

MONGOOSE 54



The Mongoose 54 is part of the new line of Mongoose Kits produced by Performance Rocketry. This is the second of several size offerings to be produced in sequence as part of a limited edition ultra high performance kit. These kits offer the highest end available composite parts on the market. We will explain the level of precision and quality of each of the parts in this document.

Mongoose 54

Specs:

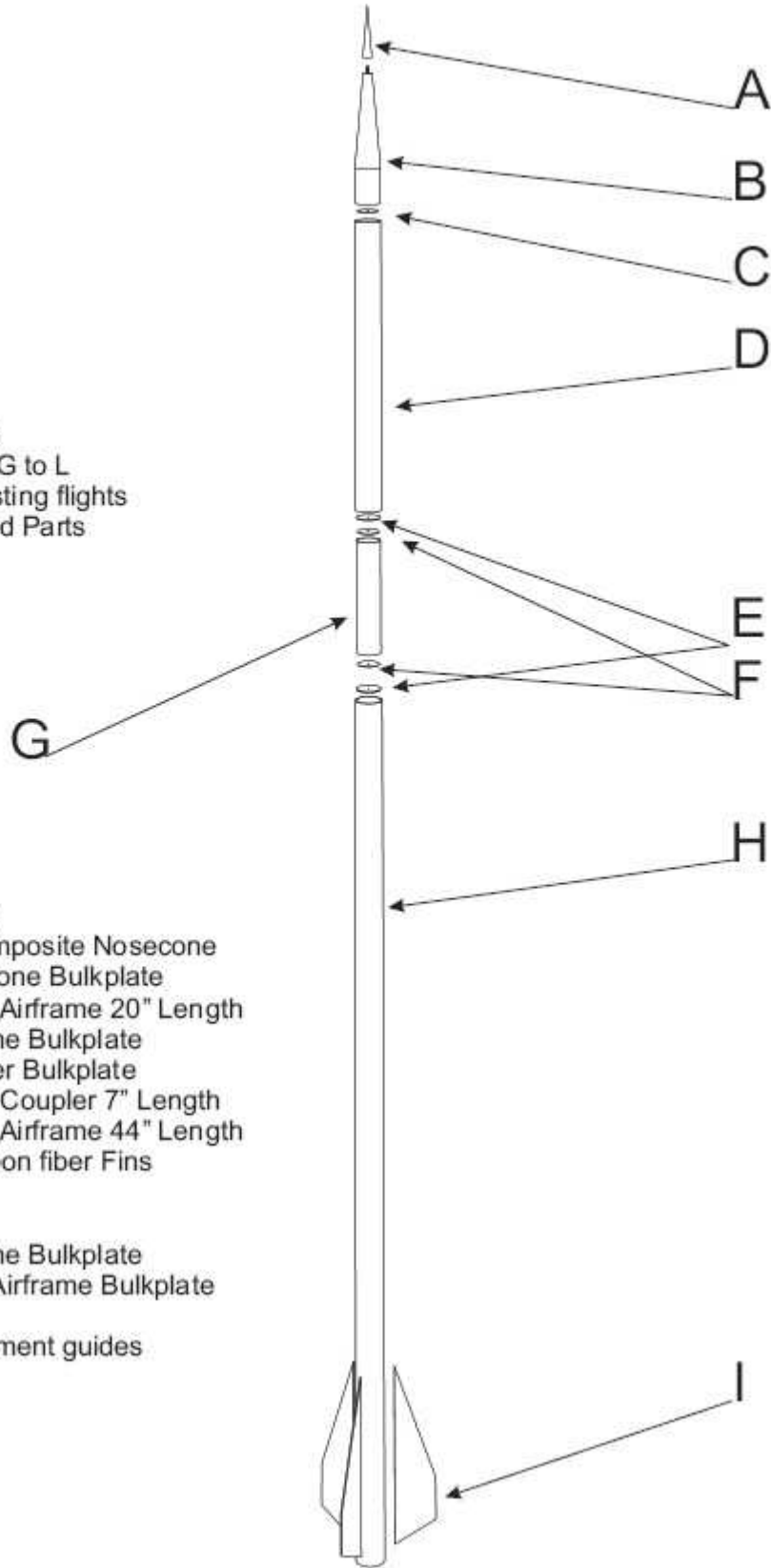
1. Over 6 Feet Tall
2. Built Weight Aprox 3Lbs
3. Dual Deploy Standard
4. CNC Precision Cut Parts
5. Flies on everything from G to L
6. Great for those mach busting flights
7. All High Temp 500F Rated Parts
8. All Composite design

