

# System Attachments

## Customization



### About Customization

In addition to Amphenol Pcd's extensive System Attachment product line, custom solutions are available as well. We offer many different materials, such as thermoplastics, elastomers, and metals. We also offer different manufacturing processes to meet the particular requirement. Also, our engineering team prides itself on smart designs, creating cost-effective products that always meet and/or exceed customer expectations. This page provides a snapshot of some of the custom solutions we offer.

Materials	
Thermoplastics	<ul style="list-style-type: none"> <li>• Typical materials include Nylon (PA), PEEK, Ultem (PEI), Torlon (PAI)</li> <li>• Thermoplastics may be reinforced with glass-fiber or carbon-fiber, drastically increasing strength and stiffness. Resulting parts can be made lighter due to higher strength-to-weight ratio</li> <li>• Injection molded parts may incorporate features that are impossible to replicate with typical metal forming processes. Snapping features and tool-less assembly can reduce installation time and promote lean manufacturing</li> <li>• Thermoplastic parts do not corrode and thus do not require additional plating or coating</li> </ul>
Elastomers	<ul style="list-style-type: none"> <li>• Amphenol has compression molding capabilities to produce rubber products in most common aerospace elastomers:                             <ul style="list-style-type: none"> <li>• EPDM per AMS3248 and AMS3253 for Phosphate Ester Hydraulic Fluid (Skydrol) environment</li> <li>• Nitrile (NBR) per AMS3213, AMS3215, and Mil-DTL-85052/1 for oil or fuel environment</li> <li>• Chloroprene per AMS3209</li> <li>• Silicone rubber per A-A-59588, AMS3302, AMS3303, and AMS3310</li> <li>• Fluorosilicone per Mil-DTL-25988 for fuel environment</li> </ul> </li> <li>• Amphenol can overmold silicone and fluorosilicone onto thermoplastics for a permanent and durable bond between rubber and plastic components.</li> </ul>
Metals	<ul style="list-style-type: none"> <li>• Stainless steel and aluminum parts can be produced through typical methods including conventional and CNC machining, sheet forming, etc.</li> <li>• Available coatings for metal components include chemical film, anodizing, cadmium plating, passivation, painting, and more.</li> </ul>

Engineering
<p>Amphenol offers a unique expertise in the design of thermoplastic aerospace components with a notable focus on Lean Manufacturing. Core values when designing new products are innovation, performance, weight, and cost-efficiency. Engineering capabilities include:</p> <ul style="list-style-type: none"> <li>• Custom design of plastic parts from concept generation to production</li> <li>• Part optimization for plastic production</li> <li>• Finite Element Analysis (FEA)</li> <li>• Testing and qualification. Access to A2LA-certified laboratory with capabilities for:                             <ul style="list-style-type: none"> <li>• Load testing at ambient, low, and high temperatures</li> <li>• Vibration</li> <li>• Chemical resistance</li> <li>• Thermal shock</li> <li>• Thermal cycling</li> <li>• Temperature and humidity conditioning</li> </ul> </li> <li>• AS9100 quality system</li> <li>• Customer technical support</li> </ul>