

# reliably **RATERMANN**

August 2019

## Cryogenic Technician & High Pressure Specialist

### INSTALLERS EASY REFERENCE GUIDE



Reference  
Guide to

➔ **MOST  
COMMON**

Parts Used  
by Installers



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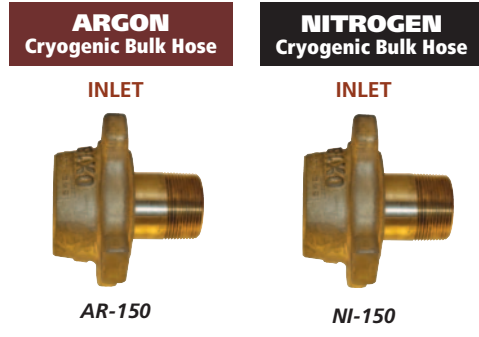
# Cryogenic Bulk Hoses & Bulk Fittings

▶ **MOST COMMON ITEM**

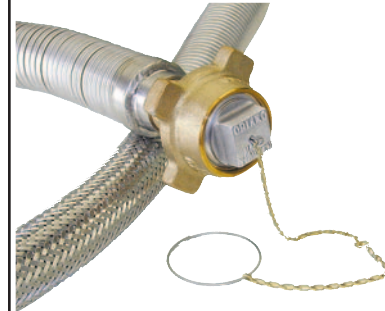


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**BULK HOSE –  
 1 1/2 INCH HOSE 472 PSIG MAWP  
 LINER: CORRUGATED 321 STAINLESS STEEL**



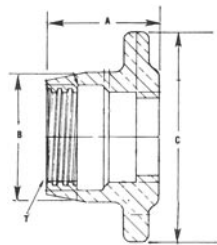
**BULK HOSE –  
 1 INCH HOSE  
 571 PSIG MAWP**



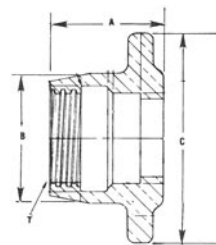
## BULK HOSE

Part Number	Description	ONLINE PAGE #	Quantity to Order
<b>1-1/2" ID 472 PSIG MAWP</b>			
▶ BHA-112ID-192AR150	Bulk Hose, ARGON, 1-1/2 ID Armored, 192in. L, AR150 Bulk Ends Assembly	38B-8	
▶ BHA-112ID-192NI150	Bulk Hose, NITROGEN, 1-1/2 ID Armored, 192in. L, NI150 Bulk Ends Assembly	38B-9	
BHA-112ID-192OX150	Bulk Hose, OXYGEN, 1-1/2 ID Armored, 192in. L, OX150 Bulk Ends Assembly	38B-10	
BH-A18-112ID-192F112	Bulk Hose, 1 1/2" ID, 1 1/2 F x 1 1/2 F, 16 Feet Long with Armored Cuffs	38B-47	
BH-A18-112ID-240F112	Bulk Hose, 1 1/2" ID, 1 1/2 F x 1 1/2 F, 20 Feet Long with Armored Cuffs	38B-47	
<b>1" ID 571 PSIG MAWP</b>			
BH-A18-1ID-168F1	Bulk Hose, 1" ID 1 FNPT x 1 FNPT, 14 Feet Long with Armored Cuffs	38B-47	
BHA-1ID-168F1	Bulk Hose, 1" ID, 1 FNPT x 1FNPT, 14 Feet Long w/ Full Armor	38B-47	
BH-A18-1ID-180F1	Bulk Hose, 1" ID 1 FNPT x 1 FNPT, 15 Feet Long with Armored Cuffs	38B-47	
BHA-1ID-180F1	Bulk Hose, 1" ID, 1 FNPT x 1FNPT, 15 Feet Long w/ Full Armor	38B-47	

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**Hose End Bulk Fitting – Argon**  
 Pt # BHN-AR-150-BRZ



**Hose End Bulk Fitting – Nitrogen**  
 Pt # BHN-NI-150-BRZ

## BULK FITTINGS

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ BHN-AR-150-BRZ	Hose Nut, ARGON, AR-150 Bronze	38B-30	
▶ BHN-NI-150-BRZ	Hose Nut, NITROGEN, NI-150 Bronze	38B-24	
▶ FEA-CO2-150	Carbon Dioxide Fixed End Assembly 1 1/2"	38B-44	
▶ FEC-NI-150-112FNPT	Fixed Cast End, NI-150 x 1 1/2" FNPT	38B-28	
▶ FEC-OX-150-112FNPT	Fixed Cast End, OX-150 x 1 1/2" FNPT	38B-40	
▶ FEM-AR-150-112FNPT-B	Fixed End Machined with Milled Flats, AR-150 x 1 1/2" FNPT Naval Brass	38B-32	
▶ FEM-NI-150-112FNPT-B	Fixed End Machined with Milled Flats, NI-150 x 1 1/2" FNPT Brass	38B-26	
▶ FEM-OX-150-112FNPT-316SS	Fixed End Machined w/Milled Flats, OX-150 x 1 1/2" FNPT 316 Stainless Steel	38B-38	

