

Advanced Composite Structures

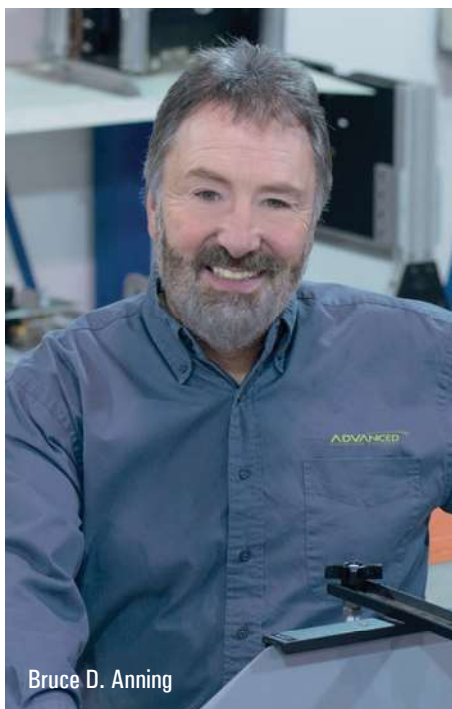
Innovative Solutions for Rotor Blade Repair

Every helicopter, be it military or commercial, operates within a low threshold between normal and mission-critical conditions. That is why it is essential to ensure proper maintenance and repair to keep pilots, passengers, and bystanders safe. While most of the helicopter parts are complex, rotor blades always require special attention. This makes repair of helicopter rotor blades extraordinarily challenging at best, and demands the utmost expertise and knowledge from technicians.

This is where Advanced Composite Structures (ACS) thrives. Driven by the stern belief of fixing problems and not symptoms, the company offers innovative repair solutions, what ACS likes to call “Sound-Solid-Solutions” for rotor blades and composites. This enables owner-operators and military forces to save a significant amount of cost. “We have trained and skilled personnel who hold decades of experience in fixing rotor blades. They prioritize the quality of service and can effectively execute any repair process,” says Bruce D. Anning, Founder and VP of Technical Operations, ACS.

Manufacturers continuously strive to make rotor blades more efficient, enhance their structural performance, and reduce aerodynamic friction. The use of innovative designs and materials such as composites are the only means to effectively achieve this. Subsequently, as a highly specialized service provider it is imperative that as an organization, ACS gains a comprehensive understanding of the various materials, their complex geometries, and relative purpose in order to begin the repair design development process and solve technical uncertainties. The major advantage of having in-house engineering departments established in each of the ACS facilities is to provide all customers with the necessary support to get them back up and flying safely.

Focused on quicker turnaround times (TAT), ACS is committed to meeting clients’ specific requirements and delivering the right technical solutions. A typical client engagement at ACS starts with closely listening to their concerns and analyzing all their needs. The company then moves to designing effective repair solutions that help businesses get back to the air quickly. ACS seamlessly integrates industry leading, multi-dimensional innovations that are used in performing rotor blade repairs as part of their successful business philosophy.



“As opposed to our competitors who look at innovation in a single dimension, we consider it to be multifaceted. This includes improving repair processes, sourcing advanced materials, bringing innovated tool design to the forefront, tracking advancement in manufacturing techniques and embracing technology that effectively adapts to our repair processes accordingly,” says Anning. ACS’s in-house repair-design capabilities, well-organized facilities and specialized processing equipment enables them to provide the highest-quality repair that ensures the longevity of rotor blades and composite components. “We take customers to our repair centers to demonstrate how rigorously and passionately our team works to make their aircraft operational again in no time,” says Anning.

What’s more, ACS continually communicates with clients to obtain insight into common issues and broaden the scope of innovation get to the root of the problem. Recently, the company developed a particular repair design for a Canadian operator that had an aircraft manufactured by a Russian company. Their rotor blades were damaged due to rain erosion, but the client was not able to get support due to the unavailability of repair services for this particular make and model of rotor blade in that region. ACS scrutinized all the aspects of various types of rotors. As a result, they provided the best-fit solution and ensured enhanced protection in the rain erosion environment.

Having the capability of engineering complex repair designs in-house keeps ACS a notch above the rest. As an independent third-party service provider, the company is meeting the aviation regulatory requirements for all makes and models of aircraft. Expanding its reach further, it plans to establish rotor blade repair centers throughout the world and reinvest into existing facilities for plant modernization. “ACS is continually adding to our “dream team” of diverse and highly skilled personnel, some of which are long term employees and some who are just starting their journey with us” Anning said. “This is an exciting time for the ACS Group, we are definitely a company that will be on everybody’s watch list.” **AD**