



# PANTHER

## POWER SECTION SPECIFICATIONS & PERFORMANCE DETAILS

O.D. in.	LOBE/ STAGE	TORQUE SLOPE ft.-lb./psi	FLOW RANGE gpm	ROTATION rev./gal.	SPEED RANGE rpm	OFF BOTTOM psi	MAX DIFF. PRESSURE psi	MAX TORQUE ft.-lb.	STALL DIFF. PRESSURE psi	STALL TOURQUE ft.-lb.	MAX HP hp
4.75	7:8 2.6	9.44	150 - 300	0.260	40 - 80	40	620	5,770	970	9,090	76
4.75	7:8 3.8	4.62	100 - 250	0.540	50 - 140	50	900	4,130	1,410	6,500	95
4.75	7:8 5.0	3.97	150 - 300	0.620	90 - 190	80	1,180	4,670	1,860	7,350	148
5.00	6:7 8.0	3.25	150 - 350	0.790	120 - 280	110	1,880	6,110	2,970	9,630	288
5.00	6:7 8.8	3.7	150-400	0.660	100 - 260	120	2,070	7,660	3,260	12,060	330
6.50	7:8 5.0	9.06	300 - 600	0.270	80 - 160	100	1,180	10,650	1,860	16,770	288
6.75	4:5 7.0	5.36	300 - 600	0.494	150 - 300	150	1,650	8,820	2,600	13,890	452
6.75	7:8 3.0	9.06	300 - 600	0.270	80 - 160	90	710	6,390	1,120	10,060	174
6.75	7:8 3.3	16.95	300 - 600	0.150	50 - 90	70	780	13,150	1,230	20,710	200
6.75	7:8 5.0	9.06	300 - 600	0.270	80 - 160	100	1,180	10,650	1,860	16,770	284
7.00	6:7 6.5	10.92	400 - 750	0.230	90 - 170	130	1,530	16,690	2,410	26,280	486
7.00	6:7 8.4	8.38	350 - 750	0.300	110 - 230	160	1,980	16,550	3,110	26,060	630
7.00	7:8 5.7	10.6	300 - 600	0.230	70 - 140	100	1,340	14,200	2,110	22,370	333
8.00	4:5 5.3	10.93	300 - 900	0.240	70 - 220	130	1,250	13,620	1,970	21,450	498
8.00	7:8 4.0	15.77	400 - 900	0.155	60 - 140	100	940	14,830	1,490	23,350	381

### MOTOR ROTARY ANGLES Maximum Recommended Fixed Bend Angle for Rotary Speeds Up to 100 RPM

Motor O.D.		Slick				Partially Stabilized				Fully Stabilized			
4.75"	Hole Size	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"
	Max. Bend	1.50°	1.75°	2.00°	2.25°	1.25°	1.50°	2.00°	2.00°	1.50°	1.50°	1.50°	1.50°
5.00"	Hole Size	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"
	Max. Bend	1.50°	1.75°	1.75°	2.00°	1.25°	1.50°	1.75°	1.75°	1.50°	1.50°	1.50°	1.50°
6.50"	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°
6.75"	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°
7.00"	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°
8.00"	Hole Size	9 1/2"	10 5/8"	12 1/4"	13 1/2"	9 1/2"	10 5/8"	12 1/4"	13 1/2"	9 1/2"	10 5/8"	12 1/4"	13 1/2"
	Max. Bend	1.50°	1.75°	1.75°	2.00°	1.50°	1.50°	1.75°	1.75°	1.50°	1.50°	1.50°	1.50°