# Fill Clusters & Check Valves ▶ MOST COMMON ITEM



**FCCMF Series  
Fill Cluster  
with  
Mueller  
Flange  
Connection**



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## FILL CLUSTERS

Part Number	Description	ONLINE PAGE #	Quantity to Order
FCCMF-A-GJJD	Herose, Fill Cluster with Check Function 1"	37D-3	
FCCMF-B-GJJD	Herose, Fill Cluster with Check Function 1-1/2"	37D-3	

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**Herose  
Check Valve**



**Generant  
Check Valve**



## RELIEF CHECK VALVES

Part Number	Description	ONLINE PAGE #	Quantity to Order
05412.1515.7001	Herose Cryogenic Check Valve, 1/2" Bronze with Socket Weld Connection	Call for Info	
SVB-E-350-FCHH	Safety Valve, Bronze 1 X 1 1/4, Set at 350 PSI	37F-3	
<b>250 B SERIES – 1/4" NPT</b>			
▶ CV-250B-T-1-X	Check Valve, 1/4" NPT, Brass, TFE Seal (-320°F to 350°F), 1 Psig, O2 Cleaned	Call for Info	
<b>500 B SERIES – 1/2" NPT</b>			
CV-500B-N-1	Check Valve, 1/2" NPT, Brass, Neoprene Seal, 1 (.5 - 1 Psig)	Call for Info	
CV-500B-T-1	Check Valve, 1/2" NPT, Brass, PTFE Seal, 1 PSI (.5 - 1 Psig)	Call for Info	
CV-500B-V-1	Check Valve, 1/2" NPT, Brass, Viton Seal, 1 PSI, (.5 - 1 Psig)	Call for Info	
<b>503 B SERIES – 1/2" NPT</b>			
▶ CV-503B-T-1-X	Check Valve, Brass, 1/2" F X 1/2" F, PTFE Seal, 0.5-1 PSI, O2 Clean	Call for Info	
CV-503B-T-3	Check Valve, Brass, 1/2" F X 1/2" F, PTFE Seal, 2-4 PSI	Call for Info	
<b>1000 B SERIES – 1" NPT</b>			
CV-1000B-V-1	Check Valve, 1" NPT, Brass, Viton Seal, 0.5 - 1 Crack PSI	Call for Info	
CV-1000SS-T-3	Check Valve, 1" NPT, Stainless Steel, TFE Seal, 2 - 4 Psig	Call for Info	

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## NIPPLE WITH CHECK VALVES



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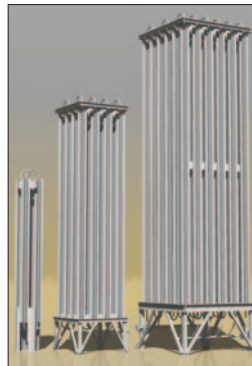
Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ CGA-320NIPPLECV	CGA 320 Carbon Dioxide Nipple with Check Valve	21A-2	
▶ CGA-350NIPPLECV	CGA 350 Hydrogen/Methane Nipple with Check Valve	21A-2	
CGA-510NIPPLECV	CGA 510 Acetylene Nipple with Check Valve	21A-2	
▶ CGA-540NIPPLECV	CGA 540 Oxygen Nipple with Check Valve	21A-2	
▶ CGA-580NIPPLECV	CGA 580 Nitrogen/Argon/Helium Nipple Check Valve	21A-2	

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# Vaporizers Gauge Tube Sensors Digital Vac Meters

▶ **MOST COMMON ITEM**

**Ambient Vaporizer Supergap**



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## VAPORIZER

Part Number	Description	Type Connectors	ONLINE PAGE #	Quantity to Order
▶ FG00480	Model HBSG28HF Ambient Vap Supergap, Single Circuit 2800 SCFH (8hr) 600 PSIG	3/4"	39A	
FG01612	Model HBSG100HF Ambient Vap Supergap, Single Circuit 10620 SCFH (8hr) 600 PSIG	3/4"	39A	
▶ FG01631	Model HBSG50HF Ambient Vap Supergap, Single Circuit 5300 SCFH (8hr) 600 PSIG	3/4"	39A	
FG01632	Model HBSG150HF Ambient Vap Supergap, Single Circuit 15930 SCFH (8hr) 600 PSIG	3/4"	39A	

