

AEROTECH F32T

CERTIFIED VALUES

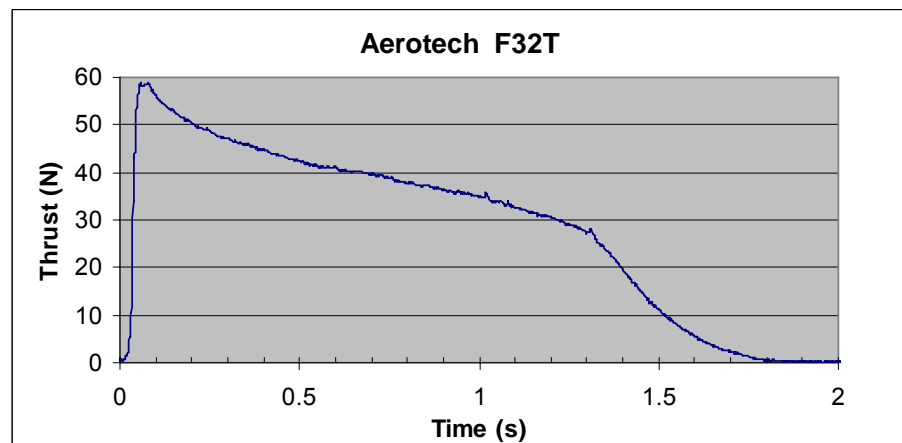
Total Impulse: 56.9 Newton-seconds
Delays: 4, 6, 8 seconds
Propellant Type: Blue Thunder
Propellant Mass: 25.8 grams
Casing Dimensions: 24mm × 90mm
Certification Date: January 14, 2009
Certification Type: Model Rocket Motor

STATIC TEST DATA

Date Tested: January 11, 2009
Total Impulse: 56.9 Newton-seconds (σ 0.73)
Peak Thrust: 61.3 Newtons (σ 4.3)
Burn Time: 1.659 seconds (σ 0.061)
Average Thrust: 34.1 Newtons (σ 1.0)
Mass After Firing: 33 grams

Delay Time(sec.)	8	6	4
Average Measured Delay(sec.)	8.77	5.55	3.69
Initial Mass (gm.)	65	64	64

TYPICAL THRUST-TIME CURVE



REMARKS



Data File #	Engine	Total Impulse	Max Thrust	Avg. Thrust	Burn Time	Delay Time	Initial Weight	Fired Weight
090110W01	F32-4T	56.9	59.3	34.2	1.657	3.97	64	33
090110W02	F32-4T	57.4	57.6	33.3	1.715	3.92	64	33
090110W03	F32-4T	56.9	60.4	33.9	1.674	3.79	65	33
090110W04	F32-4T	57.9	65.0	33.2	1.735	3.09	64	33
090110W05	F32-6T	56.5	59.1	33.8	1.663	5.27	64	33
090110W06	F32-6T	55.7	62.5	34.1	1.626	5.15	64	33
090110W07	F32-6T	56.1	71.4	35.3	1.582	6.35	64	33
090110W08	F32-6T	57.7	57.7	34.7	1.656	5.42	65	33
090110W09	F32-8T	57.2	64.5	32.7	1.739	8.36	65	33
090110W10	F32-8T	57.6	59.4	33.9	1.664	8.89	65	33
090110W11	F32-8T	56.1	57.6	36.3	1.539	9.05	65	33
Average		56.90	61.3	34.1	1.659		64	33
Std Dev		0.734	4.257	1.014	0.061			
Std Dev %		1.3%	6.9%	3.0%	3.7%			
Range	Indicated	Actual	Actual	Actual	Actual	Average		
4	2.5 to 5.5	3.97	3.92	3.79	3.09	3.69		
6	4.5 to 7.5	5.27	5.15	6.35	5.42	5.55		
8	6.4 to 9.6	8.36	8.89	9.05		8.77		

; @File: F32T.txt, @Pts-I: 1501, @Pts-O: 32, @Sm: 3, @CO: 5%
; @TI: 56.7109, @Tla: 56.4715, @Tle: 0.0%, @ThMax: 58.525, @ThAvg: 34.2667, @Tb: 1.648
; Exported using ThrustCurveTool, www.ThrustGear.com
F32 24 90 4 6 8 0.0258 0.064 Aerotech/RCS

0.0 0.00669778
0.17 0.236738
0.192 0.794052
0.202 2.68628
0.204 3.57052
0.208 7.96887
0.21 11.79011
0.212 16.82641
0.22 39.2314
0.224 46.779
0.228 51.8968
0.232 55.296
0.236 56.9612
0.258 58.4048
0.288 55.2426
0.316 53.4728
0.394 49.5892
0.458 47.4002
0.73 41.2237
0.904 39.3815
1.11 35.6689
1.198 35.0946
1.22 33.8331
1.2599 33.5013
1.4779 27.3792
1.4899 27.7527
1.5099 25.4378
1.6759 11.26592
1.7679 5.94688
1.8519 2.91383
1.9519 0.745781
2.0639 0.0