



## SIM3000 Series

# Simplex Manifolds for High Pressure Cylinders (High Purity Applications)

### Key Features

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#### Endless Configurations

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

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#### Designed for High Pressure Cylinders

Max. Inlet Pressure: 3000 PSIG per bank

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#### Check Valve in Each Hose/Pigtail

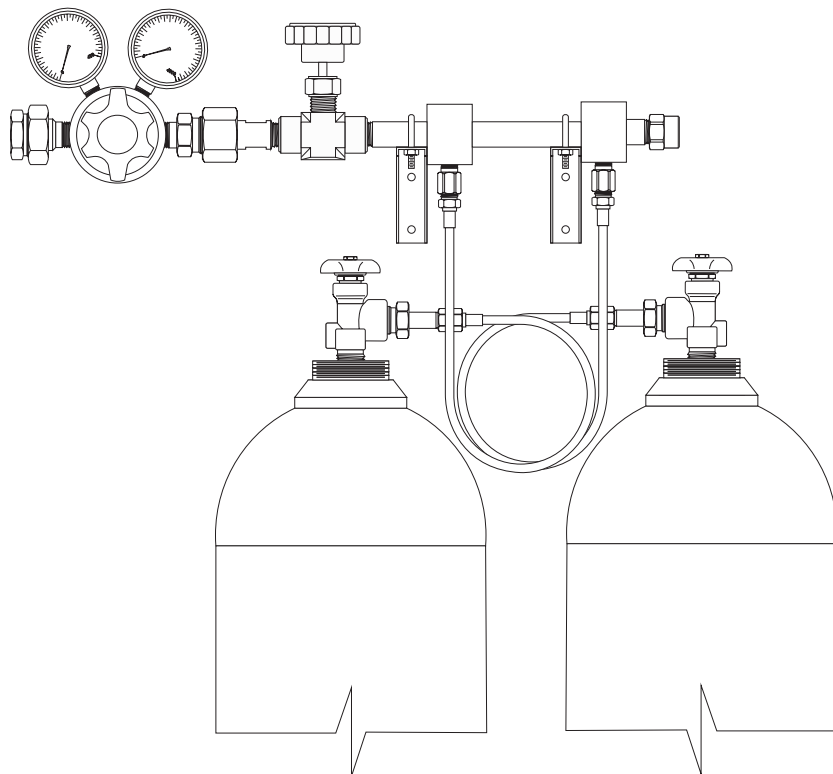
Prevents airborne contaminants from entering the gas delivery system during cylinder change-outs

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#### Designed for High Flow Rate Applications

$C_v = 0.45$

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## Simplex Manifolds for High Pressure Cylinders (High Purity Applications)

