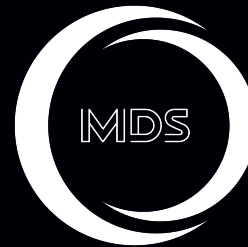


# 650 MOTORS

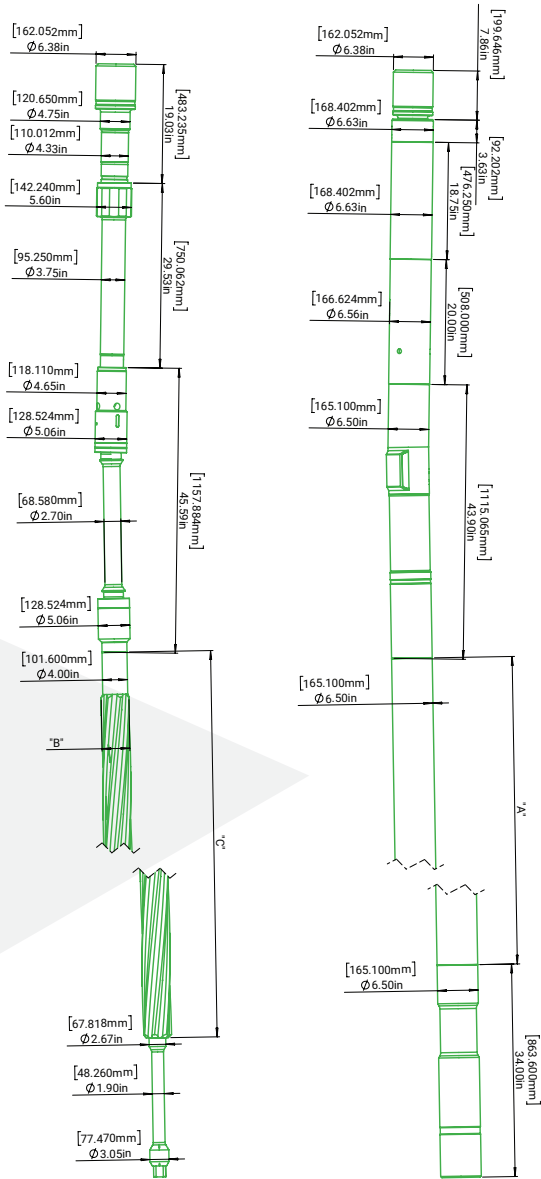
650



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SOLUTIONS** KEEP IT IN THE  
HOLE!

# 650 FISHING DIAGRAM

# 650 SPECIFICATIONS



## POWER SECTION

		4/5 7.0	5/6 8.2	7/8 5.0	7/8 5.7
Stator Length	A	214.6 in	246 in	194 in	260 in
Rotor OD	B	4.22 in	4.370 in	4.52 in	4.64 in
Rotor Length	C	202.5 in	233 in	188 in	252 in

