

Tech Talk: The Cause of Wire Feeding Problems

By Bob Page, November 08, 2013



THE CAUSE OF WIRE FEEDING PROBLEMS

Wire feeding issues for the GMAW or FCAW process usually revolve around wire slippage, the wire burning back to the contact tip and/or birdnesting at the drive rolls. If the wire tension is adequate, the common knee jerk reaction of increasing drive roll tension will only make problems worse. In fact, drive roll tension being too tight is often the most common feeding culprit. Below are other common sources of feeding problems:

- 1) **WRONG DRIVE ROLL TYPE:** Use V Groove for solid wire and knurled for fluxcore wires
- 2) **WRONG DRIVE ROLL SIZE:** The correct size is critical
- 3) **CLOGGED GUN LINER:** Liners will get clogged with dirt and wire shavings and should be changed regularly
- 4) **CONTACT TIP HAS A BURR/SPATTER SPOT:** Change the contact tip
- 5) **CONTACT TIP TOO SMALL/LARGE:** Too small is an obvious problem, but if the tip is oversized (Aluminum wire the exception), conductivity is poor, the wire stubs and birdnests at the drive rolls
- 6) **OUTGOING GUIDE TUBE OVERSIZED OR MISSING:** The wire cannot feed into the gun liner without a guide tube and an oversized guide tube allows the wire to wander and birdnest
- 7) **POOR QUALITY WIRE:** Cheap wires have loose lubricant, diameter and chemistry (soft spot) specs and may not feed well
- 8) **POOR WELD PROCEDURE:** If voltage is too low relative to wire feed speed, the wire will stub and may birdnest
- 9) **WIRE REEL SPINDLE IS TOO TIGHT:** Loosen the spindle.



If you would like more information on this or other cost reduction ideas, please contact our **Productivity Enhancement Team** at **303-892-7003**.