

CATALOG #17B



Superior Products, LLC

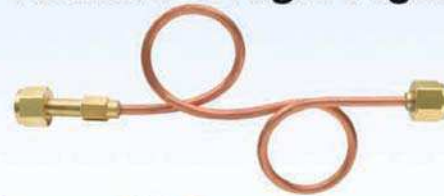
Redefining Gas Management Systems



**Brass & Stainless Steel Gas
Fittings & Assemblies**



Flexible & Rigid Pigtails



Manifolds & Gas Management Systems



Industrial



Hospital



Specialty



Engineering

www.superiorprod.com

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PROUD MEMBER OF :



product description guide

Superior Products, LLC. has made every effort to publish the most helpful and comprehensive catalog of compressed gas products available. With safety and accurate product specification as top priorities, our product descriptions include information on sizes, operating pressures, application, construction materials, CGA numbers, and all other relevant information.

CGA numbers identify products intended for specific gas services. All Superior fittings are manufactured to Compressed Gas Association standards.

In addition to CGA numbers, many popular fittings are commonly referred to as **"A"**, **"B"**, **"C"**, and **"D"** sized fittings. For your convenience, these letter identifications are also included in our product descriptions as **"A"**, **"B"**, **"C"**, and **"D"**. **Pressure ratings** on A, B, C, and D sized fittings included on these pages are limited by the CGA to 200 PSI (1400 kPa) maximum working pressure. Kilopascals (kPa) are the metric equivalent of Pounds Per Square Inch (PSI).

gas acronyms used

(not all standard)

CGA Compressed Gas Association
NGO National Gas Outlet
NPT National Pipe Thread
UNS Unified Numbering System
PSI Pounds per Square Inch
EXT External (M - Male Thread)
INT Internal (F - Female Thread)
CS Countersunk

RH Right Handed
LH Left Handed
WT Wrench Tight
HT Hand Tight
QC Quick Connect
CP Chrome Plated
ID Inside Diameter
OD Outside Diameter

metric conversion

PSI to kPa to Bar

The following conversions are used throughout this catalog, rounded off for ease of use. Kilopascals & Bar conversions are provided whenever possible. (1 PSI = 6.89 kPa = .07 Bar)

200 PSI = 1379 kPa = 14 Bar	3000 PSI = 20685 kPa = 207 Bar
400 PSI = 2758 kPa = 28 Bar	4500 PSI = 27580 kPa = 310 Bar
500 PSI = 3400 kPa = 35 Bar	5500 PSI = 37920 kPa = 380 Bar
1000 PSI = 6895 kPa = 70 Bar	6000 PSI = 41370 kPa = 414 Bar

maximum gas withdrawal rates for liquefied gases

CRYOGENIC CYLINDERS

CO₂ - 110 SCFH

NITROUS OXIDE - 80 SCFH

ARGON, NITROGEN, OXYGEN - 75 SCFH

HIGH PRESSURE W/LIMITED WITHDRAWAL RATE

CO₂ 50 - SCFH

NITROUS OXIDE - 50 SCFH

Acetylene - 1/10 CYL CAPACITY/HOUR

part type

letter prefix

Adaptors - Outlet	A
Bushings - Pipe	B
Brass Tubing	BT
Cable Connectors	CN
Check Valves	CV
Couplers - Tees	C
Copper Tubing	CT
Crimping Tools	KT
Dust Caps & Chain	CC
Elbow	EL
Cryogenic Elbow	CEL
Cryogenic Flexible Hose	CHF
Cryo Hand Tight with Elbow	CHTE
Cryogenic Phase Separator	CPS
Check Valves	CV
Filters	F
Flare Adaptors	FA
Flash Back Arrestor	FA
Gas Manifold Assemblies	GMA
Gas Manifold Fittings	GMF
Hand Tight Cryogenic	HTC
Hand Tight Nuts	HTN
Hose Repair Kits	RK
Manifold Blocks	MB
Chrome Nuts	MN
Chrome Nipples	MNP
Leak Detector	LD
Nipples	NP
Nuts	N
NPT Male	MNPT
NPT Female	FNPT
'O' Rings	OR
Pigtails Rigid	PT
Pigtails Flexible	PTF
Plastic Tips	T
Plugs & Chains	PC
Power Cable Holders	PCH
Reverse Flow Check Valve	RCV
Splicers	S
Stainless Steel	SS
Snap Rings	XSR
Valves	V
Washers	W
"Y" Connectors	Y
"Y" Connectors with Valves	YV

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brass hose nuts, nipples & splicers

Hose Nuts

200 PSI

Oxygen	Thread Size	CGA	Part No.
	"A" 3/8"-24-RH	020	N-10
	"B" 9/16"-18-RH	022	N-20
	Railroad 41/64"-18-RH	028	N-30
	"C" 7/8"-14-RH	024	N-34
	"D" 1-1/4"-12-RH	026	N-42

N-20

Hose Nuts

Maximum Pressure 200 PSI

200 PSI

Fuel Gas	Thread Size	CGA	Part No.
	"A" 3/8"-24-LH	021	N-11
	"B" 9/16"-18-LH	023	N-21
	Railroad 41/64"-18-LH	029	N-31
	"C" 7/8"-14-LH	025	N-35
	"D" 1-1/4"-12-LH	027	N-43

N-21

Barb Hose Nipples

200 PSI

Size/Length	For Hose Size	Part No.
		
NP-10		
"A", 1-7/32"	3/16" I.D.	NP-4
"B", 3-1/32"	4-5/32" I.D.	NP-5
"B", 1-7/16"	3/16" I.D.	NP-6
"B", 1-7/16"(with 'O'Ring)	3/16" I.D.	NP-6W
"B", 1-7/16"	1/4" I.D.	NP-10
"B", 1-7/16"(with 'O'Ring)	1/4" I.D.	NP-10W
"C", 1-35/64"	1/4" I.D.	NP-12
"B", 1-7/16"	5/16" I.D.	NP-14
"B", 1-7/16"	3/8" I.D.	NP-18
"B", 1-3/4"	3/8" I.D.	NP-20
"C", 2"	3/8" I.D.	NP-24
"C", 2-1/4"	1/2" I.D.	NP-28
"C", 4-9/16"	1/2" I.D.	NP-30
"D", 2-1/2"	1/2" I.D.	NP-34
"D", 3-1/2"	3/4" I.D.	NP-36
'O'Ring for NP-6W & NP-10W		XOR-002

Spiral Hose Nipples

200 PSI

Size/Length	For Hose Size	Part No.
		
NP-46		
"A", 1-1/4"	3/16" I.D.	NP-40
"B", 1-5/16"	3/16" I.D.	NP-42
"B", 1-19/32"	1/4" I.D.	NP-46
"B", 1-5/8"	3/8" I.D.	NP-54
Nipples With Threads- "B", "C" & "D" Size 		
NP-605		
Size/Length	Thread size	Part No.
"B", 1"	1/8" MNPT	NP-595
"B", 1-1/2"	1/8" MNPT	NP-596
"C", 2"	1/4" MNPT	NP-605*
"C", 2-1/2"	1/4" MNPT	NP-606*
"D", 2-1/2"	1/2" MNPT	NP-640

Hose Splicers

200 PSI

Barb Hexagon Center Stop	For Hose Size	Part No.
	3/16" I.D.	S-233
	1/4" I.D.	S-244
	5/16" I.D.	S-255
	3/8" I.D.	S-266
S-244		
Barb Round Center Stop	For Hose Size	Part No.
	3/16" I.D.	S-333
	1/4" I.D.	S-344
	5/16" I.D.	S-355
	3/8" I.D.	S-366
	1/2" I.D.	S-388

S-344

200 PSI

Spiral Hexagon Center Stop	For Hose Size	Part No.
	1/4" I.D.	S-544
S-544		
Barb No Center Stop	For Hose Size	Part No.
	3/16" I.D.	S-433
	1/4" I.D.	S-444
	3/8" I.D.	S-466
S-444		

S-444

*To order with filter, add suffix "RF"

Maximum Pressure 200 PSI
200 PSI

Brass Thread To Hose Barb Adaptor

Male NPT Thread



A-113

Thread Size	For Hose Size	Part No.
1/8" MNPT	1/8" I.D.	A-101
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1/8" MNPT	1/4" I.D.	A-103
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Female NPT Thread



A-151

1/8" FNPT	1/8" I.D.	A-151
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1/8" FNPT	1/4" I.D.	A-153
1/4" FNPT	1/8" I.D.	A-161
1/4" FNPT	3/16" I.D.	A-162
1/4" FNPT	1/4" I.D.	A-163
1/4" FNPT	5/16" I.D.	A-164
1/4" FNPT	3/8" I.D.	A-165

Hose Barb Adaptors

200 PSI

(Standard B Thread)



A-51

Thread Size	For Hose Size	Part No.
Oxygen "B" 9/16"-18-RH-EXT	3/16" I.D.	A-50
Fuel Gas "B" 9/16"-18-LH-EXT	3/16" I.D.	A-51
Oxygen "B" 9/16"-18-RH-EXT	1/4" I.D.	A-60
Fuel Gas "B" 9/16"-18-LH-EXT	1/4" I.D.	A-61

Hose Adaptors

200 PSI

Swivel Nut to Hose Barb Adaptors



A-254

Thread Size	For Hose Size	Part No.
Oxygen "A" 3/8"-24-RH-INT	1/4" I.D. Hose	A-250
Fuel Gas "A" 3/8"-24 LH-INT	1/4" I.D. Hose	A-251
Oxygen "B" 9/16"-18 -RH-INT	1/4" I.D. Hose	A-254
Fuel Gas "B" 9/16"-18 -LH-INT	1/4" I.D. Hose	A-255

Swivel Nut Adaptors



A-193



A-192

Thread Size	Hose Connection	Part No.
1/4" MNPT	"B" 9/16"-18-RH-INT	A-192
1/4" MNPT	"B" 9/16"-18-LH-INT	A-193

brass hose fittings

Maximum Pressure 200 PSI

External Hose Nut to Swivel Nut and Nipple

200 PSI



Oxygen

Thread Size	Thread Size	Part No.
"A" 3/8"-24-RH-EXT	"B" 9/16"-18-RH-INT	A-300
"B" 9/16"-18-RH-EXT	"A" 3/8"-24-RH-INT	A-306
"B" 9/16"-18-RH-EXT	"C" 7/8"-14-RH-INT	A-308

Fuel Gas

Thread Size	Thread Size	Part No.
"A" 3/8"-24-LH-EXT	"B" 9/16"-18-LH-INT	A-301
"B" 9/16"-18-LH-EXT	"A" 3/8"-24-LH-INT	A-307

Pipe Thread to Swivel Nut and Nipple 2-1/2"

200 PSI



Oxygen

Thread Size	Thread Size	Part No.
1/4" MNPT	"B" 9/16"-18-RH-INT	A-188

Fuel Gas

Thread Size	Thread Size	Part No.
1/4" MNPT	"B" 9/16"-18-LH-INT	A-189

Female Pipe Thread to "B" Connections

200 PSI



Oxygen

Thread Size	Thread Size	Part No.
1/8" FNPT	"B" 9/16"-18-RH-EXT	A-238
1/4" FNPT	"B" 9/16"-18-RH-EXT	A-242

Fuel Gas

Thread Size	Thread Size	Part No.
1/4" FNPT	"B" 9/16"-18-LH-EXT	A-243

Female NPT to Internal Swivel Nut

200 PSI



Oxygen

Thread Size	Thread Size	Part No.
1/4" FNPT	"B" 9/16"-18-RH-INT	A-228

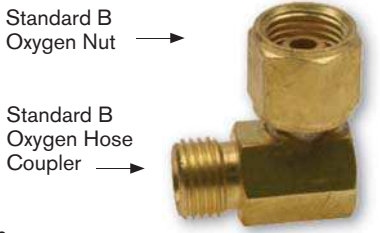
Fuel Gas

Thread Size	Thread Size	Part No.
1/4" FNPT	"B" 9/16"-18-LH-INT	A-229

brass/stainless steel hose fittings, regulator outlets

90° External Hose Coupler to Internal Swivel Nut

200 PSI



Standard B Oxygen Nut →

Standard B Oxygen Hose Coupler →

A-322

Oxygen

Thread Size	Thread Size	Part No.
"B" 9/16"-18-RH-EXT	"B" 9/16"-18-RH-INT	A-322
1/4" MNPT	"B" 9/16"-18-RH-INT	A-194

Fuel Gas

Thread Size	Thread Size	Part No.
"B" 9/16"-18-LH-EXT	"B" 9/16"-18-LH-INT	A-323

90° External Pipe to External "B" coupler

200 PSI



Standard B Oxygen Hose Coupler →

MNPT →

A-334

Oxygen

Thread Size	Thread Size	Part No.
1/4" MNPT	"B" 9/16"-18-RH-EXT	A-334

Fuel Gas

Thread Size	Thread Size	Part No.
1/4" MNPT	"B" 9/16"-18-LH-EXT	A-335

Hose Couplers (Brass)

200 PSI



C-50

Oxygen

Thread Size	Thread Size	Part No.
"A" 3/8"-24-RH-EXT	"A" 3/8"-24-RH-EXT	C-10
"B" 9/16"-18-RH-EXT	"A" 3/8"-24-RH-EXT	C-20
"B" 9/16"-18-RH-EXT	"B" 9/16"-18-RH-EXT	C-50
"C" 7/8"-14-RH-EXT	"C" 7/8"-14-RH-EXT	C-80
"D" 1-1/4" - 12-RH-EXT	"D" 1-1/4" - 12-RH-EXT	C-90

Fuel Gas

Thread Size	Thread Size	Part No.
"A" 3/8"-24LH-EXT	"A" 3/8"-24-LH-EXT	C-11
"B" 9/16"-18LH-EXT	"A" 3/8"-24-LH-EXT	C-21
"B" 9/16"-18LH-EXT	"B" 9/16"-18-LH-EXT	C-51
"C" 7/8"-14-LH-EXT	"C" 7/8"-14-LH-EXT	C-81
"D" 1-1/4" - 12-LH-EXT	"D" 1-1/4" - 12-LH-EXT	C-91

Regulator Outlet Adaptors

200 PSI



B-28 **B-28SS**

Oxygen

Thread Size	Thread Size	Part No.
1/8" MNPT	"A" 3/8"-24-RH-EXT	B-6
1/8" MNPT	"B" 9/16"-18-RH-EXT	B-8
1/4" MNPT	"A" 3/8"-24-RH-EXT	B-26
1/4" MNPT	"B" 9/16"-18-RH-EXT	B-28
1/4" MNPT	"B" 9/16"-18-RH-EXT	B-28SS
3/8" MNPT	"B" 9/16"-18-RH-EXT	B-50
1/2" MNPT	"C" 7/8"-14-RH-EXT	B-66
1/2" MNPT	"D" 1-1/4" - 12-RH-EXT	B-72
3/4" MNPT	"D" 1-1/4" - 12-RH-EXT	B-74

Fuel Gas

Thread Size	Thread Size	Part No.
1/8" MNPT	"A" 3/8"-24-LH-EXT	B-7
1/8" MNPT	"B" 9/16"-18-LH-EXT	B-9
1/4" MNPT	"A" 3/8"-24-LH-EXT	B-27
1/4" MNPT	"B" 9/16"-18-LH-EXT	B-29
3/8" MNPT	"B" 9/16"-18-LH-EXT	B-51
1/2" MNPT	"C" 7/8"-14-LH-EXT	B-67

check valves

Check Valves

Torch Type Check Valve	Inlet	Flow	Outlet	Part No.
 CV-10R				200 PSI
	Oxygen "A" 3/8"-24-RH-EXT	—>	"A" 3/8"-24-RH-INT	CV-10R
	Fuel Gas "A" 3/8"-24-LH-EXT	—>	"A" 3/8"-24-LH-INT	CV-11L
B-Size One Piece Torch Type				200 PSI
 CV-20R	Oxygen "B" 9/16"-18-RH-EXT	—>	"B" 9/16"-18-RH-INT	CV-20R
	Fuel "B" 9/16"-18-LH-EXT	—>	"B" 9/16"-18-LH-INT	CV-21L
Regulator Bushing Adaptor Type				200 PSI
 CV-128R	Oxygen "B" 9/16"-RH-INT	—>	"B" 9/16"-18-RH-EXT	CV-128R
	Fuel Gas "B" 9/16"-LH-INT	—>	"B" 9/16"-18-LH-EXT	CV-129L
	1/4" MNPT	—>	"B" 9/16"-18-RH-EXT	CV-28R
	1/4" MNPT	—>	"B" 9/16"-18-LH-INT	CV-29L
Low Pressure Inline Check Valves				200 PSI
 CV-25	1/4" MNPT	—>	1/4" MNPT	CV-24
	1/4" MNPT	—>	1/4" FNPT	CV-25
	1/4" FNPT	—>	1/4" FNPT	CV-26
High Pressure Inline Check Valves				3000 PSI
 CV-230	1/4" MNPT	—>	1/4" MNPT	CV-215
	1/4" MNPT	—>	1/4" FNPT	CV-219
	1/4" FNPT	—>	1/4" FNPT	CV-229
	1/4" FNPT	—>	1/4" MNPT	CV-230
Stainless Steel Inline Check Valves				6000 PSI
 CV-219SS	1/4" MNPT	—>	1/4" MNPT	CV-215SS
	1/4" MNPT	—>	1/4" FNPT	CV-219SS
	1/4" FNPT	—>	1/4" FNPT	CV-229SS
	1/4" FNPT	—>	1/4" MNPT	CV-230SS

flash arrestors



- Designed for "B" torch & hose fittings
- Built-in check valve prevents reverse flow of gas
- Bronze sintered element stops multiple flashes (no resetting required)
- U/L Listed
- Purchase as POP display pack or as individual components
- High Flow Capacity
- 2 PSI is minimum pressure for gas to flow

**Always leak test system before pressurizing*
**Always bleed the system before disconnecting*

200 PSI

Description	Part No.
Oxygen/Fuel Gas Set, Regulator Style, POP Display	FBK-100
Oxygen/Fuel Gas Set, Torch Style, POP Display	FBK-200
Individual Oxygen Arrestor, Regulator Style	FB-122
Individual Fuel Gas Arrestor, Regulator Style	FB-123
Individual Oxygen Arrestor, Torch Style	FB-222
Individual Fuel Gas Arrestor, Torch Style	FB-223

quick connectors



- Durable brass coupling pin
- Designed for "B" torch and hose fittings
- Design guided by ISO 7289 safety standards
- Non-interchangeable oxygen/fuel gas connectors prevent cross connections
- Built-in automatic gas cut-offs shut down upstream gases when disconnected

**Always leak test system before pressurizing*
**Always bleed the system before disconnecting*

200 PSI

Description	Part No.
Oxygen/Fuel Gas Set, Torch Style, POP Display	QCT-100
Oxygen/Fuel Gas Set, Regulator Style, POP Display	QCR-200
Individual Oxygen Connector, Torch Style	QCT-112
Individual Fuel Gas Connector, Torch Style	QCT-113
Individual Oxygen Connector, Regulator Style	QCR-222
Individual Fuel Gas Connector, Regulator Style	QCR-223
Oxygen & Fuel Set, Hose to Hose	QCH-300
Oxygen, Hose to Hose	QCH-332
Fuel, Hose to Hose	QCH-333
Male Pin Only Oxygen, Torch Style	QCT-112-PIN
Male Pin Only Fuel Gas, Torch Style	QCT-113-PIN
Male Pin Only Oxygen, Regulator Style	QCT-222-PIN
Male Pin Only Fuel Gas, Regulator Style	QCT-223-PIN
Pin Oxygen, 9/16 - 18 RH-EXT	QCH-332-PIN
Pin Fuel, 9/16 - 18 LH-EXT	QCH-333-PIN

CUSTOM PARTS

Superior Products realizes that not all standard parts work for all applications. We can manufacture parts to your specifications or help you design a part to meet your application. We also provide engineering help to you or your customer in designing gas management systems to meet all applications. If you do not see what you need in this catalog just call and let us help you design what you need.

Let Superior Products be **"Your Fitting and Gas Management Experts"** supplying your engineering, manufacturing, and logistic needs for compressed gas products and systems.

NEW "MTO" PROGRAM

We are pleased to announce our new **"MTO" (Made to Order)** program. This program is designed to help both you and Superior Products manage our inventories of slower moving parts while still servicing customer's needs. A dedicated manufacturing cell can machine and deliver smaller quantities of specialty parts with a significantly reduced lead time – typically within two weeks. For a quote or more information, please contact our **Customer Care department** at **800-651-9490**.

QUALITY

Beyond our **ISO 9001:2000 registration**, all of our employees and S.P. teams they support have committed themselves to delivering the highest quality products in the compressed gas industry. Our Superior Products Quality Teams are committed to quality. If it has the  logo on it you can be assured it is the best.

Superior Products, our name says it all!



brass / stainless steel pipe thread fittings

Brass: Maximum Pressure 3,000 PSI

Stainless Steel (SS): Maximum Pressure 6,000 PSI

Brass/Stainless Steel Pipe Thread Fittings

90° Elbow		Thread Size	Material	Part No.
 PEL-4HP	 PEL-4SS	1/8" FNPT x 1/8" FNPT	Brass	PEL-2HP
		1/4" FNPT x 1/4" FNPT	Brass	PEL-4HP
		1/2" FNPT x 1/2" FNPT	Brass	PEL-8HP
		1/4" FNPT x 1/4" FNPT	SS	PEL-4SS
90° Street Elbow		1/8" FNPT x 1/8" MNPT	Brass	PL-2HP
 PL-4HP	 PL-4SS	1/4" FNPT x 1/4" MNPT	Brass	PL-4HP
		1/2" FNPT x 1/2" MNPT	Brass	PL-8HP
		1/4" FNPT x 1/4" MNPT	SS	PL-4SS
		45° Street Elbow		1/8" FNPT x 1/8" MNPT
 PSL-4-4HP	 PSL-4SS	1/4" FNPT x 1/4" MNPT	Brass	PSL-4-4HP
		1/4" FNPT x 1/4" MNPT	SS	PSL-4SS
		Cap		1/8" FNPT
 P-54		1/4" FNPT	Brass	P-54
		3/8" FNPT	Brass	P-56
		1/2" FNPT	Brass	P-58
		Tee		1/8" FNPT (3)
 PFT-4HP	 PFT-4SS	1/4" FNPT (3)	Brass	PFT-4HP
		1/2" FNPT (3)	Brass	PFT-8HP
		1/4" FNPT (3)	SS	PFT-4SS
		Street Tee		1/8" FNPT (2) x 1/8" MNPT
 PST-4HP		1/4" FNPT (2) x 1/4" MNPT	Brass	PST-4HP
		Cross		1/8" FNPT (4)
 PCR-4HP	 PCR-4SS	1/4" FNPT (4)	Brass	PCR-4HP
		1/4" FNPT (4)	SS	PCR-4SS

brass / stainless steel pipe thread fittings

Brass/Stainless Steel Pipe Thread Fittings

Brass: Maximum Pressure 3,000 PSI

Stainless Steel (SS): Maximum Pressure 6,000 PSI

		Thread Size	Material	Part No.
Hex Brass Nipples		1/8" MNPT x 1/8" MNPT	Brass	B-200
		1/4" MNPT x 1/8" MNPT	Brass	B-206
		1/4" MNPT x 1/4" MNPT	Brass	B-215
		1/4" MNPT x 1/4" MNPT	SS	B-215SS
		3/8" MNPT x 3/8" MNPT	Brass	B-222
		3/8" MNPT x 1/4" MNPT	Brass	B-239
		1/2" MNPT x 1/4" MNPT	Brass	B-241
		1/2" MNPT x 3/8" MNPT	Brass	B-242
		1/2" MNPT x 1/2" MNPT	Brass	B-243
Hex Head Plug		1/8" MNPT	Brass	P-2
		1/4" MNPT	Brass	P-4
		1/2" MNPT	Brass	P-8
Adaptors		1/4" FNPT x 1/4" MNPT	Brass	B-219
		1/4" FNPT x 1/4" MNPT	SS	B-219SS
		1/8" FNPT x 1/8" MNPT	Brass	B-293
		1/4" FNPT x 1/8" MNPT	Brass	B-294
		3/8" FNPT x 1/4" MNPT	Brass	B-296
		1/2" FNPT x 1/4" MNPT	Brass	B-299
Connectors		1/8" FNPT x 1/8" FNPT	Brass	B-201
		1/4" FNPT x 1/8" FNPT	Brass	B-207
		1/4" FNPT x 1/4" FNPT	Brass	B-218
		1/4" FNPT x 1/4" FNPT	SS	B-218SS
		1/2" FNPT x 1/4" FNPT	Brass	B-231
		1/2" FNPT x 1/2" FNPT	Brass	B-233
Reducer Bushing		1/4" MNPT x 1/8" FNPT	Brass	B-280
		3/8" MNPT x 1/4" FNPT	Brass	B-282
		1/2" MNPT x 1/4" FNPT	Brass	B-284
		1/2" MNPT x 3/8" FNPT	Brass	B-285
		3/4" MNPT x 1/4" FNPT	Brass	B-286
		3/4" MNPT x 1/2" FNPT	Brass	B-288
Round Brass Nipples		1/8" MNPT, 1.5" Long	Brass	PNP-2-15
		1/4" MNPT, 1.5" Long	Brass	PNP-4-15
		1/4" MNPT, 2.0" Long	Brass	PNP-4-20
		1/4" MNPT, 2.5" Long	Brass	PNP-4-25
		1/4" MNPT, 3.0" Long	Brass	PNP-4-30
		1/4" MNPT, 3.5" Long	Brass	PNP-4-35
Pipe Extension		1/8" FNPT x 1/8" MNPT, 2.5" Long	Brass	B-395
		1/4" FNPT x 1/4" MNPT, 3.0" Long	Brass	B-430

Round Brass Hose Ferrules



Standard Package: **25**

Diameter(INT)	Length	Part No.
.330"	1/2"	6231
.358"	1/2"	833
.380"	1/2"	622
.410"	1/2"	620
.450"	9/16"	769
.478"	1 1/16"	4750
.500"	1/2"	624
.500"	1"	7322
.525"	1"	7323
.525"	1/2"	625
.531"	1"	7324
.548"	31/64"	626
.562"	1"	7325
.564"	3/4"	3588
.575"	31/64"	KK
.593"	1"	7326
.600"	1/2"	JJ
.625"	1/2"	II
.625"	1"	7327
.650"	1/2"	HH
.656"	1"	7328
.675"	33/64"	GG
.687"	1"	7329
.700"	33/64"	FF
.718"	1"	7330
.725"	17/32"	EE
.750"	17/32"	DD
.750"	1"	7331
.781"	1"	7332
.812"	1"	7333
.850"	9/16"	Z
.875"	27/32"	7244A
.900"	27/32"	5029A
.937"	27/32"	7242A
.975"	27/32"	5028A

NOTE: Hose diameters may vary, check for proper inside diameter of the ferrules.