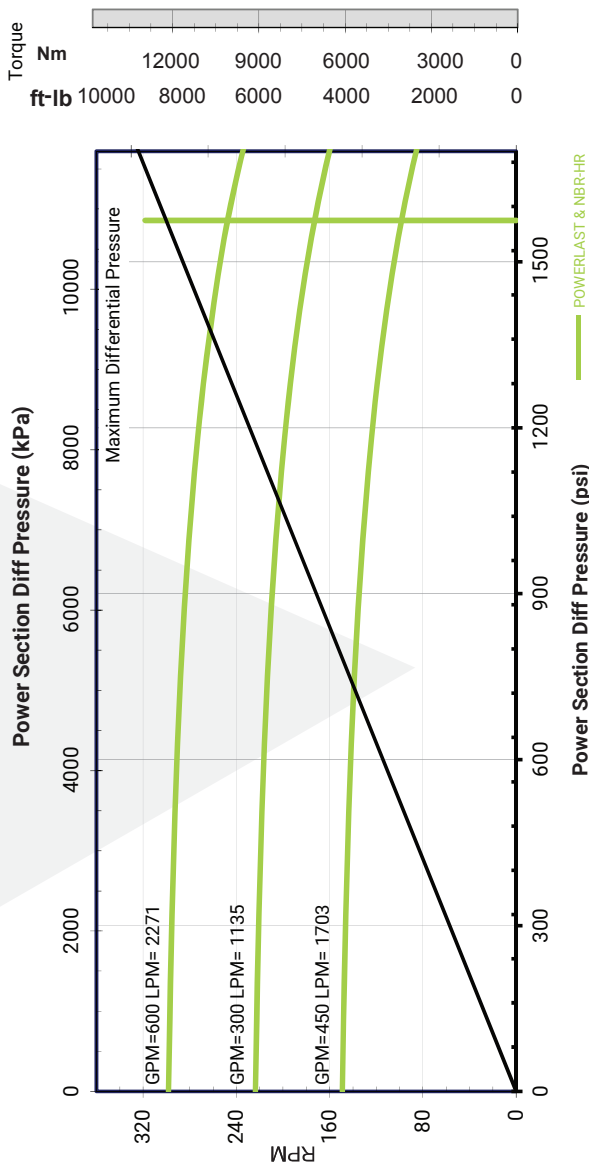
## SPECIFICATIONS

Bit Box to Stabilizer	18 in	0.46 m
Bit Box to Bend	62 (71)* in	1.57 (1.80)* m
Bit Box to Top Sub	336 in	8.53
Maximum Dynamic Weight On Bit	154,000 lb	685 kN
Max. Dynamic Pull to Re-Run Motor	80,000 lb	355 kN
Max. Static Pull to Re-Run Motor	260,000 lb	1,156 kN
Pull to Yield Motor	650,000 lb	2,900 kN
Standard Bit Box Connections	4 1/2 Reg, 6 5/8 Reg	
Driveline Connections Torque Limit	25,500 ft-lbs	34,500 Nm
Housing Connections Torque Limit	28,000 ft-lbs	38,000 Nm
Side Load Limit (Static)	145,000 lbf	196,500 N
Side Load Limit (Dynamic)	71,500 lbf	97,000 N

\*With Adjustable Bend Housing

# 6.5" 4/5 LOBES 7 STAGES

# 6.5" 4/5 LOBES 7 STAGES



Operating a power section above the maximum recommended differential pressure will reduce stator life. Performance Curves are for section performance may vary depending on the down hole temperature and rotor/stator fit. Performance data are subject to change without notice. Power calculation is based on maximum RPM and full torque. Stator sizes subject to change without notice

## SPECIFICATIONS

Flow Range	300 - 600 gpm	1,136 - 2,271 lpm
Revolutions per Volume	0.497 rev/gal	0.214 rev/l
Speed Range	149 - 300 rpm	
Max. Differential Pressure	1,580 psi	10,860 kPa
Torque @ Max. Diff. Pressure	9,090 lb-ft	12,330 Nm
Stall Torque	13,630 lb-ft	18,490 Nm

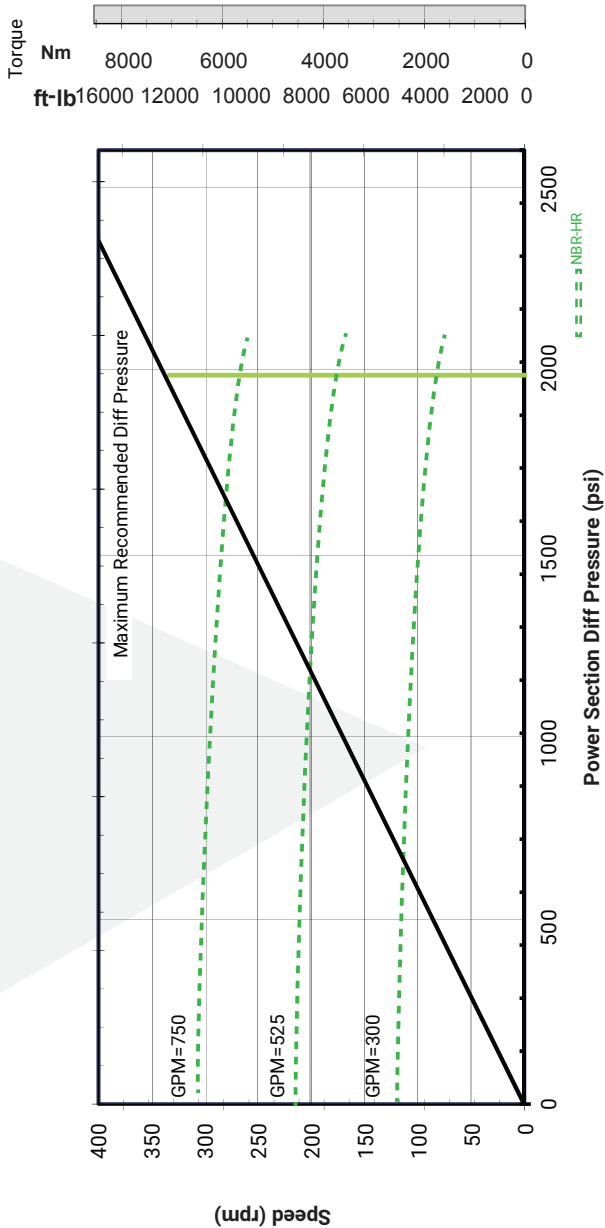
## PREDICTED BUILD RATES - DEGREES/100 FT (30 M)

