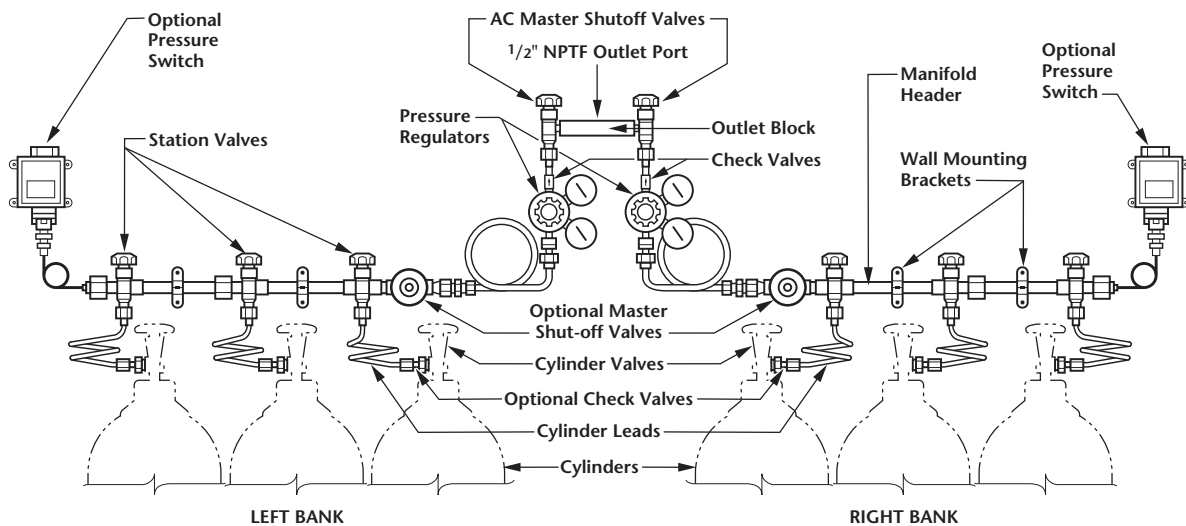


AC Series

Semi-Automatic Changeover Systems

AC Series changeover systems are used to connect two or more cylinders together for uninterrupted gas flow. These semi-automatic, wall-mounted manifold systems are available in either Brass or Type 316 Stainless Steel construction and are supplied with the appropriate wall mounting brackets.

The system uses two high purity diffusion resistant regulators (one connected to each bank) which act as a changeover device. Delivery pressure of regulator No. 1 is set 10–15 psi higher than regulator No. 2. This causes regulator No. 1 to flow gas while holding regulator No. 2 closed. When the gas in bank No. 1 is exhausted, regulator No. 2 will begin to flow gas. Inlet pressure gauges on the regulators indicate pressure in each manifold bank. When gas in the first cylinder bank has been exhausted and a changeover has occurred, the empty cylinders are replaced and the delivery pressure settings of the regulators are readjusted. This will cause a reverse changeover when bank No. 2 is exhausted. Because delivery pressure drops slightly when a changeover occurs, a line regulator should be installed downstream to eliminate pressure variations.



Standard Features

- Modular Construction allows field installation of additional stations without welding or soldering.
- Diffusion Resistant, Diaphragm Seal Station Valves (on four cylinder or larger systems) ensure that gas purity is maintained and allow for isolation of individual cylinders on the manifold without interrupting gas flow.
- High Purity, Diffusion Resistant Regulators minimize diffusion of air into the system, maintaining gas purity. Brass changeover systems include two Model HPD Regulators (page 26). Stainless steel changeover systems include two Model APC Regulators (page 28). Other regulators may be substituted for unique requirements, such as high delivery pressures or high flow rates. Contact your Advanced Representative for more information.

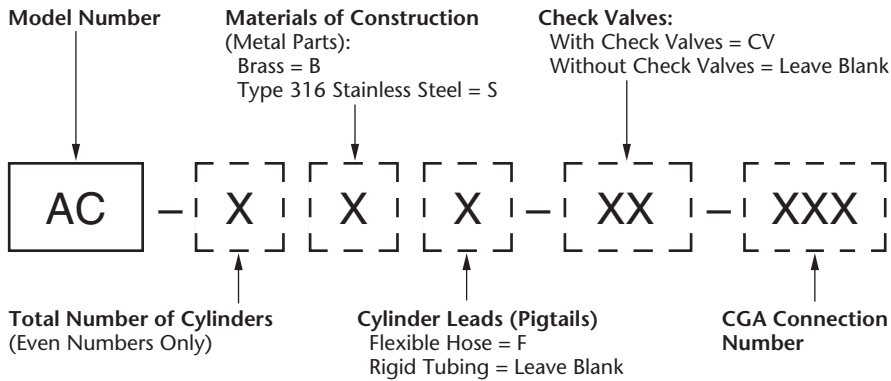
Optional Features

- Manifold Master Shut-off Valves allow a manifold bank to be isolated from a changeover regulator.
- Double-Braided (All Metal) 3' Stainless Steel Flexible Hose Pigtails with Stainless Steel CGA connections extend service life and provide ease of connecting cylinders.
- Check Valves prevent discharge of gas from manifold and pigtails when changing cylinders (required for flammable gases).
- Pressure Switches monitor line pressure and can activate an external alarm (see pages 103–104) when a certain predetermined pressure is reached (see page 100).

