

For Continuous Gas Flow  
ACS012, CS2200, ACS3200, CR441800

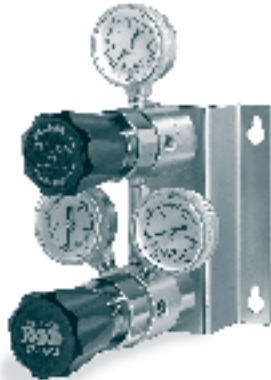
# Changeover Systems



**ACS012**

## Low Flow Changeover Regulator

- Maximum inlet pressure: 28 or 241 bar
- Four delivery pressures from 7 to 17 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel or brass
- Mounting bracket standard



**CS2200**

## Low Flow Changeover Regulator

### With Line Regulator

- Maximum inlet pressure: 241 bar
- Four maximum delivery pressures from 1.7 to 10 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel or brass
- Mounting bracket standard



**ACS3200**

## High Flow Changeover Regulator

- Maximum inlet pressure: 207 bar
- Delivery pressure: 11/14 bar
- Available in 316 Stainless Steel or brass
- Based on Tescom's field-proven 44-3200 Regulator
- Mounting bracket standard

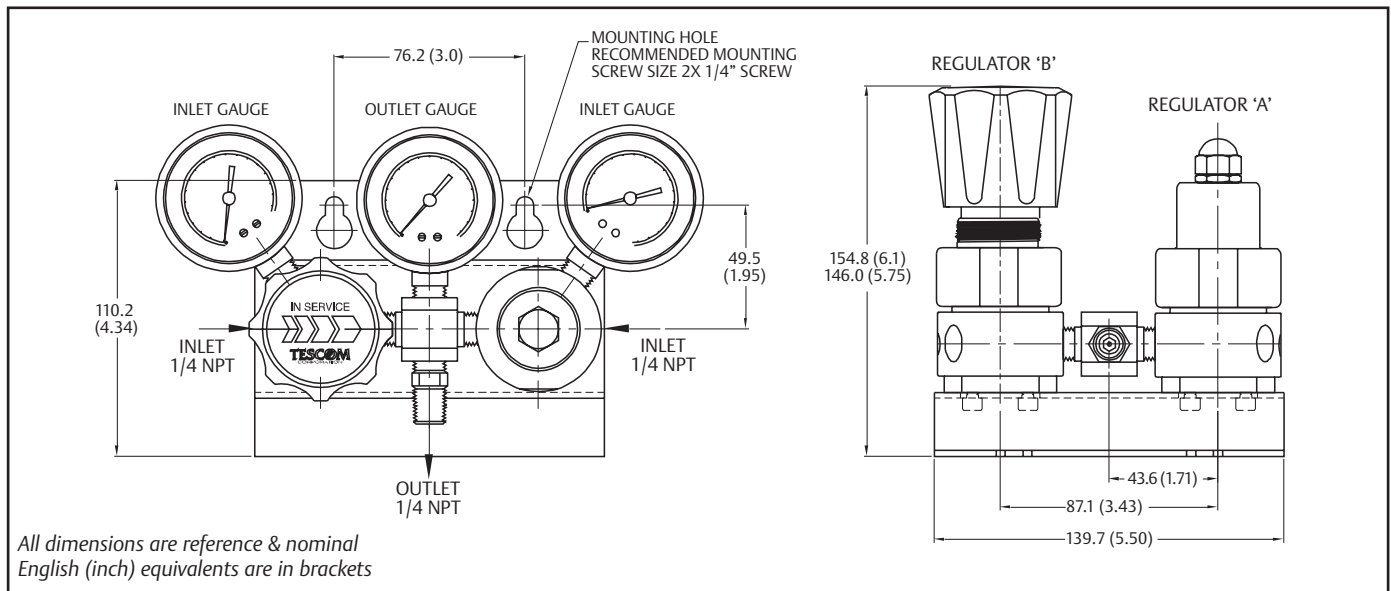


**CR441800**

## High Pressure Changeover Regulator

- Maximum inlet pressure: 241 or 414 bar
- Seven maximum delivery pressures from 35 to 138 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel or brass
- Based on Tescom's field-proven 44-1800 Regulator

