

ChangeOver System

Continuous Gas & Fluid Management



Parker Hannifin Corporation's Veriflo Division presents the ChangeOver System. The COS is a compact turnkey module designed for continuous gas and fluid management.

The ChangeOver System combines the IR4000 Series pressure reducing regulator with the NOVA Series diaphragm valves to create a compact gas delivery system for continuous gas or fluid applications.

This unique device directs the flow of gas from two separate sources to the user's application. When one source empties, the ChangeOver System automatically draws from the second source. The first source can then be changed without flow interruption.



materials of construction

Wetted

Body Nickel Plated Brass
or 316L Stainless Steel
Seats PCTFE
Back up O-ring Viton®
Valve Seat Metal to Metal
Regulator Diaphragm Hastelloy C-22®
Valve Diaphragm Elgiloy® or equivalent
Poppet Elgiloy®
Poppet spring Inconel®
Carrier Stainless Steel®
Compression Member Inconel®

Non-Wetted

Regulator Cap Nickel Plated Brass
or 303 Stainless Steel
Panel Aluminum or 304 Stainless Steel
Knobs (Black) ABS Plastic

operating conditions

Maximum inlet pressure 3,500 psig
(207 barg) maximum
Outlet pressure up to 250 psig
(17 barg) maximum

Temperature -40°F to 150°F (-40°C to 66°C)

functional performance

Design proof pressure 4,500 psig (310 barg)
Design burst pressure 9,000 psig (620 barg)

Flow capacity $C_v = .06^{**}$
(SEMI Flow Coefficient Test# F-32-0998)

Supply pressure effect 0.4 psig per 100 psig
(.03 per 7 barg)

standard configurations

1/4" female pipe threads (Stainless Steel, Brass)
1/4" compression fitting (Stainless Steel, Brass)
Welded fittings (Stainless Steel Only)

approximate weight

8.5 lbs. 3.86 (kg)

* Proprietary Carpenter Stainless Steel with corrosion resistance equal or better than 316.

** Consult factory for additional information regarding flow capacity.



ChangeOver System

Features

Prevents unnecessary downtime by providing continuous uninterrupted gas flow.

Convolute diaphragm provides outlet pressure stability with changes in flow.

Integral diaphragm stop provides excellent leak integrity.

Valve controlled high pressure purge allows user to clean or purge lines before adding a new cylinder.

Quick changeover control enhances safety by minimizing exposure to toxic and flammable media.

Designed for easy change of sources while in operation.

Separate gauges to monitor both inlet sources.

Available in Nickel Plated Brass or 316L Stainless Steel.

Alarm sensor port for systems integration allowing user to monitor gas consumption.

Optional outlet regulator maintains constant outlet pressure.

All Stainless Steel panel and trim design available.

Especially suited for continuous on-stream analyzers.

Applications

Specialty Gases

All Specialty Gases used for Process and Purging Applications

Industrial / Analyzer

Refineries

Laboratories

Research and Development

Emission Analysis

Test Cells

Back-up System for Compressors, Generators or Other Plant Air Sources

Gas and Liquid Chromatography

High Volume Gas Manufacturing Facilities

Laser Gas Systems

ChangeOver System Flow Rates

(Based on 400 psig Cylinder Change)

