GENTEC®
GENSTAR TECHNOLOGIES

www.genstartech.com

Manifold Systems

Technology for a Better Future

NEW

Digital Automatic Manifold Systems

The updated 5500D series digital automatic manifold system is designed to provide an uninterrupted gas supply. The fully automatic digital manifold system monitors cylinder bank pressure electronically, automatically changes over to secondary bank when the primary cylinder bank is depleted, and eliminates the need to manually set a priority side. In case of power failure, the system continues to supply gas without interruption. Using our second generation pressure differential switchover valve and newly designed manifold regulators boosts the flowrate and reliability of the system.

Automatic Changeover Cabinet

- Fully enclosed, tamper- resistant metal cabinet
- On-site Display: Indicator lights of system status,
  Gauge Pressures, visual
  Remote alarm box provide system status;
  Digital display of pressure; with changeover alarm function
- Pressure switch control
- External filter facilitates replacement of filtration elements
- Patent pending changeover technology

Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

Company Overview

Genstar Technologies Company, Inc. (GENTEC®), founded in1969, is a global industry leader in the manufacturing of welding apparatus, pressure regulators, and gas control systems.

It is GENTEC®'s mission to provide customers with high quality, value-added products and services that surpass the strictest safety standards. All GENTEC® products are manufactured in an ISO 9001 and ISO 13485 certified facility by our experienced and dedicated workforce, using exquisite craftsmanship in conjunction with computerized automation, stringent quality control, and advanced test equipment.

Additionally, as a total system solution provider, GENTEC® offers technical support, on-site evaluation, and design / implementation. GENTEC® engineers examine all customer requirements in order to develop and recommend the best customer specific solutions.

The company takes great pride in fostering a strong relationship with each and every customer. Today, GENTEC® sells its products through a vast distribution network which extends to thousands of customers worldwide.

Table of Contents

Manifold Purchase Specifications Form — 2

Manifold Systems

Dual Manifold Systems — 3

Single-Bank Manifold Systems — 4-5

Dual-Bank Manifold Systems — 6-7

Semi-Automatic Manifold Systems — 8-9

Automatic Manifold Systems — 10-11

Digital Automatic Manifold Systems — 12-13

Semi-Automatic Manifold Systems for Liquid Vessel — 14

Automatic Manifold Syetems for Liquid Vessels — 15

Digital Automatic Manifold Syetems for Liquid Vessels — 16

Manifold Changeover Cabinet — 17-18

Manifold Components

Manifold Cylinder Header, Header Extensions — 19

Valves & Accessories, Manifold Components — 20

Manifold Fittings — 21

Pigtails, Wall mounts, Pipe Holders / Supports — 22

Flashback Arrestors, Gas Heater — 23

Flashback Arrestors, Pressure Switches & Alarms — 24

Gas Terminals, Station Drops, Terminal Gas Control Panel — 25

Flashback Arrestors, Quick Connectors & Flowmeters — 26

Manifold Regulators — 27-28

Station & Line Regulators — 29-30

Releated Catalogs — 31-32

Warranty Information — 33

MANIFOLD PURCHASE SPECIFICATIONS FORM

1 Application of the manifold system: ☐Industrial ☐Specialty Gas ☐Others _____

2 Gas service: ☐Oxygen ☐Acetylene ☐Propane ☐Air ☐Carbon Dioxide (CO_2)

☐Inert Gases (Argon, Nitrogen, Helium) ☐Others _____

3 Type of manifold system required: ☐Manual ☐Semi-Automatic ☐Automatic

4 Outlet pressure required: (psi) _____

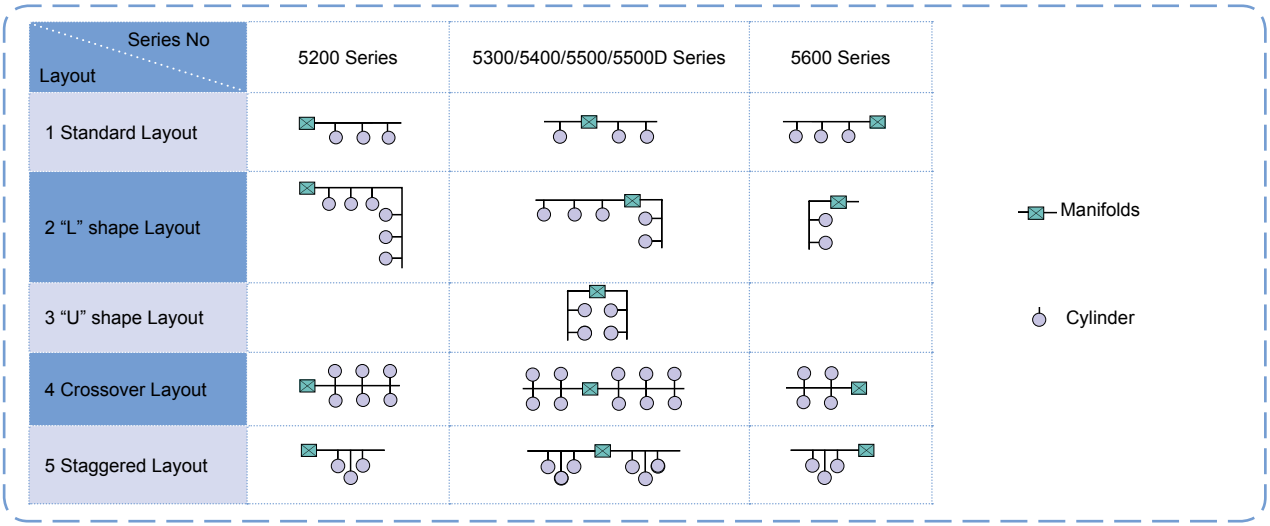
5 Outlet flow rate required: (SCFH) _____

6 Type of mounting: ☐Wall Mount ☐Floor Mount

7 Cylinder Spacing (Center to Center): ☐5" ☐10" ☐13" ☐18"

8 Number of cylinders required: Left Bank _____ Right Bank _____

9 Manifold system layout: _____



10 Accessories:

Pressure Switch	Model No.	_____	Qty	_____
Alarm System	Model No.	_____	Qty	_____
Gas Terminal (Pipeline)	Model No.	_____	Qty	_____
Gas Heater *	Model No.	_____	Qty	_____
Others	Model No.	_____	Qty	_____

*: Optional 500 SCFH heater is available for CO2 & N2O gas service with withdrawal rates above 35 SCFH / cylinder.

Note: Please fill out the above form so GENTEC can recommend the most suitable manifold system for your application. Please do not hesitate to contact us for more information.

DUAL MANIFOLD SYSTEMS

5100 series dual manifold system is a simple gas delivery system which provides a maximum of 2 cylinders in service at one time . This non-extendable system is suitable for maintenance and gas applications where only one cylinder is in service at any given time and a manual changeover is required.

FEATURES

- Silver brazing on piping joints for maximum leak prevention
- Individual Header Valves
- Headers have been tested to withstand high cylinder pressure
- Wall mount installation only

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety.
- Gentec’s high flow regulator series 155M-A.
- Carbon Dioxide manifold systems are provided with 155CG electric heating regulator. Siphon cylinder should not be used in the manifold system.

* : Refer to table on page 22 for pigtail information

ORDERING INFORMATION

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5100X	OXYGEN	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA540
5100Y	ACETYLENE	400 (28)	2~15 (0.14~1)	700 (20)	3/4” NPT (M)	PIGTAIL, CGA510
5100F	PROPANE	400 (28)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA510
5100C	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	2100 (60)	3/4” NPT (M)	PIGTAIL, CGA320
5100IN	ARGON, NITROGEN, HELIUM	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA580

Please specify the “model number” when ordering.

For example: 5100X indicates a dual “oxygen” manifold system.

SINGLE-BANK MANIFOLD SYSTEMS

5200 series Single-bank manifold system is designed for a single source of gas supply from one cylinder bank. Although this system can be used as a main delivery system, it is typically used in industrial and medical applications as a high pressure emergency back-up system for liquid vessel or bulk systems.

FEATURES

- Open-style manifold
- System can be designed for right or left bank
- Silver brazing on piping joints for maximum leak prevention
- System is designed to accomodate future expansion needs
- System is mounted with gas filters
- Pressure switch port is available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety. As an option, hydraulic flashback arrestors are available for an additional charge.
- Gentec’s high flow regulator series 155M-A.
- Carbon Dioxide manifold systems are provided with 155CG electric heating regulator. Siphon cylinder should not be used in the manifold system.

* : Refer to table on page 22 for pigtail information

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5200X	OXYGEN	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA540
5200Y	ACETYLENE	400 (28)	2~15 (0.14~1)	700 (20)	3/4” NPT (M)	PIGTAIL, CGA510
5200F	PROPANE	400 (28)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA510
5200C	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	2100 (60)	3/4” NPT (M)	PIGTAIL, CGA320
5200IN	ARGON, NITROGEN, HELIUM	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA580
5200Q	AIR	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA590

SINGLE-BANK MANIFOLD SYSTEMS

ORDERING INFORMATION

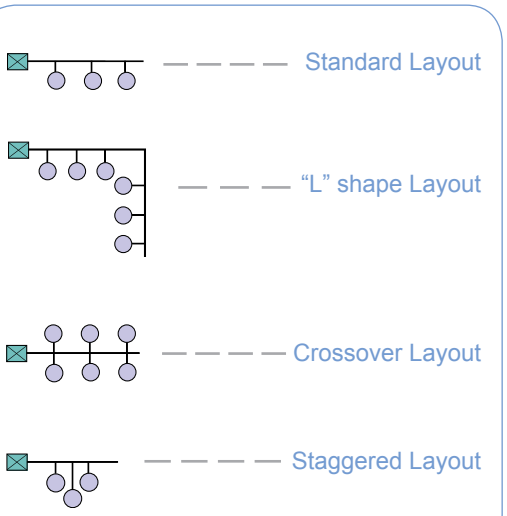
▶ Please follow the instructions below to select the correct model number.

5 2 1 2 X - 3 R - 1

- Single-bank manifold system series prefix
- Manifold system layout
- Cylinder valve spacing
- Gas service
- Number of cylinders
- Direction of manifold piping ("L"for left, "R"for right)
- Type of mounting

Note: Direction of piping (Right or Left) is indicated by facing the manifold.