# ACS012 Series Changeover Systems (Low Flow)



## ACS012 Specifications

### Operating Parameters

Max. rated inlet pressure:  
28 or 241 bar (400 or 3500 PSIG)

Max. delivery pressure:  
5.8 - 7.9 bar (85 - 115 PSIG),  
9.3 - 11.4 bar (135 - 165 PSIG),  
12.7 - 14.8 bar (185 - 215 PSIG),  
16.2 - 18.3 bar (235 - 265 PSIG)

Design proof pressure: 150% of max. operating

Leak rate:

Internal: ..... Bubble-tight

External:.... Design to meet  $\leq 2 \times 10^{-8}$  mbar l/s

Operating temperature: ..... -40 °C to +75 °C

Flow capacity: ..... Cv = 0.06

### Media Contact Materials

Body: .....316 Stainless Steel,  
brass or nickel-plated brass

Bonnet: .....300 Series Stainless Steel or brass

Valve seat: ..... Teflon®

Diaphragm:.....316 Stainless Steel

Friction sleeve - inner ..... Teflon®  
- outer.....316 Stainless Steel

Spring: .....316 Stainless Steel

Remaining parts:.....316 Stainless Steel  
( & brass for brass bodies)

Gauges (3 standard): ..... 316 SST gauges with  
SST regulators, brass gauges with brass regulators

Connections:..... 1/4" Female NPT

Weight:.....2.3 kg

Teflon® is a registered trademark of Du Pont.

## Part Number Selector

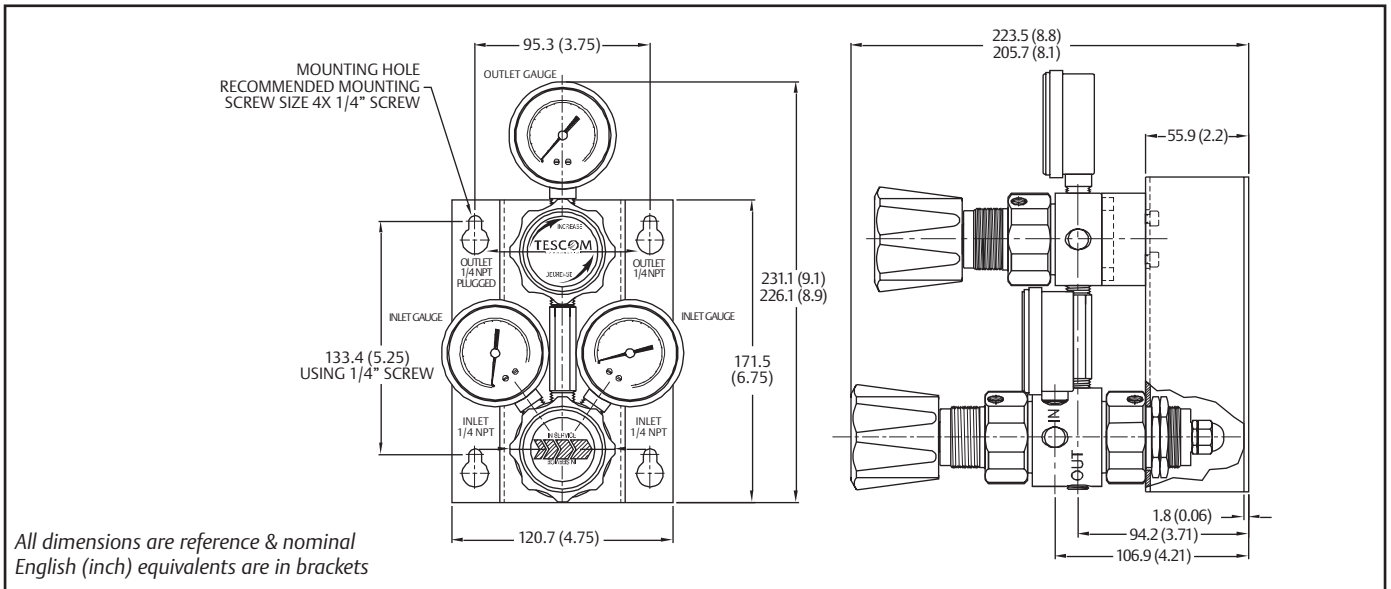
Example Part Number:

ACS012	1	3	0	1	
BASIC SERIES	BODY MATERIAL	DELIVERY PRESSURE	OUTLET GAUGE INSTALLED (OPTIONAL)	GAUGES	INLET PRESSURE
ACS012	1 - Brass 6 - 316 Stainless Steel P - Nickel-Plated Brass	0 - 5.8 to 7.9 bar ..... 14 bar (85 to 115 PSIG .....200 PSIG) 1 - 9.3 to 11.4 bar ..... 14 bar (135 to 165 PSIG .....200 PSIG) 2 - 12.7 to 14.8 bar ..... 21 bar (185 to 215 PSIG .....300 PSIG) 3 - 16.2 to 18.3 bar ..... 21 bar (235 to 265 PSIG .....300 PSIG)		0 - No gauges 1 - With 3 gauges* (installed)	1 - 241 bar (3500 PSIG) optional 276 bar (4000 PSIG) gauge 2 - 28 bar (400 PSIG) optional 41 bar (600 PSIG) gauge

Brass gauges are provided with brass regulators and stainless steel gauges are provided with stainless steel regulators.

For more information to **Repair Kits, Accessories & Modifications** please contact factory.

# CS2200 Series Changeover Systems (Low Flow)



## CS2200 Specifications

### Operating Parameters

- Max. rated inlet pressure: .241 bar (3500 PSIG)
- Outlet pressure ranges: .....  
0 -1.7 / 0 - 3.4 / 0 - 7 / 0 - 10 bar  
(0 - 25 / 0 - 50 / 0-100 / 0-150 PSIG)
- Design proof pressure:..... 150% of max. rated
- Leak rate:  
Internal: ..... Bubble-tight  
External: Designed to meet  $\leq 2 \times 10^{-8}$  mbar l/s
- Operating temperature: ..... -40 °C to +74 °C
- Flow capacity: ..... Cv = 0.06

### Media Contact Materials

- Body: ..... 316 Stainless Steel or brass
- Bonnet: .....300 Series Stainless Steel or brass
- Valve seat: ..... Teflon®
- Diaphragm:.....316 Stainless Steel
- Friction sleeve - inner ..... Teflon®  
- outer.....316 Stainless Steel
- Spring: .....316 Stainless Steel
- Remaining parts:.....316 Stainless Steel  
( & brass for brass bodies)

- Gauges (3 standard): ..... 316 SST gauges with SST regulators, brass gauges with brass regulators
- Connections:..... 1/4" Female NPT
- Weight:.....2.3 kg

Teflon® is a registered trademark of Du Pont.