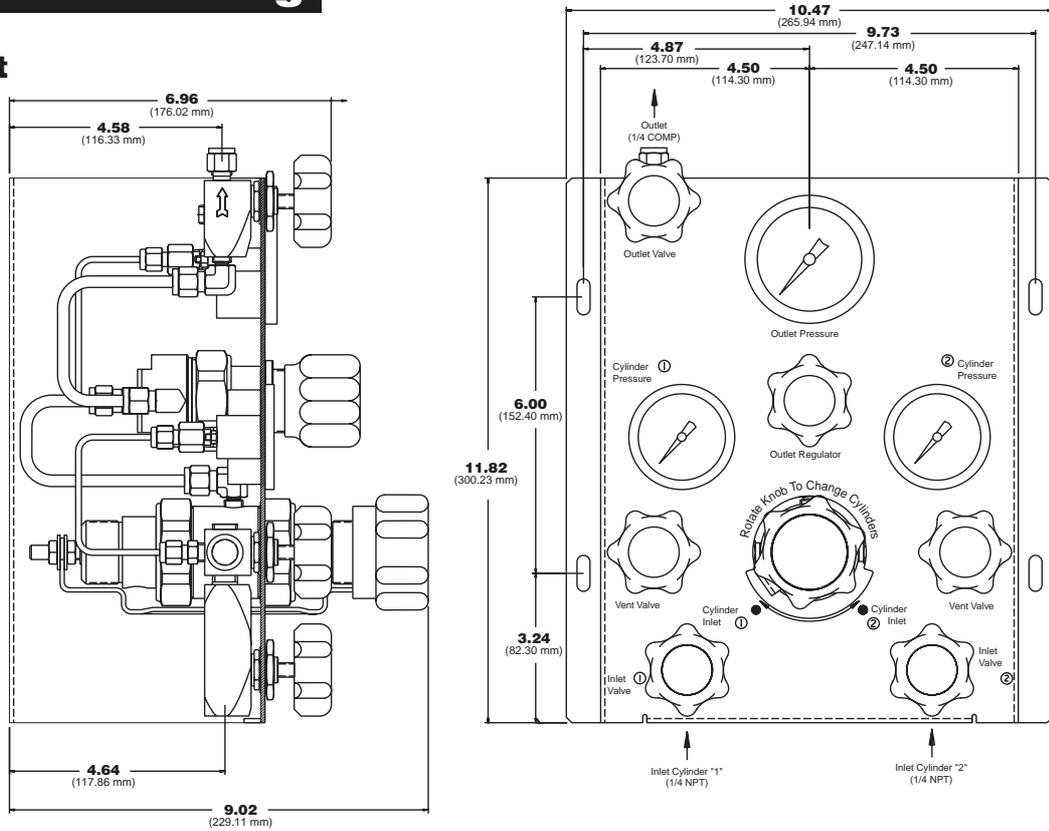
COS Model	Maximum Recommended Flow
COS 200	70 slpm N ₂
COS 250	70 slpm N ₂
COS 150	70 slpm N ₂
COS 100	100 slpm N ₂
COS XXX OR*	70 slpm N ₂

