

SCOTT™ 8404 ChangeOver System

Continuous gas delivery improves operating efficiency in high-purity applications



The SCOTT™ 8404 Series ChangeOver System combines diffusion-resistant regulators and diaphragm-sealed valves to create a compact gas delivery system in a panel-mounted enclosure. It provides continuous gas flow from two separate sources (cylinders or banks) to your application. When one source empties, the changeover system automatically draws from the second source. The first source can then be changed without interruption to the outlet pressure.

The 8404 includes high-pressure inlet and vent valves, allowing for isolation and complete removal of entrapped air and moisture from startup, or after a cylinder changeout. Auxiliary access ports provide versatility to change location of high-pressure inlet ports or to add additional pigtailed creating up to a four-cylinder changeover without the added cost of header manifolds.

Benefits and Features

- Eliminates costly downtime by providing constant, uninterrupted flow of high-purity gases
- Prevents gas outages and wasted gas due to premature cylinder changeout
- Optimizes system purity by allowing line purging and cleaning before adding a new cylinder
- Reduces operating costs by facilitating scheduled cylinder changeouts
- Safe purge vent in rear of panel protects operators
- Cleaned for oxygen service
- Optional pressure switch and annunciator alert operator when changeover has occurred



Specifications

Inlet Pressure:

3000 psi (207 bar) maximum

Switchover Pressure:

220 psi (15 bar)

Differential Pressure:

50 psig (4 bar) per regulator maximum

Delivery Pressure Range:

10–100 psig (0.7–7 bar) or
10–200 psig (0.7–14 bar)

Operating Temperature Range:

-40°F to 165°F (-40°C to 74°C)

Flow Capacity: 240 SCFH (N₂)

Flow Coefficient: Cv=0.06

Gauge: 2.5" face (67 mm)

Weight: 20 lbs. (9 kg)

Materials of Construction

Bodies: Brass or 316L Stainless Steel

Diaphragms: 316 Stainless Steel

Gauges: Brass or stainless steel

Seats: Teflon®

Nonwetted Panel: Powder-coated steel

Bonnets: Brass or stainless steel

Pigtails: 36" flexible stainless steel with brass or 316L CGA fittings as appropriate

Applications

- Refineries
- Emission analysis
- Laboratories
- Gas chromatography
- Test cells
- Back-up systems for compressor, generators and other plant air sources
- High-volume gas manufacturing facilities
- Research and development
- Orthopedic gas powered devices

Our changeover is available pre-wired with pressure switch gauges and a quick-connect automatic alarm for convenient wall mount installation. Visual and audible alarms alert when a changeover has occurred. The annunciator may be located next to the changeover or remotely. When purchased for local annunciator installation, a 3' quick-connect cable is supplied.



Model 8404 shown with optional 2-pt. annunciator.

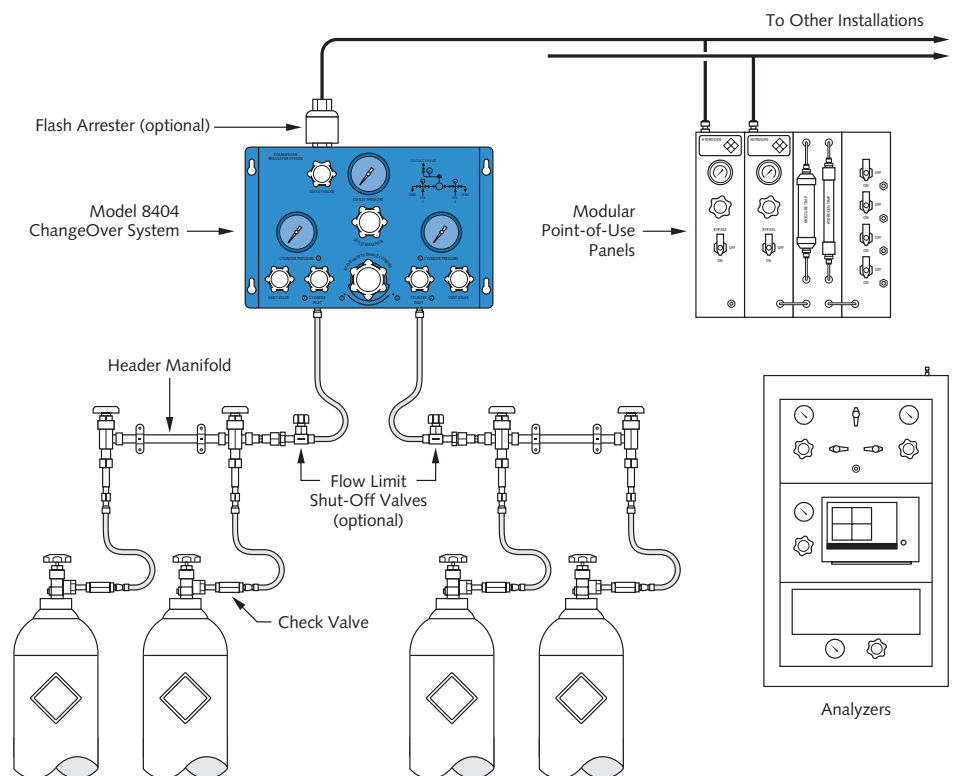
This configuration is not recommended for flammable gas service.

