

USING THE AEROTECH MOTOR MATRIX™

AEROTECH's MOTOR MATRIX™ is a handy reference that allows you to easily matchup AEROTECH rocket motors with AEROTECH rocket kits. Simply find your AEROTECH rocket on the "RMS™" and the "Single Use" charts and you will see listings of all the AEROTECH RMS™ and single use motors that rocket can be flown with plus a projected altitude for each motor.

Each AEROTECH composite hobby rocket motor or reload kit has a designation which provides important information about performance. The designation is read as follows;

The **first letter** indicates total impulse (in Newton-seconds) produced by the motor. Each succeeding letter has up to twice the power of the preceding letter.

The **first number** indicates the motor's average thrust in Newtons. A Newton is equivalent to 0.225 pounds of impulse.

E15-4W

The **second number** shows the time delay, in seconds, between propellant burn-out and firing of the ejection charge.

The **second letter** indicates the propellant formulation of the motor. In this case the "W" indicates "White Lightning™". Additional letters or numbers may be added to denote other performance characteristics.

Propellant Codes;

- W = White Lightning™
- T = Blue Thunder™
- J = Black Jack™
- FJ = BlackMax™

Each "Max Liftoff Weight" figure shown in the tables is provided only as a general guideline and should not be used at the exclusion of overall considerations of rocket flight stability, recovery and safety.

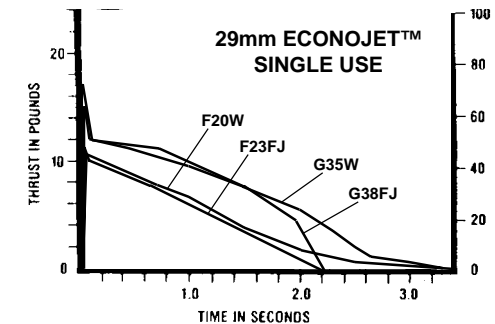
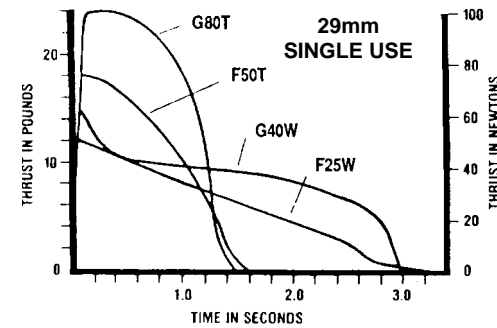
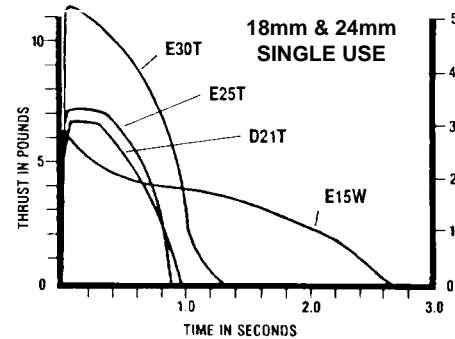
For a given motor / rocket combination, the projected altitude shown will vary from rocket to rocket and flight to flight because of differences in launch site elevation, completed rocket weight, smoothness of finish, weather conditions and normal variation in motor performance.

Projected altitudes are for a sea level launch site and without the rocket carrying any payload.

FLY SAFELY!

