

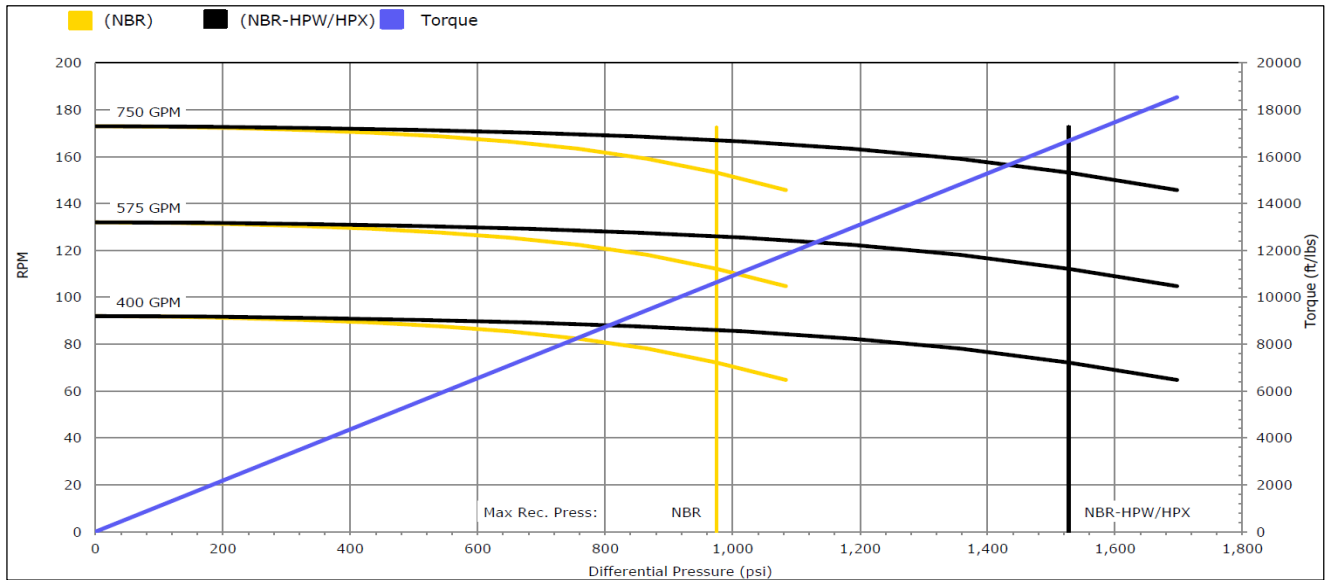


PANTHER

7.00" 6/7 Lobes 6.5 Stages

POWER SECTION

PERFORMANCE SPECIFICATIONS		PERFORMANCE DETAILS		
		NBR		NBR-HPW/HPX
Torque Slope	10.92 ft-lb/psi	Max Diff Pressure psi	980	1,530
Flow Range	400 - 750 GPM	Max Torque ft-lb	10,650	16,690
Rotation	.230 rev/gal	Stall Diff Press psi	1,470	2,410
Speed Range	90 - 170 RPM	Stall Torque ft-lb (Nm)	15,980	26,280
Off Bottom Pressure	130 psi	Max Recommended HP	310	486



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	2.06	2.00	1.77	NA	NA	NA	NA	NA	1.60	1.56	1.38
0.50	4.12	4.00	3.54	NA	NA	NA	NA	NA	3.21	3.12	2.76	NA	
0.75	6.18	6.00	5.32	NA	NA	NA	NA	NA	4.81	4.68	4.14	NA	
1.00	8.24	8.00	7.09	NA	NA	NA	NA	NA	6.42	6.23	5.52	NA	
1.25	10.29	10.00	8.86	NA	NA	NA	NA	NA	8.02	7.79	6.90	NA	
1.50	12.35	12.00	10.63	NA	NA	NA	NA	NA	9.63	9.35	8.29	NA	
1.75	14.41	14.00	12.41	NA	NA	NA	NA	NA	11.23	10.91	9.67	NA	
2.00	16.47	16.00	14.18	NA	NA	NA	NA	NA	12.83	12.47	11.05	NA	
2.25	18.53	18.00	15.95	NA	NA	NA	NA	NA	14.44	14.03	12.43	NA	
2.50	20.59	20.00	17.72	NA	NA	NA	NA	NA	16.04	15.58	13.81	NA	
2.75	22.65	22.00	19.49	NA	NA	NA	NA	NA	17.65	17.14	15.19	NA	
3.00	24.71	24.00	21.27	NA	NA	NA	NA	NA	19.25	18.70	16.57	NA	

MOTOR ROTARY ANGLES													
Maximum Recommended Fixed Bend 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 Adjustable Bend 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.