



VIPER[™]
ENERGY TECHNOLOGY

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Understanding customer needs and the rise in demand through today's technology, Viper has developed the most diverse, robust motor in the industry today.

Where the competition is attempting to modify existing designs to benefit today's technology through power sections and drilling procedures, Viper has done it all in one. Viper Drilling Motors feature the largest driveline on the market today, following with large bore bearing sections for maximum performance, as well as unmatched on and off bottom loads for all applications and user confidence.

Our goal is to supply the most reliable Motor in the industry through innovation and experience, creating a cost effective, confident relationship with all of our customers. Our service and maintenance personnel are some of the most experienced professionals in the industry and are supported by a senior staff with over 60 years of combined experience in downhole motors, MWD and Directional Drilling Applications.

All Viper Drilling Motors are manufactured in the USA, produced from the best materials and strictest quality standards available in the industry. Working towards having a long relationship with our satisfied clients, Viper obtains the ability for the best delivery time and price structure on parts and orders, as well as modifying additional customer requests.

Combined this with the years of experience upgrading materials used in critical components, coatings for various drilling conditions, and stress reliefs to ensure high bending strength ratios are all met, the Viper series motor comes right out of design with the highest quality materials, design and features to exceed expectations from all competitors.

Viper Downhole Motors are delivered with complete material certification packages and full serialized major components to provide future traceability. Each step during the rigorous manufacturing process starting from the raw material to the finished assembled product is closely monitored and tracked. Upon delivery of each motor or component, the client will receive the certification package and will have the full assurance that it meets the highest quality standard in the industry. In addition, we can provide rental, lease to purchase or purchase options with qualified training and 24/7 technical support.

For more information on **Viper Energy Technology**, please call us at **(281) 668-1488** or visit our website at www.ViperEnergyTech.com.