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**Thermocouple Gauge Tube**  
Pt # TGT-4R

## THERMOCOUPLE GAUGE TUBE

Part Number	Description	ONLINE PAGE #	Quantity to Order
TGT-4R	Thermocouple Gauge Tube, Ruggedized 1/8" NPT-for Series VT-4, CVT-14/24, HPM 4/6	31B-9	
▶ TGT-6R	Thermocouple Gauge Tube, Ruggedized 1/8" NPT-for Series VT-6, CVT-16/26, HPM 4/6	31B-9	

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**Digital Vacuum Meter**  
Pt # VGM-HPM4.5.6



## DIGITAL VACUUM METER

Part Number	Description	ONLINE PAGE #	Quantity to Order
VGM-HPM4.5.6	Vacuum Meter HPM 4/5/6 for DV-4&DV-6 Mdl's -Ready for use w/:mBar,Torr,or Pascal	31B-7	

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

# High Pressure Hoses Cryogenic Hoses Adapters to NPT

## ▶ MOST COMMON ITEM



**Post Sintered PTFE Lined Stainless Steel Braided Pigtail**  
Pt # FPT-96F14

For Additional Hose & Adapter Products –  
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SEE ONLINE PAGE NUMBERS LISTED BELOW



**Post Sintered Safety Pigtail**  
Pt # FPTA-144F14

### HIGH PRESSURE POST SINTERED HOSES 3,600 PSIG MAWP Hoses are cleaned for Oxygen Service

Part Number	Description	ONLINE PAGE #	Quantity to Order
FPT-48F14	SS PTFE 3600psi, 48" L, 1/4F x 1/4F – No Armor	20A-7	
FPT-96F14	SS PTFE 3600psi, 96" L, 1/4F x 1/4F – No Armor	20A-7	
FPTA-48F14	SS PTFE 3600psi Armor 48" L, 1/4Fx1/4F	20A-7	
FPTA-72F14	SS PTFE 3600psi Armor 72" L, 1/4Fx1/4F	20A-7	
FPTA-96F14	SS PTFE 3600psi Armor 96" L, 1/4F x 1/4F	20A-7	
FPTA-144F14	SS PTFE 3600psi Pigtail, Armor, 144" L, 1/4 F x 1/4 F	20A-7	

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**Cryogenic Hose with Armor**  
Pt # FPACGA295CH72

### FLEXIBLE CRYO HOSE WITH ARMOR 1,330 PSIG MAWP

Part Number	Description	ONLINE PAGE #	Quantity to Order
FPACGA295CH72	Cryogenic Hose w/Armor, 72" Long, CGA295 Each End, Liquid/Vent (Not O2 Cleaned)	19A-8	
FPACGA295CH144	Cryogenic Hose w/Armor, 144" Long, CGA295 Each End, Liquid/Vent (Not O2 Cleaned)	19A-8	

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**ARCTIC FOX®**  
Pt # VS-38ID48CGA295

### VACUUM JACKETED CRYO HOSES – 3/8" ID & 1/2" ID

Part Number	Description	ONLINE PAGE #	Quantity to Order
VS-38ID48CGA295	4' Vacuum Jacketed Hose, 3/8" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	
VS-38ID72CGA295	6' Vacuum Jacketed Hose, 3/8" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	
VS-12ID72CGA295	6' Vacuum Jacketed Hose, 1/2" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	
VS-12ID144CGA295	12' Vacuum Jacketed Hose, 1/2" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	
VS-12ID180CGA295	15' Vacuum Jacketed Hose, 1/2" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	
VS-12ID216CGA295	18' Vacuum Jacketed Hose, 1/2" ID, 150 PSI, CGA-295 SS Flare Ends	19A-7	

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**3/8" NPT Female**  
Pt # CGA-295F38

### ADAPTERS TO NPT

Part Number	Description	ONLINE PAGE #	Quantity to Order
CGA-29538	CGA 295 – 3/8" NPT Male	19A-7	
CGA-295F38	CGA 295 – 3/8" NPT Female	19A-7	
CGA-29512	CGA 295 – 1/2" NPT Male	19A-7	
CGA-295F12	CGA 295 – 1/2" NPT Female	19A-7	

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# Tube Trailer Hoses & Connections

➔ **MOST COMMON ITEM**

## Tube Trailer Hoses

Hoses for tube trailer applications must offer the features of high working pressures, durability, and ease of flexing.

