

BIP™ Cylinder Automatic Changeover Panels

Continuous Supply, No Loss in Purity

The high-purity BIP cylinder automatic changeover panel is specifically designed for use with Air Products' new BIP gas cylinders. The panel ensures an uninterrupted supply of gas while maintaining guaranteed purity specifications of less than 10 parts per billion (ppb) oxygen and less than 20 ppb moisture.

The system consists of two identical regulators, one delivering gas at a slightly higher pressure than its twin. When the service cylinder is empty, the unit automatically withdraws gas from the reserve cylinder, thus eliminating the need to shut down the system to replace empty cylinders.

The panel's pressure gauges immediately indicate which cylinder is in use.

Made of brass, the panel's high-purity design makes it ideally suited for chromatography and laboratory gas applications. The system includes a special purge assembly located at the end of two pigtails. The purge system minimizes atmospheric contamination that occurs during cylinder changeout and facilitates easy purging to maintain gas purity.

During manufacture, the units are purged for 8 hours with heated, purified gas to remove moisture and oxygen. The changeover systems are then sealed and shipped under pressure to prevent contamination.

All panels are provided with mounting panel, pigtails, isolation valves, and outlet shutoff valve.

Note that the BIP cylinder automatic changeover panels are not intended to have user-adjustable outlet pressure. The delivery pressure is 100 psig. For final pressure control, select a high-purity line regulator.

Also, alarm systems to indicate that cylinder changeover has occurred can be factory installed.



Design Features	Benefits
Automatic switchover	Provides uninterrupted high-purity gas supply.
Control knob	Permits safe removal of the empty cylinder while another cylinder is in use.
Convolute stainless steel diaphragms	Provide superior leak integrity without contamination from nonmetallic liner or seal.
Diaphragm packless isolation valves	Allow for positive shutoff during cylinder changeout.
Wall mount panel	Affords easy on-site installation.
Diaphragm packless purge valves	Allow for purging pigtails, eliminating atmospheric contaminants.
Integral check valves in the cylinder connectors	Virtually eliminate atmospheric contamination that occurs during cylinder changeout.

Typical Applications
TOC analyzer gases
Gas and liquid chromatography
Laser gas systems
Semiconductor process gases
Ultra-high-purity carrier gases
Controlled atmospheres

Specifications	
Maximum Rated Inlet Pressure	3,000 psig
Outlet Pressure Range	100 psig
Maximum Flow Rate	200 scfh of air @ 100 psig
Materials	Body – nickel-plated brass Bonnet – nickel-plated brass Seat – PCTFE Diaphragm – 316L stainless steel Gauges – 2" brass or stainless steel Filter – 40 micron stainless steel screen
Ambient Operating Temperature	-40°F to +150°F
Maximum Leak Rate	2 x 10 ⁻⁸ ccs helium
Weight	11 lbs.
Outlet	1/4" compression tube fitting

Ordering Information						
Product Number	Material	No. Cyl.	Max Outlet Pressure (psig)	Capacity (scfh @ Maximum Del. Pressure)	Inlet Gauge Range (psig)	Delivery Gauge Range (psig)
E11-BCP120 (CGA)	Brass	2	100	200	0-4000	0-300
E11-BCP140 (CGA)	Brass	4	100	200	0-4000	0-300

For More Information
www.airproducts.com/bip

United States

Air Products and Chemicals, Inc.
 7201 Hamilton Boulevard
 Allentown, PA 18195-1501
 Phone: 1-800-654-4567 (press 3)
 Fax: 1-800-880-5204

International

Air Products and Chemicals, Inc.
 7201 Hamilton Boulevard
 Allentown, PA 18195-1501
 Phone: 1-610-481-0549
 Fax: 1-610-481-3855

Canada

Air Products Canada, Ltd.
 2090 Steeles Avenue East
 Brampton, Ontario L6T 1A7
 Phone: 1-888-SPEC-GAS
 Fax: 1-888-FAX-APCL