



SCM3000 Series

Simplex Center Manual Switchover Manifolds for High Pressure Cylinders (High Purity Applications)

Key Features

Endless Configurations

Our part number matrix allows you to easily configure your manifold the way you need it

Designed for High Pressure Cylinders

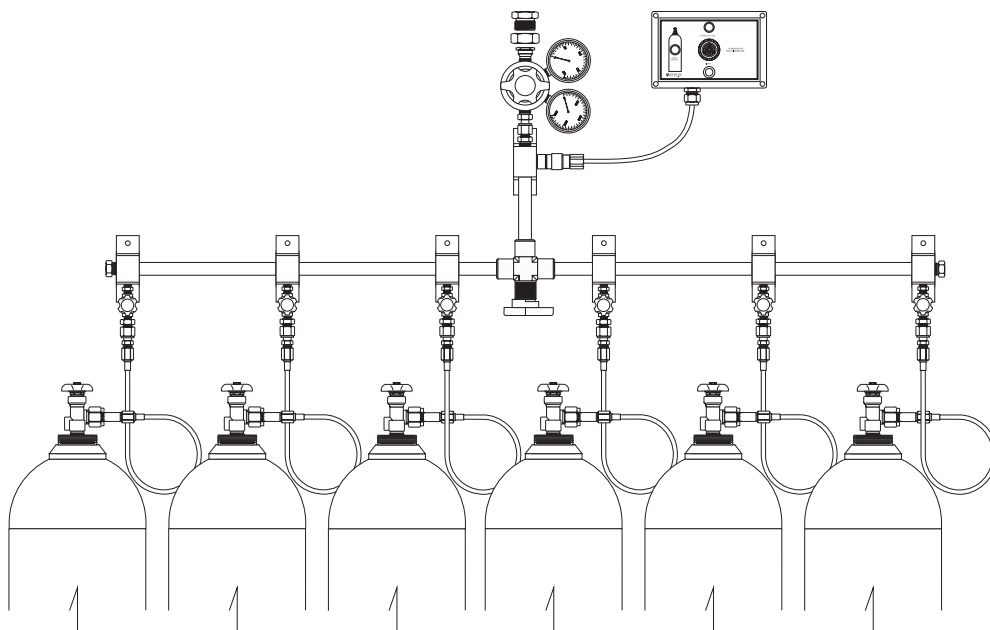
Max. Inlet Pressure: 3000 PSIG per bank

Diverter Valve

Prevents discharge of one cylinder bank into the other. Allows the operator to manually change cylinder bank supply side with a simple 180° rotation of the diverter valve handle.

