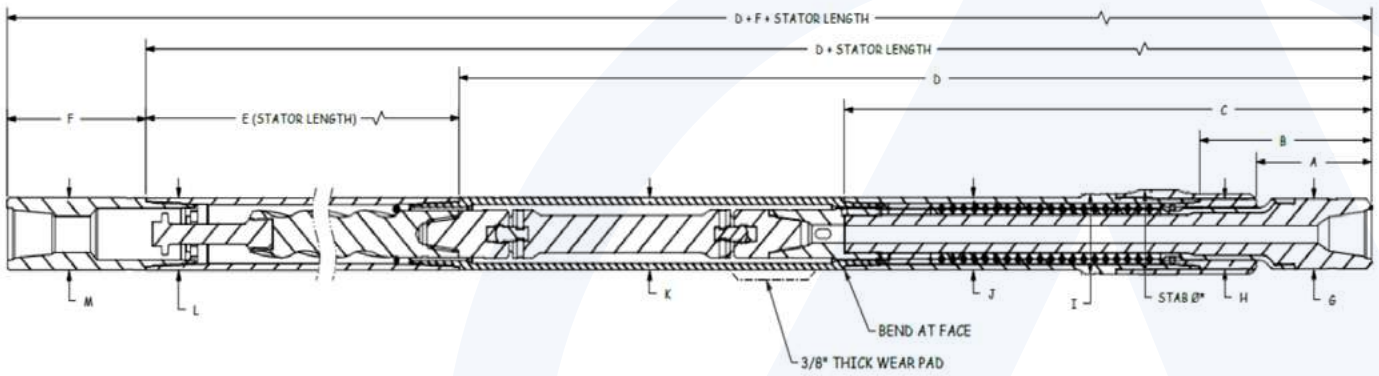
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
7/8 LOBE 6.9 STAGE (FT-003)



7.00” Jaw–Clutch 7/8 Lobe 6.9 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.669	1.88	3.80



7.00” Jaw–Clutch 7/8 Lobe 6.9 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	275.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

7.00” JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL NBR–XP)

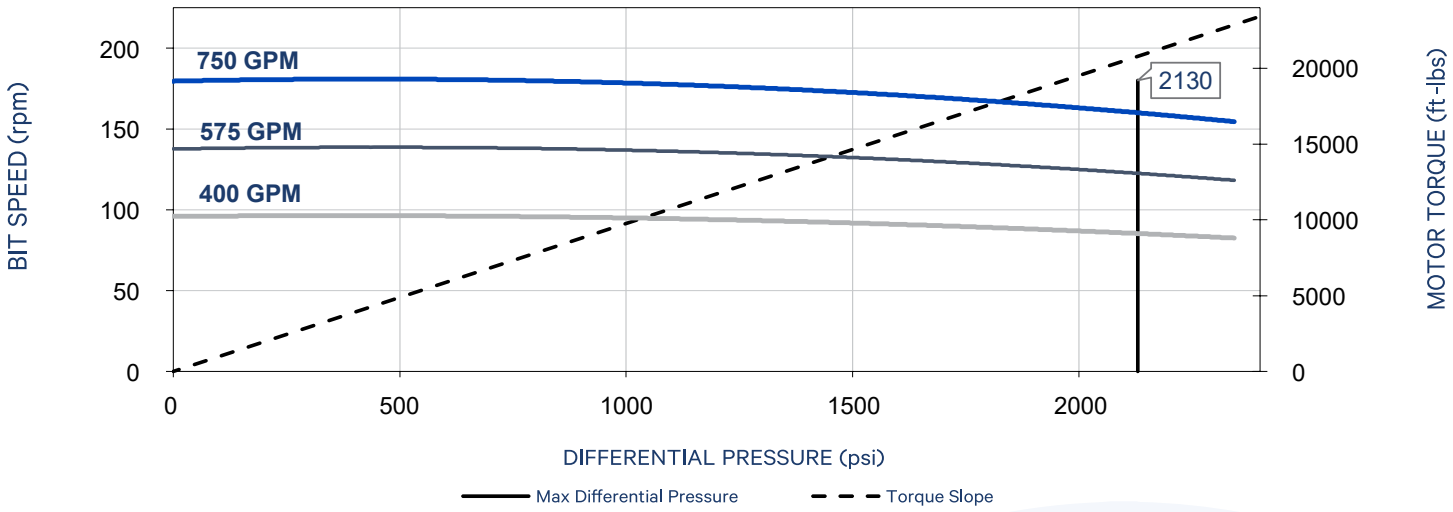
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	114,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	57,000
Torque–External Connections (ft–lbs)	28,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	31,500	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	6.88	
Bit to Bend Length (FBH) (ft)	5.35	
Nominal Length (ft)	35.3	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	100	180
Speed Ratio (rev/US Gal)	0.240	
Max Differential Pressure (psi)		2,130
Max Operating Torque (ft–lbs)		20,790
Torque Slope (ft–lbs/psi)	9.78	

7.00” JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL NBR–XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

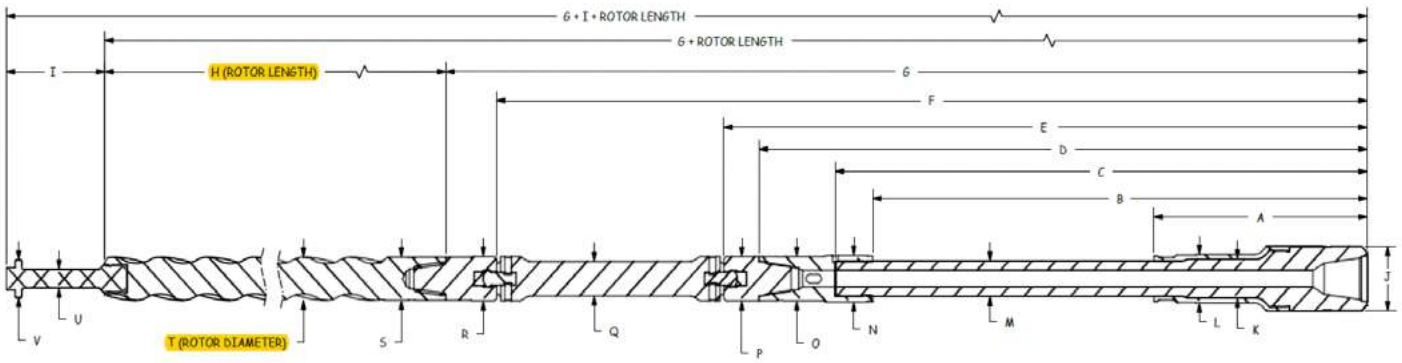
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.3	100	0.8	100		100	2.9	100	3.0	100	3.5	100
0.75°	2.8		2.3				4.3		4.4		4.9	
1.00°	4.4		3.8		1.2		5.7		5.8		6.3	
1.25°	5.9		5.3		2.7		7.1		7.2		7.7	
1.50°	7.4		6.8		4.3		8.8		8.6		9.1	
1.75°	8.9		8.3		5.8		10.4		10.3		10.5	
2.00°	10.4	60	9.8	60	7.3		12.0	60	11.9	60	11.9	
2.12°	11.1	40	10.6	40	8.0	80	12.8	40	12.7	40	12.5	80
2.25°	11.9	20	11.4	20	8.8	60	13.7	20	13.6	20	13.3	60
2.50°	13.4		12.9		10.3	20	15.3		15.2		14.7	20
2.75°	15.0		14.4		11.8		17.0		16.8		16.3	
3.00°	16.5		15.9		13.3		18.6		18.5		18.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

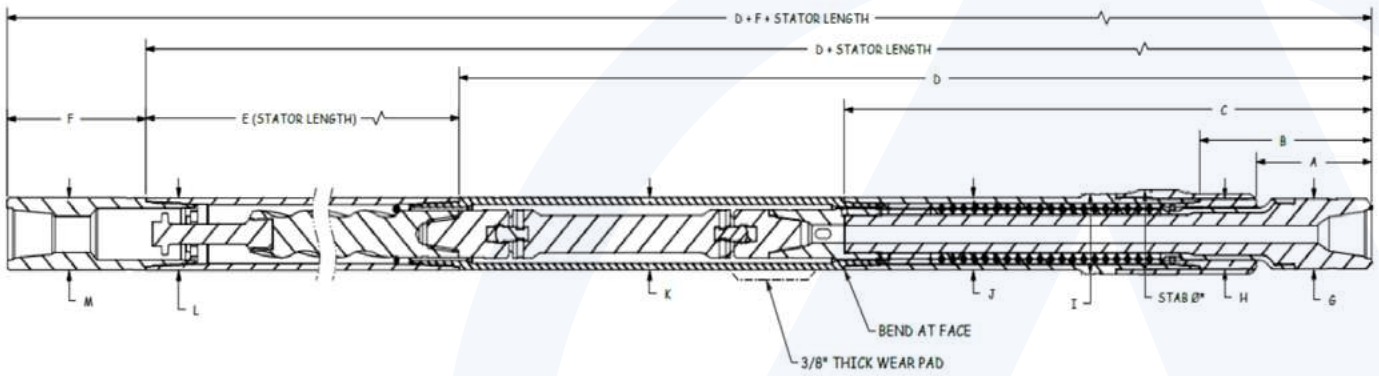
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL NBR–XP)



7.00” Jaw–Clutch 7/8 Lobe 8.5 Stage (Dyna-Drill NBR–XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	52.46	56.71	65.34	69.34	94.99	100.75	294.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	5.024	1.88	3.80



7.00” Jaw–Clutch 7/8 Lobe 8.5 Stage (Dyna-Drill NBR–XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
13.03	17.90	56.71	100.77	300.00	15.88	6.80
H	Stabilizer (1)	I (2)	J	K	L	M
6.80		7.76	7.00	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
0.31 RPG (FT-003)

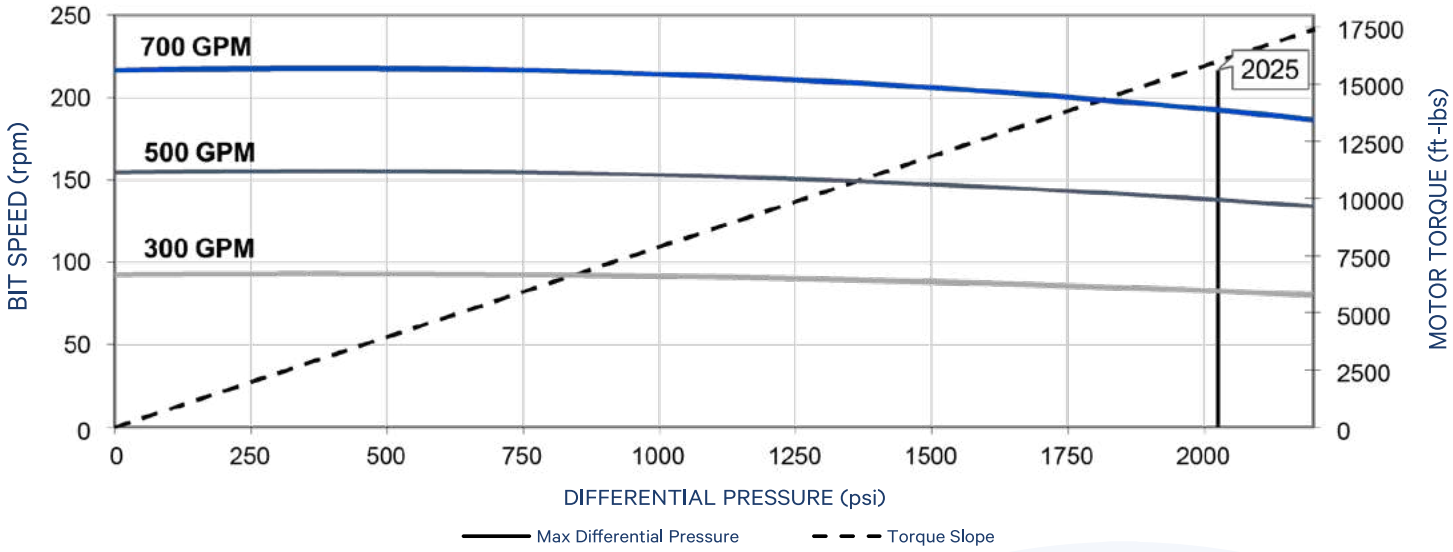
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	29.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	94	219
Speed Ratio (rev/US Gal)	0.31	
Differential Pressure (psi)	2,025	1,871
Operating Torque (ft–lbs)	15,983	14,773
Torque Slope (ft–lbs/psi)	7.895	

7.00” SBTB JAW–CLUTCH
0.31 RPG (FT-003)

Power Section Performance Curve ***



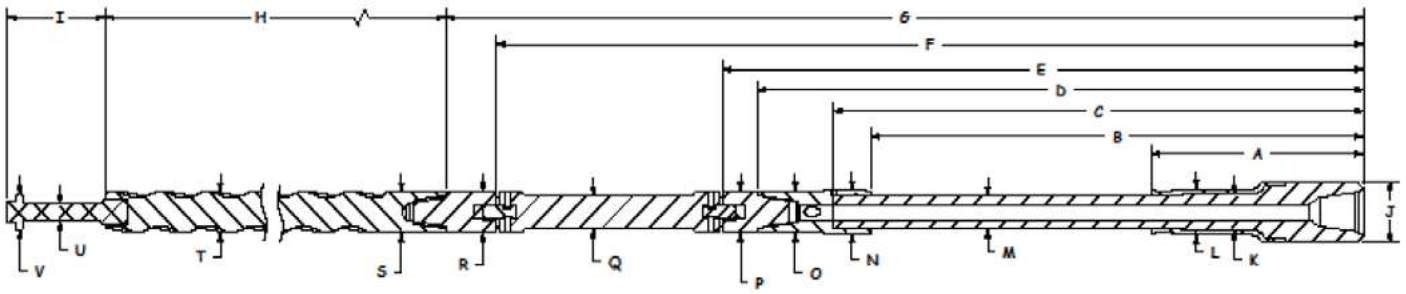
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.0	100	0.2	100		100	3.5	100	3.7	100	4.4	100
0.75°	2.8		2.0				5.2		5.3		6.0	
1.00°	4.6		3.8				6.8		7.0		7.7	
1.25°	6.4		5.6		1.7		8.5		8.7		9.4	
1.50°	8.2		7.4		3.5		10.2		10.4		11.1	
1.75°	10.0		9.2		5.3		12.0		12.0		12.7	
2.00°	11.8	60	11.0	60	7.1		13.9	60	13.8	60	14.4	
2.12°	12.7	40	11.9	40	8.0	80	14.9	40	14.7	40	15.2	80
2.25°	13.6	20	12.8	20	8.9	60	15.9	20	15.7	20	16.1	60
2.50°	15.4		14.6		10.7	20	17.8		17.6		17.8	20
2.75°	17.3		16.4		12.5		19.7		19.6		19.4	
3.00°	19.1		18.2		14.3		21.7		21.5		21.1	

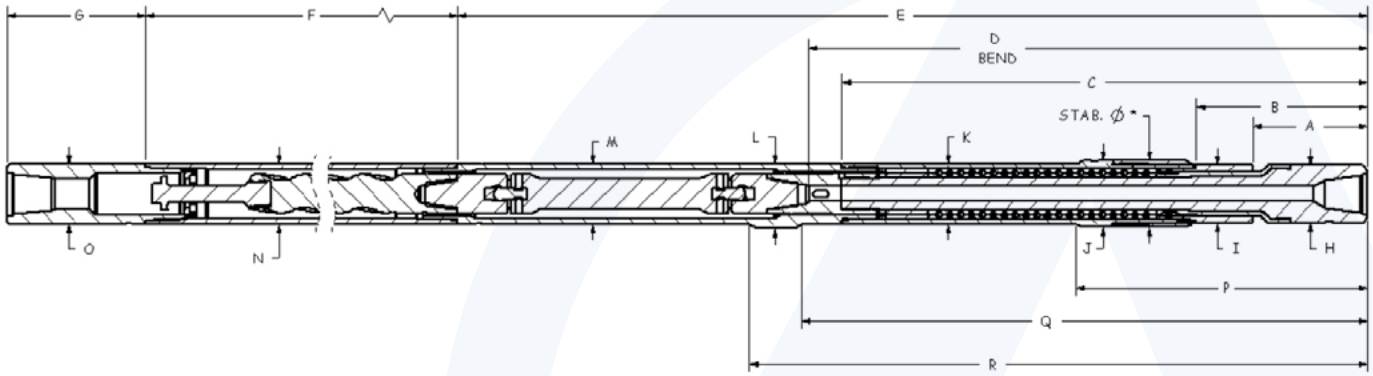
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” SBTB JAW–CLUTCH
0.31 RPG (FT-003)



7.00” SBTB 0.31 RPG (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	238.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.622	1.88	3.80



7.00” SBTB 0.31 RPG (FT-003) OUTER FISHING DIMENSIONS (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.13	88.17	250.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.13	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH CLAW 350

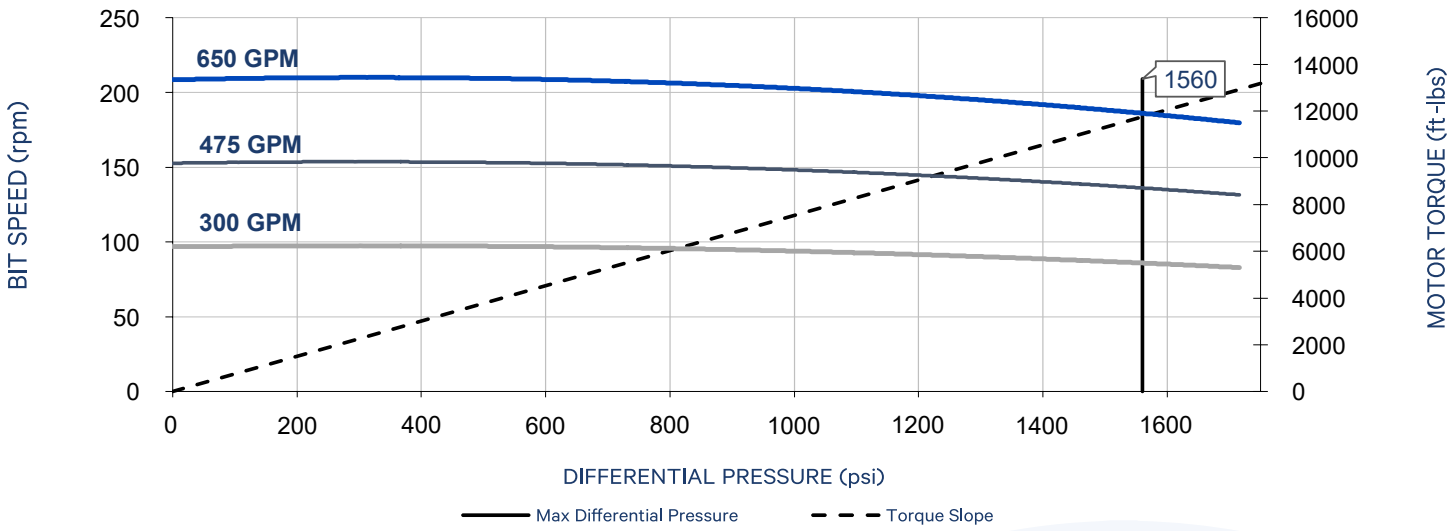
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	25.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	650
Bit Speed (rpm)	97	209
Speed Ratio (rev/US Gal)	0.322	
Max Differential Pressure (psi)		1,560
Max Operating Torque (ft–lbs)		11,760
Torque Slope (ft–lbs/psi)	7.54	

7.00” SBTB JAW–CLUTCH CLAW 350

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

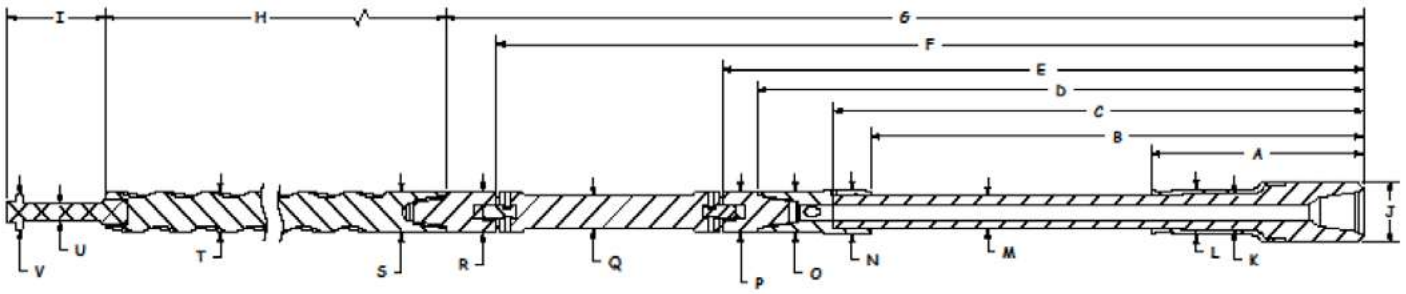
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.2						4.2		4.4		5.4	
0.75°	3.3		2.3				6.1		6.4		7.3	
1.00°	5.4	100	4.4	100			8.1	100	8.3		9.3	
1.25°	7.5		6.5		2.0	100	10.0		10.2	100	11.2	100
1.50°	9.6		8.6		4.1		11.9		12.1		13.1	
1.75°	11.7		10.7		6.2		14.0		14.1		15.1	
2.00°	13.8	60	12.8	60	8.3		16.3	60	16.1		17.0	
2.12°	14.9	40	13.8	40	9.3	80	17.4	40	17.2	80	17.9	80
2.25°	15.9	20	14.9	20	10.4	60	18.6	20	18.4	60	18.9	60
2.50°	18.1		17.1		12.5	20	20.9		20.7	20	20.8	20
2.75°	20.2		19.2		14.6		23.2		23.0		22.8	
3.00°	22.3		21.3		16.7		25.5		25.3		24.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

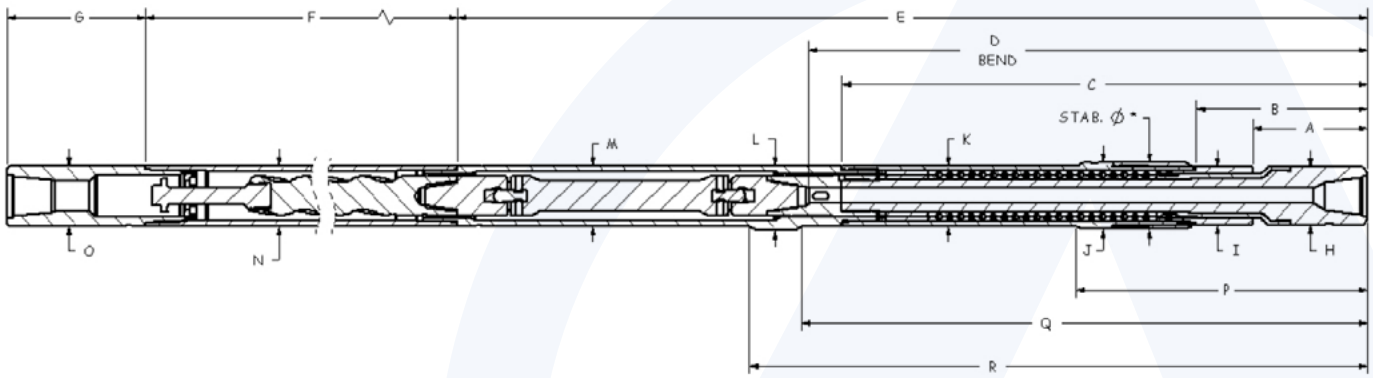
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH CLAW 350



7.00” SBTB Jaw–Clutch CLAW 350 INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	186.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.50	4.260	1.88	3.80



7.00” SBTB Jaw–Clutch CLAW 350 OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	196.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

7.00” SBTB JAW–CLUTCH CLAW 350XT

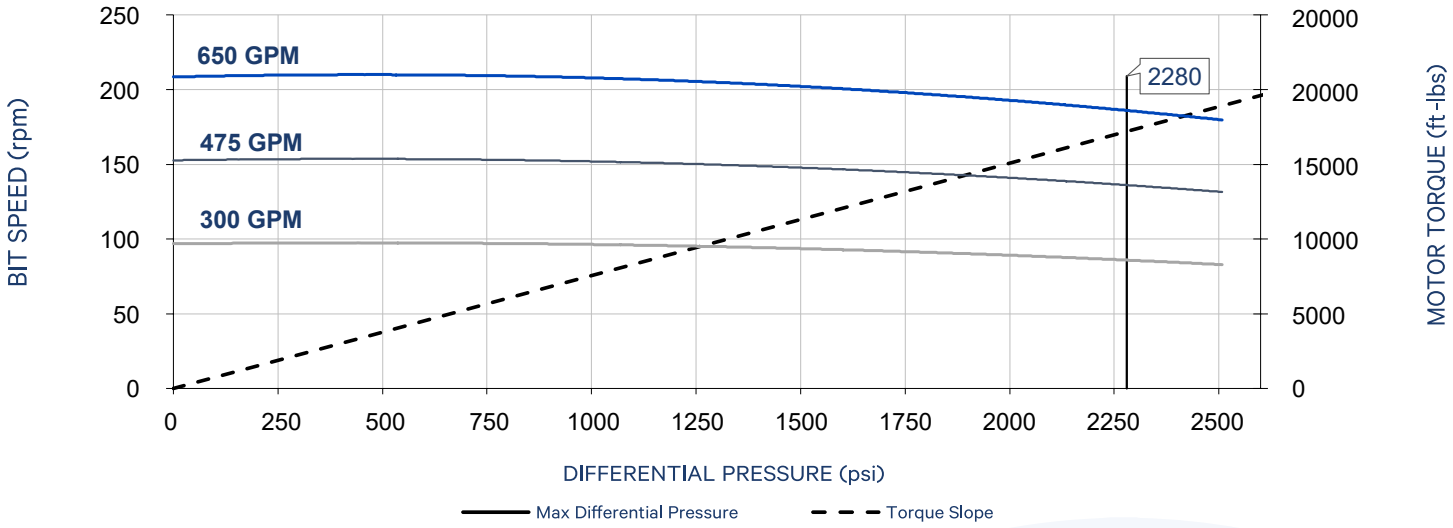
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	650
Bit Speed (rpm)	97	209
Speed Ratio (rev/US Gal)	0.322	
Max Differential Pressure (psi)		2,280
Max Operating Torque (ft–lbs)		17,190
Torque Slope (ft–lbs/psi)	7.54	

7.00” SBTB JAW–CLUTCH CLAW 350XT

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.

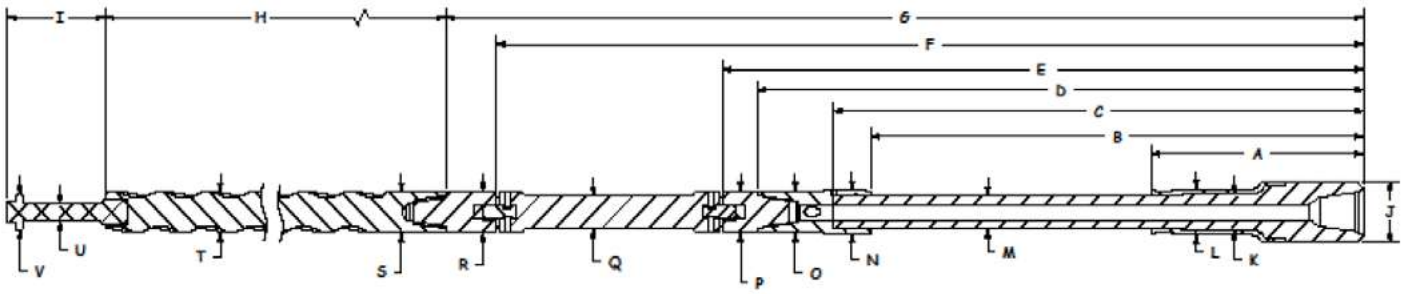
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2		5.7	
1.25°	4.8		4.2		1.3	100	6.4		6.5	100	7.0	100
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

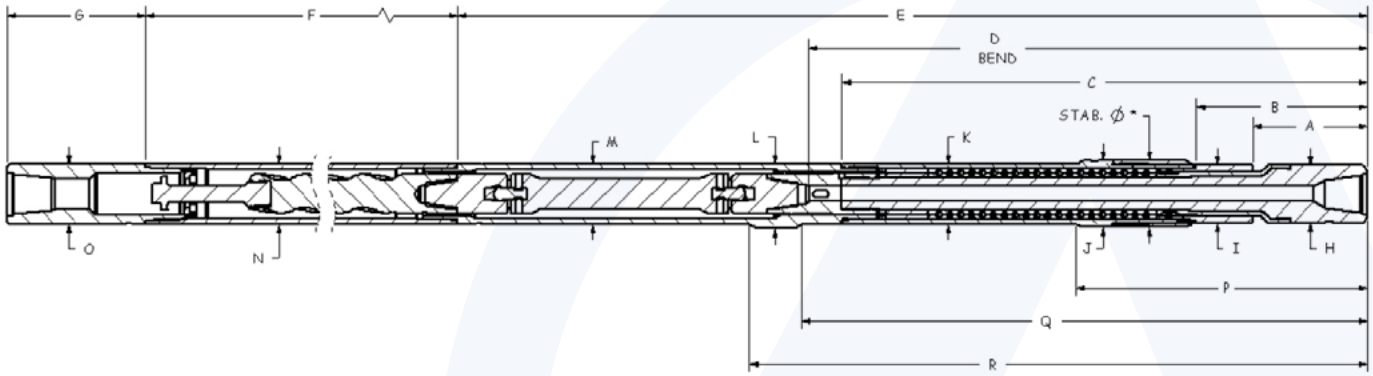
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH CLAW 350XT



7.00” SBTB Jaw–Clutch CLAW 350XT INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.50	4.260	1.88	3.80



7.00” SBTB Jaw–Clutch CLAW 350XT OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)

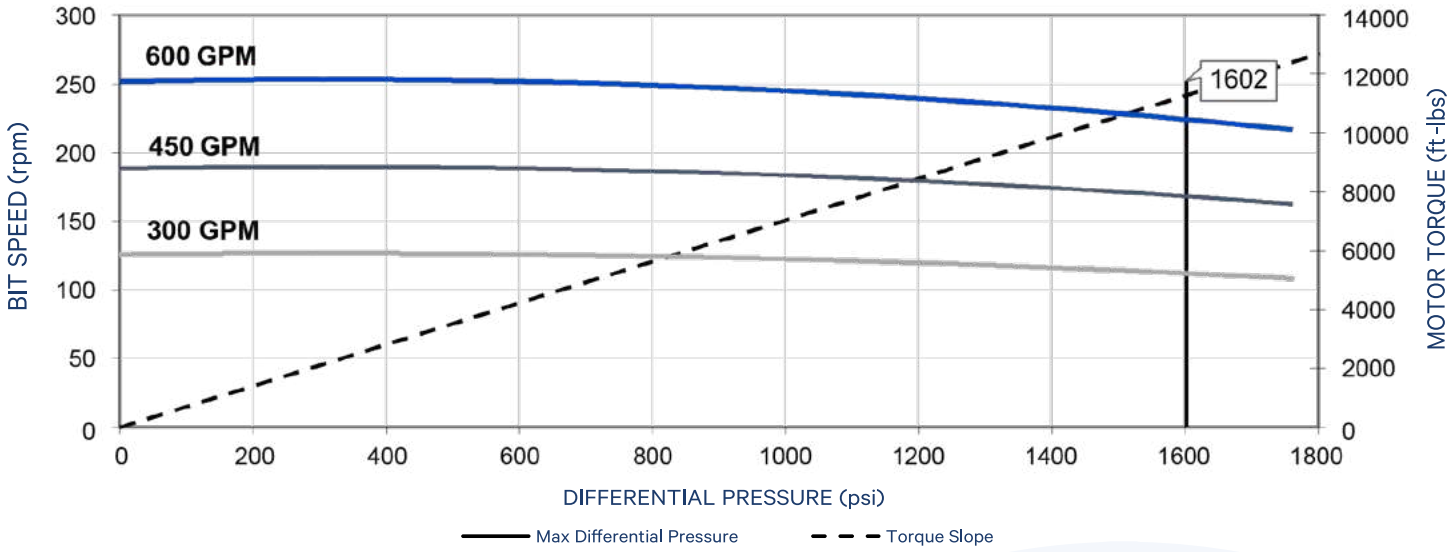
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	29.6	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.41	
Max Differential Pressure (psi)		1,602
Max Operating Torque (ft–lbs)		9,436
Torque Slope (ft–lbs/psi)	5.708	

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

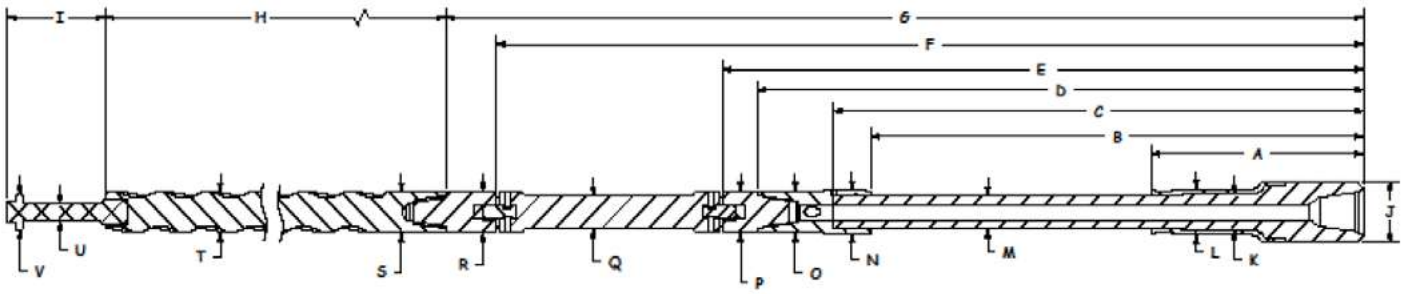
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.0		0.2				3.5		3.6		4.3	
0.75°	2.8		2.0				5.1		5.3		6.0	
1.00°	4.6	100	3.8	100			6.8	100	7.0		7.7	
1.25°	6.4		5.6		1.7	100	8.5		8.6	100	9.3	100
1.50°	8.2		7.4		3.5		10.2		10.3		11.0	
1.75°	10.0		9.2		5.3		11.9		12.0		12.7	
2.00°	11.8	60	11.0	60	7.1		13.9	60	13.7		14.4	
2.12°	12.7	40	11.8	40	8.0	80	14.8	40	14.7	80	15.2	80
2.25°	13.6	20	12.7	20	8.9	60	15.8	20	15.7	60	16.0	60
2.50°	15.4		14.5		10.7	20	17.7		17.6	20	17.7	20
2.75°	17.2		16.3		12.5		19.7		19.5		19.4	
3.00°	19.0		18.1		14.3		21.6		21.4		21.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

