# 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.

## Porosity in weld

Porosity in weld — Porosity, which are holes in the weld bead caused by trapped contaminants and gasses can have many causes. Exposure of the weld puddle to atmospheric air, whether as a result of plugged gas ports, a ruptured gas hose, too much or too little gas flow, or a faulty solenoid, is one of the most common causes of porosity. Ensure proper gas flow before moving on to diagnose other possible causes of porosity. Worn out or damaged parts, including the diffuser, the insulator, o-rings and fittings can all lead to compromised gas coverage. Check each of these components and replace as necessary. Further causes of porosity include excessive wind in the welding environment blowing away the shielding gas, in which case you will need to either move to a less windy site or set up screens to block the wind.

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