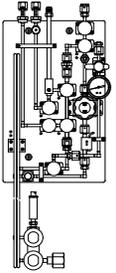


## A-208/218 RPV

**Automatic, Process Gas Panel  
With Regulator and Reduced Purge Volume(RPV)**



### DESCRIPTION

The A-208/218 RPV automatic gas panel is designed for pressurized HPM process gas applications that require automated vacuum assisted purging. RPV panels feature a unique Reduced Purge Volume (RPV) assembly which eliminates the need to purge the entire process gas pigtail during the cylinder change procedure and provides purging directly to the cylinder valve connection. RPV panels are available in a modular VCR configuration for design flexibility and maintenance, or an "all welded" design which minimizes total internal volume while maximizing leak integrity. All termination fittings are VCR™ type. RPV systems utilize MicroPurge P or M series of automatic purge controllers for all automatic system functions, such as automatic purging, auto-switching, monitoring, and alarm annunciation.

### FEATURES

- **Components:** All valves and regulators are made of 316L VAR stainless steel. Standard valves used are springless diaphragm type with low internal volume. Regulator is the tied-diaphragm type with low internal volume and minimum porting. The panel components are surface mounted on a back panel for maximum visibility and accessibility.
- **RPV Assembly:** Dual valve block assembly which isolates the process gas pigtail and components during purging. This minimizes the volume common to both purge and process gases to less than 2 cc while increasing the purge efficiency and expediting the purge procedure.
- **Check Valves:** Hermetically sealed diaphragm type check valves are used to prevent unwanted back streaming of process gas into the nitrogen source. Check valves are installed on the venturi supply inlet, purge supply inlet, and downstream of the low pressure vent valve.
- **Relief Valve:** Pressure relief valve is used to relieve excessive high pressure process gas safely through the regulator into the vent in the event of a regulator failure. This relief valve is the springless diaphragm type and is located directly in the vent line.
- **Pigtail Purge Gas Bleed:** A continuous pigtail purge at low flow rates is accomplished by an orifice valve during the cylinder change to prevent atmospheric contamination from entering the pigtail. The bleed is automatically checked by the MicroPurge™ controller for proper operation before the process gas cylinder is removed and after re-connection.
- **Pneumatic Pressure Indicators:** 'Winks' are utilized on each valve to give a visual indication that pneumatic pressure is being applied to the valves during operation, and that the electro-pneumatic solenoid is activating.
- **Pressure Transducers:** Monitors all purging functions and to give access to cylinder and delivery pressure data. These transducers reduce or eliminate the dead space associated with conventional bourdon tube gauges. Removable electronics facilitates servicing without breaching the panel integrity.
- **Vacuum Generator:** The vacuum generator is of all welded construction and surface mounted directly on to the panel. Supplied as a standard feature on all of the A series gas panels. With 85 psig nitrogen, the vacuum generator achieves a vacuum of 24-28 inches of Mercury (100-200 torr).
- **Excess Flow Sensor:** Monitors excessive flow conditions due to component failure on the process gas panel or process gas line failure downstream of the gas panel. The excess flow sensor is typically mounted on the gas panel between the cylinder and the regulator.