Oval Brass Dual Hose Braces

Maximum Pressure 200 PSI



Dimension(INT)	Length	Metal Gauge	Part No.
.448 x .890	15/32"	.019"	9116
.474 x .943	15/32"	.019"	9979
.535 x 1.071	3/4"	.024"	9940P
.593 x 1.109	3/4"	.024"	9593
.593 x 1.238	3/4"	.025"	453
.700 x 1.325	3/4"	.025"	454

Gas Leak Detector, Oxygen Safe

Description	Part No.
8 oz. Reusable Plastic Applicators	LD-008
1 Gallon Container for Refilling Applicators	LD-128



hose repair kits

REPAIR KITS: Hose Connections, Crimping Tools & Pipe Fittings



RK-26



RK-27

Description	Part No.
Superior hose repair kits include: fittings (nuts & nipples, splicers, couplers and ferrules) for the stated hose I.D. and thread size. Also, included with the kits are a 2 or 3 hole, vise grip crimping tool for fast, easy and reliable crimping of the hose fittings. All kits come in a sectioned plastic case with instructions and fitting description charts. NEW All kits are available without the crimping tool and just the fittings that you need if you already have a crimper. To order the kit you want without a crimping tool, add LT to the back of the kit part number. For example, the RK-27LT will get you just the replacement fittings in the same sectioned box.	
"B" hose fittings with KT-28 Crimping Tool. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" and 3/16" I.D. hose.	RK-24
"B" hose fittings, fittings only, nipples, couplers, splicers and ferrules for 1/4" and 3/16" I.D. hose.	RK-24LT
"A" and "B" hose fittings with KT-28 Crimping Tool. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" and 3/16" I.D. hose.	RK-26
"A" and "B" hose fittings only nuts, nipples, couplers, splicers and ferrules for 1/4" and 3/16" I.D. hose.	RK-26LT
"B" hose fittings with KT-28 Crimping Tool. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" I.D. hose.	RK-27
"B" hose fittings only. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" I.D. hose.	RK-27LT
"B" hose fittings with KT-29 Crimping Tool. Contains nuts, nipples, couplers, splicers and ferrules for 5/16" & 3/8" I.D. hose.	RK-28
"B" hose fittings only. Contains nuts, nipples, couplers, splicers and ferrules for 5/16" & 3/8" I.D. hose.	RK-28LT
Ferrules only with KT-28 Crimping Tool for 1/4" and 3/16" I.D. hose	RK-30
Ferrules only for 1/4" and 3/16" I.D. hose	RK-30LT
"B" hose fittings only. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" and 3/16" I.D. hose.	RK-35LT
Inert hose fittings with KT-28 crimping tool. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" I.D. hose	RK-50
Inert hose fittings only. Contains nuts, nipples, couplers, splicers and ferrules for 1/4" I.D. hose	RK-50LT

Ferrule Crimping Tools, Vise Grip Type



KT-28



KT-29



KT-30

Description	Part No.
2-Hole Jaws to Crimp 1/2" wide to crimp 3/16" - 1/4" Hose	KT-28
2-Hole Jaws to Crimp 1/2" wide to crimp 5/8" - 1 1/16" Hose	KT-29
3-Hole Jaws to Crimp 1/2" wide to crimp 5/16", 11/32", 27/64" Hose Diameters 7/16" and 9/16" on Twin or Single Hose	KT-30

*No hammer, vise, or other tool needed. Insert hose with ferrule and splicer or nut and nipple in proper hole. Offset tool approximately 1/8" from end of ferrule and squeeze. Make 1/4 turn and squeeze again.

power cable nipples & connector assemblies

Brass Nipple & Copper Tube Assembly

Maximum Pressure 200 PSI

	Description	Part No.
 CN-16	"B" Brass Nipple x .225" O.D. Copper Tube, Max.140" Dia. Cable Hole	CN-16*
	"B" Brass Nipple x .322" O.D. Copper Tube, Max.246" Dia. Cable Hole * use with nuts N-2400 or N-2500	CN-20*
 CN-36	"C" Brass Nipple x .263" O.D. Copper Tube & Max.166" Dia. Cable Hole	CN-32*
	"C" Brass Nipple x .322" O.D. Copper Tube & Max.246" Dia. Cable Hole * use with nuts N-3600 or N-3700	CN-36*
 CN-28	"C" Brass Nipple x .225" O.D. Copper Tube & Max.140" Dia. Cable Hole * use with nuts N-34 or N-35	CN-28*

Power Cable Connector w/ Brass Swivel Nut & Nipple Soldered to Copper Tube for Crimping

	Description	Part No.
 CN-48	"A" Brass Nipple with 3/8"-24 RH-EXT Brass Nut x .322" O.D Copper Tube and Max .246" Cable Hole	CN-48
	"A" Brass Nipple with 3/8"-24 LH EXT Brass Nut x .322" O.D. Copper Tube and Max .246" Cable Hole	CN-49
 CN-54	"A" Brass Nipple with 3/8"-24 RH EXT Brass Nut x .322" O.D Copper Tube and Max .246" Cable Hole	CN-54
 CN-60	.21" Dia. Brass Nipple with 1/4"-28 INT Brass Nut x .225 O.D. Copper Tube and Max .140" Cable Hole	CN-60
 CN-68	.37" Dia. Brass Nipple with 7/16"-20 INT Brass Nut x .375 O.D. Copper Tube and Max .245" Cable Hole	CN-68
 CN-72	"B" Brass Nipple with 5/8"-18 EXT Brass Nut x .468 O.D. Copper Tube and Max .328" Cable Hole	CN-72

Brass Power Cable Nipples (One Piece)

	Description	Part No.
 CN-10	"A" Nipple x .250" O.D. Tube and Max .203" Diameter Cable Hole use with nuts N-14 or N-15	CN-6*
	"B" Nipple x .375" O.D. Tube (.420" O.D. Barbs) Hole and Max .312" Diameter Cable * use with nuts N-2400 or N-2500	CN-10*

hose connections for inert arc welders

Air-Water Coupler

Maximum Pressure 200 PSI



C-134

Thread Size	Part No.
5/8"-18-RH-EXT x 5/8"-18-RH-EXT	C-130
5/8"-18-RH-EXT x 9/16"-18-RH-EXT	C-134
5/8"-18-LH-EXT x 9/16"-18-LH-EXT	C-135

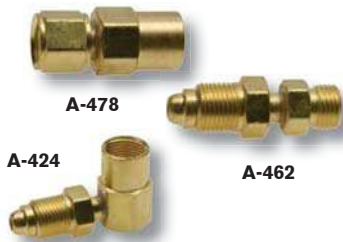
Air-Water Adaptor



A-404

Thread Size	Part No.
1/8" MNPT x 5/8"-18-RH-INT	A-402
1/4" MNPT x 5/8"-18-RH-INT	A-404
1/4" MNPT x 5/8"-18-LH-INT	A-405
1/4" MNPT x 5/8"-18-RH-EXT	A-450

Air-Water Hose Adaptors with Swivel Nuts



A-478

A-424

A-462

Thread Size	Part No.
1/4" MNPT 5/8"-18-RH- EXT "B"	A-414
1/4" MNPT 5/8"-18-LH- EXT "B"	A-415
"B" 5/8"-18-RH-EXT-90 5/8"-18-RH- INT "B"	A-424
"B" 5/8"-18-RH-EXT x "B" 9/16"-18-RH-EXT	A-462
"B" 5/8"-18-RH-INT x "B" 9/16"-18-RH-INT	A-478
"B" 5/8"-18-RH-INT x "B" 9/16"-18-RH-INT (one piece)	A-479

Inert Arc Hose Nuts



N-2400

Thread Size	Part No.
Use with:	
"A" 3/8"-24-RH-EXT	NP-66, 67, "A" Cable Connectors N-14
"A" 3/8"-24-LH-EXT	NP-66, 67, "A" Cable Connectors N-15
"B" 5/8"-18-RH-EXT	NP-69, 70, 72, 73, 74, 76, "B" Cable Connectors N-2400
"B" 5/8"-18-LH-EXT	NP-69, 70, 72, 73, 74, 76, "B" Cable Connectors N-2500
"C" 7/8"-14-RH-EXT	NP-606, "C" Cable Connectors N-3600
"C" 7/8"-14-LH-EXT	NP-606, "C" Cable Connectors N-3700

Air-Water Nut

Maximum Pressure 200 PSI

 N-26	Thread Size	Part No.	
	Use with:		
	5/8"-18-RH-INT	NP-65, NP-595, NP-596	N-26

Inert Arc Barb Hose Nipples

 NP-65	Description	Part No.		
	"B" x 1/8" I.D., .190" O.D., 1-13/32" Long	NP-65		

 NP-73	Description	For Hose Size	Use With Nuts	Part No.
	"A"-size	1/8" I.D.	N-14, N-15	NP-66
	"B"-size	1/8" I.D. undersize	N-2400, N-2500	NP-68
	"B"-size	1/8" I.D.	N-2400, N-2500	NP-69
	"B"-size	3/16" I.D.	N-2400, N-2500	NP-70
	"B"-size	1/4" I.D.	N-2400, N-2500	NP-72
	"B" Special 1/4" barb	1/4" I.D.	N-2400, N-2500	NP-73
	"B"-size	5/16" I.D.	N-2400, N-2500	NP-74
	"B"-size	3/8" I.D.	N-2400, N-2500	NP-76

Inert Arc Hose Couplers

Maximum Pressure 200 PSI

 C-124	Thread Size	Thread Size	Part No.
	3/8"-24-RH-INT "A"	3/8"-24-RH-INT "A"	C-118
	3/8"-24-LH-INT "A"	3/8"-24-LH-INT "A"	C-119
	1/4" FNPT	5/8"-18-RH-INT "B"	C-124
	1/4" FNPT	5/8"-18-LH-INT "B"	C-125
	5/8"-18-RH INT "B"	5/8"-18-RH INT "B"	C-126
	5/8"-18-LH INT "B"	5/8"-18-LH INT "B"	C-127
	7/8"-14-RH-INT "C"	7/8"-14-RH-INT "C"	C-144
	7/8"-14-LH-INT "C"	7/8"-14-LH-INT "C"	C-145

British style fittings

H.P. Cylinder Connectors

BS-341-3 Oxygen, Inert Gases

Maximum Pressure (300 bar) 4350 PSI

	Part	Description	Material	Part No.
Hex Nuts 	Nut	5/8" A-RH-EXT	Brass	BN-341-3
Handtight Nuts 	Nut-HT	5/8" A-RH-EXT	Brass, Plastic Grip	BNH-341-3
Nipple-Threaded Inlets 	Nipple	1/4" NPT-M, 2.5" Long	Brass	BNP-341-3-2.5
Nipple-Handtight 	Nipple-HT	1/4" NPT-M, 3.5" Long	Brass	BNP-341-3W-3.5
Replacement Items 	"O"Ring	For BNP-341-3W-3.5	Nitrile	OR-580
Adaptor 	Adaptor	From CGA 540 (Oxygen)	Brass	BA-540
	Adaptor	From CGA 580 (Inerts)	Brass	BA-580

BS-341-2 Flammables

Maximum Pressure (300 bar) 4350 PSI

	Part	Description	Material	Part No.
Hex Nuts 	Nut	G 5/8 A-LH-EXT	Brass	BN-341-2
Nipple-Threaded Inlets 	Nipple	1/4" NPT-M, 2.5" Long	Brass	BNP-341-3-2.5
Nipple-Handtight 	Nipple-HT	1/4" NPT-M, 3.5" Long	Brass	BNP-341-3W-3.5
Replacement Items 	"O"Ring	For BNP-341-3W-3.5	Nitrile	OR-580

L.P. Hose Connectors

Maximum Pressure 200 PSI

	Part	Description	Material	Part No.
	Nut	3/8" R.H. Oxygen, Inerts	Brass	BN-375RH
	Nut	3/8" L.H. Fuel Gas, Combustibles	Brass	BN-375LH
	Nipple	1/4" ID Hose, used for 3/8" Nut	Brass	BNP-375-4
	Nipple	5/16" ID Hose, used for 3/8" Nut	Brass	BNP-375-5

German Style Fittings

DIN-477 Connectors

DIN-6 Inert Gases

Maximum Pressure (300 bar) 4350 PSI

	Part	Description	Material	Part No.
	Nut	W 21.80 x 1/14-RH-INT	Brass	DN-477-06
	Nipple	1/4" NPT-M, 3.5"Long	Brass	DNP-477-6-3.5
	Washer	For Nipple	Nylon	DW-477-6N

DIN-9 Oxygen

Maximum Pressure (300 bar) 4350 PSI

	Part	Description	Material	Part No.
	Nut	R 3/4-RH-INT	Brass	DN-477-09
	Nipple	1/4" NPT-M, 3.5"Long	Brass	DNP-477-6-3.5
	Washer	For Nipple	Nylon	DW-477-6N

German standard fittings

DIN-10 Nitrogen

Maximum Pressure (300 bar) 4350 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	W 24.32 x 1/14-RH-INT	Brass	DN-477-10
Nipple-Threaded Inlets 	Nipple	1/4" NPT-M, 3.5"Long	Brass	DNP-477-6-3.5
Replacement Items 	Washer	For Nipple	Nylon	DW-477-6N

DIN-12 Nitrous Oxide

Maximum Pressure (300 bar) 4350 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	R 3/4-RH-EXT	Brass	DN-477-12
Nipple-Threaded Inlets 	Nipple	1/4" NPT-M, 3.5"Long	Brass	DNP-477-6-3.5
Replacement Items 	Washer	For Nipple	Nylon	DW-477-6N

Product specification guide and ordering information for regulator inlet nuts and nipples

Superior Products offers nuts and nipples in a variety of materials and styles to fit a full range of gas service requirements. Seven different types of nut/nipple combinations are available:

- Brass nut and nipple
- Stainless steel nut and nipple
- Brass, chrome plated nut and nipple
- Nut and nipple with check valve
- Nut and nipple recessed for tubing
- Hand tight nut and nipple
- Quick connect nut and nipple

Please note that all types may not be available for every CGA.

Nipples with check valves

Nipples with integral check valves are designed to provide additional safety in gas management systems and other equipment.

- Check valve nipples can be built into pigtails, tee connections and manifold blocks to resist back flow of gases from lines, equipment and cylinders.
- Check valves are factory installed and are 100% tested.
- Available in brass and stainless steel
- Check valves are for reverse flows only - they are not to be used as flashback arrestors.
- When using high-pressure cylinder valve connections you should always refer to the Compressed Gas Association V-7 and/or V-7.1 for the correct method of determining cylinder valve outlet connection.

Hand tight nuts and nipples

Superior Products hand tight nuts are available in brass or with plastic grips.

- All nuts are machined to CGA specifications and designed with wrench flats.
- Soft tip or o-ring type nipples always should be used with hand tight nuts.
- CGA fittings rated over 3000 PSI do not have soft tips and final gas tight seating requires a wrench to tighten.

ORDERING INFORMATION - FILTERS FOR REGULATOR INLET NIPPLES

Most brass and chrome plated nipples may be ordered in any of the following two configurations:

BRASS AND CHROME PLATED BRASS NIPPLES WITHOUT FILTERS

- Simply order the part numbers as listed under the CGA numbers
- Please note that all Superior Products nipples come standard with filter recess, so a filter can be added.

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

Example: NP-210 with filter becomes NP-210RF

BRASS AND CHROME PLATED BRASS NIPPLES WITH INSTALLED FILTERS

- Add "RF" to end of nipple part numbers listed under the CGA numbers
- Some nipples require filters to be in NPT end of nipples

Part No.

FILTERS FOR REGULATOR NIPPLE RETAINING RING	 	F-7 Porous metal filter sintered bronze (nickel plated), rated at 35 microns 6000psi XSR-020 C-clip available to hold nut in position and protect nipple seating area.
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CGA check valve nipples are factory tested and installed in CGA nipples for additional safety in gas systems, etc. to prevent dangerous reverse flow of gases in lines and other compressed gas equipment.

NOTE: These check valves protect against reverse flow only and are not flashback arrestors.

- Available in brass and stainless steel



Flow
Part No. NP-210CV

Also available with the check valve reversed. Specify "RCV".



Flow
Part No. NP-210RCV

inlet nuts & nipples

CGA-170 Non-Corrosive Gases In Small Cylinders

3,000 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	.5625"-18UNF-2B-RH-INT	Brass	N-49
	Nut	.5625"-18UNF-2B-RH-INT	SS	N-49SS
Nipple-Threaded Inlets 	Nipple	1/8" NPT, 1.25" Long	Brass	NP-101
	Nipple	1/8" NPT, 1.25" Long	SS	NP-101SS
Replacement Items 	Washer	For Nipple	PTFE	W-60

CGA-180 All Gases In Small Cylinders

3,000 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	.625 -18UNF-2B-RH-INT	Brass	N-50
	Nut	.625 -18UNF-2B-RH-INT	CP Brass	MN-050
Nipple-Threaded Inlets 	Nipple	1/8" NPT, 1.75" Long	Brass	NP-109
	Nipple	1/8" NPT, 1.75" Long	CP Brass	MNP-109
Replacement Items 	Washer	For Nipple	PTFE	W-65

CGA-200 "MC" acetylene in small cylinders

500 PSI

Hex Nut 	Part	Description	Material	Part No.
	Nut	.628"-20NGO-RH-INT	Brass	N-57
Handtight Nut 	Nut-HT	.628"-20NGO-RH-INT	Brass, Plastic Grip	HTN-57P
Nipple-Threaded Inlets 	Nipple	1/8" NPT, 1.25" Long	Brass	NP-414
Nipple-Handtight 	Nipple-HT	1/8" NPT, 2.5" Long	Brass, PTFE	NP-418T3
Replacement Item 	Replacement Tip	For HT Nipple	PTFE	T418-3

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-280 Medical Breathing Mixtures

3,000 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	.750" -14NGO-RH-INT	Brass	N-59
	Nut	.750" -14NGO-RH-INT	CP Brass	MN-059
Nipple-Threaded Inlets 	Nipple	1/4" NPT, 2.5"Long	Brass	NP-118
	Nipple	1/4" NPT, 2.5"Long	CP Brass	MNP-118

CGA-296 Industrial Oxygen Mixtures

3,000 PSI

Hex Nuts 	Part	Description	Material	Part No.
	Nut	.803" -14UNS-2A-RH-EXT	Brass	N-60
	Nut	.803" -14UNS-2A-RH-EXT	CP Brass	MN-060
Handtight Nut 	Nut-HT	.803" -14UNS-RH-EXT	Brass	HTN-60
Nipple-Threaded Inlets 	Nipple	1/4" NPT, 3"Long	Brass	NP-123
	Nipple	1/4" NPT, 3"Long	CP Brass	MNP-123
Nipple-Handtight 	Nipple-HT	1/4" NPT, 3"Long w/O-ring	Brass, Nitrile	NP-123W
Nipple-Countersunk 	Nipple-CS	For 5/16" Tube	Brass	NP-122C3
Nipple-Check Valve 	Nipple-CV	1/4" NPT, 3"Long	Brass	NP-123CV
Replacement Item 	O-Ring	For HT-Nipple	Nitrile	OR-296

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-300 Ethyl Chlorides (R160) Formerly Commercial Acetylene

500 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	.830"-14NGO-RH-INT	Brass	N-56
		Nut	.830"-14NGO-RH-INT	CP Brass	MN-056
Handtight Nuts		Part	Description	Material	Part No.
		Nut-HT	.830"-14NGO-RH-INT	Brass	HTN-56
		Nut-HT	.830"-14NGO-RH-INT	Brass, Plastic Grip	HTN-56P
Nipple-Threaded Inlets		Part	Description	Material	Part No.
		Nipple	1/4" NPT, 2"Long	Brass	NP-126
		Nipple	1/4" NPT, 2.5"Long	Brass	NP-128
		Nipple	1/4" NPT, 3.5"Long	Brass	NP-130
		Nipple	1/4" NPT, 3.5"Long	CP Brass	MNP-130
Nipple-Handtight		Part	Description	Material	Part No.
		Nipple-HT	1/4" NPT-2.5"Long	Brass, PTFE	NP-128T3
Nipple-Countersunk		Part	Description	Material	Part No.
		Nipple-CS	For 1/4" Tube	Brass	NP-126C2
		Nipple-CS	For 5/16" Tube	Brass	NP-126C3
		Nipple-CS	For 3/8" Tube	Brass	NP-126C4
Nipple-Check Valve		Part	Description	Material	Part No.
		Nipple-CV	1/4" NPT, 2.5"Long	Brass	NP-128CV
		Nipple-CV	1/4" NPT, 2.5"Long w/ O-Ring	Brass, Nitrile	NP-128WCV
Replacement Items		Part	Description	Material	Part No.
		Soft Tip	For HT-Nipple	PTFE	T128-3
		O-Ring	For O-Ring Nipple	Nitrile	MR-116

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-320 Carbon Dioxide

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.830"-14NGO-RH-INT	Brass	N-61
	Nut	.830"-14NGO-RH-INT	SS	N-61SS
	Nut	.830"-14NGO-RH-INT	CP Brass	MN-061
Handtight Nuts				
	Nut-HT	.830"-14NGO-RH-INT	Brass	HTN-61
	Nut-HT	.830"-14NGO-RH-INT	Brass, Plastic Grip	HTN-61P
	Nut-HT	.830"-14NGO-RH-INT	CP Brass, Plastic Grip	MHN-061P
Nipple-Threaded Inlets				
	Nipple*	1/4" NPT, 2"Long	Brass	NP-147
	Nipple*	1/4" NPT, 2"Long	Brass	NP-147SS
	Nipple*	1/4" NPT, 2"Long	CP Brass	MNP-147
	Nipple*	1/4" NPT, 2.5"Long	Brass	NP-150
	Nipple*	1/4" NPT, 2.5"Long	SS	NP-150SS
	Nipple*	1/4" NPT, 2.5" Long	CP Brass	MNP-150
	Nipple*	1/4" NPT, 3" Long	Brass	NP-151
	Nipple*	1/4"-NPT, 3" Long	CP Brass	MNP-151
	Nipple*	1/4" NPT, 3.5" Long	SS	NP-154SS
	Nipple*	1/2" 27UNS, 2.5" Long	Brass	NP-152
Nipple-Handtight				
	Nipple-HT**	1/4" NPT, 2.5" Long	Brass	NP-150T3
	Nipple-HT**	For 1/4" Tube	Brass	NP-147T3C2
	Nipple-HT**	For 5/16" Tube	Brass	NP-147T3C3
Nipple-Countersunk				
	Nipple-CS*	For 1/4" Tube	Brass	NP-147C2
	Nipple-CS*	For 5/16" Tube	Brass	NP-147C3
	Nipple-CS*	For 1/4" Tube	SS	NP-147C2SS
Nipple-Check Valve				
	Nipple-CV*	1/4"NPT, 2.5" Long	Brass	NP-150CV
	Nipple-CV*	1/4"NPT, 2.5" Long	CP Brass	MNP-150CV
	Nipple-CV*	1/4"NPT, 2.5" Long	SS	NP-150SSCV
Nipples for use with Residual Pressure Valves				
	Nipple-RPV*	1/4"NPT, 3" long	Brass	NP-151-PIN-SS
	Nipple-RPV-washer*	1/4"NPT, 3.5" long with Retractable Pin & Washer	Brass	NP-154W-RPV
Replacement Items				
	Washer	For Nipple	Fiber	W-6
	Washer	For Nipple	PTFE	W-8
	Washer	For HT-Nipples	PTFE	W-10
	Washer	For Nipple	Nylon	MYP-011
	Pin	For RPV Nipple	SS	PIN-NP-SS

*Includes Washer

**Replace washer with W-10 only

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-326 Nitrous Oxide

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.830"-14NGO-RH-INT	Brass	N-82
	Nut	.830"-14NGO-RH-INT	SS	N-82SS
	Nut	.830"-14NGO-RH-INT	CP Brass	MN-082
Handtight Nuts				
	Nut-HT	.830"-14NGO-RH-INT	Brass	HTN-82
	Nut-HT	.830"-14NGO-RH-INT	Brass, Plastic Grip	HTN-82P
	Nut-HT	.830"-14NGO-RH-INT	CP Brass, Plastic Grip	MHN-082P
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 2.125" Long	Brass	NP-732
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-733
	Nipple	1/4" NPT, 2.5" Long	SS	NP-733SS
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-733
	Nipple	1/4" NPT, 3" Long	Brass	NP-734
Nipple-Handtight				
	Nipple-HT	1/4" NPT, 2.5" Long	Brass, PCTFE	NP-733T1
	Nipple-HT-CS	For 1/4" Tube	Brass, PCTFE	NP-732T1C3
Nipple-Countersunk				
	Nipple-CS	For 1/4" Tube	SS	NP-732C2SS
	Nipple-CS	For 5/16" Tube	Brass	NP-732C3
	Nipple-CS	For 3/8" Tube	Brass	NP-732C4
Nipple-Check Valve				
	Nipple-CV	1/4" NPT, 2.5"Long	Brass	NP-733CV
	Nipple-CV	1/4" NPT, 2.5"Long	SS	NP-733SSCV
	Nipple-CV	1/4" NPT, 2.5"Long	CP Brass	MNP-733CV
Nipples for use with Residual Pressure Valves				
	Nipple-RPV-O-Ring	1/4" NPT, 3.5"Long with Retractable Pin & O-Ring	Brass, EPDM	NP-735W-RPV
Replacement Items				
	Soft Tip	For HT-Nipple	PCTFE	T733-1
	O-ring	For NP-735W-RPV	EPDM	OR-326