Designed for High Flow Rate Applications

Cv = 0.45



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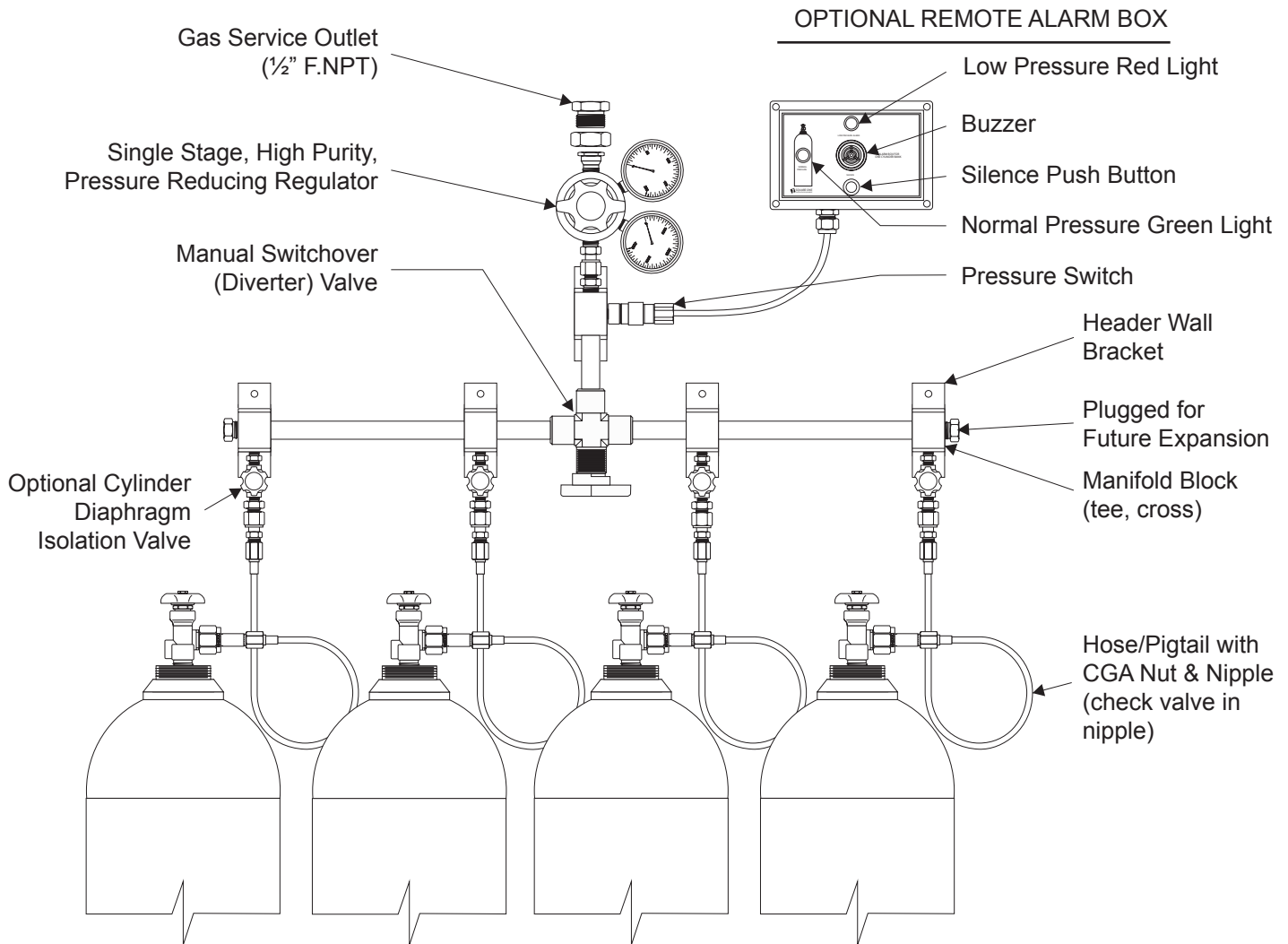
Description

Simplex manifolds are used to connect three or more cylinders together for greater on-line storage capacity or higher flow rates. Each cylinder bank is isolated by a diverter valve. With a simple 180o turn of the diverter valve handle, the operator manually changes from the depleted cylinder bank to the full cylinder bank. You can shut off the manifold by placing the diverter valve handle half way between the two cylinders banks. Finally, the diverter valve eliminates any possibility of cascading one cylinder bank into the other.

BeaconMedæus offers a remote alarm box as an option with all simplex manifolds. The alarm box is equipped with lights and an audible alarm to warn the operator when the bank pressure is low. The Nema 4 pressure switch is field adjustable.

The single stage, high purity and high flow pressure reducing regulator comes standard with a stainless steel diaphragm. Should you require a different pressure reducing regulator, please call BeaconMedæus to discuss.