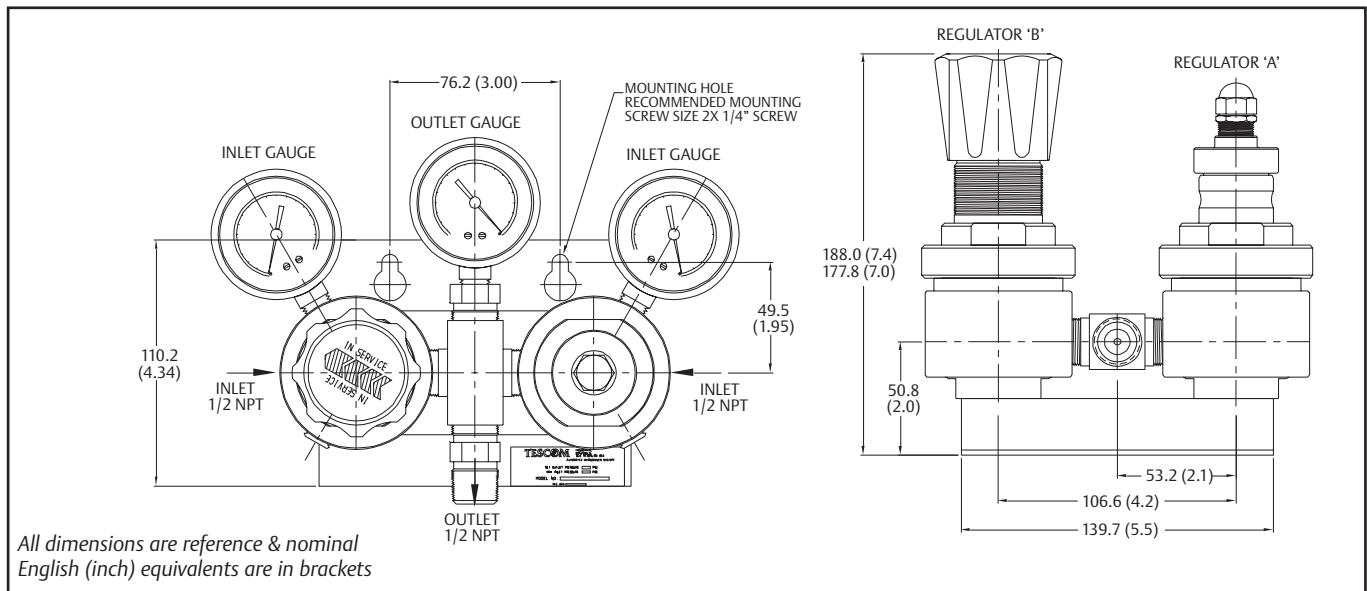
## Part Number Selector

Example Part Number:

CS-22	6	3	-	2	4	1
BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGE		INLET & OUTLET PORT TYPE	INLET & OUTLET PORT SIZE	MAXIMUM INLET PRESSURE
CS-22	1 - Brass 6 - 316 Stainless Steel	0 - 0 to 1.7 bar (0 to 25 PSIG) 1 - 0 to 3.4 bar (0 to 50 PSIG) 2 - 0 to 7 bar (0 to 100 PSIG) 3 - 0 to 10 bar (0 to 150 PSIG)		2 - NPT	4 - 1/4"	1 - 241 bar (3500 PSIG) (with gauges) 2 - 241 bar (3500 PSIG) (no gauges)

For more information to **Repair Kits, Accessories & Modifications** please contact factory.

# ACS3200 Series Changeover Systems (High Flow)



## ACS 3200 Specifications

### Operating Parameters

- Max. rated inlet pressure: .207 bar (3000 PSIG)
- Outlet pressure: ..... 11 - 14 bar (160 - 200 PSIG)
- Design proof pressure: 150% of max. operating
- Leak rate:
  - Internal: ..... Bubble-tight
  - External: Designed to meet  $\leq 2 \times 10^{-8}$  mbar l/s
- Operating temperature: ..... -40 °C to +74 °C
- Flow capacity: ..... Cv = 1.2

### Media Contact Materials

- Body: ..... 316 Stainless Steel or brass
- Bonnet: ..... Nickel-plated brass
- Valve seat: ..... PCTFE
- Valve o-ring: ..... Viton®
- Diaphragm: ..... 316 Stainless Steel
- Spring: ..... 316 Stainless Steel
- Remaining parts: ..... 316 Stainless Steel

- Gauges (3 standard): ..... 316 SST gauges with SST regulators, brass gauges with brass regulators

- Weight: ..... 4.95 kg

Viton® is a registered trademark of Du Pont.