MOTOR SPECIFICATIONS SUMMARY TABLE

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Motor Size	Lobe & Stages	Flow (gpm)		Motor RPMs		Revs/Gal	Max Diff. PSI	Max HP	Max Torque (ft.-lbs.)	Bit to Bend Length Fixed (inches)	Bit to Bend Length Adjust. (inches)	Motor Wt (lbs)	Hole Size (inches)	WOB (lbs.)
		MIN.	MAX.	MIN.	MAX.									
1 11/16"*	5-6 2.3	20	40	216	433	10.82	600	11.0	131	N/A	N/A	40	1-7/8" - 2-3/4"	3,000
1 11/16"	5-6 5.0	25	45	323	580	12.9	1,050	19.0	188	22.0"	N/A	40	1 7/8" - 2 3/4"	3,000
2 1/8"	5-6 6.0	20	50	260	640	12.78	1,350	53.0	320	20.82"	N/A	45	2 3/16" - 3 1/4"	13,000
2 1/8" *	5-6 6.0	20	50	270	680	13.61	1,500	33.0	256	N/A	N/A	46	2-13/16" - 3-1/4"	13,000
2 3/8"	7-8 4.0	40	100	220	540	5.43	900	69.0	500	31.5"	N/A	69	3 1/8" - 4 1/2"	13,500
2 7/8"	5-6 3.5	60	126	186	391	3.1	787	35.8	472	22.0"	N/A	188	3 3/4" - 4 1/8"	10,000
2 7/8" *	5-6 3.5	60	125	200	400	3.3	875	49.0	1,100	30.4"	40	200	3-1/4" - 4"	10,000
2 7/8"	5-6 4.7	50	168	188	553	3.76	1,020	24.0	646	22.0"	N/A	216	3 3/4" - 4"	10,000
3 1/8"	5-6 3.5	100	210	230	470	2.25	790	105	1,100	37.25"	N/A	490	2-3/16" - 3-1/4"	23,650
3 1/8" *	7-8 2.5	110	210	147	281	1.34	750	105	1,960	N/A	N/A	420	3-3/4" - 5-1/2"	25,600
3 1/8"	7-8 3.0	80	140	135	240	1.7	690	49.0	990	37.26"	N/A	320	3 3/4" - 5 1/2"	25,600
3 3/4" *	4-5 4.3	80	160	129	290	1.61	1,075	109	1,978	35.7"	46.0"	420	3-1/4" - 4"	23,650
3 3/4"	7-8 2.3	80	160	61	130	.77	525	37.0	1,670	35.7"	46.0"	495	3 3/4" - 4"	26,000
3 3/4"	7-8 6.7	80	160	129	260	1.61	1,510	114.0	2,460	35.7"	46.0"	465	4 3/4" - 5 7/8"	26,450
4 3/4"	5-6 8.3	100	300	100	300	1.00	1,870	262.0	4,810	47.3"	57.6"	1,250	6.0" - 6 3/4"	49,000
4 3/4"	7-8 2.6	150	300	39	79	.26	590	75.0	5,250	47.3"	57.6"	1,190	6.0" - 6 3/4"	49,000
4 3/4"	7-8 3.8	150	250	78	140	.51	860	104.0	4,450	47.3"	57.6"	1,194	6.0" - 6 3/4"	49,000
4 3/4"	7-8 4.5	150	300	69	140	.46	1,010	132.0	5,250	47.3"	57.6"	1,190	6.0" - 6 3/4"	49,000
5"	6-7 8.0	150	350	121	290	.81	1,800	298	5,720	48.8"	58.8"	1,114	6.0" - 6 3/4"	49,000
5"	6-7 9.0	150	350	130	300	.85	2,030	317.0	6,180	48.8"	58.8"	1,300	6.0" - 6 3/4"	49,000
5" *	6-7 9.0	150	350	130	290	.84	2,350	360.0	6,940	48.8"	58.8"	1,400	6.0" - 6 3/4"	49,000
5"	6-7 10.0	150	350	130	300	.85	2,120	317.0	6,180	48.8"	58.8"	1,300	6.0" - 6 3/4"	49,000
6 1/2"	4-5 7.0	300	600	149	300	.50	1,580	482.0	9,090	56.1"	67.7"	2,284	7 7/8" - 9 7/8"	90,000
6 1/2"	5-6 5.4	300	600	65	196	.22	1,500	402.0	9,932	56.1"	67.7"	2,992	7 7/8" - 9 7/8"	90,000
6 1/2"	7-8 2.9	300	500	48	80	.16	650	143.0	10,030	56.1"	67.7"	2,379	7 7/8" - 9 7/8"	90,000
6 1/2"	7-8 3.5	300	600	45	90	.16	790	223.0	13,500	56.1"	67.7"	2,379	7 7/8" - 9 7/8"	90,000
6 1/2"	7-8 5.0	300	600	86	180	.29	1,130	323.0	10,460	56.1"	67.7"	2,292	7 7/8" - 9 7/8"	90,000
6 1/2"	7-8 5.7	300	600	72	150	.24	1,280	355.0	13,720	56.1"	67.7"	2,636	7 7/8" - 9 7/8"	90,000
6 3/4"	4-5 7.0	300	600	149	300	.50	1,580	482.0	9,090	56.1"	67.7"	2,248	7 7/8" - 9 7/8"	90,000
6 3/4"	7-8 2.9	300	500	48	80	.16	650	143.0	10,030	56.1"	67.7"	2,379	7 7/8" - 9 7/8"	90,000
6 3/4"	7-8 3.5	300	600	45	90	.16	790	223.0	13,500	56.1"	67.7"	2,379	7 7/8" - 9 7/8"	90,000
6 3/4"	7-8 5.0	300	600	86	180	.29	1,130	323.0	10,460	56.1"	67.7"	2,292	7 7/8" - 9 7/8"	90,000
6 3/4"	7-8 5.7	300	600	72	150	.24	1,280	355.0	13,720	56.1"	67.7"	2,636	7 7/8" - 9 7/8"	90,000
7"	7-8 6.8	300	600	90	180	.24	1,600	484.0	15,280	56.1"	67.7"	2,800	7 7/8" - 9 7/8"	90,000
8"	5-6 6.0	400	900	60	230	.24	900	327.2	10,200	66.6"	80.2"	3,679	9 7/8" - 12 1/4"	140,000
8"	7-8 3.4	400	900	27	81	.08	770	199.1	21,450	66.6"	80.2"	4,541	9 7/8" - 12 1/4"	140,000
8" HD	7-8 3.4	400	900	45	150	.09	510	218.0	14,300	66.6"	80.2"	4,541	9 7/8" - 12 1/4"	140,000
8"	7-8 4.0	400	900	45	150	.17	900	401.0	9,950	66.6"	80.2"	3,725	9 7/8" - 12 1/4"	140,000
8"	7-8 5.9	400	900	60	140	.155	1,390	592.0	21,870	66.6"	80.2"	4,500	9 7/8" - 12 1/4"	140,000
8"	8-9 6.0	300	900	65	196	.22	1,500	578.0	17,926	66.6"	80.2"	3,725	9 7/8" - 12 1/4"	140,000
8" Low Flow	7-8 3.5	300	600	35	90	.16	790	223.0	13,500	66.6"	80.2"	3,725	7 7/8" - 12 1/4"	140,000
8" Low Flow	7-8 5.7	300	600	72	150	.24	1,280	223.0	13,720	66.6"	80.2"	3,725	7 7/8" - 12 1/4"	140,000
9 5/8"	5-6 5.0	700	1300	60	180	.14	1,130	359.8	16,120	78.1"	92.7"	6,500	12 1/4" - 17 1/2"	165,000
9 5/8"	7-8 5.7	600	1200	80	150	.13	1,340	580.0	25,920	78.1"	92.7"	6,500	12 1/4" - 17 1/2"	165,000

* Even Wall: This information provided above is for typical common tool sizes and configurations. Additional tool sizes and variations are available on request.

SHORT BIT TO BEND MOTORS

The Viper the short bit to bend (SBTB) motor reduces drilling time by completing vertical, build and lateral sections in a single trip. The (SBTB) is designed to deliver better build rates at lower bend settings. The (SBTB) motor can be rotated during drilling without costly damages. Lower bend setting = less stress and vibrations on the entire BHA. Please contact your local Viper Representative for additional information.