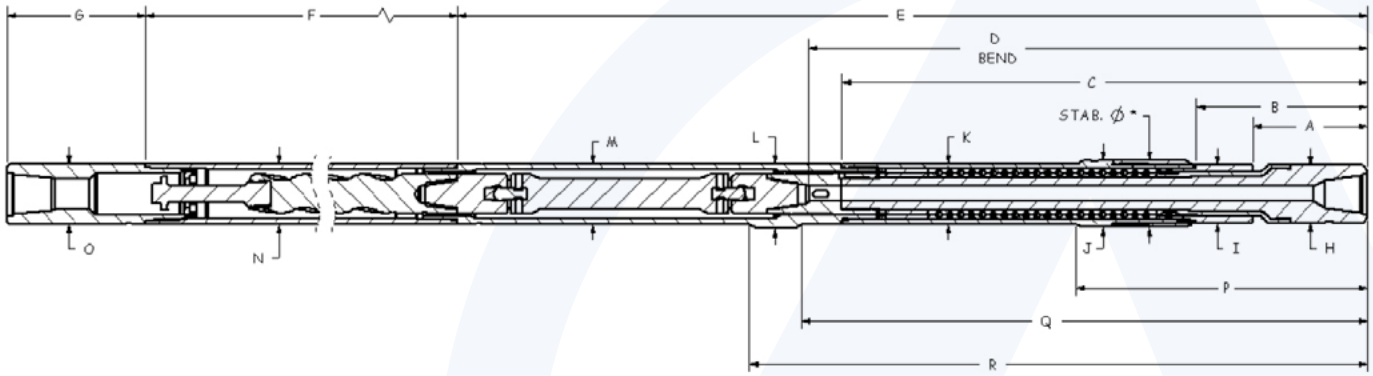
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.2 STAGE (FT-003)



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.2 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	233.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.371	1.88	3.80



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.2 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.13	88.17	246.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.13	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

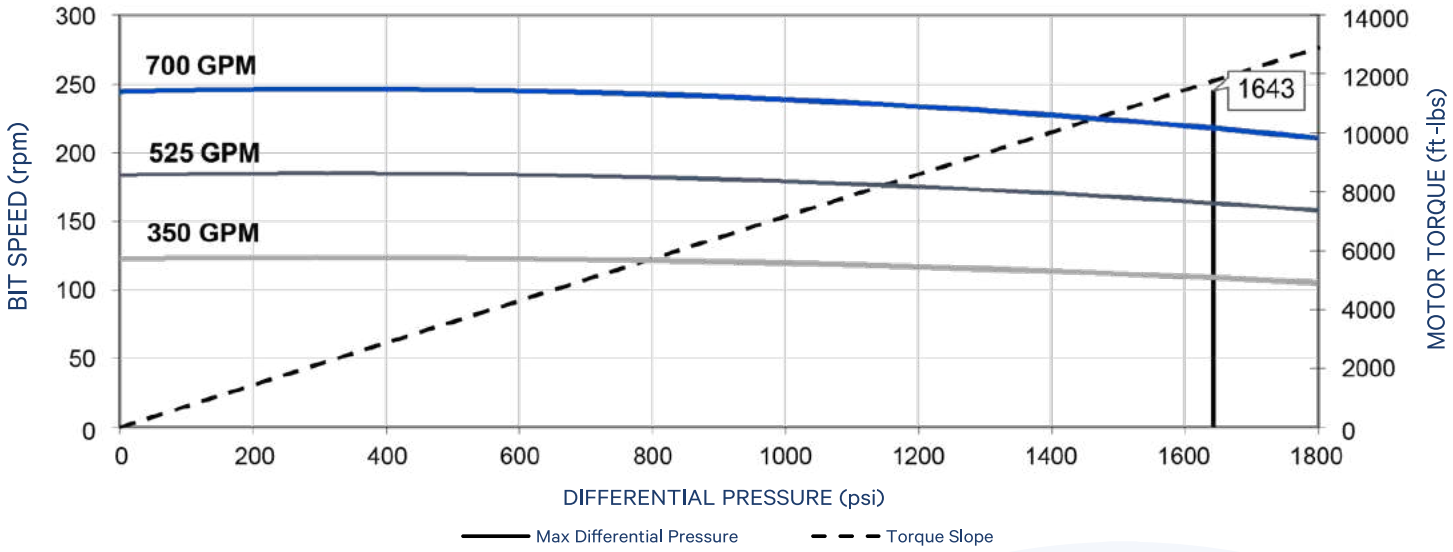
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	700
Bit Speed (rpm)	123	246
Speed Ratio (rev/US Gal)	0.35	
Differential Pressure (psi)	1,708	1,643
Operating Torque (ft–lbs)	11,772	11,324
Torque Slope (ft–lbs/psi)	6.892	

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.4 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

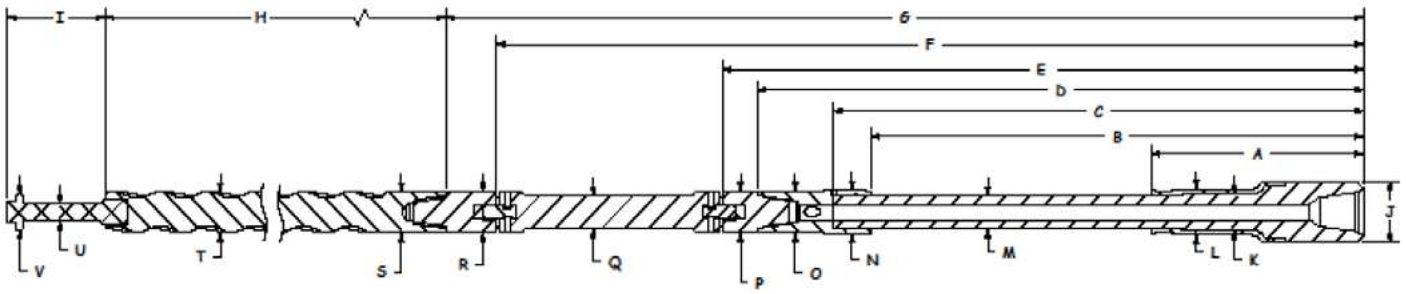
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2	100	5.7	100
1.25°	4.8		4.2		1.3	100	6.4		6.5		7.0	
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

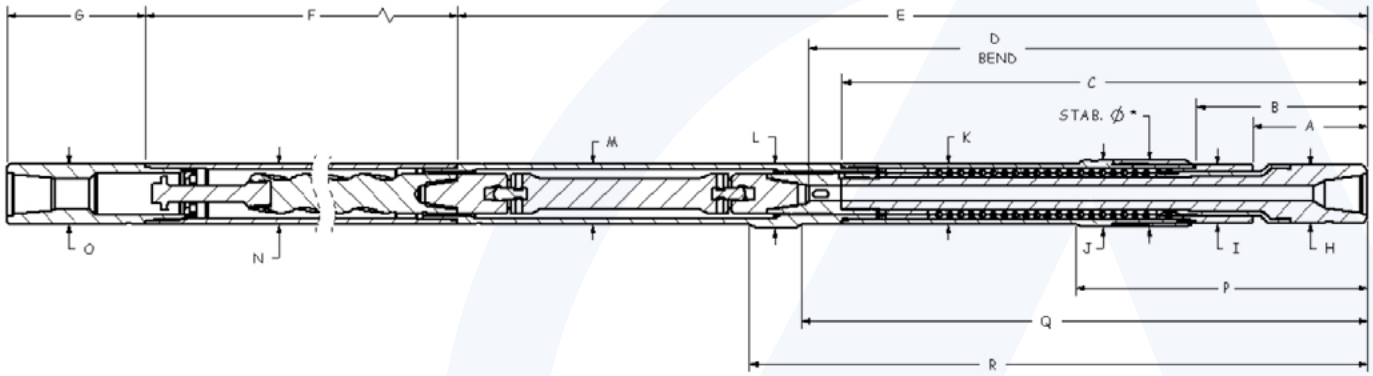
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH 5/6 LOBE 8.4 STAGE (FT-003)



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.13	4.57	1.88	3.80



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.6 STAGE (ABACO HPW)

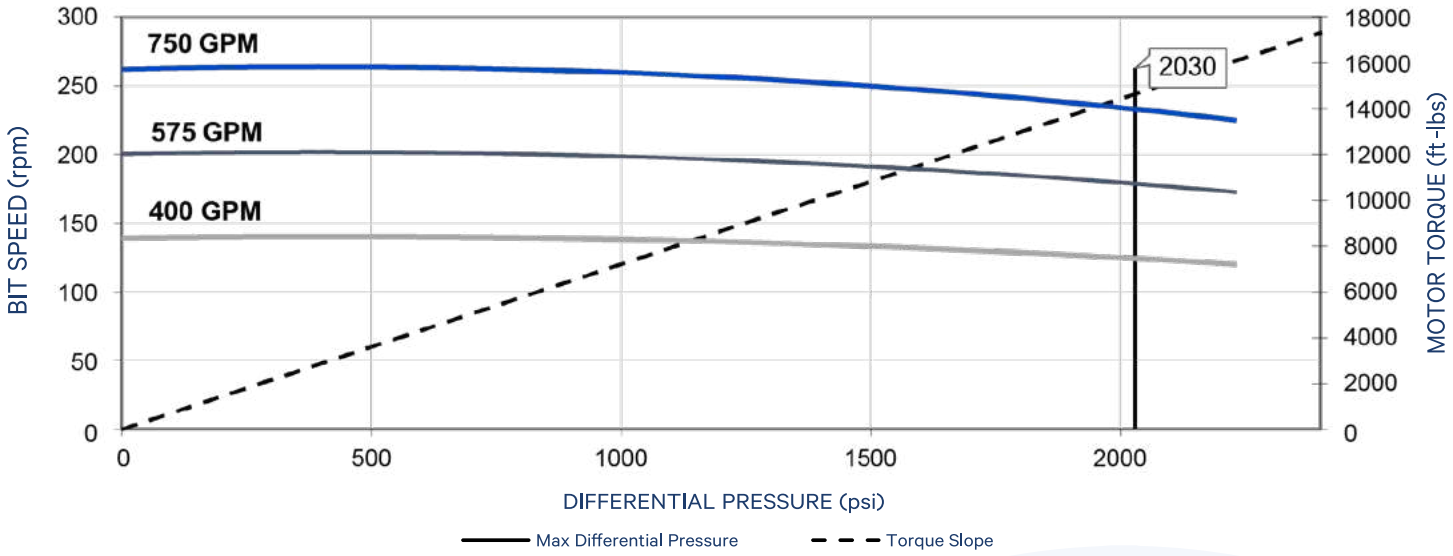
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	140	263
Speed Ratio (rev/US Gal)	0.35	
Max Differential Pressure (psi)		2,030
Max Operating Torque (ft–lbs)		11,660
Torque Slope (ft–lbs/psi)	7.25	

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.6 STAGE (ABACO HPW)

Power Section Performance Curve ***



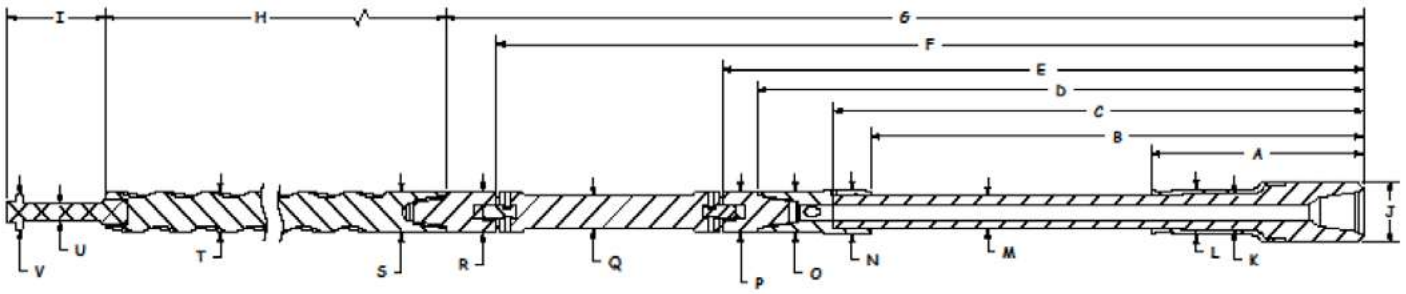
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2		5.7	
1.25°	4.8		4.2		1.3	100	6.4		6.5	100	7.0	100
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

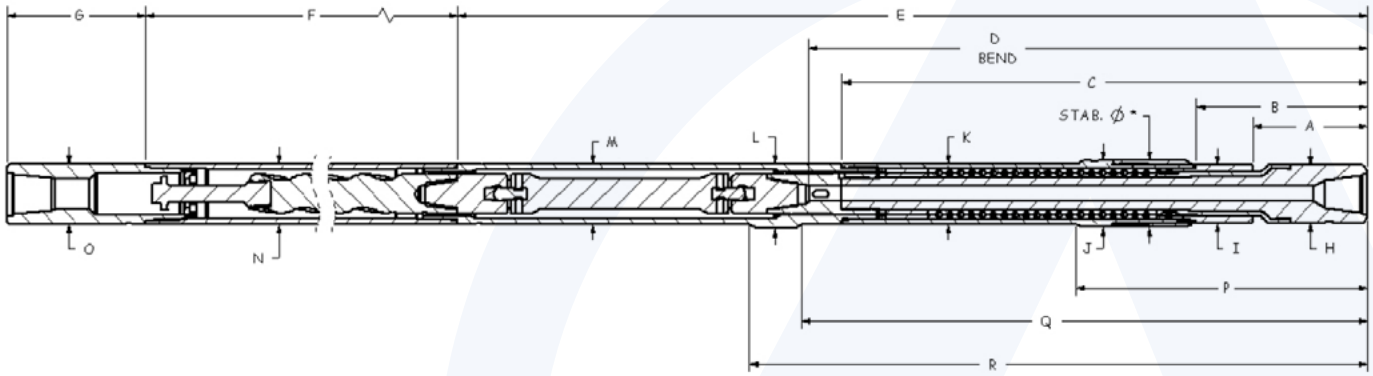
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” SBTB JAW–CLUTCH
5/6 LOBE 8.6 STAGE (ABACO HPW)



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.6 Stage (Abaco HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.13	4.703	1.88	3.80



7.00” SBTB Jaw–Clutch 5/6 Lobe 8.6 Stage (Abaco HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

7.00” SBTB JAW–CLUTCH
5/6 LOBE 9.4 STAGE (FT-003)

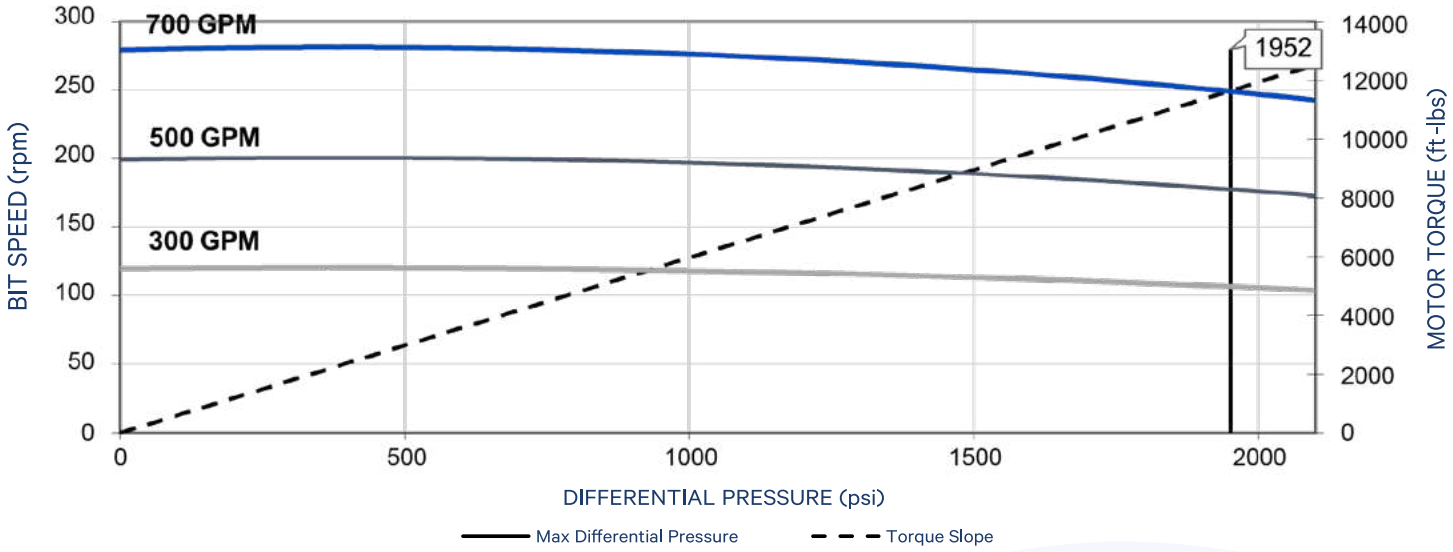
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	119	279
Speed Ratio (rev/US Gal)	0.40	
Differential Pressure (psi)	1,952	1,880
Operating Torque (ft–lbs)	11,644	11,214
Torque Slope (ft–lbs/psi)	5.965	

7.00” SBTB JAW–CLUTCH
5/6 LOBE 9.4 STAGE (FT-003)

Power Section Performance Curve ***



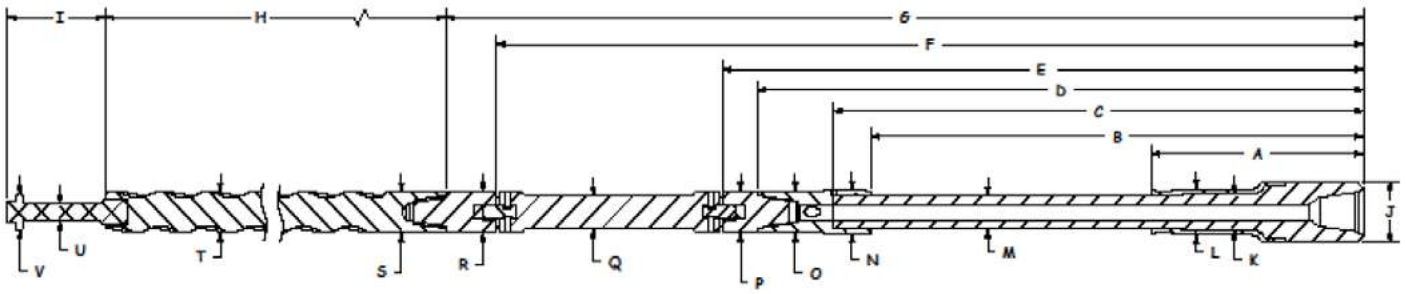
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2		5.7	
1.25°	4.8		4.2		1.3	100	6.4		6.5	100	7.0	100
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

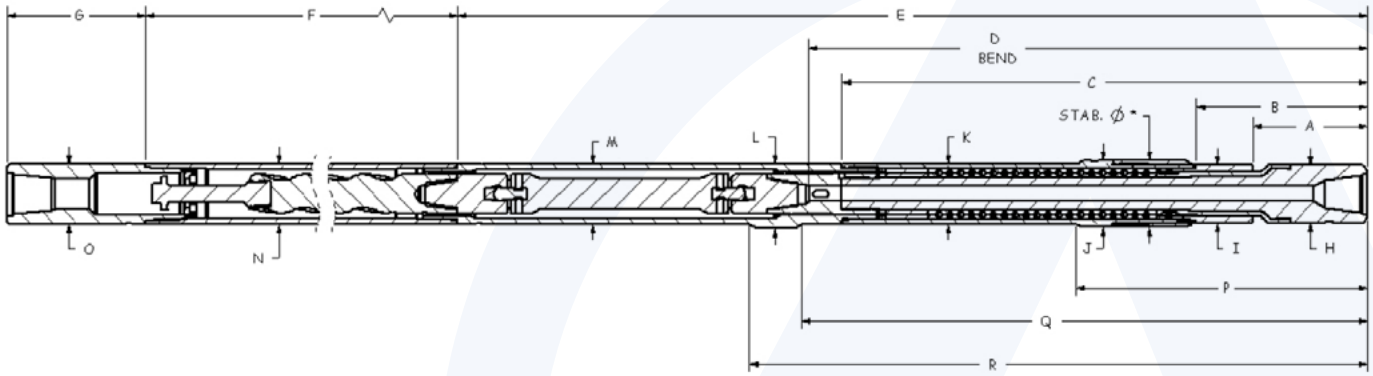
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” SBTB JAW–CLUTCH 5/6 LOBE 9.4 STAGE (FT-003)



7.00” SBTB Jaw–Clutch 5/6 Lobe 9.4 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.13	4.522	1.88	3.80



7.00” SBTB Jaw–Clutch 5/6 Lobe 9.4 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)

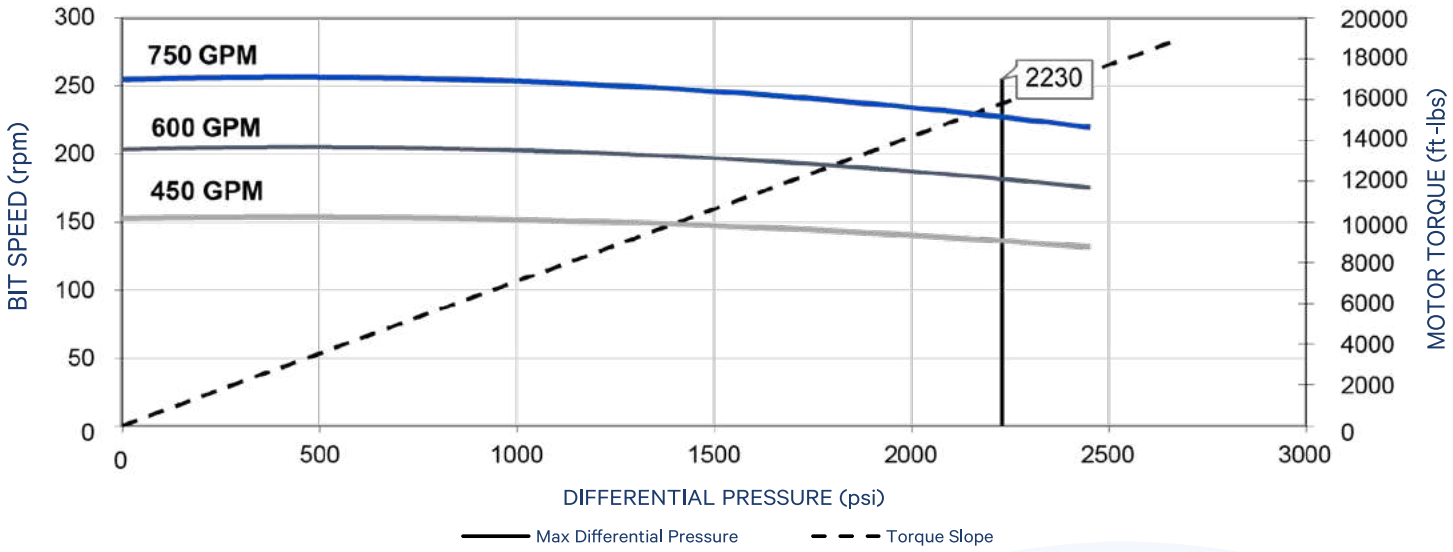
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	34.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	450	750
Bit Speed (rpm)	155	258
Speed Ratio (rev/US Gal)	0.344	
Max Differential Pressure (psi)		2,230
Max Operating Torque (ft–lbs)		15,790
Torque Slope (ft–lbs/psi)	7.07	

7.00” SBTB JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

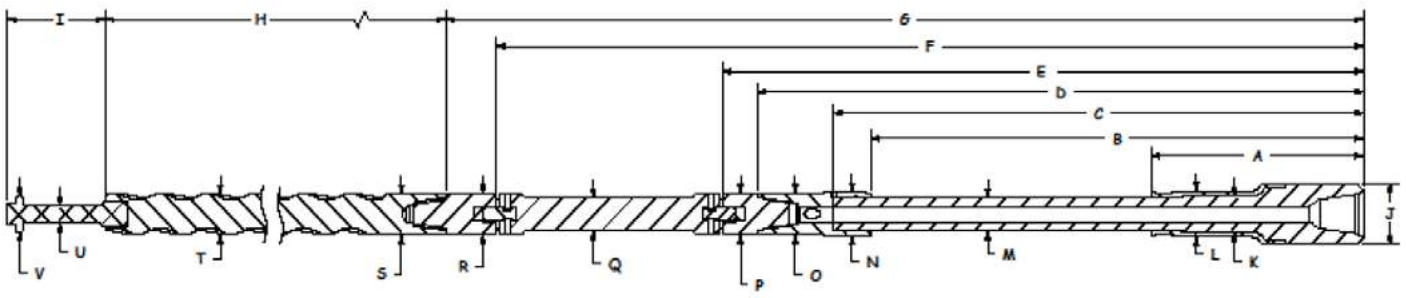
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.2						4.2		4.4		5.4	
0.75°	3.3		2.3				6.1		6.4		7.3	
1.00°	5.4	100	4.4	100			8.1	100	8.3		9.3	
1.25°	7.5		6.5		2.0	100	10.0		10.2	100	11.2	100
1.50°	9.6		8.6		4.1		11.9		12.1		13.1	
1.75°	11.7		10.7		6.2		14.0		14.1		15.1	
2.00°	13.8	60	12.8	60	8.3		16.3	60	16.1		17.0	
2.12°	14.9	40	13.8	40	9.3	80	17.4	40	17.2	80	17.9	80
2.25°	15.9	20	14.9	20	10.4	60	18.6	20	18.4	60	18.9	60
2.50°	18.1		17.1		12.5	20	20.9		20.7	20	20.8	20
2.75°	20.2		19.2		14.6		23.2		23.0		22.8	
3.00°	22.3		21.3		16.7		25.5		25.3		24.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

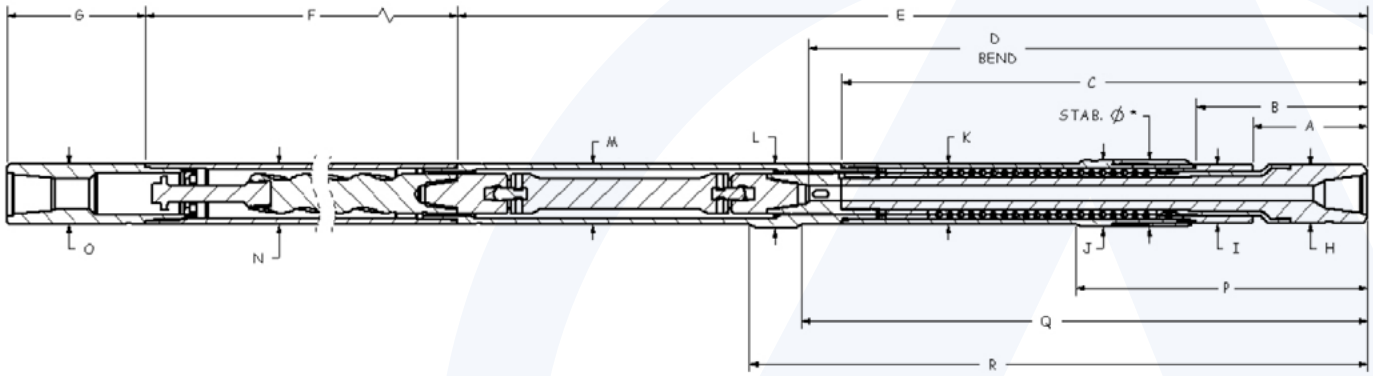
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
5/6 LOBE 9.5 STAGE (VIKING VPX)



7.00” SBTB Jaw–Clutch 5/6 Lobe 9.5 Stage (Viking VPX) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	288.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.50	4.558	1.88	3.80



7.00” SBTB Jaw–Clutch 5/6 Lobe 9.5 Stage (Viking VPX) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	300.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

7.00” SBTB JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)

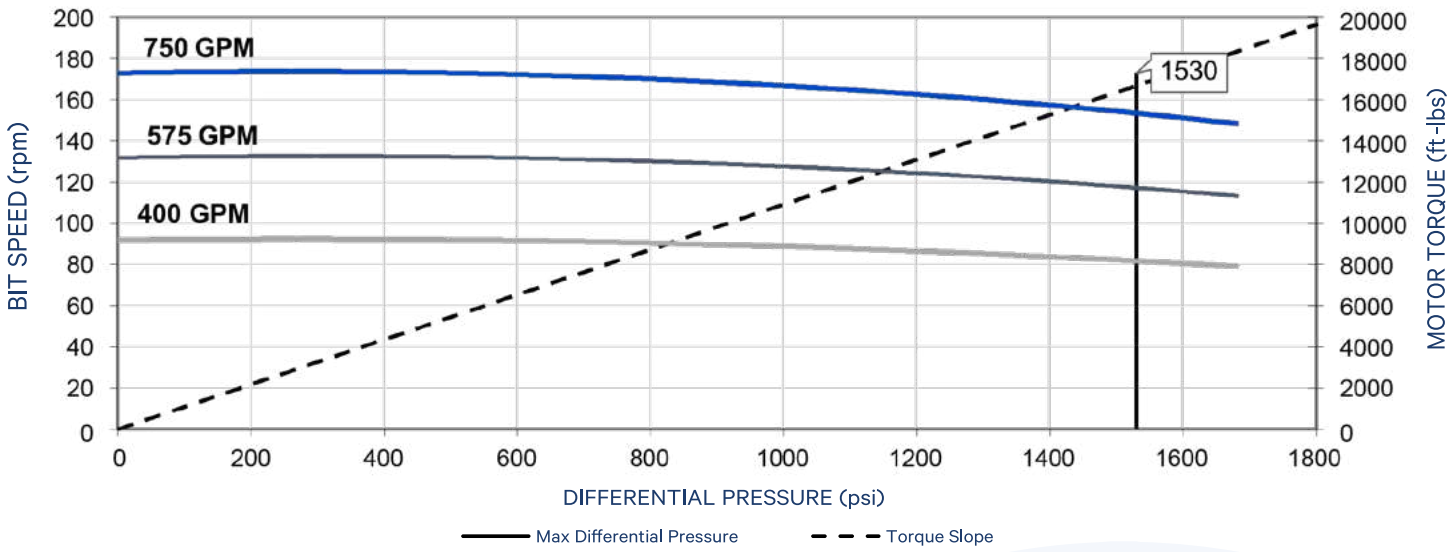
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	29.6	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	90	170
Speed Ratio (rev/US Gal)	0.23	
Max Differential Pressure (psi)		1,530
Max Operating Torque (ft–lbs)		16,680
Torque Slope (ft–lbs/psi)	10.92	

7.00” SBTB JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

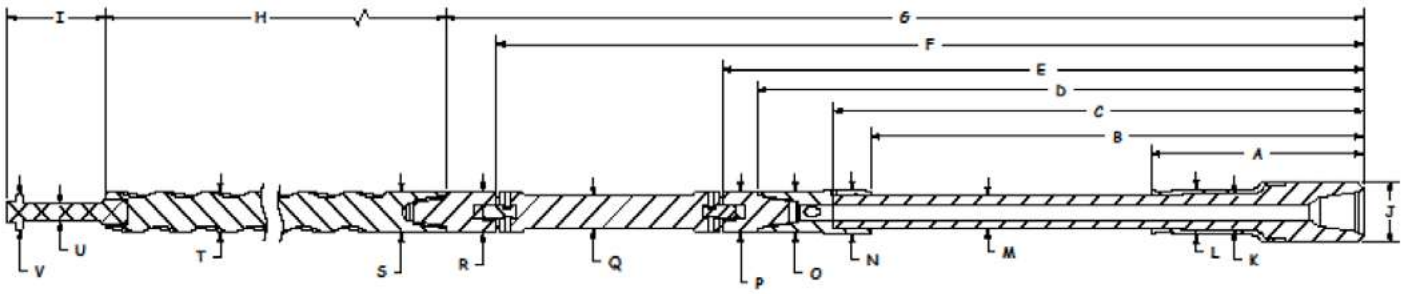
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.0		0.2				3.5		3.6		4.3	
0.75°	2.8		2.0				5.1		5.3		6.0	
1.00°	4.6	100	3.8	100			6.8	100	7.0		7.7	
1.25°	6.4		5.6		1.7	100	8.5		8.6	100	9.3	100
1.50°	8.2		7.4		3.5		10.2		10.3		11.0	
1.75°	10.0		9.2		5.3		11.9		12.0		12.7	
2.00°	11.8	60	11.0	60	7.1		13.9	60	13.7		14.4	
2.12°	12.7	40	11.8	40	8.0	80	14.8	40	14.7	80	15.2	80
2.25°	13.6	20	12.7	20	8.9	60	15.8	20	15.7	60	16.0	60
2.50°	15.4		14.5		10.7	20	17.7		17.6	20	17.7	20
2.75°	17.2		16.3		12.5		19.7		19.5		19.4	
3.00°	19.0		18.1		14.3		21.6		21.4		21.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

