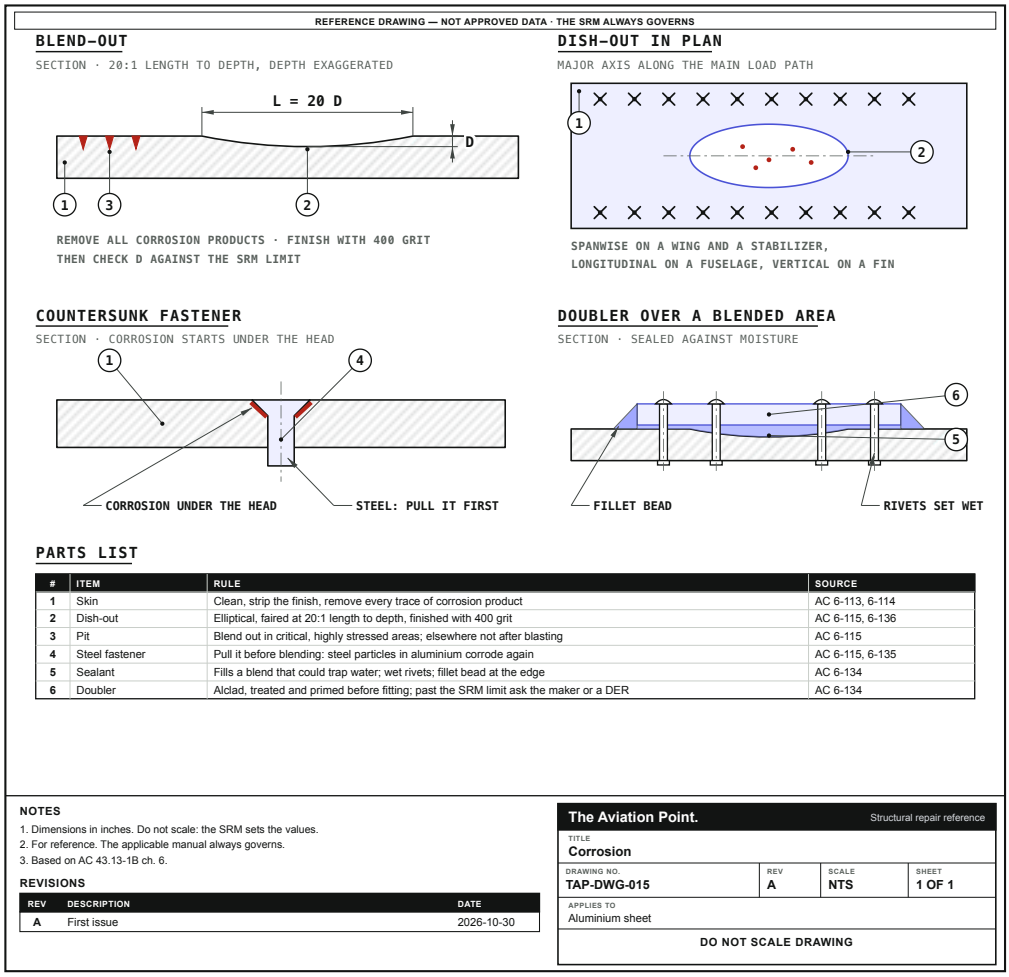
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Corrosion on Aircraft Sheet Metal: Which Type, and How Much to Remove

Types · 20:1 blend-out · steel fasteners · sealed doubler



After AC 43.13-1B paragraphs 6-113 to 6-136. Typical only: the SRM gives the limit for each part. Depth is exaggerated.

Eight types, by how they look

Type	What you see	Remember
General surface	Dulling, then a rough, frosted surface over a wide area	Most common. Heat discoloration is not corrosion (6-12)
Pitting	White or grey powder; tiny pits once it is cleaned off	Can go deep: damage out of proportion to the surface (6-13)
Crevice	At joints, joint edges, under foreign material	A concentration cell, even between identical metals (6-14)
Filiform	Worm-like traces under the paint film	Humidity 78 to 90 %; polyurethane is susceptible (6-16)
Intergranular	Nothing at first: the grain boundaries are attacked	2014 and 7075 if badly heat-treated (6-17)
Exfoliation	Surface grains lifted in layers	Advanced intergranular; mostly extrusions (6-18)
Galvanic	Build-up of corrosion where two different metals meet	Needs an electrolyte (6-19)
Stress corrosion	Cracks under steady or cyclic stress plus a damaging environment	Riveting, bolting, over-torque trap stress (6-20)

Key points

- **Remove all of it.** Past the SRM limit: replace, or ask the maker or a DER.
- **Blend at 20:1** length to depth, long axis along the load, finish 400 grit.
- **Critical areas:** blend out every remaining pit.
- **Pull steel fasteners** before blending aluminium.
- **Doubler:** alclad, treated, primed holes, sealant, rivets wet.

Step by step

1. Identify the metal; clean; strip the finish.
2. Find the extent; document it.
3. Remove by hand; repeat; stronger method if needed.
4. Blend 20:1 up to 400 grit; clean with dry solvent.
5. Check depth against the SRM; treat, seal and finish.

SOURCES · AC 43.13-1B with Change 1 — Acceptable Methods, Techniques, and Practices · FAA-H-8083-31, AMT Handbook — Airframe, Volume 1, Chapter 4

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Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.

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