

Automatic ID Purge Control

For the Swagelok® M200 Power Supply

The patent-pending automatic purge control for the Swagelok M200 power supply provides a complete and fully automated inside diameter (ID) purge system, for a consistent, repeatable weld bead. When this option is combined with the standard integrated mass flow controller (MFC) of the M200 for outside diameter (OD) shield gas, it provides a complete, automated system for purge control.

Features

- Dynamically changes purge flow to maintain proper ID pressure at the weld joint.
- Replaces multiple purge components and their manual adjustment process with an automatic, fast-reacting system.
- Easily identifies misaligned weld joints by monitoring purge gas flow.
- Prevents the weld sequence from initiating without proper pressure or flow levels.
- Reduces setup or changeover time.
- Reduces system installation costs by minimizing weld rework and controlling purge gas use.

Specifications

- Maximum flow: 80 ft³/h (37.7 L/min)
- Maximum inlet pressure: 100 psig (6.8 bar)
- Regulated gas supply required
- Pressure range: 0 to 10 in.H₂O (25 mbar)
- Tested tube OD range: 1/4 to 1 1/4 in.; 6 to 32 mm; other sizes may be possible.
- Tested ID purge path length: 15 ft (4.5 m); other lengths may be possible.

Operation

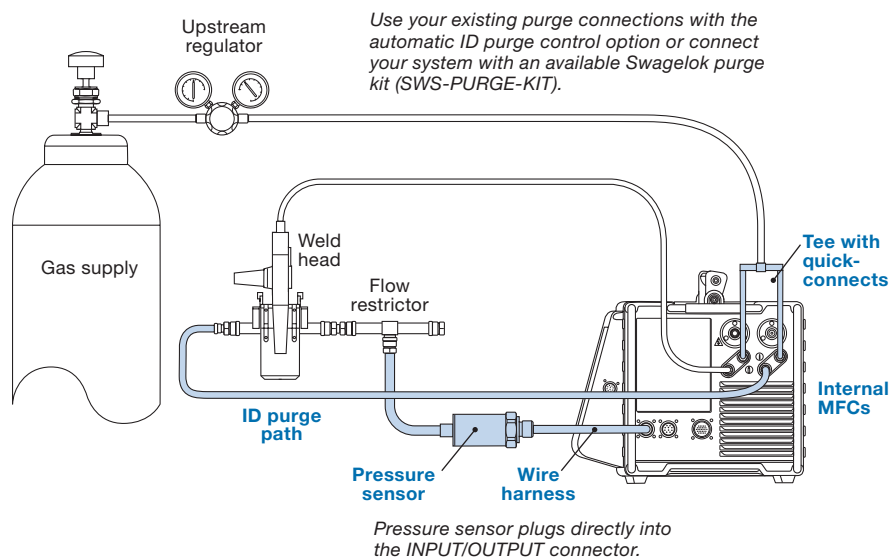
Establish initial purge settings through automatic weld procedure generation or via simple key entry. The highly responsive mass flow controller inside the M200 and the external pressure sensor provide more accurate, consistent purge gas control than manual processes.

Real-time monitoring and recording of all purge operations are added to the M200 weld log detail. Allowable parameters can be set and warnings displayed when unexpected conditions are present, adding to the system's quality control capabilities.



The automatic ID purge control option can be ordered with your initial M200 power supply purchase or integrated into an existing M200.

For more information about the M200 power supply, see the *Swagelok Welding System M200 Power Supply* catalog, MS-02-342.



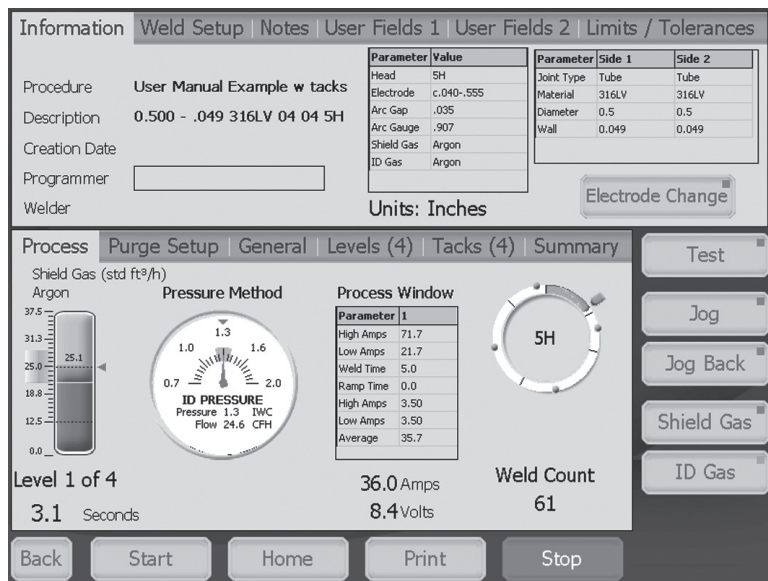
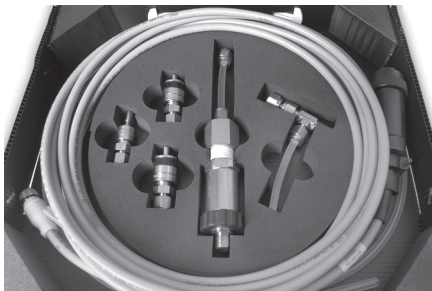
Typical Automatic ID Purge Control System Configuration

Included system components shown in **blue**.
See next page for complete system components.

Automatic ID Purge System

Components Integrated into the M200 Power Supply

- Mass flow controller for ID purge gas supply
- Set of Swagelok keyed quick-connects for ID connections
- Pressure gauge
- Software upgrade enabling automated purge system controls



Main Weld Screen of M200 Power Supply with Automatic ID Purge Control Option

Automatic ID Purge Kit

- Tube Sense Subassembly with fittings (SWS-M200-IDP-SENS-SA)
- Pressure Sensor (K-SWS-M200-IDP-SENS-A)
- Shielded wire harness 19.7 ft (6 m) in length with integral connectors (SWS-M200-IDP-SENS-WR)
- PFA tubing 15 ft (4.5 m) in length
- Swagelok tee and multiple quick-connects to connect both ID and OD gas from single source
- Instructions and carrying case

Ordering Information

To order the Swagelok M200 power supply with automatic purge control, insert **-IDP** into an ordering number from the *Swagelok Welding System M200 Power Supply* catalog, MS-02-342.

Example: SWS-M200-**IDP**-11-E

For Canada orders, add **-CSA** to the ordering number.

Example: SWS-M200-IDP-11-E-**CSA**

To add automatic purge control to your existing M200 power supply, contact your authorized Swagelok sales and service representative to schedule service and request modification SWS-M200-IDP-KIT.

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

⚠ WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.