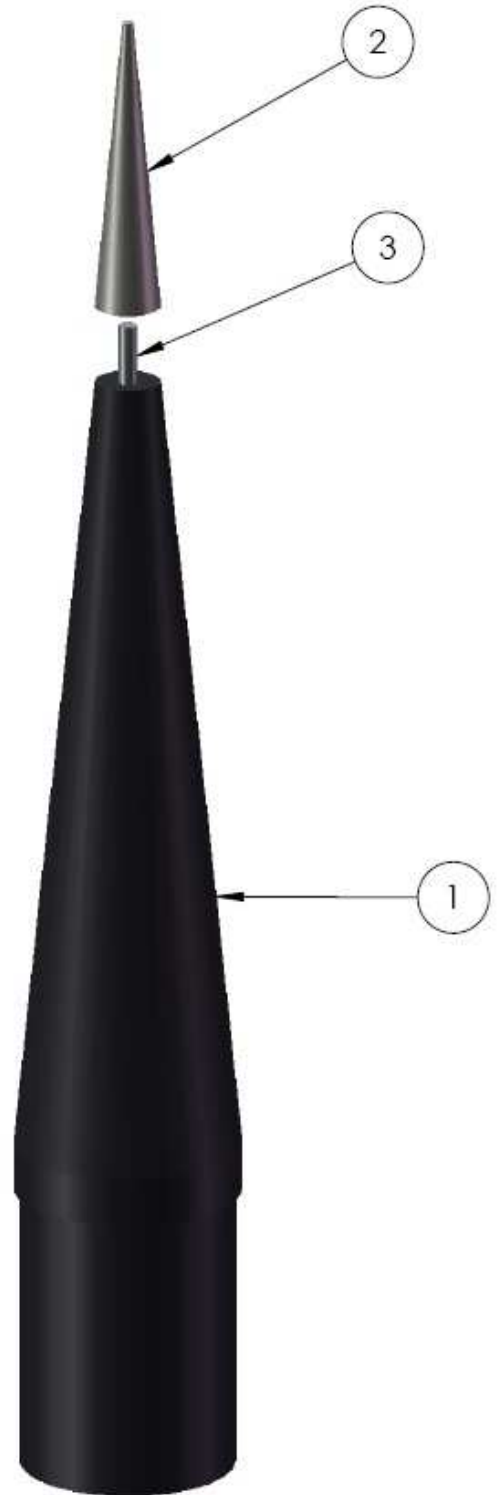
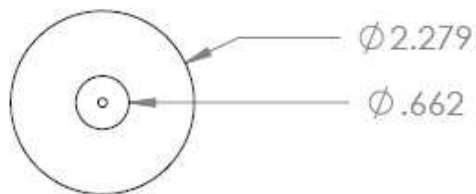
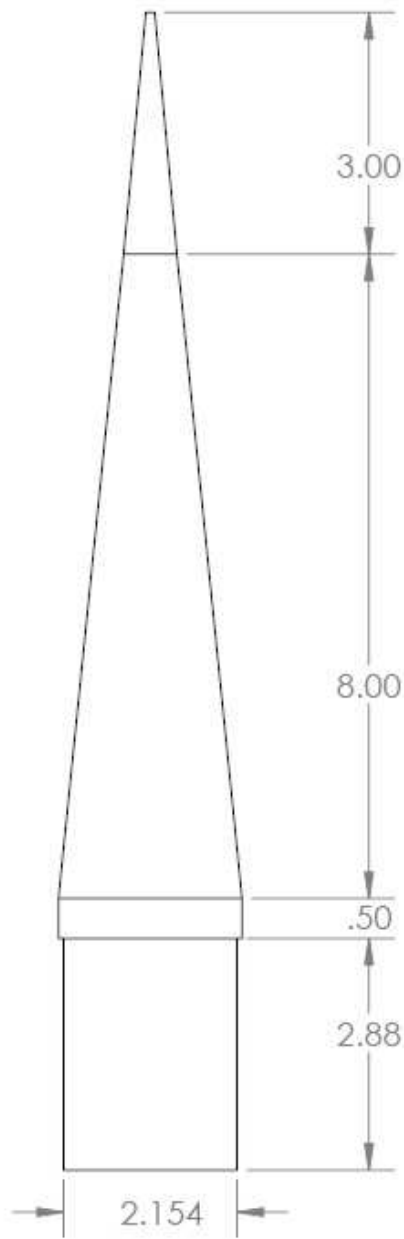
Parts:

