

Best Practice for Install Self-Piercing Rivets with Adhesive on Aluminum Panels

- **Review OEM procedures for recommended procedures.**
- **Review Manufacturer's instructions for the application of adhesive (pay close attention to wet/work time).**



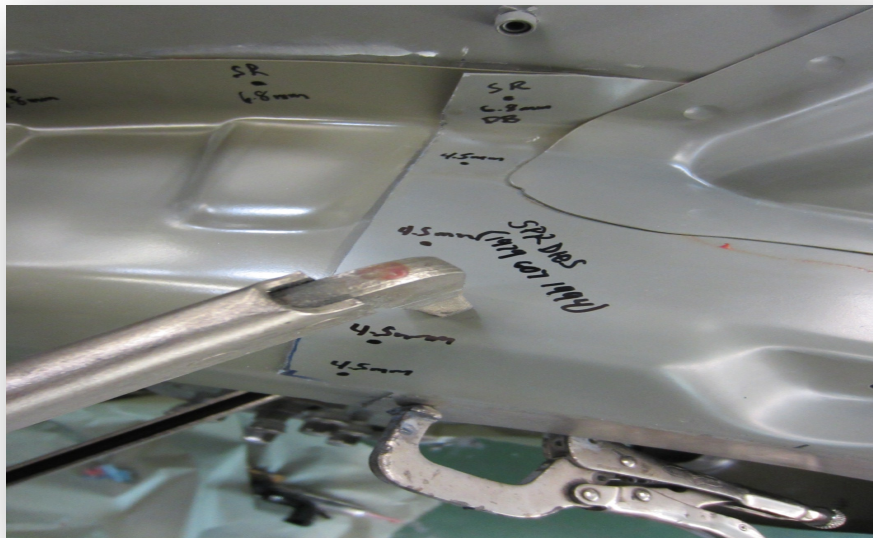
- **Gather all tools and products necessary for the repair.**



- **Get necessary PPE needed for the repair**
- **Measure the thickness of both panels and calculate the correct self-piercing rivet (SPR) for the panels if the correct rivets are not specified in the repair procedures (rule of thumb-total thickness plus 2MM).**



- **Mark the location of the rivets and types as per the OEM repair procedures on the panel(s).**



- **Remove E-coat from matting surfaces with scotch-brite disc or with a DA sander (low speed) with 80 grit or finer. Follow OE recommendations for this process.**
- **Make two test panels from vehicle's damaged part.**
- **Measure the two panels thickness (if adhesive is being used, used it on the test panel---adhesive can add up 1MM more to the overall thickness).**
- **Clamp the panels together.**

- **Use the proper forming die recommended by the OE Manufacturer. If no recommendation, use one the looks similar to the factory installed SPR.**



- **Install the SPR and determine if the proper pressure is for the rivet (see Best Practice for Correct Pressure when installing SPRs). Adjust and retest.**
- **Photograph test panel(s) with date, RO#, & tech's name. Attach to the vehicle's file.**



- **Clean all mating surfaces with a stainless steel brush (to prevent galvanic corrosion) followed by a good wax and grease remover or 99% alcohol.**



- **Read the label on the adhesive to determine the work time, clamp time and cure time again. Note that the times are for 70 degrees fahrenheit. If temp is 90 degrees, work time will be half.**



- **Prepare 2-part adhesive by equalizing the cartridge (make sure both products are coming out equally).**



- **Apply adhesive to both mating surfaces, spread and cover all bare metal and apply another bead (do not spread) for a proper bond line thickness.**



- **Align the panel and clamp.**
- **Measure total thickness and determine that the rivet(s) are the correct length again.**
- **Apply multiple clamps to the panel (do not use the SPR gun and rivet to apply pressure on the flanges) where SPR's will be installed.**

- **Install the SPR's.**



- **Clean up excess adhesive on panel and tools.**