Refill Friction Stir Spot Welding Success

OEM and SMM Partner to Prove Welding and Strength Capability on Thinner Materials

THE CHALLENGE

- Investigate and develop Refill Friction Stir Spot Welding (rFSSW) of thin 7075 and 2024 materials of thickness not previously investigated, in support of the Apache program

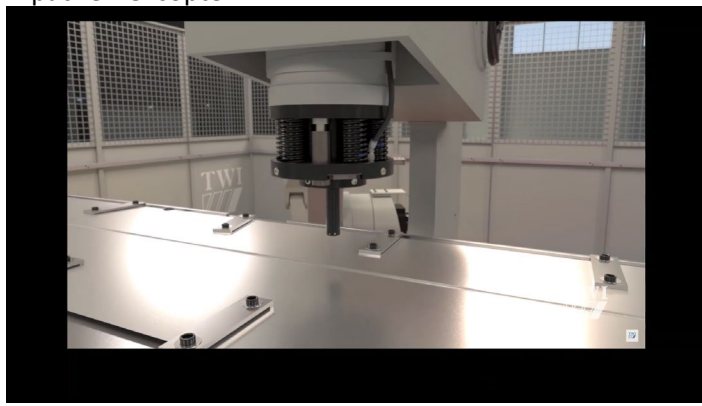
THE LIFT SOLUTION

- Through a LIFT-funded LEAP project, Boeing and Bond performed several sets of welds to demonstrate that this process is feasible for thin sheet metal

THE OUTCOME

- Given the correct parameter set, testing showed that the static strength of these welds can reach more than double the strength of an aluminum rivet in the same materials.
- Boeing is expected to report these findings to the Apache program and will develop a proposal for a full-scale follow-on program.

Apache Helicopter



Refill Friction Stir Spot Welding Process

BOEING

BOND TECHNOLOGIES