SINGLE USE TECHNICAL DATA

Prod. No.	Motor Type	Time Delay sec	Motor Diam. in / mm	Motor Length in / mm	Propellant Weight oz / gms	Motor Weight oz / gms	Max Liftoff Weight oz / gms	Total Impulse lb-s / N-s	Average Thrust lbs / N
SINGLE USE 18mm									
42104	D21	4T	.70 / 18	2.75 / 70	.34 / 9.6	.8 / 23	16.0 / 454	4.5 / 20.0	4.7 / 21.0
42107	"	7T	"	"	"	"	11.2 / 318	"	"
SINGLE USE 24mm									
51504	E15	4W	.94 / 24	2.75 / 70	.71 / 20.1	1.7 / 48	16.0 / 454	9.0 / 40.0	3.4 / 15.0
51507	"	7W	"	"	"	"	9.5 / 269	"	"
53004	E30	4T	.94 / 24	2.75 / 70	.68 / 19.3	1.7 / 47	16.0 / 454	9.0 / 40.0	6.7 / 30.0
53007	"	7T	"	"	"	"	10.6 / 301	"	"
SINGLE USE 29mm									
62004	F20	4W	1.13 / 29	2.88 / 73	1.06 / 30.0	2.6 / 76	24.0 / 680	14.6 / 65.0	4.5 / 20.0
62007	"	7W	"	"	"	"	18.0 / 511	"	"
62304	F23	4FJ	1.13 / 29	2.88 / 73	1.13 / 32.0	3.5 / 78	24.0 / 680	12.6 / 56.0	5.2 / 23.0
62307	"	7FJ	"	"	"	"	18.0 / 511	"	"
62504	F25	4W	1.13 / 29	3.88 / 98	1.46 / 41.5	3.1 / 89	24.0 / 680	18.0 / 80.0	5.6 / 25.0
62506	"	6W	"	"	"	"	18.0 / 511	"	"
62509	"	9W	"	"	"	"	12.3 / 349	"	"
65004	F50	4T	1.13 / 29	3.88 / 98	1.35 / 38.3	2.9 / 83	36.0 / 1020	18.0 / 80.0	11.2 / 50.0
65006	"	6T	"	"	"	"	20.0 / 567	"	"
65009	"	9T	"	"	"	"	14.0 / 397	"	"
73504	G35	4W	1.13 / 29	3.88 / 98	1.76 / 50.0	3.5 / 100	36.0 / 1020	23.4 / 104.0	7.8 / 35.0
73507	"	7W	"	"	"	"	24.0 / 680	"	"
73804	G38	4FJ	1.13 / 29	3.88 / 98	1.94 / 55.0	3.7 / 105	36.0 / 1020	22.0 / 94.0	8.5 / 38.0
73807	"	7FJ	"	"	"	"	24.0 / 680	"	"
74004	G40	4W	1.13 / 29	4.88 / 124	2.20 / 62.4	4.4 / 125	36.0 / 1020	27.0 / 120.0	9.0 / 40.0
74007	"	7W	"	"	"	"	24.0 / 680	"	"
74010	"	10W	"	"	"	"	14.0 / 397	"	"
78004	G80	4T	1.13 / 29	4.88 / 124	2.02 / 57.4	4.2 / 120	52.0 / 1474	27.0 / 120.0	18.0 / 80.0
78007	"	7T	"	"	"	"	32.0 / 907	"	"
78010	"	10T	"	"	"	"	20.0 / 567	"	"



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MOTOR MATRIX™
motor / rocket kit matchup rev. 12/99

RELOADABLE MOTOR SYSTEM-RMS™

Motor Diam.	Reload Type	Product Number	Proj. Alt. Feet / Meters
INITIATOR™			
24mm	E18-4W	51804	600 / 180
"	E11-3J	51103	450 / 140
"	E28-4T	52804	650 / 200
"	F24-4W	62404	700 / 210
"	F12-3J	61203	600 / 180
"	F39-6T	63906	850 / 260
29mm	E16-4W	51604	550 / 170
"	E23-5T	52305	500 / 150
"	F40-7W	64007	1400 / 430
"	F22-5J	62205	1050 / 320
"	F52-8T	65208	1300 / 400
"	G33-7J	73307	1650 / 500
"	G64-7W	76407	2000 / 600
MUSTANG™			
18mm	D13-4W	41304	350 / 100
"	D24-4T	42404	450 / 140
24mm	D15-4T	41504	350 / 100
"	E18-7W	51807	1000 / 300
"	E11-5J	51105	750 / 230
"	E28-7T	52807	1050 / 320
"	F24-7W	62407	1200 / 360
"	F12-5J	61205	1050 / 320
"	F39-6T	63906	1450 / 440
29mm	E16-7W	51607	950 / 290
"	E23-5T	52305	800 / 240
"	F40-10W	64010	2250 / 680
"	F22-7J	62207	1700 / 520
"	F52-8T	65208	2100 / 640
"	G33-7J	73307	2650 / 800
"	G64-10W	76410	3200 / 980
ARREAU™			
18mm	D13-4W	41304	300 / 90
"	D24-4T	42404	400 / 120
24mm	D15-4T	41504	300 / 90
"	E18-7W	51807	900 / 270
"	E11-5J	51105	700 / 210
"	E28-7T	52807	950 / 290
"	F24-7W	62407	1100 / 330
"	F12-5J	61205	900 / 270
"	F39-6T	63906	1350 / 410
29mm	E16-7W	51607	850 / 260
"	E23-5T	52305	750 / 230
"	F40-10W	64010	2100 / 640
"	F22-7J	62207	1600 / 480
"	F52-8T	65208	2050 / 620
"	G33-7J	73307	2550 / 770
"	G64-10W	76410	3150 / 950
HV ARCAS			
24mm	E28-4T	52804	450 / 140
"	F24-4W	62404	500 / 150
"	F39-6T	63906	550 / 170
29mm	F40-4W	64004	1100 / 330
"	F52-5T	65205	1000 / 300
"	G33-5J	73305	1300 / 400
"	G64-7W	76407	1750 / 530
ASTROBEE D			
29mm	F40-4W	64004	750 / 230
"	F52-5T	65205	750 / 230
"	G64-4W	76404	1350 / 410