* ChangeOver System with optional outlet regulators

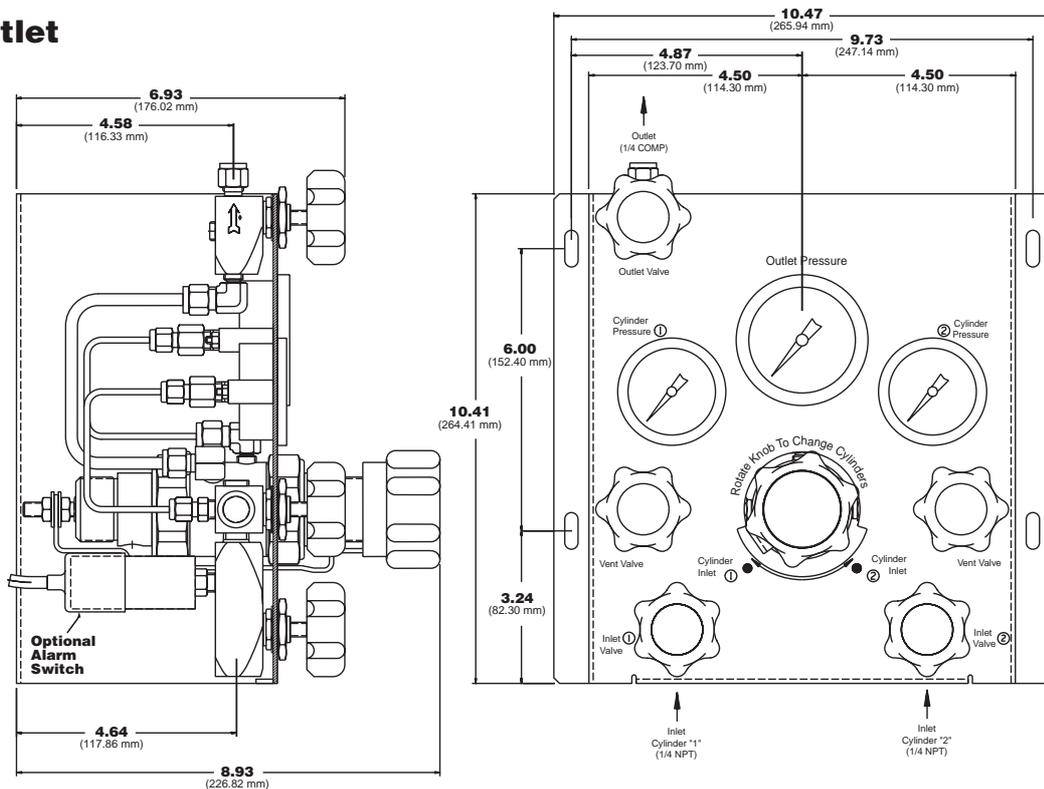
ChangeOver System

Dimensional Drawing

With Outlet Regulator

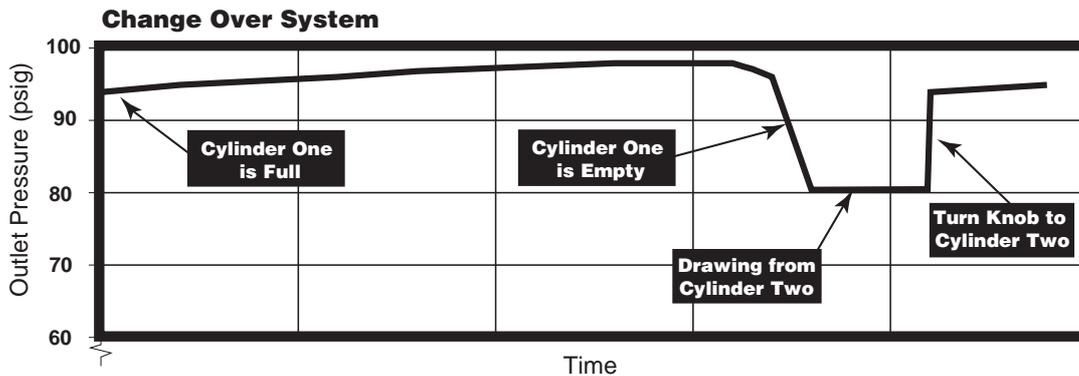
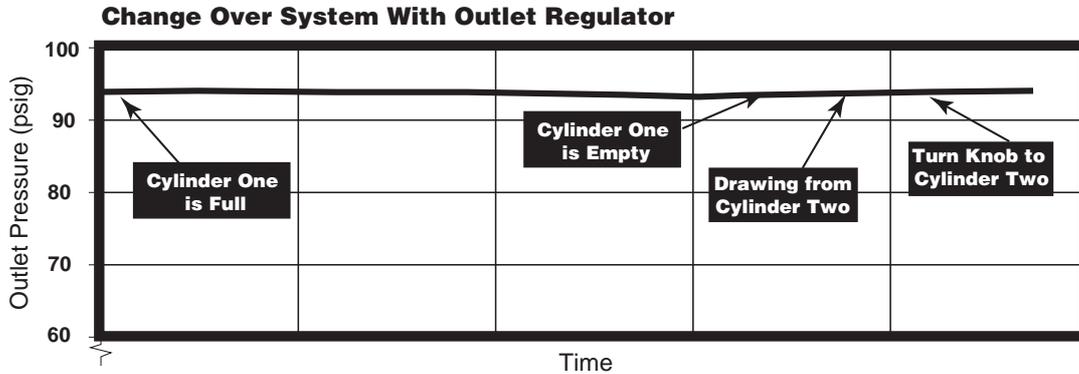


Without Outlet Regulator



Change Over System

Pressure Drop



Note: Outlet pressure should drop approximately 20 psig for the 100 & 150 psig version and approximately 40 psig for the 200 & 250 psig version. Outlet flow will continue.

Ordering Information

- COS**
- BASIC SERIES**
- COS
- PRESSURE SETTING**
- 100 = 100 psig
 150 = 150 psig
 200 = 200 psig
 250 = 250 psig
- MATERIAL**
- B = Brass
 S = 316L Stainless Steel
 W = Welded 316L Stainless Steel (Non-UHP applications)

OPTIONS

- A1 = Pressure Switches** (includes 2 pressure switches; **Annunciator** sold separately)
 OR = Outlet Regulator
 P = Stainless Steel Panel

* For Audio/Visual Annunciator details see COS Annunciator Literature Sheet. Annunciator ordering part number: 46600696

Note: Inlet valves and gauges are standard on all units.

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 Viton® is a registered trademark of DuPont Dow Elastomers.
 Inconel® is a registered trademark of Inco Alloys International.
 Elgiloy® is a registered trademark of Elgiloy Company.



