

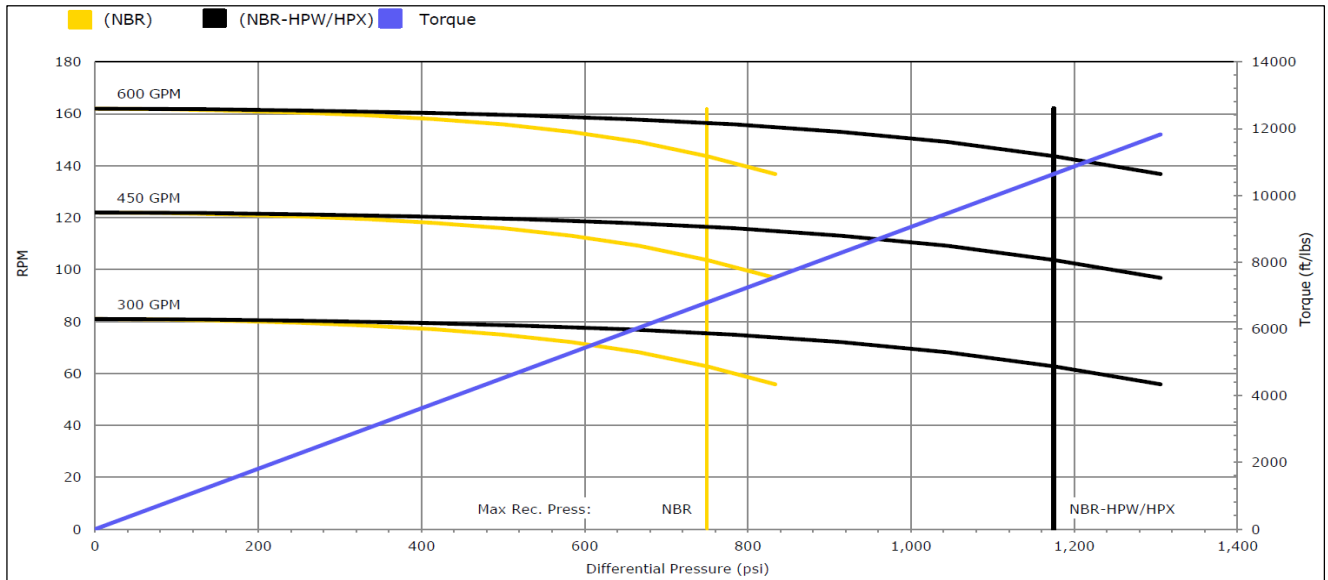


PANTHER

6.50" 7/8 Lobes 5.0 Stages

POWER SECTION

PERFORMANCE SPECIFICATIONS		PERFORMANCE DETAILS		
		NBR		NBR-HPW/HPX
Torque Slope	9.06 ft-lb/psi	Max Diff Pressure psi	750	1,180
Flow Range	300 - 600 GPM	Max Torque ft-lb	6,800	10,650
Rotation	.270 rev/gal	Stall Diff Press psi	1,130	1,860
Speed Range	80 - 160 RPM	Stall Torque ft-lb (Nm)	10,200	16,770
Off Bottom Pressure	100 psi	Max Recommended HP	184	288



Build Rate (°/100')													
PANTHER	Housing Type	Fixed Bend (48" Bit to Bend)				Fixed Bend (Ti Flex Shaft)				Adjustable (65" Bit to Bend)			
	Hole Size	7.875	8.5	8.75	9.875	7.875	8.5	8.75	9.875	7.875	8.5	8.75	9.875
	Motor Bend Angle	0.25	2.06	1.91	1.86	1.65	NA	NA	NA	NA	1.61	1.49	1.45
	0.50	4.13	3.82	3.71	3.29	NA	NA	NA	NA	3.22	2.98	2.89	2.56
	0.75	6.19	5.74	5.57	4.94	NA	NA	NA	NA	4.82	4.47	4.34	3.85
	1.00	8.25	7.65	7.43	6.58	NA	NA	NA	NA	6.43	5.96	5.79	5.13
	1.25	10.32	9.56	9.29	8.23	NA	NA	NA	NA	8.04	7.45	7.24	6.41
	1.50	12.38	11.47	11.14	9.87	NA	NA	NA	NA	9.65	8.94	8.68	7.69
	1.75	14.44	13.38	13.00	11.52	NA	NA	NA	NA	11.26	10.43	10.13	8.98
	2.00	16.51	15.29	14.86	13.16	NA	NA	NA	NA	12.86	11.92	11.58	10.26
	2.25	18.57	17.21	16.71	14.81	NA	NA	NA	NA	14.47	13.41	13.02	11.54
	2.50	20.63	19.12	18.57	16.46	NA	NA	NA	NA	16.08	14.90	14.47	12.82
	2.75	22.70	21.03	20.43	18.10	NA	NA	NA	NA	17.69	16.39	15.92	14.10
	3.00	24.76	22.94	22.29	19.75	NA	NA	NA	NA	19.29	17.88	17.37	15.39

MOTOR ROTARY ANGLES													
Maximum Recommended Fixed Bend Angle for Rotary Speeds Up to 80 RPM													
Motor O.D.		Slick				Partially Stabilized				Fully Stabilized			
6 1/2"	Hole Size	7 7/8"	8 1/2"	8 3/4"	9 7/8"	7 7/8"	8 1/2"	8 3/4"	9 7/8"	7 7/8"	8 1/2"	8 3/4"	9 7/8"
	Max. Bend	1.50°	1.75°	1.75°	2.00°	1.50°	1.75°	1.75°	2.00°	1.50°	1.50°	1.50°	1.50°
Maximum Recommended Adjustable Bend Angle for Rotary Speeds Up to 80 RPM													
Motor O.D.		Slick				Partially Stabilized				Fully Stabilized			
6 1/2"	Hole Size	7 7/8"	8 1/2"	8 3/4"	9 7/8"	7 7/8"	8 1/2"	8 3/4"	9 7/8"	7 7/8"	8 1/2"	8 3/4"	9 7/8"
	Max. Bend	1.25°	1.50°	1.75°	2.00°	1.25°	1.50°	1.75°	2.00°	1.25°	1.25°	1.25°	1.25°

- Partially Stabilized motor has to be a 1/8" undergauge near bit stabilizer.
- Fully Stabilized motor has a 1/8" undergauge near-bit stabilizer and a 1/8" undergauge top stabilizer located immediately above the motor.
- The above values are not valid if a bit cross-over is used.
- Aggressive rotation of the motor should be avoided if the dogleg severity exceeds 10°/100ft (Fixed Bend Motor) & exceeds 8°/100ft. (Adjustable Bend Motor)
- For every 0.125° above values listed in chart reduce rotation by 20 rpm.

GENERAL INFORMATION			
Standard Bit Connection (1)	4 1/2" Reg.	Max Bit Pull (3)	380,000 lbs.
Standard Top Connection (1)	4 1/2" XH	Max Body Pull (3)	675,000 lbs.
Max Weight on Bit (Operating)	110,000 lbs.	Max Axial Play for Re-run	0.225 in.
Max Weight on Bit (Continuous) (2)	55,000 lbs.		

(1) Other connections available upon request.
 (2) Optimal motor life.
 (3) Exceeding these values may cause motor components to remain in hole.