Manifold System Layouts



Gas Service

PART NUMBER	GAS SERVICE
X	OXYGEN
Y	ACETYLENE
F	PROPANE
C	CARBON DIOXIDE
IN	Ar, He, N_2
Q	AIR

Manifold System Layout

PART NUMBER	MANIFOLD SYSTEM LAYOUT
1	STANDARD LAYOUT
2	"L" SHAPE LAYOUT
3	N/A
4	CROSSOVER LAYOUT
5	STAGGERED LAYOUT

Cylinder Spacing (Center to Center)

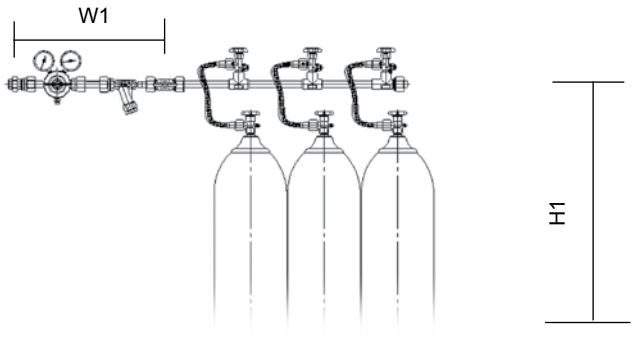
PART NUMBER	CYLINDER SPACING
1	5" (127 mm)
2	10" (254 mm)
3	13" (330 mm)
4	18" (457 mm)

Type of Mounting

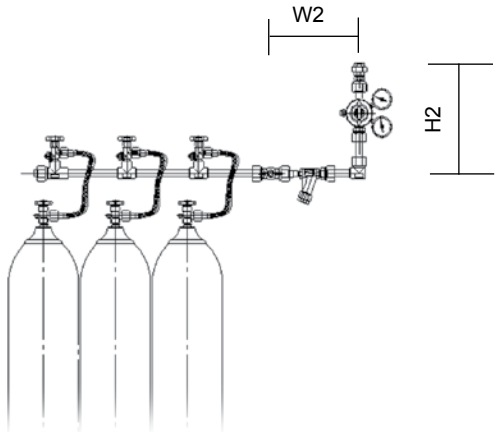
PART NUMBER	TYPE OF MOUNTING
1	WALL MOUNT
2	FLOOR MOUNT

Example: 5212X-3R-1 indicates a 3 cylinder right-hand Single-bank oxygen manifold system.
Distance between each cylinder is 10" on standard horizontal layout.

INSTALLATION DIMENSIONS



Right-hand Single-Bank manifold system



Left-hand Single-Bank manifold system

GAS SERVICE	W1 in.(mm)	H1 in.(mm)	W2 in.(mm)	H2 in.(mm)
OXYGEN, AIR, ARGON, NITROGEN	21.0 (534)	55.2 (1400)	12.3 (313)	14.6 (372)
ACETYLENE, PROPANE	27.8 (708)	51.2 (1300)	12.3 (313)	21.5 (546)
CARBON DIOXIDE	27.5 (698)	55.2 (1400)	18.8 (477)	14.6 (372)

DUAL-BANK MANIFOLD SYSTEMS

5300 series dual-bank manifold system consists of a main gas delivery bank and a reserve bank of cylinders. When the primary cylinder bank is depleted, manually “turn off” the valve on the primary bank and open the valve on the reserve bank to reactivate gas flow. The changeover of this system needs to be operated manually.

FEATURES

- Open-style manifold
- Silver brazing on piping joints for maximum leak prevention
- System is designed to accomodate future expansion needs
- System is mounted with gas filters
- Pressure switch port is available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety. As an option, hydraulic flashback arrestors are available for an additional charge.
- Gentec’s high flow regulator series 155M-A.
- Carbon Dioxide manifold systems are provided with 155CG electric heating regulator. Siphon cylinder should not be used in the manifold system.

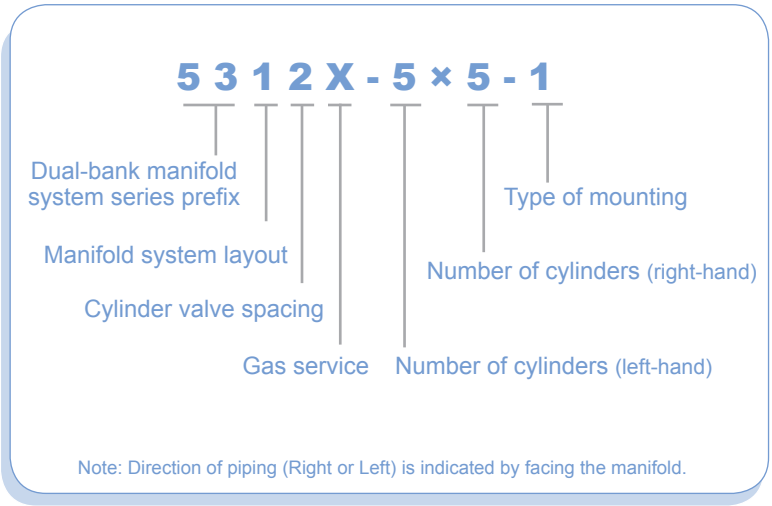
* : Refer to table on page 22 for pigtail information

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5300X	OXYGEN	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA540
5300Y	ACETYLENE	400 (28)	2~15 (0.14~1)	700 (20)	3/4” NPT (M)	PIGTAIL, CGA510
5300F	PROPANE	400 (28)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA510
5300C	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	2100 (60)	3/4” NPT (M)	PIGTAIL, CGA320
5300IN	ARGON, NITROGEN, HELIUM	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA580
5300Q	AIR	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA590

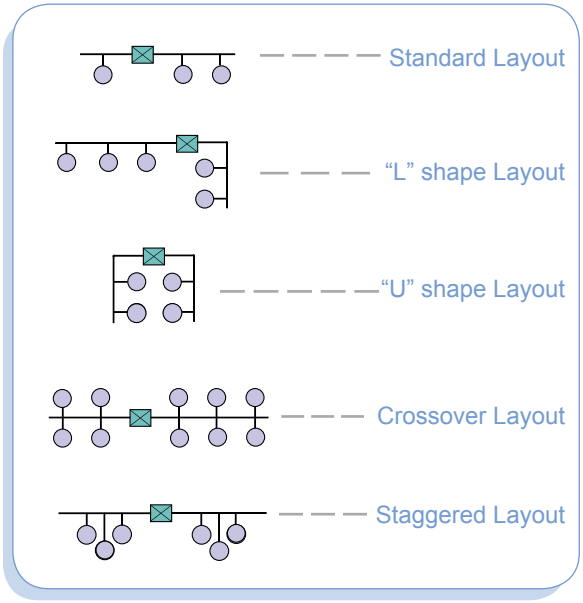
DUAL-BANK MANIFOLD SYSTEMS

ORDERING INFORMATION

▶ Please follow the instructions below to select the correct model number.



Manifold System Layouts



Gas Service

PART NUMBER	GAS SERVICE
X	OXYGEN
Y	ACETYLENE
F	PROPANE
C	CARBON DIOXIDE
IN	Ar, He, N_2
Q	AIR

Manifold System Layout

PART NUMBER	MANIFOLD SYSTEM LAYOUT
1	STANDARD LAYOUT
2	"L" SHAPE LAYOUT
3	"U" SHAPE LAYOUT
4	CROSSOVER LAYOUT
5	STAGGERED LAYOUT

Cylinder Spacing (Center to Center)

PART NUMBER	CYLINDER SPACING
1	5" (127 mm)
2	10" (254 mm)
3	13" (330 mm)
4	18" (457 mm)

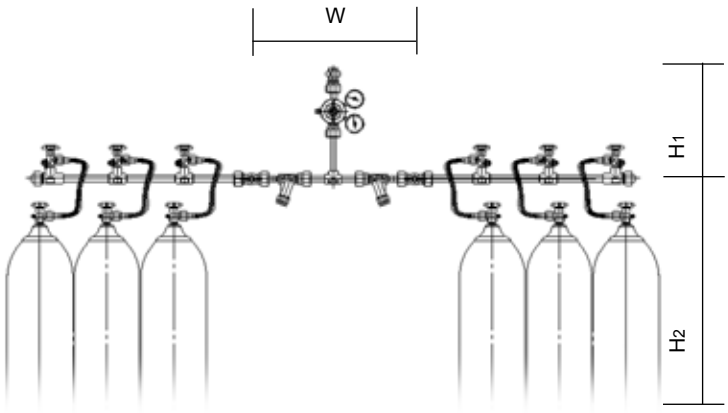
Type of Mounting

PART NUMBER	TYPE OF MOUNTING
1	WALL MOUNT
2	FLOOR MOUNT

Example: 5312X-5x5-1 indicates a 5 x 5 cylinder dual-bank manifold system.
Distance between two cylinders is 10" on standard horizontal layout.

INSTALLATION DIMENSIONS

GAS SERVICE	W in.(mm)	H1 in.(mm)	H2 in.(mm)
OXYGEN, AIR, ARGON, NITROGEN, HELIUM	25.3 (642)	19.2 (488)	55.1 (1400)
ACETYLENE, PROPANE	25.3 (642)	26.1 (662)	51.2 (1300)
CARBON DIOXIDE	25.3 (642)	25.7 (652)	55.1 (1400)



SEMI-AUTOMATIC MANIFOLD SYSTEMS

5400 series semi-automatic manifold system is designed to provide an uninterrupted gas supply. It consists of a primary bank and a reserve bank of cylinders. When the pressure in the primary cylinder bank reduces to the pre-set value, the changeover takes place automatically to provide continuous supply of gas from the reserve bank. Upon changing the cylinders, the regulators on both banks need to be re-adjusted in order for the changeover to occur automatically next time. The secondary regulator in the main pipeline stabilizes the outlet gas flow.

FEATURES

- Open-style manifold
- Secondary regulator for consistant high flow delivery pressure to the pipeline
- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Unique changeover valve provides uninterrupted supply of gas from primary and reserve banks
- Pressure switch port is available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety. As an option, hydraulic flashback arrestors are available for an additional charge.
- Gentec’s high flow regulator series 155L (except for acetylene) & 155M-A.
- Carbon Dioxide manifold systems are provided with 155CG electric heating regulator. Siphon cylinder should not be used in the manifold system.

* : Refer to table on page 22 for pigtail information

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5400X	OXYGEN	3000 (207)	10~200 (0.7~14)	3150 (90)	3/4” NPT (M)	PIGTAIL, CGA540
5400Y	ACETYLENE	400 (28)	2~15 (0.14~1)	700 (20)	3/4” NPT (M)	PIGTAIL, CGA510
5400F	PROPANE	400 (28)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA510
5400C	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA320
5400IN	ARGON	3000 (207)	10~200 (0.7~14)	1750 (50)	3/4” NPT (M)	PIGTAIL, CGA580
5400IN	HELIUM	3000 (207)	10~200 (0.7~14)	7000 (200)	3/4” NPT (M)	PIGTAIL, CGA580
5400IN	NITROGEN	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA580
5400Q	AIR	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA590

SEMI-AUTOMATIC MANIFOLD SYSTEMS

ORDERING INFORMATION

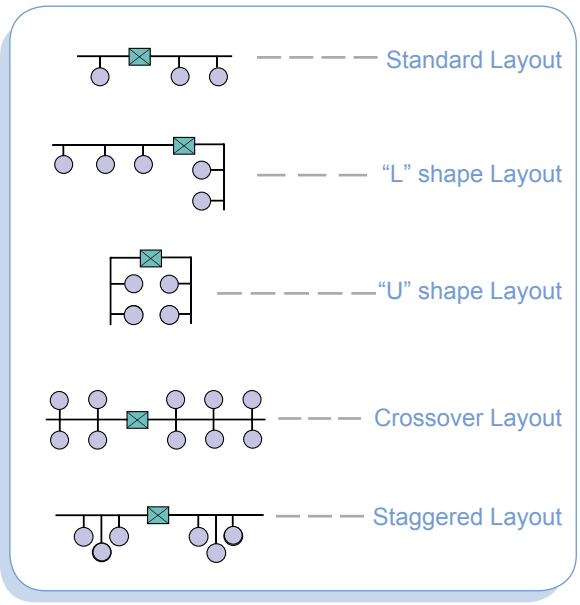
▶ Please follow the instructions below to select the correct model number.