Motor Diam.	Reload Type	Product Number	Proj. Alt. Feet / Meters
STRONG ARM™			
24mm	E18-4W	51804	450 / 140
"	E28-4T	52804	500 / 150
"	F24-4W	62404	700 / 210
"	F39-6T	63906	700 / 210
29mm	E16-4W	51604	400 / 120
"	F40-7W	64007	1150 / 350
"	F22-5J	62205	850 / 260
"	F52-8T	65208	1150 / 350
"	G33-5J	73305	1450 / 440
"	G64-7W	76407	1800 / 550
WART-HOG™			
24mm	E18-4W	51804	600 / 180
"	E11-3J	51103	450 / 140
"	E28-4T	52804	650 / 200
"	F24-4W	62404	850 / 260
"	F12-3J	61203	600 / 180
29mm	E16-4W	51604	500 / 150
"	E23-5T	52305	500 / 150
"	F40-7W	64007	1350 / 410
"	F22-5J	62205	1050 / 320
"	F52-8T	65208	1300 / 400
"	G33-7J	73307	1650 / 500
"	G64-7W	76407	1900 / 580
BARRACUDA™			
24mm	E18-4W	51804	750 / 230
"	E11-3J	51103	500 / 150
"	E28-4T	52804	800 / 240
"	F24-7W	62407	1100 / 330
"	F12-5J	61205	700 / 210
"	F39-6T	63906	1150 / 350
29mm	E16-4W	51604	600 / 180
"	E23-5T	52305	600 / 180
"	F40-7W	64007	1900 / 580
"	F22-7J	62207	1400 / 430
"	F52-8T	65208	1850 / 560
"	G33-7J	73307	2350 / 710
"	G64-10W	76410	3000 / 910
CHEETAH™			
18mm	D13-4W	41304	400 / 120
"	D24-4T	42404	500 / 150
24mm	D15-4T	41504	400 / 120
"	E18-7W	51807	1150 / 350
"	E11-5J	51105	900 / 270
"	E28-7T	52807	1150 / 350
"	F24-7W	62407	1500 / 450
"	F12-5J	61205	1200 / 360
"	F39-9T	63909	1550 / 470
29mm	E16-7W	51607	950 / 290
"	E23-8T	52308	900 / 270
"	F40-10W	64010	2300 / 700
"	F22-7J	62207	1850 / 560
"	F52-8T	65208	2200 / 670
"	G33-7J	73307	2750 / 830
"	G64-10W	76410	3200 / 970
MIRAGE™			
29mm	F40-4W	64004	650 / 200
"	F52-5T	65205	650 / 200
"	G64-4W	76404	1300 / 400

RMS™ (cont.)