### Maximum Recommended Adjustable Bend Angle for Rotary Speeds Up to 100 RPM

Motor O.D.		Slick				Partially Stabilized				Fully Stabilized			
4.75"	Hole Size	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"
	Max. Bend	1.25°	1.50°	1.75°	2.00°	1.00°	1.25°	1.75°	1.75°	1.25°	1.25°	1.25°	1.25°
5.00"	Hole Size	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"	5 3/4"	6 1/8"	6 3/4"	7 7/8"
	Max. Bend	1.00°	1.25°	1.50°	2.00°	1.00°	1.25°	1.75°	1.75°	1.25°	1.25°	1.25°	1.25°
6.50"	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°
6.75"	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°
7.00"	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°	1.50°	1.75°	1.25°	1.50°	1.75°	1.75°	1.25°	1.25°	1.25°	1.25°
8.00"	Hole Size	9 1/2"	10 5/8"	12 1/4"	13 1/2"	9 1/2"	10 5/8"	12 1/4"	13 1/2"	9 1/2"	10 5/8"	12 1/4"	13 1/2"
	Max. Bend	1.25°	1.50°	1.50°	1.75°	1.25°	1.25°	1.50°	1.50°	1.25°	1.25°	1.25°	1.25°

### GENERAL INFORMATION

Motor O.D.	Std. Bit Conn. *1	Std. Top Conn. *1	Max Weight on Bit (Operating)	Max Weight on Bit (Continuous) *2	Max Bit Pull *3	Max Body Pull *3	Max Axial Play for Re-run
			lbs.	lbs.	lbs.	lbs.	in.
4.75"	3 1/2" Reg.	3 1/2" IF	38,500	19,250	190,000	403,000	0.175
5.00"	3 1/2" Reg.	3 1/2" IF	40,500	20,250	200,000	425,000	0.175
6.50"	4 1/2" Reg.	4 1/2" XH	110,000	55,000	380,000	675,000	0.225
6.75"	4 1/2" Reg.	4 1/2" XH	80,000	45,000	380,000	832,000	0.225
7.00"	4 1/2" Reg.	4 1/2" XH	85,000	48,000	400,000	975,000	0.235
8.00"	6 5/8" Reg.	6 5/8" XH	116,000	58,000	450,000	1,000,000	0.245
9.63"	6 5/8" Reg.	6 5/8" Reg.	120,000	70,000	800,000	1,450,000	0.250

- 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.