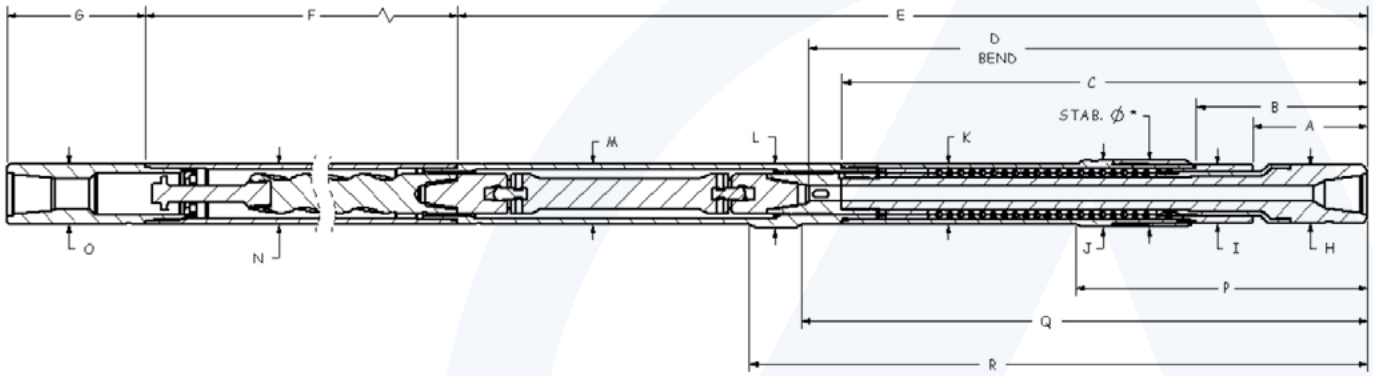
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
6/7 LOBE 6.5 STAGE (ABACO NBR–HPW)



7.00” SBTB Jaw–Clutch 6/7 Lobe 6.5 Stage (Abaco NBR-HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	267.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.747	1.88	3.80



7.00” SBTB Jaw–Clutch 6/7 Lobe 6.5 Stage (Abaco NBR-HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.13	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.13	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
6/7 LOBE 8.4 STAGE (ABACO NBR–HPW)

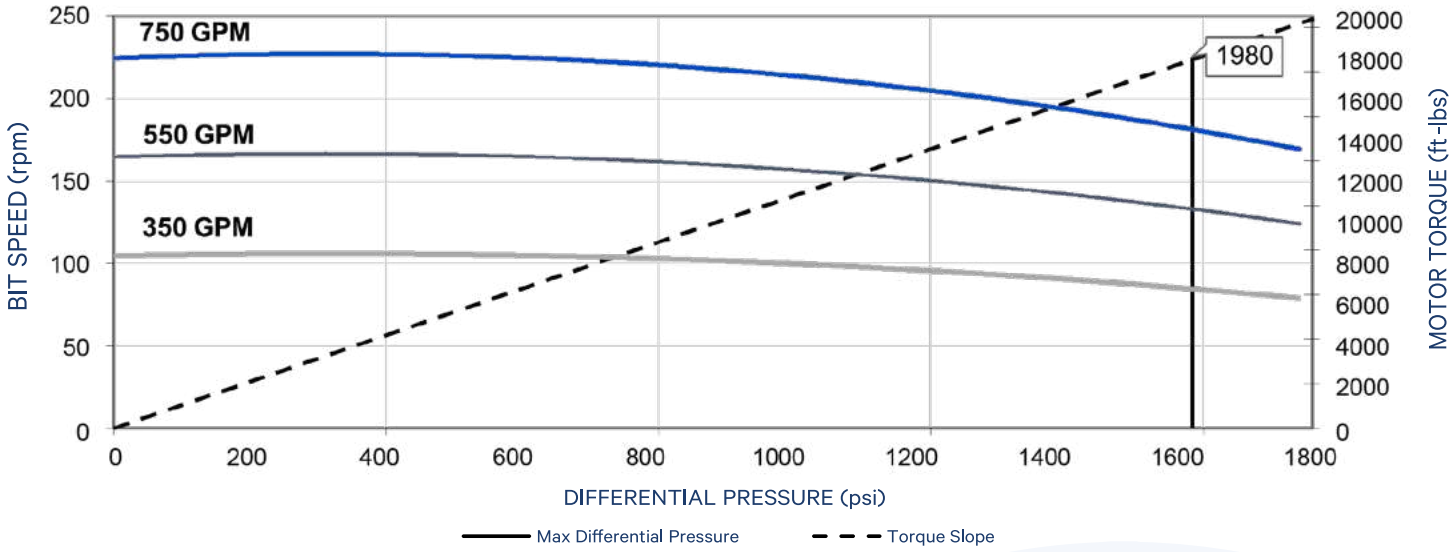
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	750
Bit Speed (rpm)	110	230
Speed Ratio (rev/US Gal)	0.30	
Max Differential Pressure (psi)		1,980
Max Operating Torque (ft–lbs)		16,550
Torque Slope (ft–lbs/psi)	8.38	

7.00” SBTB JAW–CLUTCH
6/7 LOBE 8.4 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

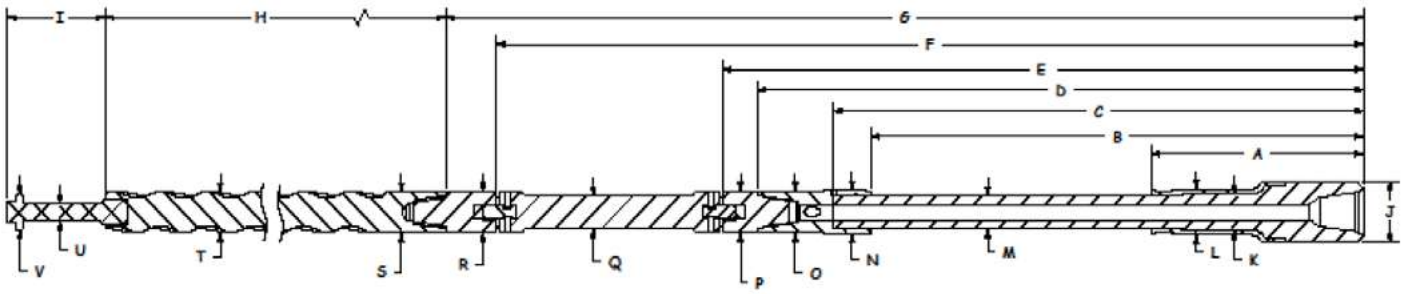
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2		5.7	
1.25°	4.8		4.2		1.3	100	6.4		6.5	100	7.0	100
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

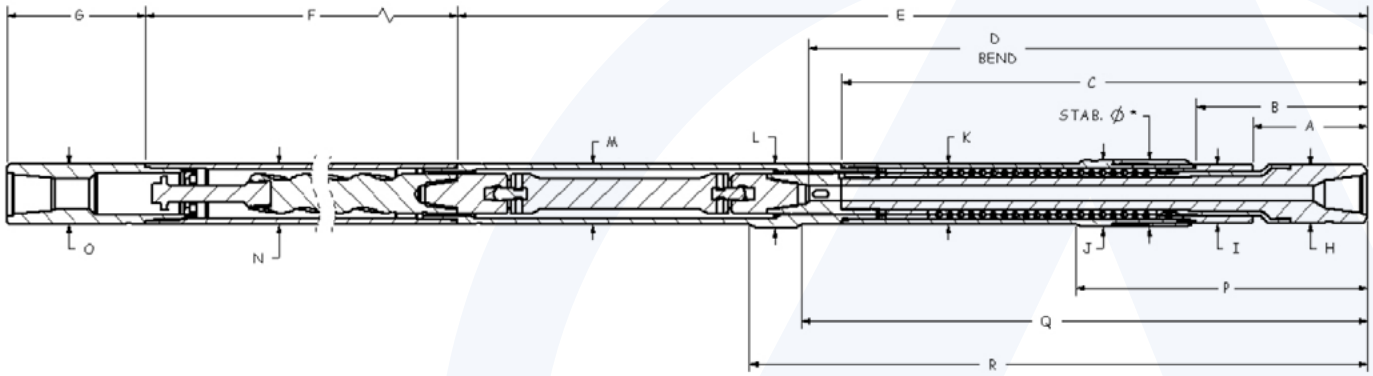
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
6/7 LOBE 8.4 STAGE (ABACO NBR–HPW)



7.00” SBTB Jaw–Clutch 6/7 Lobe 8.4 Stage (Abaco NBR–HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	267.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.747	1.88	3.80



7.00” SBTB Jaw–Clutch 6/7 Lobe 8.4 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

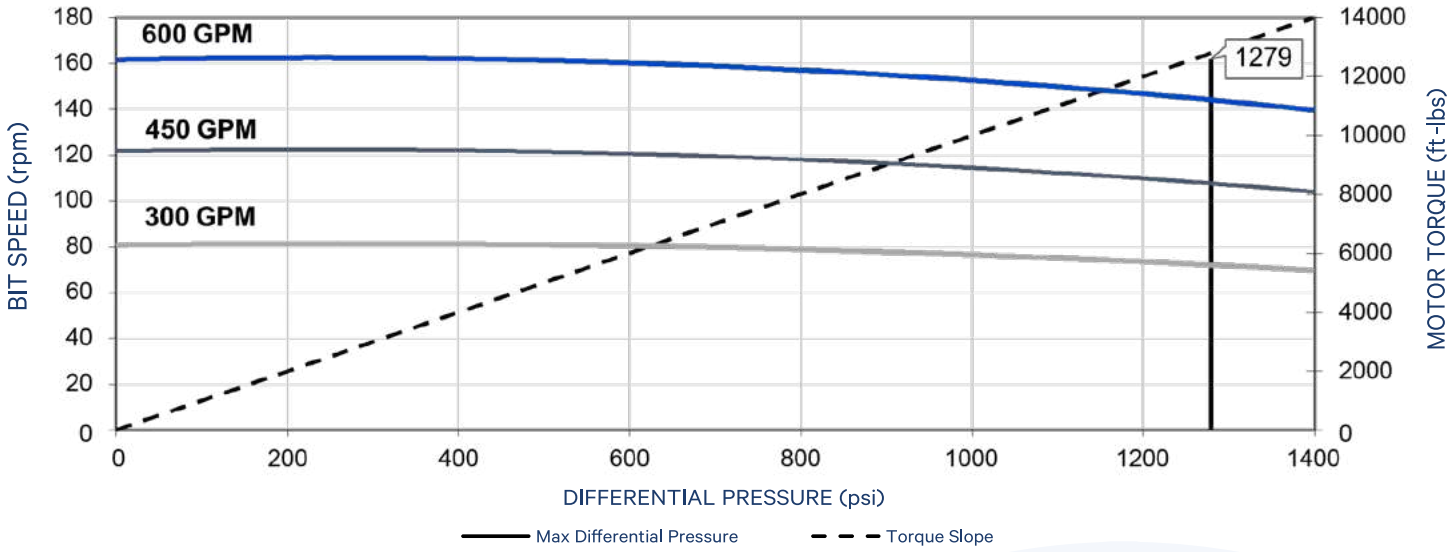
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	26.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	600
Bit Speed (rpm)	84	168
Speed Ratio (rev/US Gal)	0.28	
Max Differential Pressure (psi)		1,279
Max Operating Torque (ft–lbs)		12,813
Torque Slope (ft–lbs/psi)	9.005	

7.00” SBTB JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

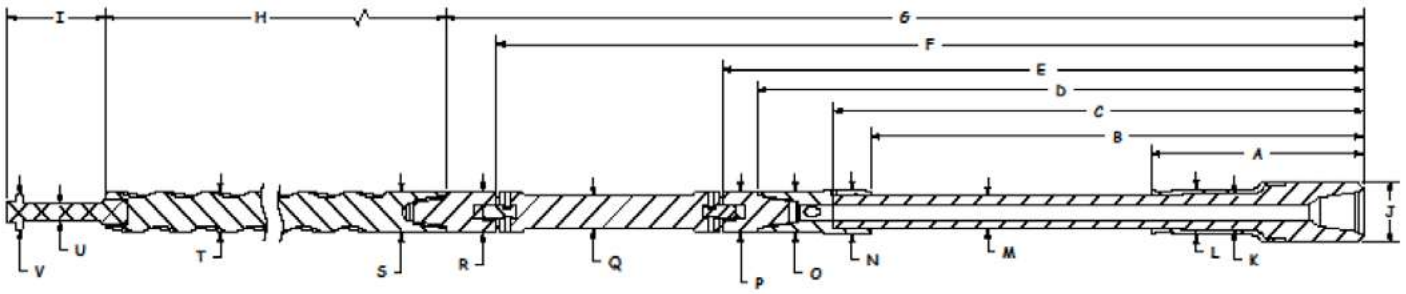
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	1.2	100	0.2	100		100	4.0	100	4.2	100	5.1	100
0.75°	3.2		2.2				5.9		6.1		7.0	
1.00°	5.2		4.2				7.7		7.9		8.8	
1.25°	7.2		6.3		1.9		9.6		9.8		10.7	
1.50°	9.2		8.3		3.9		11.4		11.6		12.5	
1.75°	11.3		10.2		6.0		13.5		13.5		14.4	
2.00°	13.3	60	12.3	60	8.0		15.6	60	15.4		16.3	
2.12°	14.3	40	13.3	40	9.0	80	16.7	40	16.5	80	17.1	80
2.25°	15.3	20	14.3	20	10.0	60	17.8	20	17.6	60	16.3	60
2.50°	17.3		16.4		12.0	20	20.0		19.8	20	20.0	20
2.75°	19.3		18.4		14.0		22.2		22.0		21.8	
3.00°	21.4		20.4		16.1		24.4		24.2		23.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

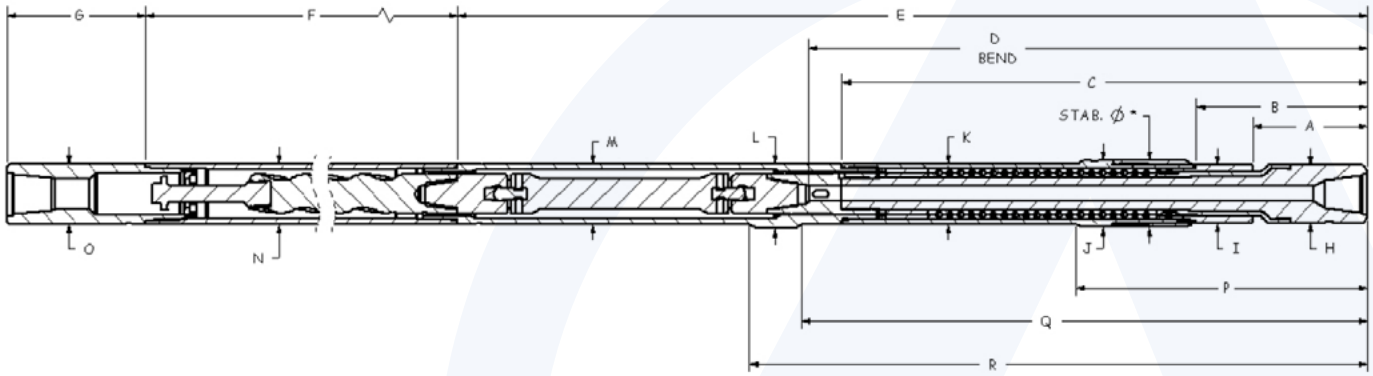
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
7/8 LOBE 5.0 STAGE (FT-003)



7.00” SBTB Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	188.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.52	1.88	3.80



7.00” SBTB Jaw–Clutch 7/8 Lobe 5.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.13	88.17	204.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.13	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
7/8 LOBE 6.9 STAGE (FT-003)

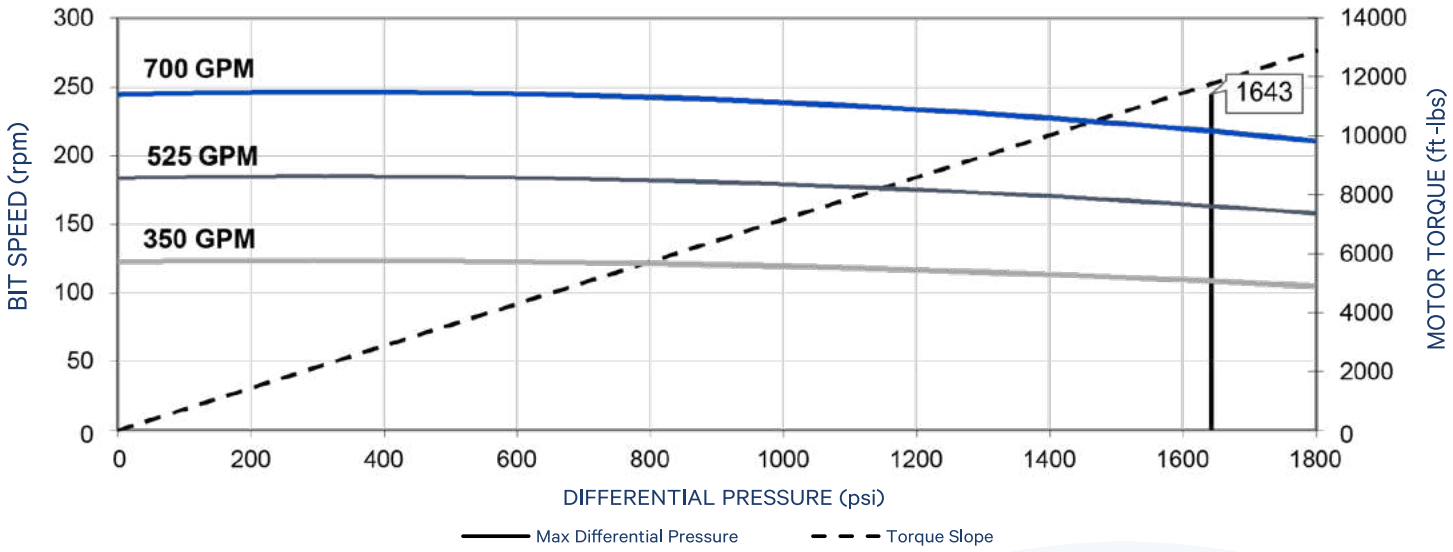
General Data			
Bit Sizes (in)	8 ½ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	32.1	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	74	172
Speed Ratio (rev/US Gal)	0.25	
Differential Pressure (psi)	1,883	1,741
Operating Torque (ft–lbs)	19,009	17,575
Torque Slope (ft–lbs/psi)	10.095	

7.00” SBTB JAW–CLUTCH
7/8 LOBE 6.9 STAGE (FT-003)

Power Section Performance Curve ***



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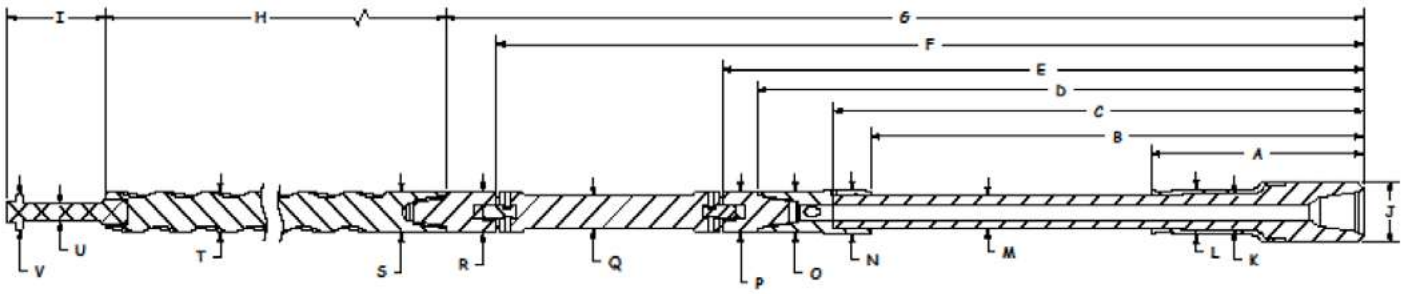
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.8						2.6		2.7		3.2	
0.75°	2.1		1.5				3.9		4.0		4.5	
1.00°	3.5	100	2.8	100			5.1	100	5.2		5.7	
1.25°	4.8		4.2		1.3	100	6.4		6.5	100	7.0	100
1.50°	6.2		5.6		2.6		7.7		7.8		8.3	
1.75°	7.6		6.9		4.0		9.0		9.1		9.5	
2.00°	8.9	60	8.3	60	5.4		10.5	60	10.4		10.8	
2.12°	9.6	40	8.9	40	6.0	80	11.2	40	11.1	80	11.4	80
2.25°	10.3	20	9.6	20	6.7	60	11.9	20	11.8	60	12.1	60
2.50°	11.6		11.0		8.1	20	13.4		13.3	20	13.4	20
2.75°	13.0		12.4		9.4		14.8		14.7		14.6	
3.00°	14.4		13.7		10.8		16.3		16.2		15.9	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

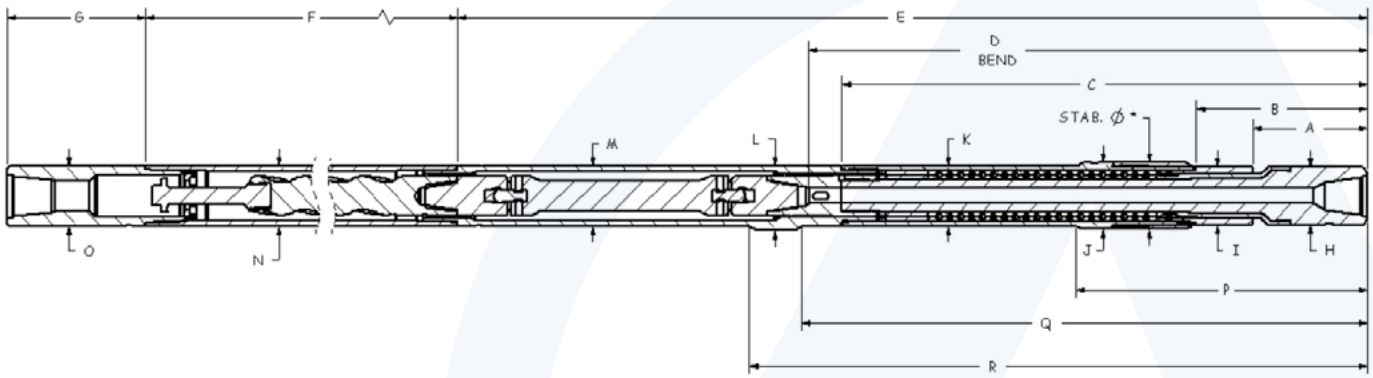
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH 7/8 LOBE 6.9 STAGE (FT-003)



7.00” SBTB Jaw–Clutch 7/8 Lobe 6.9 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	266.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	4.57	1.88	3.80



7.00” SBTB Jaw–Clutch 7/8 Lobe 6.9 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.00	88.17	275.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.00	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL XP)

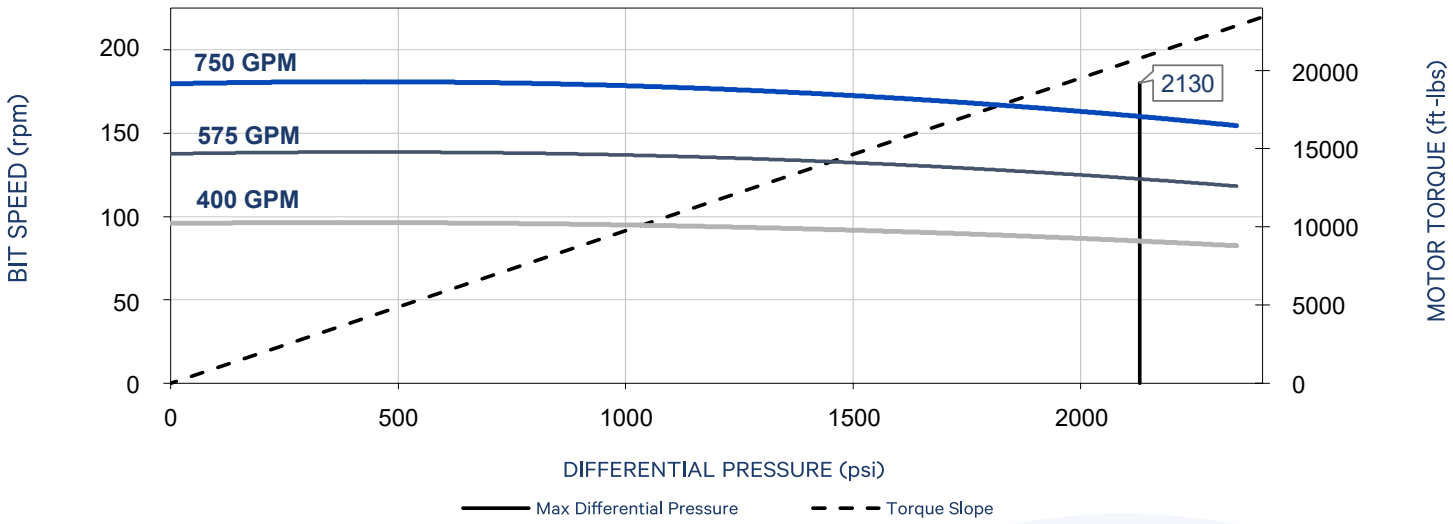
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,600	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.01	
Nominal Length (ft)	34.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	100	180
Speed Ratio (rev/US Gal)	0.24	
Max Differential Pressure (psi)		2,130
Max Operating Torque (ft–lbs)		20,790
Torque Slope (ft–lbs/psi)	9.78	

7.00” SBTB JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



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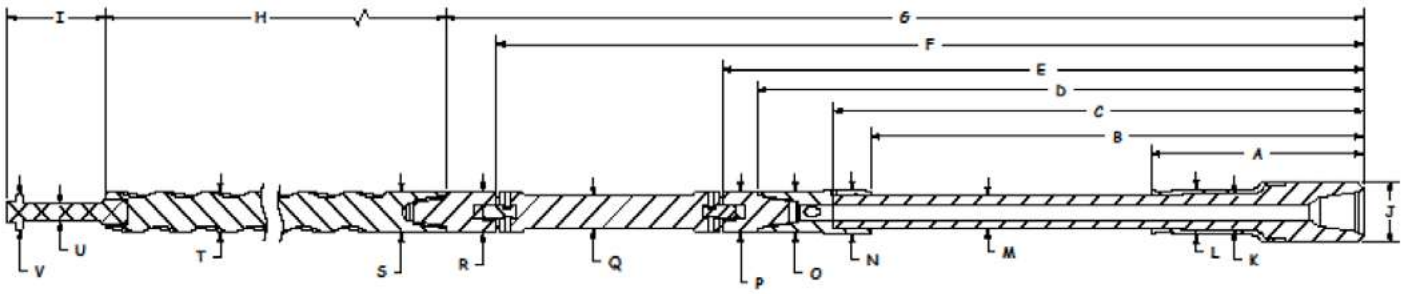
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.9	100	0.1	100		100	3.0	100	3.1	100	3.6	100
0.75°	2.5		1.7				4.4		4.5		5.1	
1.00°	4.0		3.3				5.9		6.0		6.5	
1.25°	5.6		4.8		1.5		7.4		7.5		8.0	
1.50°	7.1		6.4		3.0		8.8		8.9		9.5	
1.75°	8.7		8.0		4.6		10.4		10.4		10.9	
2.00°	10.3	60	9.5	60	6.2		12.0	60	11.9		12.4	
2.12°	11.0	40	10.3	40	6.9	80	12.8	40	12.7	80	13.1	80
2.25°	11.8	20	11.1	20	7.7	60	13.7	20	13.6	60	13.9	60
2.50°	13.4		12.6		9.3	20	15.4		15.2	20	15.3	20
2.75°	14.9		14.2		10.9		17.0		16.9		16.8	
3.00°	16.5		15.8		12.4		18.7		18.6		18.3	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

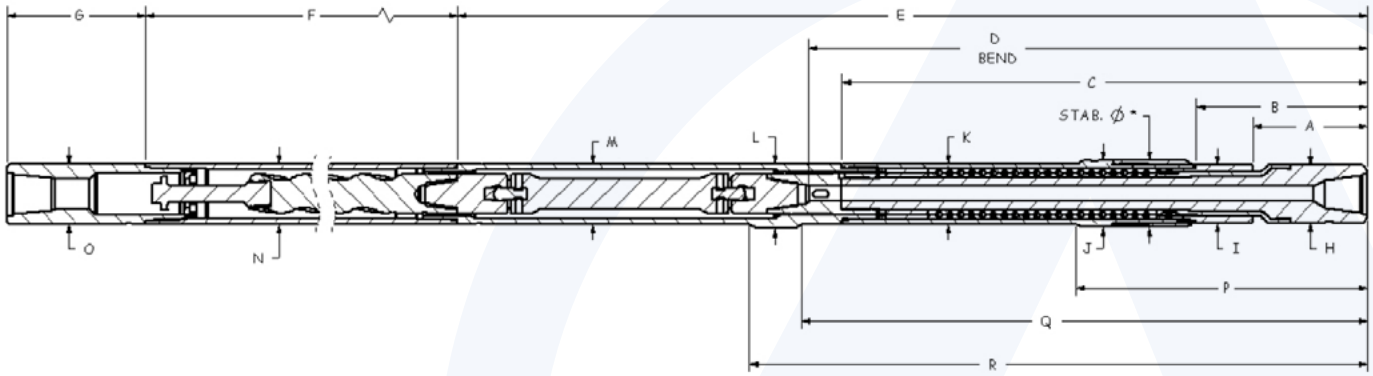
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

7.00” SBTB JAW–CLUTCH
7/8 LOBE 8.5 STAGE (DYNA–DRILL XP)



7.00” SBTB Jaw–Clutch 7/8 Lobe 8.5 Stage (Dyna-Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
22.39	39.96	44.21	52.84	56.84	82.49	88.24	294.00	11.15	6.80	4.10
L	M	N	O	P	Q	R	S	T	U	V
5.07	3.74	5.00	4.67	5.00	4.00	5.00	4.38	5.024	1.88	3.80



7.00” SBTB Jaw–Clutch 7/8 Lobe 8.5 Stage (Dyna-Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
13.03	17.90	44.21	48.13	88.17	300.00	15.88	6.80	6.80
J (1)	K	L	M	N	O	P	Q	R
7.76	7.00	7.38	7.00	7.00	7.00	24.00	48.13	53.13

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “K”

Updated 4/21/2025

7.00” SSX FLEX SHAFT
5/6 LOBE 8.6 STAGE (ABACO HPW)

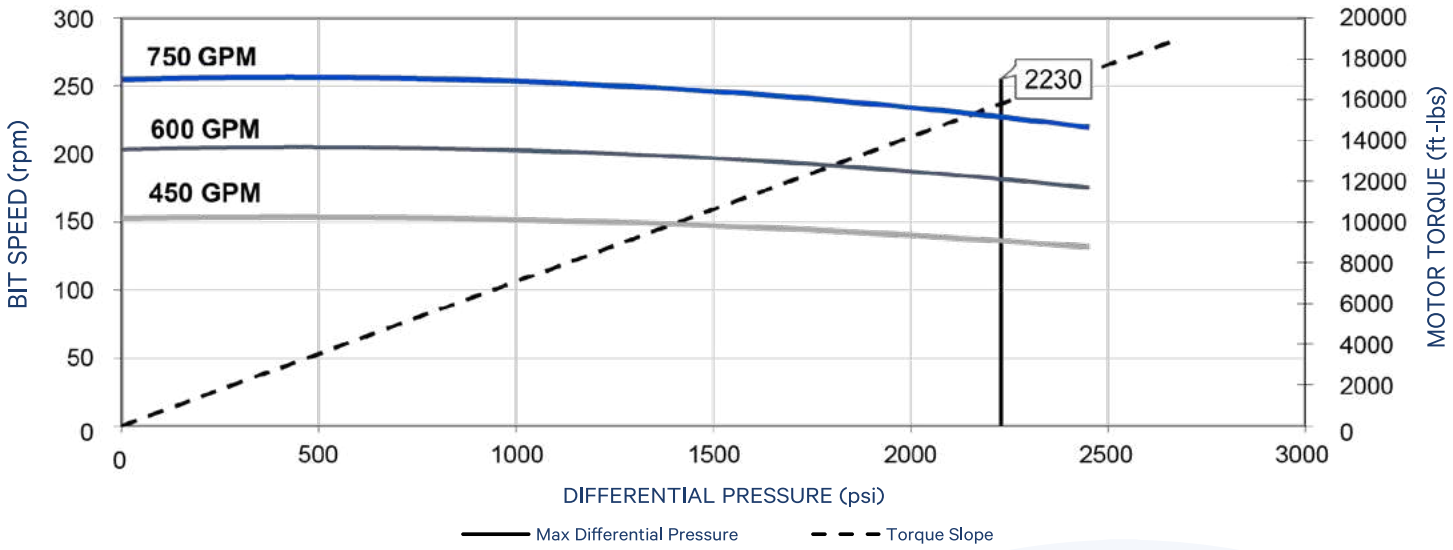
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.47	
Nominal Length (ft)	36.19	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	140	260
Speed Ratio (rev/US Gal)	0.35	
Max Differential Pressure (psi)		2,030
Max Operating Torque (ft–lbs)		14,660
Torque Slope (ft–lbs/psi)	7.25	

7.00” SSX FLEX SHAFT
5/6 LOBE 8.6 STAGE (ABACO HPW)

Power Section Performance Curve ***



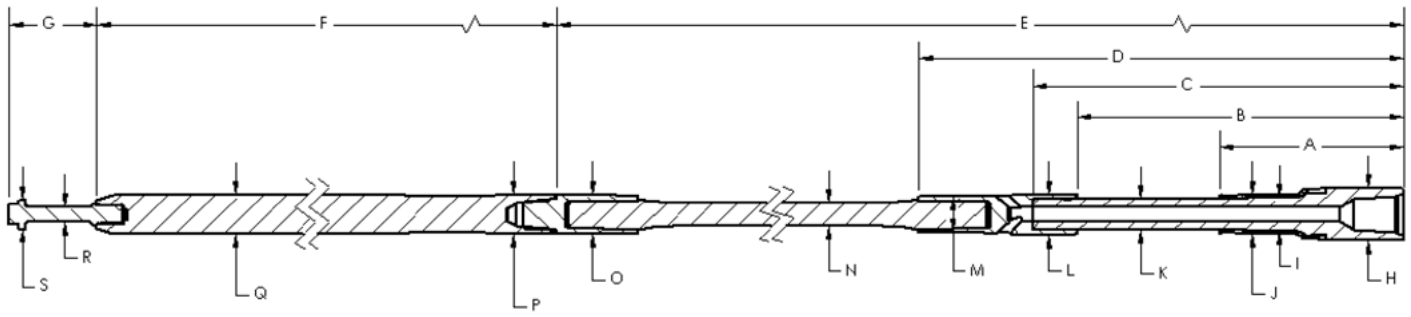
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	2.7	100	2.8	100	3.2	100
0.75°	0.6						4.0		4.1		4.6	
1.00°	2.1		1.4				5.4		5.5		5.9	
1.25°	3.5		2.9				6.7		6.8		7.3	
1.50°	5.0		4.4		1.5		8.2		8.2		8.6	
1.75°	6.5	60	5.9		3.0		9.8	60	9.7		10.0	
2.00°	8.0	20	7.3	60	4.4	60	11.5	20	11.3	60	11.3	60
2.12°	8.7		8.0	20	5.1	20	12.2		12.1	20	12.0	20