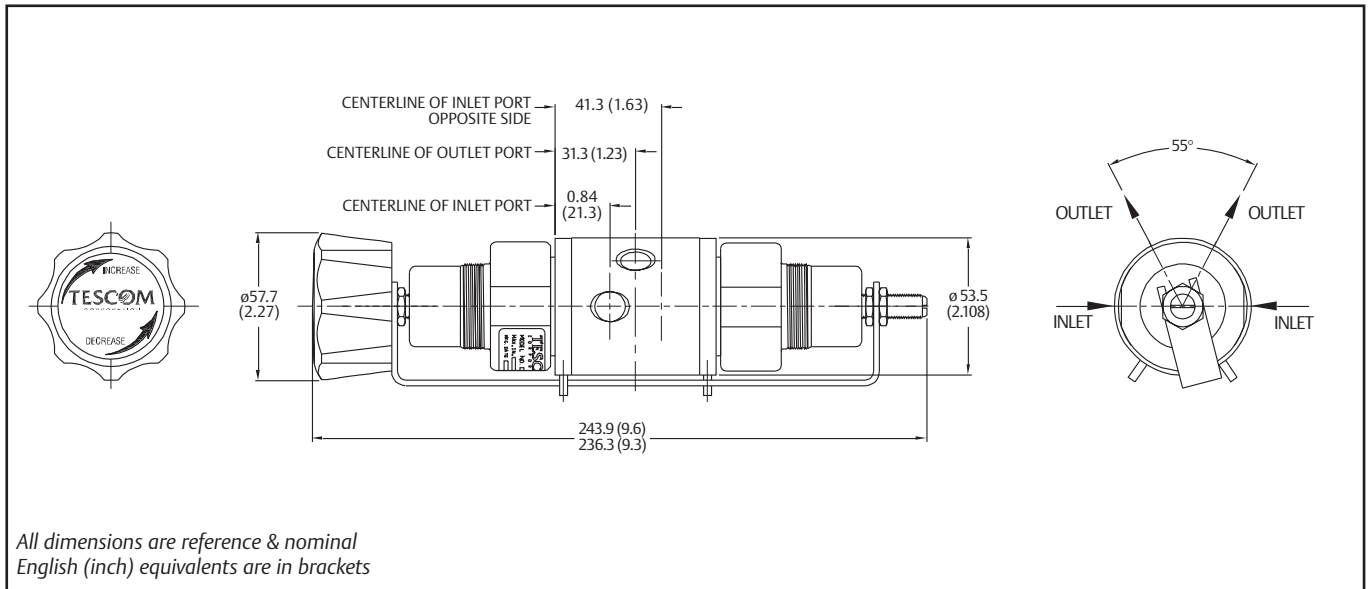
## Part Number Selector

Example Part Number:

ACS32	1	4	1	1
BASIC SERIES	BODY & TRIM	OUTLET PRESSURE	GAUGE OPTION	INLET PRESSURE
ACS32	1 - Brass 6 - 316 Stainless Steel	4 - 11 to 14 bar (160 to 200 PSIG) optional 28 bar (400 PSIG) gauge	0 - No gauges installed 1 - Gauges installed	1 - 207 bar (3000 PSIG) optional 276 bar (4000 PSIG) gauge

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# CR441800 Series Changeover Systems (High Pressure)



## CR441800 Specifications

### Operating Parameters

- Max. rated inlet pressure:  
241 or 414 bar (3500 or 6000 PSIG)
- Max. outlet pressure ranges:  
32.8 - 36.2 bar (475 - 525 PSIG),  
39.7 - 43.1 bar (575 - 625 PSIG),  
46.6 - 50 bar (675 - 725 PSIG),  
53.4 - 56.9 bar (775 - 825 PSIG),  
60.3 - 63.8 bar (875 - 925 PSIG),  
67.2 - 70.7 bar (975 - 1025 PSIG),  
136 - 139 bar (1975 - 2025 PSIG),

Design proof pressure: 150% of max. operating  
Leak rate: ..... Bubble-tight  
Operating temperature: ..... -26 °C to +74 °C  
Flow capacity: ..... Cv = 0.06

### Media Contact Materials

- Body: ..... 316 Stainless Steel, brass  
or nickel-plated brass
- Bonnet: ..... 300 Series Stainless Steel, brass  
or nickel-plated brass
- Valve seat: ..... Vespel®
- O-ring: ..... Viton®
- Remaining parts: .. Brass & 300 Series Stainless Steel

Weight: ..... 1.36 kg

Viton® and Vespel® are registered trademark of Du Pont.