Build Rate (°/100')														
	Housing Type	Fixed Bend				Fixed Bend (Ti Flex Shaft)				Adjustable				
	Hole Size	6.125	6.25	6.5	6.75	6.125	6.25	6.5	6.75	6.125	6.25	6.5	6.75	
4.75"	Motor Bend Angle	0.25	1.94	1.90	1.83	1.76	1.26	1.24	1.19	1.15	1.67	1.64	1.58	1.52
		0.50	3.88	3.80	3.65	3.52	2.53	2.48	2.38	2.29	3.35	3.28	3.15	3.04
		0.75	5.82	5.70	5.48	5.28	3.79	3.72	3.57	3.44	5.02	4.92	4.73	4.56
		1.00	7.76	7.60	7.31	7.04	5.06	4.96	4.77	4.59	6.70	6.56	6.31	6.08
		1.25	9.69	9.50	9.13	8.80	6.32	6.20	5.96	5.74	8.37	8.20	7.89	7.59
		1.50	11.63	11.40	10.96	10.56	7.59	7.43	7.15	6.88	10.04	9.84	9.46	9.11
		1.75	13.57	13.30	12.79	12.31	8.85	8.67	8.34	8.03	11.72	11.48	11.04	10.63
		2.00	15.51	15.20	14.62	14.07	10.12	9.91	9.53	9.18	13.39	13.12	12.62	12.15
		2.25	17.45	17.10	16.44	15.83	11.38	11.15	10.72	10.33	15.06	14.76	14.19	13.67
		2.50	19.39	19.00	18.27	17.59	12.64	12.39	11.91	11.47	16.74	16.40	15.77	15.19
		3.00	23.37	22.80	21.92	21.11	15.17	14.87	14.30	13.77	20.09	19.68	18.93	18.23
5.00"	Motor Bend Angle	0.25	2.04	2.00	1.92	1.85	1.33	1.30	1.25	1.21	1.76	1.73	1.66	1.60
		0.50	4.08	4.00	3.85	3.70	2.66	2.61	2.51	2.42	3.52	3.45	3.32	3.20
		0.75	6.12	6.00	5.77	5.56	3.99	3.91	3.76	3.62	5.29	5.18	4.98	4.80
		1.00	8.16	8.00	7.69	7.41	5.32	5.22	5.02	4.83	7.05	6.91	6.64	6.39
		1.25	10.20	10.00	9.62	9.26	6.65	6.52	6.27	6.04	8.81	8.63	8.30	7.99
		1.50	12.24	12.00	11.54	11.11	7.99	7.83	7.53	7.25	10.57	10.36	9.96	9.59
		1.75	14.29	14.00	13.46	12.96	9.32	9.13	8.78	8.45	12.33	12.09	11.62	11.19
		2.00	16.33	16.00	15.38	14.81	10.65	10.43	10.03	9.66	14.09	13.81	13.28	12.79
		2.25	18.37	18.00	17.31	16.67	11.98	11.74	11.29	10.87	15.86	15.54	14.94	14.39
		2.50	20.41	20.00	19.23	18.52	13.31	13.04	12.54	12.08	17.62	17.27	16.60	15.99
		3.00	24.49	24.00	23.08	22.22	15.97	15.65	15.05	14.49	21.14	20.72	19.92	19.18
6.50"	Motor Bend Angle	0.25	2.65	2.60	2.50	2.41	NA	NA	NA	NA	2.07	2.03	1.95	1.88
		0.50	5.31	5.20	5.00	4.81	NA	NA	NA	NA	4.13	4.05	3.90	3.75
		0.75	7.96	7.80	7.50	7.22	NA	NA	NA	NA	6.20	6.08	5.84	5.63
		1.00	10.61	10.40	10.00	9.63	NA	NA	NA	NA	8.27	8.10	7.79	7.50
		1.25	13.27	13.00	12.50	12.04	NA	NA	NA	NA	10.34	10.13	9.74	9.38
		1.50	15.92	15.60	15.00	14.44	NA	NA	NA	NA	12.40	12.16	11.69	11.26
		1.75	18.57	18.20	17.50	16.85	NA	NA	NA	NA	14.47	14.18	13.64	13.13
		2.00	21.22	20.80	20.00	19.26	NA	NA	NA	NA	16.54	16.21	15.58	15.01
		2.25	23.88	23.40	22.50	21.67	NA	NA	NA	NA	18.61	18.23	17.53	16.88
		2.50	26.53	26.00	25.00	24.07	NA	NA	NA	NA	20.67	20.26	19.48	18.76
		3.00	29.18	28.60	27.50	26.48	NA	NA	NA	NA	22.74	22.29	21.43	20.63