ChangeOver System Annunciator

Audio
& Visual
Indicator

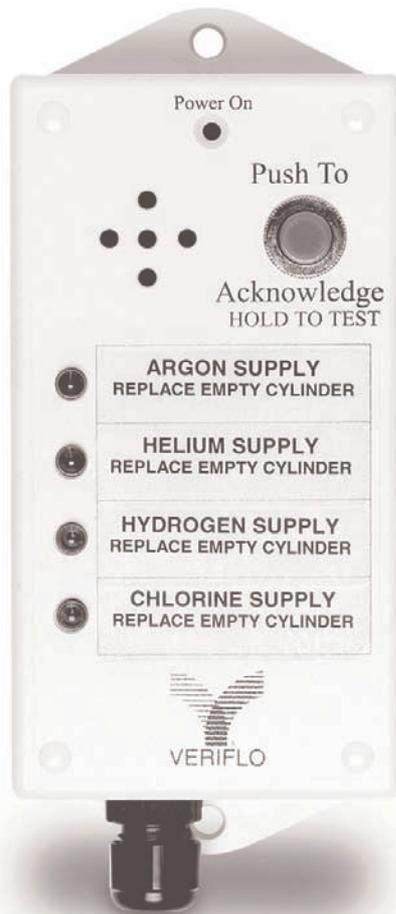


Parker Hannifin Corporation's Veriflo Division presents the ChangeOver System Annunciator. The Annunciator is designed to be used with the ChangeOver System. This gives users both an audible and visual indication of when it is time to change out cylinders. The Annunciator is equipped with four channels to allow for the connection of multiple ChangeOver Systems.

The alarm signal is activated when either cylinder has dropped below a preset pressure. The signal is activated through two pressure switches which are located on each inlet valve of the ChangeOver System.

materials of construction

Outer Box 94HB Plastic
Strain Relief. Nylon 6/6
Back Plate Steel

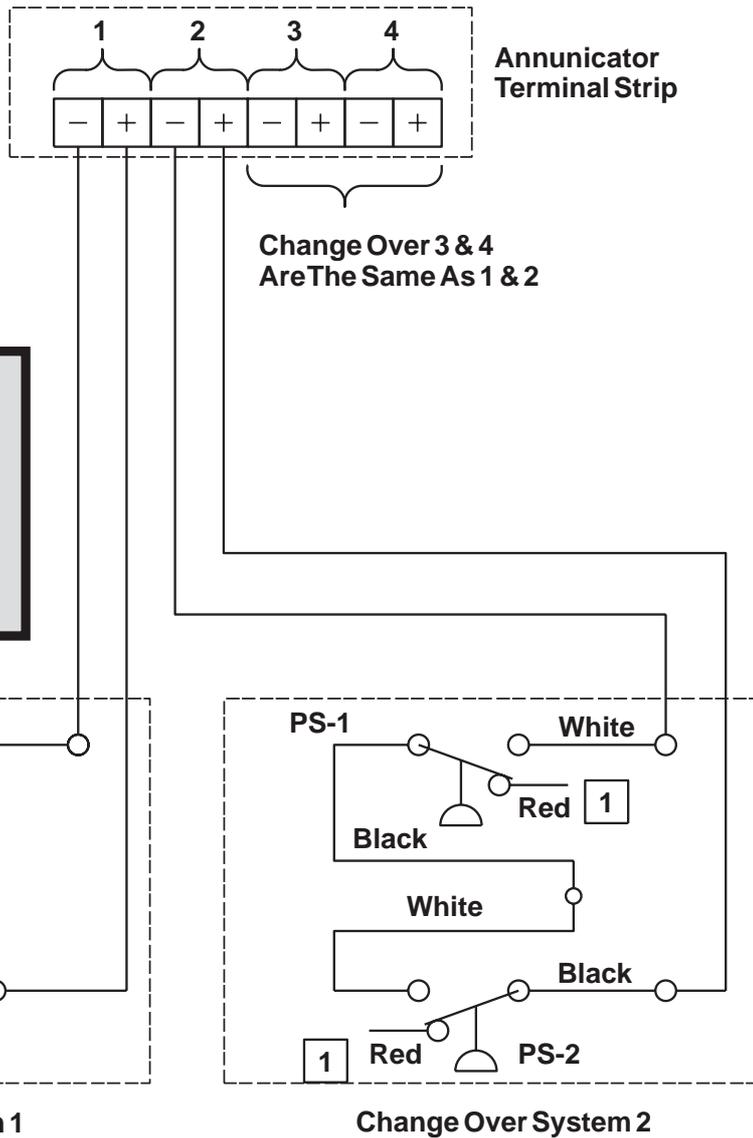
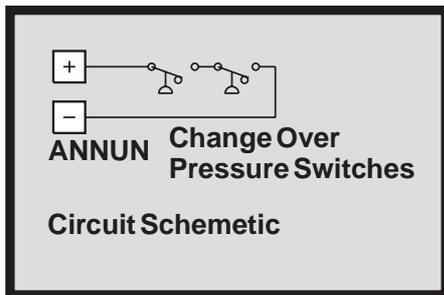


ChangeOver System Annunciator

Wiring Diagram

Notes

- 1 Cut and Tape Red Wire (Not Used)
- 2 PS-1 & PS-2 Close On Increasing Pressure



Ordering Information

ChangeOver System Annunciator: P/N 46600696