5 4 1 2 X - 5 × 5 - 1

- 5412X: Semi-automatic manifold system series prefix
- 1: Manifold system layout
- 2: Cylinder valve spacing
- X: Gas service
- 5: Number of cylinders (left-hand)
- 5: Type of mounting
- 1: Number of cylinders (right-hand)

Note: Direction of piping (Right or Left) is indicated by facing the manifold.

Manifold System Layouts



Gas Service

PART NUMBER	GAS SERVICE
X	OXYGEN
Y	ACETYLENE
F	PROPANE
C	CARBON DIOXIDE
IN	Ar, He, N_2
Q	AIR

Manifold System Layout

PART NUMBER	MANIFOLD SYSTEM LAYOUT
1	STANDARD LAYOUT
2	"L" SHAPE LAYOUT
3	"U" SHAPE LAYOUT
4	CROSSOVER LAYOUT
5	STAGGERED LAYOUT

Cylinder Spacing (Center to Center)

PART NUMBER	CYLINDER SPACING
1	5" (127 mm)
2	10" (254 mm)
3	13" (330 mm)
4	18" (457 mm)

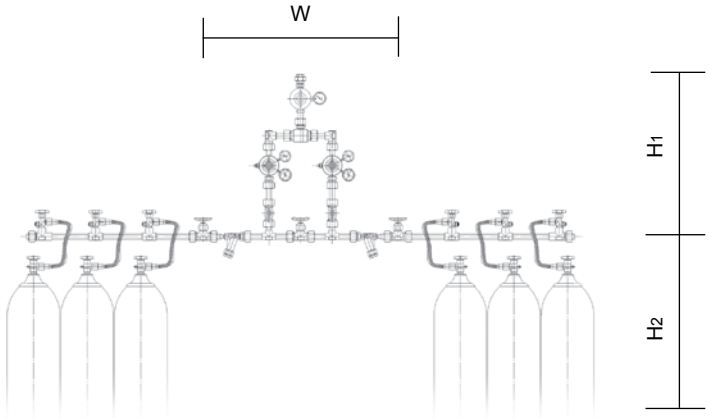
Type of Mounting

PART NUMBER	TYPE OF MOUNTING
1	WALL MOUNT
2	FLOOR MOUNT

Example: 5412X-5x5-1 indicates a 5 x 5 cylinder semi-automatic manifold system. Distance between two cylinders is 10" on standard horizontal layout.

INSTALLATION DIMENSIONS

GAS SERVICE	W in.(mm)	H1 in.(mm)	H2 in.(mm)
OXYGEN, AIR, ARGON, NITROGEN, HELIUM	35.9 (912)	29.1 (739)	55.1 (1400)
ACETYLENE, PROPANE	35.9 (912)	36.9 (912)	51.2 (1300)
CARBON DIOXIDE	48.8 (1240)	29.1 (739)	55.1 (1400)



AUTOMATIC MANIFOLD SYSTEMS

5500 series automatic manifold system is designed to provide an uninterrupted gas supply without any manual adjustments. This system automatically changes over when the primary cylinder bank is depleted. Even in case of power failure, the system continues to supply gas without interruption.

FEATURES

Automatic Changeover Cabinet

- Fully enclosed, tamper- resistant metal cabinet
- Light indicators provide system status
- Systems for fuel gas come with an anti-explosive device
- External filter facilitates replacement of filtration elements
- 5500EY, 5500EF come with anti-explosive devices
- see details in Page 18

Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety. As an option, hydraulic flashback arrestors are available for an additional charge.
- Carbon Dioxide manifold systems are provided with H900G electric heating regulator. Siphon cylinder should not be used in the manifold system.

* : Refer to table on page 22 for pigtail information

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5500X	OXYGEN	3000 (207)	10~200 (0.7~14)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA540
5500EY	ACETYLENE	400 (28)	2~15 (0.14~1)	700 (20)	3/4” NPT (M)	PIGTAIL, CGA510
5500EF	PROPANE	400 (28)	5~125 (0.35~8.6)	1050 (30)	3/4” NPT (M)	PIGTAIL, CGA510
5500C	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	1400 (40)	3/4” NPT (M)	PIGTAIL, CGA320
5500IN	ARGON	3000 (207)	10~200 (0.7~14)	3150 (90)	3/4” NPT (M)	PIGTAIL, CGA580
5500IN	HELIUM	3000 (207)	10~200 (0.7~14)	8800 (250)	3/4” NPT (M)	PIGTAIL, CGA580
5500IN	NITROGEN	3000 (207)	10~200 (0.7~14)	3700 (105)	3/4” NPT (M)	PIGTAIL, CGA580

AUTOMATIC MANIFOLD SYSTEMS

ORDERING INFORMATION

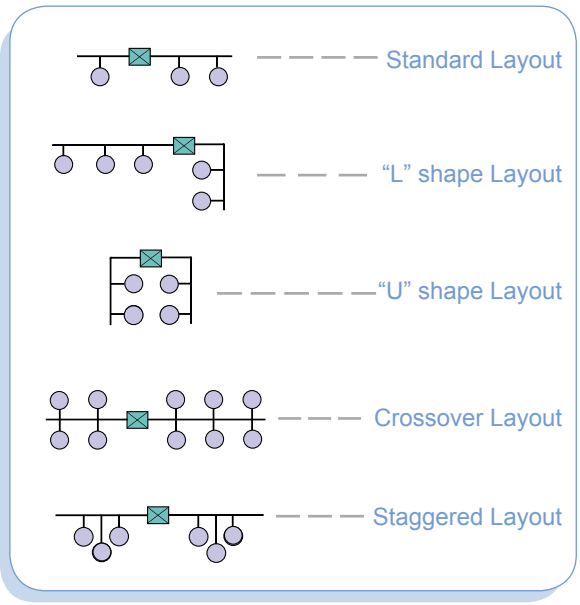
▶ Please follow the instructions below to select the correct model number.

5 5 1 2 E X - 5 × 5 - 1

- 5512EX: Automatic manifold system series prefix
- 1: Manifold system layout
- 2: Cylinder valve spacing
- E: Anti-explosion service for fuel gas
- X: Gas service
- 5: Number of cylinders (left-hand)
- 5: Number of cylinders (right-hand)
- 1: Type of mounting

Note: Direction of piping (Right or Left) is indicated by facing the manifold.

Manifold System Layouts



Gas Service

PART NUMBER	GAS SERVICE
X	OXYGEN
Y	ACETYLENE
F	PROPANE
C	CARBON DIOXIDE
IN	Ar, He, N_2
Q	AIR

Manifold System Layout

PART NUMBER	MANIFOLD SYSTEM LAYOUT
1	STANDARD LAYOUT
2	"L" SHAPE LAYOUT
3	"U" SHAPE LAYOUT
4	CROSSOVER LAYOUT
5	STAGGERED LAYOUT

Cylinder Spacing (Center to Center)

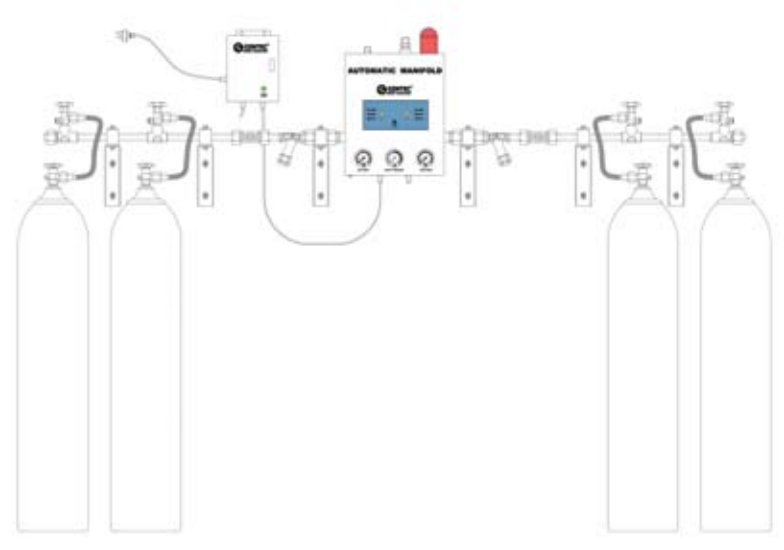
PART NUMBER	CYLINDER SPACING
1	5" (127 mm)
2	10" (254 mm)
3	13" (330 mm)
4	18" (457 mm)

Type of Mounting

PART NUMBER	TYPE OF MOUNTING
1	WALL MOUNT
2	FLOOR MOUNT

Example: 5512X-5x5-1 indicates a 5 x 5 cylinder automatic manifold system.
Distance between two cylinders is 10" on standard horizontal layout.

INSTALLATION DIMENSIONS



GAS SERVICE	W in.(mm)	H1 in.(mm)	H2 in.(mm)
OXYGEN, AIR, ARGON, NITROGEN, HELIUM	41.3 (1050)	15.8 (400)	55.1 (1400)
ACETYLENE, PROPANE	59.8 (1520)	21.7 (550)	55.1 (1400)
CARBON DIOXIDE	55.5 (1410)	15.8 (400)	55.1 (1400)

DIGITAL AUTOMATIC MANIFOLD SYSTEMS

The updated 5500D series digital automatic manifold system is designed to provide an uninterrupted gas supply. The fully automatic digital manifold system monitors cylinder bank pressure electronically, automatically changes over to secondary bank when the primary cylinder bank is depleted, and eliminates the need to manually set a priority side. In case of power failure, the system continues to supply gas without interruption. Using our second generation pressure differential switchover valve and newly designed manifold regulators boosts the flowrate and reliability of the system.

FEATURES

Automatic Changeover Cabinet

- Fully enclosed, tamper- resistant metal cabinet
- On-site Display: Indicator lights of system status,
  Gauge Pressures, visual
  Remote alarm box provide system status;
  Digital display of pressure; with changeover alarm function
- Pressure switch control
- External filter facilitates replacement of filtration elements
- Patent pending changeover technology

Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

STANDARD CONSTRUCTION

- 24” flexible high pressure stainless steel braided pigtails* with check valve, Rigid copper pigtails are standard when gas service is oxygen. Pigtails for acetylene models are equipped with dry flashback arrestor.
- For Acetylene or Fuel gas model, regulator outlet is equipped with a dry flashback arrestor (FA30PF) for additional safety.
  As an option, hydraulic flashback arrestors are available for an additional charge.
- Carbon Dioxide manifold systems are provided with H900DG electric heating regulator.
  Siphon cylinder should not be used in the manifold system.