- A. Aluminum Tip (screw on)
- B. Graphite 5:1 Conical Composite Nosecone
- C. Carbon Fiber 1/8" Nosecone Bulkplate
- D. Filament Wound Carbon Airframe 20" Length
- E. Carbon Fiber 1/8" Airframe Bulkplate
- F. Carbon Fiber 1/8" Coupler Bulkplate
- G. Filament Wound Carbon Coupler 7" Length
- H. Filament Wound Carbon Airframe 44" Length
- I. 1/8" Quasi Isotropic Carbon fiber Fins

Other parts not listed:

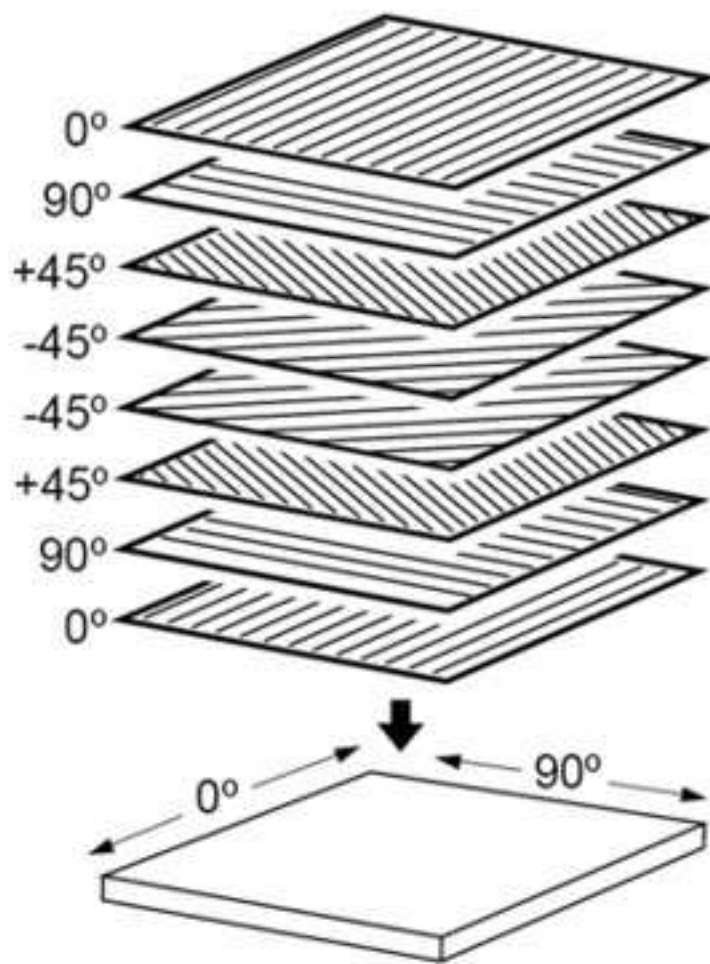
1. Carbon Fiber 1/8" Airframe Bulkplate
2. Reinforcement tube for Airframe Bulkplate
3. High Temp 500F Epoxy
4. G10 Fiberglass Fin alignment guides





