

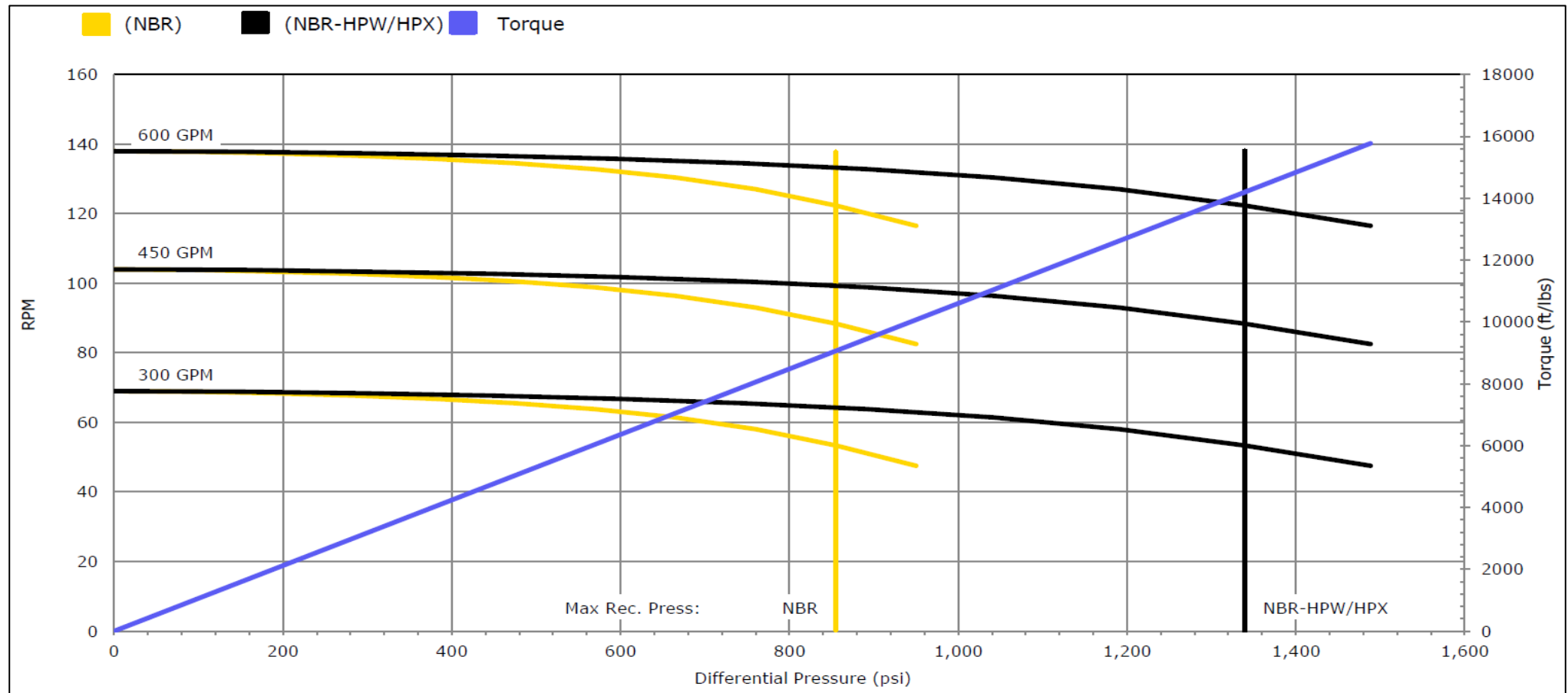


PANTHER

7.00" 7/8 Lobes 5.7 Stages

POWER SECTION

PERFORMANCE SPECIFICATIONS		PERFORMANCE DETAILS		
			NBR	NBR-HPW/HPX
Torque Slope	10.60 ft-lb/psi	Max Diff Pressure psi	860	1,340
Flow Range	300 - 600 GPM	Max Torque ft-lb	9,070	14,200
Rotation	.230 rev/gal	Stall Diff Press psi	1,290	2,110
Speed Range	70 - 140 RPM	Stall Torque ft-lb (Nm)	1,360	22,370
Off Bottom Pressure	100 psi	Max Recommended HP	212	333



Build Rate (°/100')													
PANTHER	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
	Motor Bend Angle	0.25	1.99	1.93	1.71	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 <u>Fixed Bend</u> Angle for Rotary Speeds Up to 80 RPM												
Motor O.D.		Slick			Partially Stabilized			Fully Stabilized				
7"	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 <u>Adjustable Bend</u> Angle for Rotary Speeds Up to 80 RPM												
Motor O.D.		Slick			Partially Stabilized			Fully Stabilized				
7"	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°	1.50°	1.75°	1.50°	1.75°	1.75°	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)	400,000 lbs.
Standard Top Connection (1)	4 1/2" XH	Max Body Pull (3)	975,000 lbs.
Max Weight on Bit (Operating)	85,000 lbs.	Max Axial Play for Re-run	0.235 in.
Max Weight on Bit (Continuous) (2)	48,000 lbs.		

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