

QUEST A8

CERTIFIED VALUES

Total Impulse: 1.86 newton-seconds
Delays: 3

Propellant Type: Black Powder
Propellant Mass: 3.6 grams

Casing Dimensions: 18 mm X 70 mm

Certification Date: 09-July-13

Certification Type: Model Rocket

STATIC TEST DATA

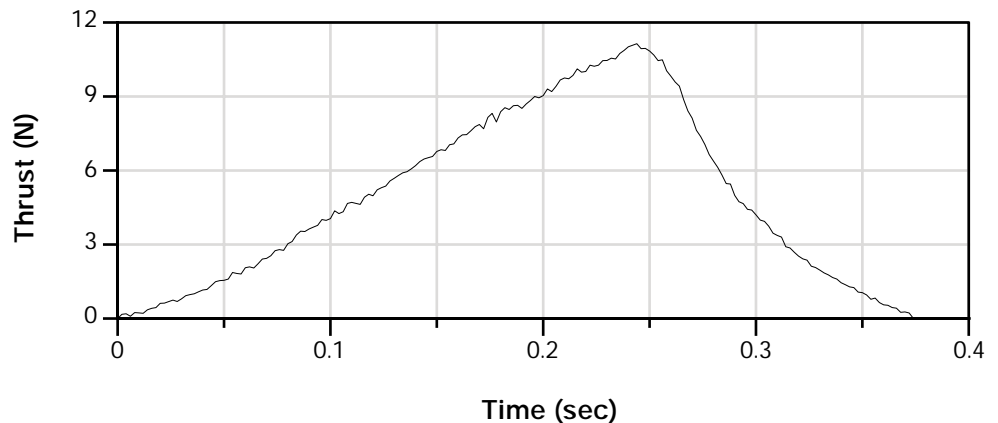
Date Tested: 09-July-12

Total Impulse: 1.86 newton-seconds (σ 0.07)
Peak Thrust: 11.14 newtons (σ 0.74)
Burn Time: 0.38 seconds (σ 0.01)
Average Thrust: 4.84 newtons

Mass After Firing: 7.6 grams

Delay Time	Average Measured Delay	Initial Mass	Mfg Recommended Max Liftoff Weight
3	306	13.1 g	

TYPICAL THRUST-TIME CURVE



REMARKS



FILE NAME	MOTOR	IT	F-MAX	F-AVG	T-BURN	T-DELAY
Q601	A8-3	1.84	11.38	4.97	0.37	3.24
Q603	A8-3	1.86	10.86	4.79	0.39	3.52
Q604	A8-3	1.83	10.94	4.68	0.39	2.96
Q605	A8-3	1.87	11.25	4.92	0.38	2.51
Q606	A8-3	1.82	11.38	4.65	0.39	3.19
Q607	A8-3	1.78	9.42	4.40	0.40	2.89
Q608	A8-3	1.76	10.97	4.80	0.37	2.99
Q609	A8-3	1.99	11.25	5.35	0.37	3.37
Q610	A8-3	1.85	11.39	4.66	0.40	3.15
Q611	A8-3	1.97	12.60	5.22	0.38	2.78
	AVG	1.86	11.14	4.84	0.38	3.06
	STD	0.07	0.74	0.27	0.01	0.28
	STD %	3.81	6.61	5.54	3.11	9.22

;Quest A8 RASP.ENG file made from NAR published data
; File produced Aug 2009
; 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.

A8	18	69	3-	0.0063	0.0131	QU
0.073	2.139					
0.085	2.599					
0.097	3.317					
0.110	4.035					
0.122	4.34					
0.135	4.955					
0.147	5.569					
0.160	6.132					
0.173	6.85					
0.185	7.361					
0.197	7.976					
0.210	8.281					
0.222	8.741					
0.235	9.407					
0.247	9.712					
0.260	11.14					
0.273	10.063					
0.285	8.768					
0.297	6.647					
0.310	5.042					
0.322	3.953					
0.335	3.019					
0.347	2.136					
0.360	1.512					
0.372	1.043					
0.380	0.000					