Bend Setting	Slick Hole Size			Single Stabilizer Hole Size		
	7.875"	8.50"	8.75"	7.875"	8.50"	8.75"
	200 mm	216 mm	222 mm	200 mm	216 mm	222 mm
0.39	0.8	-	-	0.6	2.1	2.3
0.78	3.4	1.9	1.4	3.5	4.3	4.4
1.15	5.9	4.4	3.9	6.5	7.1	6.9
1.5	8.2	6.8	6.2	9.3	9.9	9.7
1.83	10.5	9.0	8.5	12.0	12.6	12.4
2.12	12.4	11.0	10.4	14.3	14.9	14.7
2.38	14.2	12.7	12.2	16.4	17.0	16.8
2.6	15.7	14.2	13.6	18.2	18.8	18.6
2.77	16.8	15.4	14.8	19.5	20.1	20.0
2.9	17.7	16.2	15.7	20.6	21.2	21.0
2.97	18.1	16.7	16.1	21.2	21.7	21.6
3.00	18.4	16.9	16.3	21.4	21.9	21.8

\*With Adjustable Bend Housing

# 6.5" 5/6 LOBES 8.2 STAGES

# 6.5" 5/6 LOBES 8.2 STAGES



Operating a power section above the maximum recommended differential pressure will reduce stator life. Performance Curves are for section performance may vary depending on the down hole temperature and rotor/stator fit. Performance data are subject to change without notice. Power calculation is based on maximum RPM and full torque. Stator sizes subject to change without notice.

## SPECIFICATIONS

Flow Range	450-750 gpm
Revolutions per Volume	0.40 rev/gal
Speed Range	178-298 rpm
Max. Differential Pressure	1,760 psi
Torque @ Max. Diff. Pressure	11,090 lb-ft
Stall Torque	16,630 lb-ft

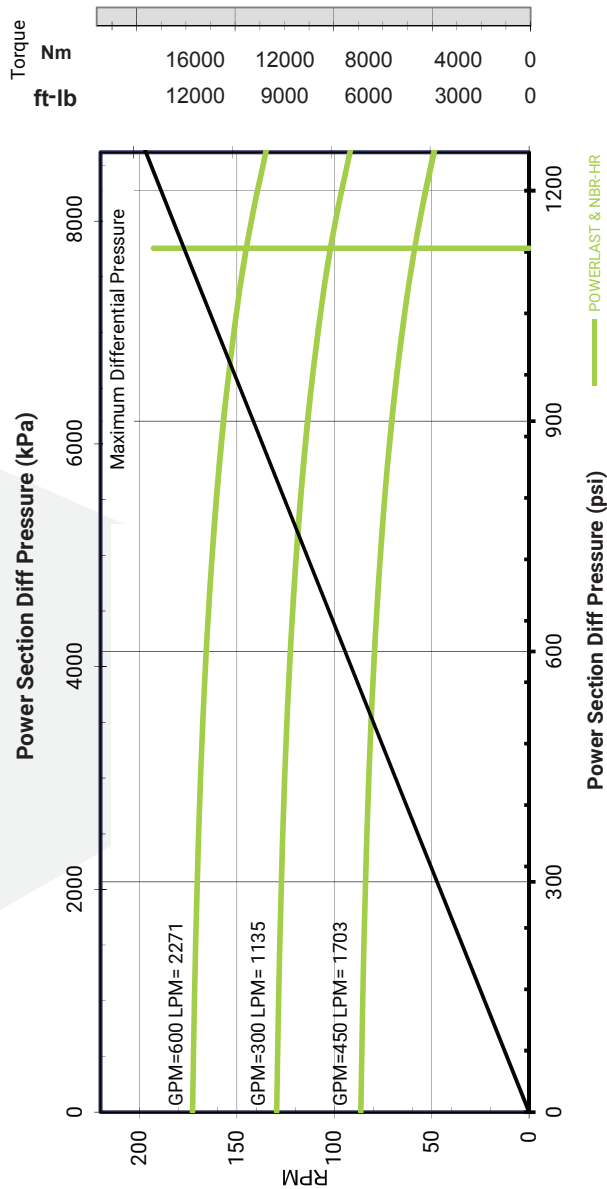
## PREDICTED BUILD RATES - DEGREES/100 FT (30 M)