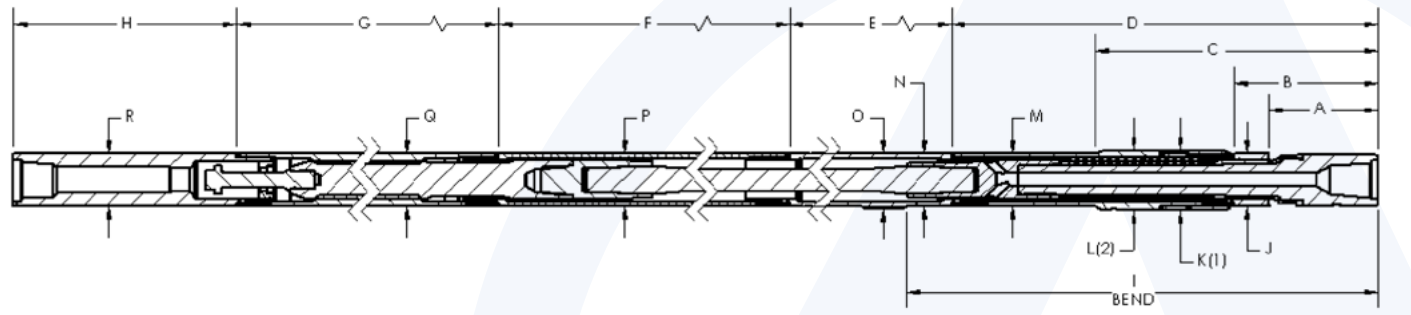
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” SSX FLEX SHAFT
5/6 LOBE 8.6 STAGE (ABACO HPW)



7.00” SSX Flex Shaft 5/6 Lobe 8.6 Stage (Abaco HPW) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.41	36.16	41.34	52.92	137.92	263	11.28	6.80	5.07	5.07
K	L	M	N	O	P	Q	R	S	
3.87	5.33	4.67	2.75	4.25	4.25	4.703	1.88	3.80	



7.00” SSX Flex Shaft 5/6 Lobe 8.6 Stage (Abaco HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.03	16.91	32.53	49.66	18.88	69.38	275	22.38	53.63
J	K (1)	L (2)	M	N	O	P	Q	R
6.80	7.76	7.76	7.00	7.00	7.19	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

7.00” SSX FLEX SHAFT
5/6 LOBE 9.5 STAGE (VIKING VPX)

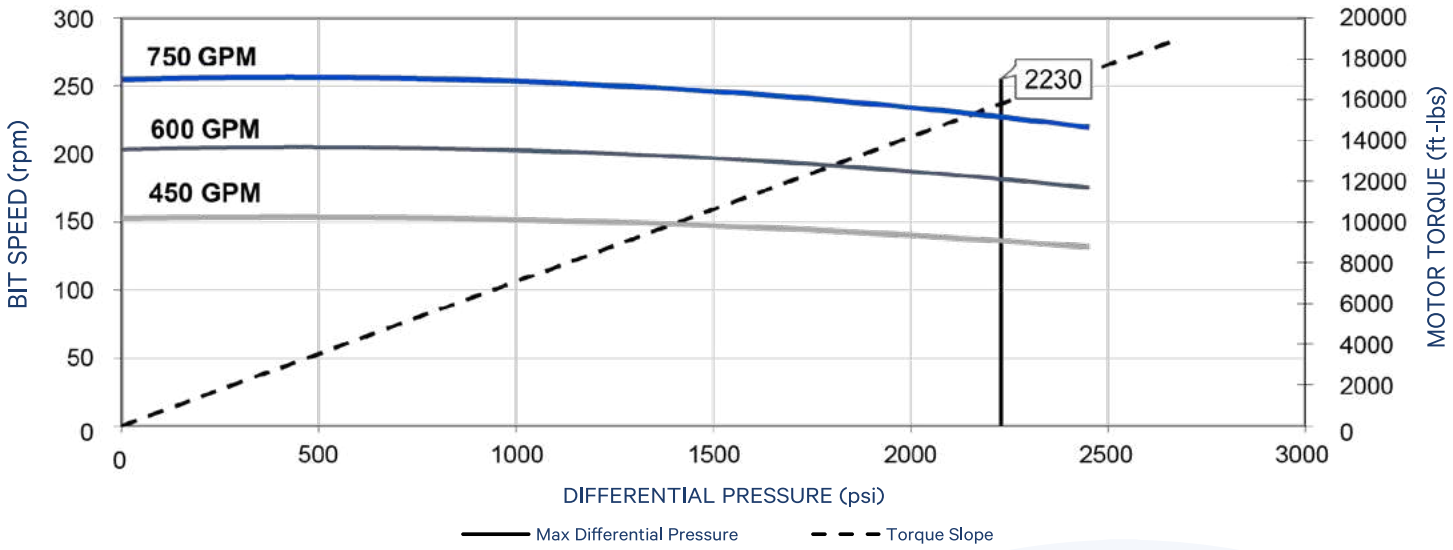
General Data			
Bit Sizes (in)	8 ½ – 9 ⅞		
Bit Connection	4 ½ Reg Box 4 ½ IF Pin	Ultimate WOB (lbs) With Flow *	90,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	45,000
Torque–External Connections (ft–lbs)	33,500	Max Bit Pull (lbs) With Damage *	400,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	4.47	
Nominal Length (ft)	38.36	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	100	180
Speed Ratio (rev/US Gal)	0.24	
Max Differential Pressure (psi)		2,130
Max Operating Torque (ft–lbs)		20,790
Torque Slope (ft–lbs/psi)	9.78	

7.00” SSX FLEX SHAFT
5/6 LOBE 9.5 STAGE (VIKING VPX)

Power Section Performance Curve ***



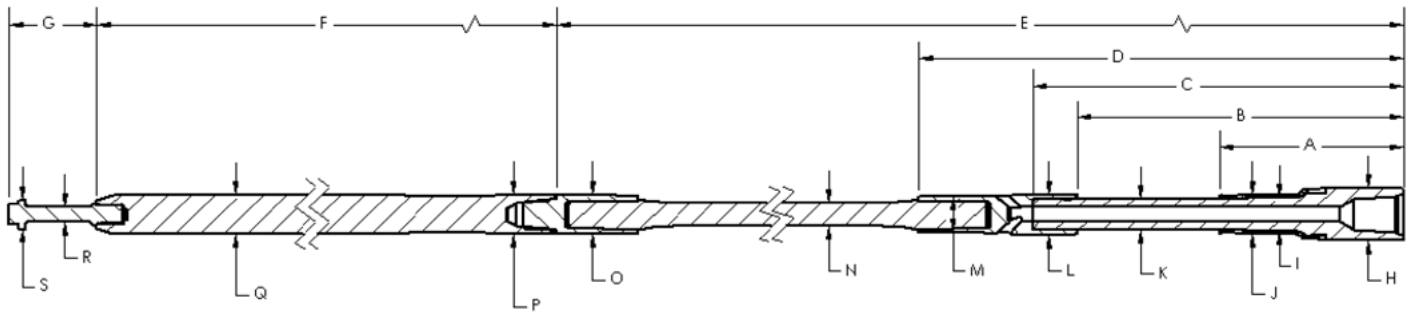
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ½		8 ¾		9 ⅞		8 ½		8 ¾		9 ⅞	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	2.7	100	2.8	100	3.2	100
0.75°	0.6						4.0		4.1		4.6	
1.00°	2.1		1.4				5.4		5.5		5.9	
1.25°	3.5		2.9				6.7		6.8		7.3	
1.50°	5.0		4.4		1.5		8.2		8.2		8.6	
1.75°	6.5	60	5.9		3.0		9.8	60	9.7		10.0	
2.00°	8.0	20	7.3	60	4.4	60	11.5	20	11.3	60	11.3	60
2.12°	8.7		8.0	20	5.1	20	12.2		12.1	20	12.0	20

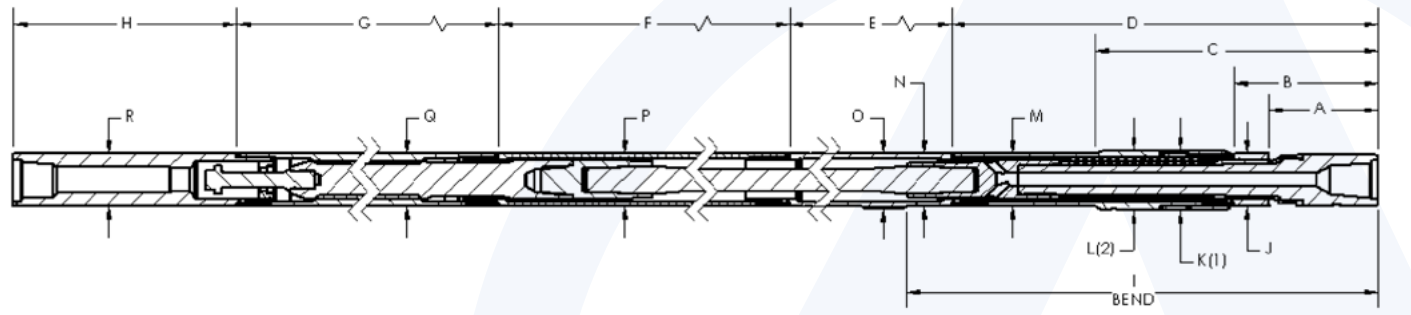
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.00” SSX FLEX SHAFT
5/6 LOBE 9.5 STAGE (VIKING VPX)



7.00” SSX Flex Shaft 5/6 Lobe 9.5 Stage (Viking VPX) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
21.41	36.16	41.34	52.92	137.92	288	11.28	6.80	5.07	5.07
K	L	M	N	O	P	Q	R	S	
3.87	5.33	4.67	2.75	4.25	4.38	4.558	1.88	3.80	



7.00” SSX Flex Shaft 5/6 Lobe 9.5 Stage (Viking VPX) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
12.03	16.91	32.53	49.66	18.88	68.38	300	22.38	53.63
J	K (1)	L (2)	M	N	O	P	Q	R
6.80	7.76	7.76	7.00	7.00	7.19	7.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

7.25” FLEX SHAFT
PROPRIETARY 0.25 RPG (FT-003)

General Data			
Bit Sizes (in)	8 ¾ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	130,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	65,000
Torque–External Connections (ft–lbs)	38,500	Max Bit Pull (lbs) With Damage *	425,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

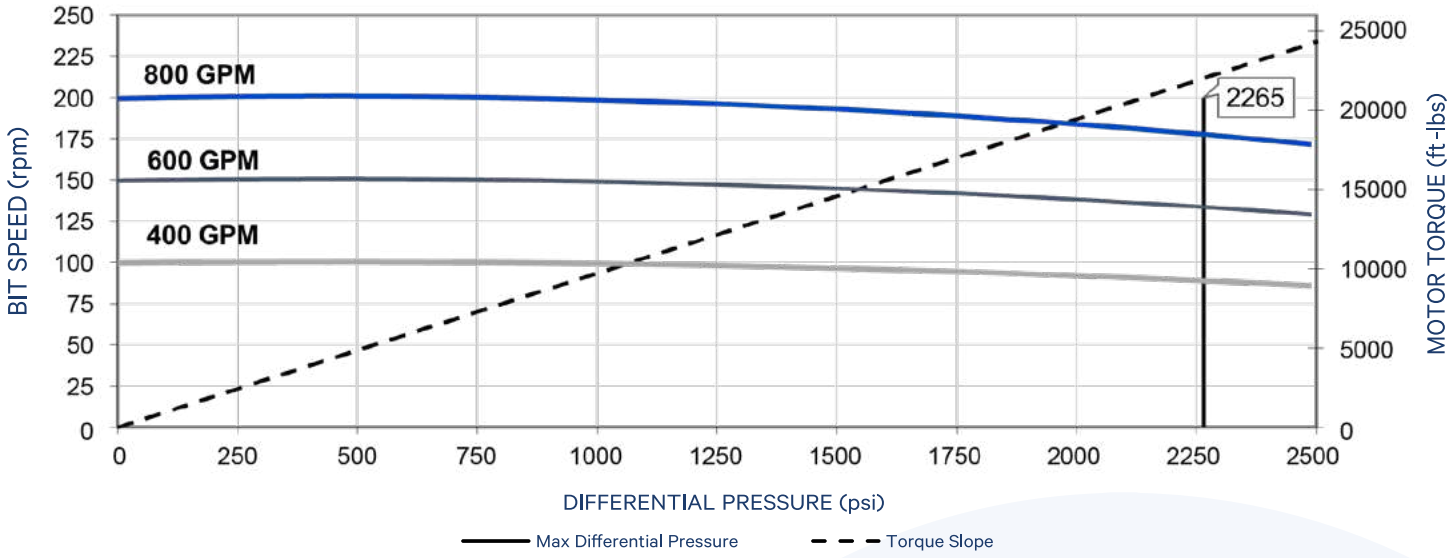
** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.16	
Nominal Length (ft)	41.3	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	800
Bit Speed (rpm)	100	200
Speed Ratio (rev/US Gal)	0.25	
Differential Pressure (psi)	2,394	2,265
Operating Torque (ft–lbs)	23,277	22,023
Torque Slope (ft–lbs/psi)	9.72	

Updated 4/21/2025

7.25” FLEX SHAFT
PROPRIETARY 0.25 RPG (FT-003)

Power Section Performance Curve ***



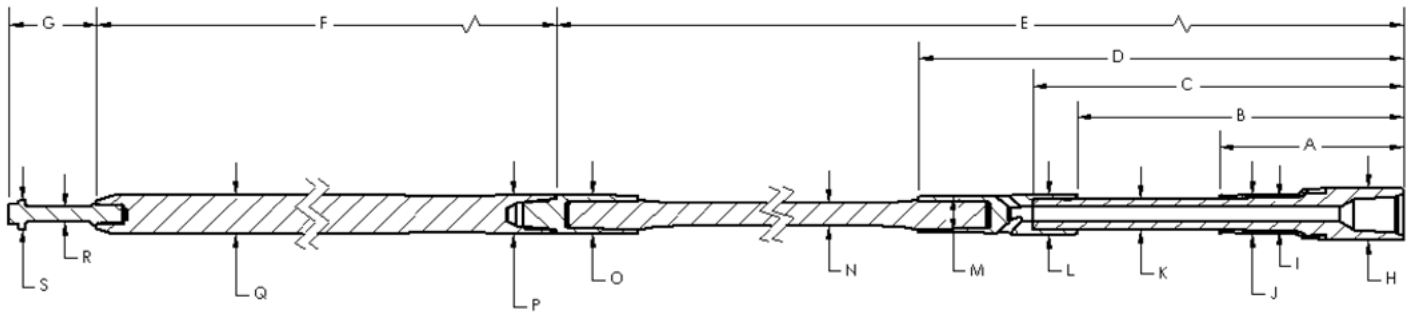
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ¾		9 ⅞		10 ⅝		8 ¾		9 ⅞		10 ⅝	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.9	100		100		100	2.5	100	2.8	100	3.1	100
0.75°	2.2		0.2				3.7		4.0		4.3	
1.00°	3.5		1.5		0.2		4.9		5.2		5.5	
1.25°	4.8		2.8		1.5		6.2		6.4		6.7	
1.50°	6.1		4.1		2.8		7.6		7.6		7.9	
1.75°	7.4		5.4		4.1		9.0		8.8		9.1	
2.00°	8.7	60	6.7	60	5.4		10.4	60	10.1	60	10.3	
2.12°	9.3	40	7.3	40	6.0	80	11.1	40	10.7	40	10.8	80

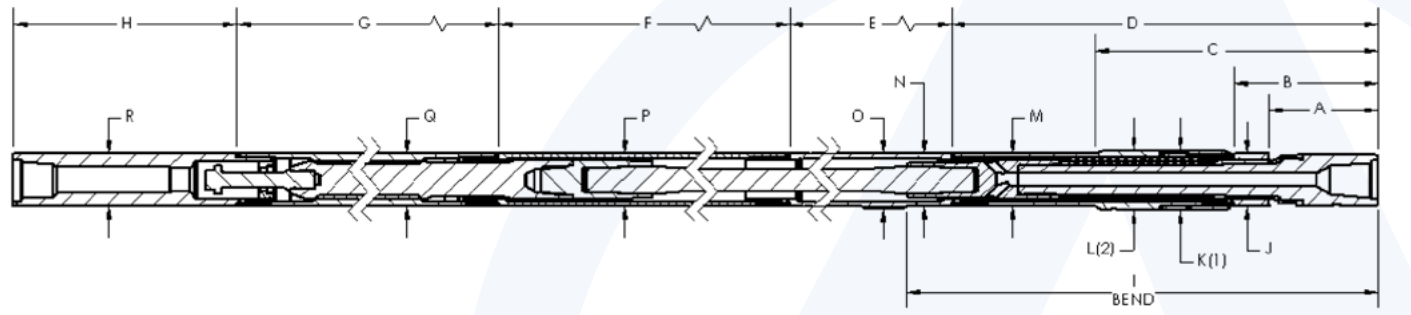
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.25” FLEX SHAFT
PROPRIETARY 0.25 RPG (FT-003)



7.25” Flex Shaft Proprietary 0.25 RPG (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
23.40	50.47	54.75	73.65	173.65	291.00	12.00	7.05	4.35	5.32
K	L	M	N	O	P	Q	R	S	
3.99	5.51	4.75	2.88	4.63	4.50	5.06	1.88	3.80	



7.25” Flex Shaft Proprietary 0.25 RPG (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.15	18.80	29.78	66.28	20.46	86.88	300.00	22.00	73.88
J	K (1)	L (2)	M	N	O	P	Q	R
7.05	8.00	8.00	7.25	7.25	7.50	7.25	7.25	7.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

7.25” FLEX SHAFT
PROPRIETARY 0.35 RPG (FT-003)

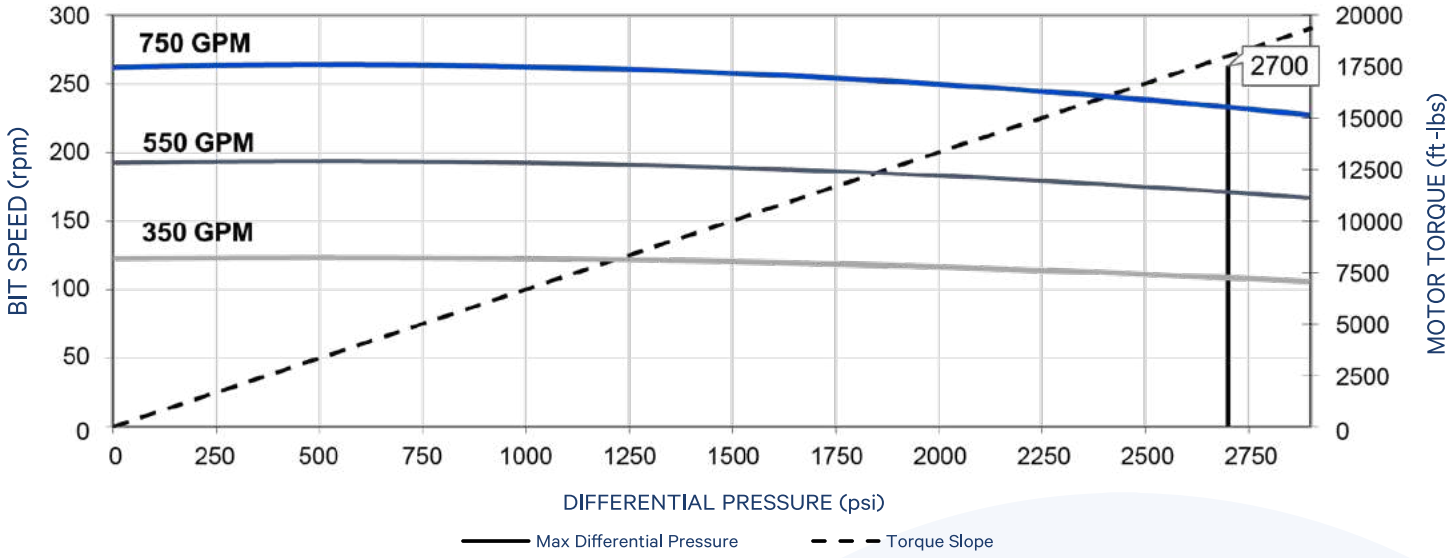
General Data			
Bit Sizes (in)	8 ¾ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	130,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	65,000
Torque–External Connections (ft–lbs)	38,500	Max Bit Pull (lbs) With Damage *	425,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.16	
Nominal Length (ft)	41.3	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	750
Bit Speed (rpm)	122	262
Speed Ratio (rev/US Gal)	0.35	
Differential Pressure (psi)	2,783	2,700
Operating Torque (ft–lbs)	18,571	18,017
Torque Slope (ft–lbs/psi)	6.67	

7.25” FLEX SHAFT
PROPRIETARY 0.35 RPG (FT-003)

Power Section Performance Curve ***



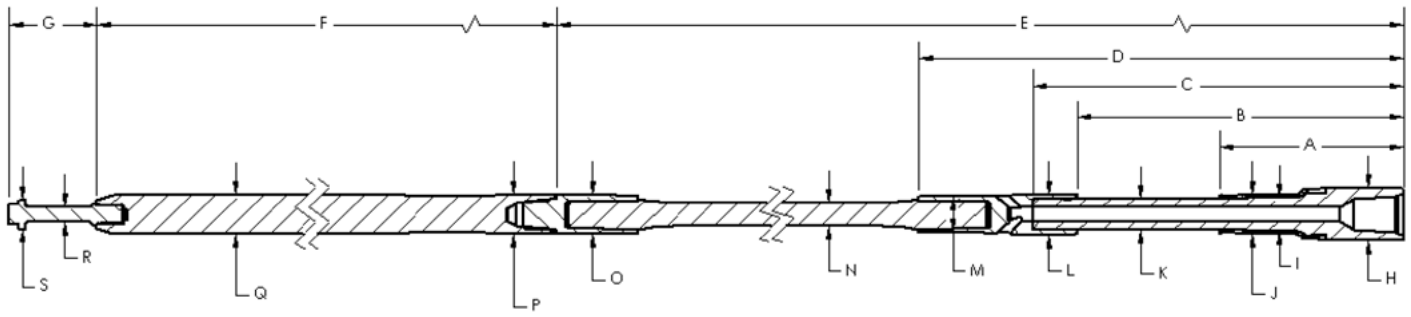
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ¾		9 ⅞		10 ⅝		8 ¾		9 ⅞		10 ⅝	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.9	100		100		100	2.5	100	2.8	100	3.1	100
0.75°	2.2		0.2				3.7		4.0		4.3	
1.00°	3.5		1.5		0.2		4.9		5.2		5.5	
1.25°	4.8		2.8		1.5		6.2		6.4		6.7	
1.50°	6.1		4.1		2.8		7.6		7.6		7.9	
1.75°	7.4		5.4		4.1		9.0		8.8		9.1	
2.00°	8.7	60	6.7	60	5.4		10.4	60	10.1	60	10.3	
2.12°	9.3	40	7.3	40	6.0	80	11.1	40	10.7	40	10.8	80

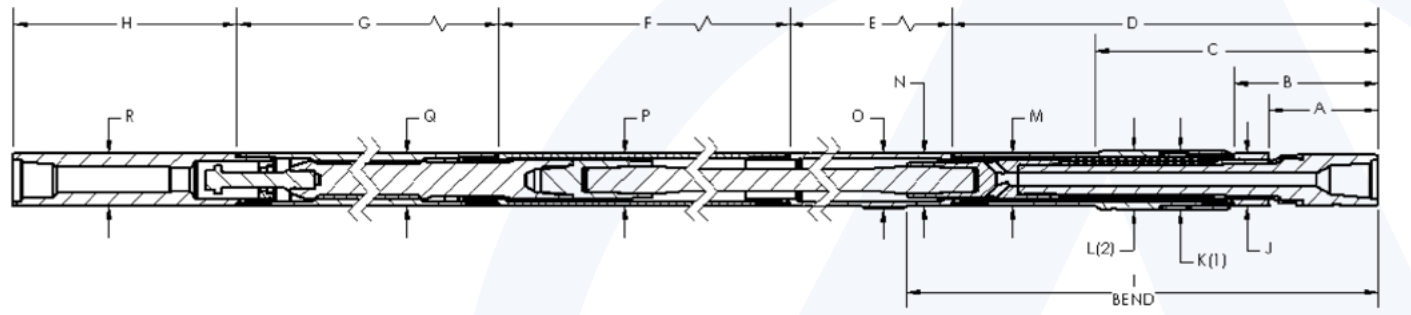
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.25” FLEX SHAFT
PROPRIETARY 0.35 RPG (FT-003)



7.25” Flex Shaft Proprietary 0.35 RPG (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
23.40	50.47	54.75	73.65	173.65	291.00	12.00	7.05	4.35	5.32
K	L	M	N	O	P	Q	R	S	
3.99	5.51	4.75	2.88	4.63	4.50	4.99	1.88	3.80	



7.25” Flex Shaft Proprietary 0.35 RPG (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.15	18.80	29.78	66.28	20.46	86.88	300.00	22.00	73.88
J	K (1)	L (2)	M	N	O	P	Q	R
7.05	8.00	8.00	7.25	7.25	7.50	7.25	7.25	7.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

7.25” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)

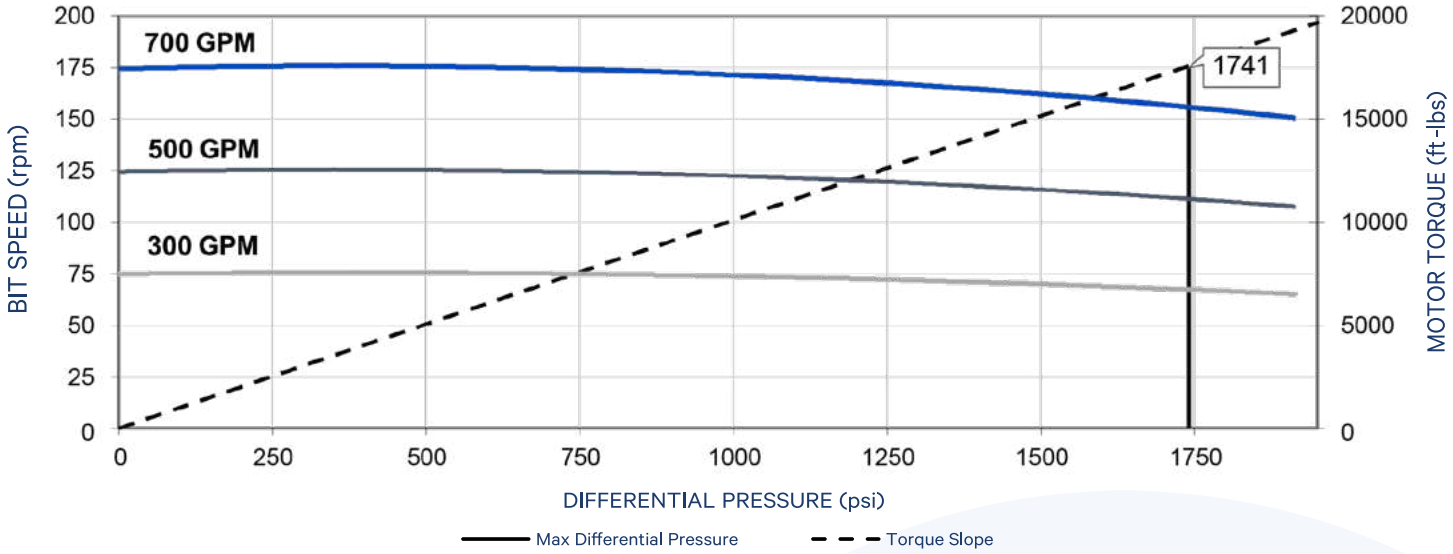
General Data			
Bit Sizes (in)	8 ¾ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	130,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	65,000
Torque–External Connections (ft–lbs)	38,500	Max Bit Pull (lbs) With Damage *	425,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.16	
Nominal Length (ft)	39.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	300	700
Bit Speed (rpm)	74	172
Speed Ratio (rev/US Gal)	0.25	
Differential Pressure (psi)	1,883	1,741
Operating Torque (ft–lbs)	19,009	17,575
Torque Slope (ft–lbs/psi)	10.095	

7.25” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)

Power Section Performance Curve ***



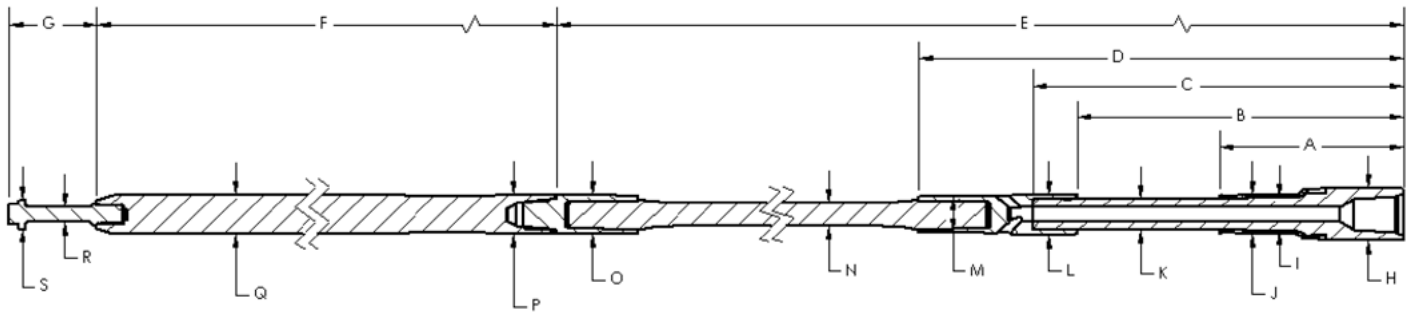
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ¾		9 ⅞		10 ⅝		8 ¾		9 ⅞		10 ⅝	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.9	100		100		100	2.6	100	3.0	100	3.3	100
0.75°	2.3		0.2				3.9		4.3		4.5	
1.00°	3.6		1.6		0.2		5.1		5.5		5.8	
1.25°	5.0		3.0		1.3		6.5		6.8		7.0	
1.50°	6.4		4.3		3.0		8.0		8.0		8.3	
1.75°	7.8		5.7		4.3		9.5		9.3		9.6	
2.00°	9.1	60	7.1	60	5.7		11.0	60	10.6	60	10.8	
2.12°	9.8	40	7.7	40	6.4	80	11.7	40	11.3	40	11.4	80

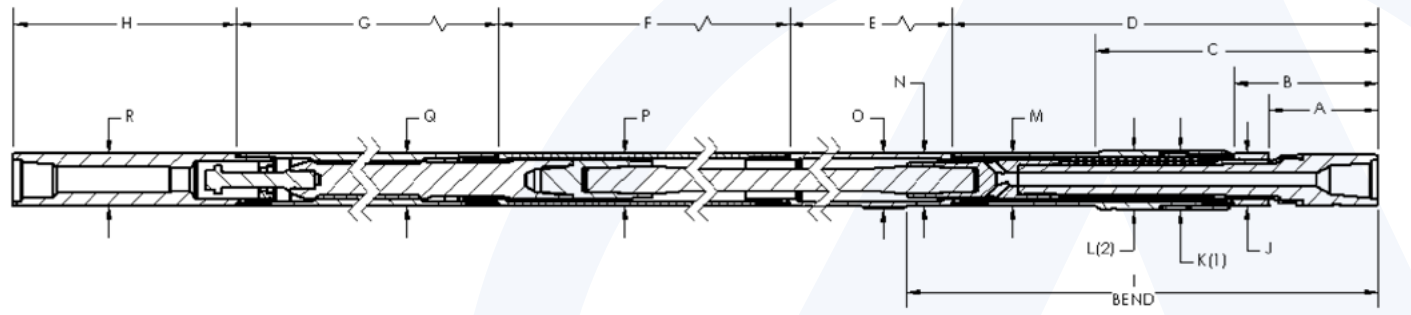
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.25” FLEX SHAFT
7/8 LOBE 6.9 STAGE (FT-003)



7.25” Flex Shaft 7/8 Lobe 6.9 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
23.40	50.47	54.75	73.65	173.65	266.00	12.00	7.05	4.35	5.32
K	L	M	N	O	P	Q	R	S	
3.99	5.51	4.75	2.88	4.63	4.50	4.67	1.88	3.80	



7.25” Flex Shaft 7/8 Lobe 6.9 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.15	18.80	29.78	66.28	20.46	86.88	275.00	22.00	73.88
J	K (1)	L (2)	M	N	O	P	Q	R
7.05	8.00	8.00	7.25	7.25	7.50	7.25	7.25	7.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

7.25” FLEX SHAFT
8/9 LOBE 4.3 STAGE (FT-003)