PTFE and Stainless Steel Tube Trailers are designed to transfer gas such as helium and hydrogen from special high pressure delivery trailers. They have crimped or welded 316L stainless steel end fittings and the option of adding hose whip reduction and our anti-kink "Safety Armor." "Safety Armor" protects the exterior of the hose from abuse in operation for extended service life and to enhance whip protection in the event of accidental hose breakage. Each assembly is tested to 1-1/2 times the MAWP.



For Tethered Tube Trailer Hose Products –  
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SEE ONLINE PAGE NUMBER 20A-24



### PTFE LINED TUBE TRAILER HOSE – 4000 PSIG MAWP RATED

Standard Hose  
without Armor Casing

With  
Armor Casing

1/2" Female NPT x 1/2" Female NPT

Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TT-120F12		10'	TT-A-120F12	
20'	TT-240F12		➔ 20'	TT-A-240F12	

1/2" Female NPT x 1/2" Male NPT

Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TT-120F12M12		10'	TT-A-120F12M12	
20'	TT-240F12M12		20'	TT-A-240F12M12	

1/2" Male NPT x 1/2" Male NPT

Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TT-120M12		10'	TT-A-120M12	
20'	TT-240M12		20'	TT-A-240M12	



### ALL STAINLESS STEEL TUBE TRAILER HOSE – 3700 PSIG MAWP RATED

Standard Hose  
without Armor Casing

With  
Armor Casing

1/2" Female NPT x 1/2" Female NPT

Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TTS-120F12		10'	TTS-A-120F12	
20'	TTS-240F12		20'	TTS-A-240F12	

1/2" Female NPT x 1/2" Male NPT

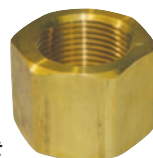
Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TTS-120F12M12		10'	TTS-A-120F12M12	
20'	TTS-240F12M12		➔ 20'	TTS-A-240F12M12	

1/2" Male NPT x 1/2" Male NPT

Hose Length	Part #	Qty to Order	Hose Length	Part #	Qty to Order
10'	TTS-120M12		10'	TTS-A-120M12	
20'	TTS-240M12		20'	TTS-A-240M12	

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## Tube Trailer Connectors



Union Nut



Nipple Tail Piece



Adapter

Description	Part # for Union Nut	Qty to Order	Part # for 1/2" Male NPT Tail Pieces	Qty to Order	Part # for CGA X 1/2" Male NPT Adapter	Qty to Order
➔ CGA 1340 – Argon, Helium, Nitrogen	CGA-1340NUT		➔ CGA-1340NIPPLE		CGA-1340M12	
➔ CGA 1350 – Hydrogen	CGA-1350NUT		➔ CGA-1350NIPPLE		CGA-1350M12	
CGA 1440 – Breathing Air	CGA-1440NUT		CGA-1440NIPPLE		CGA-1440M12	
CGA 1450 – Air	CGA-1450NUT		CGA-1450NIPPLE		CGA-1450M12	
➔ CGA 1540 – Oxygen	CGA-1540NUT		➔ CGA-1540NIPPLE		CGA-1540M12	
CGA 1550 – Carbon Monoxide	CGA-1550NUT		CGA-1550NIPPLE		CGA-1550M12	

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# Globe Valves & Globe Valve Repair Kits

▶ **MOST COMMON ITEM**



**Herose Globe Valve Manual Threaded Bronze**  
Pt # GVMTB-H-A-ACAE



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## GLOBE VALVES

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ GVMTB-C-A-ACAE	Globe Valve Manual Threaded Bronze 10-5/8" Stem 1/2"	37B-2	
▶ GVMTB-E-A-ACAE	Globe Valve Manual Threaded Bronze 10-5/8" Stem 1"	37B-2	
▶ GVMTB-G-A-ACAE	Globe Valve Manual Threaded Bronze 10-5/8" Stem 1 1/2"	37B-2	
▶ GVMTB-H-A-ACAE	Herose Globe Valve Manual Threaded Bronze 10-5/8" Stem 2"	37B-2	

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**Cryogenic Shut Off Valve, Extended Bonnet Globe**  
Pt # RO-BK9412AA