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-330 Non-Corrosive Gases

3,000 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	.830"-14NGO-LH-INT	Brass	N-62
		Nut	.830"-14NGO-LH-INT	SS	N-62SS
		Nut	.830"-14NGO-LH-INT	CP Brass	MN-062
Nipple-Threaded Inlets					
		Nipple*	1/4" NPT, 2" Long	Brass	NP-161
		Nipple*	1/4" NPT, 2" Long	SS	NP-161SS
		Nipple*	1/4" NPT, 2.5" Long	Brass	NP-162
		Nipple*	1/4" NPT, 2.5" Long	SS	NP-162SS
		Nipple*	1/4" NPT, 2.5" Long	CP Brass	MNP-162
		Nipple*	1/4" NPT, 3.5" Long	SS	NP-165SS
Nipple-Countersunk					
		Nipple*	For 1/4" Tube	SS	NP-161C2SS
Replacement Items					
		Washer	For Nipple	Fiber	W-6
		Washer	For Nipple	PTFE	W-8
		Washer	For Nipple	ETFE	MYP-010
		Washer	For Nipple	Nylon	MYP-011

*Includes Washer

CGA-346 Air

3,000 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	.830"-14NGO-RH-INT	Brass	N-84
		Nut	.830"-14NGO-RH-INT	CP Brass	MN-084
		Nut	.830"-14NGO-RH-INT	SS	N-84SS
Handtight Nuts					
		Nut-HT	.830"-14NGO-RH INT	Brass	HTN-84
		Nut-HT	.830"-14NGO-RH INT	Brass, Plastic Grip	HTN-84P
		Nut-HT	.830"-14NGO-RH INT	CP Brass, Plastic Grip	MHN-084P
Nipple-Threaded Inlets					
		Nipple	1/4" NPT, 2.5" Long	Brass	NP-753
		Nipple	1/4" NPT, 2.5" Long	SS	NP-753SS
		Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-753
		Nipple	1/4" NPT, 3.5" Long	Brass	NP-755
		Nipple	1/4" NPT, 3.5" Long	SS	NP-755SS
		Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-755

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-346 Air Continued

3,000 PSI

	Part	Description	Material	Part No.
Nipple-Handtight 	Nipple-HT	1/4" NPT, 2.5" Long	Brass, PCTFE	NP-753T1
	Nipple-HT-CS	For 1/4" Tube	Brass, PCTFE	NP-753T1C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PCTFE	NP-753T1C3
Nipple-Countersunk 	Nipple-CS	For 1/4" Tube	Brass	NP-752C2
	Nipple-CS	For 1/4" Tube	SS	NP-752C2SS
	Nipple-CS	For 5/16" Tube	Brass	NP-752C3
	Nipple-CS	For 3/8" Tube	Brass	NP-752C4
Nipple-Check Valve 	Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-753CV
	Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-753SSCV
	Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-753CV
Replacement Items 	Soft Tip	For HT-Nipple	PCTFE	T753-1
	O-Ring	For Quicknut Nipple	Polyurethane	OR-346

CGA-347 Air

3,001 - 5,500 PSI

	Part	Description	Material	Part No.
Hex Nuts 	Nut	.830"-14NGO-RH-INT	Brass	N-85
	Nut	.830"-14NGO-RH-INT	SS	N-85SS
	Nut	.830"-14NGO-RH-INT	CP Brass	MN-085
Handtight Nuts 	Nut-HT	.830"-14NGO-RH-INT	Brass	HTN-85
	Nut-HT	.830"-14NGO-RH-INT	Brass, Plastic Grip	HTN-85P
	Nut-HT	.830"-14NGO-RH-INT	SS, Alum. Grip	HTN-85SS
Nipple-Threaded Inlets 	Nipple	1/4" NPT, 3" Long	Brass	NP-765
	Nipple	1/4" NPT, 3" Long	SS	NP-765SS
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-765
Nipple-Handtight 	Nipple-HT	1/4" NPT, 3" Long w/ O-Ring	SS, Polyurethane	NP-765SSW
	Nipple-HT	1/4" NPT, 3" Long w/ O-Ring	Brass, Polyurethane	NP-765W
Nipple-Countersunk 	Nipple-CS	For 1/4" Tube	Brass	NP-765C2
	Nipple-CS	For 1/4" Tube	SS	NP-765C2SS
Nipple-Check Valve 	Nipple-CV	1/4" NPT, 3" Long	SS	NP-765SSCV
Replacement Items 	O-Ring	For HT- Nipple	Polyurethane	OR-347

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-350 Hydrogen/Methane/Natural Gas

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.830"-14NGO-LH-INT	Brass	N-64
	Nut	.830"-14NGO-LH-INT	SS	N-64SS
	Nut	.830"-14NGO-LH-INT	CP Brass	MN-064
Handtight Nuts				
	Nut-HT	.830"-14NGO-LH-INT	Brass	HTN-64
	Nut-HT	.830"-14NGO-LH-INT	Brass, Plastic Grip	HTN-64P
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 2.125" Long	Brass	NP-167
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-168
	Nipple	1/4" NPT, 2.5" Long	SS	NP-168SS
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-168
	Nipple	1/4" NPT, 3" Long	Brass	NP-169
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-169
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-170
	Nipple	1/4" NPT, 3.5" Long	SS	NP-170SS
	Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-170
Nipple-Handtight				
	Nipple-HT	1/4" NPT, 2.5" Long	Brass, PTFE	NP-168T3
	Nipple-HT-CS	For 1/4" Tube	Brass, PTFE	NP-168T3C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PTFE	NP-168T3C3
Nipple-Countersunk				
	Nipple-CS	For 1/4" Tube	Brass	NP-168C2
	Nipple-CS	For 1/4" Tube	SS	NP-168C2SS
	Nipple-CS	For 5/16" Tube	Brass	NP-168C3
	Nipple-CS	For 3/8" Tube	Brass	NP-168C4
Nipple-Check Valve				
	Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-168CV
	Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-168SSCV
	Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-168CV
Nipples for use with Residual Pressure Valves				
	Nipple-RPV	1/4" NPT, 2.5" Long	Brass, SS Pin	NP-168-PIN-SS
	Nipple-RPV	1/4" NPT, 2.5" Long	Brass, Monel Pin	NP-168-PIN-M
	Nipple-RPV	1/4" NPT, 3.5" Long	Brass, Retractable SS Pin	NP-170-RPV
Replacement Items				
	Soft Tip	For HT-Nipple	PTFE	T168-3
	Pin	SS Pin for NP-168-PIN-SS	SS	PIN-NP-SS
	Pin	Monel Pin for NP-168-PIN-M	Monel	PIN-NP-M

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-410 Canadian Acetylene

500 PSI

Hex Nut 	Part	Description	Material	Part No.
	Nut	.855"-14NGO-LH-INT	Brass	N-66
Nipple-Threaded Inlets 	Nipple	1/4" NPT, 2.5" Long	Brass	NP-168
	Nipple	1/4" NPT, 3" Long	Brass	NP-169
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-170

CGA-415 Canadian Acetylene

500 PSI

Hex Nut 	Part	Description	Material	Part No.
	Nut	.855"-14NGO-LH-INT	Brass	N-66
Nipple-Threaded Inlet 	Nipple	1/4" NPT, 2.5" Long	Brass	NP-181
Replacement Part 	Washer	For Nipple	Fiber	W-50



Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-500 Medical Mixtures

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.880"-14NGO-RH-EXT	Brass	N-67
	Nut	.880"-14NGO-RH-EXT	CP Brass	MN-067
Handtight Nuts				
	Nut-HT	.880"-14NGO-RH-EXT	Brass, Plastic Grip	HTN-67P
	Nut-HT	.880"-14NGO-RH-EXT	CP Brass, Plastic Grip	MHN-067P
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-188
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-188
	Nipple	1/4" NPT, 3" Long	Brass	NP-189
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-189
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-190
	Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-190
	Nipple	1/4" NPT, 4.5" Long	Brass	NP-191
Nipple-Handtight				
	Nipple-HT	1/4" NPT, 3.5" Long	Brass, PTFE	NP-190T3
	Nipple-HT	1/4" NPT, 3.5" Long w/ O-Ring	Brass, Nitrile	NP-190W
	Nipple-HT	1/4" NPT, 3.5" Long w/ O-Ring	CP Brass, Nitrile	MNP-190W
	Nipple-HT-CS	For 1/4" Tube	Brass, PTFE	NP-188T3C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PTFE	NP-188T3C3
	Nipple-HT-CS	For 3/8" Tube	Brass, PTFE	NP-188T3C4
Nipple-Countersunk				
	Nipple-CS	For 1/4" Tube	Brass	NP-188C2
	Nipple-CS	For 5/16" Tube	Brass	NP-188C3
	Nipple-CS	For 3/8" Tube	Brass	NP-188C4
Nipple-Check Valve				
	Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-188CV
	Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-188CV
	Nipple-CV	1/4" NPT, 3" Long	Brass	NP-189CV
Replacement Parts				
	O-Ring	For O-Ring Nipple	Nitrile	OR-580
	Soft Tip	For HT-Nipple	PTFE	T189-3

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-510 Acetylene/Propane/Natural Gas

500 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	.880"-14NGO-LH-EXT(7/8"Hex)	Brass	N-68
		Nut	.880"-14NGO-LH-EXT	Brass	N-69
		Nut	.880"-14NGO-LH-EXT	SS	N-69SS
		Nut	.880"-14NGO-LH-EXT	CP Brass	MN-069
Handtight Nuts		Part	Description	Material	Part No.
		Nut-HT	.880"-14NGO-LH-EXT	Brass	HTN-69
		Nut-HT	.880"-14NGO-LH-EXT	Brass, Plastic Grip	HTN-69P
Nipple-Threaded Inlets		Part	Description	Material	Part No.
		Nipple	1/4" NPT, 2.5" Long	Brass	NP-188
		Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-188
		Nipple	1/4" NPT, 2.5" Long	SS	NP-188SS
		Nipple	1/4" NPT, 3" Long	Brass	NP-189
		Nipple	1/4" NPT, 3" Long	CP Brass	MNP-189
		Nipple	1/4" NPT, 3" Long	SS	NP-189SS
		Nipple	1/4" NPT, 3.5" Long	Brass	NP-190
		Nipple	1/4" NPT, 3.5" Long	SS	NP-190SS
		Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-190
		Nipple-HT	1/4" NPT, 3" Long (only with HTN-69)	Brass, PTFE	NP-189T3
		Nipple-HT	1/4" NPT, 3.5" Long	Brass, PTFE	NP-190T3
		Nipple-HT	1/4" NPT, 3.5" Long w/ O-Ring	Brass, Nitrile	NP-190W
		Nipple-HT-CS	For 1/4" Tube	Brass, PTFE	NP-188T3C2
		Nipple-HT-CS	For 5/16" Tube	Brass, PTFE	NP-188T3C3
Nipple-Countersunk		Part	Description	Material	Part No.
		Nipple-CS	For 1/4" Tube	Brass	NP-188C2
		Nipple-CS	For 1/4" Tube	SS	NP-188C2SS
		Nipple-CS	For 5/16" Tube	Brass	NP-188C3
		Nipple-CS	For 5/16" Tube	SS	NP-188C3SS
		Nipple-CS	For 3/8" Tube	Brass	NP-188C4
Nipple-Check Valve		Part	Description	Material	Part No.
		Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-188CV
		Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-188SSCV
		Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-188CV
		Nipple-CV	1/4" NPT, 3" Long	Brass	NP-189CV
		Nipple-CV	1/4" NPT, 3" Long	SS	NP-189SSCV
Replacement Items		Part	Description	Material	Part No.
		Soft Tip	For HT-Nipple	PTFE	T189-3
		O-Ring	For NP-190W	Nitrile	OR-580

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-540 Oxygen

3,000 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	.908"-14NGO-RH-INT.	Brass	N-71
		Nut	.908"-14NGO-RH-INT.	SS	N-71SS
		Nut	.908"-14NGO-RH-INT	CP Brass	MN-071
Handtight Nuts		Part	Description	Material	Part No.
		Nut-HT	.908"-14NGO-RH-INT	Brass	HTN-71
		Nut-HT	.908"-14NGO-RH-INT	Brass, Plastic Grip	HTN-71P
		Nut-HT	.908"-14NGO-RH-INT	CP Brass, Plastic Grip	MHN-071P
Nipples - Threaded Inlets		Part	Description	Material	Part No.
		Nipple	1/4" NPT, 2.06" Long	Brass	NP-210
		Nipple	1/4" NPT, 2.06" Long	CP Brass	MNP-210
		Nipple	1/4" NPT, 2.5" Long	Brass	NP-211
		Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-211
		Nipple	1/4" NPT, 2.5" Long	SS	NP-211SS
		Nipple	1/4" NPT, 3" Long	Brass	NP-212
		Nipple	1/4" NPT, 3" Long	CP Brass	MNP-212
		Nipple	1/4" NPT, 3.5" Long	Brass	NP-213
Nipples - Handtight		Part	Description	Material	Part No.
		Nipple-HT	1/4" NPT, 2.5" Long w/ O-Ring	Brass/Viton	NP-211W
		Nipple-HT	1/4" NPT, 2.5" Long w/ O-Ring	CP Brass/Viton	MNP-211W
		Nipple-HT	1/4" NPT, 2.5" Long	Brass/PCTFE	NP-211T1
		Nipple-HT	For 1/4" Tube	Brass/PCTFE	NP-211T1C2
		Nipple-HT	For 5/16" Tube	Brass/PCTFE	NP-211T1C3
Nipples - Countersunk		Part	Description	Material	Part No.
		Nipple-CS	For 1/4" Tube	Brass	NP-210C2
		Nipple-CS	For 1/4" Tube	SS	NP-210C2SS
		Nipple-CS	For 5/16" Tube	Brass	NP-210C3
		Nipple-CS	For 3/8" Tube	Brass	NP-210C4
Nipple - Check Valve		Part	Description	Material	Part No.
		Nipple-CV	1/4"NPT, 2.125" Long	Brass	NP-210CV
		Nipple-CV	1/4" NPT, 2.126" Long	CP Brass	MNP-210CV
		Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-211SSCV
Nipples - Residual Pressure Valve		Part	Description	Material	Part No.
		Nipple-RPV	1/4" NPT, 2.5" Long	Brass (Monel Pin)	NP-211-PIN-M
		Nipple-RPV	1/4" NPT, 2.5" Long	Brass (SS Pin)	NP-211-PIN-SS
		Nipple-RPV	1/4" NPT, 2.5" Long w/ O-Ring	Brass (Monel Pin)	NP-211W-PIN-M
		Nipple-RPV	1/4" NPT, 3.5" Long w/ O-Ring	Brass (Retractable SS Pin)	NP-213W-RPV
Replacement Items		Part	Description	Material	Part No.
		Soft Tip	For HT-Nipple	PCTFE	T211-1
		O-Ring	For Nipple	Viton	OR-540
		O-Ring	For O-Ring Nipple	Viton	OR-011V7
		Pin	For RPV Nipple	SS	PIN-NP-SS
		Pin	For RPV Nipple	Monel	PIN-NP-M

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-555 Propane, Butane For Liquid Withdrawal

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.908"-14NGO-LH-INT	Brass	N-86
	Nut	.908"-14NGO-LH-INT	CP Brass	MN-086
Handtight Nuts				
	Nut-HT	.908"-14NGO-LH-INT	Brass	HTN-86
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 2.06" Long	Brass	NP-210
	Nipple	1/4" NPT, 2.06" Long	CP Brass	MNP-210
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-211
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-211
	Nipple	1/4" NPT, 3" Long	Brass	NP-212
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-212
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-213
Nipple-Handtight				
	Nipple-HT	1/4" NPT, 2.5" Long w/ o-ring	Brass, Viton	NP-211W
	Nipple-HT	1/4" NPT, 2.5" Long w/ o-ring	CP Brass, Viton	MNP-211W
	Nipple-HT	1/4" NPT, 2.5" Long	Brass, PCTFE	NP-211T1
	Nipple-HT-CS	For 1/4" Tube	Brass, PCTFE	NP-210T1C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PCTFE	NP-210T1C3
Nipple-Countersunk				
	Nipple-CS	For 1/4" Tube	Brass	NP-210C2
	Nipple-CS	For 5/16" Tube	Brass	NP-210C3
	Nipple-CS	For 3/8" Tube	Brass	NP-210C4
Nipple-Check Valve				
	Nipple-CV	1/4" NPT, 2.125" Long	Brass	NP-210CV
	Nipple-CV	1/4" NPT, 2.125" Long	CP Brass	MNP-210CV
Replacement Parts				
	Soft Tip	For Soft Tip-Nipple	PCTFE	T211-1
	O-Ring	For O-Ring-Nipple	Viton	OR-011V7

CGA-577 Oxygen

3,001 - 4,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.965"-14NGO-RH-INT	Brass	N-577
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 3" Long	Brass	NP-823

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-580 Argon, Helium, Nitrogen

3,000 PSI

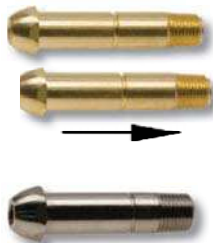
Hex Nuts	Part	Description	Material	Part No.
	Nut	.960"-14NGO-RH-EXT	Brass	N-73
	Nut	.960"-14NGO-RH-EXT	SS	N-73SS
	Nut	.960"-14NGO-RH-EXT	CP Brass	MN-073
Handtight Nuts	Part	Description	Material	Part No.
	Nut, HT	.960"-14NGO-RH-EXT	Brass	HTN-73
	Nut, HT	.960"-14NGO-RH-EXT	CP Brass, Plastic Grip	MHN-073P
	Nut, HT	.960"-14NGO-RH-EXT	Brass, Plastic Grip	HTN-73P
Nipple-Threaded Inlets	Part	Description	Material	Part No.
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-188
	Nipple	1/4" NPT, 2.5" Long	SS	NP-188SS
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-188
	Nipple	1/4" NPT, 3" Long	Brass	NP-189
	Nipple	1/4" NPT, 3" Long	SS	NP-189SS
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-189
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-190
	Nipple	1/4" NPT, 3.5" Long	SS	NP-190SS
	Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-190
	Nipple	1/4" NPT, 4.5" Long	Brass	NP-191
Nipple-Handtight	Part	Description	Material	Part No.
	Nipple-HT	1/4" NPT, 3" Long	Brass, PTFE	NP-189T3
	Nipple-HT	1/4" NPT, 3.5" Long	Brass, PTFE	NP-190T3
	Nipple-HT	1/4" NPT, 3.5" Long, w/ o' ring	Brass, Nitrile	NP-190W
	Nipple-HT-CS	For 1/4" Tube	Brass, PTFE	NP-188T3C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PTFE	NP-188T3C3
Nipple-Countersunk	Part	Description	Material	Part No.
	Nipple-CS	For 1/4" Tube	Brass	NP-188C2
	Nipple-CS	For 1/4" Tube	SS	NP-188C2SS
	Nipple-CS	For 5/16" Tube	Brass	NP-188C3
	Nipple-CS	For 5/16" Tube	SS	NP-188C3SS
	Nipple-CS	For 3/8" Tube	Brass	NP-188C4
Nipple-Check Valve	Part	Description	Material	Part No.
	Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-188CV
	Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-188SSCV
	Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-188CV
	Nipple-CV	1/4" NPT, 3" Long	Brass	NP-189CV
	Nipple-CV	1/4" NPT, 3" Long	SS	NP-189SSCV
Nipples - Residual Pressure Valve	Part	Description	Material	Part No.
	Nipple-RPV	1/4" NPT, 3.5" Long	Brass, SS PIN	NP-190-PIN-SS
	Nipple-RPV	1/4" NPT, 3.5" Long	Brass, Monel PIN	NP-190-PIN-M
	Nipple-RPV-O-Ring	1/4" NPT, 3.5" Long	Brass, Retractable Pin	NP-190W-RPV
Replacement Parts	Part	Description	Material	Part No.
	Soft Tip	For Soft Tip-Nipple	PTFE	T189-3
	O-Ring	For O-Ring-Nipple	Nitrile	OR-580
	Pin	For RPV Nipple	SS	PIN-NP-SS
	Pin	For RPV Nipple	Monel	PIN-NP-M

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-590 Sulfur Hexafluoride Formerly Industrial Air

3,000 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	.960"-14NGO-LH-EXT	Brass	N-74
	Nut	.960"-14NGO-LH-EXT	SS	N-74SS
	Nut	.960"-14NGO-LH-EXT	CP Brass	MN-074
Nipple - Handtight				
	Nut-HT	.960"-14NGO-LH-EXT	Brass	HTN-74
	Nut-HT	.960"-14NGO-LH-EXT	Brass, Plastic	HTN-74P
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-188
	Nipple	1/4" NPT, 2.5" Long	SS	NP-188SS
	Nipple	1/4" NPT, 2.5" Long	CP Brass	MNP-188
	Nipple	1/4" NPT, 3" Long	Brass	NP-189
	Nipple	1/4" NPT, 3" Long	SS	NP-189SS
	Nipple	1/4" NPT, 3" Long	CP Brass	MNP-189
	Nipple	1/4" NPT, 3.5" Long	Brass	NP-190
	Nipple	1/4" NPT, 3.5" Long	CP Brass	MNP-190
	Nipple	1/4" NPT, 3.5" Long	SS	NP-190SS
	Nipple	1/4" NPT, 4.5" Long	Brass	NP-191
Nipple-Handtight				
	Nipple-HT	1/4" NPT, 3" Long	Brass, PTFE	NP-189T3
	Nipple-HT	1/4" NPT, 3.5" Long	Brass, PTFE	NP-190T3
	Nipple-HT	1/4" NPT, 3.5" Long, w/ o' ring	Brass, Nitrile	NP-190W
	Nipple-HT-CS	For 1/4" Tube	Brass, PTFE	NP-188T3C2
	Nipple-HT-CS	For 5/16" Tube	Brass, PTFE	NP-188T3C3
Nipple-Countersunk				
	Nipple-CS	For 1/4" Tube	Brass	NP-188C2
	Nipple-CS	For 1/4" Tube	SS	NP-188C2SS
	Nipple-CS	For 5/16" Tube	Brass	NP-188C3
	Nipple-CS	For 5/16" Tube	SS	NP-188C3SS
	Nipple-CS	For 3/8" Tube	Brass	NP-188C4
Nipple-Check Valve				
	Nipple-CV	1/4" NPT, 2.5" Long	Brass	NP-188CV
	Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-188SSCV
	Nipple-CV	1/4" NPT, 2.5" Long	CP Brass	MNP-188CV
	Nipple-CV	1/4" NPT, 3" Long	Brass	NP-189CV
	Nipple-CV	1/4" NPT, 3" Long	SS	NP-189SSCV
Replacement Parts				
	Soft Tip	For Soft Tip-Nipple	PTFE	T189-3
	O-Ring	For O-Ring-Nipple	Nitrile	OR-580

CGA-621 Oil Tolerant Nitrogen

3,001-5,500 PSI

Hex Nuts	Part	Description	Material	Part No.
	Nut	1.035"-14NGO-LH-INT	Brass	N-621
Nipple-Threaded Inlets				
	Nipple	1/4" NPT, 3" Long	Brass	NP-621

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-622-320 Carbon Dioxide For Liquid Withdrawal

500 PSI

	Part	Description	Material	Part No.
	Nut	1.035"-14NGO-RH-INT	Brass	N-622
Nipple-Threaded Inlet				
	Nipple	1/4" NPT, 3" Long	Brass	NP-621
Liquid Cylinder to Hose Adaptor				
	Nipple	1.035"-14NGO-RH-INT to CGA 320	Brass	A-622

CGA-624 Nitrous Oxide For Liquid Withdrawal

500 PSI

Hex Nut 	Part	Description	Material	Part No.
	Nut	1.035"-14NGO-RH-INT	Brass	N-624
Nipple-Threaded Inlet 				
	Nipple	1/4" NPT, 3" Long	Brass	NP-624

CGA-660 Refrigerant Gases

3,000 PSI

	Part	Description	Material	Part No.
	Nut	1.035"-14NGO-RH-INT	Brass	N-77
	Nut	1.035"-14NGO-RH-INT	SS	N-77SS
	Nut	1.035"-14NGO-RH-INT	CP Brass	MN-077
	Nipple*	1/4" NPT, 1.75" Long	Brass	NP-236
	Nipple*	1/4" NPT, 2.5" Long	Brass	NP-238
	Nipple*	1/4" NPT, 2.5" Long	SS	NP-238SS
	Nipple*	1/4" NPT, 2.5" Long	CP Brass	MNP-238
	Nipple*	1/4" NPT, 3" Long	SS	NP-239SS
	Nipple*	1/4" NPT, 3.5" Long	SS	NP-240SS
		Nipple-CS*	For 1/4" Tube	SS
	Nipple-CV	1/4" NPT, 2.5" Long	SS	NP-238SSCV
	Washer	For Nipple	PTFE	W-18

*Includes Washer

**Includes Washer*

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

CGA-677 Argon/Nitrogen/Helium

5,501-7,500 PSI

	Part	Description	Material	Part No.
	Nut	1.035"-14NGO-LH-INT	Brass	N-80
	Nut	1.035"-14NGO-LH-INT	SS	N-80SS
	Nipple	1/4" NPT, 2.5" Long	Brass	NP-246
	Nipple	1/4" NPT, 2.5" Long	SS	NP-246SS
	Nipple	1/4" NPT, 3" Long	Brass	NP-247
	Nipple	1/4" NPT, 3" Long	SS	NP-247SS
	Nipple	1/4" NPT, 3.5" Long	SS	NP-248SS
	Nipple	3/8" NPT, 3" Long	Brass	NP-250
	Nipple	3/8" NPT, 3" Long	SS	NP-250SS
	Nipple-CS	For 1/4" Tube	SS	NP-246C2SS

