

# AEROTECH F35

## CERTIFIED VALUES

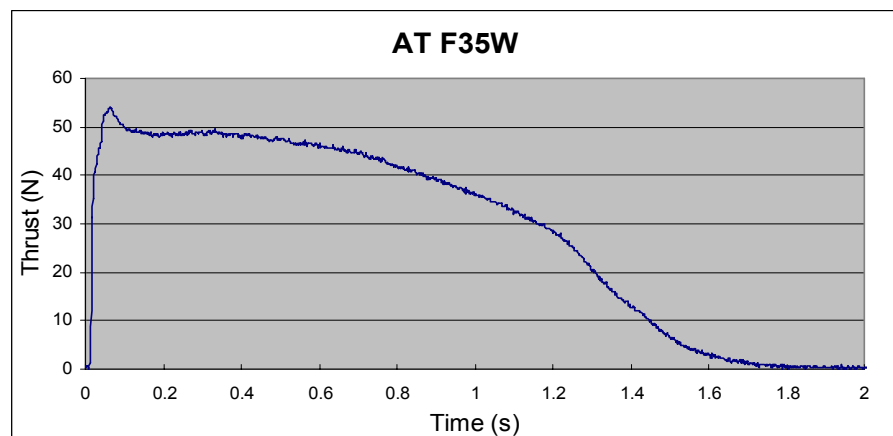
**Total Impulse:** 57.1 Newton-seconds  
**Delays:** 5, 8, 11  
**Propellant Type:** White Lightning  
**Propellant Mass:** 30.0 grams  
**Casing Dimensions:** 24 mm × 95 mm  
**Certification Date:** July 23, 2008  
**Certification Type:** Model Rocket Motor

## STATIC TEST DATA

**Date Tested:** July 17, 2008  
**Total Impulse:** 57.1 Newton-seconds ( $\sigma$  1.1)  
**Peak Thrust:** 55.2 Newtons ( $\sigma$  3.1)  
**Burn Time:** 1.630 seconds ( $\sigma$  0.10)  
**Average Thrust:** 34.9 Newtons ( $\sigma$  1.9)  
**Mass After Firing:** 50 grams

Delay Time(sec.)	5	8	11
Average Measured Delay(sec.)	4.78	8.40	10.74
Initial Mass (gm.)	84	85	85

## TYPICAL THRUST-TIME CURVE



## REMARKS

Certified for use in Aerotech 24/60 hardware only



Data File #	Engine	Total Impulse	Max Thrust	Avg. Thrust	Burn Time	Delay Time	Initial Weight	Fired Weight
080717W02	F35-5W	59.2	55.0	35.5	1.629	4.83	84	50
080717W03	F35-5W	56.6	55.5	34.7	1.624	4.02	84	50
080717W04	F35-5W	55.8	54.1	34.5	1.611	5.49	84	50
080717W06	F35-8W	58.1	52.8	30.8	1.874	8.13	85	50
080717W07	F35-8W	57.1	52.2	35.3	1.610	8.54	85	50
080717W08	F35-8W	55.6	49.8	33.8	1.641	8.52	85	50
080709W01	F35-11W	58.0	59.9	37.7	1.531	10.58	85	50
080709W02	F35-11W	57.9	56.6	34.1	1.686	11.48	85	50
080709W03	F35-11W	56.7	59.2	37.3	1.514	10.84	85	50
080709W04	F35-11W	56.4	56.9	35.5	1.582	10.04	85	50
Average		57.12	55.2	34.9	1.630		84.7	50.0
Std Dev		1.136	3.129	1.929	0.100			
Std Dev %		2.0%	5.7%	5.5%	6.1%			
<b>Range</b>	<b>Indicated</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Average</b>		
5	3.5 to 6.5	4.83	4.02	5.49		4.78		
8	6.4 to 9.6	8.13	8.54	8.52		8.40		
11	9.0 to 13.0	10.58	11.48	10.84	10.04	10.74		

; @File: F35W\_typ.txt, @Pts-I: 1243, @Pts-O: 32, @Sm: 4, @CO: 5%  
; @TI: 57.4091, @Tla: 57.0032, @Tle: 0.0%, @ThMax: 53.3457, @ThAvg: 35.4939, @Tb: 1.606  
; Exported using ThrustCurveTool, www.ThrustGear.com  
F35 24 95 4-8-11 0.03 0.0847 AT/RCS

0.0 0.0909876  
0.196 0.274182  
0.206 0.502189  
0.208 0.842459  
0.21 2.52923  
0.212 6.22019  
0.214 10.74885  
0.218 21.9384  
0.22 26.9129  
0.224 33.5652  
0.228 38.1806  
0.234 42.7727  
0.248 50.398  
0.258 52.7883  
0.266 53.3202  
0.308 49.6588  
0.374 48.3416  
0.532 49.0018  
0.794 46.3836  
0.904 44.7105  
1.2639 34.2799  
1.4199 27.5984  
1.4579 24.7841  
1.5619 15.58685  
1.7019 6.64055  
1.7479 4.42256  
1.8179 2.64199  
1.9239 0.940083  
2.1539 0.00508266  
2.1619 0.660189  
2.1659 0.1405137  
2.1819 0.0