6.75"	Motor Bend Angle	0.25	2.76	2.70	2.60	NA	NA	NA	NA	2.15	2.10	2.02	NA	
		0.50	5.51	5.40	5.19	NA	NA	NA	NA	4.29	4.21	4.05	NA	
		0.75	8.27	8.10	7.79	NA	NA	NA	NA	6.44	6.31	6.07	NA	
		1.00	11.02	10.80	10.38	NA	NA	NA	NA	8.59	8.42	8.09	NA	
		1.25	13.78	13.50	12.98	NA	NA	NA	NA	10.73	10.52	10.11	NA	
		1.50	16.53	16.20	15.58	NA	NA	NA	NA	12.88	12.62	12.14	NA	
		1.75	19.29	18.90	18.17	NA	NA	NA	NA	15.03	14.73	14.16	NA	
		2.00	22.04	21.60	20.77	NA	NA	NA	NA	17.17	16.83	16.18	NA	
		2.25	24.80	24.30	23.37	NA	NA	NA	NA	19.32	18.94	18.21	NA	
		2.50	27.55	27.00	25.96	NA	NA	NA	NA	21.47	21.04	20.23	NA	
		3.00	33.06	32.40	31.15	NA	NA	NA	NA	25.76	25.25	24.28	NA	
7.00"	Motor Bend Angle	0.25	2.86	2.80	2.69	NA	NA	NA	NA	2.23	2.18	2.10	NA	
		0.50	5.71	5.60	5.38	NA	NA	NA	NA	4.45	4.36	4.20	NA	
		0.75	8.57	8.40	8.08	NA	NA	NA	NA	6.68	6.55	6.29	NA	
		1.00	11.43	11.20	10.77	NA	NA	NA	NA	8.91	8.73	8.39	NA	
		1.25	14.29	14.00	13.46	NA	NA	NA	NA	11.13	10.91	10.49	NA	
		1.50	17.14	16.80	16.15	NA	NA	NA	NA	13.36	13.09	12.59	NA	
		1.75	20.00	19.60	18.85	NA	NA	NA	NA	15.58	15.27	14.69	NA	
		2.00	22.86	22.40	21.54	NA	NA	NA	NA	17.81	17.45	16.78	NA	
		2.25	25.71	25.20	24.23	NA	NA	NA	NA	20.04	19.64	18.88	NA	
		2.50	28.57	28.00	26.92	NA	NA	NA	NA	22.26	21.82	20.98	NA	
		3.00	34.29	33.60	32.31	NA	NA	NA	NA	26.72	26.18	25.17	NA	
8.00"	Motor Bend Angle	0.25	2.39	2.34	2.25	2.17	NA	NA	NA	1.96	1.92	1.85	1.78	
		0.50	4.78	4.68	4.50	4.34	NA	NA	NA	3.92	3.84	3.69	3.56	
		0.75	7.17	7.02	6.75	6.50	NA	NA	NA	5.88	5.76	5.54	5.33	
		1.00	9.56	9.37	9.01	8.67	NA	NA	NA	7.84	7.68	7.38	7.11	
		1.25	11.95	11.71	11.26	10.84	NA	NA	NA	9.80	9.60	9.23	8.89	
		1.50	14.34	14.05	13.51	13.01	NA	NA	NA	11.76	11.52	11.08	10.67	
		1.75	16.72	16.39	15.76	15.18	NA	NA	NA	13.71	13.44	12.92	12.44	
		2.00	19.11	18.73	18.01	17.34	NA	NA	NA	15.67	15.36	14.77	14.22	
		2.25	21.50	21.07	20.26	19.51	NA	NA	NA	17.63	17.28	16.62	16.00	
		2.50	23.89	23.41	22.51	21.68	NA	NA	NA	19.59	19.20	18.46	17.78	
		3.00	26.28	25.76	24.77	23.85	NA	NA	NA	21.55	21.12	20.31	19.56	
9.625" (Combo)	Motor Bend Angle	0.25	NA	NA	NA	NA	NA	NA	NA	2.13	2.09	2.01	1.94	
		0.50	NA	NA	NA	NA	NA	NA	NA	4.27	4.18	4.02	3.87	
		0.75	NA	NA	NA	NA	NA	NA	NA	6.40	6.27	6.03	5.81	
		1.00	NA	NA	NA	NA	NA	NA	NA	8.54	8.37	8.04	7.75	
		1.25	NA	NA	NA	NA	NA	NA	NA	10.67	10.46	10.06	9.68	
		1.50	NA	NA	NA	NA	NA	NA	NA	12.81	12.55	12.07	11.62	
		1.75	NA	NA	NA	NA	NA	NA	NA	14.94	14.64	14.08	13.56	
		2.00	NA	NA	NA	NA	NA	NA	NA	17.07	16.73	16.09	15.49	
		2.25	NA	NA	NA	NA	NA	NA	NA	19.21	18.82	18.10	17.43	
		2.50	NA	NA	NA	NA	NA	NA	NA	21.34	20.92	20.11	19.37	
		3.00	NA	NA	NA	NA	NA	NA	NA	23.48	23.01	22.12	21.30	