Bend Setting	Slick Hole Size			Single Stabilizer Hole Size		
	7.875"	8.5"	8.75"	7.875"	8.5"	8.75"
	200 mm	216 mm	222 mm	200 mm	216 mm	222 mm
0.39	0.8	-	-	4.6	2.6	1.7
0.78	3.2	1.9	1.3	7.0	4.9	4.1
1.15	5.4	4.1	3.6	9.2	7.2	6.3
1.5	7.5	6.2	5.7	11.3	9.3	8.5
1.83	9.5	.2	7.7	13.3	11.3	10.5
2.12	11.3	10.0	9.5	15.1	13.0	12.2
2.38	12.9	11.6	11.0	16.7	14.6	13.8
2.6	14.2	12.9	12.4	18.0	15.9	15.1
2.77	15.2	13.9	13.4	19.0	17.0	16.2
2.9	16.0	14.7	14.2	19.8	17.8	16.9
2.97	16.	15.1	14.6	20.2	18.2	17.4
3.00	16.6	15.3	14.8	20.4	18.4	17.6

\*With Adjustable Bend Housing

# 6.5" 7/8 LOBES 5 STAGES

# 6.5" 7/8 LOBES 5 STAGES



Operating a power section above the maximum recommended differential pressure will reduce stator life. Performance curves are for section performance may vary depending on the down hole temperature and rotor/stator fit. Performance data are subject to change without notice. Power calculation is based on maximum RPM and full torque. Stator sizes subject to change without notice.

## SPECIFICATIONS

Flow Range	300 - 600 gpm	1,136 - 2,271 lpm
Revolutions per Volume	0.288 rev/gal	0.076 rev/l
Speed Range	86 - 175 rpm	
Max. Differential Pressure	1,130 psi	7,760 kPa
Torque @ Max. Diff. Pressure	10460 kPa	14,190 Nm
Stall Torque	15,690 lb-ft	21,280 Nm

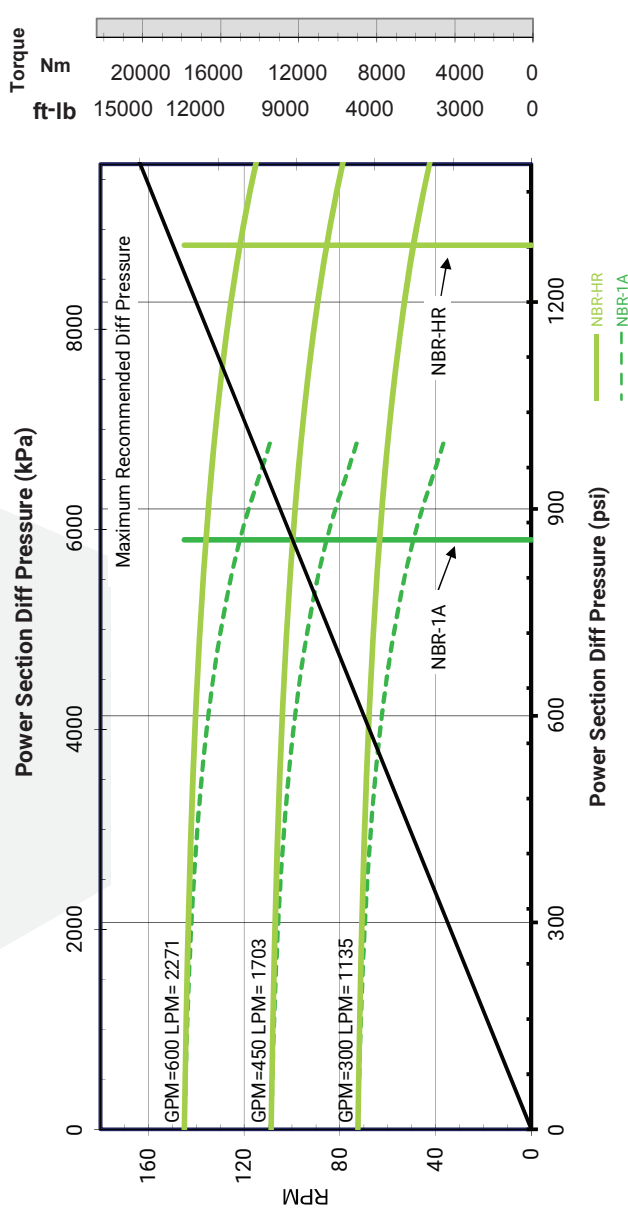
## PREDICTED BUILD RATES - DEGREES/100 FT (30 M)