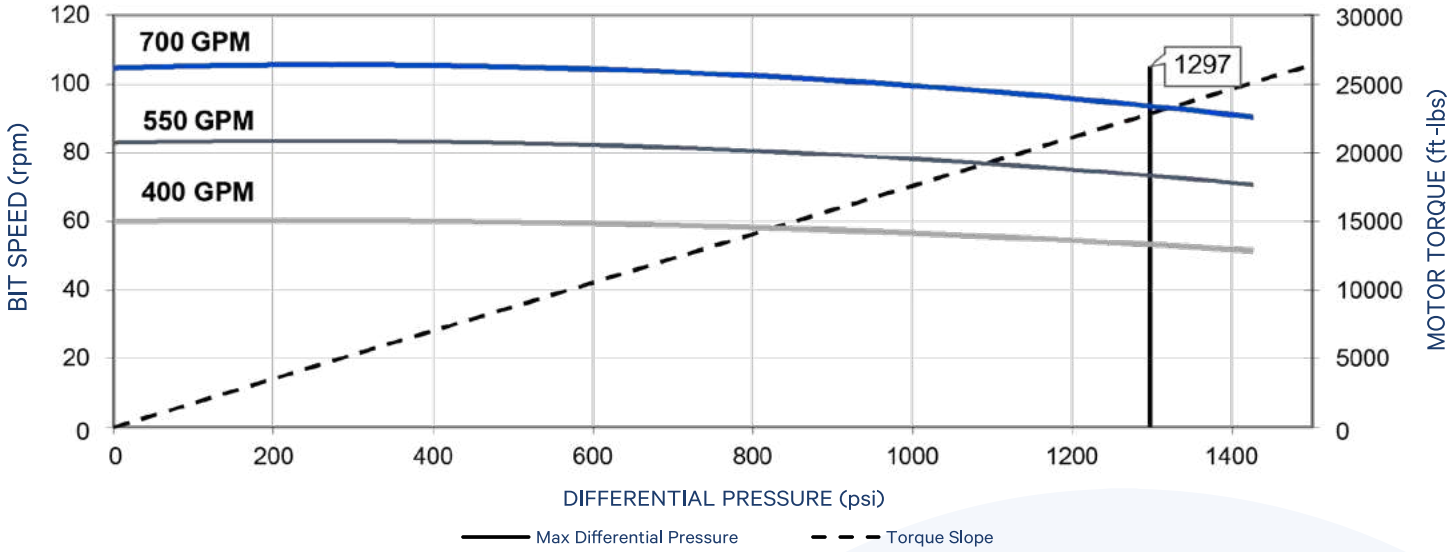
General Data			
Bit Sizes (in)	8 ¾ – 10 ⅝		
Bit Connection	4 ½ Reg Box	Ultimate WOB (lbs) With Flow *	130,000
Top Connection	4 ½ IF Box	Operational Max WOB (lbs) With Flow **	65,000
Torque–External Connections (ft–lbs)	38,500	Max Bit Pull (lbs) With Damage *	425,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	975,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.16	
Nominal Length (ft)	39.22	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	700
Bit Speed (rpm)	58	102
Speed Ratio (rev/US Gal)	0.15	
Differential Pressure (psi)	1,297	1,143
Operating Torque (ft–lbs)	22,828	20,118
Torque Slope (ft–lbs/psi)	17.601	

7.25” FLEX SHAFT
8/9 LOBE 4.3 STAGE (FT-003)

Power Section Performance Curve ***



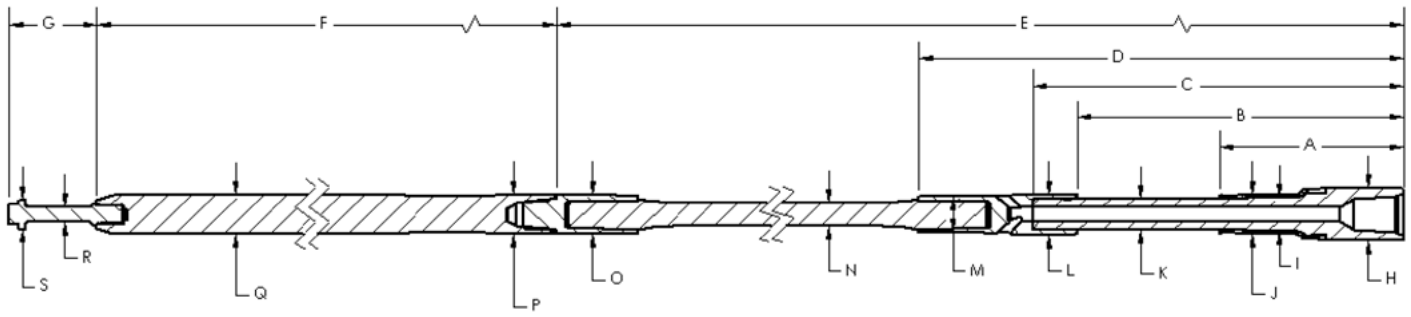
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	8 ¾		9 ⅞		10 ⅝		8 ¾		9 ⅞		10 ⅝	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	0.9	100		100		100	2.6	100	3.0	100	3.3	100
0.75°	2.3		0.2				3.9		4.3		4.5	
1.00°	3.6		1.6		0.2		5.1		5.5		5.8	
1.25°	5.0		3.0		1.3		6.5		6.8		7.0	
1.50°	6.4		4.3		3.0		8.0		8.0		8.3	
1.75°	7.8		5.7		4.3		9.5		9.3		9.6	
2.00°	9.1	60	7.1	60	5.7		11.0	60	10.6	60	10.8	60
2.12°	9.8	40	7.7	40	6.4	80	11.7	40	11.3	40	11.4	40

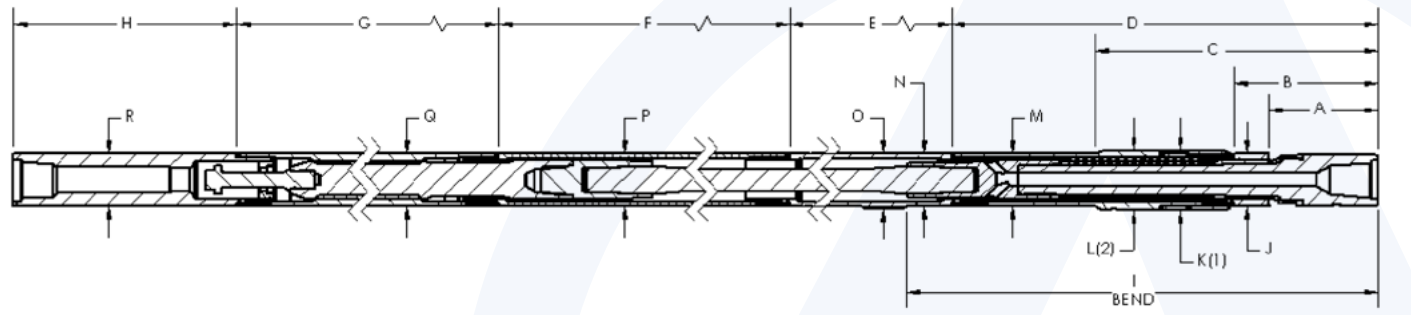
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

7.25” FLEX SHAFT
8/9 LOBE 4.3 STAGE (FT-003)



7.25” Flex Shaft 8/9 Lobe 4.3 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
23.40	50.47	54.75	73.65	173.65	266.00	12.00	7.05	4.35	5.32
K	L	M	N	O	P	Q	R	S	
3.99	5.51	4.75	2.88	4.63	4.63	4.762	1.88	3.80	



7.25” Flex Shaft 8/9 Lobe 4.3 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.15	18.80	29.78	66.28	20.46	86.88	275.00	22.00	73.88
J	K (1)	L (2)	M	N	O	P	Q	R
7.05	8.00	8.00	7.25	7.25	7.50	7.25	7.25	7.25

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then same as “M”

Updated 4/21/2025

8.00” JAW–CLUTCH
4/5 LOBE 5.3 STAGE (ABACO NBR–HPW)

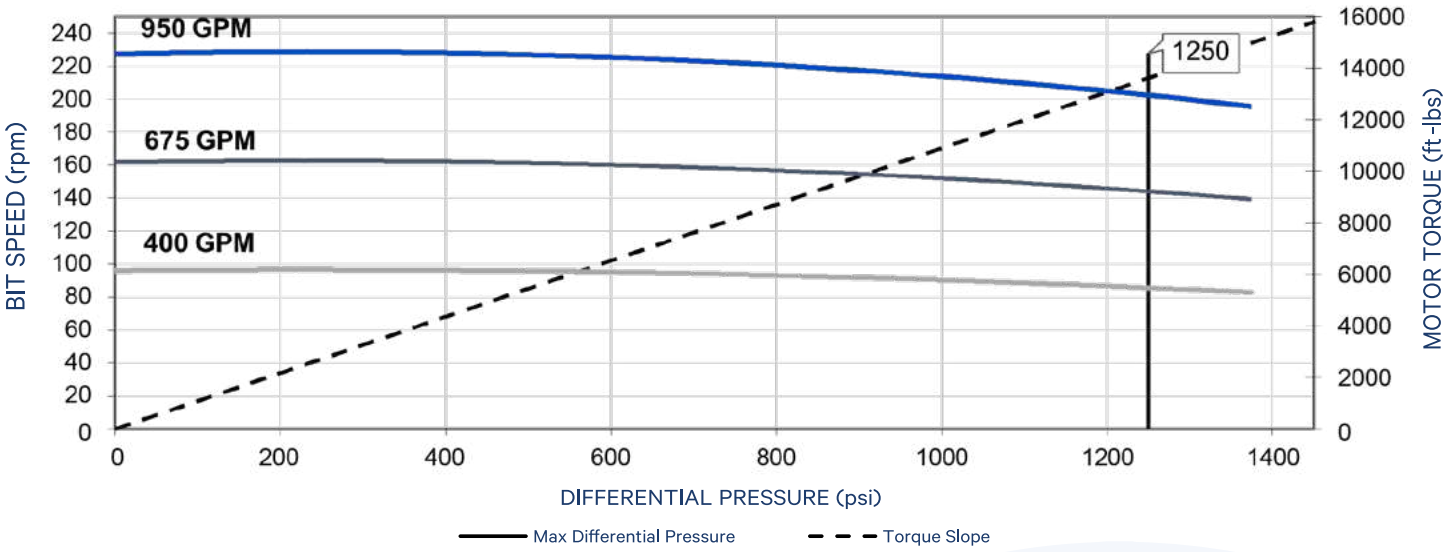
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	30.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	950
Bit Speed (rpm)	70	230
Speed Ratio (rev/US Gal)	0.24	
Max Differential Pressure (psi)		1,250
Max Operating Torque (ft–lbs)		13,620
Torque Slope (ft–lbs/psi)	10.93	

8.00” JAW–CLUTCH
4/5 LOBE 5.3 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

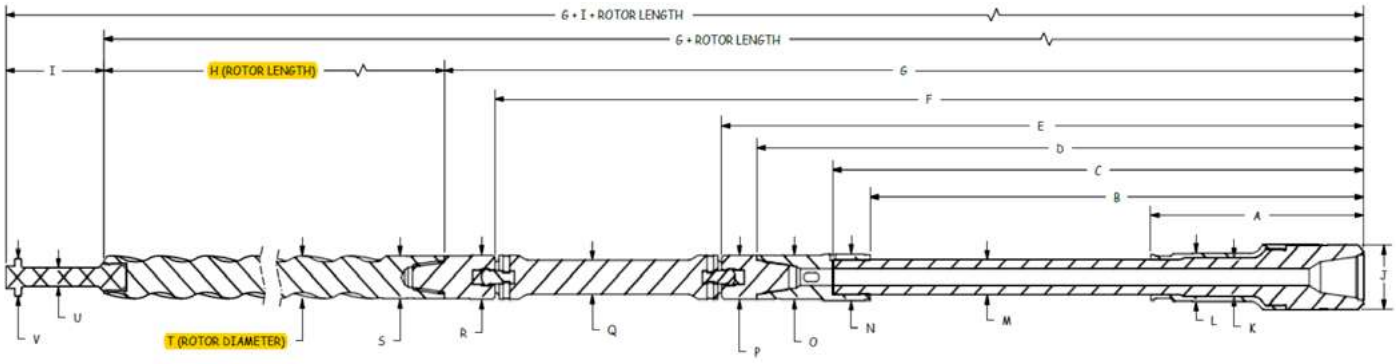
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°							3.7		4.2		5.2	
0.75°	2.5						5.3		5.7		6.7	
1.00°	4.2	100	2.3	100		100	6.9	100	7.3	100	8.3	100
1.25°	6.0		4.1				8.4		8.9		9.9	
1.50°	7.7		5.9		1.8		10.1		10.5		11.5	
1.75°	9.5	60	7.6		3.5		12.0	60	12.1	60	13.1	
2.00°	11.3	20	9.4	60	5.3	60	14.0	20	13.6	20	14.6	60
2.12°	12.1		10.2	40	6.2	40	14.9		14.4		15.4	40
2.25°	13.0		11.2	20	7.1	20	15.9		15.5		16.2	20
2.50°	14.8		12.9		8.8		17.9		17.4		17.8	
2.75°	16.6		14.7		10.6		19.8		19.4		19.4	
3.00°	18.3		16.4		12.4		21.8		21.3		21.0	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

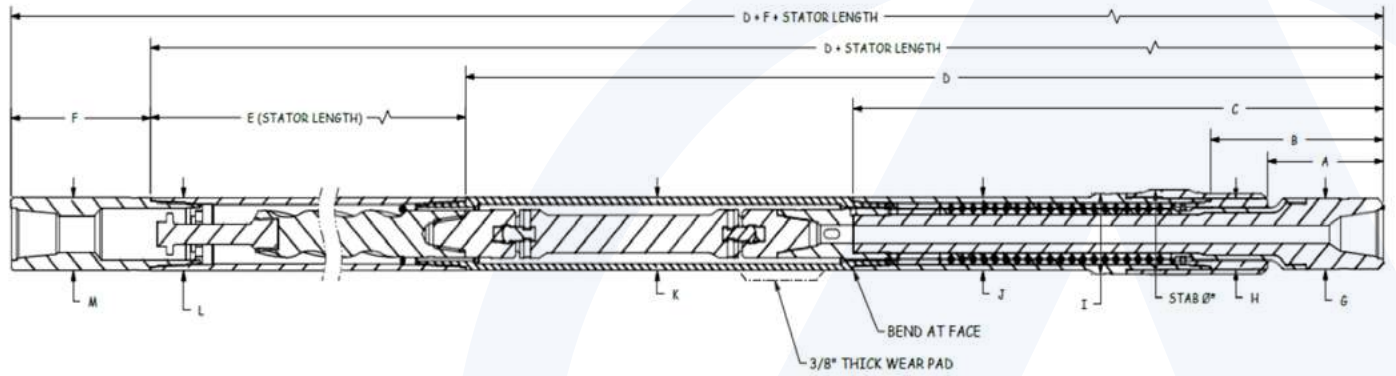
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” JAW–CLUTCH
4/5 LOBE 5.3 STAGE (ABACO NBR–HPW)



8.00” Jaw–Clutch 4/5 Lobe 5.3 Stage (Abaco NBR–HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26,75	62.00	66.63	74.89	78.89	105.35	111.13	221.00	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	4.94	2.06	4.06

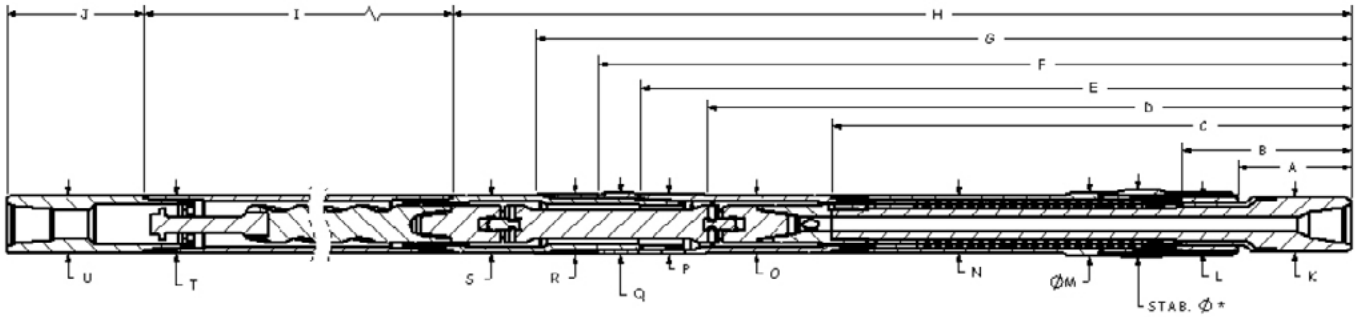


8.00” Jaw–Clutch 4/5 Lobe 5.3 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	228.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	8.00	8.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.00” JAW–CLUTCH
4/5 LOBE 5.3 STAGE (ABACO NBR–HPW)



8.00” Jaw–Clutch 4/5 Lobe 5.3 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
14.75	21.88	66.63	80.40	88.76	94.37	101.70	111.13	228.00	16.00	7.85
L	STAB	M	N	O	P	Q	R	S	T	U
7.85		8.83	8.00	8.00	8.38	8.65	8.38	8.00	8.00	8.00

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 3.4 STAGE (ABACO NBR–HPW)

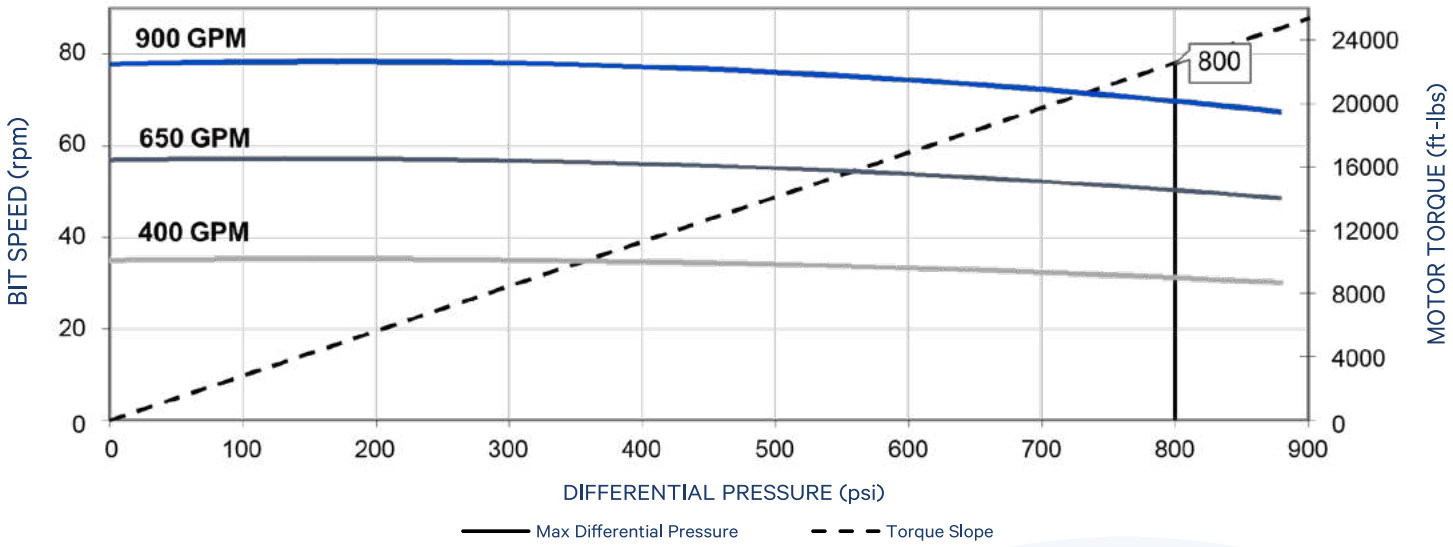
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	36.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	900
Bit Speed (rpm)	30	80
Speed Ratio (rev/US Gal)	0.09	
Max Differential Pressure (psi)		800
Max Operating Torque (ft–lbs)		22,530
Torque Slope (ft–lbs/psi)	28.19	

8.00” JAW–CLUTCH
7/8 LOBE 3.4 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

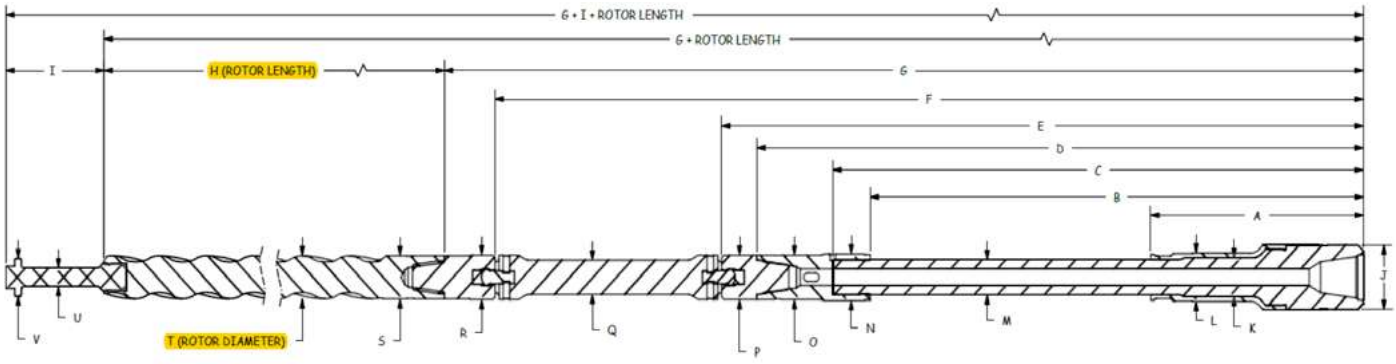
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.0	100	3.3	100	4.0	100
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5		2.0				5.7		6.0		6.7	
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

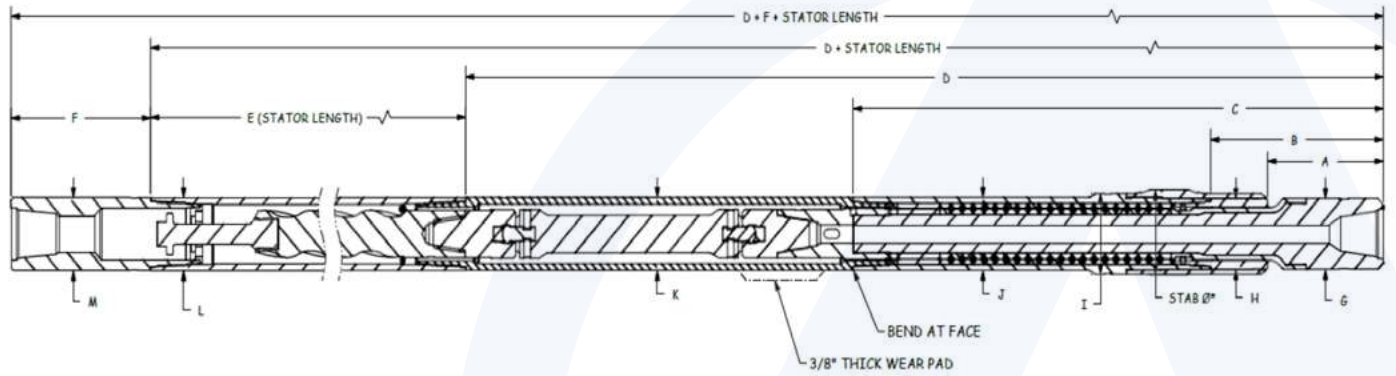
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 3.4 STAGE (ABACO NBR–HPW)



8.00” Jaw–Clutch 7/8 Lobe 3.4 Stage (Abaco NBR–HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26,75	62.00	66.63	74.89	78.89	105.35	111.13	293.00	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	5.307	2.06	4.06

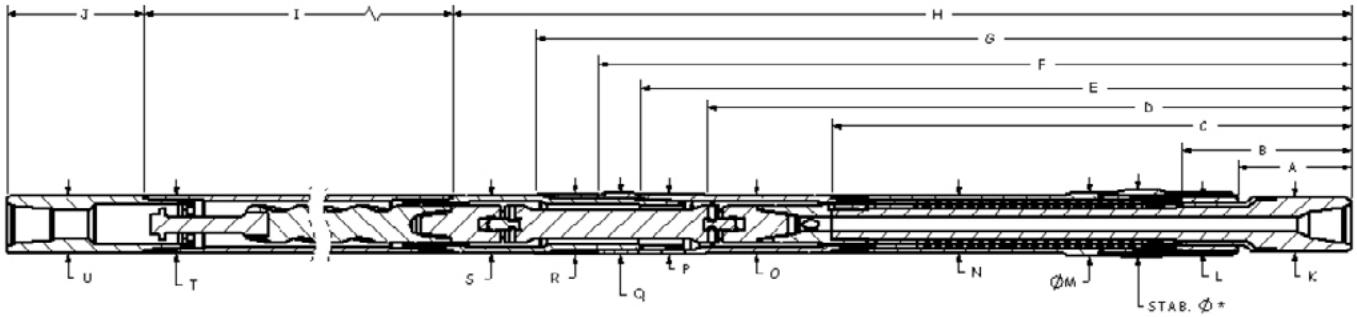


8.00” Jaw–Clutch 7/8 Lobe 3.4 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	300.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	8.00	8.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 3.4 STAGE (ABACO NBR–HPW)



8.00” Jaw–Clutch 7/8 Lobe 3.4 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
14.75	21.88	66.63	80.40	88.76	94.37	101.70	111.13	300.00	16.00	7.85
L	STAB	M	N	O	P	Q	R	S	T	U
7.85		8.83	8.00	8.00	8.38	8.65	8.38	8.00	8.00	8.00

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)

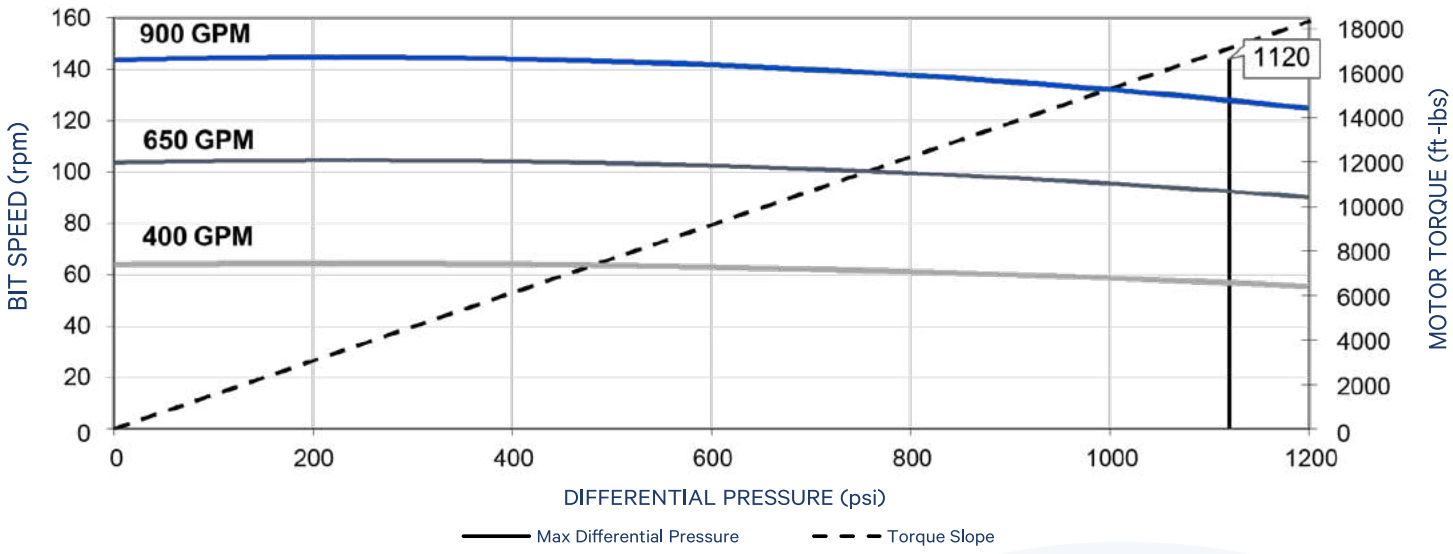
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	28.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	900
Bit Speed (rpm)	66	150
Speed Ratio (rev/US Gal)	0.16	
Max Differential Pressure (psi)		1,120
Max Operating Torque (ft–lbs)		17,121
Torque Slope (ft–lbs/psi)	16.046	

8.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

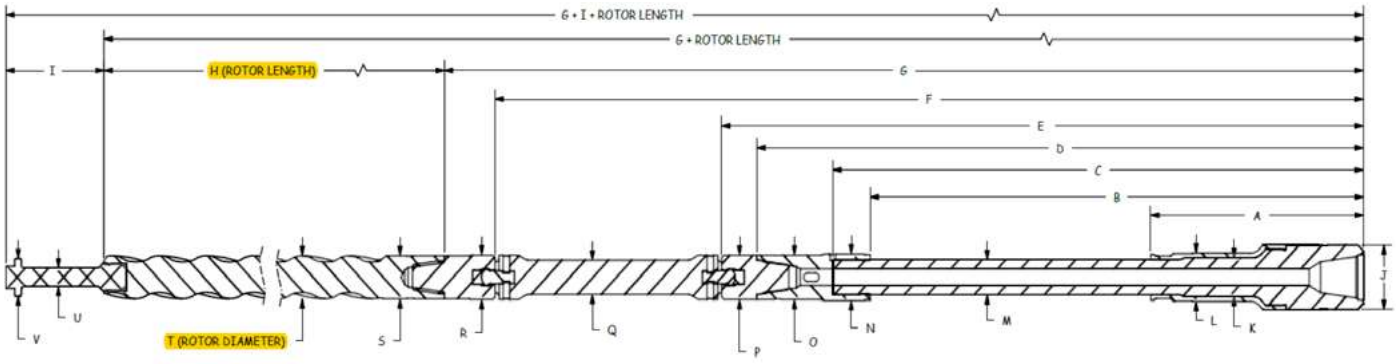
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°							4.0		4.5		5.6	
0.75°	2.6						5.6		6.2		7.3	
1.00°	4.5	100	2.5	100		100	7.3	100	7.8	100	9.0	100
1.25°	6.4		4.4				9.0		9.5		10.6	
1.50°	8.2		6.2		1.9		10.7		11.2		12.3	
1.75°	10.1	60	8.1		3.8		12.8	60	12.8	60	14.0	
2.00°	12.0	20	10.0	60	5.6	60	14.9	20	14.5	20	15.6	60
2.12°	12.9		10.9	40	6.5	40	15.9		15.3		16.4	40
2.25°	13.8		11.8	20	7.5	20	16.9		16.4		17.3	20
2.50°	15.7		13.7		9.4		19.0		18.5		18.9	
2.75°	17.6		15.6		11.2		21.1		20.6		20.6	
3.00°	19.4		17.4		13.1		23.2		22.7		22.3	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

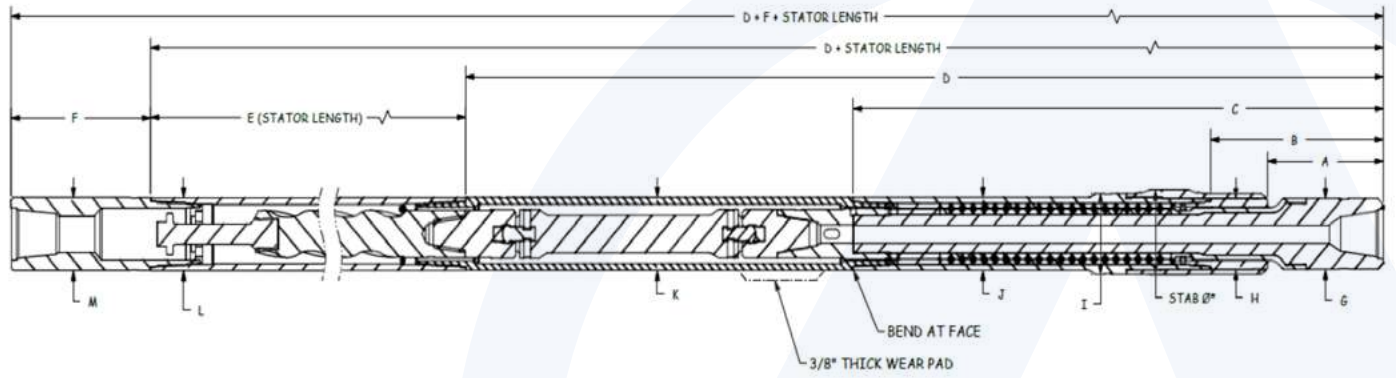
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)



8.00” Jaw–Clutch 7/8 Lobe 4.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26,75	62.00	66.63	74.89	78.89	105.35	111.13	196.50	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	5.186	2.06	4.06

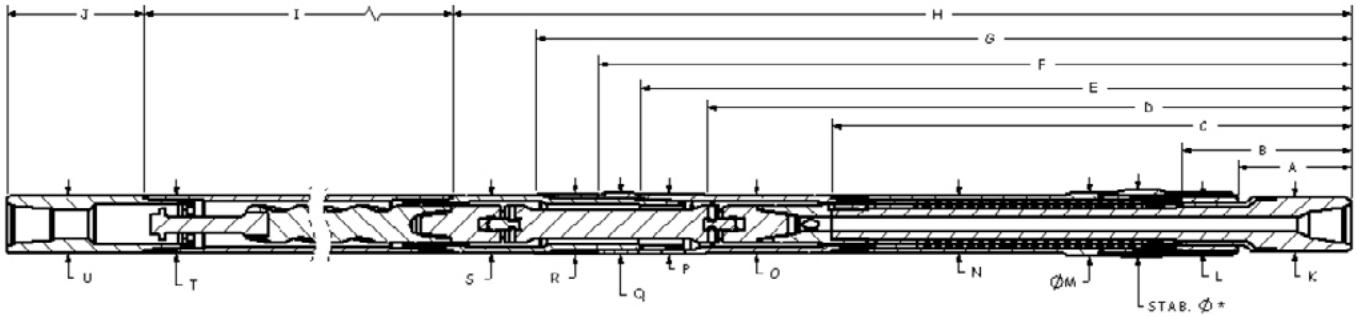


8.00” Jaw–Clutch 7/8 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	206.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	8.00	8.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 4.0 STAGE (FT-003)



8.00” Jaw–Clutch 7/8 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
14.75	21.88	66.63	80.40	88.76	94.37	101.70	111.13	206.00	16.00	7.85
L	STAB	M	N	O	P	Q	R	S	T	U
7.85		8.83	8.00	8.00	8.38	8.65	8.38	8.00	8.00	8.00

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)

