

COSE

ChangeOver System Continuous Gas Management



Customer Value Proposition:

The ChangeOver System (COSE) is a compact turnkey module that assists the operator with their total gas management. The COSE maintains a continuous gas delivery from two separate sources allowing for maximum cylinder gas usage from one source before automatically switching to the second source. The COSE lowers specialty gas costs by maximizing the consumption of gas from each cylinder. In addition, the gas cylinder bank(s) can be monitored remotely utilizing the optional pressure switches reducing the need for visual inspection by the operator.



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Product Features:

- Fully enclosed to protect internal components.
- Removable side panels for field maintenance.
- Allows change out of depleted cylinder(s) while maintaining gas flow.
- Especially suited for continuous on-stream analyzers.
- Alarm sensor port for systems integration allowing user to monitor gas consumption.
- Cleaned for Oxygen service.
- Regulator design integrates positive upward and downward stops which increases cycle life by preventing over stroking of the diaphragm.

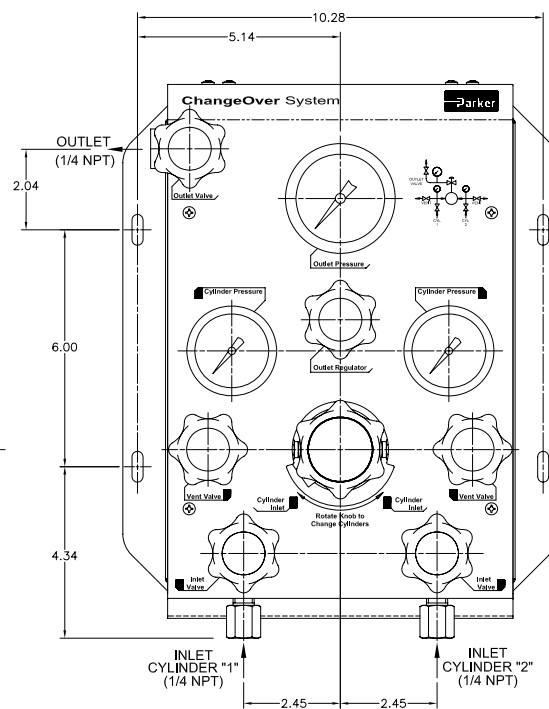
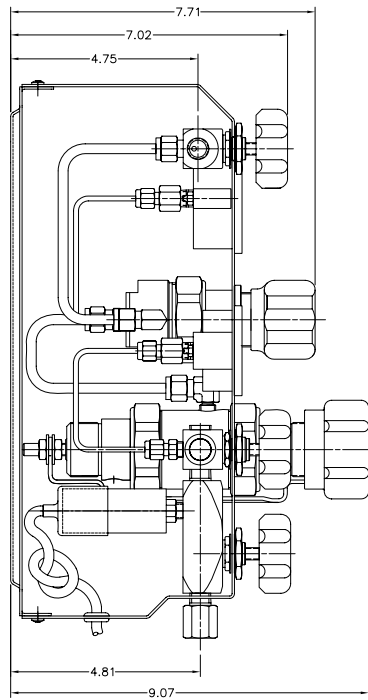


ENGINEERING YOUR SUCCESS.

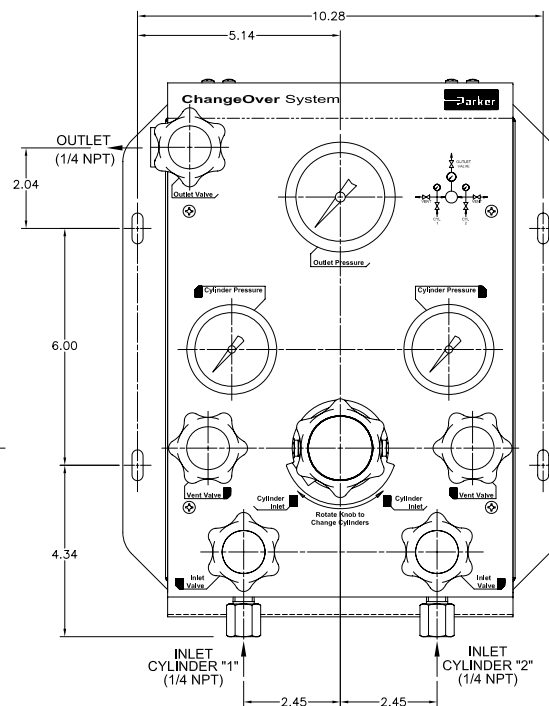
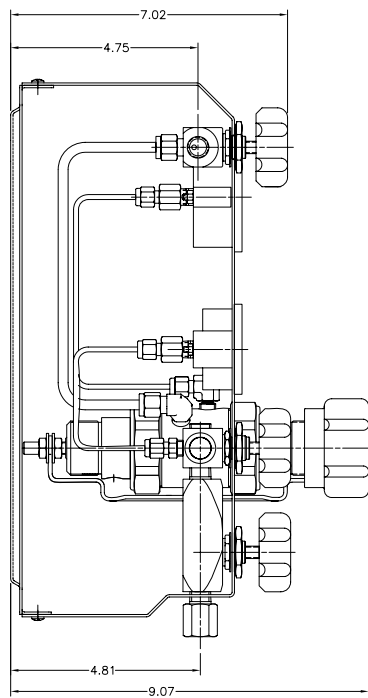
COSE