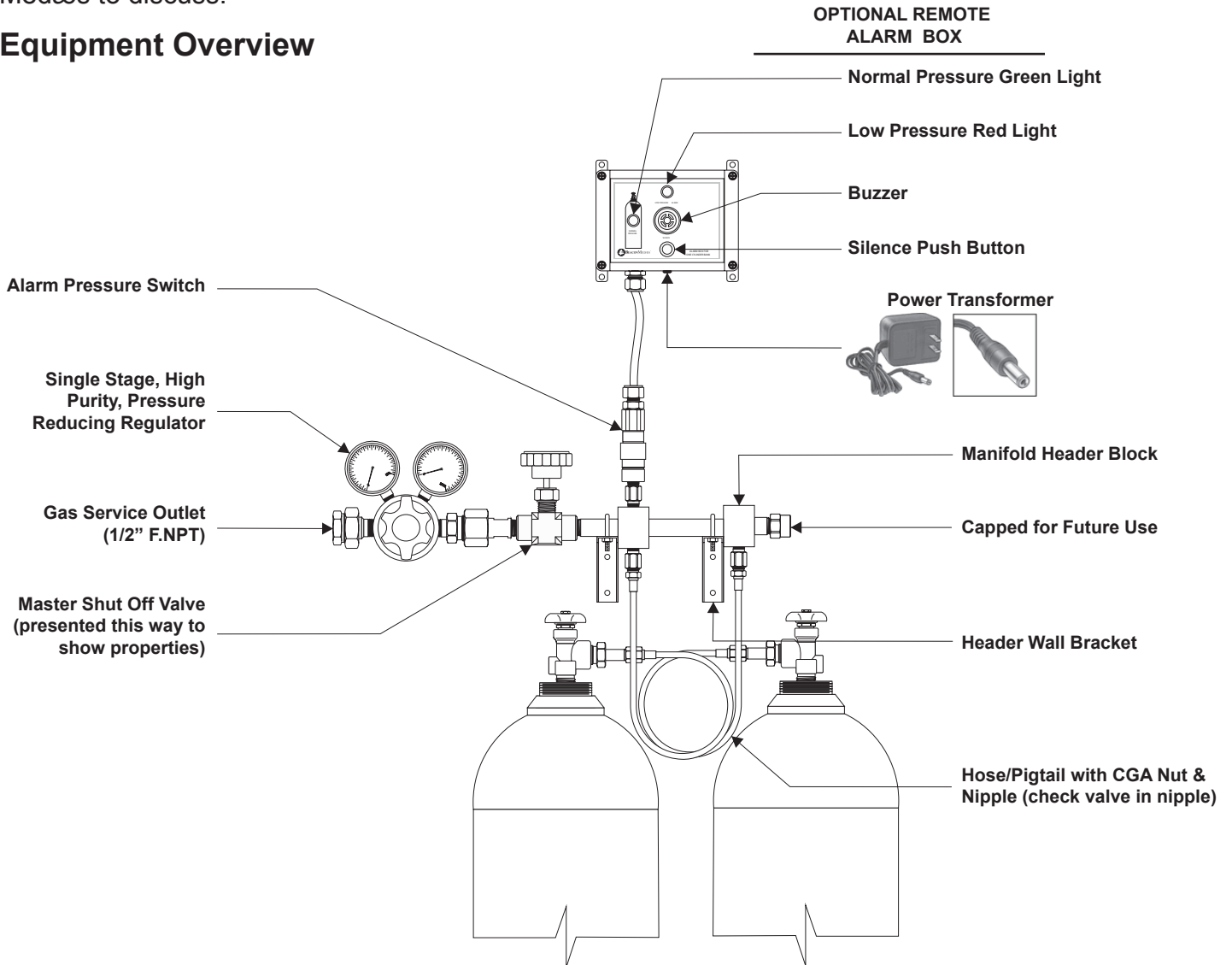
### Description

Simplex manifolds are used to connect several cylinders together for greater on-line storage capacity or higher flow rates. These single row manifolds are available with the regulator installed either to the right (Simplex Right) or to the left (Simplex Left). In general, simplex manifolds are used when interruption of gas supply is generally not a critical issue.

BeaconMedæx 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 BeaconMedæx to discuss.

### Equipment Overview



Our policy is one of continuous research and development.  
We reserve the right to modify without notice the specifications given in this document.

# Simplex Manifolds for High Pressure Cylinders (High Purity Applications)

## Materials

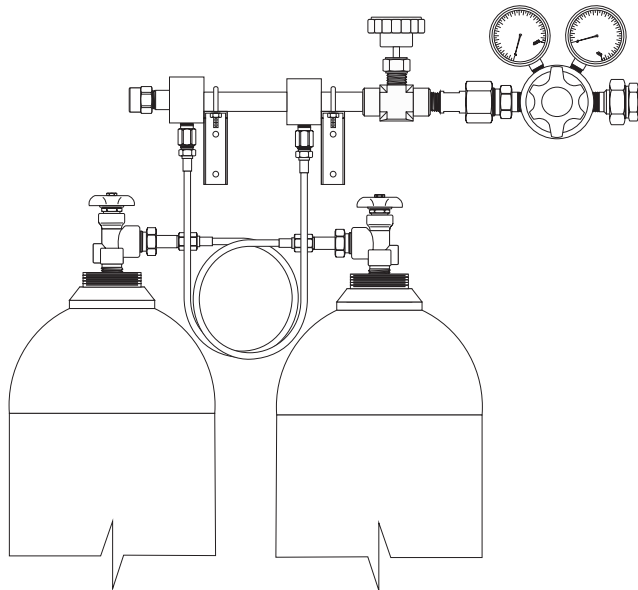
<b>Header</b>	Brass ASTM B16 - CDA377
<b>Fittings</b>	Brass ASTM B16
<b>Hoses</b>	Thermoplastic Hoses: Innercore: Nylon - Fittings: Steel - Specs: SAE J517 100R8 - Color: Black Teflon Hose: Innercore: Teflon - Fittings: Brass - Braiding: Stainless Steel Stainless Steel Hoses: Core: Stainless Steel - Braiding: Stainless Steel - Fittings: Stainless Steel
<b>Rigid Pigtails</b>	Fittings: Brass - Tubing: Copper
<b>Regulator</b>	Body, Bonnet: Brass - Diaphragm: Stainless steel - Seal and Seat: PTFE - Filter: Sintered Bronze - Seat Return Spring: PH 17-7 Stainless Steel
<b>Header Valve</b>	Body: Brass ASME B283 - Packing Nut: Brass ASTM B16 - Packing: PTFE - Knob: Phenolic Stem: Brass ASTM B16 - Soft Tip: Kel-F
<b>Pressure Switch</b>	Piston: Stainless Steel - "O"-Ring: Viton - Connection: Brass

