

GMAW

By: Gabriel Wertz and Colton Colwell

At a Glance:

- GMAW stands for Gas Metal Arc Welding
- Also called MIG
- MIG stands for Metal Inert Gas
- Semi-automatic arc welding process
- Uses a continuous, consumable wire electrode
- Shielding gas protects the weld during welding



Common Defects:

Common welding defects include cracks, porosity, undercut, slag inclusion, and lack of fusion, which compromise the structural integrity and appearance of a weld. These are often caused by improper techniques, such as incorrect amperage, speed, or shielding gas issues, and can be prevented by ensuring proper cleaning and parameter settings.

How to Prevent Defects:

Preventing welding defects involves cleaning base materials, maintaining proper equipment, using correct parameters (voltage/amperage), and using proper technique. Key prevention strategies include removing contaminants (rust, oil), controlling travel speed, ensuring proper shielding gas coverage, and preheating materials to prevent cracking.

