

# THRUST TIME CURVES



**Comparison**

44

Newton's

24

12

6

2

6  
4  
2  
.2  
1

**1/8 A1.9**

**1/4 A1.7**

**1/2 A1.5**

**E 24.0**

**F 23.8**

(AWAITING SHIPPING  
& STORAGE CLASSIFICATION  
FROM FEDERAL & NATIONAL  
ORGANIZATIONS)

**D 12**

**E 11.8**

**D 6.1**

Seconds

1

2

3

**AVI  
astroport**

MOTOR CHARACTERISTICS

MOTOR TYPE	DIAMETER MM.	MAIN TUBE LENGTH MM	PROPELLANT MASS GM	TOTAL MASS GM	TOTAL IMPULSE NT-SEC	MAX THRUST NT	BURN TIME SEC	FINAL MASS GM
1/8A1.9-0	8.75	12	0.37	1.07	0.29	2.70	0.151	0.69
1/8A1.9-SP	8.75	12	0.37	1.18	0.30	2.70	0.156	0.81
1A1.7-0	8.75	19	0.70	1.56	0.39	2.68	0.345	0.89
1A1.7-SP	8.75	19	0.70	1.76	0.51	2.68	0.356	1.11
1A1.7-2.50	8.75	19	0.70	2.02	0.51	2.68	0.356	0.96
1A1.7-4.00	8.75	19	0.70	2.16	0.51	2.68	0.356	0.98
1A1.5-0	8.75	38	1.42	2.70	1.20	2.69	0.811	1.31
1A1.5-SP	8.75	38	1.42	2.90	1.23	2.69	0.831	1.50
1A1.5-3.00	8.75	38	1.42	3.15	1.23	2.69	0.831	1.39
1A1.5-5.00	8.75	38	1.42	3.27	1.23	2.69	0.831	1.41
D6.1-0	18	100	22.00	35.20	19.20	11.46	3.147	14.03
D6.1-1-SP	18	100	22.00	36.10	19.70	11.46	3.23	15.05
D6.1-3.25	18	100	22.00	37.89	19.70	11.46	3.23	15.37
D6.1-6.75	18	100	22.00	38.56	19.70	11.46	3.23	15.52
E11.8-0	23.5	100	40.00	62.13	36.20	21.77	3.07	24.11
E11.8-SP	23.5	100	40.00	65.05	36.50	21.77	3.09	27.16
E11.8-4.25	23.5	100	40.00	68.50	36.50	21.77	3.09	30.35
E11.8-7.50	23.5	100	40.00	69.70	36.50	21.77	3.09	30.58
E24.0-0	33.0	80	49.20	91.00	38.52	41.22	1.61	47.07
E24.0-SP	33.0	80	49.20	94.50	39.05	41.22	1.63	52.06
E24.0-3.75	33.0	80	49.20	99.96	39.02	41.22	1.63	56.14
E24.0-6.00	33.0	80	49.20	103.72	38.98	41.22	1.63	57.33
F23.8-0	33.0	100	80.00	132.00	70.03	41.20	2.94	52.68
F23.8-SP	33.0	100	80.00	139.60	70.58	41.18	2.97	57.50
F23.8-4.25	33.0	100	80.00	140.61	70.73	40.79	2.97	61.54
F23.8-6.50	33.0	100	80.00	142.07	71.06	41.77	2.99	62.03

The numbers or values appearing above are arrived at from actual static tests and measurement using calibrated instruments and valid statistical procedures. The base of data at this time however is small for certain motor types and the above values may and will change with time as a broader data base is established and design changes are instituted. For latest data refer to data sheets supplied with the motor packs.

PRICE LIST FOR AVI ASTROPORT "GOLD" SERIES, PRECISION MODEL ROCKET MOTORS

Effective 15 Nov 75

- 1/8 A1.9- Ultrasmall and precise unit to be used as activators and separation motors..... No data sheets ... 0.30 Newton - sec.  
Single .... 65¢ Six for \$3.00
- 1/4 A1.7- MICROJET for contest flying... Data on propellant and motor weights ..... 0.61 Newton - sec.  
Single .... \$1.00 Six for \$5.00
- 1/4 A1.5- Research and Contest quality ... Data sheets.  
A full 1/4 A motor in a 8.75 mm tube.. 1.23 Newton - sec.  
Single .... \$1.25 Six for \$6.00
- D6.1- Full D power in 18 mm tube ... Data sheets.  
Precision THRUSTAR .... 19.5+ Newton - sec.  
Single .... \$2.25 Six for \$10.50
- E11.8- 36.5 Newton - sec. in a 23.5 mm tube, ( Same diameter as the D12- motor ). Impressive performer. Data sheets.  
Single .... \$3.50 Six for \$18.00
- E24.0- Twice the thrust in 33 mm tube .. 39 Newton - sec. The only FULL 'E' available. Data sheets.  
Single .... \$4.00 Six for \$21.00
- F23.8- 71 Newton - seconds, with a peak thrust of 41 Newtons. Use with large rockets for out-of-sight performance. Data sheets . Diameter is 33 mm.  
Single .... \$5.00 Six for \$25.00
- (AWAITING- SHIPPING & STORAGE CLASSIFICATIONS)

The AVI Astroport "Gold" series should not be confused with Utility motors produced by ourselves and other model rocket manufacturers. The "Gold" refers to the gold colored cap on each motor identifying it as a precision piece of equipment.

The introduction of our new series opens a new era in model rocket competition, where for the first time you have HIGHEST RELIABILITY, CONSISTANT PERFORMANCE and ULTRA-ACCURATE TIME DELAYS.

All motor types in this new series have received the National Association of Rocketry Standards and Testing Committee Safety and Contest Certification ..... Effective 15 November 1975 they are certified for use in NAR and FAI competition.

E and F motors must be ordered by a responsible adult, 18 years old or older, and will be shipped via UPS.

ALL MOTOR TYPES ARE BEING SHIPPED AT THIS TIME

85 ¢ postage and handling on orders under \$6.

AVI Astroport, Mineral Point, WI 53565



D6.1

1/8 A1.9



E11.8

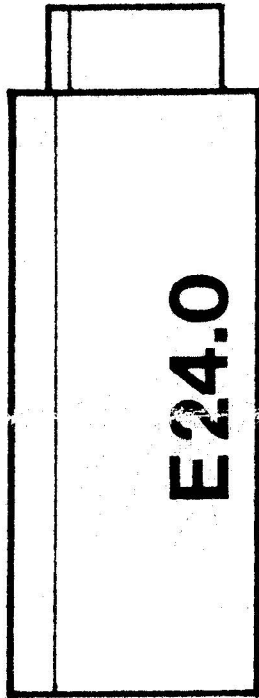
1/4 A1.7



Centimeters



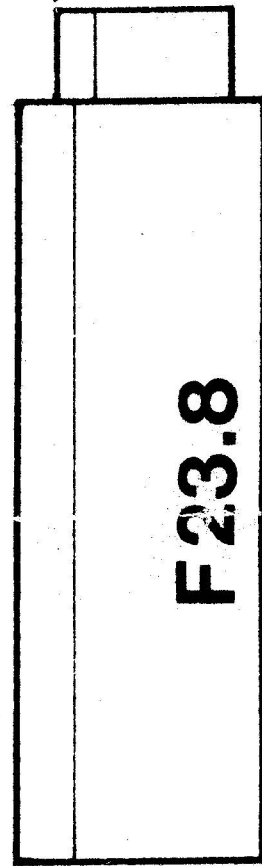
1/2 A1.5



E24.0



B6



F23.8

**AVI**  
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MOTOR  
SIZES