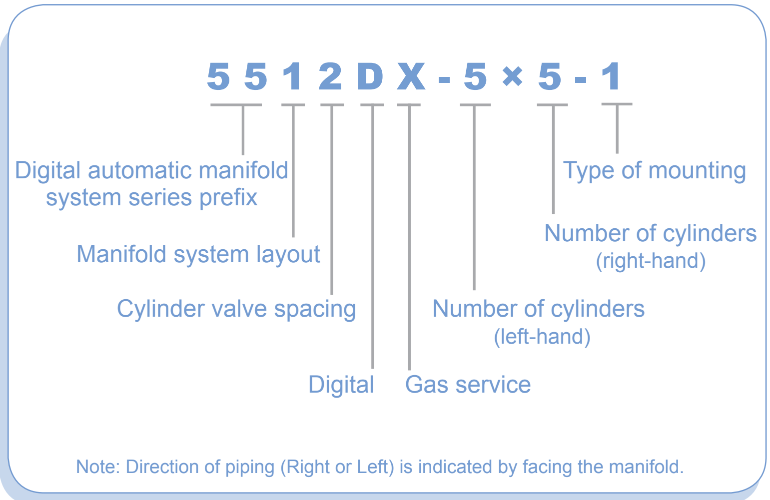
* : Refer to table on page 22 for pigtail information

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5500DX	OXYGEN	3000 (207)	10~175 (0.7~12)	3500 (100)	3/4” NPT (M)	PIGTAIL, CGA540
5500DC	CARBON DIOXIDE	3000 (207)	5~125 (0.35~8.6)	1400 (40)	3/4” NPT (M)	PIGTAIL, CGA320
5500DIN	ARGON	3000 (207)	10~75 (0.7~5.2)	3150 (90)	3/4” NPT (M)	PIGTAIL, CGA580
5500DIN	HELIUM	3000 (207)	10~75 (0.7~5.2)	8800 (250)	3/4” NPT (M)	PIGTAIL, CGA580
5500DIN	NITROGEN	3000 (207)	10~75 (0.7~5.2)	3700 (105)	3/4” NPT (M)	PIGTAIL, CGA580

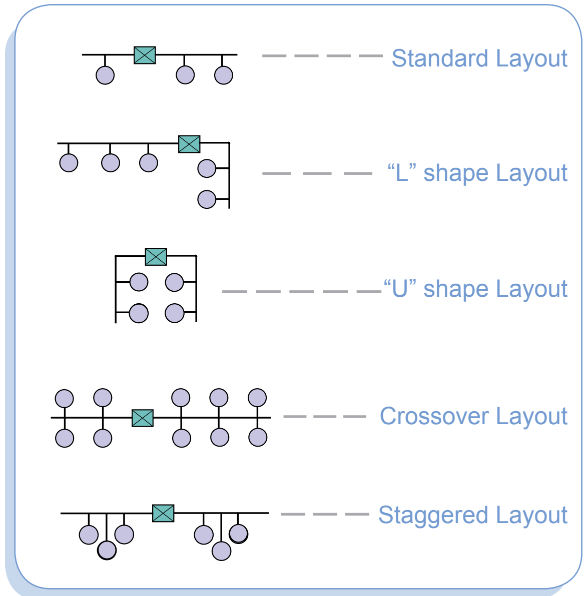
DIGITAL AUTOMATIC MANIFOLD SYSTEMS

ORDERING INFORMATION

▶ Please follow the instructions below to select the correct model number.



Manifold System Layouts



Gas Service

PART NUMBER	GAS SERVICE
X	OXYGEN
Y	ACETYLENE
F	PROPANE
C	CARBON DIOXIDE
IN	Ar, He, N_2
Q	AIR

Manifold System Layout

PART NUMBER	MANIFOLD SYSTEM LAYOUT
1	STANDARD LAYOUT
2	"L" SHAPE LAYOUT
3	"U" SHAPE LAYOUT
4	CROSSOVER LAYOUT
5	STAGGERED LAYOUT

Cylinder Spacing (Center to Center)

PART NUMBER	CYLINDER SPACING
1	5" (127 mm)
2	10" (254 mm)
3	13" (330 mm)
4	18" (457 mm)

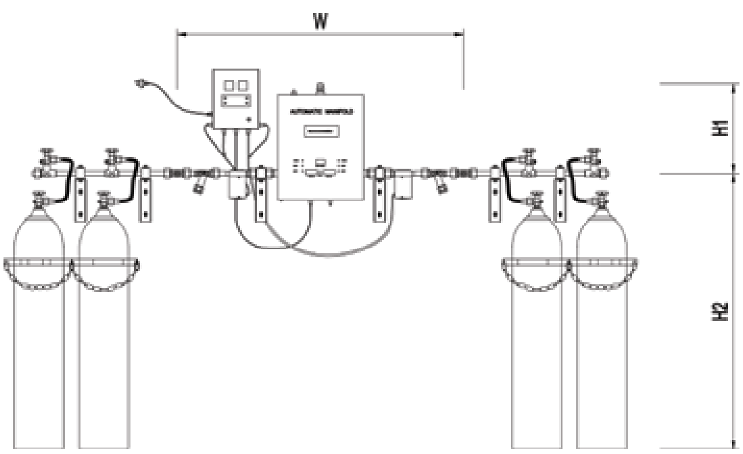
Type of Mounting

PART NUMBER	TYPE OF MOUNTING
1	WALL MOUNT
2	FLOOR MOUNT

Example: 5512DX-5x5-1 indicates a 5 x 5 oxygen cylinder, digital automatic manifold system.
Distance between two cylinders is 10" on standard horizontal layout.

INSTALLATION DIMENSIONS

GAS SERVICE	W in.(mm)	H1 in.(mm)	H2 in.(mm)
OXYGEN, AIR, ARGON, NITROGEN, HELIUM	41.3 (1050)	15.8 (400)	55.1 (1400)
ACETYLENE, PROPANE, HYDROGEN	59.8 (1520)	21.7 (550)	55.1 (1400)
CARBON DIOXIDE	55.5 (1410)	15.8 (400)	55.1 (1400)



SEMI-AUTOMATIC MANIFOLD SYSTEMS FOR LIQUID VESSEL

5600 series manifold system is designed specifically for liquid vessels to provide an uninterrupted gas supply. When the primary liquid vessel is depleted, the changeover takes place automatically to provide continuous supply of gas from the reserve liquid vessel. Upon changing the vessel, the regulators on both banks need to be re-adjusted in order for the changover to occur automatically next time.

FEATURES

- Semi-automatic changeover control
- Unique changeover valve provides uninterrupted supply of gas from primary and reserve vessels
- The whole system is pressure resistance tested
- Wall mount available

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5600C	CARBON DIOXIDE	435 (30)	5~125 (0.35~8.6)	1050 (30)	3/4" NPT (M)	PIGTAIL, CGA320
5600IN	ARGON	435 (30)	5~125 (0.35~8.6)	1750 (50)	3/4" NPT (M)	PIGTAIL, CGA580
5600IN	HELIUM	435 (30)	5~125 (0.35~8.6)	5250 (150)	3/4" NPT (M)	PIGTAIL, CGA580
5600IN	NITROGEN	435 (30)	5~125 (0.35~8.6)	3150 (90)	3/4" NPT (M)	PIGTAIL, CGA580

Note: The flow rate depends on the vaporization rate of gas supplied.

ORDERING INFORMATION

- **Please specify the "model number" when ordering.**
  Example: "5600C" indicates semi-automatic manifold system for liquid vessels.

AUTOMATIC MANIFOLD SYSTEMS FOR LIQUID VESSEL

5700A series automatic manifold system is designed specifically for cryogenic vessels to provide an uninterrupted gas supply without any manual operation. This system automatically changes over when the primary bank is depleted. Even in case of power failure, the system continues to operate without interruption.

FEATURES

Automatic Changeover Cabinet

- Fully enclosed, tamper-resistant metal cabinet
- Light indicators provide system status, with change-over alarm function
- Gas saving structure reduces gas consumption in the reserve cylinder, safe and economical
- Pressure switch valve control
- External filter provides easy replacement of filteration element

Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5700AX	OXYGEN	435 (30)	5~90 (0.35~6.2)	2500 (70)	3/4" NPT (M)	PIGTAIL, CGA540
5700AC	CARBON DIOXIDE	435 (30)	5~90 (0.35~6.2)	1050 (30)	3/4" NPT (M)	PIGTAIL, CGA320
5700AIN	ARGON	435 (30)	5~90 (0.35~6.2)	1750 (50)	3/4" NPT (M)	PIGTAIL, CGA580
5700AIN	HELIUM	435 (30)	5~90 (0.35~6.2)	6350 (180)	3/4" NPT (M)	PIGTAIL, CGA580
5700AIN	NITROGEN	435 (30)	5~90 (0.35~6.2)	2800 (80)	3/4" NPT (M)	PIGTAIL, CGA580

Note: The flow rate depends on the vaporization rate of gas supplied.

ORDERING INFORMATION

- **Please specify the "model number" when ordering.**
  Example: "5700AC" indicates automatic manifold system for liquid vessels.
  Please provide gas phase delivery pressure of Dewar Vessel and operating pressure of the equipment to help us set the system parameters.

DIGITAL AUTOMATIC MANIFOLD SYSTEMS FOR LIQUID VESSEL

5700AD series digital automatic manifold system is designed specifically for cryogenic vessels to provide an uninterrupted gas supply without any manual operation. This system automatically changes over when the primary bank is depleted. Even in case of power failure, the system continues to operate without interruption.

FEATURES

Automatic Changeover Cabinet

- Fully enclosed, tamper-resistant metal cabinet
- On-site Display: Indicator lights of system status,
  Gauge Pressures, visual
  Remote alarm box provide system status;
  Digital display of pressure; with changeover alarm function
- Pressure switch control
- External filter provides easy replacement of filteration element
- Patent pending changeover technology

Header

- Silver brazing on piping joints for maximum leak prevention
- System is designed to accommodate future expanison needs
- System is mounted with gas filters
- Pressure switch port available
- Headers have been tested to withstand high cylinder pressure
- Wall or floor mount available

SERIES	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX DELIVERY FLOW SCFH (m^3/h)	OUTLET CONNECTION	PIGTAIL SPECIFICATIONS
5700ADX	OXYGEN	435 (30)	5~90 (0.35~6.2)	2500 (70)	3/4" NPT (M)	PIGTAIL, CGA540
5700ADC	CARBON DIOXIDE	435 (30)	5~90 (0.35~6.2)	1050 (30)	3/4" NPT (M)	PIGTAIL, CGA320
5700ADIN	ARGON	435 (30)	5~90 (0.35~6.2)	1750 (50)	3/4" NPT (M)	PIGTAIL, CGA580
5700ADIN	HELIUM	435 (30)	5~90 (0.35~6.2)	6350 (180)	3/4" NPT (M)	PIGTAIL, CGA580
5700ADIN	NITROGEN	435 (30)	5~90 (0.35~6.2)	2800 (80)	3/4" NPT (M)	PIGTAIL, CGA580

Note: The flow rate depends on the vaporization rate of gas supplied.

ORDERING INFORMATION

- **Please specify the "model number" when ordering.**
  Example: "5700ADX" indicates automatic digital manifold system for liquid vessels.

MANIFOLD CHANGEOVER SYSTEMS

SINGLE-BANK CHANGEOVER SYSTEM

Designed for Single-Bank cylinder manifold systems (right or left).

