

Troubleshooting Cheatsheet

Cold weld / lack of fusion

- Symptoms: tall ropey bead, sits on top, poor tie-in
- Fix: increase voltage slightly, increase WFS slightly, reduce travel speed, improve joint prep

Too hot / undercut

- Symptoms: groove at toe, thin edges, warped metal
- Fix: reduce voltage slightly, reduce WFS slightly, increase travel speed, shorten arc length

Spatter

- Symptoms: BBs everywhere, messy bead
- Fix: confirm gas type, polarity, wire condition, ground clamp, shorten stickout, tune voltage/WFS balance

Porosity

- Symptoms: pinholes, bubbles, weak bead
- Fix: increase gas flow, check leaks, shield wind, clean base metal, remove oil/paint/galv

Burn-through (thin metal)

- Fix: lower heat, stitch weld, back-step, use smaller wire, reduce dwell time, add backing if possible

Wire feeding issues

- Symptoms: birdnesting, surging, unstable arc
- Fix: correct drive rolls, correct liner, correct tension, correct contact tip size, clean spool path

Stainless discoloration / oxidation

- Fix: clean prep, correct gas, correct technique, avoid overheating

Aluminum issues (soot / unstable arc)

- Fix: 100% argon, clean oxide, correct liner/feeding setup, correct stickout and push angle