Motor Diam.	Reload Type	Product Number	Proj. Alt. Feet / Meters
IQSY TOMAHAWK			
18mm	D24-4T	42404	350 / 100
24mm	E18-7W	51807	900 / 270
"	E11-5J	51105	600 / 180
"	E28-7T	52807	850 / 260
"	F24-7W	62407	1100 / 330
"	F12-5J	61205	800 / 240
"	F39-6T	63906	1250 / 380
29mm	E16-7W	51607	850 / 260
"	E23-5T	52305	650 / 200
"	F40-10W	64010	2100 / 640
"	F22-7J	62207	1500 / 450
"	F52-8T	65208	1950 / 590
"	G33-7J	73307	2450 / 740
"	G64-10W	76410	3150 / 950
G-FORCE™			
29mm	G64-4W	76404	800 / 240

SINGLE USE MOTORS



Motor Diam.	Motor Type	Product Number	Proj. Alt. Feet / Meters
INITIATOR™			
24mm	E15-4W	51504	650 / 200
"	E30-4T	53004	650 / 200
29mm	F20-4W*	62004	1000 / 300
"	F23-4FJ*	62304	900 / 270
"	F25-6W	62506	1350 / 410
"	F50-6T	65006	1450 / 440
"	G35-7W*	73507	1890 / 570
"	G38-7FJ*	73807	1700 / 520
"	G40-7W	74007	2100 / 640
"	G80-7T	78007	2000 / 600
MUSTANG™			
18mm	D21-4T	42104	350 / 100
24mm	E15-7W	51507	1050 / 320
"	E30-7T	53007	1100 / 330
29mm	F20-7W*	62007	1700 / 520
"	F23-7FJ*	62307	1530 / 470
"	F25-9W	62509	2200 / 670
"	F50-9T	65009	2300 / 700
"	G35-7W*	73507	2970 / 900
"	G38-7FJ*	73807	2700 / 820
"	G40-10W	74010	3300 / 1000
"	G80-10T	78010	3150 / 950
ARREAU™			
18mm	D21-4T	42104	300 / 90
24mm	E15-7W	51507	950 / 290
"	E30-7T	53007	1050 / 320
29mm	F20-7W*	62007	1600 / 480
"	F23-7FJ*	62307	1440 / 440
"	F25-9W	62509	2200 / 670
"	F50-9T	65009	2150 / 660
"	G35-7W*	73507	2880 / 870
"	G38-7FJ*	73807	2600 / 790
"	G40-10W	74010	3200 / 970
"	G80-10T	78010	3100 / 940
IQSY TOMAHAWK			
18mm	D21-4T	42104	300 / 90
24mm	E15-7W	51507	800 / 240
"	E30-7T	53007	850 / 260
29mm	F20-7W*	62007	1450 / 440
"	F23-7FJ*	62307	1300 / 400
"	F25-9W	62509	1800 / 550
"	F50-9T	65009	1950 / 590
"	G35-7W*	73507	2475 / 745
"	G38-7FJ*	73807	2230 / 680
"	G40-10W	74010	2750 / 830
"	G80-10T	78010	2750 / 830

SINGLE USE (cont)