- Inlet connection thread: 1-11 1/2NPS RH(M)
- Outlet connection thread: 3/4” NPT(M)
- Max.Inlet Pressure: 3000 psi for Oxygen, Carbon Dioxide, Argon, Nitrogen, Helium, Air; 400 psi for Acetylene, Propane

5200X-00R

5200X-00L

MODEL NUMBER	GAS SERVICE	DESCRIPTION
5200X-00L	OXYGEN	LEFT BANK
5200X-00R	OXYGEN	RIGHT BANK
5200YD-00L	ACETYLENE	LEFT BANK WITH FA (FA30PF)
5200YD-00R	ACETYLENE	RIGHT BANK WITH FA (FA30PF)
5200FD-00L	PROPANE	LEFT BANK WITH FA (FA30PF)
5200FD-00R	PROPANE	RIGHT BANK WITH FA (FA30PF)
5200FH-00R	PROPANE	LEFT BANK WITH FA (GFA-1000 LPG）
5200C-00L	CARBON DIOXIDE	LEFT BANK WITH GAS HEATER
5200C-00R	CARBON DIOXIDE	RIGHT BANK WITH GAS HEATER
5200IN-00L	ARGON, NITROGEN, HELIUM	LEFT BANK
5200IN-00R	ARGON, NITROGEN, HELIUM	RIGHT BANK
5200Q-00L	AIR	LEFT BANK
5200Q-00R	AIR	RIGHT BANK
5200H-00L	HYDROGEN	LEFT BANK
5200H-00R	HYDROGEN	RIGHT BANK

DUAL-BANK CHANGEOVER SYSTEM

Designed for dual-bank manifold systems

- Inlet connection thread:1”-11-1/2NPS RH (M)

5300X-00

MODEL NUMBER	GAS SERVICE	ACCESSORIES
5300X-00	OXYGEN	
5300YD-00	ACETYLENE	WITH FA (FA30PF)
5300FD-00	ACETYLENE	WITH FA (FA30PF)
5300C-00	CARBON DIOXIDE	WITH GAS HEATER
5300IN-00	ARGON, NITROGEN, HELIUM	
5300H-00	HYDROGEN	

MANIFOLD CHANGEOVER SYSTEMS

SEMI-AUTOMATIC CHANGEOVER MANIFOLD SYSTEMS

Designed for semi-automatic changeover manifold systems.

- Inlet connection thread: 1-11 1/2NPS RH(M)
- Outlet connection thread: 3/4" NPT(M)
- Max.Inlet Pressure: 3000 psi for Oxygen, Carbon Dioxide, Argon, Nitrogen, Helium, Air; 400 psi for Acetylene, Propane

5400X-00

MODEL NUMBER	GAS SERVICE	ACCESSORIES
5400X-00	OXYGEN	
5400YD-00	ACETYLENE	WITH FA (FA30PF)
5400FD-00	PROPANE	WITH FA (FA30PF)
5400C-00	CARBON DIOXIDE	WITH GAS HEATER
5400IN-00	ARGON, NITROGEN, HELIUM	
5400Q-00	AIR	
5400H-00	HYDROGEN	

AUTOMATIC CHANGEOVER CABINET

5500X-00

- Suitable for automatic manifold changeover system. Even in case of power failure, the system continues to operate without interruption
- Detachable rollover cabinet cover, easy to maintain and service
- Three-way gas pressure display
- The panel shows the system working status
- Two-stage regulator construction for stable gas delivery
- High accuracy pressure switch control
- Wall mount available
- Inlet connection thread: 1''-11-1/2NPS(M)
  Outlet connection thread: Rc 3/4
- Safety Discharge Port: G 3/4''
- Electrical setting: Operating voltage 220VAC, insulation between strong and weak current
- Dimensions: 20''(W) x 24''(H) x 8''(D) (508mm x 610mm x 203mm)

MODEL NUMBER	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	MAX. DELIVERY PRESSURE SCFH (m^3/h)	ACCESSORIES
5500X-00	OXYGEN	3000 (207)	10~145 (0.7~10)	3500 (100)	
5500IN-00	ARGON	3000 (207)	10~145 (0.7~10)	3150 (90)	
	HELIUM	3000 (207)	10~145 (0.7~10)	8800 (250)	
	NITROGEN	3000 (207)	10~145 (0.7~10)	3700 (105)	
5500C-00	CARBON DIOXIDE	3000 (207)	10~145 (0.7~10)	1400 (40)	WITH GAS HEATER
5500EYD-00	ACETYLENE	435 (30)	2~15 (0.14~1)	500 (15)	WITH FA (FA30PF)
5500EYH-00	ACETYLENE	435 (30)	2~15 (0.14~1)	700 (20)	WITH FA（GFA-1000A）
5500EFD-00	PROPANE	435 (30)	5~125 (0.35~8.6)	1050 (30)	WITH FA (FA30PF)
5500EFH-00	PROPANE	435 (30)	5~125 (0.35~8.6)	700 (20)	WITH FA（GFA-1000A）

MANIFOLD CYLINDER HEADER

Header extension consists of a gas delivery pipe and header valves.
It is expandable for different application requirements.

GHER-310X (right-hand manifold pipings)

GHEL-310X (left-hand manifold pipings)

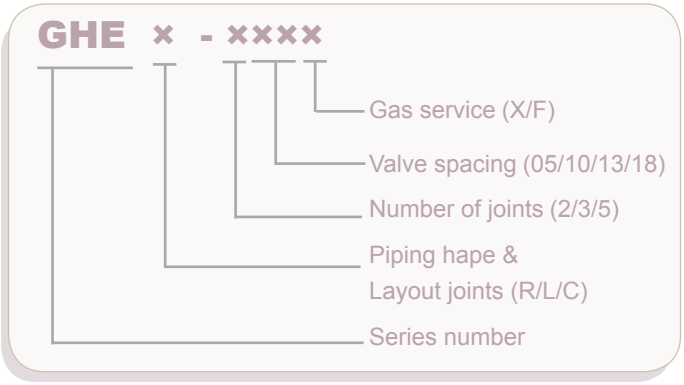
GHEC-310X (Dual manifold pipings)

FEATURES

- Machined with class “A” brass stock
- Silver brazing on piping joints for maximum leak prevention
- Maximum working pressure: 20 Mpa.
- Inlet (Header valve): Fuel Gas- CGA 510
  Other gases-CGA540
- Outlet :1”-11-1/2NPS
- GHER,GHEL series are designed with inlet connection for each cylinder
- GHEC series are designed with two inlet connections for each cylinder

ORDERING INFORMATION

- Please follow the instructions below to select the correct model number.



SERIES NUMBER	NO. OF JOINTS	JOINTS SPACING	GAS SERVICE
GHER (Right-hand)	2，3，5	5”，10”，13”，18”	X: O_2 CO_2 Ar He N_2 Air
GHEL (Left-hand)	2，3，5	5”，10”，13”，18”	
GHEC (Dual)	2，3，5	5”，10”，13”	F: C_2H_2 C_3H_8 H_2

Example: GHER-210X indicates a right-hand oxygen manifold piping system with 2 joints, and 10” joint distance.

HEADER EXTENSIONS

GET-9X

GCC-4

GEE-11

MODEL NUMBER	LENGTH	INLET CONNECTION	OUTLET CONNECTION	DESCRIPTION
GEE-4	4-1/2”	1”-11-1/2NPS-RH (M)	1”-11-1/2NPS-RH (F)	Elbow
GEE-8	8-1/3”	1”-11-1/2NPS-RH (M)	1”-11-1/2NPS-RH (F)	
GEE-11	11-1/3”	1”-11-1/2NPS-RH (M)	1”-11-1/2NPS-RH (F)	
GET-9X	8-2/3”	1”-11-1/2NPS-RH (F)	1”-11-1/2NPS-RH (F)	“T” shape
GCC-4	4”	1”-11-1/2NPS-RH (F)	1”-11-1/2NPS-RH (F)	Extension
GCC-4L	4”	1”-11-1/2NPS-RH (F)	1”-11-1/2NPS-LH (F)	

VALVES & ACCESSORIES

GMV-180

GMV-90X

MODEL NUMBER	INLET / OUTLET CONNECTION	GAS SERVICE	DESCRIPTION
GMV-180	1”-11-1/2NPS	*All Gas	MASTER VALVE
GMV-90X	CGA540 / 1/2” NPT	O_2, CO_2, Air, Ar, He, N_2	HEADER VALVE
GMV-90F	CGA510 / 1/2” NPT	C_2H_2, C_3H_8, H_2	
GMV-91X	1/2” NPT / G5/8-RH	O_2 , CO_2, Air, Ar, He, N_2	IN-LINE CHECK VALVE
GMV-91F	1/2” NPT / G5/8-LH	C_2H_2, C_3H_8, H_2	

*All gases = non-corrosive gases

R155-103A

R155-103

GHER-210-02

MODEL NUMBER	DESCRIPTION
GHFN-X	Nut, 1”-11-1/2NPS-RH(F)
EN-100A	Plug
R155-103	1/2”NPT
R155-103A	1/4”NPT
R155-103B	3/4”NPT
R155-111	Adaptor, 1/4”NPT(M) / 1”-11-1/2NPS-RH(M)
R155-111A	Adaptor, 1/4”NPT(M) / 1”-11-1/2NPS-LH(M)
R155-110	Adaptor, 1/2”NPT(M) / 1”-11-1/2NPS-RH(M)
GCC-A	Adaptor, 3/4”NPT(M) / 1”-11-1/2NPS-RH(M)
GCC-C	Adaptor, 3/4”NPT(M) / 1”-11-1/2NPS-LH(M)
GCC-B	Adaptor, 3/4”NPT(M) / 3/4”NPT(M)
GCC-D	Adaptor, 3/4”NPT(M) / 1/2”NPT(M)
GHER-210-02	Retaining Nut, 27/32”-20UNS(F)

GCC-A

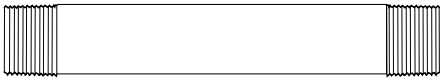
EN-100A

GHFN-X

GHFA-J1

MANIFOLD COMPONENTS

- Machined with class “A” brass stock
  Maximum working pressure:20MPa
- D: 22.5mm, ID: 11.5mm

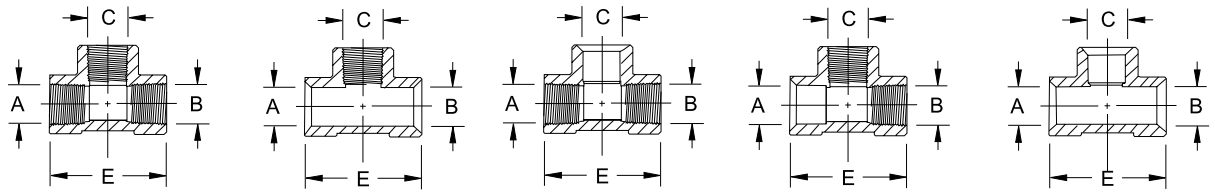


LENGTH	1/2” NPT	1/2”
1-1/2”（38mm)	GHBP-1A	
2”（51mm)	GHBP-2A	GHBP-2C
4”（102mm)	GHBP-4A	GHBP-4C
6”（152mm)	GHBP-6A	GHBP-6C
8-1/2”（216mm)	GHBP-8A	GHBP-8C
11-1/2”（292mm)	GHBP-11A	GHBP-11C
6’（1829mm)		GHBP-180C
12’（3658mm)		GHBP-360C

MANIFOLD FITTINGS

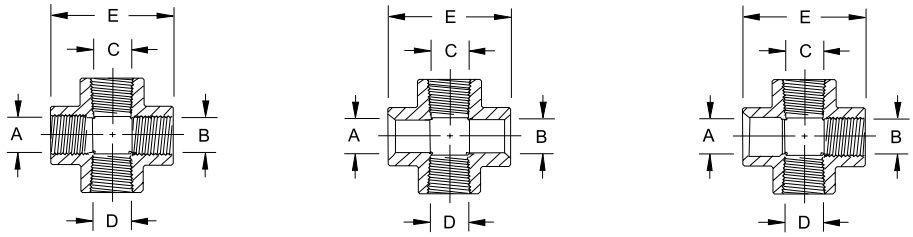
- Machined with class “A” brass stock
  Maximum working pressure: 3000 psi