Bend Setting	Slick Hole Size			Single Stabilizer Hole Size		
	7.875"	8.50"	8.75"	7.875"	8.50"	8.75"
	200 mm	216 mm	222 mm	200 mm	216 mm	222 mm
0.39	0.8	-	-	1.9	2.2	2.4
0.78	3.5	2.0	1.4	4.7	4.4	4.6
1.15	6.1	4.6	4.0	7.7	7.3	7.1
1.5	8.5	7.0	6.4	10.7	10.2	10.1
1.83	10.8	9.3	8.7	13.4	13.0	12.8
2.12	12.8	11.3	10.7	15.9	15.4	15.2
2.38	14.6	13.1	12.5	18.0	17.6	17.4
2.6	16.1	14.7	14.1	19.9	19.4	19.2
2.77	17.3	15.8	15.2	21.3	20.8	20.7
2.9	18.2	16.6	16.1	22.4	21.9	21.8
2.97	18.7	17.2	16.6	23.0	22.5	22.3
3.00	18.9	17.4	16.8	23.2	22.7	22.5

\*With Adjustable Bend Housing

# 6.5" 7/8 LOBES 5.7 STAGES

# 6.5" 7/8 LOBES 5.7 STAGES



Operating a power section above the maximum recommended differential pressure will reduce stator life. Performance Curves are for section performance may vary depending on the down hole temperature and rotor/stator fit. Performance data are subject to change without notice. Power calculation is based on maximum RPM and full torque. Stator sizes subject to change without notice.

## SPECIFICATIONS

Flow Range	300 - 600 gpm	1,136 - 2,271 lpm
Revolutions per Volume	0.23 rev/gal	0.062 rev/l
Speed Range	70 - 139 rpm	
Max. Differential Pressure	1,425 psi	9,825 kPa
Torque @ Max. Diff. Pressure	15,034 lb-ft	20,383 Nm
Stall Torque	20,580 lb-ft	27,910 Nm

## PREDICTED BUILD RATES - DEGREES/100 FT (30 M)

Bend Setting	Slick Hole Size			Single Stabilizer Hole Size		
	7.875"	8.50"	8.75"	7.875"	8.50"	8.75"
	200 mm	216 mm	222 mm	200 mm	216 mm	222 mm
0.39	0.6	-	-	2.3	2.5	2.6
0.78	2.9	1.7	1.7	4.5	4.4	4.5
1.15	5.0	3.8	3.3	7.0	6.7	6.6
1.5	7.1	5.8	5.3	9.4	9.1	8.9
1.83	9.0	7.7	7.3	11.6	11.3	11.2
2.12	10.7	9.4	8.9	13.6	13.2	13.1
2.38	12.2	10.9	10.4	15.3	15.0	14.9
2.6	13.4	12.2	11.7	16.8	16.5	16.4
2.77	14.4	13.3	12.7	17.9	17.5	17.5
2.9	15.2	13.9	13.4	18.8	18.5	18.4
2.97	15.6	14.3	13.8	19.3	19.0	18.9
3.00	15.7	14.5	14.0	19.5	19.2	19.1

\*With Adjustable Bend Housing



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