

ALPHA STRUT™

ALPHA STRUT™ is Park Aerospace Corp.'s proprietary composite strut. The ALPHA STRUT design combines light-weight composite materials with Park's proprietary end-fitting which is co-cured into each end of the strut without the use of adhesives. This creates an axial load carrying component which is suitable for a variety of aircraft and other aerospace high to medium load bearing applications. The ALPHA STRUT design provides significant weight savings compared to metal struts and other composite struts.



Example of a rod end incorporated into Park's ALPHA STRUT™

KEY FEATURES & BENEFITS

- Utilizes light-weight composite materials
- Proprietary end-fitting eliminates the use of adhesives and/or fasteners
- Available in custom loads, lengths and diameters

APPLICATIONS

- Primary and Secondary Aircraft Structures
- Tie Rods
- Push/Pull Control Rods
- Monument Bracing
- Truss Structures
- Bulkheads
- Other Aerospace High to Medium Load Bearing Applications

PRODUCT FORMS

- Working tensile/compressive loads to 1,100 lbs (489 daN)
- Typical lengths ranging from 6" to 30" (152-762mm)
- Typical diameters ranging from 0.5" to 1.5" (13-38mm)
- Other loads, lengths and diameters are available



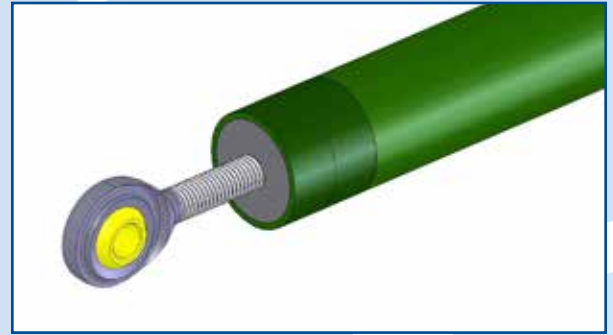
Park's ALPHA STRUT™



PARK
AEROSPACE
CORP.

PARK'S PROPRIETARY END-FITTING DESIGN

Park's proprietary end-fitting is co-cured into each end of the strut without the use of adhesives. This technique creates an axial load carrying component which can be fitted with a variety of threaded rod end bearings, clevises, etc. The picture to the right illustrates an end-fitting with a spherical rod end bearing.



SAMPLE ALPHA STRUT SPECIFICATIONS

Dimensions			Loads		Weight	
Tube Length	Strut Outer Diameter (ref)	Strut Wall Thickness (ref)	Tension Limit / Ultimate Load	Compression Limit / Ultimate Load	ALPHA STRUT™	ALPHA STRUT™ (with rod ends)
6 inches (152 mm)	0.538 inches (13.7 mm)	0.017 inches (0.4 mm)	1,100 / 2,200 lbs (489 / 979 daN)	1,100 / 2,000 lbs (489 / 979 daN)	0.08 lbs (36 g)	0.18 lbs (82 g)
18 inches (457 mm)	0.845 inches (21.5 mm)	0.050 inches (1.3 mm)	1,100 / 5,400 lbs (489 / 2,400 daN)	1,100 / 2,000 lbs (489 / 979 daN)	0.34 lbs (154 g)	0.44 lbs (200 g)
30 inches (762 mm)	1.181 inches (30 mm)	0.058 inches (1.5 mm)	1,100 / 5,400 lbs (489 / 2,400 daN)	1,100 / 2,000 lbs (489 / 979 daN)	0.75 lbs (340 g)	0.85 lbs (386 g)

ABOUT PARK

Park Aerospace Corp. which develops and manufactures solution and hot-melt advanced composite materials used to produce composite structures for the global aerospace markets. Park's advanced composite materials include film adhesives (undergoing qualification) and lightning strike materials. Park offers an array of composite materials specifically designed for hand lay-up or automated fiber placement (AFP) manufacturing applications. Park's advanced composite materials are used to produce primary and secondary structures for jet engines, large and regional transport aircraft, military aircraft, Unmanned Aerial Vehicles (UAVs commonly referred to as "drones"), business jets, general aviation aircraft and rotary wing aircraft. Park also offers specialty ablative materials for rocket motors and nozzles and specially designed materials for radome applications. As a complement to Park's advanced composite materials offering, Park designs and fabricates composite parts, structures and assemblies and low volume tooling for the aerospace industry. Target markets for Park's composite parts and structures (which include Park's patented composite Sigma Strut and Alpha Strut product lines) are, among others, prototype and development aircraft, special mission aircraft, spares for legacy military and civilian aircraft and exotic spacecraft. Park's objective is to do what others are either unwilling or unable to do. When nobody else wants to do it because it is too difficult, too small or too annoying, sign us up.

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