THREE-WAY CONNECTOR



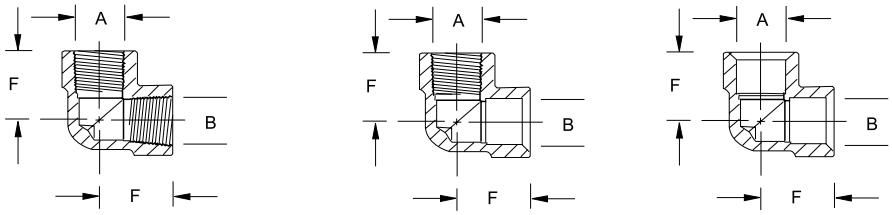
MODEL NUMBER	A	B	C	E	FIGURE
GHFT-1A	1/2” NPT	1/2” NPT	1/2” NPT	2-1/2”	1
GHFT-1B	0.873-0.886	0.873-0.886	1/2” NPT	2-1/2”	2
GHFT-1C	1/2” NPT	1/2” NPT	0.873-0.886	2-1/2”	3
GHFT-1D	0.873-0.886	1/2” NPT	1/2” NPT	2-1/2”	4
GHFT-1E	0.873-0.886	0.873-0.886	0.873-0.886	2-1/2”	5

FOUR-WAY CONNECTOR



MODEL NUMBER	A	B	C	D	E	FIGURE
GHFC-1A	1/2” NPT	1/2” NPT	1/2” NPT	1/2” NPT	2-3/4”	1
GHFC-1B	0.873-0.886	0.873-0.886	1/2” NPT	1/2” NPT	2-3/4”	2

ELBOW CONNECTOR



MODEL NUMBER	A	B	E	FIGURE
GHFE-1A	1/2” NPT	1/2” NPT	1-1/4”	1
GHFE-1B	1/2” NPT	0.873-0.886	1-1/4”	2
GHFE-1C	0.873-0.886	0.873-0.886	1-1/4”	3

HIGH PRESSURE PIGTAILS

For use with GENTEC manifold systems only.

COPPER PIGTAIL

STAINLESS STEEL FLEXIBLE PIGTAIL

MGPX -	XX	XXX -	XXX -		
SERIES NUMBER	**LENGTH**	**CV / FA**	**CONNECTION (CYLINDER)**	**GAS SERVICE**	**GAS NOT RECOMMENDED**
MGPF: Flexible pigtail (Teflon-lined)	24：24” (610 mm) 36：36” (914 mm) 59：59” (1500 mm) 79：79” (2000 mm)	Blank: Without check valve CVO: Check valve at manifold header side CVI: Check valve at cylinder valve side FA: With flashback arrestor	C320: CGA320 (CO_2) C326: CGA 326 (N_2O) C346: CGA 346 (Air) C350: CGA 350 (C_2H_2) C510: CGA 510 (C_2H_2, Low Pressure) C540: CGA 540 (O_2) C580: CGA 580 (Inert Gas) BS02: BS341 No 2 (C_2H_2) BS03: BS341 No 3 (Air, O_2, N_2, Inert Gas) BS04: BS341 No 4 (H_2,CH4) BS08: BS341 No 8 (CO_2) BS13: BS341 No 13 (N_2O) DN01: DIN 477 No 1 (H_2, C_2H_6, C_2H_4, Fuel Gas) DN03: DIN 477 No 3 (C_2H_2) DN06 : DIN 477 No 6 (Ar, CO_2, Inert Gas) DN08: DIN 477 No 8 (N_2O) DN09: DIN 477 No 9 (O_2) DN10: DIN 477 No 10 (N_2)	Strong oxidizing Strong corrosive gas	High Pressure Medical Oxygen*
MGPS: Stainless steel flexible pigtail (316SST)				Fuel gas Non fuel gas	High Pressure Oxygen**
MGPR: Copper rigid pigtail				Medical Oxygen	Acetylene

* According to HTM, high pressure medical oxygen is not compatible with Teflon lining pigtail.

** High pressure oxygen should not be used with stainless steel pigtail according to relevant standards.

CYLINDER WALL MOUNTS, PIPE HOLDERS, AND PIPE SUPPORTS

GMB-7

GMB-9B

GMB-1

GMB-3

MODEL NUMBER	DESCRIPTION
GMB-1	Single Cylinder Wall Mount, OD. 9“ (229 mm)
GMB-2	Single Cylinder Wall Mount, OD. 14“ (356 mm)
GMB-3	Dual Cylinder Wall Mount, OD. 9“ (229 mm)
GMB-4	Dual Cylinder Wall Mount, OD. 14“ (356 mm)
GMB-7	Mounting Bracket
GMB-9B	Header Support

FLASHBACK ARRESTORS

HYDRAULIC FLASHBACK ARRESTORS

Hydraulic Flash Arrestor is designed for use on Acetylene or Fuel Gas Manifold Systems to protect the main gas supply from the dangers of reverse flow and flashbacks. A pressure relief valve is included to provide additional protection from excessive pressure.(Inlet and outlet connection thread : G1")

GFA-300A

MODEL NUMBER	GAS SERVICE	DELIVERY FLOW (SCFH)
GFA-1000A	ACETYLENE	990
GFA-1000LPG	PROPANE，LPG	990
GFA-300A	ACETYLENE	300
GFA-300LPG	PROPANE，LPG	300

IN-LINE LOW PRESSURE FLASHBACK ARRESTORS

Designed for use on Acetylene or Fuel Gas Manifold Systems with low pressure piping system to protect the main gas supply from the dangers of reverse flow and flashbacks by stainless steel sintered elements and check valves.

FA30PO

FA33SP

HFA43SP

MODEL NUMBER	GAS SERVICE	WORKING PRESSURE psi (bar)	DELIVERY FLOW (SCFH)	INLET / OUTLET CONNECTION
FA30PF	ACETYLENE, PROPANE	22 (1.5)	2450	3/4" NPT(F) / 3/4" NPT(F)
FA30PO	OXYGEN	145 (10)	5800	3/4" NPT(F) / 3/4" NPT(F)
FA33SP	HYDROGEN	50 (3.5)	1250	1/4" NPT(F) / 1/4" NPT(M)
HFA43SP	HYDROGEN	145 (10)	4100	3/8" NPT(F) / 3/8" NPT(F)
	PROPANE	115 (8)	900	3/8" NPT(F) / 3/8" NPT(F)

GAS HEATER

H900G-200-D

Machined with class "A" brass stock and used in high pressure pipeline system. Ideal for continuous heating of carbon dioxide and nitrous oxide to prevent gas from freezing the piping system.

MODEL NUMBER	WORKING PRESSURE psi (bar)	DELIVERY FLOW (SCFH)	VOLTAGE	POWER	TEMPERATURE	INLET CONNECTION	OUTLET CONNECTION
H900G-220-D	3000 (207)	1800	220 VAC	900 W	120 °F ~ 160 °F	1" -11-1/2 NPS RH (F)	1" -11-1/2 NPS RH (M)

HIGH PRESSURE FLASHBACK ARRESTORS, PRESSURE SWITCHES, REMOTE ALARM PANELS

GAS FILTER

The gas filter is used in high pressure pipeline system to effectively eliminate the dust in the gas. Its main body is made of high quality brass and its unique structure facilitates the replacement of the filter screen.

MODEL NUMBER	GAS SERVICE	MAX.INLET PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
GF40HP	ALL GASES (EXCEPT OXYGEN)	3000 (207)	1”-11-1/2NPS RH (F)	1”-11-1/2NPS RH (M)
GF40HPO	OXYGEN	3000 (207)	1”-11-1/2NPS RH (F)	1”-11-1/2NPS RH (M)

*All gases = non-corrosive gases

PRESSURE SWITCHES (EXPLOSION-PROOF TYPE)

Pressure switchs are designed for gas manifold systems to activate remote alarm systems. Operates when cylinder/line pressure is below minimum pressure setting.

EXPLOSION-PROOF

REGULAR

MODEL NUMBER	PRESSURE RANGE psi (bar)	MAX.INLET PRESSURE psi (bar)	PRESSURE CONNECTION	ANTI-EXPLOSION
GHPS-1	5~50 (0.35~3.5)	440 (30)	1/8” NPT	-
GHPS-2	30~600 (2.1~41.5)	2200 (152)	1/8” NPT	-
GHPS-3	100~1500 (6.9~103)	2200 (152)	1/4” NPT	-
GHPS-4E	2~10 (0.14~0.7)	600 (41.4)	1/4” NPT (F)	Y
GHPS-5E	15~75 (1~5.2)	600 (41.4)	1/4” NPT (F)	Y
GHPS-6E	50~450 (3.5~31)	2000 (138)	1/4” NPT (F)	Y

REMOTE ALARM PANELS

Remote alarm panel is suitable for all manifold systems. The alarm is activated to provide audio and visual warning when the service bank is empty. A press of reset button in front of the panel will silence the buzzer. The red alarm light will remain illuminated until the empty bank is replaced.

FEATURES

- Apparent audible & visual alarm indication
- With alarm silencing button
- Cable connector, safe and convenient
- Custom-ordered multiple alarms
- Can be installed on the gas source port according to the customer request

MODEL NUMBER	SUPPLY VOLATAGE	ALARM TYPE	SIGNAL TYPE	NO. OF GASES
SGPA-1-220	110V, 220V	AUDIO & VISUAL ALARM	SWITCH SIGNAL	1
SGPA-2-220	110V, 220V	AUDIO & VISUAL ALARM	SWITCH SIGNAL	2
SGPA-4-220	110V, 220V	AUDIO & VISUAL ALARM	SWITCH SIGNAL	4

GAS TERMINALS

GSOB & GSOL Series Gas Terminals are designed for gas delivery workstations. GSOB (Box) and GSOL series (Line piping) consist of 3 types of gas outlets within a casing: direct, regulator, and flowmeter outlet. (Inlet Connection: 1/2" union).

GAS TERMINAL BOX

GSOB-3FC (Box)

GSOB-3RF (Box)

MODEL NUMBER	GAS SERVICE	NO. OF OUTLET	OUTLET CONNECTION	DESCRIPTION
GSOB-3X	OXYGEN	3	M16 X 1.5-RH (M)	Direct Type
GSOB-3Y	ACETYLENE	3	M16 X 1.5-LH (M)	Direct Type, with Flashback Arrestor
GSOB-3F	PROPANE, LPG	3	M16 X 1.5-LH (M)	Direct Type, with Flashback Arrestor
GSOB-3C	CARBON DIOXIDE	3	M16 X 1.5-RH (M)	Direct Type
GSOB-3IN	ARGON	3	M16 X 1.5-RH (M)	Direct Type
GSOB-3RX	OXYGEN	3	M16 X 1.5-RH (M)	Regulator Type
GSOB-3RY	ACETYLENE	3	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-3RF	PROPANE, LPG	3	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-2RX	OXYGEN	2	M16 X 1.5-RH (M)	Regulator Type
GSOB-2RY	ACETYLENE	2	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-2RF	PROPANE, LPG	2	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-1RX	OXYGEN	1	M16 X 1.5-RH (M)	Regulator Type
GSOB-1RY	ACETYLENE	1	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-1RF	PROPANE, LPG	1	M16 X 1.5-LH (M)	Regulator Type, with Flashback Arrestor
GSOB-3FC	CARBON DIOXIDE	3	M16 X 1.5-RH (M)	Flowmeter Type
GSOB-3FIN	ARGON	3	M16 X 1.5-RH (M)	Flowmeter Type
GSOB-2FC	CARBON DIOXIDE	2	M16 X 1.5-RH (M)	Flowmeter Type
GSOB-2FIN	ARGON	2	M16 X 1.5-RH (M)	Flowmeter Type
GSOB-1FC	CARBON DIOXIDE	1	M16 X 1.5-RH (M)	Flowmeter Type
GSOB-1FIN	ARGON	1	M16 X 1.5-RH (M)	Flowmeter Type