1. Graphite High Temp Composite 5:1 Conical Nosecone
2. Aluminum Conical Screw on Tip
3. 10-32 Threaded Steel Stud

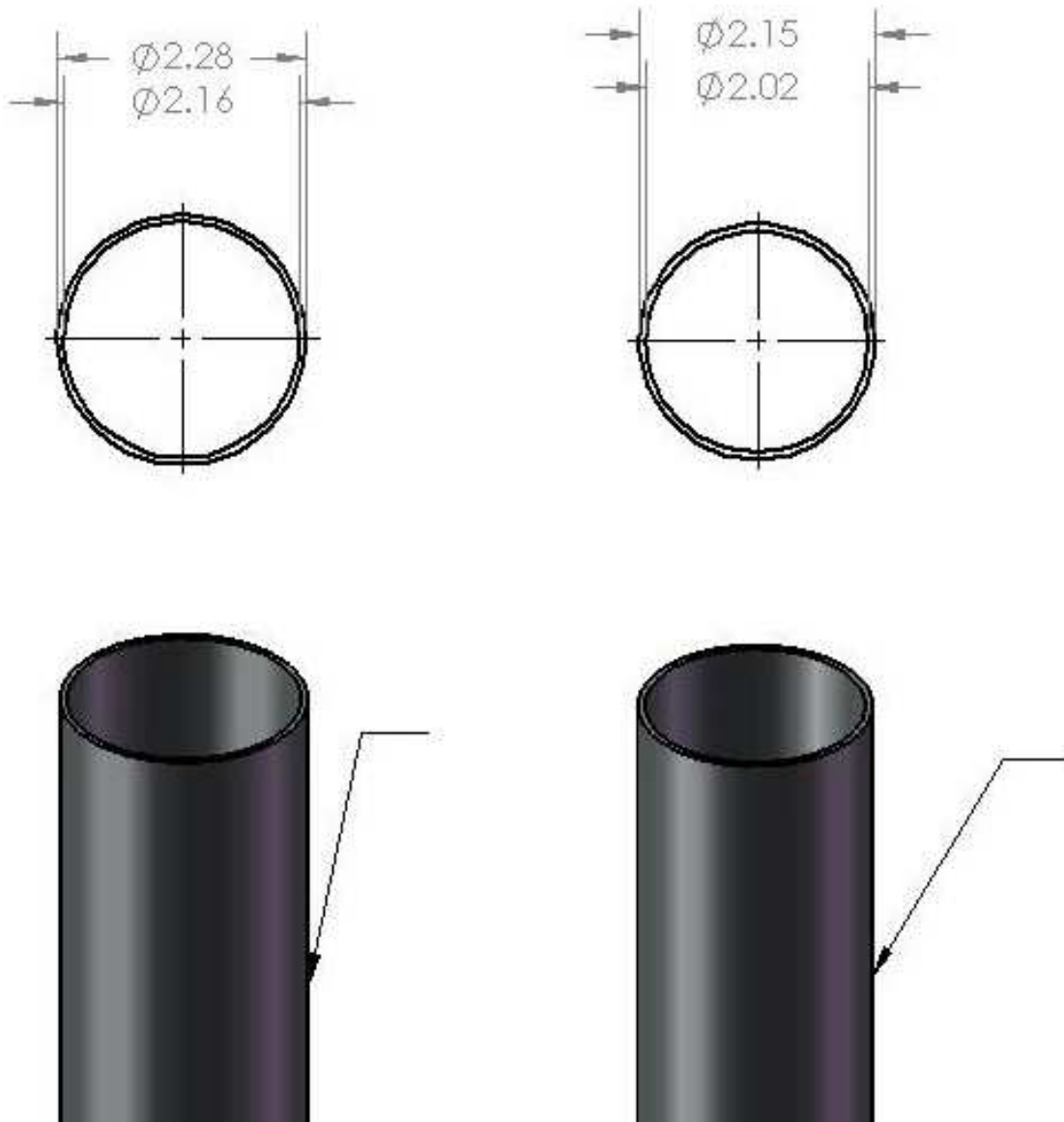
The nosecone offered in the Mongoose kits is a Pro Line Nosecone, these cones offer the finest quality available on the market. The exterior has a high temp 500F graphite finish with a screw on aluminum tip.



■ Quasi-isotropic lay-up



Fin material is manufactured using uni-directional carbon fiber prepreg in a quasi-isotropic layup and capped on either side with a cosmetic plain weave prepreg layer. The manufacturing process uses a 300 ton down acting heated press, the only way high quality high precision plate is manufactured.



Filament wound Carbon Fiber tubing is manufactured in house using propriory band patterns and wound using multiple wind angles. Using different wind angles in stacked layers offers a substancial increase in overall strength specifically for the use of rocketry. Tubes are manufactured with a high temp toughened epoxy resin and cured and post cured in our oven for a max operating temp of 500F. We use a High Modulus Carbon Fiber Tow (T1000G) the highest tensile strength carbon fiber available. T1000G was designed specifically for aerospace applications. To offer a precise smooth finish we use a centerless grinder.



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