

Rocket Design



Power Tower

Stages: 1

Mass (with motor): 71,0 g

Stability: 3,56 cal

CG: 54,6 cm

CP: 64,5 cm

		Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
Altitude	200 m	C6	4,0 N	1,86 s	11,6 N	7,48 Ns	5,74:1	12,5 g	18,0/70,0 mm
Flight Time	30,6 s								
Time to Apogee	6,27 s								
Velocity off Pad	15,3 m/s								
Max Velocity	70,2 m/s								
Velocity at Deployment	N/A								
Landing Velocity	13,3 m/s								

B4-4



		Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
Altitude	138 m	B4	4,04 N	1,3 s	11,7 N	5,28 Ns	6,02:1	8,33 g	18,0/70,0 mm
Flight Time	22,1 s								
Time to Apogee	5,32 s								
Velocity off Pad	15,3 m/s								
Max Velocity	57,2 m/s								
Velocity at Deployment	N/A								
Landing Velocity	14,3 m/s								

A8-3

		Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
Altitude	58,2 m	A8	5,11 N	0,518 s	12,0 N	2,68 Ns	8,11:1	3,12 g	18,0/70,0 mm
Flight Time	10,2 s								
Time to Apogee	3,59 s								
Velocity off Pad	15,7 m/s								
Max Velocity	35,5 m/s								
Velocity at Deployment	N/A								
Landing Velocity	14,3 m/s								

Parts Detail

Hauptstufe

	Spitze	Papier (Büro) (0,82 g/cm ³)	Konisch	Len: 8,3 cm	Mass: 1,0 g
	Körperrohr der Spitze	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,77 cm Dia _{out} 2,8 cm	Len: 3,0 cm	Mass: 1,0 g
	Verbindungshülse	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,57 cm Dia _{out} 2,6 cm	Len: 6,2 cm	Mass: 1,0 g
	Masse		Dia _{out} 1,0 cm		Mass: 5,0 g
	Balastkammer	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,47 cm Dia _{out} 2,5 cm	Len: 3,0 cm	Mass: 0,288 g
	Körperrohr	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,77 cm Dia _{out} 2,8 cm	Len: 24,0 cm	Mass: 4,0 g
	Rohrverstärkung	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,57 cm Dia _{out} 2,6 cm	Len: 22,0 cm	Mass: 1,0 g
	Körperrohr	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,77 cm Dia _{out} 2,8 cm	Len: 24,0 cm	Mass: 4,0 g
	Rohrverstärkung	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,57 cm Dia _{out} 2,6 cm	Len: 22,0 cm	Mass: 1,0 g
	Schockband mit Gummidämpfer und Ankern	Thread (heavy- duty) (0,3 g/m)		Len: 40,0 cm	Mass: 2,0 g
	Körperrohr	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,77 cm Dia _{out} 2,8 cm	Len: 28,0 cm	Mass: 4,0 g
	Rohrverstärkung	Papier (Büro) (0,82 g/cm ³)	Dia _{in} 2,57 cm Dia _{out} 2,6 cm	Len: 18,0 cm	Mass: 1,0 g
	Schockband mit Gummidämpfer und Ankern	Thread (heavy- duty) (0,3 g/m)		Len: 40,0 cm	Mass: 2,0 g
	Engine block	Karton (0,68 g/cm ³)	Dia _{in} 1,77 cm Dia _{out} 1,8 cm	Len: 6,5 cm	Mass: 0,372 g
	Finnen (3)	Papier (Büro) (0,82 g/cm ³)	Thick: 0,1 cm		Mass: 2,21 g