Dimensional Drawing

With Outlet Regulator

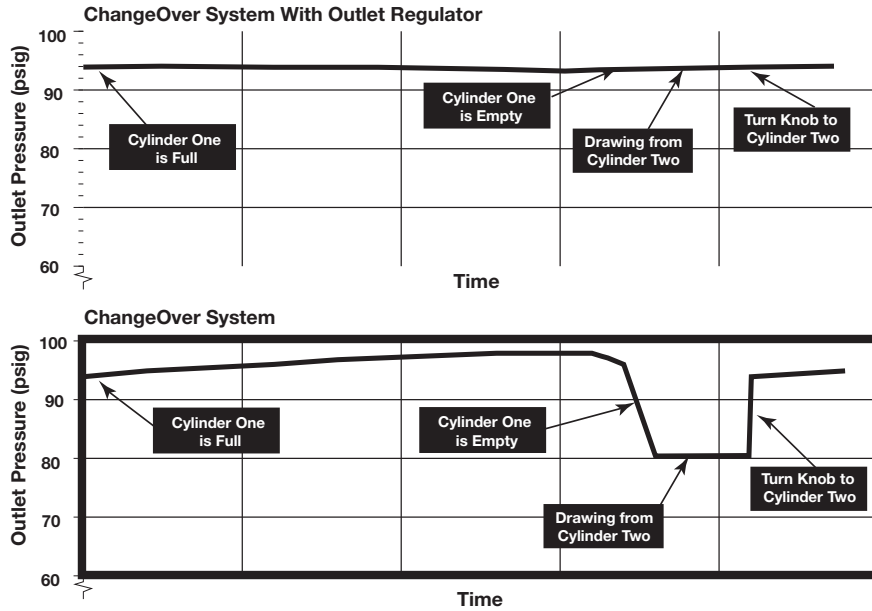


Without Outlet Regulator



COSE

Flow Curves



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

Applications

Specialty Gases

All Specialty Gases used for Process and Purging Applications

Industrial/Analyzer

- Refineries
- Test Cells
- Emission Analysis
- Laboratories
- Laser Gas Systems
- Research and Development
- Gas and Liquid Chromatography
- High Volume Gas Manufacturing Facilities

Ordering Information

Build a COSE by replacing the numbered symbols with an option from the corresponding tables below.

Note: Options in *blue/italic* type are available for the *Express Service Program*.

Sample: **COSE** **100** **S** **OR**

Finished Order: **COSE100SOR**

1 Pressure Settings

- 100 = 100 psig
- 150 = 150 psig
- 200 = 200 psig
- 250 = 250 psig

2 Materials

- S = 316L Stainless Steel
- B = Brass

3 Optional Features

This section can have multiple options

- A1 = *Pressure Switches* Includes 2 pressure switches
- OR = *Outlet Regulator*
- Omit = No Outlet Regulator

Notes:

ESP COSE's include outlet regulator as standard

Configurations without outlet regulator are available at standard lead times.

Inlet valves and gauges are standard on all units.

For audio/visual annunciator details, see COS Annunciator literature sheet.

Annunciator ordering part number: 54017373

COSE

Specifications

Materials of Construction	
Wetted	
Body	316 Stainless Steel, Nickel Plated Brass
Diaphragm	Hastelloy C-22®
Poppet	Hastelloy C-22®, Phosphor Bronze
Poppet Spring	Inconel®
Seat	PCTFE
Retainer	Inconel®
Carrier	316L Stainless Steel
Washer Back-up	316L Stainless Steel, Phosphor Bronze
O-ring Back-up	Fluorocarbon
Tubing	316 Stainless Steel, Brass
Fittings	316 Stainless Steel, Brass
Regulator Non-wetted	
Cap	Nickel Plated Brass
Nut	316 Stainless Steel, Nickel Plated Brass
Knob	ABS Plastic (Black)
Valve Wetted	
Body	316L Stainless Steel, Nickel Plated Brass
Diaphragm	Elgiloy® or equivalent
Seat	PCTFE
Valve Non-wetted	
Nut	316 Stainless Steel
Knob	ABS Plastic (Black)

Operating Conditions	
Maximum Inlet	3,000 psig (207 barg)
Outlet	up to 250 psig (17 barg) max
Temperature	-40°F to 150°F (-40°C to 66°C)
Functional Performance	
Design	
Burst Pressure	9,000 psig (620 barg)
Proof Pressure	4,500 psig (310 barg)
Flow Capacity	C _v 0.06
Leak Rate	
Internal	Bubble Tight
External	Bubble Tight
Supply Pressure Effect	0.4 psig/100psig (.03/7 barg) <i>without Outlet Regulator option</i>
Standard Configuration	1/4" NPT Female
Approx. Weight	21 lbs. (9.5 kg)

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

Elgiloy® is a registered trademark of Elgiloy Company
Hastelloy C-22® is a registered trademark of Haynes International, Inc.
Inconel® is a registered trademark of Special Metals Corporation

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Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.