## Part Number Selector

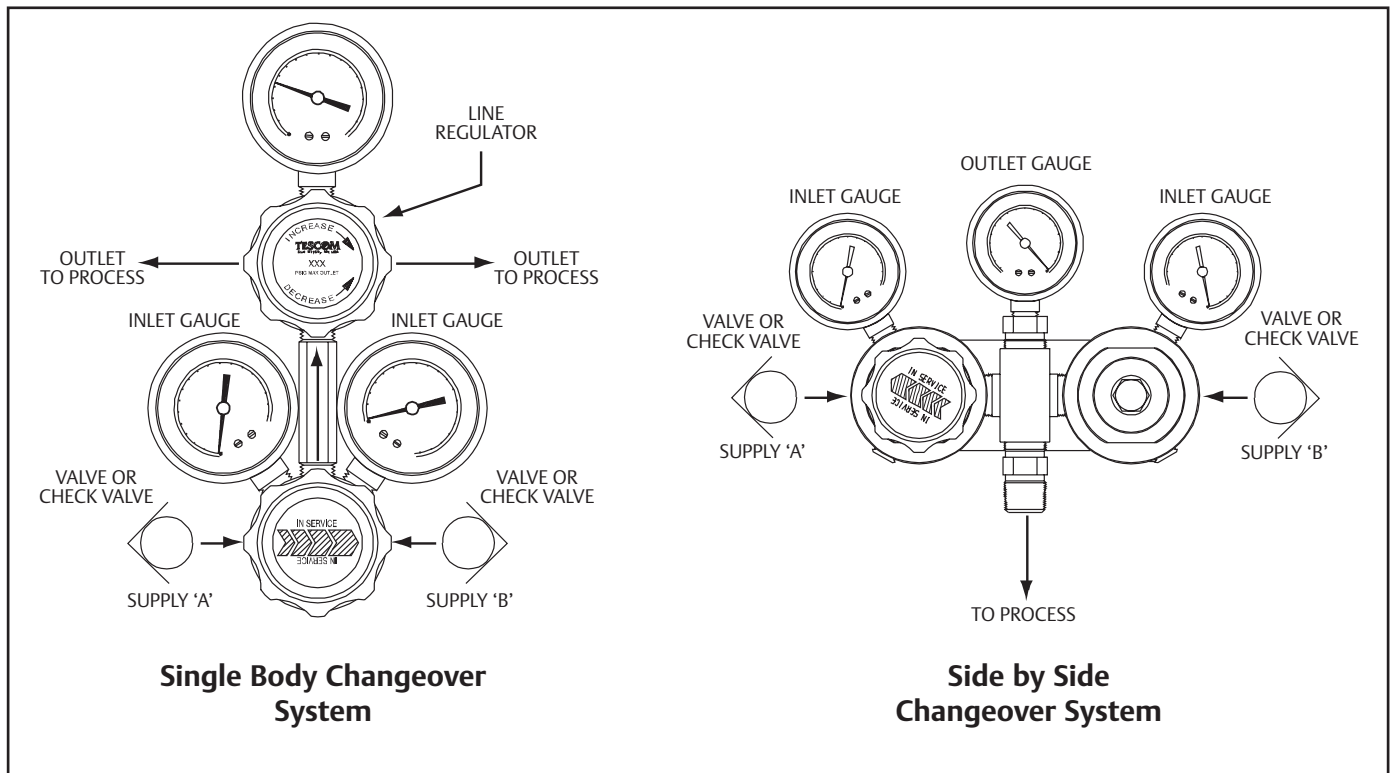
Example Part Number:

**CR4418                    6                    2                    -                    2                    4                    1**

BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGES	INLET & OUTLET PORT TYPE	INLET & OUTLET PORT SIZE	INLET PRESSURE
<b>CR4418</b>	<b>1</b> - Brass	<b>1</b> - 32.8 to 36.2 bar (475 to 525 PSIG)	<b>2</b> - NPT	<b>4</b> - 1/4"	<b>1</b> - 241 bar (3500 PSIG)
	<b>6</b> - 316 Stainless Steel	<b>2</b> - 39.7 to 43.1 bar (575 to 625 PSIG)			<b>3</b> - 414 bar (6000 PSIG)
	<b>P</b> - Nickel plated brass	<b>3</b> - 46.6 to 50 bar (675 to 725 PSIG)			
		<b>4</b> - 53.4 to 56.9 bar (775 to 825 PSIG)			
		<b>5</b> - 60.3 to 63.8 bar (875 to 925 PSIG)			
		<b>6</b> - 67.2 to 70.7 bar (975 to 1025 PSIG)			
		<b>7</b> - 136 to 139 bar (1975 to 2025 PSIG)			

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## Basic Functional Description Changeover Systems



When primary supply to the changeover regulator (supply ,A') is consumed, the secondary supply (supply ,B') feeds the line regulator and/or process. The line regulator supplies media to the process at the precise pressure required. By turning the changeover regulator handknob clockwise, supply

,A' can then be replenished. When supply ,B' is depleted, supply ,A' will then begin to feed the line regulator and/or process. With a counterclockwise turn of the changeover regulator handknob, supply ,B' can be replenished.