Specifications

- Manifolds:
- Maximum Inlet Pressure: 3000 psig
 - Delivery Pressure Range: 50–150 psig (For higher delivery pressures, contact your Advanced Representative)
 - Flow Coefficient (each station valve):
 - Brass Manifolds: $C_v = 0.25$
 - Stn. Stl. Manifolds: $C_v = 0.30$
 - Inlet Connections:
 - CGA connection as specified
 - Outlet Connection: 1/2" NPT female
- Regulators:
- Brass Systems: HPD-3-150 (page 26)
 - Stn. Stl. Systems: APC-3-150 (page 28)
- Optional Pressure Switch: (see page 100)
- Optional Master Shut-off Valve: SG5475 Series (page 137)

Part Number Key for AC Series Manifolds



Materials of Construction

Manifolds:

Metal Parts: Brass or Type 316 Stainless Steel as specified

Seals: PTFE

Seats:

Check Valves:

Brass Rigid Pigtails: EPDM;

SS Flexible & Rigid Pigtails: Viton®

Station Valves: PCTFE

Regulators:

Brass Systems: Model HPD (page 26)

Stn. Stl. Systems: Model APC (page 28)

Optional Pressure Switch: (page 100)

Optional Master Shut-off Valve:

SG5475 Series (page 137)

Ordering Information

To order a semi-automatic changeover manifold system, complete the part number using the "Part Number Key" above. For example, to order a 6 cylinder, brass changeover system, with flexible pigtails, without check valves, and with CGA 350 connections, the part number would be AC-6BF-350. Order by complete part number.

Note: Two cylinder semi-automatic manifolds do not include manifold headers. Cylinders are connected directly to the regulator inlet pigtails (cylinder leads).

Manifolds for Acetylene Service require flashback arrestors (SG6545). All manifolds ordered with CGA 510 will be shipped with flashback arrestors installed on each pigtail, unless the order specifies with which gas it will be used.

Warning: Advanced does not recommend the use of stainless steel manifolds for Oxygen service and will not provide such manifolds with CGA 540 connections.

Optional Equipment and Replacement Parts

Equipment and Replacement Parts	Part No.
Manifold Master Shut-off Valve – Installed (2 required)	
Brass	Not Available
Stainless Steel	SG5475i
Pressure Switches	See page 100
Annunciators	See page 103
Flashback Arrestor (Required for Acetylene Service—one per cylinder)	SG6545
PTFE O-Ring Kits (package of 25 ea.)	
For connection between pigtail and station valve	SG6081
For header connection on	
Brass Manifolds	SG6082B
Stainless Steel Manifolds	SG6082S
Replacement Pigtails, Rigid Type	
Brass without Check Valves	SG6640-(CGA)
Brass with Check Valves	SG6641-(CGA)
Stainless Steel without Check Valves	SG6642-(CGA)
Stainless Steel with Check Valves	SG6643-(CGA)
Replacement Pigtails, Flexible Type	
Without Check Valves	SG6638-(CGA)
With Check Valves	SG6639-(CGA)
Replacement Station Valve	
Brass	0202-5083A
Stainless Steel	Not Available
Repair Kit for Station Valve	
For Brass Valves	0202-3079A
For Stainless Steel Valves	0202-3076A
Additional Stations—For adding stations to the following existing manifolds (specify left or right bank when ordering)	
Brass System with Rigid Pigtails without Check Valves	SG6660-(CGA)
Brass System with Rigid Pigtails with Check Valves	SG6661-(CGA)
Brass System with Flexible Pigtails without Check Valves	SG6662-(CGA)
Brass System with Flexible Pigtails with Check Valves	SG6663-(CGA)
Stn. Stl. System with Rigid Pigtails without Check Valves	SG6664-(CGA)
Stn. Stl. System with Rigid Pigtails with Check Valves	SG6665-(CGA)
Stn. Stl. System with Flexible Pigtails without Check Valves	SG6666-(CGA)
Stn. Stl. System with Flexible Pigtails with Check Valves	SG6667-(CGA)

Where "(CGA)" is indicated above, insert proper Compressed Gas Association connection number to complete the part number. Example: SG6667-580. Order by complete part number.