CGA-680 Argon/Nitrogen/Helium

3,001-5,500 PSI

	Part	Description	Material	Part No.
	Nut	1.040"-14NGO-RH-EXT	Brass	N-680
	Nut	1.040"-14NGO-RH-EXT	SS	N-680SS
	Nipple	1/4" NPT, 2.5"	Brass	NP-842
	Nipple	1/4" NPT, 2.5"	SS	NP-842SS
	Nipple	1/4" NPT, 3"	Brass	NP-843
	Nipple	1/4" NPT, 3.5"	Brass	NP-844
	Nipple-CS	For 1/4" Tube	Brass	NP-842C2

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters

regulator inlet nuts & nipples

CGA-695 Hydrogen/Methane

3,001-5,500 PSI

Hex Nut 	Part	Description	Material	Part No.
	Nut	1.040"-14NGO-LH-EXT	Brass	N-695

Nipple-Threaded Inlets 	Nipple	1/4" NPT, 2.5"	Brass	NP-842
	Nipple	1/4" NPT, 3"	Brass	NP-843
	Nipple	1/4" NPT, 3.5"	Brass	NP-844

Nipple-Countersunk 	Nipple-CS	For 1/4" Tube	Brass	NP-842C2
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CGA-701 Oxygen

4,001-5,500 PSI

Hex Nut		Part	Description	Material	Part No.
		Nut	1.108"-18NGO-RH-INT	Brass	N-701
		Nut	1.108"-18NGO-RH-INT	SS	N-701SS
Nipple-Threaded Inlet					
		Nipple	1/4" NPT, 3"	Brass	NP-863
		Nipple	1/4" NPT, 3"	SS	NP-863SS

CGA-702 Air

5,501-7,500 PSI

Hex Nuts		Part	Description	Material	Part No.
		Nut	1.120"-14NGO-RH-EXT	Brass	N-702
		Nut	1.120"-14NGO-RH-EXT	CP Brass	MN-702
Nipple-Threaded Inlets					
		Nipple	1/4" NPT, 2.5"	Brass	NP-842
		Nipple	1/4" NPT, 3"	Brass	NP-843
		Nipple	1/4" NPT, 3"	CP Brass	MNP-843
		Nipple	1/4" NPT, 3.5"	Brass	NP-844
Nipple-Countersunk					
		Nipple-CS	For 1/4" Tube	Brass	NP-842C2

Add "RF" to end of nipple part numbers listed under the CGA numbers for Installed Filters



CGA-870 Oxygen

Inlet	Part No.
Yoke w/HT grip x CGA 540 male	MFY-870-1H
Yoke w/T-handle x CGA 540 male	MFY-870-1
Yoke w/HT grip x 1/4" NPT male	MFY-870-4H
Yoke w/T-handle x 1/4" NPT male	MFY-870-4
Yoke w/HT grip x 1/2" NPT male	MFY-870-8H
Yoke w/T-handle x 1/2" NPT male	MFY-870-8
Yoke w/S.S. HT grip x 1/4" NPT male	MFY-870-4H-M
Yoke w/S.S. HT grip x 1/2" NPT male	MFY-870-8H-M

CGA-940 CO2/Oxygen Mixture w/ CO2 Over 7%

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-940-4H
Yoke w/T-handle x 1/4" NPT male	MFY-940-4
Yoke w/HT grip x 1/2" NPT male	MFY-940-8H
Yoke w/T-handle x 1/2" NPT male	MFY-940-8

CGA-880 CO2/Oxygen Mixture w/ CO2 Not Over 7%

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-880-4H
Yoke w/T-handle x 1/4" NPT male	MFY-880-4
Yoke w/HT grip x 1/2" NPT male	MFY-880-8H
Yoke w/T-handle x 1/2" NPT male	MFY-880-8

CGA-950 Medical Air

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-950-4H
Yoke w/T-handle x 1/4" NPT male	MFY-950-4
Yoke w/HT grip x 1/2" NPT male	MFY-950-8H
Yoke w/T-handle x 1/2" NPT male	MFY-950-8

CGA-890 Helium/Oxygen Mixture w/ He Not Over 80%

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-890-4H
Yoke w/T-handle x 1/4" NPT male	MFY-890-4
Yoke w/HT grip x 1/2" NPT male	MFY-890-8H
Yoke w/T-handle x 1/2" NPT male	MFY-890-8

CGA-960 Nitrogen

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-960-4H
Yoke w/T-handle x 1/4" NPT male	MFY-960-4
Yoke w/HT grip x 1/2" NPT male	MFY-960-8H
Yoke w/T-handle x 1/2" NPT male	MFY-960-8

CGA-910 Nitrous Oxide

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-910-4H
Yoke w/T-handle x 1/4" NPT male	MFY-910-4
Yoke w/HT grip x 1/2" NPT male	MFY-910-8H
Yoke w/T-handle x 1/2" NPT male	MFY-910-8

CGA-973 Medical Gas Mixtures

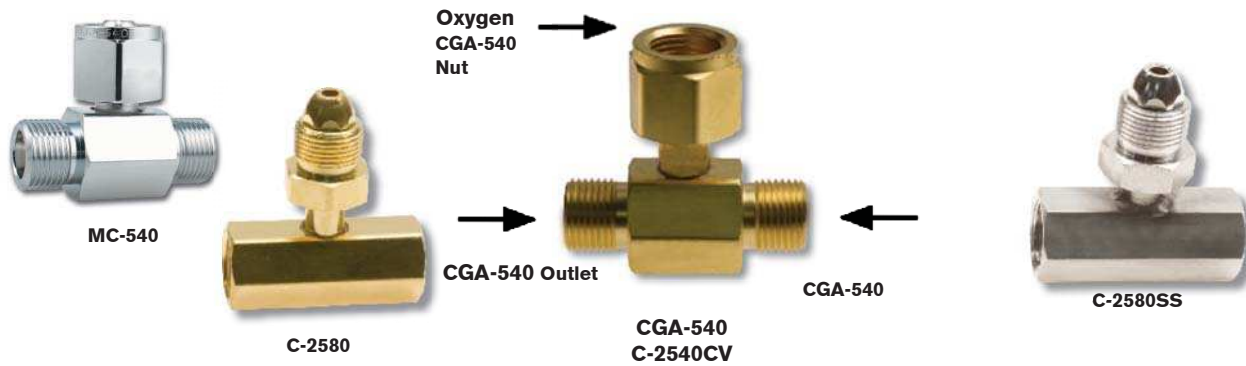
Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-973-4H
Yoke w/T-handle x 1/4" NPT male	MFY-973-4
Yoke w/HT grip x 1/2" NPT male	MFY-973-8H
Yoke w/T-handle x 1/2" NPT male	MFY-973-8

CGA-930 Helium/Oxygen Mixture w/ He Over 80%

Inlet	Part No.
Yoke w/HT grip x 1/4" NPT male	MFY-930-4H
Yoke w/T-handle x 1/4" NPT male	MFY-930-4
Yoke w/HT grip x 1/2" NPT male	MFY-930-8H
Yoke w/T-handle x 1/2" NPT male	MFY-930-8

Replacement Parts for all Yokes	Part No.
T-handle	MYP-001
Handtight handle	MYP-002
Inlet bushing 1/4" NPT male	MYP-004
Inlet bushing 1/2" NPT male	MYP-008
ETFE washer	MYP-010
Nylon washer	MYP-011
FKM washer	MYP-012
Sintered inlet filter	MYP-015
Stainless steel pin	MYP-020
Bushing CGA 540 outlet male w/filter	MYP-540
S.S. Replacement Hand tight handle	MYP-002Z

CGA manifold coupler tees



Brass

CGA No.	Swivel Connection	End Connection	PSI	Part No.
296 Industrial Oxygen Mixtures	.803"-14NGO-RH-EXT	.803"-14NGO-RH-INT (2)	3000	C-2296*
300 (Ethyl Chloride)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	500	C-2300*
320 (Carbon Dioxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	C-2320*
326 (Nitrous Oxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	C-2326*
346 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	C-2346*
347 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	5500	C-2347
350 (Hydrogen/Methane/Natural Gas)	.830"-14NGO-LH-INT	.830"-14NGO-LH-EXT (2)	3000	C-2350*
510 (Acetylene/Methane/Propane)	.880"-14NGO-LH-EXT	.880"-14NGO-LH-INT (2)	500	C-2510*
540 (Oxygen)	.908"-14NGO-RH-INT	.908"-14NGO-RH-EXT (2)	3000	C-2540*
555 (Butane/Propane-Liquid Withdrawal)	.908"-14NGO-LH-INT	.908"-14NGO-LH-EXT (2)	3000	C-2555
577 (Oxygen)	.965"-14NGO-RH-INT	.965"-14NGO-RH-EXT (2)	4000	C-2577
580 (Inert Gases)	.960"-14NGO-RH-EXT	.960"-14NGO-RH-INT (2)	3000	C-2580*
590 (Sulfur Hexafluoride)	.960"-14NGO-LH-EXT	.960"-14NGO-LH-INT (2)	3000	C-2590*
660 (Refrigerant Gases)	1.035"-14NGO-RH-INT	1.035"-14NGO-RH-EXT (2)	3000	C-2660
677 (Inert Gases)	1.035"-14NGO-LH-INT	1.035"-14NGO-LH-EXT (2)	7500	C-2677
680 (Inert Gases)	1.040"-14NGO-RH-EXT	1.040"-14NGO-RH-INT (2)	5500	C-2680
695 (Flammables)	1.040"-14NGO-LH-EXT	1.040"-14NGO-LH-INT (2)	5500	C-2695
701 (Oxygen)	1.108"-14NGO-RH-EXT	1.108"-14NGO-RH-INT (2)	5500	C-2701
702 (Air)	1.120"-14NGO-RH-EXT	1.120"-14NGO-RH-INT (2)	7500	C-2702

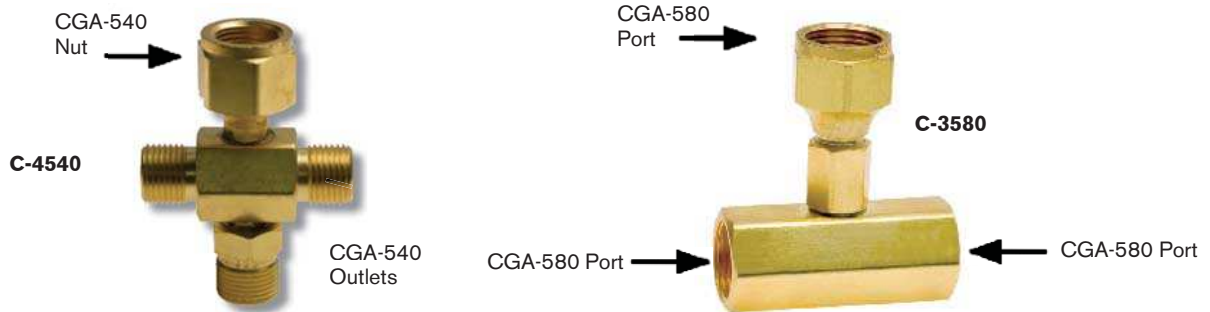
Chrome Plated Brass

CGA No.	Swivel Connection	End Connection	PSI	Part No.
320 (Carbon Dioxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	MC-320
326 (Nitrous Oxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	MC-326
346 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	MC-346
500 (Medical Mixture)	.880"-14NGO-RH-EXT	.880"-14NGO-RH-INT (2)	3000	MC-500
540 (Oxygen)	.908"-14NGO-RH-INT	.908"-14NGO-RH-EXT (2)	3000	MC-540
580 (Nitrogen/Helium)	.960"-14NGO-RH-EXT	.960"-14NGO-RH-INT (2)	3000	MC-580

Stainless Steel

CGA No.	Swivel Connection	End Connection	PSI	Part No.
320 (Carbon Dioxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	C-2320SS
346 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	3000	C-2346SS
347 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (2)	5500	C-2347SS
350 (Hydrogen)	.830"-14NGO-LH-INT	.830"-14NGO-LH-EXT (2)	3000	C-2350SS
540 (Oxygen)	.908"-14NGO-RH-INT	.908"-14NGO-RH-EXT (2)	3000	C-2540SS
580 (Inert Gases)	.960"-14NGO-RH-EXT	.960"-14NGO-RH-INT (2)	3000	C-2580SS
677 (Inert Gases)	1.035"-14NGO-LH-INT	1.035"-14NGO-LH-EXT (2)	7500	C-2677SS

*Available with check valve nipple: Add CV to the end of part number.



Brass Manifold Coupler Tees - 4 way CGA Valve Outlets, NUT & NIPPLE

CGA No.	Swivel Connection	End Connections	PSI	Part No.
320 (Carbon Dioxide)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (3)	3000	C-4320*
346 (Air)	.830"-14NGO-RH-INT	.830"-14NGO-RH-EXT (3)	3000	C-4346*
510 (Acetylene/Propane)	.880"-14NGO-LH-EXT	.880"-14NGO-LH-INT (3)	500	C-4510*
540 (Oxygen)	.908"-14NGO-RH-INT	.908"-14NGO-RH-EXT (3)	3000	C-4540*
580 (Argon/Helium/Nitrogen)	.960"-14NGO-RH-EXT	.960"-14NGO-RH-INT (3)	3000	C-4580*
590 (Sulfur Hexafluoride)	.960"-14NGO-LH-EXT	.960"-14NGO-LH-INT (3)	3000	C-4590*

Brass Manifold Coupler Tees - 3 way CGA Valve Outlets

CGA No.	End Connections	PSI	Part No.
540 (Oxygen)	.830"-14NGO-RH-EXT (3)	3000	C-3540
580 (Argon/Helium/Nitrogen)	.960"-14NGO-RH-INT (3)	3000	C-3580



2" Hex Brass Body (with 6 valve outlets)

*Available w/ Check Valve:
Add "CV" to end of part number

Brass/Stainless Steel Manifold Blocks & Assemblies

CGA No.	Swivel Connection	End Connection	Part No.
540 (Oxygen)	.908"-14NGO-RH-INT	.908"-14NGO-RH-EXT (6)	MB-540-7*
580 (Argon/Helium/Nitrogen)	.960"-14NGO-RH-EXT	.960"-14NGO-RH-INT (6)	MB-580-7*

2" Hex Manifold Blocks (with Female Ports)

Connection	Material	PSI	Part No.
1/4" FNPT (6)	Brass	3000	MB-6
1/4" FNPT (6)	SS	6000	MB-6SS
1/4" FNPT (7)	Brass	3000	MB-7
1/4" FNPT (7)	SS	6000	MB-7SS
1/4" FNPT(6) x 1/2" FNPT(2)	Brass	4500	GMA-SCMB



MB-7



MB-6SS

GMA-SCMB



brass "y" connectors

EZ-YV51



ERGONOMIC DESIGN



YV-50



YV-420

EZ-YV50



"Y" Connectors With Shut-Off Valves

200 PSI

Service	Inlets	Outlets	Part No.
Oxygen	"B" 9/16"-18-RH-INT Swivel Nut	"B" 9/16"-18-RH-EXT	YV-50
Fuel Gas	"B" 9/16"-18-LH-INT Swivel Nut	"B" 9/16"-18-LH-EXT	YV-51
Oxygen	"B" 9/16"-18-RH-INT Swivel Nut	"B" 9/16"-18-RH-EXT (P.O.P.)	EZ-YV50
Fuel Gas	"B" 9/16"-18-LH-INT Swivel Nut	"B" 9/16"-18-LH-EXT (P.O.P.)	EZ-YV51
Argon	"B" 5/8"-18-RH-EXT Swivel Nut	"B" 5/8"-RH-INT	YV-420
Air-Water	"B" 5/8"-18-LH-EXT Swivel Nut	"B" 5/8"-LH-INT	YV-421



Y-80



Y-420

"Y" Connectors Without Shut-Off Valves

200 PSI

Service	Inlets	Outlets	Part No.
Oxygen	"B" 9/16"-18-RH-INT Swivel Nut	"B" 9/16"-18-RH-EXT	Y-50
Oxygen	"B" 9/16"-18-RH-INT Swivel Nut	1/4" FNPT	Y-80
Fuel Gas	"B" 9/16"-18-LH-INT Swivel Nut	"B" 9/16"-18-LH-EXT	Y-51
Fuel Gas	"B" 9/16"-18-LH-INT Swivel Nut	1/4" FNPT	Y-81
Argon	5/8"-18-RH-EXT Swivel Nut	"B" 5/8"-18-RH-INT	Y-420
Air-Water	5/8"-18-LH-EXT Swivel Nut	"B" 5/8"-18-LH-INT	Y-421



Y-224

"Y" Connectors With Pipe Threads

3,000 PSI

Service	Inlets	Outlets	Part No.
Non-Corrosive Gases	1/8" FNPT	1/4" FNPT	Y-184
Non-Corrosive Gases	1/4" MNPT	1/4" FNPT	Y-224

Brass Seat Shut-Off Valves

200 PSI



V-88

Service	Inlet	Outlet	Part No.
Oxygen	"B" 9/16"-18-RH-EXT	"B" 9/16"-18-RH-EXT	V-50
Oxygen	"B" 9/16"-18-RH-INT Swivel Nut	"B" 9/16"-18-RH-EXT	V-52
Oxygen	"B" 9/16"-18-RH-EXT	1/4" MNPT	V-76
Oxygen	1/4" MNPT	"B" 9/16"-18-RH-EXT	V-88
Fuel Gas	"A" 3/8"-24-LH-EXT	1/8" NPT-Male	V-25
Fuel Gas	"B" 9/16"-18-LH-EXT	"B" 9/16"-18-LH-EXT	V-51
Fuel Gas	"B" 9/16"-18-LH-INT Swivel Nut	"B" 9/16"-18-LH-EXT	V-53
Fuel Gas	"B" 9/16"-18-LH-EXT	1/8" MNPT	V-69
Fuel Gas	"B" 9/16"-18-LH-EXT	1/4" MNPT	V-77
Fuel Gas	"B" 9/16"-18-LH-EXT	1/4" FNPT	V-81
Argon	5/8" -18-RH-EXT Swivel Nut "B"	5/8" -18-RH-INT "B"	V-420
Argon	1/4" NPT-M	5/8" -18-RH-INT "B"	V-454



V-335

3000 PSI			
All Gases	1/8" MNPT	1/8" MNPT	V-301
All Gases	1/4" FNPT	1/4" FNPT	V-332
All Gases	1/4" MNPT	1/4" MNPT	V-333
All Gases	1/4" FNPT	1/4" MNPT	V-334
All Gases	1/4" MNPT	1/4" FNPT	V-335

Dust Cap & Chain Assemblies (Non-Gas Tight)

Dust caps are one-piece blind nuts used to protect threads and keep some contamination from cylinder valves. CGA thread specifications are used, but they do not make a gas tight seal.



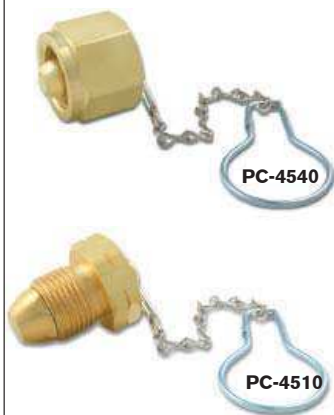
CC-8540
Oxygen

CGA No.	Gases	Connection	Part No.
022	Oxygen Std.	"B"9/16" -18-RH-INT	CC-8020
023	Fuel Gas Std.	"B"9/16" -18-LH-INT	CC-8021
024	Oxygen	"C"7/8"-14-RH-INT	CC-8034
025	Fuel Gas	"C"7/8"-14-LH-INT	CC-8035
300	Ethyl Chloride Acetylene	.830"-14NGO-RH-INT	CC-8300
320	Carbon Dioxide	.830"-14NGO-RH-INT	CC-8320
346	Air	.830"-14NGO-RH-INT	CC-8346
350	Hydrogen/Methane	.830"-14NGO-LH-INT	CC-8350
500	Medical Mixture	.880"-14NGO-RH-EXT	CC-8500
510	Acetylene/Propane	.880"-14NGO-LH-EXT	CC-8510
540	Oxygen	.908"-14NGO-RH-INT	CC-8540
555	Propane Liquid Withdrawal	.908"-14NGO-LH-INT	CC-8555
580	Argon, Helium, Nitrogen	.960"-14NGO-RH-EXT	CC-8580
660	Refrigeration Gases	1.035"-14NGO-RH-INT	CC-8660

brass plugs & plug & chain assemblies

Two-Piece Assemblies

These two-piece nut and blind nipple assemblies are made to CGA standards and make a gas tight seal.



CGA No.	Gases	Connection	Gas Seal (PSI)	Part No.
022	Oxygen	"B"9/16 -18-RH-INT	200	PC-4020
023	Fuel Gas	"B"9/16 -18-LH-INT	200	PC-4021
024	Oxygen	"C"7/8"-14-RH-INT	200	PC-4034
025	Fuel Gas	"C"7/8"-14-LH-INT	200	PC-4035
026	Oxygen	"D"1-1/4"-12-RH-INT	200	PC-4042
027	Fuel Gas	"D"1-1/4"-12-LH-INT	200	PC-4043
032	Inert Gas	"B"5/8"-18-RH-EXT	200	PC-4024
033	Air-Water	"B"5/8"-18-LH-EXT	200	PC-4025
032	Inert Gas	"B"5/8"-18-RH-INT	200	PC-4026
034	Inert Gas	"C"7/8"-14-RH-EXT	200	PC-4036
326	Nitrous Oxide	.830"-14NGO-RH-INT	3000	PC-4326
347	Air	.830"-14NGO-RH-INT	5500	PC-4347
350	Hydrogen/Methane	.830"-14NGO-LH-INT	3000	PC-4350
510	Acetylene/Propane	.880"-14NGO-LH-EXT	500	PC-4510
520	Acetylene	.899"-18NGO-RH-INT	500	PC-4520
540	Oxygen	.908"-14NGO-RH-INT	3000	PC-4540
555	Propane	.908"-14NGO-LH-INT	3000	PC-4555
580	Argon/Helium/Nitrogen	.960"-14NGO-RH-EXT	3000	PC-4580

One-Piece Assemblies - With Chain

These shorter one-piece plug and chains can be used, where space is limited, to seal off cylinder valves and still be able to install the cylinder valve cap. The part makes a gas tight seal. Nipples have replaceable soft tips or o-rings.



CGA No.	Gases	Connection	Gas Seal (PSI)	Part No.
320	Carbon Dioxide	.830"-14NGO-RH-INT	500	PC-320
326	Nitrous Oxide	.830"-14NGO-RH-INT	3000	PC-326
330	Non-Corrosive Gas	.830"-14NGO-LH-INT	3000	PC-330
346	Air	.830"-14NGO-RH-INT	3000	PC-346
350	Hydrogen/Methane	.830"-14NGO-RH-INT	3000	PC-350
510	Acetylene/Propane	.880"-14NGO-LH-EXT	500	PC-510
540	Oxygen	.908"-14NGO-LH-INT	3000	PC-540
555	Propane	.908"-14NGO-LH-INT	3000	PC-555
580	Argon/Helium/Nitrogen	.960"-14NGO-RH-EXT	3000	PC-580
590	Sulfur Hexafluoride/Ind. Air	.960"-14NGO-LH-EXT	3000	PC-590



One-Piece Assemblies - Without Chain

These shorter one-piece plugs (sold without chains) can be used, where space is limited, to seal off cylinder valves and still be able to install the cylinder valve cap. The part makes a gas tight seal. Nipples have replaceable soft tips or o-rings.