Contact your local Air Liquide representative for an explosion-proof alternative.

How it Works

When the primary bank is exhausted, the 8404 changeover automatically switches to the secondary supply. Since the primary supply is set 50 psig (3.5 bar) higher than the secondary, a fluctuation in gas pressure results. The 8404 features a built-in line regulator to eliminate this fluctuation, ensuring constant delivery pressure to the application. The outlet regulator can be set to maintain the desired delivery pressure even during changeover.

During cylinder changeout, the "In Service" arrow should be rotated 180°, indicating the secondary supply has become the primary. This resets the pressure differential to 50 psig (3.5 bar) for this source.



SCOTT™ Changeover Regulator System

Ordering Information

	Model Number	Delivery Pressure Range		Delivery Pressure Gauge		Inlet Pressure Gauge	
		psig	bar	psig	bar	psig	bar
Brass	Q8404BR1-(*)	10–100	0.7–7	0–200	0–14	0–4000	0–276
	Q8404BR2-(*)	10–200	0.7–14	0–400	0–28	0–4000	0–276
Stainless Steel	Q8404SR1-(*)	10–100	0.7–7	0–200	0–14	0–4000	0–276
	Q8404SR2-(*)	10–200	0.7–14	0–400	0–28	0–4000	0–276
Sample	Q8404BR1-(*)-(**) (*) Insert appropriate CGA code from CGA Connections table. (**) Add optional equipment suffix code(s) from Optional Equipment table.						

CGA Connections

Gas Service	CGA	Code
Air	590	A5
Argon, helium, nitrogen	580	N2
Carbon dioxide	320	CD
Carbon monoxide, hydrogen, methane	350*	H2
Oxygen	540	O2

Note: Contact your Air Liquide representative for other available connections.

* If your system requires CGA 350 (flammable), an explosion-proof switch should be used. Contact your Air Liquide representative for more information.

Optional Equipment

Accessories	Code
Flash arrester	G
Flow limit shutoff valves	H
Pressure relief valve	J
Pressure switch	P
Check valves* (2 required — one for each pigtail)	V
Annunciator with indicating pressure switch gauges	A

* Check valves are required on flammable gas systems.



Air Liquide Equipment Group

Preserving Gas Integrity and Safety

If you use compressed pure gases or gas mixtures, you need reliable equipment to deliver gas from high-pressure cylinders to your point-of-use. Choosing the wrong equipment can not only adversely affect your application, it can also pose a serious threat to the safety of your personnel.

Regardless of your application and the type of gas you use, we can help you optimize your application by recommending equipment that will preserve gas purity and integrity, and deliver it safely to your point-of-use. Efficiency, performance and long, accurate service life are hallmarks of SCOTT™ brand equipment. We can also suggest steps to avoid problems with your gas distribution as well as equipment that can help reduce maintenance costs.

Next day shipping on most equipment items

From pressure regulators and automatic changeover manifolds to the smallest fittings and gaskets, we carry everything you need to safely use corrosive, noncorrosive and other compressed gases requiring special handling.

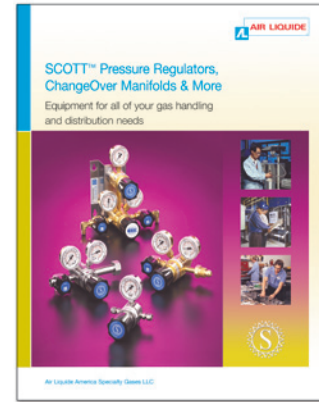
Most SCOTT equipment items are in stock and available for next day shipping.

Call us toll-free at 800.217.2688.

Our inventory includes:

- Pressure regulators
- Manifolds
- Changeover systems
- Point-of-use panels
- Flowmeters
- Cylinder containment
- Cylinder management telemetry systems
- Valves and fittings
- Miscellaneous safety accessories

Download our mini equipment catalog at www.ALSpecialtygases.com



i-SEE Gas Handling

Safety and Efficiency

Not sure if your gas distribution system is up to code? One of our equipment safety experts will visit your site for a no-obligation audit of your system. We'll identify any safety or efficiency concerns, and make recommendations how you can most effectively solve the situation.

Visit our website to learn more about i-SEE safety and efficiency audits for your specialty gas distribution system.



Founded in 1902, Air Liquide is a world leader in industrial and medical specialty gases and related services, providing innovative solutions for the manufacture of everyday products and for the protection of life.

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