

# AEROTECH F20

## CERTIFIED VALUES

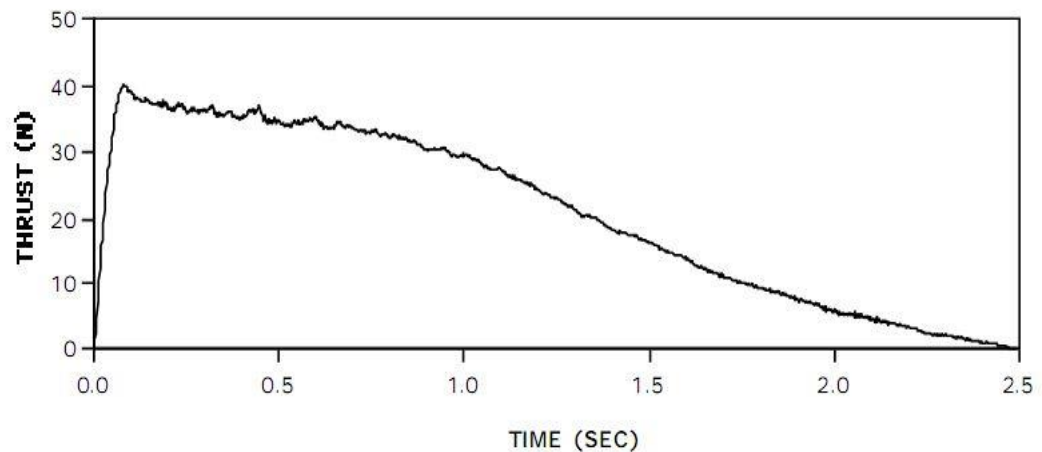
Total Impulse: **51.75 N-sec.**  
Delays: **4, 7 sec.**  
Propellant Type: **White Lightning**  
Propellant Mass: **30.0 g**  
Casing Dimensions: **29 mm x 83 mm**  
Certification Date: **4/10/2005**  
Contest Use Date:  
Certification type: **Model rocket**

## STATIC TEST DATA

Date Tested: 04/09/2005  
Total Impulse: 51.75 N-sec  
Peak Thrust: 40.33 N  
Burn Time: 2.49 sec.  
Average Thrust: 20.80 N  
Mass After Firing: 44.0 g

Delay Time	Average Measured Delay	Initial Mass
4	3.63	80.1
7	6.81	80.2

## TYPICAL THRUST-TIME CURVE



## REMARKS

This motor is sold as an assembled single use motor and a loadable single use motor requiring user assembly. Performance of both is the same.



			AEROTECH F20	FIRED 4/9/05			AEROTECH LU-RMS				
MOTOR	ENGINE		TOTAL	MAX	AVG	BURN	DELAY			INIT	EMPTY
NO.	TYPE		IMPULSE	THRUST	THRUST	TIME	TIME			WEIGHT	WEIGHT
1	F20-4		52.77	38.30	20.46	2.58	3.30			80.34	44.43
2	F20-4		52.61	39.02	20.84	2.52	3.27			79.89	43.79
3	F20-4		50.93	38.82	18.99	2.68	3.74			80.27	43.66
4	F20-4		50.76	39.49	21.45	2.37	4.08			80.24	44.27
5	F20-7		52.27	46.36	24.31	2.15	6.52			80.93	44.46
6	F20-7		51.99	41.85	21.66	2.40	7.87			80.59	43.91
7	F20-7		52.24	39.89	21.13	2.47	5.37			80.55	43.47
8	F20-7		51.37	41.06	19.46	2.64	6.42			80.42	43.94
9	F20-4		50.83	38.19	19.67	2.58	3.78			79.74	43.94
AVG			51.75	40.33	20.80	2.49					
STD			0.74	2.42	1.49	0.15					
STD %			1.44	6.01	7.16	6.20					
			DELAYS								
ALLOWABLE											
RANGE			INDICATED	AVG	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL		
3	TO	5	4	3.63	3.30	3.27	3.74	4.08	3.78		
5.6	TO	8.4	7	6.81	6.52	7.87	6.42	6.42			

; Aerotech F20 RASP.ENG file made from NAR published data  
 ; File produced July 4, 2007  
 ; 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.

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0.023	16.431
0.043	28.538
0.062	36.691
0.078	40.330
0.120	37.677
0.167	36.933
0.213	36.931
0.298	36.432
0.318	37.173
0.333	35.689
0.368	36.182
0.395	35.192
0.430	36.426
0.446	37.166
0.481	34.447
0.554	34.443
0.946	30.964
0.965	29.481
1.008	29.726
1.062	27.746
1.097	27.497
1.136	26.260
1.310	20.568
1.360	19.824
1.438	17.349
1.465	17.348
1.527	15.121
1.597	13.882
1.810	9.176
1.969	6.203
2.490	0.000