CGA No.	Gases	Connection	Gas Seal (PSI)	Part No.
320	Carbon Dioxide	.830"-14NGO-RH-INT	500	P-320
326	Nitrous Oxide	.830"-14NGO-RH-INT	3000	P-326
330	Non-Corrosive Gas	.830"-14NGO-LH-INT	3000	P-330
346	Air	.830"-14NGO-RH-INT	3000	P-346
350	Hydrogen/Methane	.830"-14NGO-RH-INT	3000	P-350
510	Acetylene/Propane	.880"-14NGO-LH-EXT	500	P-510
540	Oxygen	.908"-14NGO-LH-INT	3000	P-540
555	Propane	.908"-14NGO-LH-INT	3000	P-555
580	Argon/Helium/Nitrogen	.960"-14NGO-RH-EXT	3000	P-580
590	Sulfur Hexafluoride/Ind. Air	.960"-14NGO-LH-EXT	3000	P-590

	CGA No.	Valve Outlet Adaptors Gas	Male & Female Pipe Threads Connection x NPT	Material	PSI	Part No.
Male NPT 	180	Non-Corrosive	.620"-18UNF-2B-RH-EXT x 1/4 MNPT	Brass	3,000	A-518
	180	Non-Corrosive	.620"-18UNF-2B-RH-EXT x 1/4 MNPT	S.S.	3,000	A-518SS
Female NPT 	296	Industrial Oxygen Mixtures	.803" UNS-2B-RH-INT x 1/4 FNPT	Brass	3,000	N-853A
Male NPT 	300	Ethyl Chloride (formerly Acetylene)	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	500	A-531
	300	Ethyl Chloride (formerly Acetylene)	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	500	A-533
Male NPT 	320	Carbon Dioxide	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	3,000	A-541
	320	Carbon Dioxide	.825" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-542
	320	Carbon Dioxide	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-543
	320	Carbon Dioxide w/ Check Valve	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-543CV
Female NPT 	320	Carbon Dioxide	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	3,000	N-854A
Male NPT 	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	3,000	A-631
	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 1/4 MNPT	CP Brass	3,000	MA-631
	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-632
	326	Nitrous Oxide w/ Check Valve	.825" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-632CV
	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-633
	326	Nitrous Oxide w/ Check Valve	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-633CV
Female NPT 	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 1/4 FNPT	Brass	3,000	N-811A
	326	Nitrous Oxide	.825" 14NGO-RH-EXT x 1/4 FNPT	CP Brass	3,000	MN-326A
Male NPT  	346	Air	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	3,000	A-641
	346	Air	.825" 14NGO-RH-EXT x 1/4 MNPT	CP Brass	3,000	MA-641
	346	Air	.825" 14NGO-RH-EXT x 1/4 MNPT	S.S.	3,000	A-641SS
	346	Air w/ Check Valve	.825" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-642CV
	346	Air	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-643
	346	Air w/ Check Valve	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-643CV
Female NPT 	346	Air	.825" 14NGO-RH-EXT x 1/4 FNPT	Brass	3,000	N-866A
	346	Air	.825" 14NGO-RH-EXT x 1/4 FNPT	S.S.	3,000	N-866A-SS
	346	Air	.825" 14NGO-RH-EXT x 1/4 FNPT	CP Brass	3,000	MN-346A
Male NPT  	347	Air	.825" 14NGO-RH-EXT x 1/4 MNPT	Brass	5,500	A-661
	347	Air	.825" 14NGO-RH-EXT x 1/4 MNPT	S.S.	5,500	A-661SS
	347	Air	.825" 14NGO-RH-EXT x 1/2 MNPT	Brass	5,500	A-663

continue na t pa e

valve outlet adaptors

	CGA No. Gas	Valve Outlet Adaptors	Male & Female Pipe Threads Connection x NPT	Material	PSI	Part No.
Female NPT						
	347	Air	.825" 14NGO-RH-EXT x 1/4 FNPT	Brass	5,500	N-347A
	347	Air	.825" 14NGO-RH-EXT x 1/4 FNPT	S.S.	5,500	N-347A-SS
Male NPT						
	350	Hydrogen/Methane/Natural Gas	.825" 14NGO-LH-EXT x 1/4 MNPT	Brass	3,000	A-551
	350	Hydrogen/Methane/Natural Gas	.825" 14NGO-LH-EXT x 1/2 MNPT	Brass	3,000	A-553
Female NPT						
	350	Hydrogen/Methane/Natural Gas	.825" 14NGO-LH-EXT x 1/4 FNPT	Brass	3,000	N-874A
	350	Hydrogen/Methane/Natural Gas	.825" 14NGO-LH-EXT x 1/4 FNPT	S.S.	3,000	N-874A-SS
	350	Hydrogen/Methane/Natural Gas	.825" 14NGO-LH-EXT x 1/4 FNPT	CP Brass	3,000	MN-350A
Female NPT						
	410	Canadian Acetylene	.850" 14NGO-LH-EXT x 1/4 FNPT	Brass	500	N-836A
Male NPT						
	500	Medical Mixtures	.885" 14NGO-RH-INT x 1/4 MNPT	Brass	3,000	A-571
	500	Medical Mixtures w/ Check Valve	.885" 14NGO-RH-INT x 3/8 MNPT	Brass	3,000	A-572CV
	500	Medical Mixtures w/ Check Valve	.885" 14NGO-RH-INT x 1/2 MNPT	Brass	3,000	A-573CV
Female NPT						
	500	Medical Mixtures	.885" 14NGO-RH-INT x 1/4 FNPT	Brass	3,000	N-807A
	500	Medical Mixtures	.885" 14NGO-RH-INT x 1/4 FNPT	CP Brass	3,000	MN-500A
Male NPT						
	510	Acetylene/Propane/Natural Gas	.885" 14NGO-LH-INT x 1/4 MNPT	Brass	500	A-581
	510	Acetylene/Propane/Natural Gas	.885" 14NGO-LH-INT x 1/2 MNPT	Brass	500	A-583
Female NPT						
 N-802A	510	Acetylene/Propane/Natural Gas	.885" 14NGO-LH-INT x 1/4 FNPT	Brass	500	N-800A
	510	Acetylene/Propane/Natural Gas	.885" 14NGO-LH-INT x 1/4 FNPT	CP Brass	500	MN-510A
	510-90	Acetylene/Propane/Natural Gas	.885" 14NGO-LH-INT x 1/4 FNPT	Brass	500	N-802A
Male NPT						
 	540	Oxygen	.903" 14NGO-RH-EXT x 1/4 MNPT	Brass	3,000	A-591
	540	Oxygen	.903" 14NGO-RH-EXT x 1/4 MNPT	S.S.	3,000	A-591SS
	540	Oxygen	.903" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-592
	540	Oxygen w/ Check Valve	.903" 14NGO-RH-EXT x 3/8 MNPT	Brass	3,000	A-592CV
	540	Oxygen	.903" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-593
	540	Oxygen w/ Check Valve	.903" 14NGO-RH-EXT x 1/2 MNPT	Brass	3,000	A-593CV
Female NPT						
	540	Oxygen	.903" 14NGO-RH-EXT x 1/4 FNPT	Brass	3,000	N-876A
	540	Oxygen	.903" 14NGO-RH-EXT x 1/4 FNPT	S.S.	3,000	N-876A-SS
	540	Oxygen	.903" 14NGO-RH-EXT x 1/4 FNPT	CP Brass	3,000	MN-540A
Male NPT						
	555	Propane/Butane for Liquid Withdrawal	.903" 14NGO-LH-EXT x 1/4 MNPT	Brass	3,000	A-651
	555	Propane/Butane for Liquid Withdrawal	.903" 14NGO-LH-EXT x 1/2 MNPT	Brass	3,000	A-653
Female NPT						
	555	Propane/Butane for Liquid Withdrawal	.903" 14NGO-LH-EXT x 1/4 FNPT	Brass	3,000	N-885A
Male NPT						
	577	Oxygen	.960" 14NGO-RH-EXT x 1/2 MNPT	Brass	4,000	A-563
Female NPT						
	577	Oxygen	.960" 14NGO-RH-EXT x 1/4 FNPT	Brass	4,000	N-577A

valve outlet adaptors

	CGA No.	Valve Outlet Adaptors Gas	Male & Female Pipe Threads Connection x NPT	Material	PSI	Part No.
Male NPT 	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 1/4 MNPT	Brass	3,000	A-601
	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 3/8 MNPT	Brass	3,000	A-602
	580	Argon/Helium/Nitrogen w/ Check Valve	.965" 14NGO-RH-INT x 3/8 MNPT	Brass	3,000	A-602CV
	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 1/2 MNPT	Brass	3,000	A-603
	580	Argon/Helium/Nitrogen w/ Check Valve	.965" 14NGO-RH-INT x 1/2 MNPT	Brass	3,000	A-603CV
	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 3/4 MNPT	Brass	3,000	A-605
Female NPT 	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 1/4 FNPT	Brass	3,000	N-862A
	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 1/4 FNPT	S.S.	3,000	N-862ASS
	580	Argon/Helium/Nitrogen	.965" 14NGO-RH-INT x 1/4 FNPT	CP Brass	3,000	MN-580A
Male NPT 	590	Sulfur Hexafluoride/Industrial Air	.965" 14NGO-LH-INT x 1/4 MNPT	Brass	3,000	A-611
Female NPT 	590	Sulfur Hexafluoride/Industrial Air	.965" 14NGO-LH-INT x 1/4 FNPT	Brass	3,000	N-954A
	590	Sulfur Hexafluoride/Industrial Air	.965" 14NGO-LH-INT x 1/4 FNPT	CP Brass	3,000	MN-590A
Male NPT 	622	Carbon Dioxide Liquid Withdrawal	1.030" 14NGO-RH-EXT x 3/8 MNPT	Brass	500	A-722
Male NPT 	624	Nitrous Oxide Liquid Withdrawal	1.030" 14NGO-RH-EXT x 3/8 MNPT	Brass	500	A-732
Female NPT 	660	Refrigerant Gases	1.030" 14NGO-RH-EXT x 1/4 FNPT	Brass	3,000	N-880A
	660	Refrigerant Gases	1.030" 14NGO-RH-EXT x 1/4 FNPT	CP Brass	3,000	MN-660A
Male NPT 	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/4 MNPT	Brass	7,500	A-671
	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/4 MNPT	S.S.	7,500	A-671SS
	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/2 MNPT	Brass	7,500	A-673
	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/2 MNPT	S.S.	7,500	A-673SS
Female NPT 	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/4 FNPT	Brass	7,500	N-677A
	677	Argon/Helium/Nitrogen	1.030" 14NGO-LH-EXT x 1/4 FNPT	S.S.	7,500	N-677A-SS
Male NPT 	680	Argon/Helium/Nitrogen	1.045" 14NGO-RH-INT x 1/4 MNPT	Brass	5,500	A-681
	680	Argon/Helium/Nitrogen	1.045" 14NGO-RH-INT x 1/2 MNPT	Brass	5,500	A-683
Female NPT 	680	Argon/Helium/Nitrogen	1.045" 14NGO-RH-INT x 1/4 FNPT	Brass	5,500	N-680A
Male NPT 	701	Oxygen	1.103" 18NGO-RH-EXT x 1/2 MNPT	Brass	5,500	A-753
Female NPT 	701	Oxygen	1.103" 18NGO-RH-EXT x 1/4 FNPT	Brass	5,500	N-701A
Male NPT 	702	Air	1.125" 14NGO-RH-INT x 1/2 MNPT	Brass	7,500	A-763
Female NPT 	702	Air	1.125" 14NGO-RH-INT x 1/4 FNPT	Brass	7,500	N-702A

brass cga cylinder to regulator adaptors

CGA 200-300	Part No.	CGA 200-510	Part No.	CGA 200-510	Part No.	CGA 200-520	Part No.
500 PSI	A-775	500 PSI	A-780	500 PSI	A-781	500 PSI	A-783
Acetylene Cylinder (CGA-200)		Acetylene Cylinder (CGA-200)		Acetylene "MC" Cylinder (CGA-200)		Acetylene "MC" Cylinder (CGA-200)	
Commercial Acetylene Regulator (CGA-300)		Acetylene P.O.L. Regulator (CGA-510)		Acetylene P.O.L. Regulator (CGA-510)		Acetylene B Regulator (CGA-520)	
CGA 200-520	Part No.	CGA 280-540	Part No.	CGA 280-590	Part No.	CGA 300-200	Part No.
500 PSI	A-784	3000 PSI	A-789	3000 PSI	A-968	500 PSI	A-792
Acetylene "MC" Cylinder (CGA-200)		Medical Breathing Mixtures CGA-280 Cylinder		Medical Breathing Mixtures CGA-280 Cylinder		Commercial Acetylene Cylinder (CGA-300)	
Acetylene B Regulator (CGA-520)		Oxygen Regulator (CGA-540)		Industrial Air (CGA-590) Regulator		Acetylene "MC" Regulator (CGA-200)	
CGA 300-510	Part No.	CGA 300-510	Part No.	CGA 300-510	Part No.	CGA 300-520	Part No.
500 PSI	A-800	500 PSI	A-801	500 PSI	A-802	500 PSI	A-804
Commercial Acetylene Cylinder (CGA-300)		Commercial Acetylene Cylinder (CGA-300) 1 pc. Adaptor		Commercial Acetylene Cylinder (CGA-300)		Commercial Acetylene Cylinder (CGA-300)	
Acetylene P.O.L. Regulator (CGA-510)		Acetylene P.O.L. Regulator (CGA-510)		510 Acetylene P.O.L. Regulator (CGA-510)		Acetylene B Regulator (CGA-520)	
CGA 320-580	Part No.	CGA 320-580	Part No.	CGA 346-540	Part No.	CGA 346-580	Part No.
3000 PSI	A-809	3000 PSI	A-810	3000 PSI	A-930	3000 PSI	A-935
Carbon Dioxide Cylinder (CGA-320)		Carbon Dioxide Cylinder (CGA-320) 1 pc. Adaptor		Air Cylinder (CGA-346)		Air Cylinder (CGA-346)	
Argon, Helium, or Nitrogen Regulator (CGA-580)		Argon, Helium, or Nitrogen Regulator (CGA-580)		Oxygen Regulator (CGA-540)		Argon, Helium, or Nitrogen Regulator (CGA-580)	

brass cga cylinder to regulator adaptors

CGA 350-580	Part No.	CGA 415-510	Part No.	CGA 500-540	Part No.	CGA 500-580	Part No.
3000 PSI	A-820	500 PSI	A-827	3000 PSI	A-909	3,000 PSI	A-912
Hydrogen, Methane Cylinder (CGA-350)		Canadian L.A. Acetylene Cylinder (CGA-415)		Medical Mixtures Cylinder (CGA-500)		Medical Mixtures Cylinder (CGA-500)	
							
Argon, Helium, or Nitrogen Regulator (CGA-580)		Acetylene P.O.L. Regulator (CGA-510)		Oxygen Regulator (CGA-540)		Argon, Helium, or Nitrogen Regulator (CGA-580)	
CGA 510-200	Part No.	CGA 510-300	Part No.	CGA 510-300	Part No.	CGA 510-410	Part No.
500 PSI	A-828	500 PSI	A-830	500 PSI	A-831	500 PSI	A-836
Acetylene P.O.L. Cylinder (CGA-510)		Acetylene P.O.L. Cylinder (CGA-510)		Acetylene P.O.L. Cylinder (CGA-510)		Acetylene P.O.L. Cylinder (CGA-510)	
							
Acetylene "MC" Regulator (CGA-200)		Commercial Acetylene Regulator (CGA-300)		1 pc Adaptor Commercial Acetylene Regulator (CGA-300)		Canadian Acetylene Regulator (CGA-410)	
CGA 510-510	Part No.	CGA 510-520	Part No.	CGA 520-200	Part No.	CGA 520-300	Part No.
500 PSI	A-838	500 PSI	A-840	500 PSI	A-842	500 PSI	A-844
Acetylene P.O.L. Cylinder (CGA-510)		Acetylene P.O.L. Cylinder (CGA-510)		Acetylene B Cylinder (CGA-520)		Acetylene B Cylinder (CGA-520)	
							
Acetylene P.O.L. Regulator (CGA-510)		Acetylene B Regulator (CGA-520)		Acetylene "MC" Regulator (CGA-200)		Commercial Acetylene Regulator (CGA-300)	
CGA 520-510	Part No.	CGA 520-510	Part No.	CGA 540-346	Part No.	CGA 540-580	Part No.
500 PSI	A-848	500 PSI	A-850	3000 PSI	A-866	3000 PSI	A-862
Acetylene B Cylinder (CGA-520)		Acetylene B Cylinder (CGA-520)		Oxygen Cylinder (CGA-540)		Oxygen Cylinder (CGA-540)	
							
Acetylene P.O.L. Regulator (CGA-510)		Acetylene P.O.L. Regulator (CGA-510)		Air Regulator (CGA-346)		Argon, Helium, or Nitrogen Regulator (CGA-580)	

brass cga cylinder to regulator adaptors

CGA 555-510	Part No.	CGA 555-580	Part No.	CGA 580-320	Part No.	CGA 580-346	Part No.
500 PSI	A-948	3000 PSI	A-952	3000 PSI	A-870	3000 PSI	A-882
Propane (L.W.) Cylinder (CGA-555)		Propane (L.W.) Cylinder (CGA-555)		Argon, Helium, or Nitrogen Cylinder (CGA-580)		Argon, Helium, or Nitrogen Cylinder (CGA-580)	
Acetylene P.O.L. Regulator (CGA-510)		Argon, Helium, or Nitrogen Regulator (CGA-580)		Carbon Dioxide Regulator (CGA-320)		Air Regulator (CGA-346)	
CGA 580-540	Part No.	CGA 580-590	Part No.	CGA 590-346	Part No.	CGA 590-580	Part No.
3000 PSI	A-876	3000 PSI	A-879	3000 PSI	A-894	3000 PSI	A-892
Argon, Helium, or Nitrogen Cylinder (CGA-580)		Argon, Helium, or Nitrogen Cylinder (CGA-580)		Industrial Air Cylinder (CGA-590)		Industrial Air Cylinder (CGA-590)	
Oxygen Regulator (CGA-540)		Industrial Air Regulator (CGA-590)		Air Regulator (CGA-346)		Argon, Helium, or Nitrogen Regulator (CGA-580)	

FLARE TUBING ADAPTORS

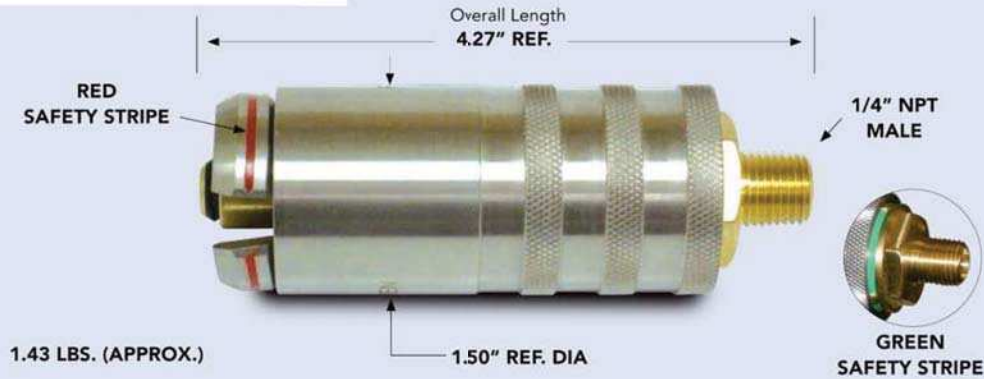
500 PSI

 FA-4404	CGA	Connection	Gas	Part No.
	CGA 165 male	1/4" flare x 1/8" MNPT	Refrigerants	FA-1651
	CGA 165 male	1/4" flare x 1/4" MNPT	Refrigerants	FA-1652
	CGA 182 male	3/8" flare x 1/4" MNPT	Refrigerants	FA-1822
	CGA 295 male	1/2" flare x 1/4" MNPT	Cryogenic Inert	FA-2952
	CGA 295 male	1/2" flare x 3/8" MNPT	Cryogenic Inert	FA-2953
	CGA 295 male	1/2" flare x 1/2" MNPT	Cryogenic Inert	FA-2954
	CGA 440 male	5/8" flare x 1/4" MNPT	Cryogenic Oxygen	FA-4402
	CGA 440 male	5/8" flare x 3/8" MNPT	Cryogenic Oxygen	FA-4403
	CGA 440 male	5/8" flare x 1/2" MNPT	Cryogenic Oxygen	FA-4404
	CGA 440 male	5/8" flare x 3/4" MNPT	Cryogenic Oxygen	FA-4405
	CGA 450 LH male	5/8" flare x 1/4" MNPT	Methane, Natural Gas	FA-4502

CGA 440 Oxygen Cryogenic Transfer Hose		CGA 295 Nitrogen Cryogenic Transfer Hose	
(B)=Brass Ends (S)=Stainless Steel Ends – Insert type of material. 500 PSI		(B)=Brass Ends (S)=Stainless Steel Ends 500 PSI	
 STAINLESS STEEL CHS-440-440-72		 STAINLESS STEEL CHS-295-295-72	
CGA 440 female both ends 48" long	CH()-440-440-48	CGA 295 female both ends 48" long	CH()-295-295-48
CGA 440 female both ends 60" long	CH()-440-440-60	CGA 295 female both ends 60" long	CH()-295-295-60
CGA 440 female both ends 72" long	CH()-440-440-72	CGA 295 female both ends 72" long	CH()-295-295-72
CGA 440 female both ends 120" long	CH()-440-440-120	CGA 295 female both ends 120" long	CH()-295-295-120
CGA 440 female both ends 144" long	CH()-440-440-144	CGA 295 female both ends 144" long	CH()-295-295-144
<i>*Other lengths available. Call for part number.</i>		<i>Example - CHS-295-295-72 = CGA Stainless Steel ends 72" long</i>	
Quick Connect Handwheel		Quick Connect Tee Handle	
 STAINLESS STEEL 500 PSI		 STAINLESS STEEL 500 PSI	
Oxygen CGA 440 Handwheel	HTC-440	Oxygen CGA 440 Tee Handle	CHTE-440
Nitrogen/Inert CGA 295 Handwheel	HTC-295	Nitrogen/Inert CGA 295 Tee Handle	CHTE-295
Cryogenic Phase Separator		Fill Elbow	
 STAINLESS STEEL 500 PSI		 STAINLESS STEEL 500 PSI	
3/8" female NPT	CPS-001	Oxygen CGA 440	CEL-440
		Nitrogen/Inert CGA 295	CEL-295

PUSH2FILL CGA 540

Part No. 13900, CGA 540 (less pin kit) *



Application:

The Superior/Macro Technologies Push2Fill quick connectors are designed for fast, safe, and reliable connection of filling hoses to gas cylinders. The quick one push operation may reduce the possibility of carpal tunnel syndrome related to the twisting motion of hand-tight connections. The seal between the nipple o-ring and valve body is made by inserting the Push2Fill into the valve and locked into a pressure tight seal by simply pushing the locking sleeve forward. The Push2Fill lowers connection time and speeds the filling process. **Can be converted to a "RPV" fixed pin version (for CGA 540) or retractable pin (for CGA 580) without having to buy a new Push2Fill.**

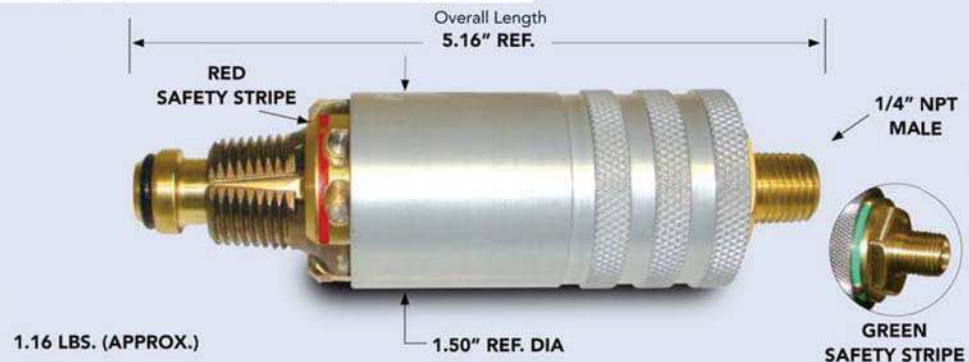
CGA Features:

- Seals pressure tight in seconds
- Light weight compact design
- Can be used with shroud type cylinder protectors
- May reduce the possibility of carpal tunnel syndrome
- Can be used with either hand
- Can be converted to RPV version by purchasing any of four available fixed pin kits
- Safety lanyard included for extra safety and to help hang the connector
- Added visual safety features of a **GREEN** stripe in the back shows you have made the connection, a **RED** stripe in the front indicates a connection has not been made
- Locking pins in rear of sleeve keep sleeve locked in place until pressure is reduced enough to unlock

PUSH2FILL CGA 580

Part No. 13810, CGA 540 (less pin kit) *part pictured below* *

Part No. 13810-1, CGA 540 (complete with RPV Pin) *part not pictured* *



Visit www.Push2Fill.com or www.superiorprod.com/push2fill.html
for more information

PUSH2FILL ACCESSORIES



14049
One piece key tool with knurl handle



13907
Replacement Retaining Strap (supplied with each unit)

PUSH2FILL 13900 CGA 540 RPV PINS

PART NUMBER	DESCRIPTION
13900 *	CGA 540 (less pin kit)
13900-1- SHER	CGA 540 with RPV Pin for Sherwood Valve
13900-1-CEOU	CGA 540 with RPV Pin for Ceodeux Valve
13900-1-CAVA	CGA 540 with RPV Pin for Cavagna Valve
13900-1-IWAT	CGA 540 with RPV Pin for Iwatani Valve

PUSH2FILL 13810 CGA 580 RPV PINS

PART NUMBER	DESCRIPTION
13810 *	CGA 580 (less pin kit)
13810-1 *	CGA 580 complete with RPV Pin
13895-1	CGA 580 RPV Pin Kit

PUSH2FILL 13900 CGA 540 PIN KITS

PART NUMBER	DESCRIPTION
13985-1	CGA 540 RPV Pin Kit, Sherwood
13985-2	CGA 540 RPV Pin Kit, Ceodeux
13985-3	CGA 540 RPV Pin Kit, Cavagna
13985-4	CGA 540 RPV Pin Kit, Iwatani



13895-1
Pin Kit



Pin Kit Example

Visit www.Push2Fill.com or www.superiorprod.com/push2fill.html for more information

How the Push2Fill works:

- Step 1:** Insert threads on the valve and push knurl sleeve forward. Make sure green stripe is showing and red stripe is not.
- Step 2:** Loop safety lanyard over cylinder valve for added safety. Always use safety lanyard.
- Step 3:** Start filling process. Locking pins will hold sleeve in place when pressure is applied.
- Step 4:** When done turn off gas flow. Bleed line pressure. Locking pins retract allowing you to simply pull knurled sleeve back to release.

How to convert to RPV version:

- Step 1:** Remove plug from back of connector with RPV key.
- Step 2:** Insert RPV pin kit and tighten.
- Step 3:** Push Sleeve to open position.
- Step 4:** Using RPV key tool slotted end release pin to the open position.

Detailed instructions are shipped with each Push2Fill.

INDUSTRIAL RELIEF VALVES

RELIEF VALVES FOR GAS & CRYOGENIC SYSTEMS

Application

These relief valves are designed for Industrial gases including oxygen in both high pressure and cryogenic service. For use in piping systems, liquid cylinder, or mini-bulk containers where a relief valve is desired. **The RCHM series is designed to greatly reduce the "popping" sound made by most cylinder relief valve discharges.**

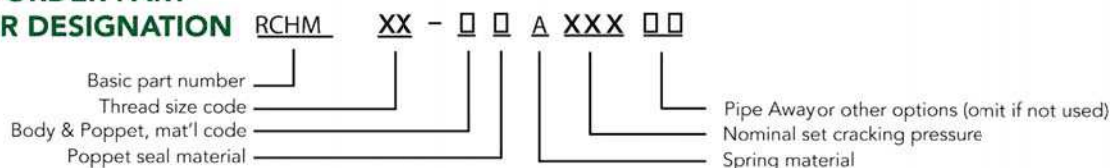
Features

- Eliminates annoying "popping" associated with most cylinder relief valves
- Meets OSHA sound level regulations
- Bubble tight at 95% of set pressure
- Tamper proof after adjustment
- Repeatable performance
- 100% Factory tested
- All valves are cleaned and packaged for oxygen service per CGA G-4.1

INDUSTRIAL ORDERING SPECIFICATIONS:



RCHM - ORDER PART NUMBER DESIGNATION



THREAD SIZE CODE

VALVE SIZE, THREADS	SIZE CODE
1/4 - 18 NPT	04
3/8 - 18 NPT	06
1/2 - 14 NPT	08

BODY & POPPET MATERIAL CODE

BODY POPPET MATERIAL	MAT'L CODE
Brass	B
Stainless Steel	SS

SEAL MATERIAL OPTIONS

POPPET SEAL MATERIAL	MAT'L CODE
PCTFE "Kel-F"	K
Silicone	S

Silicone 22-49 PSI
 PCTFE 50 - 550 PSI

SPRING MATERIAL

SPRING MATERIAL	MAT'L CODE
Stainless Steel	A

CRACKING PRESSURE

Insert needed pressure from 22 to 550 PSIG.

