

2024 MRO Americas Aerospace Sealants and Semco[®] Wing Sealing Event featuring PPG ARE (Ambient Reactive Extrusion) Additively Manufactured Seals

Aerospace Maintenance Competition

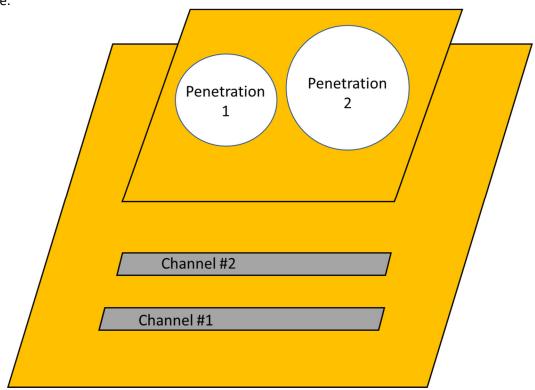
*Glasses and Gloves must be worn at all times during the event.

*Face Mask is optional – use at your own discretion or as directed by your team leader.

*Cleanliness and FOD are important – Clean up after yourself, or your score will be affected!

Summary: In this activity, each participant will be required to apply 2 channel gap seals, and seal 2 circular penetrations. Participants will access the work area from the top of the wing and perform the sealing task. It is critical that each participant review the available materials and tools so that the task can be performed quickly, cleanly, and correctly. Participants will be judged using the standard scoring sheet: evaluated for time, completing the task fully, and using the tools correctly. A penalty will be assigned for not following the rules or safety procedures. A bonus will be given to participants who meet certain conditions and exceed the requirements of the task. **2 Team Members will be required for this task**

Test Fixture:



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Instructions:

- Mix the sealant according to the instructions listed on the outer packaging (bag). The accelerator (curing agent) should be injected in 1/3rd increments, and evenly distributed through the sealant base component.
- 2. Using the dispensing tools and wet sealant, apply a gap seal completely filling Channel #1 of the test fixture. The gap seal should be flat, flush, and uniform with the channel with no excess spill-over and be free of air pockets, blisters or bubbles. Scoring will be based on overall appearance and form of the fillet. Fill Channel #2 using the appropriate ARE gap seal; DO NOT USE wet sealant on Channel #2.
- 3. Seal Penetrations 1 and 2 using the appropriate ARE penetration seal. DO NOT USE wet sealant on the penetrations.
- 4. Disassemble the tools as necessary and return them to the storage locations along with any other unused equipment.
- 5. Let the judges know when you have completed the task, and clean your area of any trash, used tools and leftover materials. Do not leave any materials or FOD inside the wing.

Materials Available:

- 2-Ounce Semkit of PR-2001 B-2 Fuel Tank Sealant (AMS 3277)
- Semco 285-B Battery-Powered Mixer
- Semco 1250 Battery Powered Dispensing Gun
- ARE channel gap and penetration seals, made from cured PR-1440 B-2 Fuel Tank Sealant (AMS-S-8802)
- Miscellaneous equipment (scissors, wipes, gloves, headlamp, inspection mirror, safety glasses)

