

WA Technology

Setting Shielding Gas Flow and Reducing Waste Learning Program For Welders

Self Study Learning Program Designed for Welders or welding foreman. It shows the maximum shielding gas flow rates that should be used. It documents what excess shielding gas flow rates pull air into the shielding stream making shielding quality worse not better.

You'll Receive an 8 Module Learning Program That Includes:

- 59 pages of easy to read bullet points and information.
- Notes that help explain the key points for each page.
- Production data showing how weld quality improved with a reduction in weld start surge.
- Examples of gas usage and savings achieved in production.
- **A short Quiz for each Module to test if the concepts and information provided is understood (answers are provided.)**

Module Titles and Outline

Module 1 - Overview and Summary Outline

- Summary of what is covered in each of the Learning Modules

Module 2 - Reasons for Gas Waste

- Average user of MIG welding uses 5 to 6 times as much shielding gas as necessary; references listed.
- Reasons for losses discussed:
- Excess gas surge at weld start creates waste and excess weld spatter
- Excess flow settings
- Leaks



Module 3 - Reasons for Gas Surge at Weld Start

- High Pressure in gas delivery hose creates excess gas surge flow
- Reasons for high gas pressure; it's actually a "Good Thing."

Module 4 - Solution to Excess Start Gas Surge

- Simple solution, GSS
- Reason for surge reduction
- Production examples
- Conventional applications

Module 5 - Why Extra Gas is Needed at Weld Start

- Need for extra gas at start
- Past solutions create other problems
- High pressure needed for automatic flow compensation

Module 6 - Setting Proper Gas Flow Rates (Why more isn't better)

- Flow that creates turbulence –TWI
- Tests to check flow needed to handle drafts
- Production result confirms benefits of surge reduction
- Minimum flow rates

Module 7 - Gas Leaks and Solutions

- Leaks in fittings and Hoses
- Leaks in solenoid and internal fittings
- Leaks in torch gas connections

Module 8 – Additional Issue and Answers

- Gas leaking out means air and moisture are "leaking" in!
- Answers to Questions in each Module

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