PIPE AWAY OPTIONS

PIPE AWAY FITTING OPTION	CODE
1/8 - 27 Female NPT	P2
1/4 - 18 Female NPT	P4
3/8 - 18 Female NPT	P6

OTHER OPTIONS

(Not available with Pipe Away)

D= Deflector Cap
 T= Tamper Resistant Ring

Example Part Number: RCHM-06-BKA150-CD

For dimensional, flow, cracking and reset performance data visit our web page macrotechnologies.com or superiorprod.com

INDUSTRIAL RELIEF VALVES

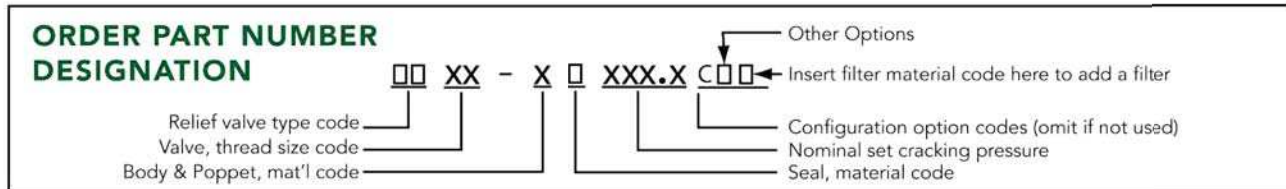
RELIEF VALVES FOR GAS, PNEUMATIC, HYDRAULIC & CRYOGENIC SYSTEMS

Application

These relief valves are designed for Industrial gases, Pneumatic, Hydraulic, and Cryogenic system applications. Designed for use on piping systems, cylinders, bulk systems, and anywhere a relief valve is desired.

Features

- Bubble tight at 95% of set pressure
- Tamper proof after adjustment
- Repeatable performance
- 100% Factory tested
- Multiple inlet configurations
- All valves are cleaned and packaged for oxygen service per CGA G-4.1

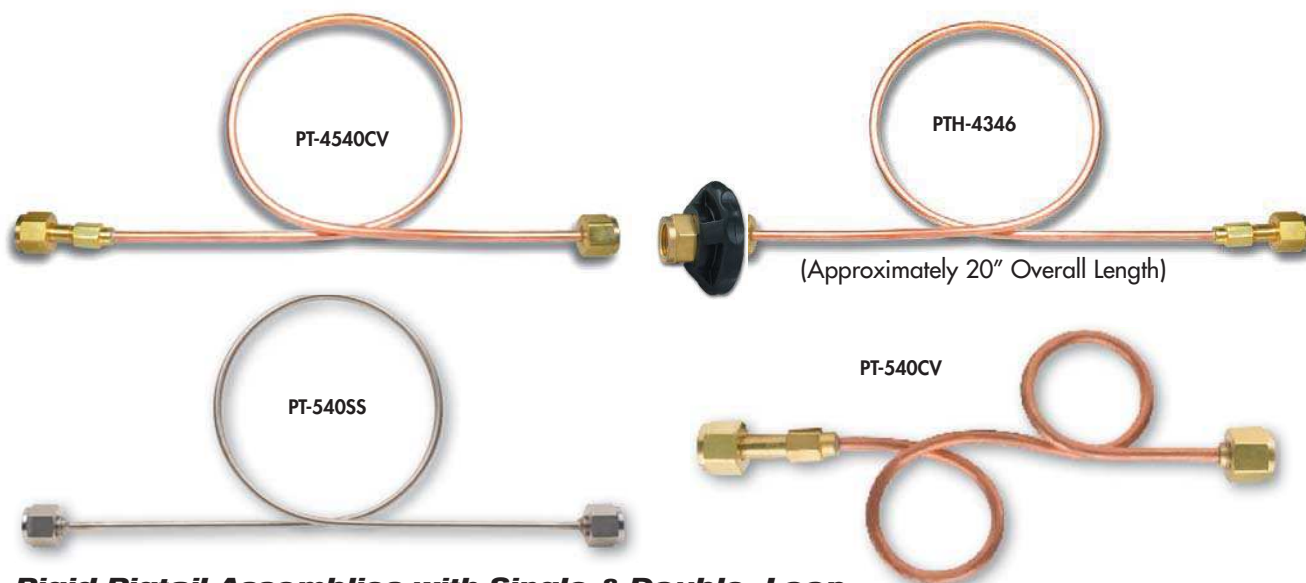


THREAD SIZE CODE		BODY & POPPET MATERIAL & COLOR OPTIONS		SEAL MATERIAL OPTIONS		FILTER OPTIONS	
VALVE SIZE, THREADS	SIZE CODE	BODY & POPPET MATERIALS	MAT'L CODE	SEAL MATERIAL	MAT'L CODE	FILTER MATERIAL	MAT'L CODE
1/8 - 27 NPT	02	Brass, Plain	1	Buna N	B	Polyethylene	F
1/4 - 18 NPT	04	Brass, Nickel Plate	2	Neoprene	N	Bronze, Sintered	Y
3/8 - 18 NPT	06	Alum., Anodize - Clear	3	Silicone	S	Cres, Wire Screen	W
1/2 - 14 NPT	08	Alum., Anodize - Blue	7	Viton	V	OTHER OPTIONS C= Cleaned for Oxygen Service CGA 4.1 L= Lockwire Hole	
3/4 - 14 NPT	12	Alum., Anodize - Green	8	EPR	E		
1 - 11.5 NPT	16	Alum., Anodize - Black	9	PTFE "Teflon"	T		
1 1/4 - 11.5 NPT	20	Alum., Anodize - Red	A				
Straight Thread (SAE)		Stainless, 316	5				
.3750-24 UNF-2A	03	CRACKING PRESSURES Insert needed pressure from .5 to 150 PSIG. Use fourth X as half PSIG if needed.					
.4375-20 UNF-2A	04						
.5625-18 UNF-2A	06						
.7500-16 UNF-2A	08						
.8750-14 UNF-2A	10						
1.0625-12 UNF-2A	12						
1.3125-12 UNF-2A	16						

Example Part Number: RF04-IN030CDY

For dimensional, flow, cracking and reset performance data visit our web page macrotechnologies.com or superiorprod.com

rigid copper & stainless steel pigtails



Rigid Pigtail Assemblies with Single & Double Loop

CGA No.	Operating Pressure (PSI)	Standard Pigtail	Plastic H.T. Nut-One End	Brass Wrench One End	S.S. Tube & S.S Ends	Copper pigtail 2 loops, brass ends
300	250	*PT-3300	*PTH-3300	*PTW-3300	N/A	*PT-300
320	3000	PT-4320	PTH-4320	PTW-4320	PT-320SS	PT-320
326	3000	PT-4326	PTH-4326	PTW-4326	PT-326SS	PT-326
346	3000	PT-4346	PTH-4346	PTW-4346	PT-346SS	PT-346
350	3000	PT-4350	PTH-4350	PTW-4350	PT-350SS	PT-350
510	500	PT-4510	PTH-4510	PTW-4510	PT-510SS	PT-510
510-90°	250	*PT-3510	*PTH-3510	*PTW-3510	N/A	N/A
540	3000	PT-4540	PTH-4540	PTW-4540	PT-540SS	PT-540
580	3000	PT-4580	PTH-4580	PTW-4580	PT-580SS	PT-580
590	3000	PT-4590	PTH-4590	PTW-4590	PT-590SS	PT-590

To add check valve to inlet, add "CV". For reverse check valve on outlet, add "RCV" (see pg. 23 for explanation).

* All pigtails designated for Acetylene service are built with brass tubing.

Annealed Copper Coiled Tubing	3000 psi	Part No.
Seamless copper tubing 1/4" O.D. x .065 wall		CT-44
Seamless copper tubing 5/16" O.D. x .065 wall		CT-45

50 ft. Rolls, Not Cleaned for O2 service



NPT ends for copper & brass tubing 3000 psi	Part No.
Male 1/4" NPT x 5/16" O.D. Tubing	XPTE-004C3
Female 1/4" NPT x 1/4" O.D. Tubing	XPTE-005C2
Female 1/4" NPT x 1/4" O.D. Tubing, Stainless Steel	XPTE-005C2SS
Female 1/4" NPT x 5/16" O.D. Tubing	XPTE-005C3



Snap rings for pigtail nut & nipples	
Snap Ring - Secures Nut to Nipple	XSR-020
Standard package of 25	



min. length=6"
max length=600"

flexible hose types



EXAMPLE:
PTF-580H-580-24

PTFE/STAINLESS BRAIDED HOSE

3000 PSI WORKING PRESSURE

EXAMPLE	PTF	-	580H	-	580	-	24
	Hose Type		Inlet		Outlet		Length

Superior PTF Series PTFE Lined Stainless Braided Pigtails are designed for 3000 PSI working pressure for a broad range of applications. Comes standard with stainless steel ferrules for longer service life. Available with Armor Guard or spring guard.

- Specifications:
- 1/4" Nominal I.D.
 - Braid is Type 304 stainless steel
 - Temperature rating -65°F to 450°F
 - Burst pressure is 12,000 PSI at room temperature
 - Minimum bend radius of 3 inches for maximum safety & life

Not recommended for lighter than air gases based on effusion



EXAMPLE:
PTFT-34I-34I-24

ETFE/STAINLESS BRAIDED HOSE

3000 PSI WORKING PRESSURE

EXAMPLE	PTFT	-	34I	-	34I	-	24
	Hose Type		Inlet		Outlet		Length

For use in Helium and Hydrogen gas service to reduce effusion of lighter than air gases. ETFE Hose is also good for high purity applications where off gassing of hydrocarbons and low diffusion rate is a concern. Please note ETFE has a lower diffusion rate than PTFE, although it does not provide zero effusion. For zero effusion, use rigid copper, brass or stainless steel. Available with Armor Guard or spring guard.

- Specifications:
- 1/4" Nominal I.D.
 - Braid is Type 304 stainless steel, lining is ETFE
 - Temperature rating -65°F to 450°F
 - Burst pressure is 12,000 PSI at room temperature
 - Minimum bend radius of 3 inches for maximum safety & life



EXAMPLE:
PTFN-N34I-N34I-24

NYLON SYNTHETIC BRAIDED HOSE

3000 PSI WORKING PRESSURE

EXAMPLE	PTFN	-	N 34I	-	N34I	-	24
	Hose Type		Inlet		Outlet		Length

For use in Helium and Hydrogen gas service to reduce effusion of lighter than air gases. Please note synthetic nylon tube has a lower diffusion rate than PTFE, although it does not provide zero effusion. For zero effusion, use rigid copper, brass or stainless steel. Available with Armor Guard or spring guard.

- Specifications:
- 1/4" Nominal I.D.
 - Braid is synthetic fiber, lining is extruded nylon, polyurethane cover
 - Temperature rating -40°F to 212°F
 - Burst pressure is 12,000 PSI at room temperature
 - Minimum bend radius of 3 inches for maximum safety & life

Not for oxygen service



EXAMPLE:
PTF6-680-64ISS-24

PTFE/STAINLESS DOUBLE BRAIDED HOSE

6000 PSI WORKING PRESSURE

EXAMPLE	PTF6	-	680	-	64ISS	-	24
	Hose Type		Inlet		Outlet		Length

For newer high pressure CGA's. PTFE lined, stainless braided hose is available with or without Armor Guard for 6,000 PSI working pressure.

- Specifications:
- 1/4" Nominal I.D.
 - Braid is Type 304 stainless steel
 - Temperature rating -65°F to 450°F
 - Burst pressure is 24,000 PSI at room temperature
 - Minimum bend radius of 3 inches for maximum safety & life



EXAMPLE:
PTF36-34I-34I-24

POST SINTERED, DOUBLE BRAIDED, PTFE HOSE

3600 PSI WORKING PRESSURE

EXAMPLE	PTF36	-	34I	-	34I	-	24
	Hose Type		Inlet		Outlet		Length

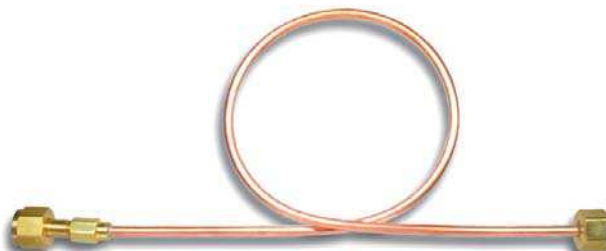
For newer high pressure CGA's. PTFE lined, stainless braided hose is available with or without Armor Guard for 3,600 PSI working pressure.

- Specifications:
- 1/4" Nominal I.D.
 - Braid is Type 304 stainless steel
 - Temperature rating -65°F to 450°F
 - Burst pressure is 14,400 PSI at room temperature
 - Minimum bend radius of 3 inches for maximum safety & life

NFPA Replacement Pigtails for Hospital Medgas Systems



- 304 Stainless Steel Braid
- PTFE Core
- 3,000 PSI Working Pressure
- 100% Leak Tested & Bagged
- Permanent non removable CGA fitting ends per NFPA code
- Stainless Steel Braid not for use with Oxygen



Aprox. 20"

- Annealed Copper Tubing
- 5/16" OD x .065 wall
- Silver Brazed End Fittings
- 3,000 PSI Working Pressure
- Permanent non removable CGA fitting ends per NFPA code

Gas Service	Inlet/Outlet Threads	Hose Materials	Part No.
Carbon Dioxide	CGA 320 Female Nut	Stainless Steel/Teflon	PTFP-320-24 or 36
Nitrous Oxide	CGA 326 Female Nut	Stainless Steel/Teflon	PTFP-326-24 or 36
Medical Air	CGA 346 Female Nut	Stainless Steel/Teflon	PTFP-346-24 or 36
Medical Mixture	CGA 500 Male Nut	Stainless Steel/Teflon	PTFP-500-24 or 36
Nitrogen, Helium	CGA 580 Male Nut	Stainless Steel/Teflon	PTFP-580-24 or 36
Oxygen	CGA 540 Female Nut	Copper/Brass ends	PT-4540
Nitrous Oxide	CGA 326 Female Nut	Copper/Brass ends	PT-4326

72" Liquid Cylinder Gas Use Pigtails for use with Dewar manifold systems



- Black Urethane perforated cover
- 3/8" ID Nylon Core
- 2,250 PSI Working Pressure
- Permanent non removable CGA fitting ends per NFPA code

Gas Service	Inlet/Outlet Threads	Hose Material	Part No.
Carbon Dioxide	CGA 320 Female Nut	3/8" I.D. Nylon Tube	PFSL-320-72
Nitrous Oxide	CGA 326 Female Nut	3/8" I.D. Nylon Tube	PFSL-326-72
Medical Air	CGA 346 Female Nut	3/8" I.D. Nylon Tube	PFSL-346-72
Medical Mixture	CGA 500 Male Nut	3/8" I.D. Nylon Tube	PFSL-500-72
Oxygen	CGA 540 Female Nut	3/8" I.D. Nylon Tube	PFSL-540-72
Nitrogen, Helium	CGA 580 Male Nut	3/8" I.D. Nylon Tube	PFSL-580-72

The pigtails on this page are specially designed to meet the requirements of NFPA for Hospital medgas manifold systems. The major feature being NFPA's requirement for permanent affixed ends to avoid cross connection through modification or switching of the nut and nipple to hook up a different gas than a system was designed for. The other requirement is a mandatory copper pigtail for use in high pressure oxygen service. Some states also require that because Nitrous Oxide is an oxidizer, copper is also required.

STANDARD 1/4 Inch Flexible PIGTAILS



PTF-34I-34I-24

- 304 Stainless Steel Braid
 - PTFE or ETFE Core
- 3000 or 6000 PSI Working Pressure
 - 100% Pressure Tested
- Cleaned & bagged for oxygen service
 - Stainless Steel Collar



PTF6-64ISS-64ISS-24

Stainless Steel Braided PTFE or ETFE with 1/4" NPT Female Brass Ends

Materials	Inlet Threads		Outlet Threads	Length	Part No.
PTFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	18"	PTF-34I-34I-18
PTFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	24"	PTF-34I-34I-24
PTFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	36"	PTF-34I-34I-36
PTFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	48"	PTF-34I-34I-48
ETFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	18"	PTFT-34I-34I-18
ETFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	24"	PTFT-34I-34I-24
ETFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	36"	PTFT-34I-34I-36
ETFE core/SS braid, brass ends	1/4"NPT female	X	1/4"NPT female	48"	PTFT-34I-34I-48

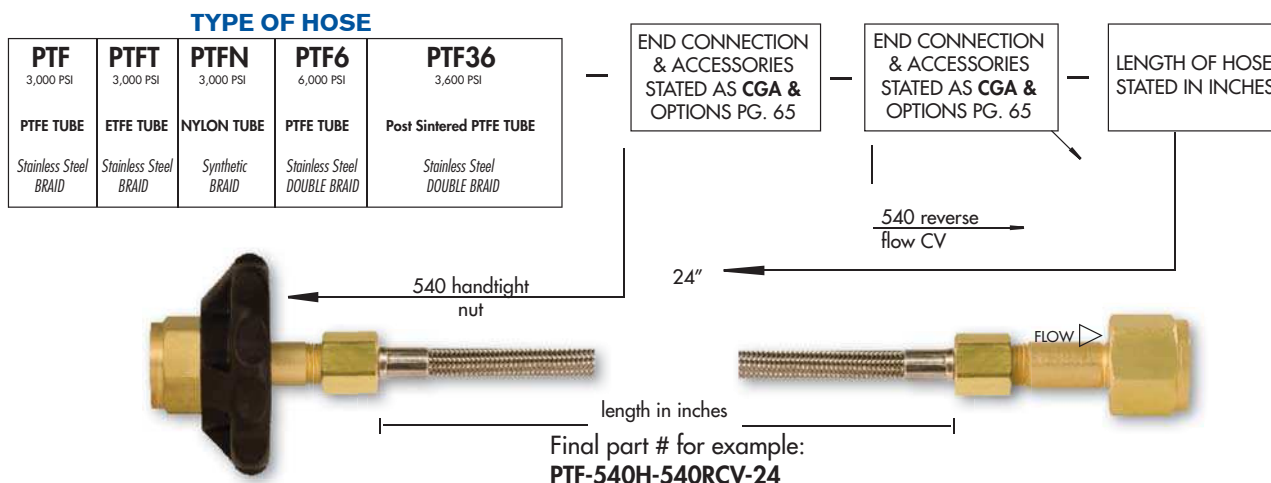
Stainless Steel Double Braided PTFE with 1/4" NPT Female Stainless Steel Ends

Materials	Inlet Threads		Outlet Threads	Length	Part No.
PTFE core/SS braid, SS ends	1/4"NPT female	X	1/4"NPT female	18"	PTF6-64ISS-64ISS-18
PTFE core/SS braid, SS ends	1/4"NPT female	X	1/4"NPT female	24"	PTF6-64ISS-64ISS-24
PTFE core/SS braid, SS ends	1/4"NPT female	X	1/4"NPT female	36"	PTF6-64ISS-64ISS-36
PTFE core/SS braid, SS ends	1/4"NPT female	X	1/4"NPT female	48"	PTF6-64ISS-64ISS-48

SPECIAL CONFIGURED PIGTAILS

Ordering Information

Superior's flexible hose assemblies are made to order, tested and individually bagged. Each configured part number consists of four elements: (see below) The **1st** place holder specifies the type of hose, PTF etc. The **2nd** place holder specifies the inlet fitting and or accessories such as 540H = oxygen with a hand tight nut & nipple on the inlet. The **3rd** place holder specifies outlet connection and/or accessories. The **4th** place holder designates the length of hose in inches.



available hose options and features

Spring Guard is available for Superior's PTF, PTFT, PTF36, PTF6, and PTFN Series hoses. Spring Guard provides protection from kinking and abrasion of your flexible hose. The crimped ends offer whip protection if the hose is severed. Specification • Dependent on the type of hose being used (see available hoses on the previous page)			Armor guard is available for Superior's PTF, PTFT, PTF36, PTF6, and PTFN Series Stainless hoses. Armor Guard provides protection from cutting, kinking, abrasion, or crushing your flexible hose. The crimped ends offer whip protection if the hose is severed. Specifications: • Dependent on the type of hose being used (see available hoses on the previous page)		
Spring Guard Braided	PTFSG		Armor Guard Protection	PTFG	
Female NPT	xxx 34I		1/4" FNPT Swivel	SW	
Male NPT	xxx 34E		Male CGA Handtight	H	
Female CGA's	xxx 540		Female CGA Handtight	H	
Male CGA's	xxx 580		Flash Arrestor	FA	
Check Valve Nipple	CV		O2 Adiabatic Heat Sink End	HS	
Reverse Flow Check Valve Nipple	RCV		Valves	V	
Elbow	L				

Female NPT			Male NPT		
					
Brass 1/8" Female NPT	=	32I	Brass 1/8" Male NPT	=	32E
Brass 1/4" Female NPT	=	34I	Brass 1/4" Male NPT	=	34E
Stainless Steel 1/4" Female NPT	=	34ISS	Stainless Steel 1/4" Male NPT	=	34ESS
Brass 3/8" Female NPT	=	36I	Brass 3/8" Male NPT	=	36E
Brass 1/2" Female NPT	=	38I	Brass 1/2" Male NPT	=	38E
Female CGA			Handtight		
					
CGA 280	=	280	CGA 300	=	300H
CGA 300	=	300	CGA 326	=	326H
CGA 320	=	320	CGA 346	=	346H
CGA 326	=	326	CGA 347	=	347H*
CGA 330	=	330	CGA 350	=	350H**
CGA 346	=	346	CGA 520	=	520H
CGA 350	=	350**	CGA 540	=	540H
CGA 577	=	577*	CGA 555	=	555H
CGA 701	=	701*	* Only on 6,000 PSI Hose (PTF6)		
* Only on 6,000 PSI Hose (PTF6)			** Only with ETFE or Nylon Hose (PTFT/PTFN)		
** Only with ETFE or Nylon Hose (PTFT/PTFN)					
Male CGA			Handtight		
					
CGA 296	=	296	CGA 296	=	296H
CGA 500	=	500	CGA 500	=	500H
CGA 510	=	510	CGA 510	=	510H
CGA 580	=	580**	CGA 580	=	580H**
** For Helium Use, ETFE or Nylon hose is recommended (PTFT/PTFN)			CGA 590	=	590H
			* Only with 6,000 PSI (PTF6)		
			** For Helium Use, ETFE or Nylon hose is recommended (PTFT/PTFN)		
Male CGA Valve Outlets			Female CGA Valve Outlets		
					
CGA 300	=	300M	CGA 500	=	500F
CGA 320	=	320M	CGA 510	=	510F
CGA 326	=	326M	CGA 580	=	580F**
CGA 346	=	346M	CGA 590	=	590F
CGA 347	=	347M*	CGA 680	=	680F*
CGA 350	=	350M**	* Only on 6,000 PSI Hose (PTF6)		
CGA 540	=	540M	** For Helium Use, ETFE or Nylon hose is recommended (PTFT/PTFN)		
CGA 555	=	555M			
CGA 577	=	577M*			
CGA 701	=	701M*			
* Only on 6,000 PSI Hose (PTF6)					
** Only with ETFE or Nylon Hose (PTFT/PTFN)					

All Handtight Nuts are plastic handles with brass insert. All brass Handtight Nuts available on special request.

