## COMPOSITES INNOVATIVE TECHNOLOGY OF THE FUTURE

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### COMPOSITES



## The material and technology for unlimited possibilities

#### CARBON COMPOSITES

Robust, lightweight and stable - carbon composites offer numerous possibilities for a wide range of different applications. Whether for the shipbuilding, aerospace or automotive industry, for medical applications, sporting and various leisure goods, this technology has virtually no limits for its use.

Schiebel Composites has extensive experience in the use of materials utilized in the demanding UAV environment which underpins the merits of using such composite materials for a variety of other high-performance applications. Due to their unique weight to strength ratio as well as their technical



advantages over most common construction materials and production technologies, composite materials have almost unlimited application.



Based on the customer's requirements, Schiebel Composites offers full service in the design and development of composite products.



Series production of the CAMCOPTER<sup>®</sup> S-100





## Precision and quality at highest level in engineering and production



DESIGN, ENGINEERING, PROTOTYPING

Detailed knowledge of composites and long-term experience in composite tooling and component design is a must. The Schiebel Composites prototyping shop, with its ability to produce high-precision and custom-built equipment, offers the full cycle from product development to series production.



**HIGH-QUALITY PRODUCTION** 

The Schiebel Composites state-of-the-art production facility is equipped with air-conditioned clean rooms, a cutter, autoclaves and post-curing devices.





Production services are complemented with extensive documentation, process recording and component measurement. Quality control assures compliance with the ISO9001:2008 standard for complete customer satisfaction.

Composite finishing

# COMPOSITES



































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### Specific know-how and highest competence from prototype to series





**COMPOSITE TOOLING** 

Composites production tools are fabricated to meet individual customer requirements from lowest cost to highest performance.



#### **COMPOSITE JIGS**

Schiebel Composites offers a great variety of jigs to meet the essential stability and weight-saving requirements of the automotive, mechanical engineering or aerospace industry.



#### **COMPOSITE COMPONENTS**

Composites materials are not only used for wellknown aerospace applications like the Airbus A380 or the Boeing 787 Dreamliner, but are also essential for component series production in almost all market segments where applications

Radome for 36 IN by 72 IN Tracking Antenna



call for outstanding properties and qualities. In order to provide an insight into the almost unlimited portfolio of applications, the next page will illustrate two representative fields for composites.



### Applications of composite components in aerospace and racing



18 IN Tracking Antenna Cover

Horn Antenna (Courtesy of Pidso)

Waive Guide Twisted (Courtesy of Pidso)

#### **AEROSPACE APPLICATIONS**

For ecological reasons as well as the increased need for implementing electronic equipment and payloads with significant weight-saving features, the use of composites has become essential in the aerospace industry.

Conductivity and electromagnetic shielding are the two electro-physical properties that can be perfectly covered and protected by composite materials. They offer almost limitless design freedom, as demonstrated in the Twisted Waive Guide.





Manifold Housing

Cart Seat

#### **RACING APPLICATIONS**

Apart from aerospace, the use of composite materials has also been a driving force for technological progress in racing sports. Composites are found in the most demanding applications, ranging from aerodynamic parts like front-wing sections or

**Racing Car, Front-Wing Section** 

monocoques (as highly sophisticated safety cells with excellent energy absorption and dissipation characteristics), up to high-temperature protection around the exhaust system and engine areas.



For further information, orders and delivery please contact us:

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