

Rocket Performance Estimation Sheet

For determining max expected altitude

Actual altitudes will be lower by as much as 50 %

Left column : Diameter in inches

Top Row : Weight in pounds including motor

Read Expected Altitude in cells

10 N.sec (C motor)

20 N.sec (D Motor)

| Diameter | .1 Lbs. | .25 Lbs. | .5 Lbs. | Flt. Wt. | .25 Lbs. | .5 Lbs. | .75 Lbs. | 1" Lb. |
|----------|---------|----------|---------|----------|----------|---------|----------|--------|
| 1.0" | 1144' | 633' | 158' | | 2200 | 1100 | 500 | |
| 2.25" | 450 | 360' | 450 | | 800 | 700 | 400 | |

Note: If altitudes shown approach or exceed field limits, precision simulation results must be presented at safety check-in.

40 N/sec (E motor)

| Diameter | .25 Lbs. | .5 Lbs. | .75 Lbs. | 1" Lb. | 1.5 Lbs. | Flight Weight |
|----------|----------|---------|----------|--------|----------|---------------|
| 1.625" | 1450 | 1550 | 900 | 600 | | |
| 2.25" | 950 | 950 | 750 | 550 | | |

80 N.sec (full F motor)

| Diameter | .25 Lbs. | .5 Lbs. | .75 Lbs. | 1" Lb. | 1.5 Lbs. | 2 Lbs. | 2.5 Lbs. | Flight Weight |
|----------|----------|---------|----------|--------|----------|--------|----------|---------------|
| 1.625" | 3000' | 3300' | 3000' | 2600' | 1700' | 1200' | 900' | |
| 2.25" | 2000' | 2200' | 2100' | 2000' | 1500' | 1100' | 800' | |
| 2.6" | 1700' | 1900' | 1900' | 1800' | 1400' | 1000' | ??? | |

120 N/sec (1/2 G motor)

| Diameter | .25 Lbs. | .5 Lbs. | .75 Lbs. | 1" Lb. | 1.5 Lbs. | 2 Lbs. | 2.5 Lbs. | 3 Lbs. | Flight Weight |
|----------|----------|---------|----------|--------|----------|--------|----------|--------|---------------|
| 1.625" | 3200' | 4000' | 4100' | 3800' | 2900' | 2100' | 1600' | | |
| 2.25" | 2500' | 2900' | 3000' | 2900' | 2400' | 1900' | 1400' | | |
| 2.6" | | 2300' | 2400' | 2400' | 2100' | 1700' | 1400' | | |
| 4" | | | | 1500' | 1400' | 1200' | 1100' | 1000' | |

160 N/sec (Full G motor)

| Diameter | .5 Lbs. | .75 Lbs. | 1" Lb. | 1.5 Lbs. | 2 Lbs. | 2.5 Lbs. | 3 Lbs. | Flight Weight |
|----------|---------|----------|--------|----------|--------|----------|--------|---------------|
| 1.625" | 4700' | 5000' | 4800' | 3900' | 3000' | 2300' | 1800' | |
| 2.25" | 3500' | 3600' | 3500' | 3100' | 2600' | 2100' | 1700' | |
| 2.6" | 3000' | 3000' | 3000' | 2800' | 2300' | 1900' | 1500' | |
| 4" | | 1800' | 1800' | 1700' | 1600' | 1400' | 1200' | |

240 N/sec (1/2 H motor)

| Diameter | 1.5 Lbs. | 2.5 Lbs. | 3.5 Lbs. | 4.5 Lbs. | 5.5 Lbs. | 6.5 Lbs. | 7.5 Lbs. | Flight Weight |
|----------|----------|----------|----------|----------|----------|----------|----------|---------------|
| 2.6" | 3100' | 2800' | 2100' | 1600' | 1100' | | | |
| 4" | | 1800' | 1600' | 1300' | 1000' | | | |
| 6" | | 1100' | 1000' | 900' | | | | |
| 7.5" | | | | | | | | |

320 N/Sec (Full H motor)

| Diameter | 1.75 Lbs. | 2.75 Lbs. | 3.75 Lbs. | 4.75 Lb. | 5.75 Lbs. | 6.75 Lbs. | 7.75 Lbs. | 8.75 Lbs. | 9.75 Lbs. | Flight Weight |
|----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|---------------|
| 2.6" | 4000' | 3900' | 3300 | 2600 | 1900 | | | | | |
| 4" | | 2400 | 2200 | 1900 | 1600 | 1300 | | | | |
| 6" | | 1500 | 1400 | 1300 | | | | | | |
| 7.5" | | | | | | | | | | |

480 N/Sec (1/2 "I" motor)

| Diameter | 3 Lbs. | 4 Lbs. | 5 Lbs. | 6 Lb. | 7 Lbs. | 8 Lbs. | 9 Lbs. | 10 Lbs. | 11 Lbs. | Flight Weight |
|----------|--------|--------|--------|-------|--------|--------|--------|---------|---------|---------------|
| 2.6" | 5000 | 4500 | 3800 | 2600 | | | | | | |
| 4" | 3200 | 2900 | 2600 | 2400 | 2000 | 1800 | 1500 | 1300 | 1100 | |
| 6" | | | 1700 | 1600 | 1500 | 1400 | 1200 | | | |
| 7.5" | | | 1400 | 1300 | | | | | | |

640 N/Sec (Full "I" motor)

| Diameter | 3.2 Lbs. | 4.2 Lbs. | 5.2 Lbs. | 6.2 Lb. | 7.2 Lbs. | 8.2 Lbs. | 9.2 Lbs. | 10.2 Lbs. | 11.2 Lbs | 12.2 Lbs |
|----------|----------|----------|----------|---------|----------|----------|----------|-----------|----------|----------|
| 2.6" | 5500 | 5500 | 5000 | 4300 | 3700 | | | | | |
| 4" | | 3500 | 3300 | 3100 | 2800 | 2500 | 2300 | 2100 | 1900 | |
| 6" | | | 2200 | 2200 | 2100 | 2000 | 1800 | 1700 | 1600 | 1400 |
| 7.5" | | | 1700 | 1600 | 1500 | | | | | |

Conversion Charts

| Gr. | Oz. | Lb. | Cm | In |
|------|-----|------|----|-----|
| 28 | 1 | | .5 | .2 |
| 113 | 4 | .25 | 1 | .4 |
| 226 | 8 | .5 | 2 | .8 |
| 340 | 12 | .75 | 3 | 1.2 |
| 454 | 16 | 1.0 | 4 | 1.6 |
| 680 | 24 | 1.5 | 5 | 2.0 |
| 907 | 32 | 2.0 | 6 | 2.4 |
| 1134 | 40 | 2.5 | 7 | 2.8 |
| 1340 | 48 | 3.0 | 8 | 3.2 |
| 1587 | 56 | 3.5 | 9 | 3.6 |
| 1361 | 64 | 4.0 | 10 | 3.9 |
| 2267 | 80 | 5.0 | 11 | 4.3 |
| 2721 | 96 | 6.0 | 12 | 4.7 |
| 3268 | 128 | 8.0 | 13 | 5.1 |
| 4536 | 160 | 10.0 | 14 | 5.6 |
| | | 12.0 | 15 | 6.0 |