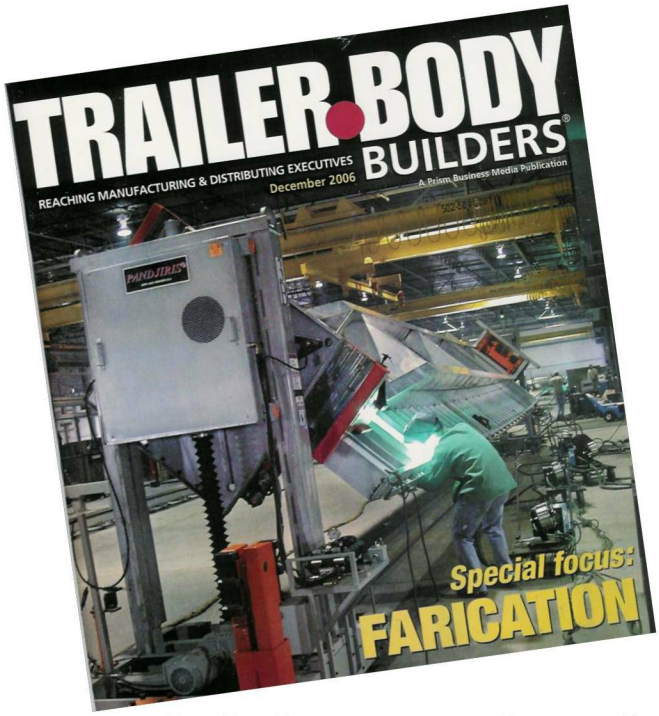
Testimonial About Flow Rate Limiter in Trailer Body Builders



Published Article in December 2006 issue summarizes how Texas Hydraulics saved 35% MIG shielding gas and improved quality with WA Technology's Patent Pending Flow Rate Limiter

Texas fabricator reduces MIG welding shielding gas waste

Welders often use the adage, "If some is good more must be better," when it comes to setting shielding gas flow rates. This not only wastes expensive shielding gas but causes moisture-laden air to be pulled into the shielding gas stream, creating inferior weld quality.

Texas Hydraulics, a manufacturer of hydraulic cylinders, has improved weld quality while simultaneously reducing weld costs by installing flow rate limiters on each of their company's 30 MIG welding stations.

The company installed flow-rate limiters that cap the flow of weld gases so that welding specifications cannot be exceeded.

According to welding engineer Doug Watkins, Texas Hydraulics welders were able to adjust the shielding gas control flowmeters at any time to a flow rate beyond the range of their welding procedure specification (WPS). Some flowmeters were found set with the flow measurement ball pinned to the top of the flow tube.

"We have found with our flowmeters that can mean a flow rate of 100 CFH or higher was being used," Watkins says. "In addition to the shielding gas waste, any flow setting beyond about 50 CFH with our wire stick-out pulls air into a turbulent gas shield. That air creates weld spatter and possibly internal (or even external) weld porosity."

The maximum flow rate is now set at 40 CFH and this maximum setting is locked-in. After an initial gas use audit, the calculated shielding gas savings was measured at 25%. With follow up audits the actual savings exceeds 35%.

Finding the rotameter float ball pinned to the top of a flowmeter tube is an all too common occurrence in the welding industry according to Jerry Uttrachi, president of WA Technology, manufacturer of the locking device. "Welders often believe they are improving the situation by using more shielding gas. They may be trying to counter drafts in the shop. However the opposite is true. With the typical size MIG torch gas nozzle, shielding gas flows set above 55 CFH create a turbulent shielding gas stream."

For drafts above five miles per hour air flow, a wind block of some type must be employed, Uttachi says.

"Even a small sheet metal dam can protect the shielding gas stream," he says. "Higher shielding gas flows can not solve the problem."

The Flow Rate Limiter lock that Texas Hydraulics installed fits most flowmeters used in the welding industry. The existing flowmeter should be set to the desired maximum setting, and then the locking device is installed over the flow control knob. A blocking pin and small brass lock are then slipped in place preventing access to the set screw. Nothing is altered on the flowmeter itself.

More information is available at www.NetWelding.com.

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