Motor Diam.	Motor Type	Product Number	Proj. Alt. Feet / Meters
HV ARCAS			
24mm	E30-4T	53004	450 / 140
29mm	F20-4W*	62004	1000 / 300
"	F23-4FJ*	62304	900 / 270
"	F25-6W	62506	1050 / 320
"	F50-6T	65006	1150 / 350
"	G35-7W*	73507	1660 / 500
"	G38-7FJ*	73807	1500 / 450
"	G40-7W	74007	1850 / 560
"	G80-7T	78007	1800 / 550
STRONG ARM™			
24mm	E15-4W	51504	450 / 140
"	E30-4T	53004	500 / 150
29mm	F20-4W*	62004	750 / 230
"	F23-4FJ*	62304	675 / 200
"	F25-6W	62506	1100 / 330
"	F50-6T	65006	1150 / 350
"	G35-7W*	73507	1665 / 500
"	G38-7FJ*	73807	1500 / 460
"	G40-7W	74007	1850 / 560
"	G80-7T	78007	1800 / 550
WART-HOG™			
24mm	E15-4W	51504	650 / 200
"	E30-4T	53004	650 / 200
29mm	F20-4W*	62004	1000 / 300
"	F23-4FJ*	62304	900 / 270
"	F25-6W	62506	1300 / 400
"	F50-6T	65006	1300 / 400
"	G35-7W*	73507	1800 / 550
"	G38-7FJ*	73807	1620 / 500
"	G40-7W	74007	2000 / 600
"	G80-7T	78007	1900 / 580
CHEETAH™			
18mm	D21-4T	42104	400 / 120
24mm	E15-7W	51507	1150 / 350
"	E30-7T	53007	1150 / 350
29mm	F20-7W*	62007	1800 / 550
"	F23-7FJ*	62307	1620 / 500
"	F25-9W	62509	2250 / 680
"	F50-9T	65009	2200 / 670
"	G35-7W*	73507	3000 / 910
"	G38-7FJ*	73807	2700 / 820
"	G40-10W	74010	3350 / 1020
"	G80-10T	78010	3200 / 970
BARRACUDA™			
24mm	E15-4W	51507	800 / 240
"	E30-4T	53007	800 / 240
29mm	F20-7W*	62007	1350 / 410
"	F23-7FJ*	62307	1220 / 370
"	F25-9W	62509	1850 / 560
"	F50-9T	65009	1900 / 580
"	G35-7W*	73507	2745 / 835
"	G38-7FJ*	73807	2470 / 750
"	G40-10W	74010	3050 / 930
"	G80-10T	78010	3000 / 910
ASTROBEE D			
29mm	F50-4T	65004	750 / 230
"	G35-4W*	73504	1210 / 365
"	G38-4FJ*	73804	1090 / 330
"	G40-4W	74004	1350 / 410
"	G80-4T	78004	1400 / 430
MIRAGE™			
29mm	F50-4T	65004	650 / 200
"	G35-4W*	73504	1130 / 340
"	G38-4FJ*	73804	1020 / 310
"	G40-4W	74004	1250 / 380
"	G80-4T	78004	1300 / 400
G-FORCE™			
29mm	G35-4W*	73504	675 / 210
"	G38-4FJ*	73804	610 / 190
"	G40-4W	74004	750 / 230
"	G80-4W	78004	800 / 240