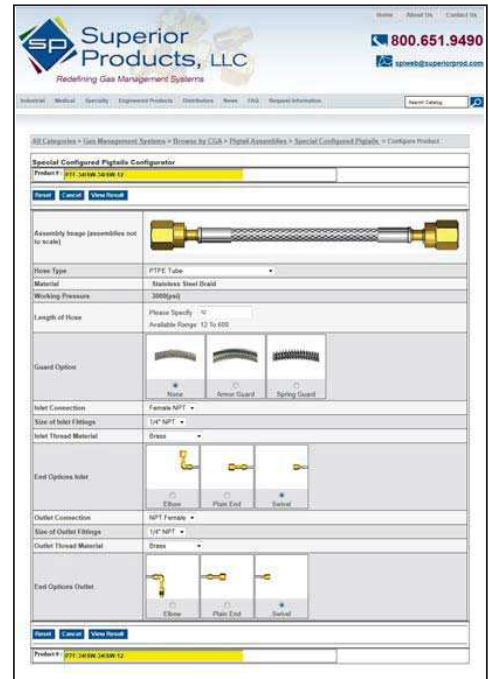
pigtail ordering matrix

1. Pick Your Hose Type	2. Guard Option	3. CGA or NPT Thread at Inlet
PTF, PTFT, PTFN, PTF6, PTF36 PTFE, ETFE, SYNTHETIC TUBE 6000 PSI, POST SINTERED 3600 PTFE DOUBLE BRAID  EXAMPLE: PTF-580H-580-36  EXAMPLE: PTFT-34I-34I-36  EXAMPLE: PTFN-N34I-N34I-24  EXAMPLE: PTF6-680-64ISS-36  EXAMPLE: PTF36-34I-34I-24	G = Armor Guard SG=Spring Guard  PTFSG EXAMPLE: PTFSG-G34I-G34I-24  PTFG Armor guard minimum length 24" EXAMPLE: PTFG-G34I-34I-24	END CONNECTION STATED AS THE CGA OF THE GAS YOU WISH TO USE IN THE HOSE OR THE TYPE OF TANK Brass 1/4 Male NPT 34E Stainless Steel 1/4 Male NPT 34ESS Brass 1/4 Female NPT 34I Stainless Steel 1/4 Female NPT 34ISS Brass 3/8 Female NPT 36I Brass 1/2 Female NPT 38I Brass 1/4 Female NPT, 3600 psi 44I FEMALE CGA 280 300 320 326 330 346 347 350** 410 415 520 540 555 577* 660 701* FEMALE CGA HT 300H 320H 326H 346H 347H* 350H** 520H 540H 555H MALE CGA 296 500 510 580** 590 MALE CGA HT 680* 296H 500H 510H 580H** 590H

* Only on 6,000 PSI Hose (PTF6)

** Only with ETFE or Nylon Hose (PTFT/PTFN) CGA

4. Options for either end	5. CGA or NPT thread at outlet	6. Length of hose (in inches)
ADDITIONAL OPTIONS OR ENHANCEMENTS SUCH AS CHECK VALVES, VALVES, ELBOWS, SWIVEL, BRASS WRENCH, HEAT SINK	END CONNECTION STATED AS THE CGA OF THE GAS YOU WISH TO USE IN THE HOSE OR THE TYPE OF TANK	STANDARD LENGTHS SHOWN CUSTOM LENGTHS AVAILABLE TOO
CV 	Brass 1/4 Male NPT 34E Stainless Steel 1/4 Male NPTE 34ESS Brass 1/4 Female NPT 34I Stainless Steel 1/4 Female NPT 34ISS Brass 3/8 Female NPT 36I Brass 1/2 Female NPT 38I Brass 1/4 Female NPT, 3600 psi 44I	Max - 50 ft (600") Not cleaned for oxygen service past 20 ft.
RCV 	FEMALE CGA 	Superior Product's Online Pigtail Configurator <i>One more way to order your custom pigtails from www.superiorprod.com</i> <i>Configure your custom pigtails by selecting:</i>
L 	280 300 320 326 330 346 347 350** 410 415 520 540 555 577* 660 701*	-Hose type -Hose length -Inlet connection -Inlet fittings -Inlet thread material -End options inlet -Outlet connection -Size of outlet fittings -Outlet thread material -End options outlet
V 	FEMALE CGA HT 	
SW 	300H 320H 326H 346H 347H* 350H** 520H 540H 555H	
PW 	MALE CGA 	
FA  (Acetylene only, 500 PSI)	296 500 510 580** 590 680*	
HS 	MALE CGA HT 	
	296H 500H 510H 580H** 590H	



MIGHTY MAX™ M Series

Automatic Manifolds for High Pressure and Cryogenic Gas Systems

Mighty Max™ M series changeover manifolds are designed with simplicity, functionality and affordability in mind. They offer many exceptional features that make it ideal for numerous applications. Mighty Max™ offers high flow capacities, comparable to systems costing four times more for the same performance.



PERFORMANCE SPECIFICATIONS

Maximum Inlet.....**4500 PSI/310 Bar**
 Maximum Temperature.....**150°F/67°C**
 Minimum Temperature.....**-15°F/-29°C**

MIGHTY MAX™ SELECTION CRITERIA

- Compact design, installs anywhere
- Low cost
- Use for up to 4500 PSI inlet pressure (Flow capacity dependent upon inlet, outlet pressures & regulator used)
- Can be used with gas systems that use a combination of high pressure and low pressure drivers
- Requires no power
- Simple operation, no adjustments or resets required

Uses Include:

- Welding
- Food packaging
- Therapeutic medical (non life support)
- Laboratory gas
- Laser gases, resonator and assist gas
- Heat Treating
- Beverage service
- Blanketing & Purging

CO₂ HEATER (PART No. GMA-320-HTR)

Two included for all CGA-320 Mighty Max™ units



- Thermostatic controlled heater 100 Watt, 115 Volt
- For use on CO₂ gas withdrawal cylinders. Not for use with liquid CO₂ withdrawal cylinders
- Material: Aluminum case and Brass expansion chamber
- Size: 2.0" diameter x 6.0" overall length
- Connections: CGA V-1, Connection #320, Male x Female
- Heater Capacity 90 SCFH

MIGHTY MAX™ M SERIES DESIGN & CONSTRUCTION FEATURES

Materials

- Solid brass body 3.5W x 6"H x 1.5"D
- Nickel plated external components
- Brass spool valve design
- High Density O-Rings
- CGA specific inlets & outlets
- Mounting bracket included

Automatic changeover manifold

- Patented design controls switchover
- Built in "Cylinder in use Indicators" show system status
- No power requirements
 - No regulators or switches to adjust
- **Uses standard high pressure regulators**
- M10 ideal for high pressure or liquid drivers
- Outlet provides full cylinder supply bank pressure
- CGA-320 units come with two 100-watt heaters

Flow capacity minimums

- M10 @ 100 psi inlet - 300 SCFH
- M20 @ 200 psi inlet - 1000 SCFH
- M35 @ 350 psi inlet - 2100 SCFH
- M45 @ 450 psi inlet - 2400 SCFH

* Actual flow rate determined by regulator used.
 To maintain consistent pressure & flow, a 2-stage regulator is recommended

Electrical components

- Optional audio/visual alarm available
- Alarm ships w/ signal box, 110/12 VDC transformer, switch & 24' signal wire (see page 69)

Inlet assemblies (2, 4 & 6 cylinders)

- 2, 4, & 6 cylinder units shipped complete w/ flexible stainless steel pigtailed, and CGA tee or cross connections for the gas service indicated

Header assemblies (8 or more cylinders)

- Single unit design of 1/2" yellow brass pipe and tees, silver soldered at each joint, or new modular headers
- Master and individual header shut off valves
- Check valve outlets also available
- Special configurations available to accommodate room dimensions (staggered, crossover etc.)

How To Choose the Right Mighty Max™ for Your Application

The Mighty Max™ comes in four different changeover pressure ranges. The column on the left below shows the maximum delivery pressure range and the changeover pressure. Pick the model that will change over BEFORE you drop below your maximum required delivery pressure. You supply the regulator, we supply the rest. Then choose the gas and the total number of cylinders you'll be using. **Each model Mighty Max™ will work with HIGH OR LOW PRESSURE CYLINDERS or a mix of each.** 2, 4, and 6 cylinder banks are most popular. Cylinder headers for 8 or more tanks are available upon request. The alarm package is universal and comes complete for use with all 4 models.

PICK YOUR APPLICATION, PICK YOUR MIGHTY MAX™



M10 series

- Maximum delivery pressure 80 PSI
- Changeover pressure 100 PSI
- Use with liquid or high pressure cylinders
- CGA specific inlets & outlets
- Minimum inlet pressure 150 PSI



M20 series

- Maximum delivery pressure 180 PSI
- Changeover pressure 200 PSI
- Use with liquid or high pressure cylinders
- CGA specific inlets & outlets
- Minimum inlet pressure 300 PSI



M35 series

- Maximum delivery pressure 300 PSI
- Changeover pressure 350 PSI
- Use with liquid or high pressure cyl.
- CGA specific inlets & outlets
- Minimum inlet pressure 450 PSI
- Ideal for laser assist gas or other high pressure applications



M45 series

- Maximum delivery pressure 400 PSI
- Changeover pressure 450 PSI
- Use with liquid or high pressure cyl.
- CGA specific inlets & outlets
- Minimum inlet pressure 750 PSI
- Ideal for laser assist gas or other high pressure applications



OPTIONAL REMOTE ALARM

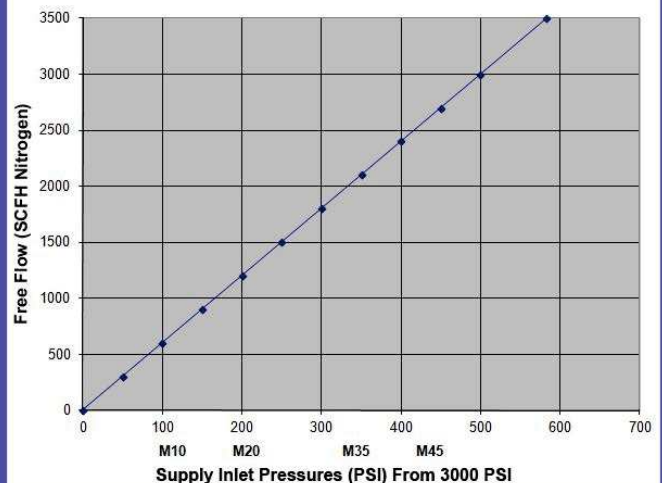


Alarm kit Includes:

Audio/Visual indicator box
Pressure switch, installed & pre-wired
12 VDC transformer

Part No.	Manifold
GMA-MAK	Alarm for Mighty Max™

Servo-Max "M" Series Maximum Flows at Minimum Pressures



Mighty Max™ / Ordering Information

HOW TO ORDER

BASIC MIGHTY MAX™ MODELS:

Example:

GMA

Prefix

M20

540

Gas by **CGA** Number *

Carbon Dioxide	CGA 320
Nitrous Oxide	CGA 326
Air	CGA 346
Oxygen	CGA 540
Inert Gases	CGA 580

* Other gases available upon request.

Call for engineering assistance

BASIC MIGHTY MAX™ SERIES

M10, for 100 PSI changeover
M20, for 200 PSI changeover
M35, for 350 PSI changeover
M45, for 450 PSI changeover

* A general rule is the maximum needed delivery pressure should be 75% of the Mighty Max™ changeover pressure and cylinder supply pressure should be a minimum of 75% of the changeover pressure.

PIGTAIL KITS:

Example:

MM

Prefix

PTF

Standard
Callout for
Kit

KIT

540

04

Total
Number of
Pigtails

CGA Number *

Carbon Dioxide	CGA 320
Nitrous Oxide	CGA 326
Air	CGA 346
Oxygen	CGA 540
Inert Gases	CGA 580

* Other gases available upon request.

Call for engineering assistance

PT=Rigid Copper (20 inch)
PTF=Flexible Stainless Braid (24 inch)
PTS=Stainless Steel Rigid (20 inch)

AUTOMATIC CHANGEOVER MANIFOLD GMA-FA2 & LA2 series

FULLY AUTOMATIC MANIFOLDS FOR HIGH PRESSURE OR LIQUID CYLINDERS

Superior's GMA-FA2 and LA2 series is designed to provide an uninterrupted supply of gas while switching from "service" to "reserve" bank automatically. Resetting of bank designation is fully automatic, requiring no operator intervention, only periodic cylinder changeouts. System status is monitored by and displayed on the cabinet lights as "in use" (green), "standby" (yellow) and "empty" (red). Changeover status may also be sent to an optional remote alarm.

Superflo FA2 manifolds are also easily field upgradeable to be used in low pressure service. Simply order kit # SP-CCU-009 to obtain all the necessary parts to change to a low pressure cylinder manifold.

Superflo LA2 manifolds are also easily field upgradeable to be used in high pressure service. Simply order kit # SP-LLU-009 to obtain all the necessary parts to change to a high pressure cylinder manifold.



Performance Specifications

Maximum Temperature.....125°F/52°C
Minimum Temperature.....0°F/-18°C

How to Order

Control Type	+	Gas/CGA Service	+	Total # of Cylinders

Ex. GMA-FA2 or LA2-580-4

Automatic changeover, inert service, 4 tanks



OPTIONAL REMOTE ALARM

Part No.	Manifold
RW12V	Alarm for all FA/LA series manifolds

Design & Construction Features

Fully enclosed, steel cabinet

- * 15.4"W x 24.5"H x 9"D
- * 1/2" NPT female outlet connection
- * 1"-1 1/2" NPS male inlets

Automatic changeover manifold

- * LED displays changeover and bank status
- * Embedded microprocessor controls changeover and monitors functions
- * Optional audio/visual remote alarm

Easy to service

- * Open design allows for full accessibility

Header assemblies

- * Single unit design modular headers
- * Master valve
- * Check valve spud inlets
- * Special configurations available

Performance Features

GMA-FA2 SERIES

Adjustable delivery pressure

- * 0-50, 125, 190 psig Oxygen, Air, Inert, CO₂
- * Maximum Inlet Pressure 2,500 PSI

High flow capacity

- * Up to 2500 scfh of gas

GMA-LA2 SERIES

Adjustable delivery pressure

- * LA series 0-90 PSI/0-6.2 Bar
- * LAHP series 0-200 PSI/0-1.4 Bar
- * In line gauge indicates delivery pressure

High flow capacity

- * Up to 650 SCFH/18400 LPH of gas
- * Maximum Inlet Pressure 450 PSI

Automatic Changeover Fuel Gas & Manifold Accessories

ZERO CLEARANCE FITTINGS

1,000 PSI

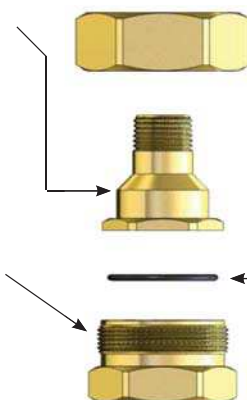
- Zero clearance for easy removal of piped components
- All thread sizes can be mixed and matched.
- Largest possible through holes for maximum flow

Flange Part No.	Thread
FL-ZC-04	1/4"-18NPT-M
FL-ZC-06	3/8"-18NPT-M
FL-ZC-08	1/2"-14NPT-M
FL-ZC-12	3/4"-14NPT-M

Boss Part No.	Thread
N-ZC-04A	1/4"-18NPT-F
N-ZC-06A	3/8"-18NPT-F
N-ZC-08A	1/2"-14NPT-F
N-ZC-12A	3/4"-14NPT-F

Nut Part No.	
N-ZC-001	Nut for all zero clearance sets

O-Ring Part No.	*Boss includes O-Ring
OR-024B7	O-ring for all zero clearance sets



DRY TYPE FLASH BACK ARRESTORS GMA-FK series

Superior's flash arrestor kit provides flash back, reverse flow and pressure relief protection in one compact device. This unit is included with a Superior Products acetylene manifold for more than 2 cylinders. It is also available as an option for use with hydrogen or propane manifolds.

- No water or fluid to check or replenish
- Approved safety device under ANSI Z49
- Help meet OSHA & NFPA safety standards
- Built in relief valve meets NFPA 51 requirements



Part No.	Type	Capacity	Inlet/Outlet	Relief Valve
GMA-FKA	Acetylene	300	1/2" NPT	15 PSIG
GMA-FKP	Propane	300	1/2" NPT	40 PSIG
GMA-FKH	Hydrogen	300	1/2" NPT	40 PSIG

FUEL GAS AUTOMATIC CHANGEOVER

GMA-SA HIGH PRESSURE SERIES

Designed to regulate flow from high-pressure cylinders (up to 3,000 PSI), the GMA-SA series or GMA-SAHP series provides an uninterrupted gas supply when changing from the "In Use" side to the "Reserve" side, Line delivery pressure remains constant to the pipeline during the changeover cycle. The SA series is perfect for fuel gas as it comes with a NEMA 4 explosion proof cabinet. The SA series is easy to operate. All that is required after cylinder change out is to move the lever to selected primary gas supply bank for the manifold. The SA series is a mechanical pressure differential system that does not require power to operate. Visual and audible alarms are available if power at the site is available.



How to Order

Control Type + Gas/CGA Service + Total # of Cylinders

Ex. GMA-SA or SAHP-580-4
Automatic changeover, inert service, 4 tanks

PRO-MIX GAS MIXERS

GMA-MX series

Proportional Gas Mixer

Also available as a turn key system in conjunction with Superior's MIGHTY MAX™ automatic changeover controls.

Superior Product's PMX mixers are suited for all applications where precise gas mixtures are required. These non-adjustable, high mix accuracy (+/- 2% full scale of cylinder pressure) offer a price advantage over less accurate adjustable models. The MX2000 series requires **NO SURGE TANK** to maintain mixture accuracy. The panel is a small wall mounted unit that is easy to install and requires no electricity, on-going maintenance or adjustment.



Features

- Tamper proof
- Highly accurate
- Low start up cost
- Compact
- No surge tank required (MX2000)

Mixers available for the following Gases:

Argon	580A
Nitrogen	580N
Helium	580H
CO2	320
Oxygen	540
Hydrogen	350

Mixer Specifications

	GMA-MX series
Inlet pressure range	110-150 PSIG
Outlet pressure	0-100 PSIG adjustable
Flow rate	300 SCFH or 900 SCFH
Mixture accuracy	± 2% (3 to 900 SCFH)
Inlet filters	50 Micron
Dimensions	8"W x 10"H x 4.5"D
Weight	8 lbs.

How to Order

Gas Mixer Assembly	-	CGA - % - CGA - %
GMA-MX	-	XXX - % - XXX - %
GMA-MX900	-	XXX - % - XXX - %
GMA-MX2000	-	XXX - % - XXX - %

Example: GMA-MX2000-580A-75-320-25 Mixer for Argon-75% & CO2-25%

- * Higher flow rates available upon request increase in 300 SCFH increments up to 2000 SCFH
- * Three gas mixers available upon request

GMA-MX2000 series

Proportional Gas Mixer /High Capacity

Also available as a turn key system in conjunction with Superior's MIGHTY MAX™ automatic changeover controls.



Features

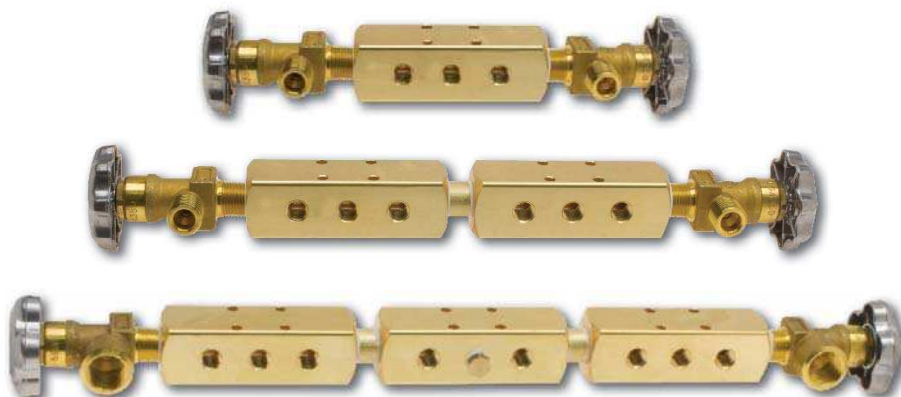
- Tamper proof
- Highly accurate
- Low start up cost
- Compact
- No surge tank required

Mixer Specifications

	GMA-MX series
Inlet pressure range	120 PSIG
Outlet pressure	0-100 PSIG adjustable
Flow rate	2000 SCFH
Mixture accuracy	± 2% (2 to 2000 SCFH)
Inlet filters	50 Micron
Dimensions	20"W x 22"H x 6"D
Inlet & Outlet fittings	1/4" NPFT

SCMB Series

Superior's SCMB series is the ideal, low cost replacement header to fit most commercially available cylinder cradles. The body is machined from 1 1/2" yellow brass bar stock. Includes proper CGA valves or RPV valves* and 24" flexible, stainless steel pigtails PTFE lined for standard gas service or ETFE lined for high purity and lighter than air gases (hydrogen and helium) or 3,600 PSI Post Sintered PTFE. Also available with armor guarded flex pigtails for heavy duty service. The modular design and removable flexible pigtails allow for quick, easy repairs.



Available to order	
6 pack, stainless steel PTFE lined pigtails	GMA-SCMB-XXX-06
6 pack, stainless steel ETFE lined pigtails	GMA-SCMB-XXXTZ-06
6 pack, single loop copper pigtails	GMA-SCMB-XXX-06-RGD
6 pack, stainless steel 3,600 PSIG PTFE Lined Pigtail	GMA-SCMB-XXX-36-06
12 pack, stainless steel PTFE lined pigtails	GMA-SCMB-XXX-12
12 pack, stainless steel ETFE lined pigtails	GMA-SCMB-XXXTZ-12
12 pack, single loop copper pigtails	GMA-SCMB-XXX-12-RGD
12 pack, stainless steel 3,600 PSIG PTFE Lined Pigtail	GMA-SCMB-XXX-36-12
16 pack, stainless steel PTFE lined pigtails	GMA-SCMB-XXX-16
16 pack, stainless steel ETFE lined pigtails	GMA-SCMB-XXXTZ-16
16 pack, single loop copper pigtails	GMA-SCMB-XXX-16-RGD
16 pack, stainless steel 3,600 PSIG PTFE Lined Pigtail	GMA-SCMB-XXX-36-16

* For **ArmorGuard** Option add "**AG**" to part number

Example: GMA-SCMB-XXXAG-06-PTFE
GMA-SCMB-XXXTZAG-06-ETFE
GMA-SCMB-XXX36AG-06-PTFE 3,600 PSI

* For **Residual Pressure Valve** add "**RPV**" to part number

Example: GMA-SCMB-XXXRPV-06
Please Note 3,600 PSIG PTFE is Post Sintered

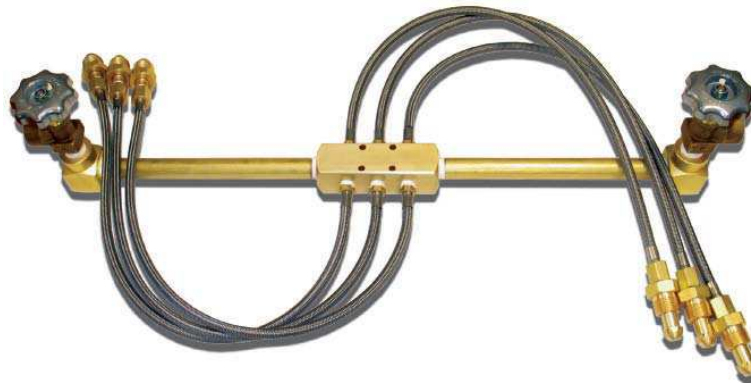
- Other CGA's available upon request
- Optional Tee with gauge available between valve and block

Available for the following gases,
replace XXX in part number with **CGA#**

Carbon Dioxide	CGA 320
Nitrous Oxide	CGA 326
Air	CGA 346
Hydrogen	CGA 350
Propane/Acetylene	CGA 510
Oxygen	CGA 540
Inert Gases	CGA 580

CPR Series

Superior's CPR series is a cradle pack replacement header to fit most common size cylinder cradles. The body is machined from 1 1/2" yellow brass bar stock. Includes proper CGA valves or RPV valves, 24" flexible, stainless steel pigtails PTFE lined for standard gas service, ETFE lined for high purity and lighter than air gases (hydrogen and helium) or 3,600 PSIG Post Sintered PTFE. Also available with armor guarded flexible pigtails for heavy duty service. The modular design and removable flexible pigtails allow for quick, easy repairs.



Available to order	
6 pack, stainless steel PTFE lined pigtails	GMA-CPR-XXX-06
6 pack, stainless steel ETFE lined pigtails	GMA-CPR-XXXTZ-06
6 pack, stainless steel 3,600 PSIG PTFE lined pigtails	GMA-CPR-XXX-36-06
6 pack, single loop copper pigtails	GMA-CPR-XXX-06-RGD
12 pack, stainless steel PTFE lined pigtails	GMA-CPR-XXX-12
12 pack, stainless steel ETFE lined pigtails	GMA-CPR-XXXTZ-12
12 pack, stainless steel 3,600 PSIG PTFE lined pigtails	GMA-CPR-XXX-36-12
12 pack, single loop copper pigtails	GMA-CPR-XXX-12-RGD
16 pack, stainless steel PTFE lined pigtails	GMA-CPR-XXX-16
16 pack, stainless steel ETFE lined pigtails	GMA-CPR-XXXTZ-16
16 pack, stainless steel 3,600 PSIG PTFE lined pigtails	GMA-CPR-XXX-36-16
16 pack, single loop copper pigtails	GMA-CPR-XXX-16-RGD

* For **ArmorGuard** Option add "**AG**" to part number

Example: GMA-CPR-XXXAG-06-PTFE
GMA-CPR-XXXTZAG-06-ETFE
GMA-CPR-XXX36AG-06-PTFE 3,600 PSI

* For **Residual Pressure Valve** add "**RPV**" to part number

Example: GMA-CPR-XXXRPV-06

*Please Note 3,600 PSIG PTFE is Post Sintered

• Other CGA's available upon request

Available for the following gases, replace **XXX** in part number with **CGA**

Carbon Dioxide	CGA 320
Nitrous Oxide	CGA 326
Air	CGA 346
Hydrogen	CGA 350
Propane/Acetylene	CGA 510
Oxygen	CGA 540
Inert Gases	CGA 580

HEADERS & OPEN STYLE MANIFOLDS

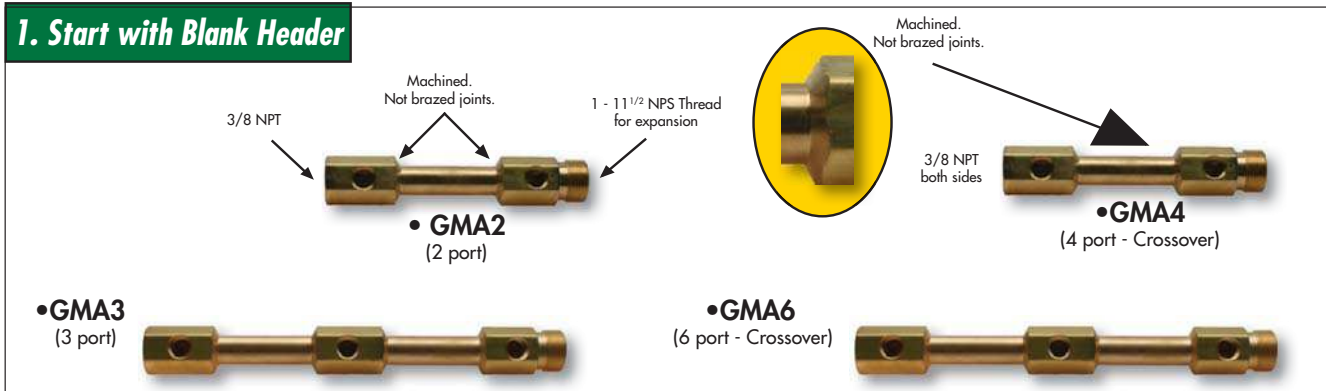
MODULAR NON-BRAZED SIMPLEX HEADERS FOR INDUSTRIAL, SPECIALTY GAS & HOSPITAL MANIFOLD SYSTEMS

Modular simplex manifold headers are a single unit design manufactured from free cutting brass bar stock. This design eliminates all brazed joints. Each unit is tested to full operating pressure and cleaned for oxygen service per CGA-G4.1. Manifold headers can be shipped complete with master valve, individual check valve inlets, flexible stainless steel or rigid copper pigtails, mounting hardware, and CGA inlet connections. Systems available include simplex, MHV series with flexible stainless pigtails, CMHV with rigid copper pigtails, MHE and CMHE series header extensions. Headers are ordered in 2 or 3 cylinder configurations to arrive at the desired number of cylinders. Custom configurations are also available for U-shaped and L-shaped to meet your space requirements. Headers are available with an optional manifold regulator. To order, add an R to the type of manifold ex. GMA-MHVR-540-02.

