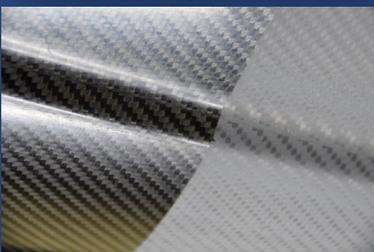


APPLICATION NEWS-

Proven applications for the
Wet Tech process



Video footage of this application is
also available!



Industry: Aerostructures

Application: Etch Preparation for Composite and Alloy Bonding

Description: Blasting parts with abrasive slurry in the *Wet Tech Process*. This creates a clean, even etched finish with usually no media embedded in the surface. Wet Technologies leads the way in developing wet slurry systems used to prepare composites for bonding. High quality anchoring patterns are achieved using the Wet Tech Process. Different composites exhibit special requirements based on weaves, resins, hardness, and matching surfaces. Wet Technologies has developed processes and equipment for high demand composite bonding applications with customers such as **Bell Helicopter, The Boeing Company, The National Institute for Aviation Research, Spirit Aerostructures, Sikorsky Helicopter, GE Aviation, Pratt & Whitney** and others in the aerostructures industry.

Application A: Creating a medium to higher Ra profile “anchor pattern” in carbon fiber, alloy, and other composite structures. Our unique low pressure, high volume and high concentration process allows the use of traditional white, or less costly, more durable BFA abrasive, or very high durability Alumina zirconia, with minimum or no embedment. Grit size from 120 to 320 are typical. Typical structures include main and tail rotor blade skins, U channel floor beams, alloy spars, and complex shapes.

Application B: Aluminum Structures. Light edge deburring combined with even surface etch anchor patterns. Long and short **Aluminum Stringers** can be processed in line, exiting system rinsed, dried, and ready for bonding.

Advantages of the *Wet Tech Process*:

- **Repeatable Process-quality** of the finish can be strictly controlled.
- **Even and repeatable surface etching** with depths and patterns to match the material and prevent water absorption.
- Bond strengths can be increased in excess of 300% compared to traditional dry blast, peel ply, and chemical techniques.
- In addition, bonds between composites and metals such as aluminum and specialty alloys are maximized using the same approach.
- The water slurry cushions the process and can **Eliminate Embedded Abrasive**.
- The **Wet Tech Process** is **Dust Free**— equipment can be installed in clean work cell to closely control Q/A. Risk of **dust fires and dust explosions eliminated!**
- **Blast, Rinse, and Dry** surfaces in **One System**, ready for bonding /autoclave.
- The **Wet Tech Process** is **closed Loop, nothing goes down the drain**, providing closed Loop, filtered and/ or DI water for rinsing and water break inspection.

Bond Prep Equipment: Stainless construction, Manual, Batch Loaded, In-Line, 6 and 7 axis Robotic Systems, depending on production rates and budget. We can perform part testing in our lab, or through our local factory trained distributor.