RMS™ TECHNICAL DATA

Prod. No.	Reload Type	Time Delay sec	Motor Diam. in / mm	Motor Length in / mm	Propellant Weight oz / gms	Motor Weight oz / gms	Max Liftoff Weight oz / gms	Total Impulse lb-s / N-s	Average Thrust lbs / N
RMS-18/20 (18mm)									
41304	D13	4W	.70 / 18	2.75 / 70	.35 / 9.8	1.2 / 33	16.0 / 454	4.5 / 20.0	2.9 / 13.0
41307	"	7W	"	"	"	"	11.2 / 318	"	"
41310	"	10W	"	"	"	"	8.0 / 227	"	"
42404	D24	4T	.70 / 18	2.75 / 70	.31 / 8.7	1.1 / 31	16.0 / 454	4.5 / 20.0	5.4 / 24.0
42407	"	7T	"	"	"	"	11.2 / 318	"	"
42410	"	10T	"	"	"	"	8.0 / 227	"	"
RMS-RC 24/20-40 (24mm)									
40700	D7	RCT	.94/24	2.75 / 70	.39 / 10.5	1.5 / 41.3	-	4.5 / 20.0	1.6 / 7.2
50700	E7	RCT	"	"	.60 / 17.1	1.6 / 46.4	-	6.7 / 30.0	1.3 / 6.0
50600	E6	RCT	"	"	.76 / 21.5	1.8 / 52.0	-	9.0 / 40.0	1.2 / 5.5
51200	E12	RCJ	"	"	1.0 / 28.3	2.1 / 58.8	-	8.1 / 36.0	2.7 / 12.0
RMS-24/40 (24mm)									
40904	D9	4W	.94 / 24	2.75 / 70	.36 / 10.1	1.6 / 45	7.1 / 200	4.5 / 20.0	2.0 / 9.0
40907	"	7W	"	"	"	"	4.2 / 120	"	"
41504	D15	4T	.94 / 24	2.75 / 70	.31 / 8.9	1.5 / 44	16.0 / 454	4.5 / 20.0	3.4 / 15.0
41507	"	7T	"	"	"	"	11.2 / 318	"	"
51103	E11	3J	.94 / 24	2.75 / 70	.88 / 25.0	2.2 / 61	16.0 / 454	7.9 / 35.0	2.5 / 11.0
51804	E18	4W	.94 / 24	2.75 / 70	.73 / 20.7	2.0 / 57	16.0 / 454	9.0 / 40.0	4.0 / 18.0
51807	"	7W	"	"	"	"	9.5 / 269	"	"
52804	E28	4T	.94 / 24	2.75 / 70	.65 / 18.4	1.9 / 55	16.0 / 454	9.0 / 40.0	6.3 / 28.0
52807	"	7T	"	"	"	"	10.6 / 301	"	"
61203	F12	3J	.94 / 24	2.75 / 70	1.07 / 30.3	2.4 / 67	18.0 / 511	9.7 / 43.0	2.7 / 12.0
61205	"	5J	"	"	"	"	15.0 / 425	"	"
62404	F24	4W	.94 / 24	2.75 / 70	.67 / 19.0	2.2 / 62	16.0 / 454	11.2 / 50.0	5.4 / 24.0
62407	"	7W	"	"	"	"	9.5 / 269	"	"
63906	F39	6T	.94 / 24	2.75 / 70	.80 / 22.7	2.1 / 59	18.0 / 511	11.2 / 50.0	8.8 / 39.0
63909	"	9T	"	"	"	"	14.0 / 397	"	"
RMS-29/40-120 (29mm)									
51604	E16	4W	1.13 / 29	4.88 / 124	.67 / 19.0	3.8 / 107	16.0 / 454	9.0 / 40.0	3.6 / 16.0
51607	"	7W	"	"	"	"	9.5 / 269	"	"
52305	E23	5T	1.13 / 29	4.88 / 124	.61 / 17.4	3.7 / 104	16.0 / 454	9.0 / 40.0	5.2 / 23.0
52308	"	8T	"	"	"	"	10.6 / 301	"	"
62205	F22	5J	1.13 / 29	4.88 / 124	1.63 / 46.3	4.7 / 133	18.0 / 511	14.6 / 65.0	4.9 / 22.0
62207	"	7J	"	"	"	"	14.0 / 397	"	"
64004	F40	4W	1.13 / 29	4.88 / 124	1.41 / 40.0	4.4 / 126	30.0 / 851	18.0 / 80.0	9.0 / 40.0
64007	"	7W	"	"	"	"	19.0 / 539	"	"
64010	"	10W	"	"	"	"	13.0 / 369	"	"
65205	F52	5T	1.13 / 29	4.88 / 124	1.29 / 36.6	4.3 / 123	32.0 / 907	18.0 / 80.0	11.7 / 52.0
65208	"	8T	"	"	"	"	18.0 / 511	"	"
65211	"	11T	"	"	"	"	11.0 / 312	"	"
73305	G33	5J	1.13 / 29	4.88 / 124	2.55 / 72.2	5.6 / 159	22.0 / 624	22.5 / 100.0	7.4 / 33.0
73307	"	7J	"	"	"	"	16.0 / 454	"	"
76404	G64	4W	1.13 / 29	4.88 / 124	2.20 / 62.5	5.3 / 151	44.0 / 1247	27.0 / 120.0	14.4 / 64.0
76407	"	7W	"	"	"	"	28.0 / 794	"	"
76410	"	10W	"	"	"	"	17.0 / 482	"	"
RMS-RC 32/60-100 (32mm)									
91613	F13	RCT	1.25 / 32	4.0 / 107	1.2 / 32.3	3.9 / 111	-	13.5 / 60.0	2.9 / 13.0
91616	F16	RCJ	1.25 / 32	4.0 / 107	2.2 / 62.5	4.9 / 140	-	18.0 / 80.0	3.6 / 16.0
91623	F23	RCW-SK	1.25 / 32	4.0 / 107	1.3 / 37.8	4.5 / 128	-	15.7 / 70.0	5.2 / 23.0
91712	G12	RCT	1.25 / 32	4.0 / 107	1.9 / 53.2	4.6 / 131	-	22.5 / 100.0	2.7 / 12.0