Equipment Overview



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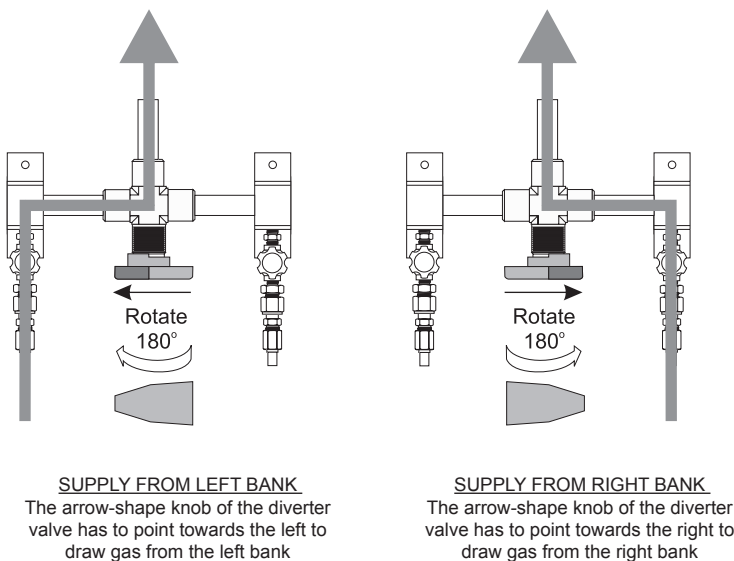
Materials

Header	Brass ASTM B16 - CDA377
Fittings	Brass ASTM B16
Hoses	Thermoplastic Hoses: Innercore: Nylon - Fittings: Steel - Specs: SAE J517 100R8 - Color: Black Teflon Hose: Innercore: Teflon - Fittings: Brass - Braiding: Stainless Steel Stainless Steel Hoses: Core: Stainless Steel - Braiding: Stainless Steel - Fittings: Stainless Steel
Rigid Pigtails	Fittings: Brass - Tubing: Copper
Header Valve	Body: Brass UNS 37700 - Packing Nut: Stainless Steel 316 - Handle: Aluminum - Lower Packing Washer: Stainless Steel 316 - Packing: PTFE - Stem: Stainless Steel 316
Regulator	Body, Bonnet: Brass - Diaphragm: Stainless steel - Seal and Seat: PTFE - Filter: Sintered Bronze - Seat Return Spring: PH 17-7 Stainless Steel
Diverter Valve	Body, Bonnet: Brass UNS 37700 - Stem O-Ring: Viton - Seats: PTFE - Handle: Nylon Ball, Stem: 316 Stainless Steel - Connector O-Ring, Back-Up Rings: Viton
Pressure Switch	Piston: Stainless Steel - "O"-Ring: Buna-N - Connection: Brass
Isolation Valves	Body: Brass - Diaphragm: Stainless Steel - Seat: PCTFE
Check Valves	Body, Cap & Poppet: Brass - Spring: 316 Stainless Steel - Seat: Fluorocarbon Rubber

Specifications

Gas	Refer to part number matrix	Hose/Pigtail Length	36 inches
Maximum Inlet Pressure	3000 PSIG	Inlet Connections	Gas Specific CGA fittings
Power Requirement	110 VAC (for alarm box only)	Outlet Connections	1/2" F.NPT
Flow	Cv = 0.45	Audible & Visual Alarm	Optional
Operating Temperature	-40°F to + 100°F	Header	1/2" NPS
Outlet Pressure	10-125 PSIG (Other Delivery Pressures Available - Consult BeaconMedæx for Details)		