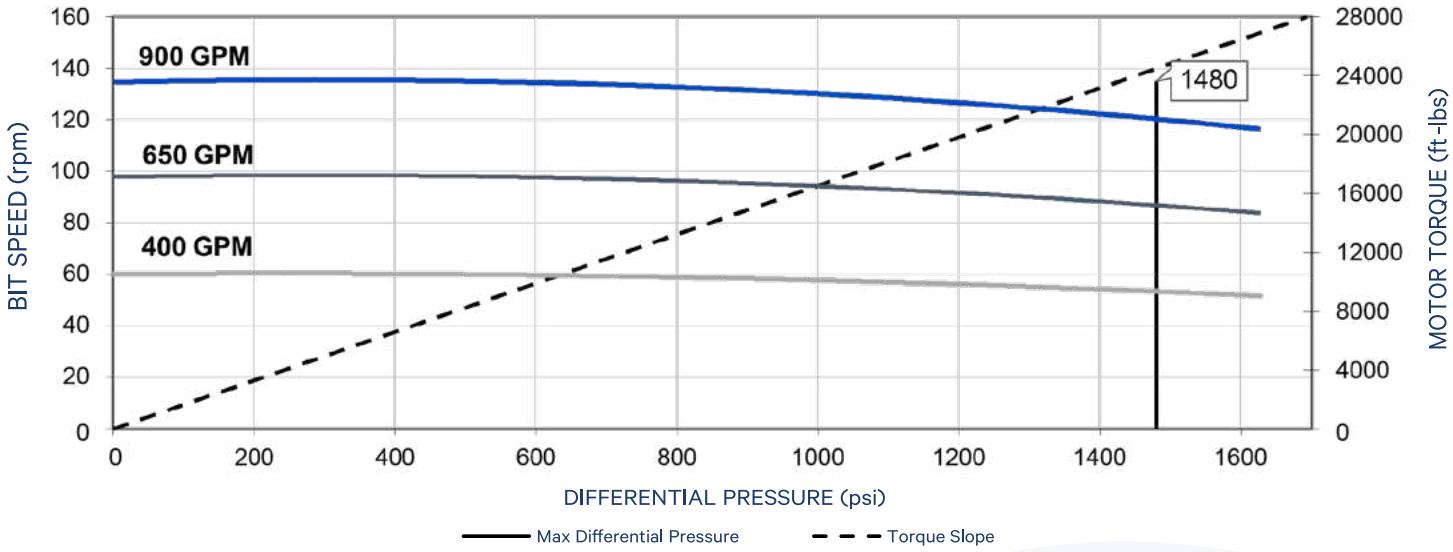
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	36.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	900
Bit Speed (rpm)	60	135
Speed Ratio (rev/US Gal)	0.15	
Max Differential Pressure (psi)		1,480
Max Operating Torque (ft–lbs)		24,470
Torque Slope (ft–lbs/psi)	16.046	

8.00” JAW–CLUTCH
7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

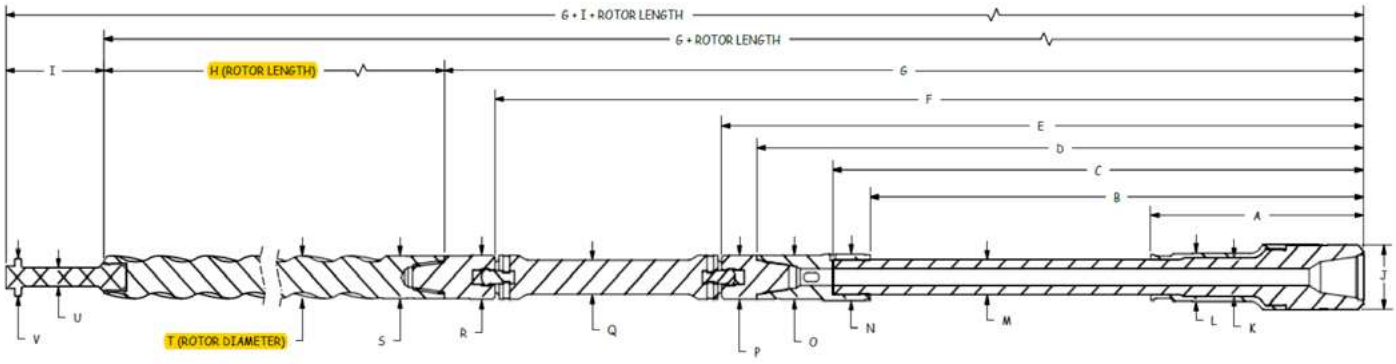
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.0	100	3.3	100	4.0	100
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5		2.0				5.7		6.0		6.7	
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

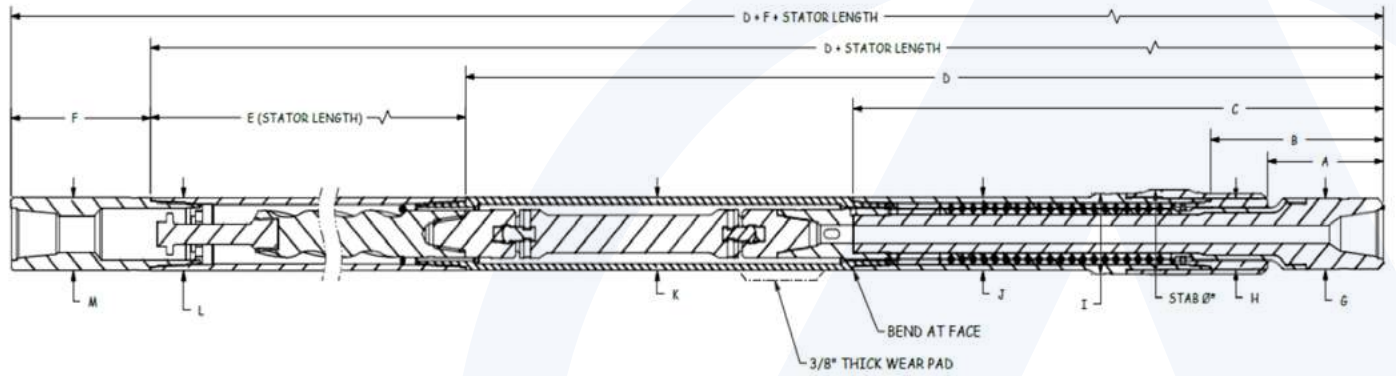
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” JAW–CLUTCH
7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)



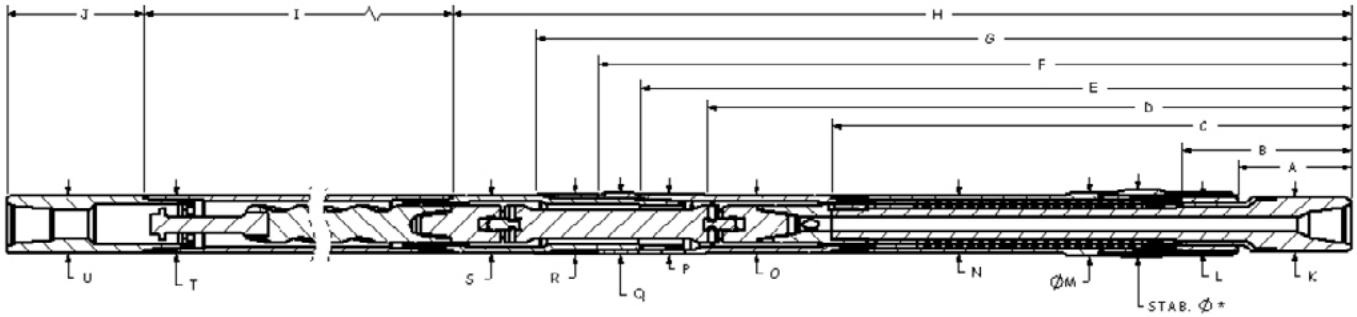
8.00” Jaw–Clutch 7/8 Lobe 5.9 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26.75	62.00	66.63	74.89	78.89	105.35	111.13	285.00	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	5.186	2.06	4.06



8.00” Jaw–Clutch 7/8 Lobe 5.9 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	300.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	8.00	8.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

8.00” JAW–CLUTCH
7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)



8.00” Jaw–Clutch 7/8 Lobe 5.9 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
14.75	21.88	66.63	80.40	88.76	94.37	101.70	111.13	300.00	16.00	7.85
L	STAB	M	N	O	P	Q	R	S	T	U
7.85		8.83	8.00	8.00	8.38	8.65	8.38	8.00	8.00	8.00

Updated 4/21/2025

8.00” X 7.00” COMBO JAW–CLUTCH 7/8 LOBE 8.5 STAGE (ABACO NBR–HPW)

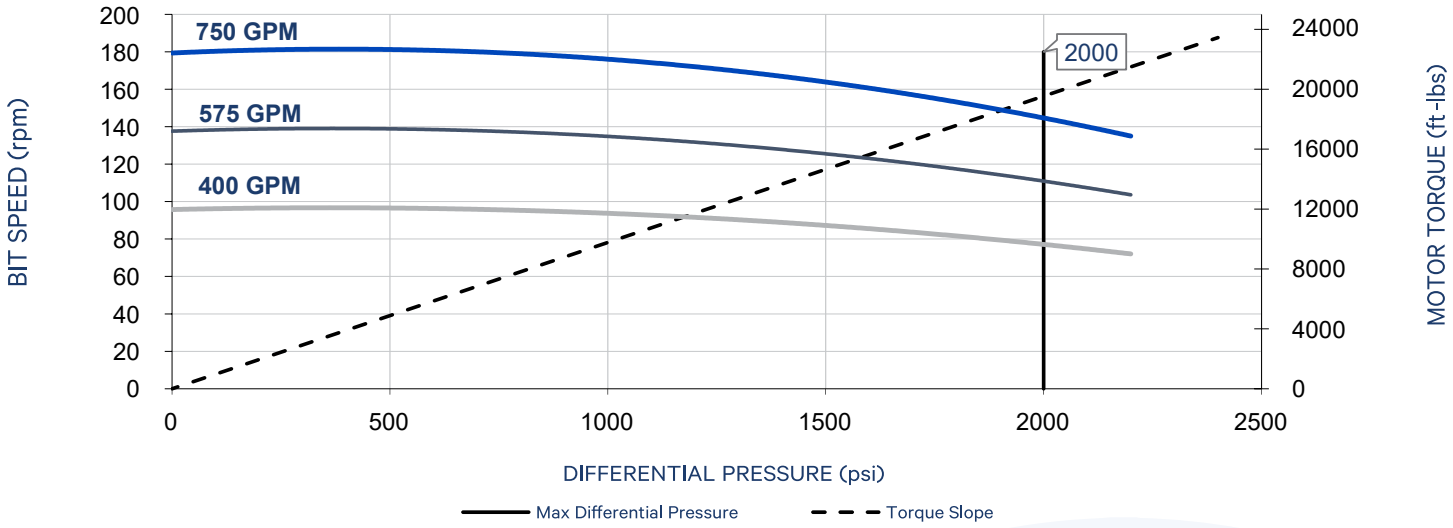
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	35.7	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	750
Bit Speed (rpm)	100	187
Speed Ratio (rev/US Gal)	0.25	
Max Differential Pressure (psi)		2,000
Max Operating Torque (ft–lbs)		19,540
Torque Slope (ft–lbs/psi)	9.78	

8.00” X 7.00” COMBO JAW–CLUTCH
7/8 LOBE 8.5 STAGE (ABACO NBR–HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

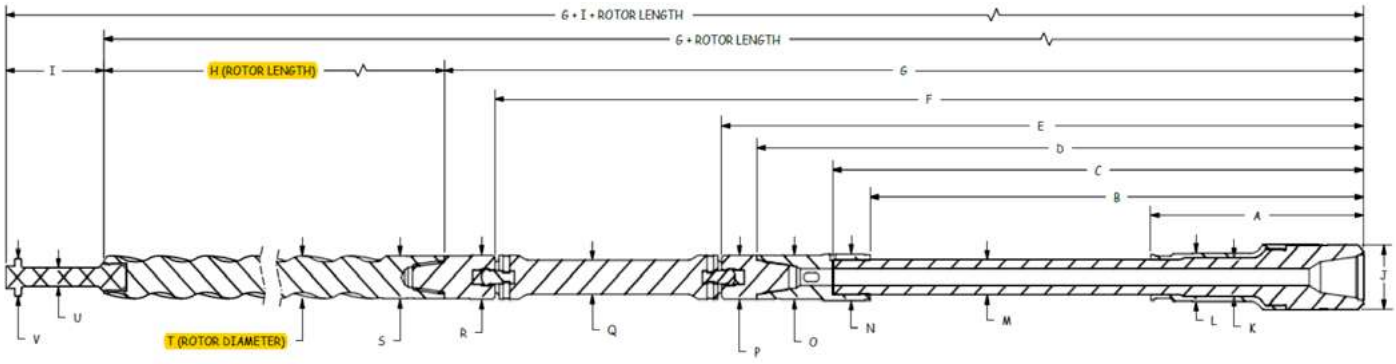
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.3	100	3.6	100	4.3	100
0.75°							4.6		4.9		5.6	
1.00°	0.8						5.9		6.3		7.0	
1.25°	2.3		0.7				7.3		7.6		8.3	
1.50°	3.8		2.2				8.6		9.0		9.6	
1.75°	5.3	60	3.7				10.0	60	10.3	60	11.0	
2.00°	6.8	20	5.2	60	1.6	60	11.5	20	11.6	20	12.3	60
2.12°	7.5		5.9	40	2.3	40	12.3		12.3		13.0	40
2.25°	8.3		6.7	20	3.1	20	13.2		13.0		13.7	20
2.50°	9.8		8.2		4.6		14.8		14.5		15.0	
2.75°	11.3		9.7		6.1		16.5		16.2		16.4	
3.00°	12.8		11.2		7.6		18.1		17.8		17.7	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

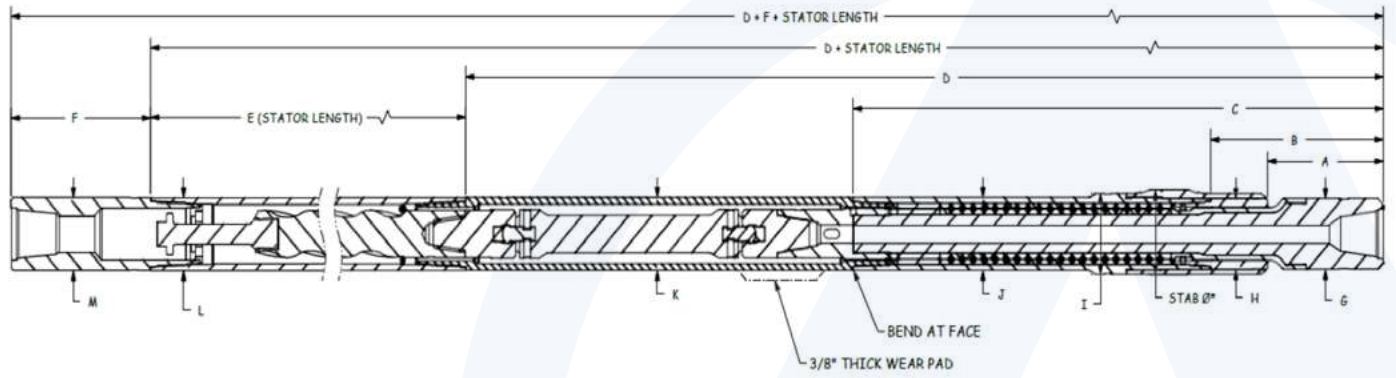
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” X 7.00” COMBO JAW–CLUTCH 7/8 LOBE 8.5 STAGE (ABACO NBR–HPW)



8.00” x 7.00” Combo 7/8 Lobe 8.5 Stage (Abaco NBR–HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26.75	62.00	66.63	74.89	78.89	105.35	111.13	294.00	11.15	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.00	4.38	5.024	1.88	3.80



8.00” x 7.00” Combo 7/8 Lobe 8.5 Stage (Abaco NBR–HPW) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	300.00	15.88	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	7.00	7.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.00” JAW–CLUTCH
0.25 RPG LOW FLOW DURATORQUE

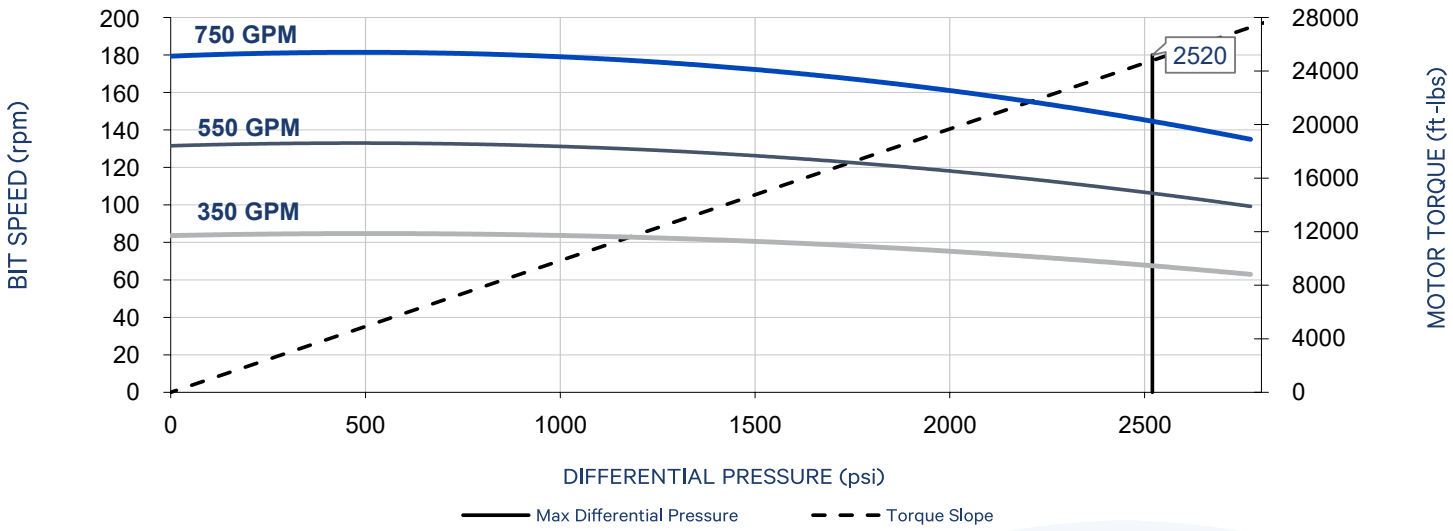
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	36.2	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	350	750
Bit Speed (rpm)	86	185
Speed Ratio (rev/US Gal)	0.25	
Max Differential Pressure (psi)		2,520
Max Operating Torque (ft–lbs)		24,790
Torque Slope (ft–lbs/psi)	9.84	

8.00” JAW–CLUTCH
0.25 RPG LOW FLOW DURATORQUE

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

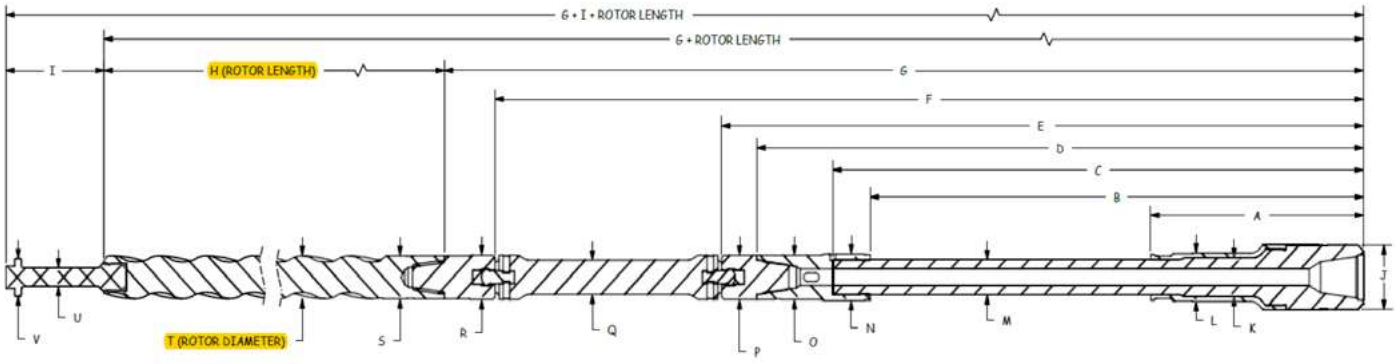
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°							3.0		3.3		4.0	
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5	100	2.0	100		100	5.7	100	6.0	100	6.7	100
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

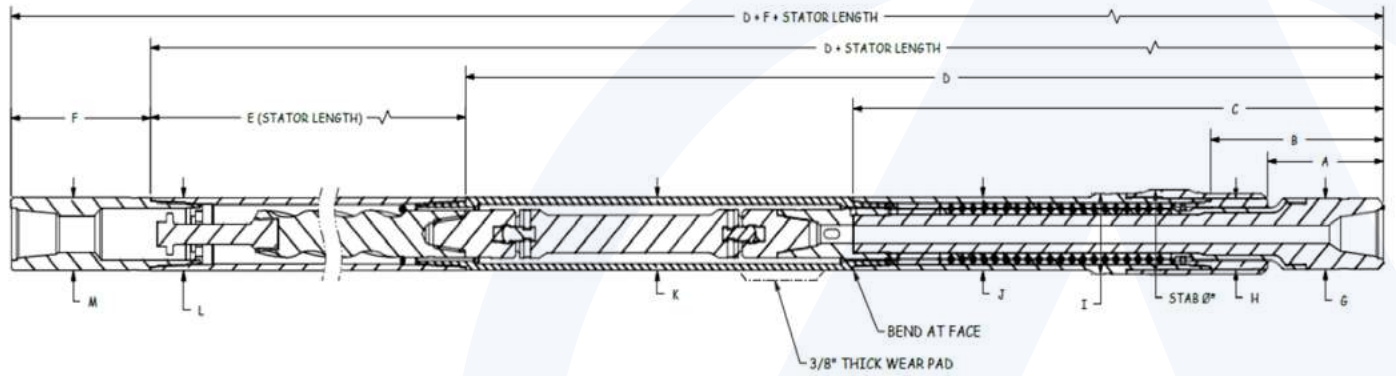
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.00” JAW–CLUTCH
0.25 RPG LOW FLOW DURATORQUE



8.00” Jaw–Clutch 0.25 RPG Low Flow DuraTorque INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26.75	62.00	66.63	74.89	78.89	105.35	111.13	288.00	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	4.903	2.06	4.06

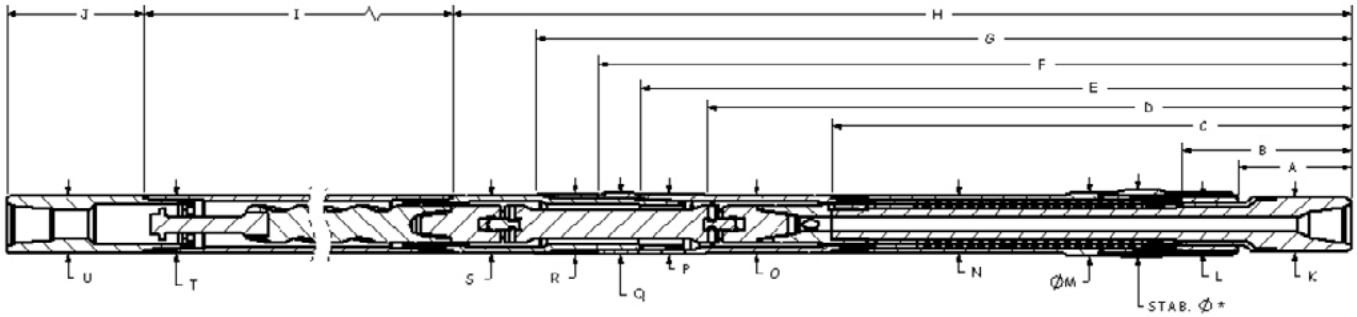


8.00” Jaw–Clutch 0.25 RPG Low Flow DuraTorque OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	300.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.00	8.00	8.00	8.00

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.00” JAW–CLUTCH
0.25 RPG LOW FLOW DURATORQUE



8.00” Jaw–Clutch 0.25 RPG Low Flow DuraTorque OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
14.75	21.88	66.63	80.40	88.76	94.37	101.70	111.13	300.00	16.00	7.85
L	STAB	M	N	O	P	Q	R	S	T	U
7.85		8.83	8.00	8.00	8.38	8.65	8.38	8.00	8.00	8.00

8.38” JAW–CLUTCH
PROPRIETARY 0.13 RPG (FT-003)

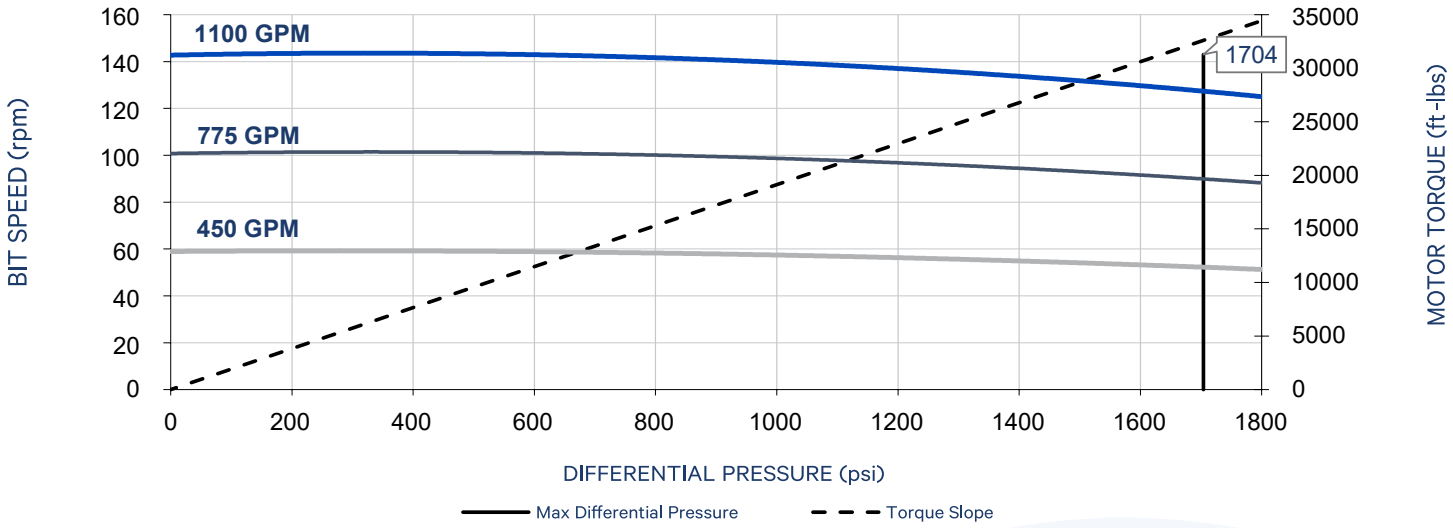
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	133,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	66,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	540,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	7.38	
Bit to Bend Length (FBH) (ft)	5.70	
Nominal Length (ft)	34.12	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	450	1,100
Bit Speed (rpm)	59	143
Speed Ratio (rev/US Gal)	0.13	
Differential Pressure (psi)	1,704	1,483
Operating Torque (ft–lbs)	32,601	28,373
Torque Slope (ft–lbs/psi)	19.132	

8.38” JAW–CLUTCH
PROPRIETARY 0.13 RPG (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

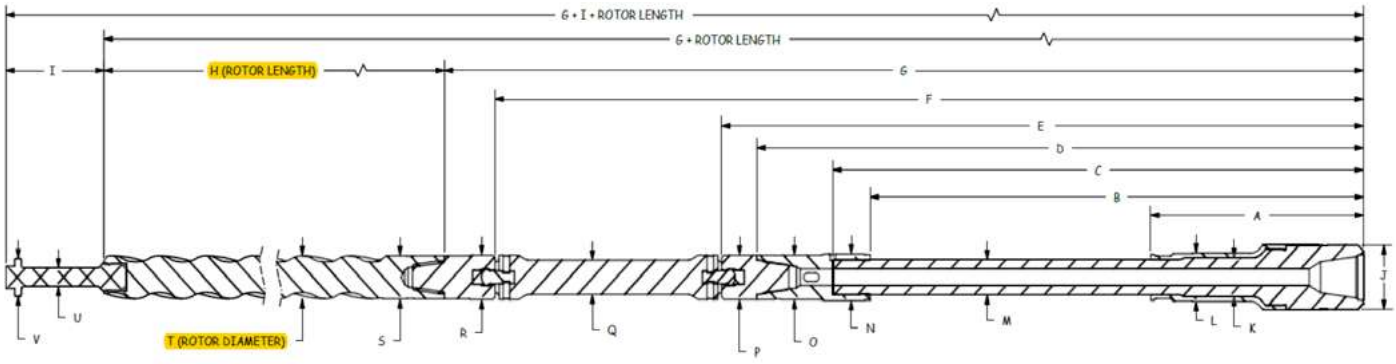
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.0	100	3.3	100	4.0	100
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5		2.0				5.7		6.0		6.7	
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

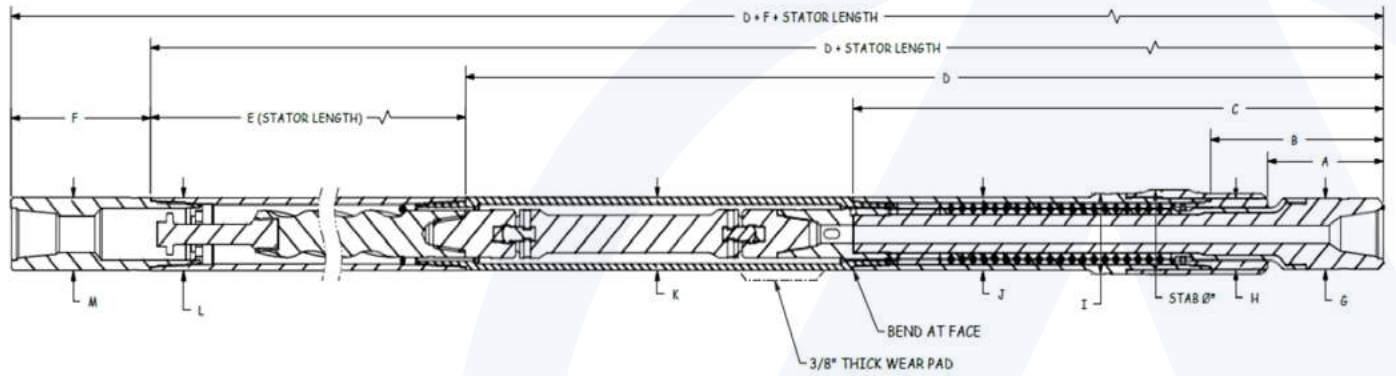
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

8.38” JAW–CLUTCH
PROPRIETARY 0.13 RPG (FT-003)



8.38” Jaw–Clutch Proprietary 0.13 RPG (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
26.75	62.00	66.63	74.89	78.89	105.35	111.13	263.00	9.34	7.85	4.69
L	M	N	O	P	Q	R	S	T	U	V
5.78	4.12	5.63	5.00	5.38	4.00	5.38	5.00	5.805	2.06	4.06



8.38” Jaw–Clutch Proprietary 0.13 RPG (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.75	21.88	66.63	112.63	275.00	16.00	7.85
H	Stabilizer (1)	I (2)	J	K	L	M
7.85		8.83	8.38	8.38	8.38	8.38

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

TRUE 8.38” JAW–CLUTCH
7/8 LOBE 7.0 STAGE (FT-003)

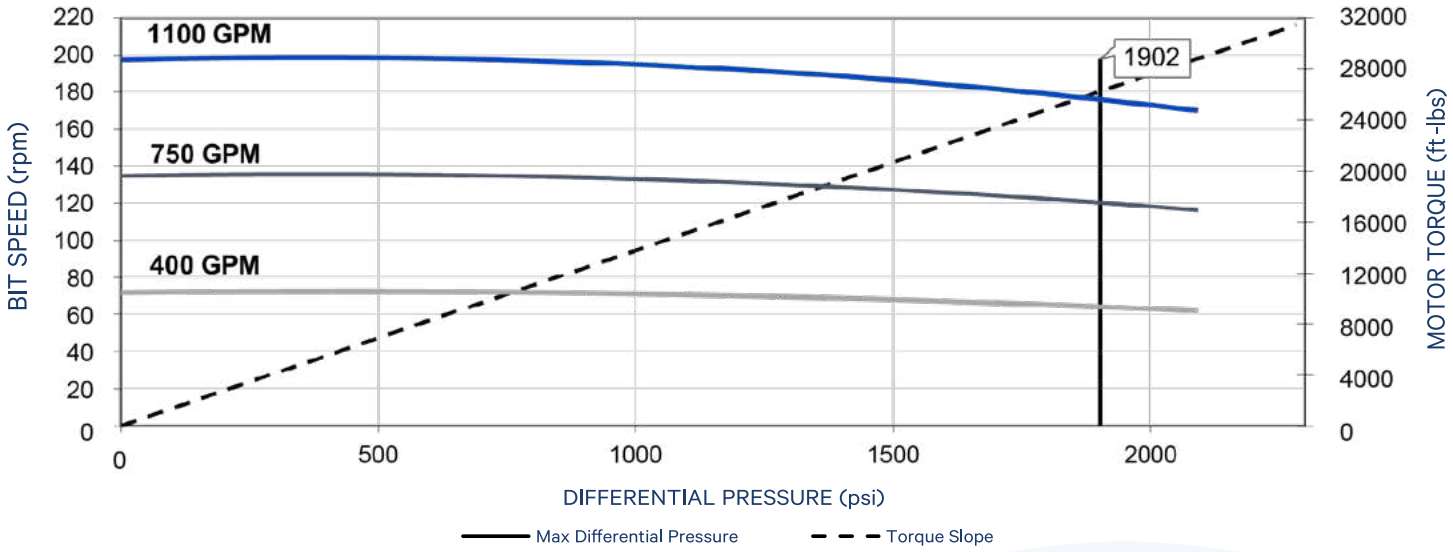
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	155,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	77,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	600,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	1,300,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.85	
Nominal Length (ft)	35.21	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	1,100
Bit Speed (rpm)	72	198
Speed Ratio (rev/US Gal)	0.18	
Differential Pressure (psi)	2,062	1,902
Operating Torque (ft–lbs)	28,408	26,204
Torque Slope (ft–lbs/psi)	13.78	

