

AEROTECH F44

CERTIFIED VALUES

Total Impulse: 41.45 newton-seconds
Delays: 4, 8

Propellant Type: Composite
Propellant Mass: 19.7 grams

Casing Dimensions: 24 mm X 70 mm

Certification Type: Model Rocket

STATIC TEST DATA

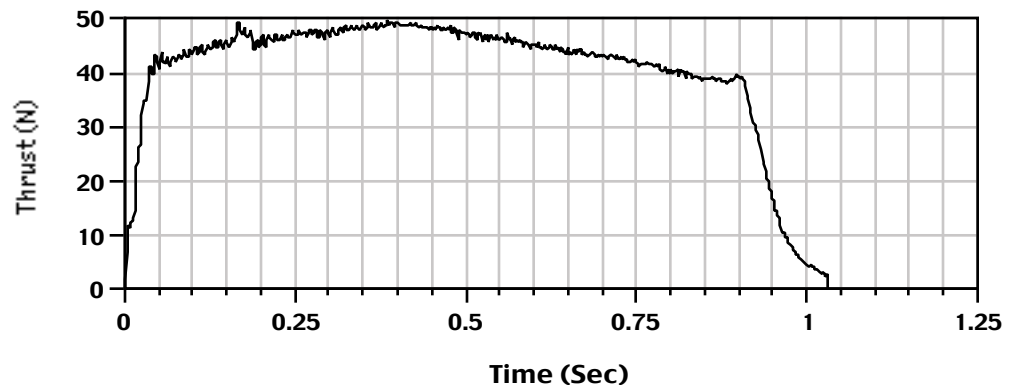
Date Tested: 15-Feb-2014

Total Impulse: 41.45 newton-seconds (0.34)
Peak Thrust: 49.54 newtons (1.71)
Burn Time: 1.03 seconds (0.04)
Average Thrust: 40.36 newtons

Mass After Firing: 24.9 grams

Delay Time	Average Measured Delay	Initial Mass
4	3.65	48.5 g
8	8.21	49.8 g

TYPICAL THRUST-TIME CURVE



REMARKS

Aerotech F44

FILE NAME	MOTOR	IT	F-MAX	F-AVG	T-BURN	T-DELAY
AT140213	F44W-4B	41.042	49.717	39.540	1.038	3.398
AT140214	F44W-4B	41.232	46.964	39.570	1.042	3.894
AT140215	F44W-4B	41.535	49.330	40.641	1.022	3.606
AT140216	F44W-4B	41.762	49.676	41.185	1.014	3.500
AT140209	F44W-8B	41.131	48.773	37.392	1.100	7.890
AT140210	F44W-8B	41.836	53.022	42.259	0.990	8.526
AT140211	F44W-8B	41.236	48.673	39.423	1.046	7.680
AT140212	F44W-8B	41.867	50.137	42.896	0.976	9.234
	Avg	41.46	49.54	40.36	1.03	
	Std	0.34	1.71	1.76	0.04	
	Std%	0.81	3.46	4.37	3.71	

DELAYS

ALLOWABLE	INDICATED	AVG	ACTUAL	ACTUAL	ACTUAL	ACTUAL
2.5 TO 5.5	4	3.646	3.398	3.894	3.606	3.500
6.4 TO 9.6	8	8.208	7.890	8.526	7.680	9.234

```

; Aerotech F44 RASP.ENG file made from NAR published data
; File produced March, 2014
; The total impulse, peak thrust, average thrust and burn time are
; the same as the averaged static test data on the NAR web site in
; the certification file. The curve drawn with these data points is as
; close to the certification curve as can be with such a limited
; number of points (32) allowed with wRASP up to v1.6.

```

```

F44 24 70 4-8 .0197 .0491 AT
0.00811.161
0.01819.303
0.02014.370
0.03035.087
0.03539.771
0.04343.471
0.05742.237
0.06442.488
0.10543.962
0.14044.945
0.16045.677
0.16649.137
0.17446.910
0.18747.653
0.19745.186
0.28547.883
0.39249.540
0.44347.873
0.53146.379
0.61444.644
0.70042.909
0.76341.415
0.81740.182
0.87837.955
0.89539.921
0.90738.447
0.92528.569
0.94220.928
0.96211.552
0.9856.364
1.0202.659
1.030 0

```

