WELDING ISSUES & POSSIBLE SOLUTIONS

A Guide to Troubleshooting Common GMAW Gun and Consumable Problems

Making a high-quality MIG weld is no easy task. But making a high-quality MIG weld when your gun and consumables aren't functioning properly is just about impossible. Porosity, excessive spatter, undercut and burn back are just a few of the problems that can occur when something's not right with these components. Troubleshooting weld defects can be a difficult task, since any single problem can be caused by a variety of factors. It is often easier to avoid weld defects from occurring by conducting a thorough check of your MIG gun and consumables prior to welding than it is to troubleshoot an existing issue. Problems will inevitably occur, however, and being able to quickly and accurately identify their source will save you both money and frustration. The following is a guide to solving many of the most common consumables and gun-related problems associated with MIG welding.

Gun running hot

Gun running hot — If your gun is getting too hot, it is most likely because you are either exceeding its rated amperage or duty cycle, or else loose power connections or a degraded power cable are causing excessive resistance in the weld power circuit. If you exceed the gun's duty cycle, you can either decrease the parameters to within the gun's rating, or use a higher rated gun. If loose connections are causing the problem, clean and tighten connections that are in good working condition or replace ones that are worn out. One common symptom of loose power connections or a degraded power cable is a discolored liner. The discoloration is caused by heat and indicates that weld current is being carried through the liner instead of the gun's power cable. Also check to make sure the work lead/grounding connection is tight and free of obstruction. Although it's clear from the above problems that there are many ways that your MIG guns and consumables can lead to poor weld quality, the good news is that most problems usually have simple and inexpensive solutions. By following these recommendations, you will be able to address and resolve the vast majority of the most frequently encountered welding problems. For more information on troubleshooting specific welding problems, contact your nearest welding distributor or the customer service department at the equipment manufacturer.

WeldWire Company, Inc. **103 Queens Drive** **King of Prussia, PA 19406**

Phone: (610) 265-3555 **Toll free: (800) 523-1266** **Fax: (610) 265-7806**