TRUE 8.38” JAW–CLUTCH
7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

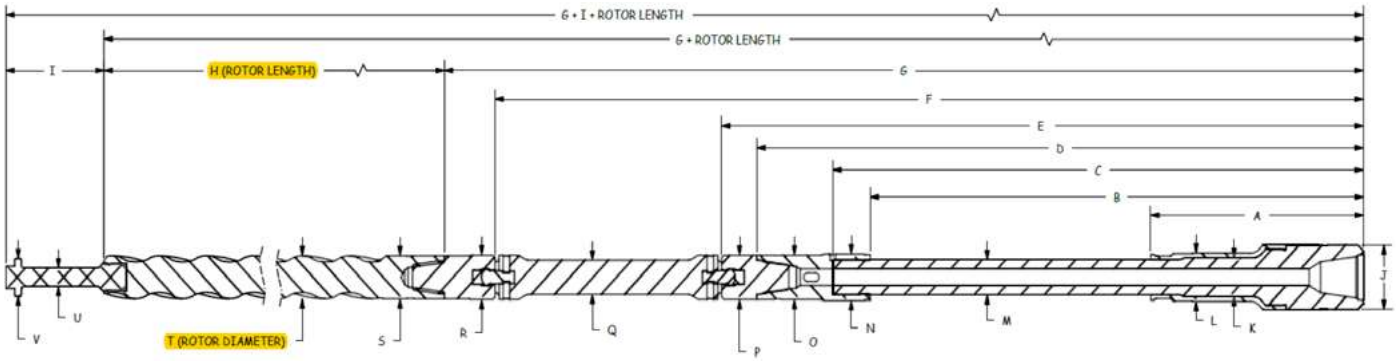
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.0	100	3.3	100	4.0	100
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5		2.0				5.7		6.0		6.7	
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

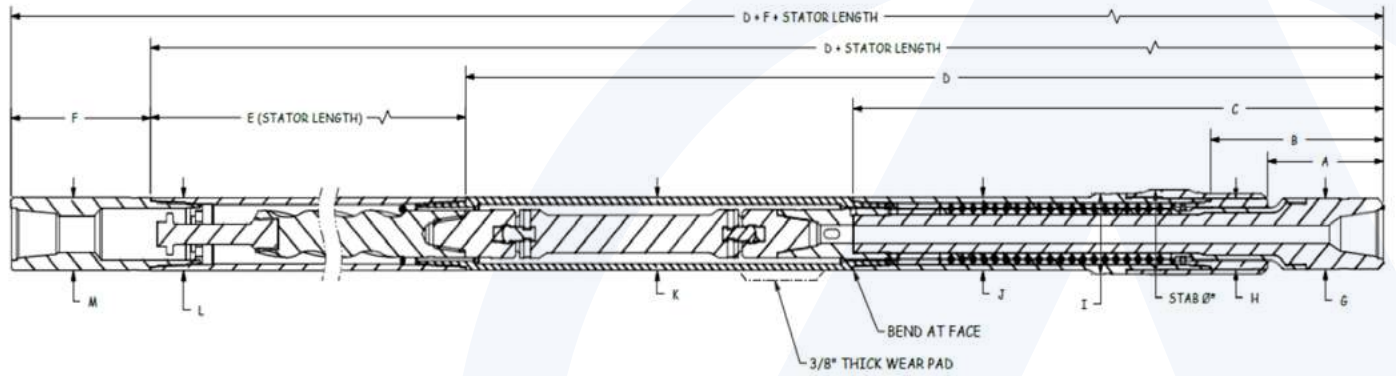
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

TRUE 8.38” JAW–CLUTCH 7/8 LOBE 7.0 STAGE (FT-003)



True 8.38” Jaw–Clutch 7/8 Lobe 7.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
27.31	57.19	62.19	81.94	87.06	115.56	123.56	266	9.34	8.13	6.41
L	M	N	O	P	Q	R	S	T	U	V
6.41	4.79	6.48	5.75	5.88	4.75	5.88	5.50	5.833	2.25	4.25



True 8.38” Jaw–Clutch 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.94	22.44	78.71	123.59	275	24	8.13
H	Stabilizer (1)	I (2)	J	K	L	M
8.22		9.12	8.38	8.38	8.38	8.38

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

TRUE 8.38” JAW–CLUTCH 8/9 LOBE 4.0 STAGE (FT-003)

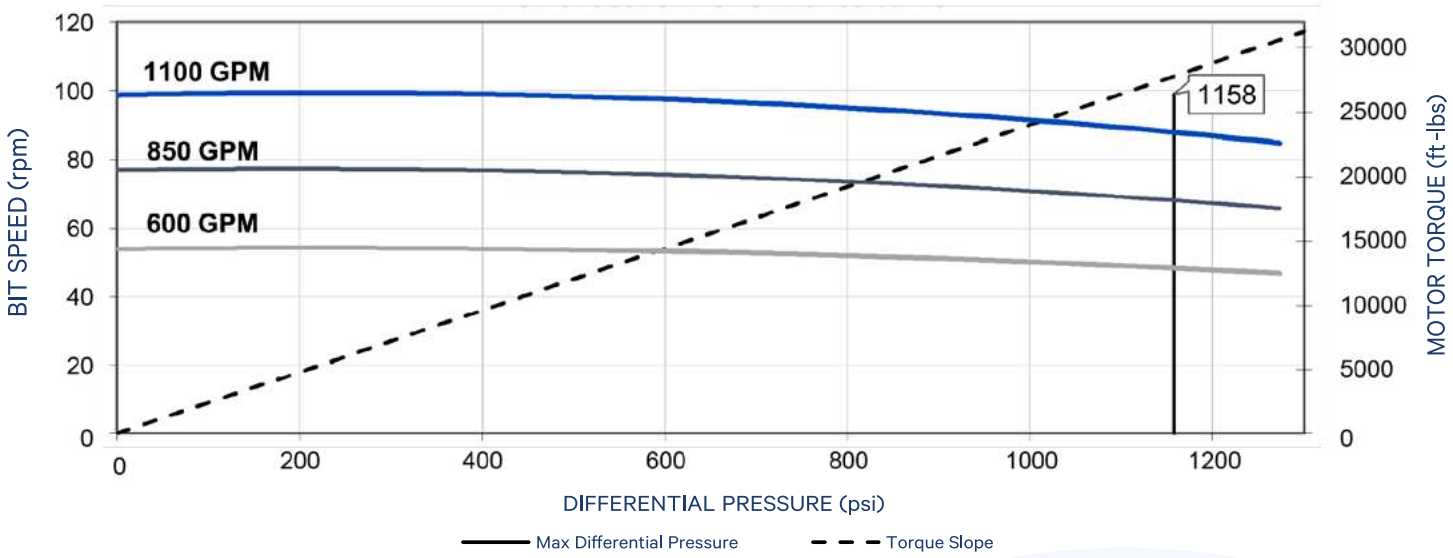
General Data			
Bit Sizes (in)	9 ⅞ – 12 ¼		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	155,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	77,500
Torque–External Connections (ft–lbs)	40,000	Max Bit Pull (lbs) With Damage *	600,000
Torque (ABH) (ft–lbs)	45,000	Max Body Pull (lbs) With Damage *	1,300,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.85	
Nominal Length (ft)	35.21	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	600	1,100
Bit Speed (rpm)	54	99
Speed Ratio (rev/US Gal)	0.09	
Differential Pressure (psi)	1,158	978
Operating Torque (ft–lbs)	32,935	27,815
Torque Slope (ft–lbs/psi)	28.441	

TRUE 8.38” JAW–CLUTCH
8/9 LOBE 4.0 STAGE (FT-003)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

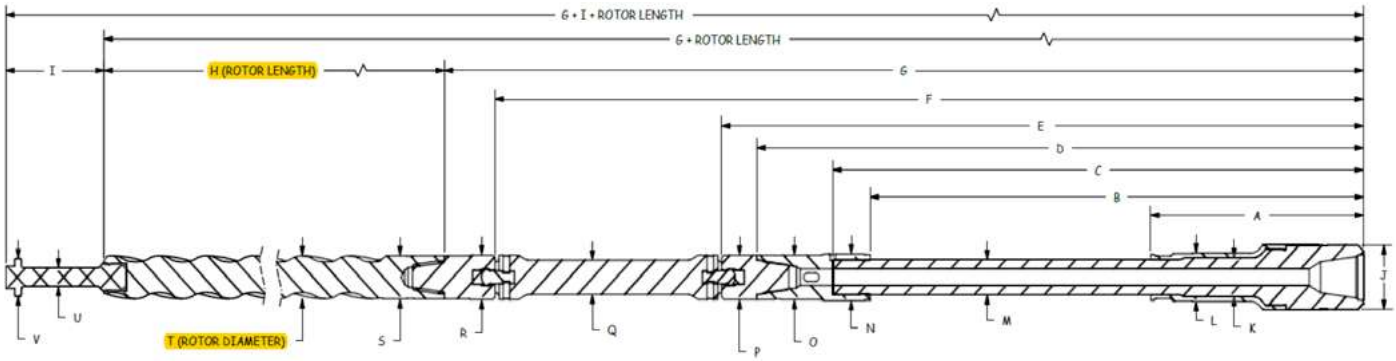
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	9 ⅞		10 ⅝		12 ¼		9 ⅞		10 ⅝		12 ¼	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.0	100	3.3	100	4.0	100
0.75°	2.1						4.3		4.7		5.4	
1.00°	3.5		2.0				5.7		6.0		6.7	
1.25°	5.0		3.4				7.1		7.4		8.1	
1.50°	6.5		4.9		1.5		8.4		8.7		9.4	
1.75°	8.0	60	6.4		3.0		10.1	60	10.1	60	10.8	
2.00°	9.5	20	7.9	60	4.5	60	11.7	20	11.4	20	12.1	60
2.12°	10.2		8.6	40	5.2	40	12.4		12.1		12.8	40
2.25°	10.9		9.4	20	5.9	20	13.3		12.9		13.5	20
2.50°	12.4		10.8		7.4		14.9		14.6		14.8	
2.75°	13.9		12.3		8.9		16.5		16.2		16.2	
3.00°	15.4		13.8		10.4		18.1		17.8		17.5	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

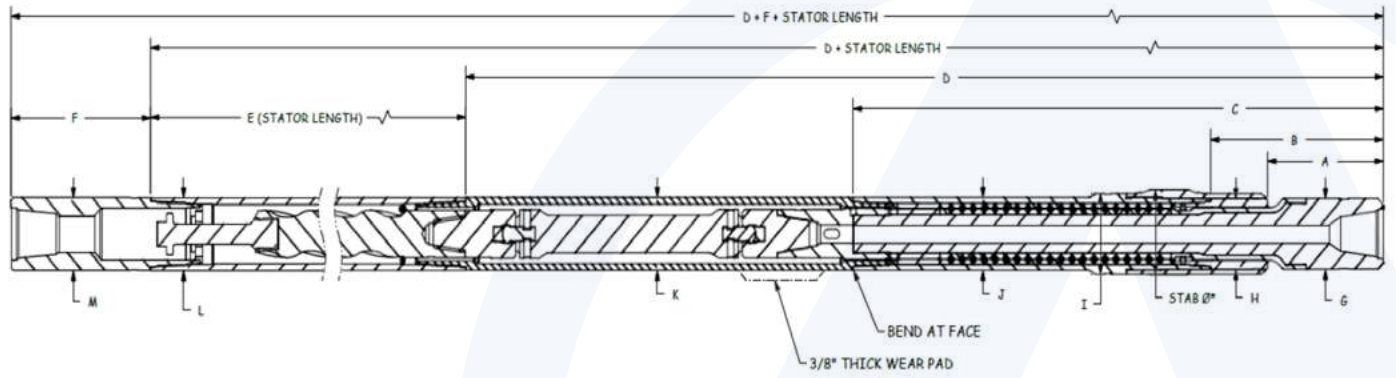
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

TRUE 8.38” JAW–CLUTCH 8/9 LOBE 4.0 STAGE (FT-003)



True 8.38” Jaw–Clutch 8/9 Lobe 4.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
27.31	57.19	62.19	81.94	87.06	115.56	123.56	263	9.34	8.13	6.41
L	M	N	O	P	Q	R	S	T	U	V
6.41	4.79	6.48	5.75	5.88	4.75	5.88	5.50	5.805	2.25	4.25



True 8.38” Jaw–Clutch 8/9 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)						
A	B	C	D	E	F	G
14.94	22.44	78.71	123.59	275	24	8.13
H	Stabilizer (1)	I (2)	J	K	L	M
8.22		9.12	8.38	8.38	8.38	8.38

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “J”

Updated 4/21/2025

8.75” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

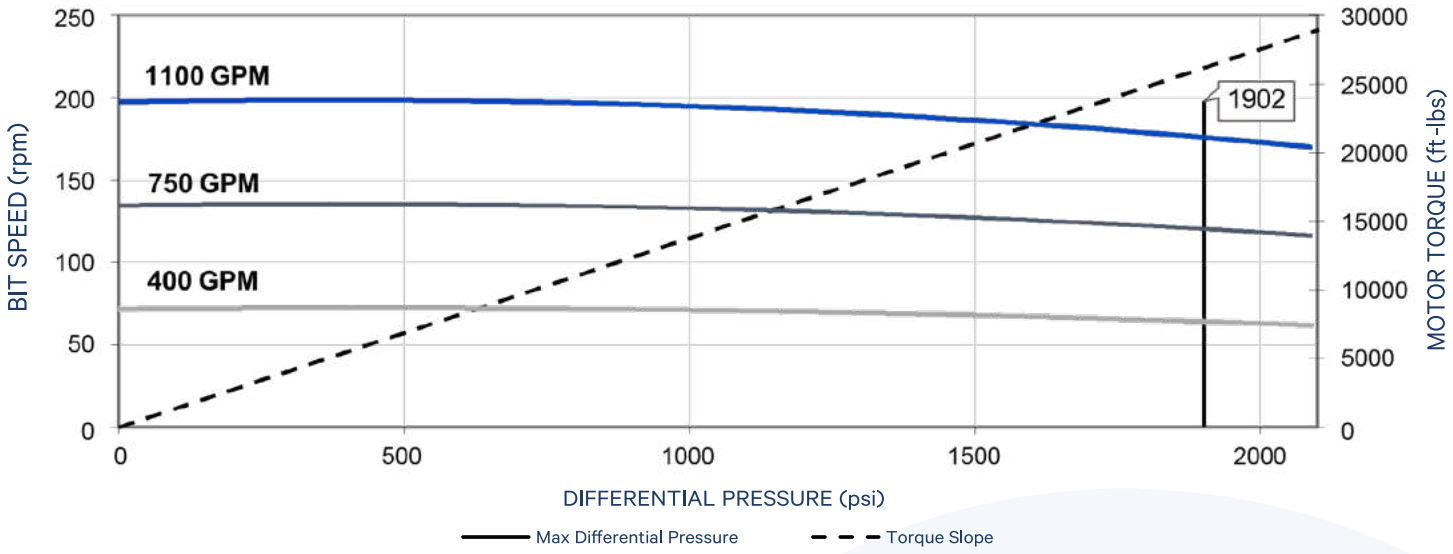
General Data			
Bit Sizes (in)	12 ¼ – 14 ¾		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	135,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	67,500
Torque–External Connections (ft–lbs)	47,000	Max Bit Pull (lbs) With Damage *	630,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	1,350,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.89	
Nominal Length (ft)	39.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	1,100
Bit Speed (rpm)	72	198
Speed Ratio (rev/US Gal)	0.18	
Differential Pressure (psi)	2,062	1,902
Operating Torque (ft–lbs)	28,408	26,204
Torque Slope (ft–lbs/psi)	13.78	

8.75” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



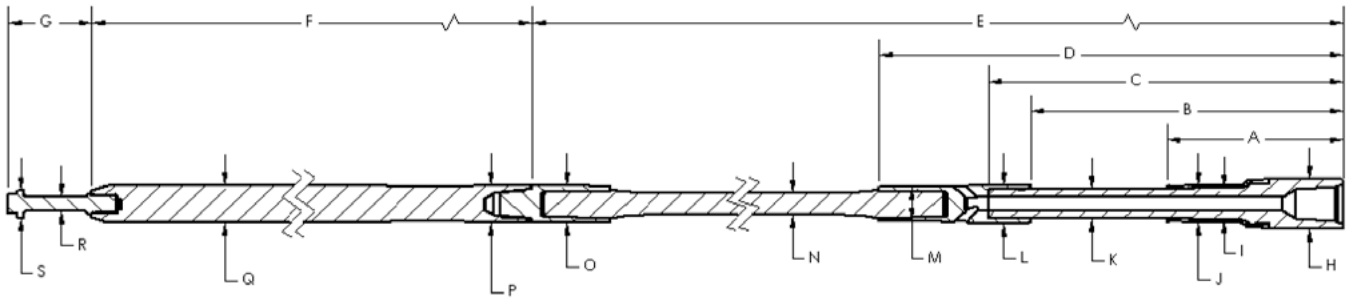
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		13 ½		14 ¾		12 ¼		13 ½		14 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.3	100	3.8	100	4.2	100
0.75°							4.6		5.0		5.5	
1.00°	1.3						5.8		6.2		6.7	
1.25°	2.7		0.6				7.0		7.5		7.9	
1.50°	4.0		2.0				8.3		8.7		9.2	
1.75°	5.4		3.3		1.3		9.5	60	9.9		10.4	
2.00°	6.8	60	4.7	60	2.7		10.7	20	11.2	60	11.6	60
2.12°	7.4	20	5.4	40	3.3	80	11.3		11.8	40	12.2	40

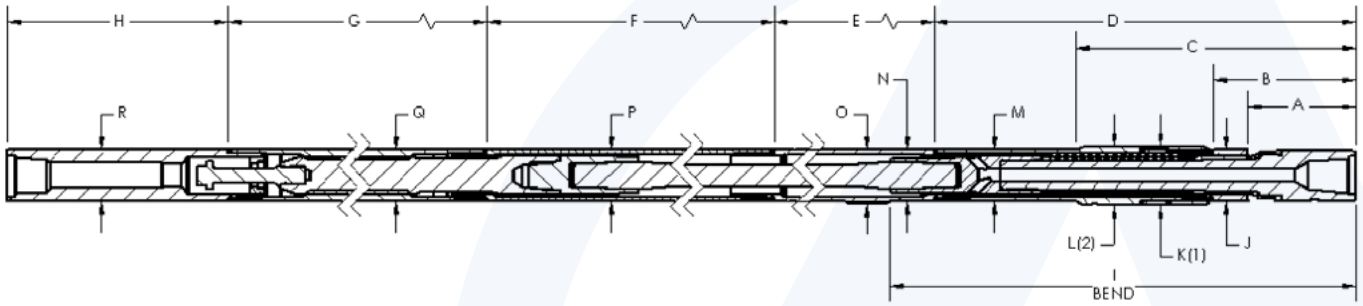
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

8.75” FLEX SHAFT
7/8 LOBE 7.0 STAGE (FT-003)



8.75” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
27.31	57.19	62.19	81.95	196.20	266.00	12.00	8.45	5.49	6.58
K	L	M	N	O	P	Q	R	S	
4.92	6.59	5.88	3.31	5.88	5.50	5.833	2.25	4.25	



8.75” Flex Shaft 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.94	24.27	41.91	36.67	18.51	118.36	275.00	24.00	82.66
J	K (1)	L (2)	M	N	O	P	Q	R
8.53	9.43	9.43	8.75	8.75	9.25	8.75	8.75	8.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “M”

Updated 4/21/2025

8.75” FLEX SHAFT
8/9 LOBE 4.0 STAGE (FT-003)

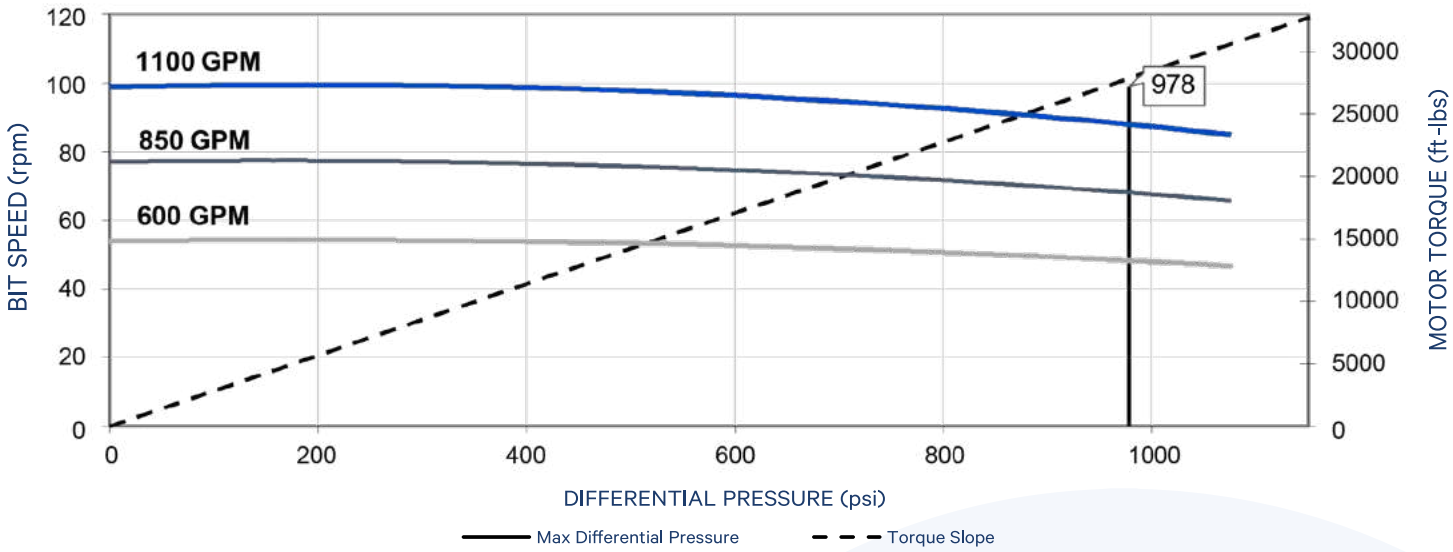
General Data			
Bit Sizes (in)	12 ¼ – 14 ¾		
Bit Connection	6 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	135,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	67,500
Torque–External Connections (ft–lbs)	47,000	Max Bit Pull (lbs) With Damage *	630,000
Torque (ABH) (ft–lbs)	N/A	Max Body Pull (lbs) With Damage *	1,350,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Flex Shaft	
Bit to Bend Length (ABH) (ft)	N/A	
Bit to Bend Length (FBH) (ft)	6.89	
Nominal Length (ft)	39.4	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	600	1,100
Bit Speed (rpm)	54	99
Speed Ratio (rev/US Gal)	0.09	
Differential Pressure (psi)	1,158	978
Operating Torque (ft–lbs)	32,935	27,815
Torque Slope (ft–lbs/psi)	28.44	

8.75” FLEX SHAFT
8/9 LOBE 4.0 STAGE (FT-003)

Power Section Performance Curve ***



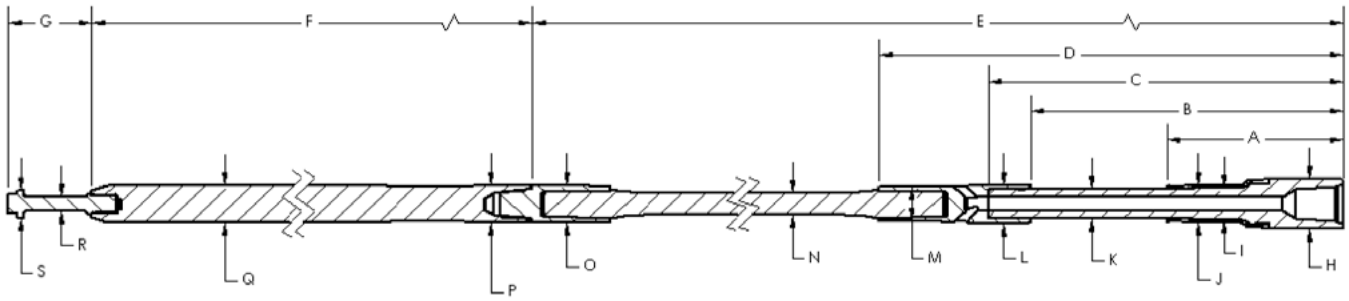
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		13 ½		14 ¾		12 ¼		13 ½		14 ¾	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.3	100	3.8	100	4.2	100
0.75°							4.6		5.0		5.5	
1.00°	1.3						5.8		6.2		6.7	
1.25°	2.7		0.6				7.0		7.5		7.9	
1.50°	4.0		2.0				8.3		8.7		9.2	
1.75°	5.4		3.3		1.3		9.5	60	9.9		10.4	
2.00°	6.8	60	4.7	60	2.7		10.7	20	11.2	60	11.6	60
2.12°	7.4	20	5.4	40	3.3	80	11.3		11.8	40	12.2	40

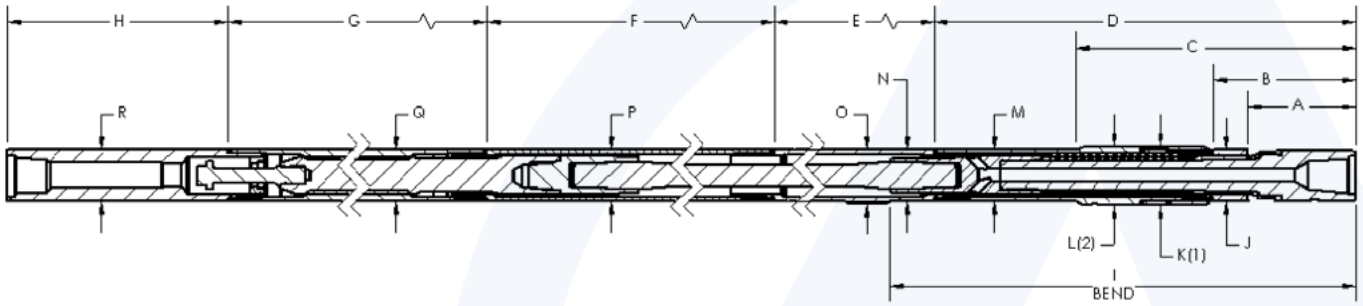
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100’

^ When dogleg severity of the well path exceeds 8°/100’, rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

8.75” FLEX SHAFT
8/9 LOBE 4.0 STAGE (FT-003)



8.75” Flex Shaft 8/9 Lobe 4.0 Stage (FT-003) INNER FISHING DIMENSIONS (in)									
A	B	C	D	E	F	G	H	I	J
27.31	57.19	62.19	81.95	196.20	266.00	12.00	8.45	5.49	6.58
K	L	M	N	O	P	Q	R	S	
4.92	6.59	5.88	3.31	5.88	5.50	5.805	2.25	4.25	



8.75” Flex Shaft 8/9 Lobe 4.0 Stage (FT-003) OUTER FISHING DIMENSIONS – FIXED BEND HOUSING (in)								
A	B	C	D	E	F	G	H	I
14.94	24.27	41.91	36.67	18.51	118.36	275.00	24.00	82.66
J	K (1)	L (2)	M	N	O	P	Q	R
8.53	9.43	9.43	8.75	8.75	9.25	8.75	8.75	8.75

1. Use Stabilizer Diameter when running screw on or integral stabilizer
2. If running slick housing then OD is the same as “M”

9.63” JAW–CLUTCH
0.10 RPG (FT-003)

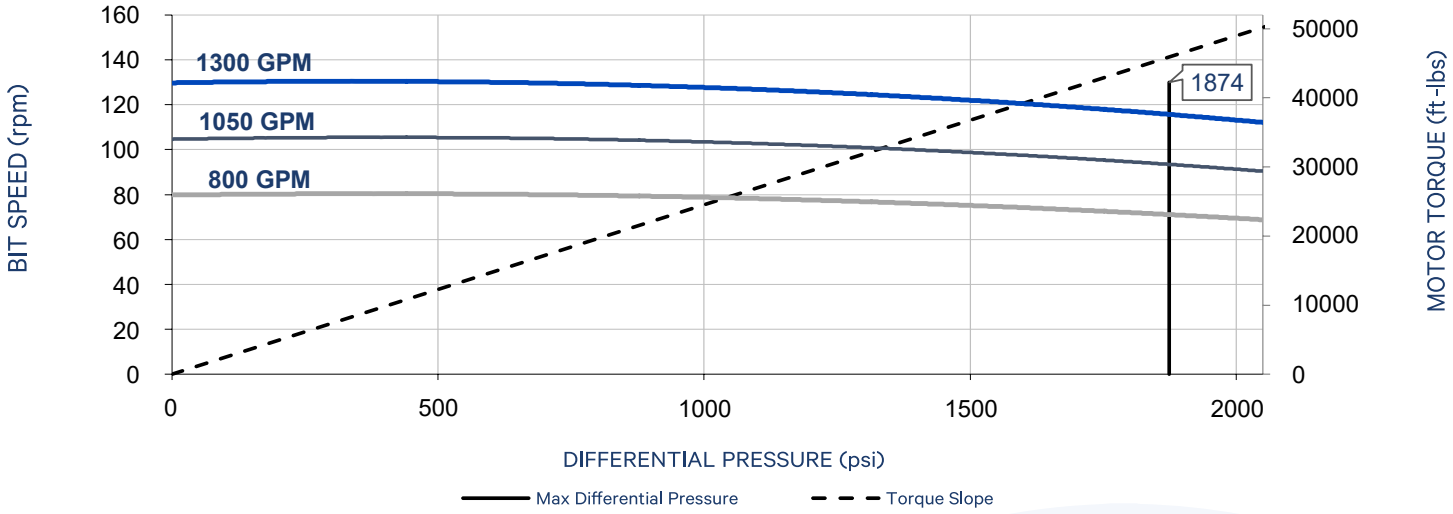
General Data			
Bit Sizes (in)	12 ¼ – 20		
Bit Connection	6 ⅝ Reg Box 7 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	140,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	70,000
Torque–External Connections (ft–lbs)	65,000	Max Bit Pull (lbs) With Damage *	800,000
Torque (ABH) (ft–lbs)	70,000	Max Body Pull (lbs) With Damage *	1,450,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	8.42	
Bit to Bend Length (FBH) (ft)	N/A	
Nominal Length (ft)	37.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	800	1,300
Bit Speed (rpm)	80	130
Speed Ratio (rev/US Gal)	0.10	
Differential Pressure (psi)	1,874	1,741
Operating Torque (ft–lbs)	45,908	42,659
Torque Slope (ft–lbs/psi)	24.504	

9.63” JAW–CLUTCH
0.10 RPG (FT-003)

Power Section Performance Curve ***



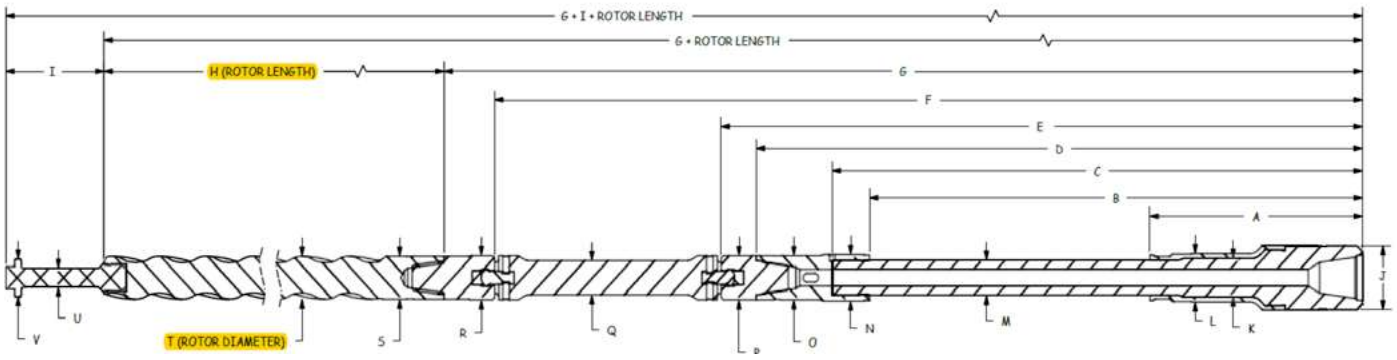
*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.

Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		14 ¾		17 ½		12 ¼		14 ¾		17 ½	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.9	100	4.9	100	5.9	100
0.75°							5.1		6.0		7.1	
1.00°							6.2		7.2		8.3	
1.25°	1.6						7.4		8.4		9.4	
1.50°	3.0						8.6	60	9.5		10.6	
1.75°	4.4	60	0.8				9.8	20	10.7	60	11.8	
2.00°	5.8	20	2.2	60			10.9		11.9	20	12.9	60
2.12°	6.5		2.9	40		80	11.6		12.5		13.5	40
2.25°	7.3		3.6	20		60	12.5		13.1		14.1	20
2.50°	8.7		5.1		1.1	20	14.2		14.2		15.3	
2.75°	10.1		6.5		2.5		15.9		15.4		16.5	
3.00°	11.5		7.9		3.9		17.6		16.6		17.6	

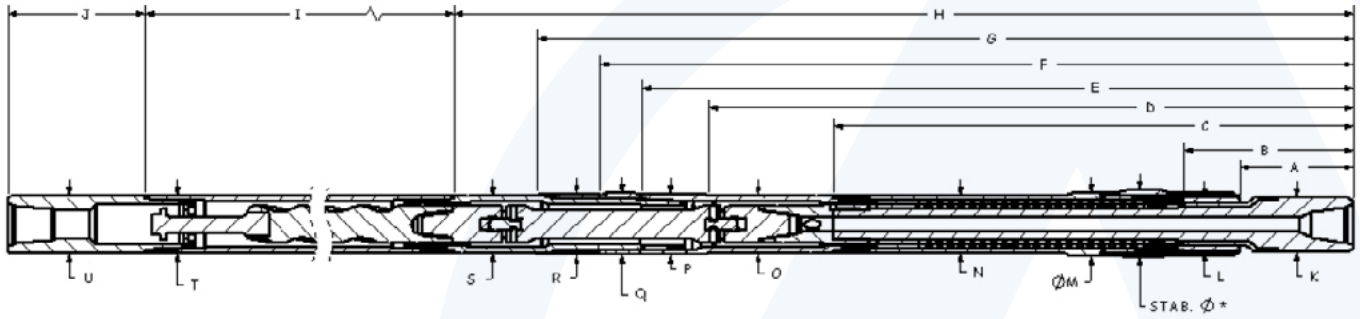
NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

9.63” JAW–CLUTCH
0.10 RPG (FT-003)



9.63” Jaw–Clutch 0.10 RPG (FT-003) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
29.80	66.97	72.51	83.27	88.39	123.88	131.87	289.00	10.50	9.45	5.69
L	M	N	O	P	Q	R	S	T	U	V
7.03	5.41	6.88	5.88	6.25	5.00	5.38	5.38	6.592	2.25	4.25



9.63” Jaw–Clutch 0.10 RPG (FT-003) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
16.30	23.80	72.47	89.59	101.19	107.76	117.11	131.84	300.00	17.50	9.45
L	STAB	M	N	O	P	Q	R	S	T	U
9.45		10.63	9.63	9.63	10.13	10.51	10.13	9.63	9.63	9.63

9.63” JAW–CLUTCH
5/6 LOBE 8.0 STAGE (ABACO HPW)

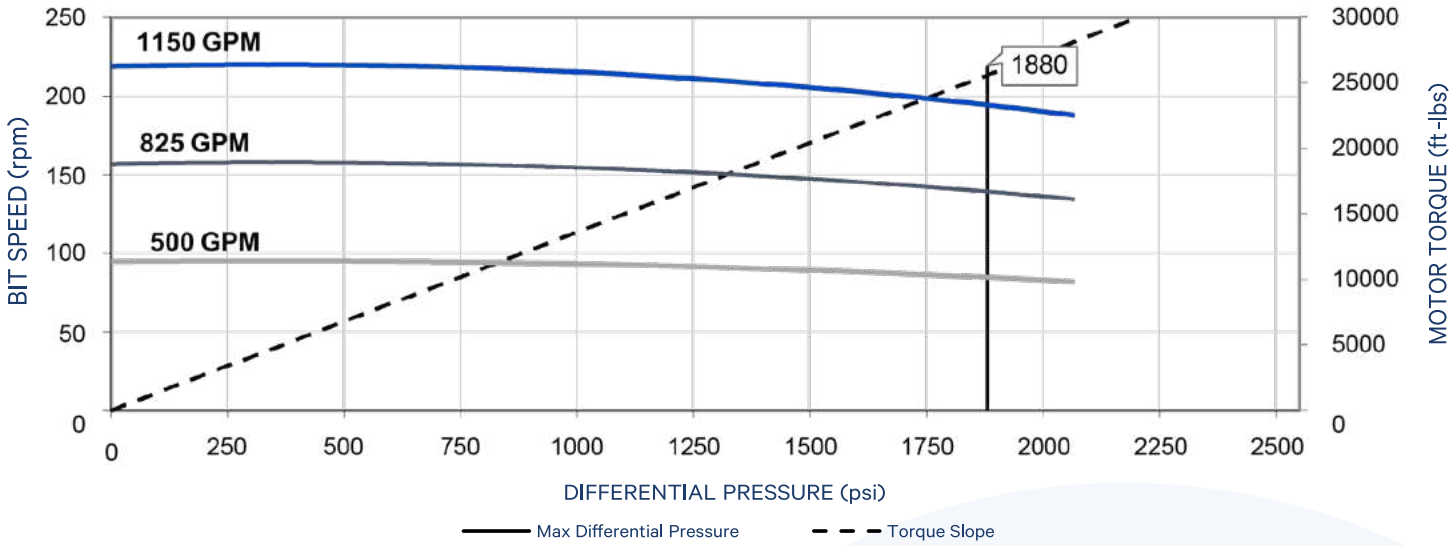
General Data			
Bit Sizes (in)	12 ¼ – 20		
Bit Connection	6 ⅝ Reg Box 7 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	140,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	70,000
Torque–External Connections (ft–lbs)	65,000	Max Bit Pull (lbs) With Damage *	800,000
Torque (ABH) (ft–lbs)	70,000	Max Body Pull (lbs) With Damage *	1,450,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	8.42	
Bit to Bend Length (FBH) (ft)	N/A	
Nominal Length (ft)	37.5	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	500	1,150
Bit Speed (rpm)	100	220
Speed Ratio (rev/US Gal)	0.19	
Max Differential Pressure (psi)		1,880
Max Operating Torque (ft–lbs)		25,610
Torque Slope (ft–lbs/psi)	13.62	

9.63” JAW–CLUTCH
5/6 LOBE 8.0 STAGE (ABACO HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

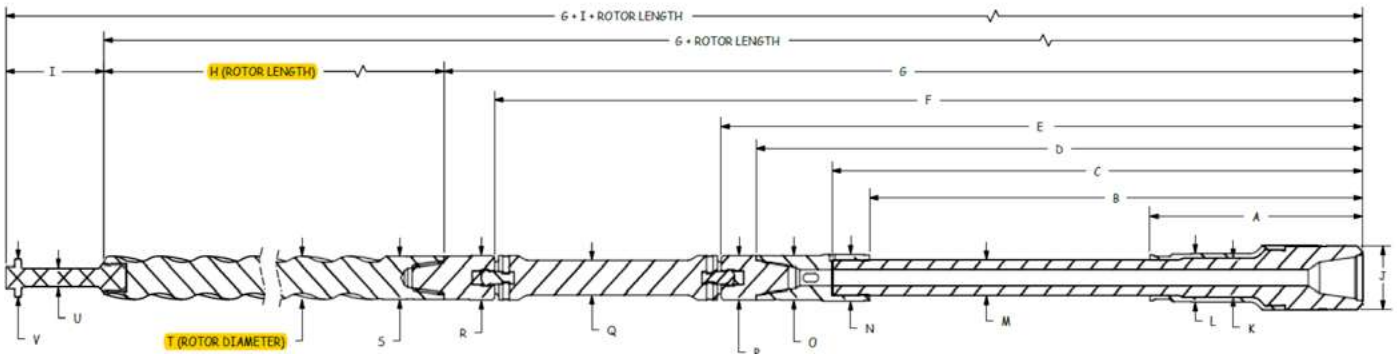
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		14 ¾		17 ½		12 ¼		14 ¾		17 ½	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.9	100	4.9	100	5.9	100
0.75°							5.1		6.0		7.1	
1.00°							6.2		7.2		8.3	
1.25°	1.6						7.4		8.4		9.4	
1.50°	3.0						8.6	60	9.5		10.6	
1.75°	4.4	60	0.8				9.8	20	10.7	60	11.8	
2.00°	5.8	20	2.2	60			10.9		11.9	20	12.9	60
2.12°	6.5		2.9	40		80	11.6		12.5		13.5	40
2.25°	7.3		3.6	20		60	12.5		13.1		14.1	20
2.50°	8.7		5.1		1.1	20	14.2		14.2		15.3	
2.75°	10.1		6.5		2.5		15.9		15.4		16.5	
3.00°	11.5		7.9		3.9		17.6		16.6		17.6	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

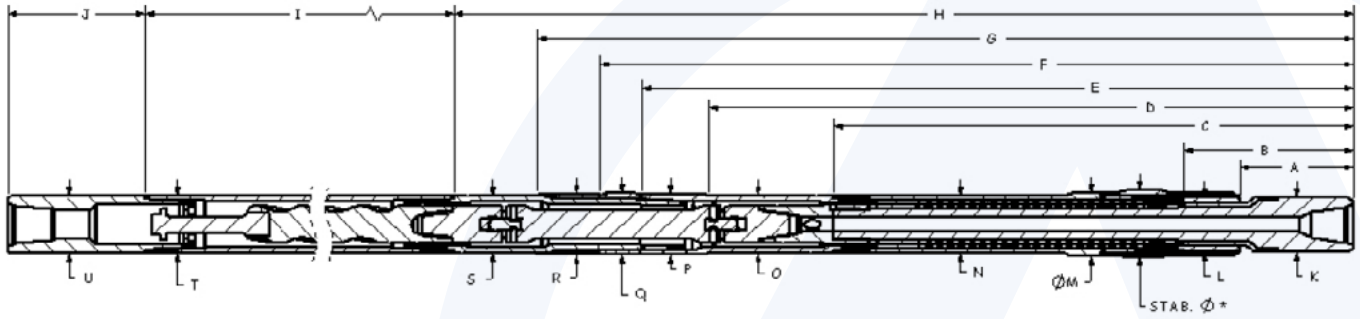
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

9.63” JAW–CLUTCH
5/6 LOBE 8.0 STAGE (ABACO HPW)



9.63” Jaw–Clutch 5/6 Lobe 8.0 Stage (Abaco HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
29.80	66.97	72.51	83.27	88.39	123.88	131.87	288.00	10.50	9.45	5.69
L	M	N	O	P	Q	R	S	T	U	V
7.03	5.41	6.88	5.88	6.25	5.00	5.38	5.38	5.825	2.25	5.25



9.63” Jaw–Clutch 5/6 Lobe 8.0 Stage (Abaco HPW) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
16.30	23.80	72.47	89.59	101.19	107.76	117.11	131.84	300.00	17.50	9.45
L	STAB	M	N	O	P	Q	R	S	T	U
9.45		10.63	9.63	9.63	10.13	10.51	10.13	9.63	9.63	9.63

9.63” JAW–CLUTCH
6/7 LOBE 5.0 STAGE (ABACO NBR-HPW)

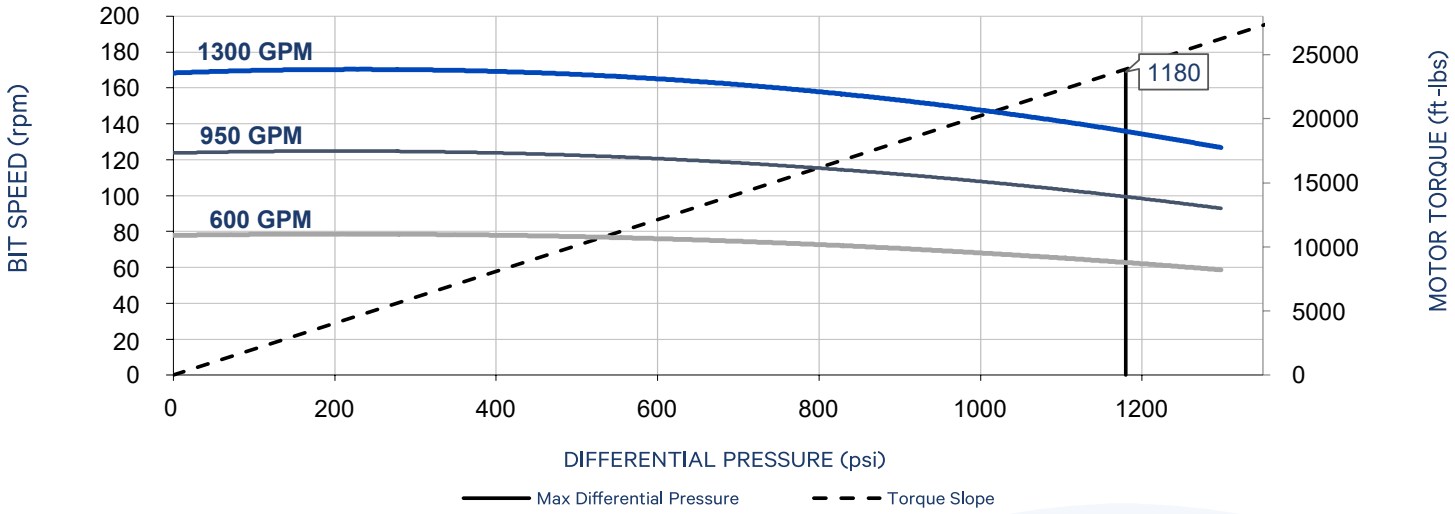
General Data			
Bit Sizes (in)	12 ¼ – 20		
Bit Connection	6 ⅝ Reg Box 7 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	140,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	70,000
Torque–External Connections (ft–lbs)	65,000	Max Bit Pull (lbs) With Damage *	800,000
Torque (ABH) (ft–lbs)	70,000	Max Body Pull (lbs) With Damage *	1,450,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw–Clutch	
Bit to Bend Length (ABH) (ft)	8.42	
Bit to Bend Length (FBH) (ft)	N/A	
Nominal Length (ft)	30.6	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	600	1,300
Bit Speed (rpm)	80	170
Speed Ratio (rev/US Gal)	0.13	
Max Differential Pressure (psi)		1,180
Max Operating Torque (ft–lbs)		23,860
Torque Slope (ft–lbs/psi)	20.3	

9.63” JAW–CLUTCH
6/7 LOBE 5.0 STAGE (ABACO NBR-HPW)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

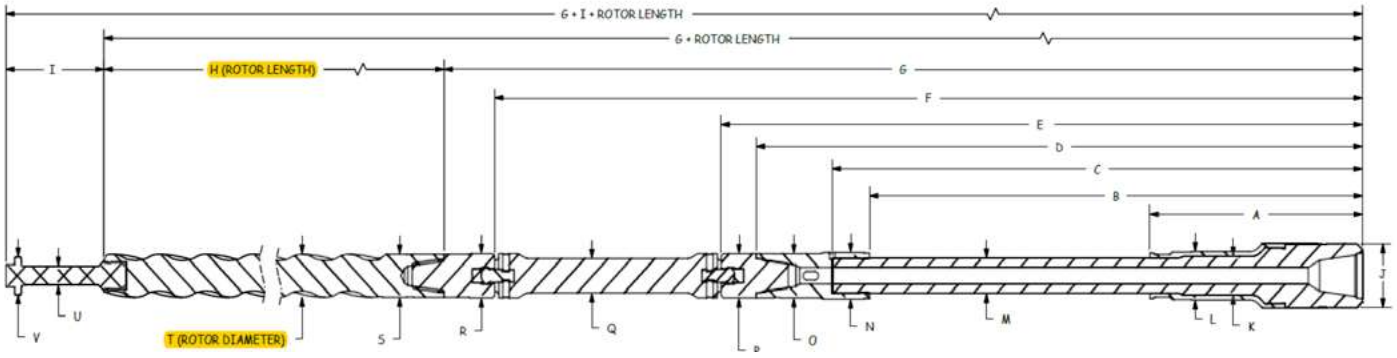
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		14 ¾		17 ½		12 ¼		14 ¾		17 ½	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°	2.0						3.5		4.9		6.5	
0.75°	3.7						4.8	100	6.3		7.9	
1.00°	5.4	100	1.0	100			6.4		7.6	100	9.2	100
1.25°	7.2		2.8			100	8.5		9.0		10.6	
1.50°	8.9		4.5				10.7	60	10.3		11.9	
1.75°	10.7	60	6.3		1.4		12.8	20	11.7	60	13.3	
2.00°	12.4	20	8.0	60	3.1		14.9		13.5	20	14.6	60
2.12°	13.2		8.8	40	4.0	80	16.0		14.5		15.3	40
2.25°	14.1		9.7	20	4.9	60	17.1		15.6		16.0	20
2.50°	15.9		11.5		6.6	20	19.2		17.7		17.3	
2.75°	17.6		13.2		8.4		21.3		19.9		18.7	
3.00°	19.4		14.9		10.1		23.5		22.0		20.4	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

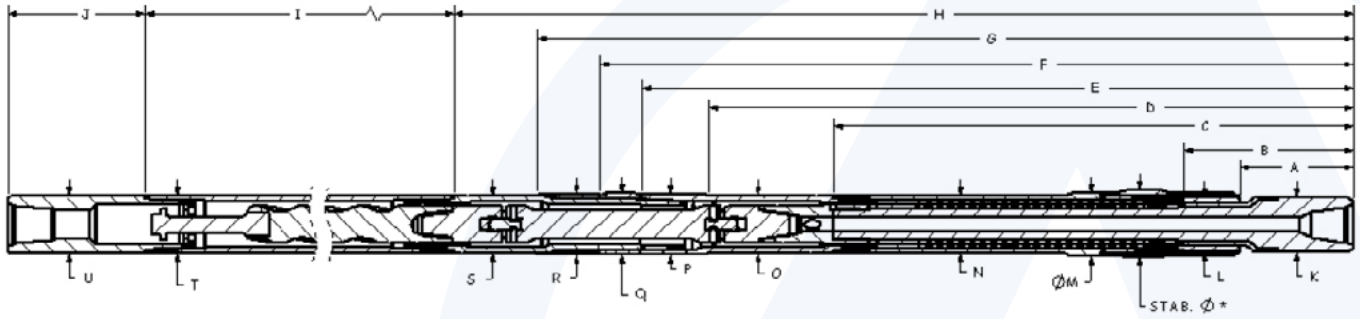
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

9.63” JAW–CLUTCH
6/7 LOBE 5.0 STAGE (ABACO NBR-HPW)



9.63” Jaw–Clutch 6/7 Lobe 5.0 Stage (Abaco NBR-HPW) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
29.80	66.97	72.51	83.27	88.39	123.88	131.87	202.00	10.50	9.45	5.69
L	M	N	O	P	Q	R	S	T	U	V
7.03	5.41	6.88	5.88	6.25	5.00	5.38	5.38	6.403	2.25	5.25



9.63” Jaw–Clutch 6/7 Lobe 5.0 Stage (Abaco NBR-HPW) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
16.30	23.80	72.47	89.59	101.19	107.76	117.11	131.84	218.00	17.50	9.45
L	STAB	M	N	O	P	Q	R	S	T	U
9.45		10.63	9.63	9.63	10.13	10.51	10.13	9.63	9.63	9.63

9.63” X 8.00” COMBO JAW-CLUTCH 7/8 LOBE 5.9 STAGE (DYNA-DRILL XP)

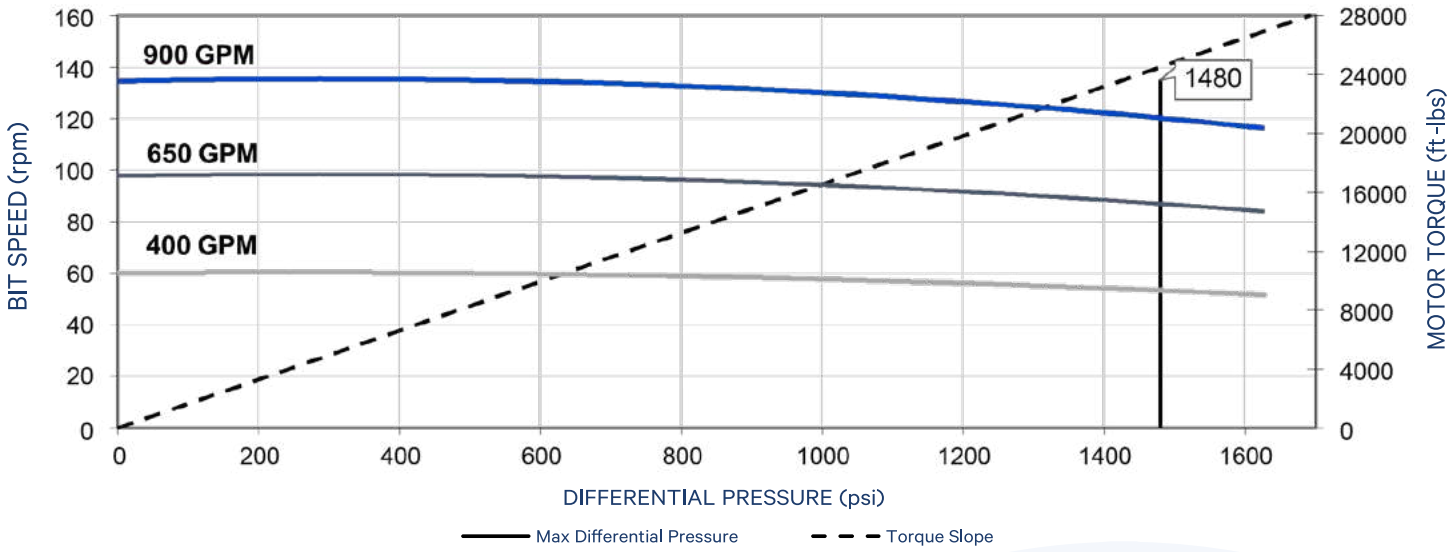
General Data			
Bit Sizes (in)	12 ¼ – 20		
Bit Connection	6 ⅝ Reg Box 7 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	140,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	70,000
Torque–External Connections (ft–lbs)	40,000 (8.00”) 65,000 (9.63”)	Max Bit Pull (lbs) With Damage *	800,000
Torque (ABH) (ft–lbs)	70,000	Max Body Pull (lbs) With Damage *	1,200,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw-Clutch	
Bit to Bend Length (ABH) (ft)	8.42	
Bit to Bend Length (FBH) (ft)	N/A	
Nominal Length (ft)	37.8	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	900
Bit Speed (rpm)	60	135
Speed Ratio (rev/US Gal)	0.15	
Max Differential Pressure (psi)		1,480
Max Operating Torque (ft–lbs)		24,470
Torque Slope (ft–lbs/psi)	16.046	

9.63” X 8.00” COMBO JAW–CLUTCH
7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)

Power Section Performance Curve ***



*** Operating a power section at or above maximum differential pressure will greatly reduce stator life. Power Section Performance Curves are for reference only. Actual power section performance may vary depending on downhole temperature and rotor/stator fit. Contact Altitude Energy Partners for more details.*

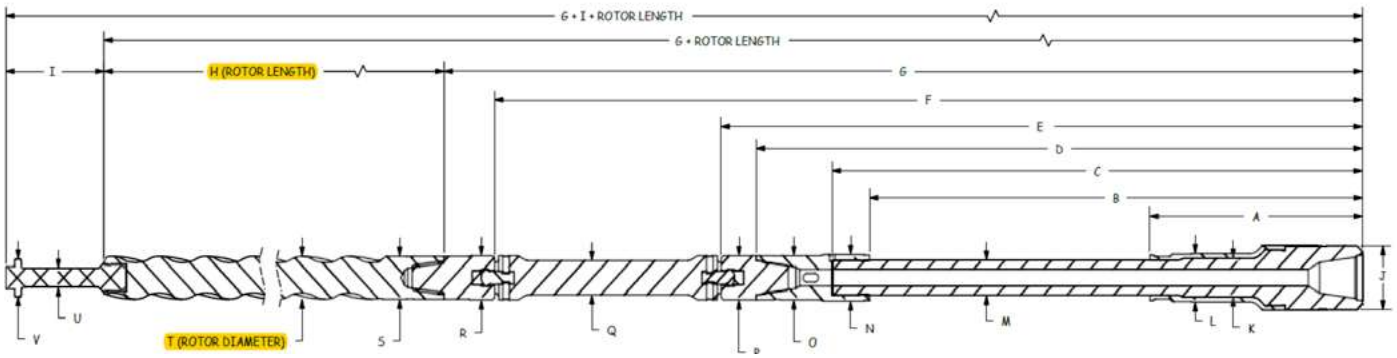
Theoretical Build Up Rates – Degrees / 100 ft & Max Rotary Speed ^												
Bend Angle (Deg)	Hole Size (in) – Slick						Hole Size (in) – Partially Stabilized ^^ (1/8-in undergage Near–Bit)					
	12 ¼		14 ¾		17 ½		12 ¼		14 ¾		17 ½	
	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM	BUR	RPM
0.50°		100		100		100	3.8	100	4.8	100	5.9	100
0.75°							5.1		6.1		7.2	
1.00°	2.1						6.3		7.3		8.4	
1.25°	3.5						7.5		8.6		9.7	
1.50°	4.9		1.3				8.8	60	9.8		10.9	
1.75°	6.3	60	2.7				10.0	20	11.0	60	12.1	
2.00°	7.7	20	4.1	60			11.3		12.3	20	13.4	60
2.12°	8.4		4.8	40		80	11.9		12.9		14.0	40
2.25°	9.1		5.6	20	1.6	60	12.5		13.5		14.6	20
2.50°	10.6		7.0		3.0	20	14.0		14.8		15.9	
2.75°	12.0		8.4		4.4		15.6		16.0		17.1	
3.00°	13.4		9.8		5.9		17.2		17.2		18.3	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

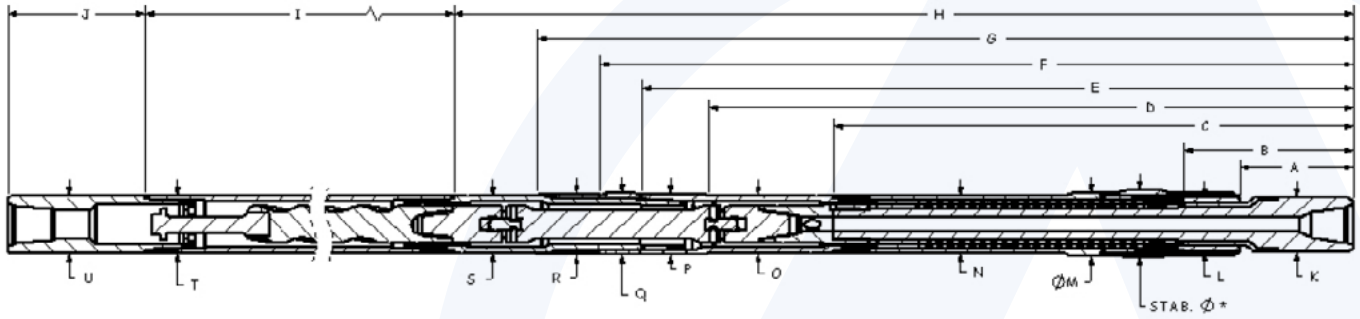
^ When dogleg severity of the well path exceeds 8°/100', rotary speed recommendations above shall be reduced by 1/2
^^ Stabilization assumes a single 1/8-in undergage Near–Bit stabilizer. For recommendations using additional stabilization options (Gage Size, Fully Stabilized, Mid–Body Stabilized, etc.), contact Altitude Energy Partners.

Updated 4/21/2025

9.63” X 8.00” COMBO JAW–CLUTCH 7/8 LOBE 5.9 STAGE (DYNA–DRILL XP)



9.63” X 8.00” Combo Jaw–Clutch 7/8 Lobe 5.9 Stage (Dyna–Drill XP) INNER FISHING DIMENSIONS (in)										
A	B	C	D	E	F	G	H	I	J	K
29.80	66.97	72.51	83.27	88.39	123.89	131.87	285.00	9.34	9.45	5.69
L	M	N	O	P	Q	R	S	T	U	V
7.03	5.41	6.88	5.88	6.25	5.00	5.38	5.38	5.186	2.06	4.06



9.63” X 8.00” Combo Jaw–Clutch 7/8 Lobe 5.9 Stage (Dyna–Drill XP) OUTER FISHING DIMENSIONS - ABH (in)										
A	B	C	D	E	F	G	H	I	J	K
16.30	23.80	72.47	89.59	101.19	107.76	117.11	131.84	300.00	17.50	9.45
L	STAB	M	N	O	P	Q	R	S	T	U
9.45		10.63	9.63	9.63	10.13	10.51	10.13	8.00	8.00	8.00

9.63” X 8.75” COMBO JAW-CLUTCH 7/8 LOBE 7.0 STAGE (FT-003)

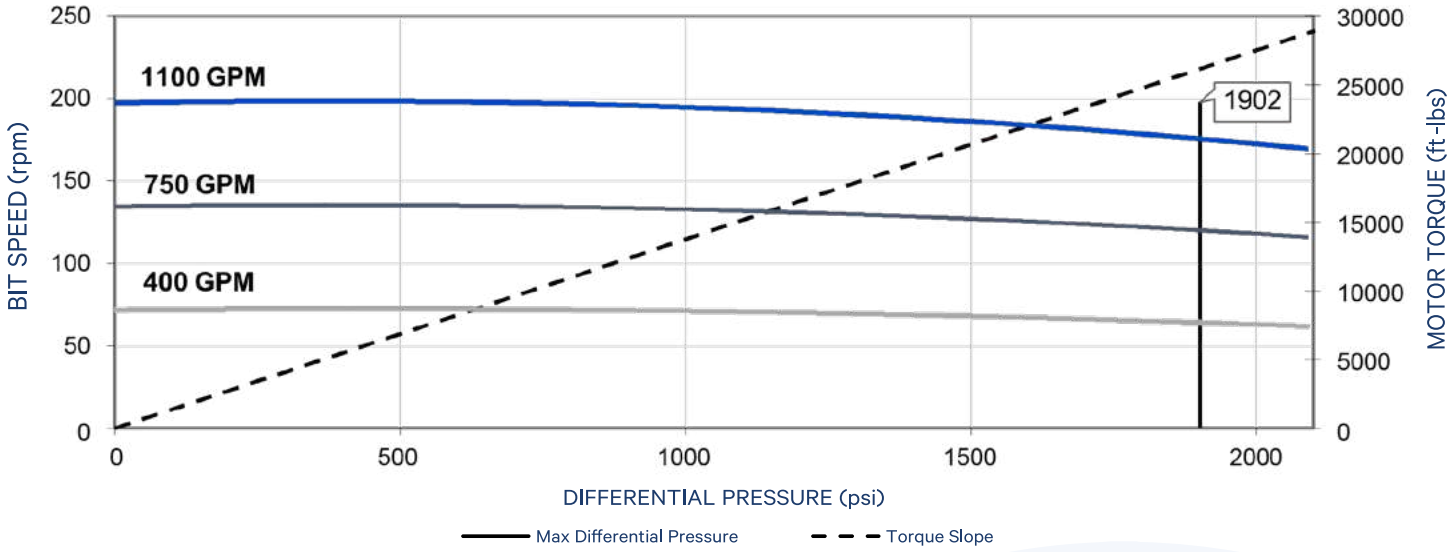
General Data			
Bit Sizes (in)	12 ¼ – 20		
Bit Connection	6 ⅝ Reg Box 7 ⅝ Reg Box	Ultimate WOB (lbs) With Flow *	140,000
Top Connection	6 ⅝ Reg Box	Operational Max WOB (lbs) With Flow **	70,000
Torque–External Connections (ft–lbs)	47,000 (8.75”) 65,000 (9.63”)	Max Bit Pull (lbs) With Damage *	800,000
Torque (ABH) (ft–lbs)	70,000	Max Body Pull (lbs) With Damage *	1,350,000

** Exceeding this value may cause severe damage to the motor*
*** Exceeding this value drastically reduces motor life*

Physical Properties		
	Jaw-Clutch	
Bit to Bend Length (ABH) (ft)	8.42	
Bit to Bend Length (FBH) (ft)	N/A	
Nominal Length (ft)	35.7	
Power Section Performance	**Min**	**Max**
Flow Range (gpm)	400	1,100
Bit Speed (rpm)	72	198
Speed Ratio (rev/US Gal)	0.18	
Differential Pressure (psi)	2,062	1,902
Operating Torque (ft–lbs)	28,408	26,204
Torque Slope (ft–lbs/psi)	13.78	

9.63” X 8.75” COMBO JAW–CLUTCH 7/8 LOBE 7.0 STAGE (FT-003)

Power Section Performance Curve ***



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2.50°	12.3		8.5		4.3	20	15.1		15.3		16.6	
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3.00°	15.3		11.5		7.3		18.5		17.9		19.2	

NOTE: Actual Build Up Rates are subject to varying factors including but not limited to: formation influence, drilling parameters and tool face control Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 8°/100'

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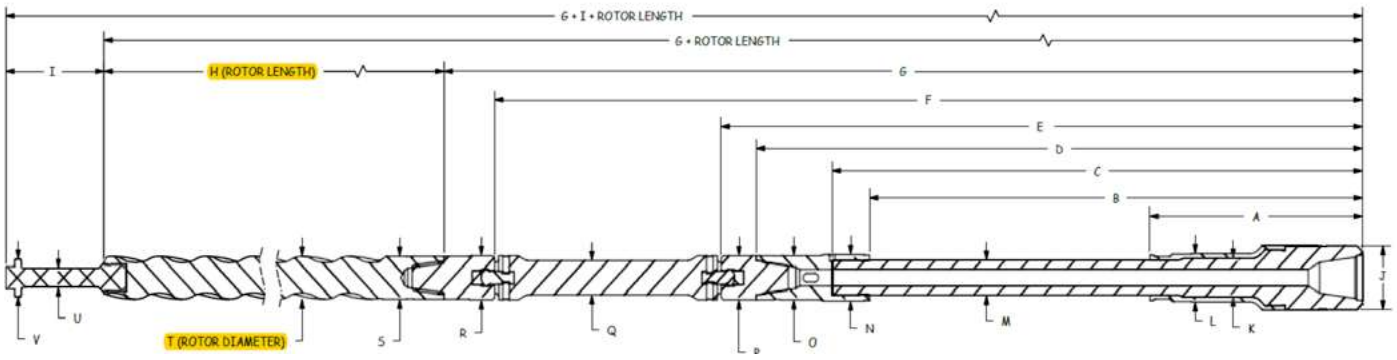
Updated 4/21/2025

9.63” X 8.75” COMBO JAW–CLUTCH 7/8 LOBE 7.0 STAGE (FT-003)



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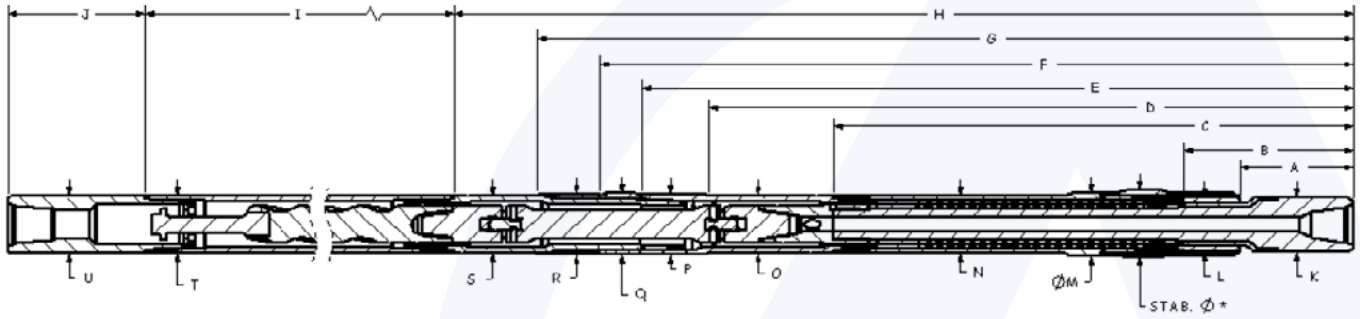
7.03	5.41	6.88	5.88	6.25	5.00	5.38	5.38	5.833	2.25	4.25



9.63” X 8.75” Combo Jaw–Clutch 7/8 Lobe 7.0 Stage (FT-003) OUTER FISHING DIMENSIONS - ABH (in)										
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L	STAB	M	N	O	P	Q	R	S	T	U
9.45		10.63	9.63	9.63	10.13	10.51	10.13	8.75	8.75	8.75

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