## Specifications

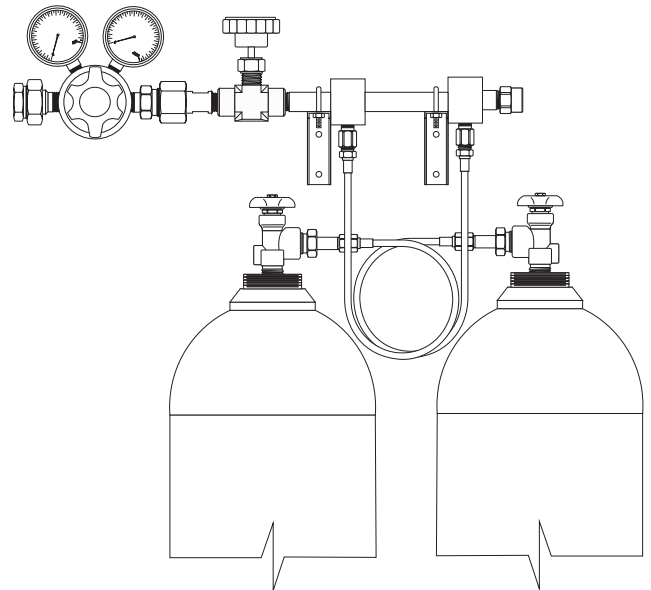
<b>Gas</b>	Refer to part number matrix	<b>Hose/Pigtail Length</b>	36 Inches
<b>Maximum Inlet Pressure</b>	3000 PSIG	<b>Inlet Connections</b>	Gas Specific CGA Fittings
<b>Power Requirement</b>	110 VAC (for alarm box only)	<b>Outlet Connections</b>	1/2" F. NPT
<b>Flow</b>	Cv = 0.55	<b>Audible &amp; Visible Alarm</b>	Optional
<b>Operating Temperature</b>	-40 °F to +100° F	<b>Header</b>	1/2" NPS
<b>Outlet Pressure</b>	10-125 PSIG (Other Delivery Pressures Available - Consult BeaconMedæS for Details)		

## Configurations

**Simplex Right Manifold**



**Simplex Left Manifold**

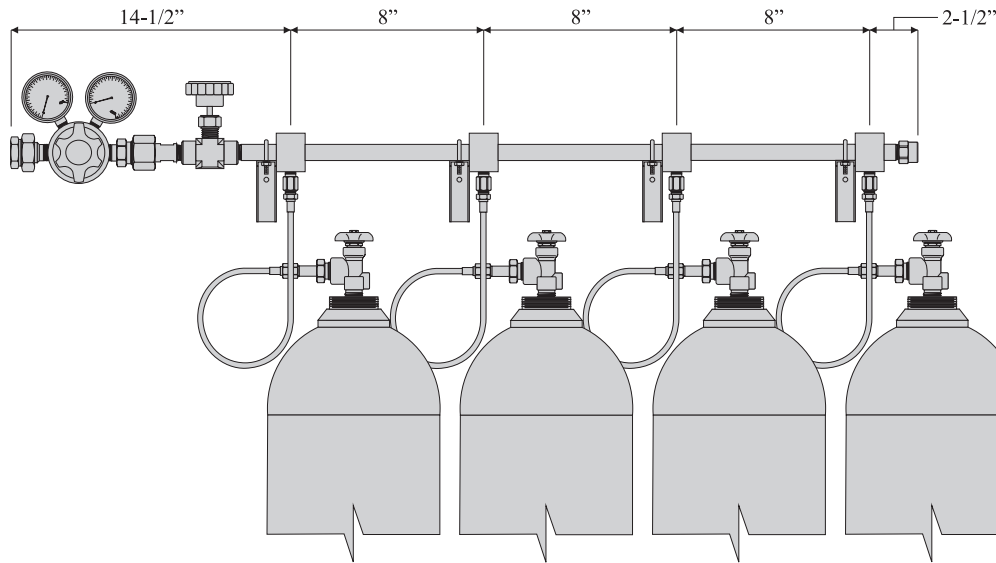


### ULTRA HIGH PURITY APPLICATIONS (OPTION UHP)

SIM 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, BeaconMedæS strongly recommends the use of all stainless steel rigid pigtails.

## Simplex Manifolds for High Pressure Cylinders (High Purity Applications)

### 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
Unlimited	

Regulator Location	Inscribe
To the Left	L
To the Right	R

Alarm Box	Inscribe
Manifold with alarm box	AB
Manifold with/out 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
Standard 5" Center	5S
Vertical crossover 5" center	5V
Special (Please Provide Details)	SPX

### \*ELECTRIC TRIM HEATERS

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