STATION DROPS

GSOL-2X-R (Line Piping)

MODEL NUMBER	GAS SERVICE	NO. OF OUTLET	OUTLET CONNECTION
GSOL-1X-R	ARGON, CARBON DIOXIDE, OXYGEN	1	G5/8"-14RH (M)
GSOL-2X-R	ARGON, CARBON DIOXIDE, OXYGEN	2	G5/8"-14RH (M)
GSOL-1X-H	ARGON, CARBON DIOXIDE, OXYGEN	1	M16 X 1.5-RH (M)
GSOL-1F-R	ACETYLENE, PROPANE	1	G5/8"-14RH (M)
GSOL-4F-R	ACETYLENE, PROPANE	4	G5/8"-14RH (M)
GSOL-2F-H	ACETYLENE, PROPANE	2	M16 X 1.5-LH (M)
GSOL-4F-H	ACETYLENE, PROPANE	4	M16 X 1.5-LH (M)

TERMINAL GAS CONTROL PANEL

P1520

MODEL NUMBER	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
P1520F	PROPANE	400 (25)	0~40 (2.5)	BSP 1/4"	1/4" Hose Nipple
P1520X	OXYGEN	400 (25)	0~125 (8.5)	BSP 1/4"	1/4" Hose Nipple
P1520Y	ACETYLENE	400 (25)	0~15 (1)	BSP 1/4"	1/4" Hose Nipple
P1520IN	Ar, He, N_2	400 (25)	0~125 (8.5)	BSP 1/4"	1/4" Hose Nipple

FLASHBACK ARRESTORS, QUICK CONNECTORS & FLOWMETERS

REGULATOR FLASHBACK ARRESTORS

Designed for mounting on the regulator outlet. Internal stainless steel sintered elements and check valves are constructed to provide protection from flashbacks.

FA9RF

FA9RO

MODEL NUMBER	GAS SERVICE	WORKING PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
FA9RF	ACETYLENE, PROPANE, LPG	22 (1.5)	9/16-18LH (F)	9/16-18LH (M)
FA9RO	OXYGEN	145 (10)	9/16-18RH (F)	9/16-18RH (M)

QUICK CONNECTORS WITH CHECK VALVE

Designed with a check valve to provide protection from flashbacks during gas cutting processes. The quick-opening valve at the end of the connector facilitates the connections.

RH39F

RH39X

MODEL NUMBER	GAS SERVICE	WORKING PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
RH36X	OXYGEN	145 (10)	9/16-18RH (F)	9/16-18RH (F)
RH36F	FUEL GAS	30 (2)	9/16-18LH (F)	9/16-18LH (F)
RH39X	OXYGEN	145 (10)	9/16-18RH (F)	5/16” HOSE NIPPLE
RH39F	FUEL GAS	30 (2)	9/16-18LH (F)	5/16” NIPPLE

FLOWMETERS (SUITABLE FOR USE ON PIPING SYSTEMS)

191FM-25L

191FM-25L-F

SERIES	MODEL NUMBER	GAS SERVICE	DELIVERY FLOW (SCFH)	MAX. INLET PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
191FM SERIES	191FM-25L	CARBON DIOXIDE	0-55	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-25L	ARGON	0-55	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-25L	HELIUM	0-170	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-50L	CARBON DIOXIDE	0-105	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-50L	ARGON	0-105	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-50L	HELIUM	0-240	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-30L	NITROGEN	0-65	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-30L	Air	0-65	50 (3.5)	1/4” NPT (M)	9/16-18RH (M)
	191FM-100L	HYDROGEN	0-210	50 (3.5)	1/4” NPT (M)	9/16-18LH (M)
191FM-F SERIES	191FM-25L-F	CARBON DIOXIDE	0-55	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-25L-F	ARGON	0-55	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-25L-F	HELIUM	0-170	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-50L-F	CARBON DIOXIDE	0-105	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-50L-F	ARGON	0-105	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-50L-F	HELIUM	0-340	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-30L-F	NITROGEN	0-65	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-30L-F	Air	0-65	50 (3.5)	9/16-18RH (F)	9/16-18RH (M)
	191FM-100L-F	HYDROGEN	0-210	50 (3.5)	9/16-18RH (F)	9/16-18LH (M)

MANIFOLD REGULATORS

155CG
Patent No. 200520014547.8

155M

155TM

153M

SERIES	MODEL NUMBER	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
155CG series electric heating	155CG-125-220	CO_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155CG-200-220		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
155M-A series (ultra high flow system) single-stage	155MX-125-A	O_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MX-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MY-15-A	C_2H_2	435 (30)	1.5~14.5 (0.1~1)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	155MF-40-A	C_3H_8, LPG	435 (30)	1.5~40 (0.1~2.8)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	155MIN-125-A	Ar, He, N_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MIN-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MQ-125-A	Air	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MQ-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MH-200-A	H_2	2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	155MC-125-A	CO_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155MC-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
155TM-A series (ultra high flow system) dual-stage	155TMX-125-A	O_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155TMX-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155TMY-15-A	C_2H_2	435 (30)	1.5~14.5 (0.1~1)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	155TMF-40-A	C_3H_8, LPG	435 (30)	1.5~40 (0.1~2.8)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	155TMIN-125-A	Ar, He, N_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155TMIN-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155TMC-125-A	CO_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	155TMC-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
153M-A series (ultra high flow system) single-stage	153MX-125-A	O_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	153MX-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	153MY-15-A	C_2H_2	435 (30)	1.5~14.5 (0.1~1)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MF-40-A	C_3H_8, LPG	435 (30)	1.5~40 (0.1~2.8)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MF-125-A	LPG	435 (30)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MIN-125-A	Ar, He, N_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MIN-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	153MQ-125-A	Air	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	153MQ-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)
	153MH-15-A	H_2	2200 (150)	1.5~14.5 (0.1~1)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MH-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MC-125-A	CO_2	2200 (150)	4.4~120 (0.3~8.5)	1”-11-1/2”NPS LH (M)	1”-11-1/2”NPS LH (F)
	153MC-200-A		2200 (150)	10~200 (0.7~14)	1”-11-1/2”NPS RH (M)	1”-11-1/2”NPS RH (F)

MANIFOLD REGULATORS

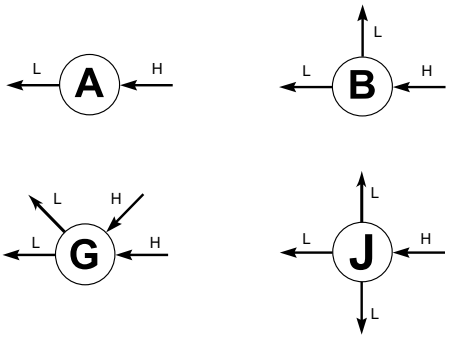
591

155HF

SERIES	MODEL NUMBER	GAS SERVICE	MAX.INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
591 series (suitable for high outlet pressure)	591X-750	O_2	2900 (200)	4.4~125 (0.3~8.5)	G5/8"-RH (F)	Φ6
	591X-1500		2900 (200)	102~145 (7~10)	G5/8"-RH (F)	Φ6
	591X-3000		2900 (200)	200~2900 (14~200)	G5/8"-RH (F)	Φ6
	591X-3000-577		3600 (250)	200~2900 (14~200)	CGA577	Φ6
	591X-4500-701		3600 (250)	300~4350 (21~300)	CGA701	Φ6
	591IN-1500	Ar, He, N_2	2900 (200)	100~145 (7~10)	G5/8"-RH (F)	Φ6
	591IN-3000		3600 (250)	200~2900 (14~200)	G5/8"-RH (F)	Φ6
	591IN-4500-667		5100 (350)	300~4350 (21~300)	CGA667	Φ6
	591Q-1500	Air	2900 (200)	100~145 (7~10)	G5/8"-RH (F)	Φ6
	591Q-3000		2900 (200)	200~2900 (14~200)	G5/8"-RH (F)	Φ6
	591Q-4500-680		5100 (350)	300~4350 (21~300)	CGA680	Φ6
	591H-750	H_2	2900 (200)	50~725 (3.5~50)	W21.8-14LH	Φ6
	591H-1500		2900 (200)	100~145 (7~10)	W21.8-14LH	Φ6
	591H-3000		2900 (200)	200~2900 (14~200)	W21.8-14LH	Φ6
LC853 series (suitable for liquid vessels)	LC853X-125	O_2	500 (35)	4.4~120 (0.3~8.5)	G3/4"-RH (F)	G3/4"-RH (F)
	LC853C-125	CO_2	500 (35)	4.4~120 (0.3~8.5)	G3/4"-RH (F)	G3/4"-RH (F)
	LC853IN-125	Ar, N_2	500 (35)	4.4~120 (0.3~8.5)	G3/4"-RH (F)	G3/4"-RH (F)
155HF series (suitable for high pressure and flow)	155HFX-800	O_2	2200 (150)	50~800 (3.5~55)	G5/8"-RH (F)	M22-1.5RH (M)
	155HFIN-800	Ar, He, N_2	2200 (150)	50~800 (3.5~55)	G5/8"-RH (F)	M22-1.5RH (M)

R66B

▶ suitable for low pressure and high flow, see details in the table below.



R66B SERIES	J BODY PORTS	B SEAT	-	D INLET PRESSURE	Q OUTLET PRESSURE	G GAUGE	-	00 INLET CONNECTION	-	00 OUTLET CONNECTION
R66B (Brass)	A B G J	B: Nitrile rubber		F: 0~500 psi	G: 0~250 psi H: 0~1250 psi I: 0~100 psi K: 0~50 psi L: 0~25 psi	W: Without pressure gauge P: with psi/bar gauge G: with Mpa gauge		06: 3/4" NPT (F) 08: 1" NPT (F) Other types of connectors are available.		06: 3/4" NPT (F) 08: 1" NPT (F) Other types of connectors are available.

STATION & LINE REGULATORS

- Station & Line regulators should not be used with cylinders.
- 152L, 155L, 853L series regulators can adopt M16*1.5 inlet and outlet thread connections.

155L

152L
（T-Bar）

152L
（Knob*）

853L

210SR

152S

853SR

*: Adjusting T-bar can be replaced by adjusting knob for all regulators listed above.

