

# WA Technology

## Excessive Flow Rates Waste Gas and Cause Turbulent Shielding.

### THE PROBLEM:

Excessive flow rates waste gas and cause turbulent shielding. Turbulent flow pulls air into the MIG gas shield creating excess weld spatter and inferior weld quality. Flow rates causing turbulent shielding can be as low as about 40 CFH depending on nozzle size!



### A CONTRIBUTOR TO EXCESS FLOW

Typical flowmeters (photo above) incorporate a needle valve to control gas flow rates. A wide flow adjustment range is possible. Unfortunately welders often use the adage that; "If some is good more must be better," when setting gas flow rates. This not only wastes gas but creates a turbulent shielding gas stream allowing air to mix with the shielding gas and enter the arc.

### FLOW RATE LIMITER

The patent pending **WA Technology Flow Rate Limiter (FRL)** has a billet aluminum body with a permanently affixed stainless steel *PIN*. When clamped to the flow control knob, the *PIN* contacts the flowmeter body

limiting the amount it can be turned. Controlling the counterclockwise movement restricts the maximum flow. When installed, the **FRL** can be set to the maximum flow desired then turned to a lower level. The amount it can be decreased depends on the specific flowmeter model and can range from having the ability to lock the flow to one setting to a range of 25 CFH. [See Web Site noted at bottom of sheet.](#)

To assure the settings are not altered, a *Flow Limiting Lock* is available. It consists of a stainless steel *Blocking Bar* that slips into holes in the **FRL** and prevents access to the set screw. The small solid brass *Lock* provided is inserted into a hole in the *Blocking Bar* to prevent its removal.

### USING THE FLOW RATE LIMITER

To Use the "Flow Rate Limiter" Simply:

1. Set maximum flow rate desired.
2. Slip "Flow Rate Limiter" over control knob so Pin limits increases.
3. Tighten set screw.
4. Locking system blocks set screw access.

### BOTTOM LINE

The **WA Technology Flow Rate Limiter** is simple to use and fits most flowmeters employed on gas pipelines and regulator/flowmeters used on cylinder gas supply. The system can be purchased with or without the locking device depending on the specific need.

Flow rates can be controlled within the limits defined in Welding Procedure Specifications (WPS's). Payback can be measured in weeks from gas savings with improved weld quality a bonus.

A perfect complement to the *Flow Rate Limiter* is the **WA Technology Gas Saver System** that reduces the gas surge at the weld start that typically contributes to a gas waste of from 25 to 60%. Combine both products for a significant reduction in shielding gas use and improved weld starts and overall quality. [See Web Site.](#)

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Flow Rate Limiter is Patent Pending;  
Gas Saver Systems covered by one of the following US Patents;  
# 6,610,957; # 7,015,412 or # 7,019,248  
[www.NetWelding.com](http://www.NetWelding.com)  
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