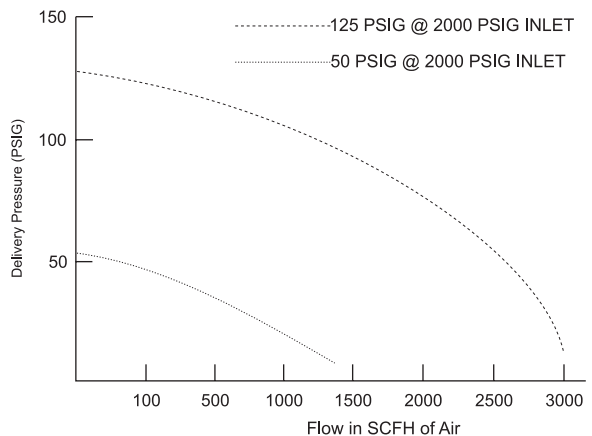
How It Works



Hose & Pigtail Length

Cylinder	36 inches
Bulk Pack/Cradle/Cluster	98 inches

Flow Data

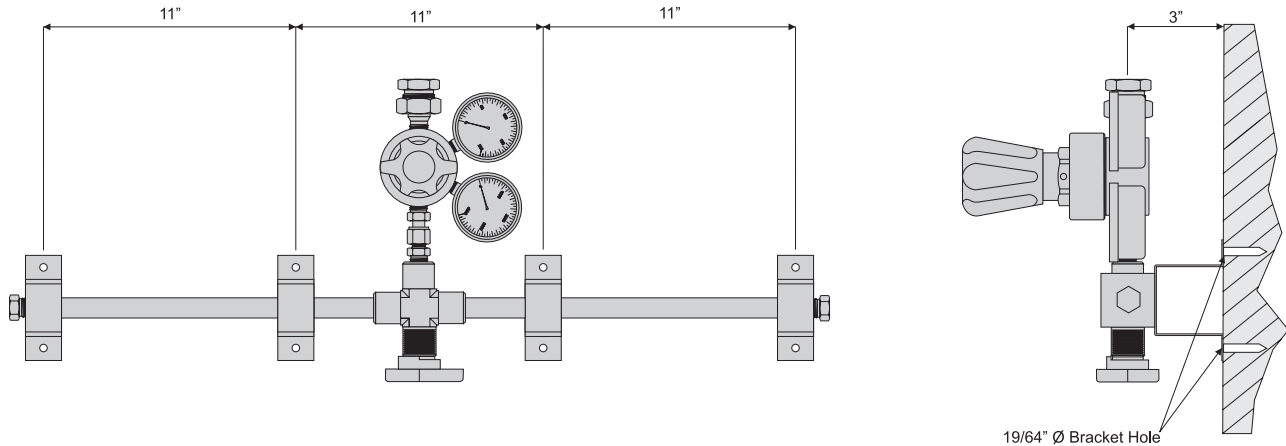


ULTRA HIGH PURITY APPLICATIONS (OPTION UHP)

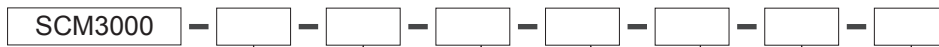
SCM Series Manifolds are cleaned for oxygen service as a standard feature. For Ultra High Purity Applications, all manifold components are acid cleaned, rinsed with de-ionized water and purged with UHP nitrogen. For UHP applications, Square One strongly recommends the use of all stainless steel rigid pigtails.

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Dimensions



Ordering Information



Gas	Inscribe
Air-Compressed	CGA 346
Argon	CGA 580
Argon Mix	CGA 580
Carbon dioxide*	CGA 320
Helium	CGA 580
Hydrogen	CGA 350
Argon/Methane	CGA 350
Nitrogen	CGA 580
Air-Industrial	CGA 590
Nitrous oxide*	CGA 326
Oxygen	CGA 540
Other Gas: Provide CGA no.	

No. of Cylinders	Inscribe
Must be an even number to have the same quantity of cylinders per side (2 cyl. each side = 4)	

Alarm Box	Inscribe
Manifold with alarm box	AB
Manifold without alarm box	Leave Blank

Options	Inscribe
Vent Valve	VV
Outside Installation	3R
Ultra High Purity Cleaning	UHP
Cylinder Isolation Valve	CIV

Hoses & Pigtails	Inscribe
Teflon core hose	TCH
Thermoplastic hose	NCH
All stainless steel hose	SSH
Rigid copper pigtail	RCP
Rigid stainless steel pigtail	SSP

Installation Hardware	Inscribe
Wall mounted	WM
Floor stand	FS

Header Style	Inscribe
Standard 10" center	10S
Staggered 5" center	5S
Vertical crossover 5" center	5V
Special (Please Provide Details)	SPX

***ELECTRIC TRIM HEATERS**

Nitrous oxide and carbon dioxide manifolds come automatically with built-in gas heaters.