SERIES	MODEL NUMBER	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
155L series (high flow gas distribution system)	155LX-80	O_2	360 (25)	2.9~80 (0.2~5.6)	3/4” NPT (F)	3/4” NPT (F)
	155LX-125		360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
	155LX-200		360 (25)	10~200 (0.7~14)	3/4” NPT (F)	3/4” NPT (F)
	155LY-15	C_2H_2	360 (25)	1.5~14.5 (0.1~1)	3/4” NPT (F)	3/4” NPT (F)
	155LF-125	C_3H_8, LPG	360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
	155LIN-80	Ar, He, N_2	360 (25)	2.9~80 (0.2~5.6)	3/4” NPT (F)	3/4” NPT (F)
	155LIN-125		360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
	155LIN-200		360 (25)	10~200 (0.7~14)	3/4” NPT (F)	3/4” NPT (F)
	155LQ-80	Air	360 (25)	2.9~80 (0.2~5.6)	3/4” NPT (F)	3/4” NPT (F)
	155LQ-125		360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
	155LQ-200		360 (25)	10~200 (0.7~14)	3/4” NPT (F)	3/4” NPT (F)
	155LH-125	H_2	360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
	155LC-125	CO_2	360 (25)	4.4~120 (0.3~8.5)	3/4” NPT (F)	3/4” NPT (F)
152L series (low flow gas distribution system)	152LX-125	O_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	152LY-15	C_2H_2	360 (25)	1.5~14.5 (0.1~1)	1/4” NPT (F)	1/4” NPT (F)
	152LF-80	C_3H_8, LPG	360 (25)	2.9~80 (0.2~5.6)	1/4” NPT (F)	1/4” NPT (F)
	152LIN-125	Ar, He, N_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	152LQ-125	Air	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	152LH-80	H_2	360 (25)	2.9~80 (0.2~5.6)	1/4” NPT (F)	1/4” NPT (F)
	152LC-125	CO_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
853L series (Moderate flow gas distribution system)	853LX-125	O_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	853LY-15	C_2H_2	360 (25)	1.5~14.5 (0.1~1)	1/4” NPT (F)	1/4” NPT (F)
	853LF-80	C_3H_8, LPG	360 (25)	2.9~80 (0.2~5.6)	1/4” NPT (F)	1/4” NPT (F)
	853LF-125		360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	853LIN-125	Ar, He, N_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	853LQ-125	Air	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	853LH-80	H_2	360 (25)	2.9~80 (0.2~5.6)	1/4” NPT (F)	1/4” NPT (F)
	853LH-125		360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)
	853LC-125	CO_2	360 (25)	4.4~120 (0.3~8.5)	1/4” NPT (F)	1/4” NPT (F)

STATION & LINE REGULATORS

SERIES	MODEL NUMBER	GAS SERVICE	MAX. INLET PRESSURE psi (bar)	DELIVERY PRESSURE psi (bar)	INLET CONNECTION	OUTLET CONNECTION
210SR series (low flow gas distribution system) Rear input structure	210SRX-80	O_2	200 (14)	2.9~80 (0.2~5.6)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRX-125		200 (14)	4.4~120 (0.3~8.5)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRY-15	C_2H_2	200 (14)	1.5~14.5 (0.1~1)	M16-1.5LH (F)	M16-1.5LH (M)
	210SRF-15	C_3H_8, LPG	200 (14)	1.5~14.5 (0.1~1)	M16-1.5LH (F)	M16-1.5LH (M)
	210SRIN-80	Ar, He, N_2	200 (14)	2.9~80 (0.2~5.6)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRIN-125		200 (14)	4.4~120 (0.3~8.5)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRQ-80	Air	200 (14)	2.9~80 (0.2~5.6)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRQ-125		200 (14)	4.4~120 (0.3~8.5)	M16-1.5RH (F)	M16-1.5RH (M)
	210SRH-80	H_2	200 (14)	2.9~80 (0.2~5.6)	M16-1.5LH (F)	M16-1.5LH (M)
	210SRH-125		200 (14)	4.4~120 (0.3~8.5)	M16-1.5LH (F)	M16-1.5LH (M)
	210SRC-125	CO_2	200 (14)	4.4~120 (0.3~8.5)	M16-1.5RH (F)	M16-1.5RH (M)
152S series (Moderate and high flow gas distribution system)	152SX-40	O_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	152SX-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	152SX-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
	152SY-15	C_2H_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-LH (F)	M16-1.5LH (M)
	152SF-80	C_3H_8, LPG	200 (14)	2.9~80 (0.2~5.6)	G5/8"-LH (F)	M16-1.5LH (M)
	152SF-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-LH (F)	M16-1.5LH (M)
	152SIN-40	Ar, He, N_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	152SIN-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	152SIN-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
	152SQ-40	Air	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	152SH-80	H_2	200 (14)	2.9~80 (0.2~5.6)	G5/8"-LH (F)	M16-1.5LH (M)
	152SH-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-LH (F)	M16-1.5LH (M)
	152SC-40	CO_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	152SC-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	152SC-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
853SR series (high flow gas distribution system) Rear input structure	853SRX-80	O_2	200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRX-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRY-15	C_2H_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-LH (F)	M16-1.5LH (M)
	853SRF-80	C_3H_8, LPG	200 (14)	2.9~80 (0.2~5.6)	G5/8"-LH (F)	M16-1.5LH (M)
	853SRF-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-LH (F)	M16-1.5LH (M)
	853SRIN-40	Ar, He, N_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRIN-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRIN-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRQ-40	Air	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRQ-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRQ-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRH-80	H_2	200 (14)	2.9~80 (0.2~5.6)	G5/8"-LH (F)	M16-1.5LH (M)
	853SRH-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-LH (F)	M16-1.5LH (M)
	853SRC-40	CO_2	200 (14)	1.5~14.5 (0.1~1)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRC-80		200 (14)	2.9~80 (0.2~5.6)	G5/8"-RH (F)	M16-1.5RH (M)
	853SRC-125		200 (14)	4.4~120 (0.3~8.5)	G5/8"-RH (F)	M16-1.5RH (M)

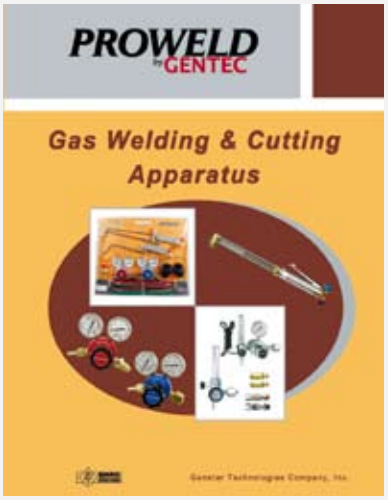
Gas Welding & Cutting Apparatus

- Gold Series Deluxe Outfits
- Cutting Outfits
- Torch Handles
- Cutting Attachments
- Hand Cutting Torches
- Machine Cutting Torches & Accessories
- Check Valves, Quick Connectors, Flashback Arrestors
- Welding , Heating Nozzles, Cutting Tips
- The Small Torch, The Compact Torch
- MUL-T-TORCH Outfit & Components
- Compressed Gas Regulators

HVAC & PUMBING

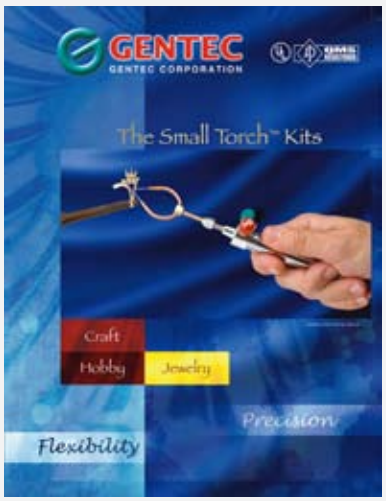
- Air Gas Kits
- Air Gas Auto-Ignite Kits
- Air Gas Torch Handles
- Air Gas Auto-Ignite Tips
- Air Acetylene Tips
- Air Propane/MAPP® Tips
- Air Propane/MAPP® Hand Torch Kits
- Air Propane/MAPP® Hand Torch
- Oxy-Fuel Outfits
- Oxy-Fuel Apparatus
- Cutting Attachment & Tips
- The Compact Torch™ Kits
- Regulators
- Gauges

...



Gas Welding & Cutting Apparatus (Proweld)

- 7320, 7330 Series Duty Outfits
- 320, 330 Series Single Stage Regulators
- 394C Series Electrically Heated Regulator
- 791 Series Flowmeter Regulators
- Welding & Cutting Torches, Tips
- Flashback Arrestors, Check Valves, Quick Connectors
- Electrode Holders, Welding Cables
- Welding , Heating Nozzles, Cutting Tips
- Ground Clamps, Cable Connectors
- Welding Goggles, Helmets
- Strikers & Replacement Flints, Tip Cleaners
- Grade T Twin Hoses, Pressure Gauges



The Small Torch™ Kits

- Air-Acetylene
- Oxy-Acetylene & Oxy-Fuel Kits
- Regulators
- Replacement Hoses
- Air- Acetylene Torch Handle & Tips
- Oxy- Acetylene /Oxy-Fuel Torch Handle & Tips

Any GENTEC® apparatus found to be defective either in material or workmanship during the time set forth below will be replaced by Genstar Technologies Company, Incorporated or its Authorized Distributors, provided that said apparatus was used under normal conditions for the purpose intended.

Limited Warranty Period: The warranty period is as shown below, from the date of original purchase.

Product Type	Warranty from the Date of Original Purchase
Gas Manifold Systems	2 years
Pigtails	90 days

GENTEC® apparatus damaged or rendered inoperative due to abuse, negligence, misuse, accident or abnormal wear and tear is not covered by this warranty and must be repaired at the sole expense of the equipment owner. GENTEC® apparatus should be serviced or repaired by Genstar Technologies Company, Incorporated or designated service facilities only. Service or repair of this apparatus by other than Genstar Technologies Company, Incorporated or designated service facilities may void any warranties and relieve Genstar Technologies Company, Incorporated of any claims for damage and/or liability.

To make a claim under this warranty, Buyer must notify Genstar Technologies Company, Incorporated or its Authorized Distributor of the details of such claim within 30 days of discovering a defect in material or workmanship along with proof of purchase. The Buyer will be responsible for transportation costs and related risks.

Genstar Technologies Company, Incorporated shall not, under any circumstances, be liable for any damages including but not limited to: indirect, incidental, consequential, or special damages, whether such damages result from negligence, breach of warranty or otherwise.

There are no other warranties, expressed or implied, except as stated herein. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Genstar Technologies Company, Incorporated reserves the right to discontinue manufacturing of any product or change product materials, design or specifications without notice.

CRYOGENIC VESSEL

What you need to know?

- Vaporization Rate: Typically 250 to 350 SCFH.
- Outlet Pressure: Typically 125 psi, 300 psi Models are also available.
- Evaporization Rate: Up to 3% per day will vent to atmosphere.
- Temperature: Vaporizing gas is very cold. Approximately -300° Fahrenheit.

Warning: Multiple liquid cylinder manifolds MUST have the pressure building regulator of each vessel set at the same pressure to insure proper cylinder withdrawal.

HOW MANY CYLINDERS DO I NEED?

Example of argon mix manifold system at a mig welding shop:

- For a 250 CF cylinder, automatic changeover uses 230 CF and leaves 20CF in the cylinder. Manual changeover uses 250CF.
  (28 CFH/Station) x 6.5 Hours/Day x 50% Duty Cycle = 91.0 CF/Day/Station
- 91.0 CF/Day/Station x 8 Welding Stations - 728 CF/Day

$$\frac{\text{728 CF/Day}}{\text{230 CF/Cylinder}} = \text{3.16 Cylinders/Day}$$

$$\frac{\text{12 Cylinders per Header}}{\text{3.16 Cylinders/Day}} = \text{3.8 Days per Header x 2 Headers = Maximum 7.6 Days between deliveries}$$

- Minimum Gas supply of 1 day required. Thus, in order to get gas delivered once a week (ie. every Wednesday) there will be 24 cylinders delivered every seven days in order to have uninterrupted service with an automatic manifold.

Genstar Technologies Company Inc.
4525 Edison Avenue, Chino, CA 91710, USA
Tel: 909-606-2726
Fax: 909-606-6485
www.genstartech.com

MC201105-V2