Configuration: Systems are available in three different basic configurations, for 2 or 3 cylinder sections. Five inch center to center spacing is standard. To order 90 degree elbow sections separately, specify GMF-3710. See page 78.

HOW TO ORDER

1. Start with Blank Header



2. Choose Inlet

MHV = Master Header Valve

MHE = Master Header Extension



3. Choose Gas

Male Outlets

CGA 300 - Ethyl Chlorides (formerly Acetylene)
CGA 320 - Carbon Dioxide
CGA 326 - Nitrous Oxide
CGA 346 - Air
CGA 350 - Hydrogen
CGA 540 - Oxygen
CGA 555 - Propane
CGA 577 - Oxygen



Female Outlets

CGA 500 - Medical Mixtures
CGA 510 - Acetylene
CGA 580 - Inert Gases
CGA 590 - Sulfur HexaFluoride (formerly Industrial Air)



*** Pigtails sold separately**
For check valve outlets add "CV" after CGA number

4. Part Number

Examples:

• **GMA4-MHV-540**
Crossover CGA 540 with Master Header Valve

• **GMA3-MHE-580CV**
3 Cylinder CGA 580 with Header Extension
and check valve outlets

GAS MANIFOLD ASSEMBLIES

ORDERING INFORMATION:

Each manifold part number consists of four sections. The first section denotes a Gas Manifold Assembly (GMA). The second section denotes the type of manifold and its configuration (only for duplex manifolds) otherwise do not use configuration number. The third section denotes the CGA number or type of gas, and the last section denotes the number of outlets or cylinders. The example below is for a twelve cylinder Oxygen duplex manifold in a standard configuration with outlet adaptor with check valves instead of header valves.

GMA - **DM** - **540CV** - **12**
Gas Manifold Assembly Type of Manifold & Configuration CGA Number Number of Cylinder Outlets

Type of Manifold	Type of Configuration	Type of Gases	
SD -Simple Duplex(Manual)	Standard Configuration	300 -Commercial Acetylene	510 -Acetylene & Propane
SM -Simplex(Manual)	2 -Crossover Configuration	320 -Carbon Dioxide	540 -Oxygen
DM -Duplex(Manual)	3 -"L" Shaped Configuration	326 -Nitrous Oxide	580 -Nitrogen, Helium & Argon
HEL -Header Extension, left side	4 -"U" Shaped Configuration	346 -Air	590 -Industrial Air
HER -Header Extension, right side	5 -Staggered Configuration	350 -Hydrogen	

SIMPLE DUPLEX MANIFOLDS

The simple duplex manifold is an economical system with a two cylinder capacity, one per side. The unit is furnished with two header valves and two pigtails with check valves or two outlet adaptors with check valves and two regular pigtails, 1/2" NPT tee, a union and a mounting bracket. Manifolds for Acetylene gas will include pigtails with dry type flashback arrestors.



GMA-SD-320-02

SIMPLEX MANIFOLDS WITH MANUAL CONTROLS

The simplex manifold has a master shut off valve with a single row of cylinder modules. Each module consists of 1/2" piping, 1/2" tees, header valves and pigtails with check valves or outlet adaptors with check valve and regular pigtails, a union, a CGA end plug and mounting brackets. The last module will have a plug and chain connected to an adaptor that allows for future expansion. Proper CGA fittings will be furnished for the specified gas. Manifolds for Acetylene gas will include a Hydraulic Flash Arrestor and pigtails with dry type arrestors.



GMA-SM-346-02

MANIFOLD HEADER EXTENSION ASSEMBLIES

Header extensions are shipped ready for addition to existing manifolds. Unit includes CGA inlet, CGA end plug, 1/2" piping, 1/2" tees, header valves and pigtails with check valves or outlet adaptors with check valves and flexible pigtails and a mounting bracket. The last module will have a plug and chain connected to an adaptor that allows for future expansion. Specify right side extension (HER) or left side extension (HEL).



GMA-HER-540-02

HEADERS & OPEN STYLE MANIFOLDS

DUPLEX MANIFOLDS WITH MANUAL CONTROLS

The duplex manifold has two master shut off valves allowing replacement of the exhausted bank of cylinders while the full bank of cylinders is in operation. The center section accommodates a single regulator. The manifold is shipped with 1/2" piping, 1/2" tees, header valves and pigtails with check valves or adaptor outlets with check valve and regular pigtails, a union, a CGA end plug and mounting brackets are included with each module. Modules are furnished with a plug and chain on the last module that allows for future expansion. Proper CGA fittings will be furnished for specified gas. Manifolds for Acetylene gas will include a Hydraulic Flash Arrestor and pigtails with dry type arrestors.



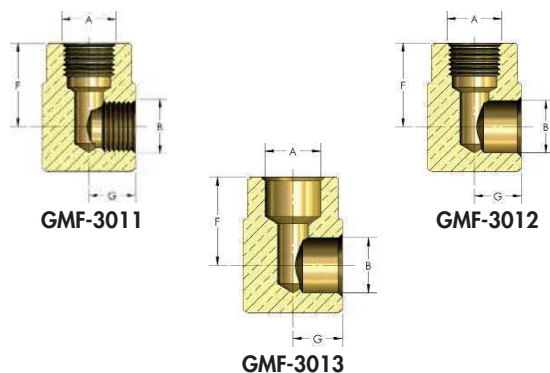
GMA-DM-580-04

BRASS MANIFOLD PIPE AND PIPE FITTINGS

Fittings are Machined From CDA-360 Brass, Stress Relieved and Cleaned For Oxygen Service

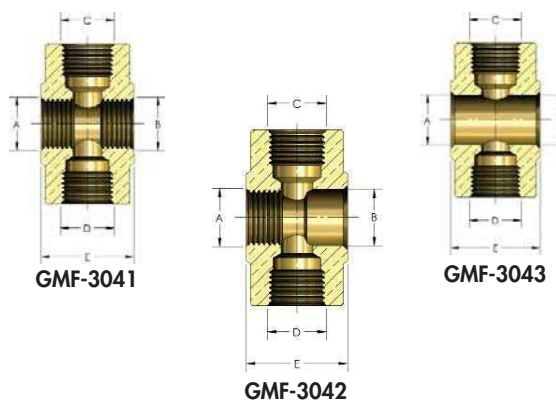
PIPE ELBOWS

3,000 PSI



PIPE CROSSES

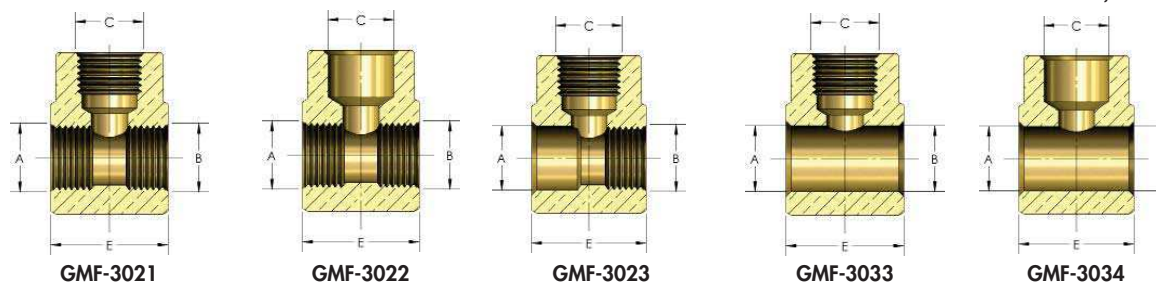
3,000 PSI



Part No.	Ref. A	Ref. B	Ref. F	Ref. G	Part No.	Ref. A	Ref. B	Ref. C & D	Ref. E
GMF-3011	1/2"-14 NPT	1/2"-14 NPT	1-5/16"	3/4"	GMF-3041	1/2"-14 NPT	1/2"-14 NPT	1/2"-14 NPT	1-1/2"
GMF-3012	1/2"-14 NPT	.843"-.847"	1-5/16"	3/4"	GMF-3042	.843"-.847"	1/2"-14 NPT	1/2"-14 NPT	1-1/2"
GMF-3013	.843"-.847"	.843"-.847"	1-5/16"	3/4"	GMF-3043	.843"-.847"	Slip Thru	1/2"-14 NPT	1-1/2"

PIPE TEES

3,000 PSI



Part No.	Ref. A	Ref. B	Ref. C	Ref. E	Part No.	Ref. A	Ref. B	Ref. C	Ref. E
GMF-3021	1/2"-14 NPT	1/2"-14 NPT	1/2"-14 NPT	1-1/2"	GMF-3033	.843"-.847"	Slip Thru	1/2"-14 NPT	1-1/2"
GMF-3022	1/2"-14 NPT	1/2"-14 NPT	.843"-.847"	1-1/2"	GMF-3034	.843"-.847"	Slip Thru	.843"-.847"	1-1/2"
GMF-3023	.843"-.847"	1/2"-14 NPT	1/2"-14 NPT	1-1/2"					

3,000 PSI

PIPE NIPPLES, THREADED ENDS

- Cleaned For Oxygen Service
- Suitable For Acetylene
- Machined From CDA 360 Brass



GMF-3214

Part No.	Thread Size	Length
GMF-3211	1/2"-14 NPT	1-1/2"
GMF-3212	1/2"-14 NPT	2"
GMF-3213	1/2"-14 NPT	4"
GMF-3214	1/2"-14 NPT	6"
GMF-3215	1/2"-14 NPT	9-3/4"
GMF-3216	1/2"-14 NPT	12-3/4"

PIPE LENGTHS, PLAIN ENDS

- Cleaned For Oxygen Service
- Suitable For Acetylene
- Made From CDA 360 Brass
- Special Lengths Available Upon Request



GMF-3224

Part No.	Pipe Size	Length
GMF-3222	1/2" Nom.	2"
GMF-3223	1/2" Nom.	4"
GMF-3224	1/2" Nom.	6"
GMF-3225	1/2" Nom.	9-3/4"
GMF-3226	1/2" Nom.	12-3/4"

UNION 90°

GMF-3710

UNION PLUG

Part No.	Thread
GMA-RH-PLUG	1"-11-1/2 NPS RH-INT.
GMA-LH-PLUG	1"-11-1/2 NPS LH-INT.

**PIPE LENGTHS, PLAIN ENDS**

- NOT CLEANED For Oxygen Service
- Suitable For Acetylene
- Made From CDA 360 Brass

Part No.	Pipe Size	Length
GMF-3236	1/2" Nom.	6 FT.
GMF-3237	1/2" Nom.	12 FT.

NOTE: GMF-3237 Must ship via Common Carrier

**UNION NUTS**

Part No.	Thread
GMF-3311	1"-11-1/2 NPS RH-INT.
GMF-3312	1"-11-1/2 NPS LH-INT.



GMF-3311

UNION NIPPLES

GMF-3326



Part No.	Thread	Length
GMF-3321	3/8"-18 NPT	2.40"
GMF-3326	1/2"-14 NPT	2.94"



GMF-3333

UNION BUSHINGS

GMF-3332

UNION BUSHINGS WITH FILTER

3,000 PSI

UNION BUSHINGS WITHOUT FILTER

3,000 PSI

Part No.	Thread	Pipe Thread	Length	Part No.	Thread	Pipe Thread	Length
GMF-3333	1"-11-1/2 NPS RH	3/8"-18 NPT	3.125"	GMF-3331	1"-11-1/2 NPS RH	3/8"-18 NPT	3.125"
GMF-3334	1"-11-1/2 NPS RH	1/2"-14 NPT	2.187"	GMF-3332	1"-11-1/2 NPS RH	1/2"-14 NPT	2.187"
GMF-3337	1"-11-1/2 NPS LH	3/8"-18 NPT	3.125"	GMF-3335	1"-11-1/2 NPS LH	3/8"-18 NPT	3.125"
GMF-3338	1"-11-1/2 NPS LH	1/2"-14 NPT	2.187"	GMF-3336	1"-11-1/2 NPS LH	1/2"-14 NPT	2.187"
GMF-3341	Replacement Filter						
GMF-3342	Replacement Snap-Ring						

LINE STATION DROPS, LINE STATION VALVES & BALL VALVES

LINE STATION DROPS & LINE STATION VALVES

200 PSI



Part No.	Gas Service	No. Of Outlets	Outlet Size
GMA-SSD-022V-01	Oxygen	Single	9/16"-18 RH "B" size valve
GMA-SSD-022V-02	Oxygen	Double	9/16"-18 RH "B" size valve
GMA-SSD-023V-01	Fuel Gas	Single	9/16"-18 LH "B" size valve
GMA-SSD-023V-02	Fuel Gas	Double	9/16"-18 LH "B" size valve
GMA-SSD-024V-01	Oxygen	Single	7/8"-14 RH "C" size valve
GMA-SSD-024V-02	Oxygen	Double	7/8"-14 RH "C" size valve
GMA-SSD-025V-01	Fuel Gas	Single	7/8"-14 LH "C" size valve
GMA-SSD-025V-02	Fuel Gas	Double	7/8"-14 LH "C" size valve



Inlet & Outlet size	Part No.
1/4" female NPT	GMV-334
1/2" female NPT	GMV-338
3/4" female NPT	GMV-3312

BALL VALVES

Bronze body, chrome plated ball seat, 600 psi rated
Not for use with acetylene

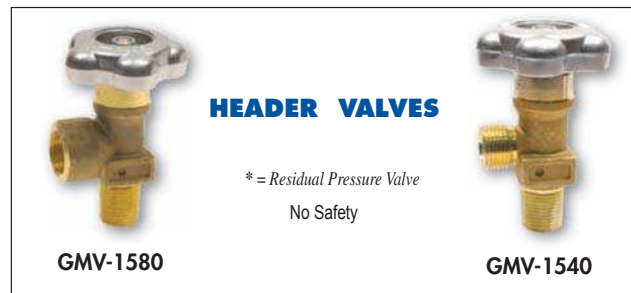


GMV-1024

Part No.	Operating Pressure	CGA Outlet	Valve Inlet
GMV-1024	200 psi	CGA-024	1/2"-14 NGT
GMV-1025	200 psi	CGA-025	1/2"-14 NGT



GMV-1025



HEADER VALVES

* = Residual Pressure Valve
No Safety

GMV-1580

GMV-1540

Part No.	Operating Pressure	CGA Outlet	Valve Inlet
GMV-1300	250 psi	CGA-300	1/2"-14 NGT
GMV-1320	3,000 psi	CGA-320	1/2"-14 NGT
GMV-1326	3,000 psi	CGA-326	1/2"-14 NGT
GMV-1346	3,000 psi	CGA-346	1/2"-14 NGT
GMV-1350	3,000 psi	CGA-350	1/2"-14 NGT
GMV-1510	250/500 psi	CGA-510	1/2"-14 NGT
GMV-1540	3,000 psi	CGA-540	1/2"-14 NGT
GMV-1580	3,000 psi	CGA-580	1/2"-14 NGT
GMV-1590	3,000 psi	CGA-590	1/2"-14 NGT
GMV-3346	3,000 psi	CGA-346	3/4"-14 NGT
GMV-3350	3,000 psi	CGA-350	3/4"-14 NGT
GMV-3540	3,000 psi	CGA-540	3/4"-14 NGT
GMV-3540RPV*	3,000 psi	CGA-540	3/4"-14 NGT
GMV-3580	3,000 psi	CGA-580	3/4"-14 NGT
GMV-3580RPV*	3,000 psi	CGA-580	3/4"-14 NGT
GMV-3660SS	3,000 psi	CGA-660	3/4"-14 NGT
GMV-3680	5,500 psi	CGA-680	3/4"-14 NGT
GMV-3702	7,500 psi	CGA-702	3/4"-14 NGT

* Residual Pressure Valve

MASTER SHUT-OFF VALVES

3,000 PSI

- Forged Brass Body
- PTFE Packing
- Kel-F Seat



GMV-1001



GMV-1341

Part No.	Inlet	Outlet
GMV-1001	1/2"-14 NPT	1/2"-14 NPT
GMV-1341	1"-11-1/2 NPS RH-EXT	1"-11-1/2 NPS RH-INT.

Superior's patented Fill-Tech automatic yoke clamping system eliminates the time and labor spent tightening yokes in preparation to fill cylinders. The automatic rack seals the yokes to the post valve by hydraulic force. Simply push the lever down to engage all cylinders and flip to the up position to release the filled cylinders. The system is powered by a booster pump that uses oxygen-safe, hydraulic fluid. The pump is powered by 120 psi shop air. The main rack is designed with CGA 870 yoke connectors. Optional equipment includes additional rack spaces with CGA 540, handtight pigtails equipped to fill CGA 540 style cylinders. Fill Tech requires no hand-tightening of valves, reducing the risk of carpal tunnel syndrome.

STANDARD FEATURES

- STAINLESS STEEL PISTON & PIN
- OPEN ENDED C-YOKES
- FLEXIBLE STAINLESS FILL HOSES
- ACTUATOR VALVE OPERATES ENTIRE RACK
- AUTOMATICALLY CLAMPS ALL CYLINDERS IN ONE MOTION
- 30 CYLINDER (15 TOP, 15 BOTTOM) RACK

OPTIONAL FEATURES

- OPTIONAL VERTICAL RACK SPACE WITH CGA 540 HANDTIGHT PIGTAILS



- OPTIONAL FLIP TOP RACK RAISES FOR EASY LOADING OF BOTTOM RACK



- OPTIONAL CGA 540 HT NIPPLE WITH ACTUATING PIN FOR CYLINDERS WITH INTEGRAL REGULATORS

System	Part No.
Standard unit	GMA-FT-870-30
With EZ load top rack	GMA-FT-870-30-EZ
With 12 cylinder vertical Rack & CGA 540 pigtails	GMA-FT-870-30-540
Manual rack with Flip Yoke connections	GMA-FY-870-30

merchandise displays

EZ-Fit Counter Top Point Of Purchase Displays

For Self-Service and Convenience

EZ-HRK Replacement Parts

5 ea EZ-2000	5 ea EZ-2002	5 ea EZ-3000
B Oxygen 1/4" hose	B Fuel gas 1/4"	B Oxygen 3/16" hose
1 pc N-20	1 pc N-21	1 pc N-20
1 pc NP-10	1 pc NP-10	1 pc NP-6
1 pc HC-501	1 pc HC-501	1 pc HC-500
5 ea EZ-3001	5 ea EZ-S-333	5 ea EZ-S-344
B Fuel gas 3/16" hose	3/16" hose splicer	1/4" hose splicer
1 pc N-21	1 pc S-333	1 pc S-344
1 pc NP-6	2 pc HC-500	2 pc HC-501
1 pc HC-500	1 ea EZ-RACK	1 ea EZ-HRC-SIGN



Hose Repair Kit Display
Part No. EZ-HRK



Additional POP Display Parts

REGULATOR INLET SETS

EZ-300	Acetylene nut & nipple	N-56 & NP-128
EZ-510	Fuel Gas & nipple	N-69 & NP-188
EZ-540	O2 nut & nipple	N-71 & NP-210
EZ-580	Nitrogen nut & nipple	N-73 & NP-188

REGULATOR OUTLETS

EZ-B-28	O2 regulator outlet	1 ea, B-28
EZ-B-29	Acetylene regulator outlet	1 ea, B-29

CHECK VALVES & FLASH ARRESTORS

FBK-100	O2/fuel gas regulator style	2 pc. set
FBK-200	O2/fuel gas torch style	2 pc. set
EZ-CV160	O2/fuel gas torch style	2 pc. set
EZ-CV161	O2/fuel gas regulator style	2 pc. set

REPAIR KITS & REGULATOR ADAPTORS

RK-28	"B" hose repair kit for 5/16 & 3/8 hose	1 ea box
EZ-A-810	CGA 320 cyl. x 580 regulator	1 ea A-810
EZ-A-800	CGA 300 cyl. x 510 regulator	1 ea A-800

Y - VALVES

EZ-YV50	O2 Y - valve, "B" size shut off	1 ea, YV-50
EZ-YV51	Fuel gas Y - valve, "B" size shut off	1 ea, YV-51





NOTES

LIMITED WARRANTY

WARRANTY:

The manufacturer warrants the products sold hereunder to be free from defects in material and workmanship at the date of shipment. Please note the distinction between "defects" and "damage" as used in this warranty: defects are covered because we, the manufacturer, are responsible; however, we have no control over damage caused by such things as misuse or improper installation. Therefore, damage for any reason is not covered under this warranty.

WHAT THE MANUFACTURER WILL DO:

If you, the Buyer, meet the eligibility requirements and obligations listed below, then we shall, within thirty (30) days of receipt of a timely claim and the parts claimed to be defective, inspect the parts and repair or replace, at our option, any parts which we determine were defective at the time of shipment from us. However, if we determine that the parts were defective and also that circumstances are such as to prevent us from remedying the warranted defects by repair or replacement, then we may at our option, refund you the purchase price of the parts.

ELIGIBILITY REQUIREMENTS & OBLIGATIONS OF BUYER:

You are eligible to obtain service under this warranty if you are the original consumer purchaser, either from us directly or from a seller who stocks our product for resale. However, in order for you to obtain service under this warranty, you must do the following:

1. Send a claim in writing along with samples of the parts claimed to be defective to us freight prepaid.
2. Have your claim and sample parts delivered within ninety (90) days from the date of shipment of the parts from our factory. However, if you bought the parts for resale, or if you bought the parts from someone who bought them for resale, then you must deliver the claim and the parts to us within ninety (90) days from the date of re-sale—except under no circumstances shall we honor any claim which fails to be delivered to us with the parts within one hundred and eighty (180) day from the date of shipment of the parts from our factory.

Your claim should be in typed or printed form and include the following information:

1. Your name and address; and
2. The name and address of the seller of the parts; and
3. The date of purchase of the parts; and
4. A short description of the alleged defect; and
5. Proof of the purchase of the parts, for example, a receipt or canceled check.

WHAT IS NOT COVERED UNDER THIS WARRANTY (LIMITATION OF LIABILITY):

As stated above, damage for any reason is not covered under this warranty. Furthermore NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF OUR PRODUCTS. However, some states do not allow limitations on how an implied warranty lasts, so this limitation may not apply to you. Also, since this is a limited warranty, WE SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY OTHER CHARGES, LABOR COSTS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSSES OR DAMAGES OF ANY KIND OR DESCRIPTION WHATSOEVER ARISING OUT OF, OR IN ANYWAY RELATING TO, ANY BREACH OF THIS WARRANTY OR CLAIMED DEFECT IN, OR NON-PERFORMANCE OF, OUR PRODUCTS. However, some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you. This warranty also excludes commercial and other non-consumer purchasers other than the original consumer purchaser.

WE HAVE NO AGENTS:

We do not authorize any person to create for us any obligation of liability in connection with our products.

LEGAL RIGHTS:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state (province to province in Canada).

Your claim, along with the sample part or parts, should be sent to:

Superior Products, LLC.
3786 Ridge Road
Cleveland, Ohio 44144-1175
ATTN: QCA DEPT.

Retail Price \$8.00



**Superior
Products, LLC**

Redefining Gas Management Systems



Industrial



Hospital



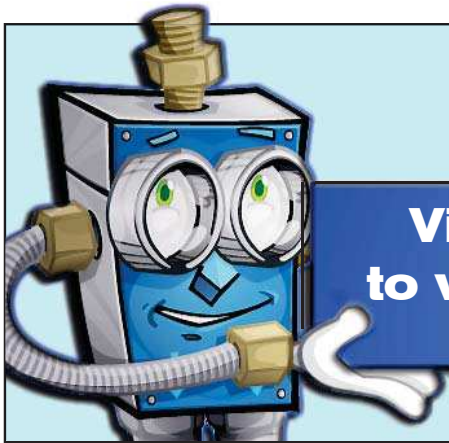
Specialty



Engineering

Superior Products, LLC

Macro Technologies, LLC



Visit www.superiorprod.com
to view our other Product Lines

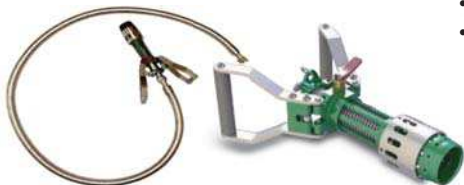
Medical Gas Fittings and Accessories

- Cylinder Fittings (Regulator)
- Demand Valves
- DISS Fittings
- Quick Connectors, DISS Quick Connect (Zip Nut ®)
- Duplex or Couplers
- Flowmeters
- Gauges
- Hoses
- Hose Fittings and Accessories
- Pigtails
- NPT Pipe Fittings
- Valves
- Y-Connectors
- Yokes



Macro Technologies LNG Fueling Systems

- LNG Fueling Nozzles
- Cryogenic Hoses for LNG Fueling
- Male & Female QDV Vents
- Break-A-Way Coupling
- LNG Receptacle
- Receptacle Cap



3786 Ridge Rd. | Cleveland, OH | 44144 | Ph. 800-651-9490 | Fx. 216-651-4071