

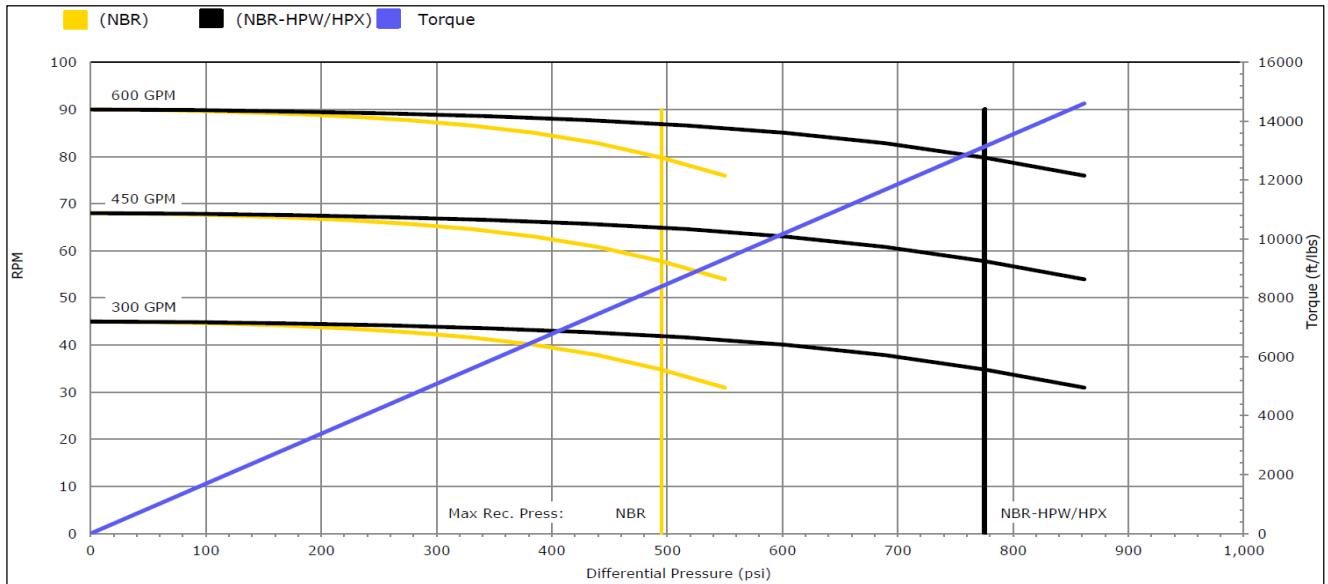


PANTHER

6.75" 7/8 Lobes 5.0 Stages

POWER SECTION

PERFORMANCE SPECIFICATIONS		PERFORMANCE DETAILS		
		NBR		NBR-HPW/HPX
Torque Slope	16.95 ft-lb/psi	Max Diff Pressure psi	500	780
Flow Range	300 - 600 GPM	Max Torque ft-lb	8,400	13,150
Rotation	.150 rev/gal	Stall Diff Press psi	750	1,230
Speed Range	50 - 90 RPM	Stall Torque ft-lb (Nm)	12,590	20,710
Off Bottom Pressure	70 psi	Max Recommended HP	128	200



Build Rate (°/100')														
PANTHER	Motor Bend Angle	Housing Type	Fixed Bend (48" Bit to Bend)				Fixed Bend (Ti Flex Shaft)				Adjustable (65" Bit to Bend)			
		Hole Size	8.5	8.75	9.875	NA	8.5	8.75	9.875	NA	8.5	8.75	9.875	NA
		0.25	1.99	1.93	1.71	NA	NA	NA	NA	NA	NA	1.55	1.50	1.33
0.50	3.97	3.86	3.42	NA	NA	NA	NA	NA	NA	3.09	3.01	2.66	NA	
0.75	5.96	5.79	5.13	NA	NA	NA	NA	NA	NA	4.64	4.51	3.99	NA	
1.00	7.94	7.71	6.84	NA	NA	NA	NA	NA	NA	6.19	6.01	5.33	NA	
1.25	9.93	9.64	8.54	NA	NA	NA	NA	NA	NA	7.73	7.51	6.66	NA	
1.50	11.91	11.57	10.25	NA	NA	NA	NA	NA	NA	9.28	9.02	7.99	NA	
1.75	13.90	13.50	11.96	NA	NA	NA	NA	NA	NA	10.83	10.52	9.32	NA	
2.00	15.88	15.43	13.67	NA	NA	NA	NA	NA	NA	12.38	12.02	10.65	NA	
2.25	17.87	17.36	15.38	NA	NA	NA	NA	NA	NA	13.92	13.53	11.98	NA	
2.50	19.85	19.29	17.09	NA	NA	NA	NA	NA	NA	15.47	15.03	13.32	NA	
2.75	21.84	21.21	18.80	NA	NA	NA	NA	NA	NA	17.02	16.53	14.65	NA	
3.00	23.82	23.14	20.51	NA	NA	NA	NA	NA	NA	18.56	18.03	15.98	NA	

MOTOR ROTARY ANGLES													
Maximum Recommended Fixed Bend Angle for Rotary Speeds Up to 80 RPM													
Motor O.D.		Slick			Partially Stabilized			Fully Stabilized					
6 3/4"	Hole Size		8 1/2"	8 3/4"	9 7/8"		8 1/2"	8 3/4"	9 7/8"		8 1/2"	8 3/4"	9 7/8"
	Max. Bend		1.75°	1.75°	2.00°		1.75°	1.75°	2.00°		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 3/4"	Hole Size		8 1/2"	8 3/4"	9 7/8"		8 1/2"	8 3/4"	9 7/8"		8 1/2"	8 3/4"	9 7/8"
	Max. Bend		1.50°	1.75°	2.00°		1.50°	1.75°	2.00°		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)	832,000 lbs.
Max Weight on Bit (Operating)	80,000 lbs.	Max Axial Play for Re-run	0.225 in.
Max Weight on Bit (Continuous) (2)	45,000 lbs.		

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