## CRYOGENIC SHUT OFF VALVE, EXTENDED BONNET GLOBE & REPAIR KITS

Part Number	Description	Quantity to Order
▶ RO-BK9404S	Cryo Shut Off Valve, Ext Bonnet Globe, .631" - .634" Sweat End	Call for Info
▶ RO-BK9408AA	Cryo Shut Off Valve, Ext Bonnet Globe with 1" x 3" Sch 5 pipe stubs	Call for Info
▶ RO-BK9408S	Cryo Shut Off Valve, Ext Bonnet Globe, 1.131 - 1.134" Sweat End	Call for Info
▶ RO-BK9408T	Cryo Shut Off Valve, Ext Bonnet Globe, 1" F. NPT	Call for Info
▶ RO-BK9408-KIT	Repair Kit for BK9408 Series	Call for Info
▶ RO-BK9412AA	Cryo Shut Off Valve, Ext Bonnet Globe with 1-1/2" x 3" Sch 5 pipe stubs	Call for Info
▶ RO-BK9412S	Cryo Shut Off Valve, Ext Bonnet Globe, 1.631" - 1.634" Sweat End	Call for Info
▶ RO-BK9400-80J	Repair Kit for BK9410 Series BK9412 Series	Call for Info

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# Cryogenic Ball Valves Shut Off Valves Retrofit Kits

▶ **MOST COMMON ITEM**



**Extended  
Bonnet  
Cryogenic  
Ball Valve**  
Pt # CBV-B14

## CRYO BALL VALVES

Part Number	Description		Quantity to Order
CBV-B1	Cryo Ball Valve, Brass, 1" FNPT Outlets	Call for Info	
▶ CBV-B12	Cryo Ball Valve, Brass, 1/2" FNPT Outlets	Call for Info	
▶ CBV-B14	Cryo Ball Valve, Brass, Extended Bonnet-Three Piece, 1/4" FNPT Outlets, 1000 PSI	Call for Info	
▶ CBV-B34	Cryo Ball Valve, 3/4", Brass Body w/SS Extended Stem & Ball, O2 Cleaned	Call for Info	
▶ CBV-B38	Cryo Ball Valve, 3/8" FNPT Outlets, Brass w/SS Extension & Ball, O2 Cleaned	Call for Info	
CBV-B112	Cryo Ball Valve, Brass Body, 1 1/2" FNPT Outlets, Reduced Flow, Stainless Steel Ball & Ext Stem	Call for Info	

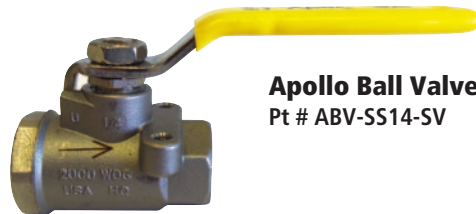


**Cryogenic  
Shut Off Valve,  
Extended Stem**  
Pt # RO-BK9452

## CRYOGENIC SHUT OFF VALVE, EXTENDED STEM & RETROFIT KIT

Part Number	Description		Quantity to Order
▶ RO-BK9452	Cryo Shut Off Valve, Ext Stem 1/4" F. NPT, 6.5" Stem - Spring Loaded Packing	Call for Info	
▶ RO-BK9453	Cryo Shut Off Valve, Ext Stem 3/8" F. NPT, 6.5" Stem - Spring Loaded Packing	Call for Info	
▶ RO-BK9454	Cryo Shut Off Valve, Ext Stem 1/2" F. NPT, 6.5" Stem - Spring Loaded Packing	Call for Info	
▶ RO-ES8452	Cryo Shut Off Valve, Ext Stem 1/4" F. NPT, 4" Stem	Call for Info	
▶ RO-ES8453	Cryo Shut Off Valve, Ext Stem 3/8" F. NPT, 4" Stem	Call for Info	
RO-BK9450-KIT	Extended Bonnet Kit for ES8450 Series and ES9450 Series	Call for Info	

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**Apollo Ball Valve**  
Pt # ABV-SS14-SV

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## APOLLO BALL VALVE

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ ABV-SS14-SV	Apollo Ball Valve, Stainless Steel, 1/4, with Side Vented Ball (Not O2 Clean)	38A-3	
▶ ABV-14-OX	Apollo Ball Valve, Bronze Standard Port, 1/4" FNPT 600 PSI Oxygen Cleaned	38A-3	
▶ ABV-3W12-OX	Ball Valve 3-Way Diversion 1/2" NPT, Oxygen Cleaned	38A-3	
▶ ABV-C14-SV-SSBS	Ball Valve, Carbon Steel, 1/4" with Side Vented Stainless Steel Ball and Stem	38A-3	

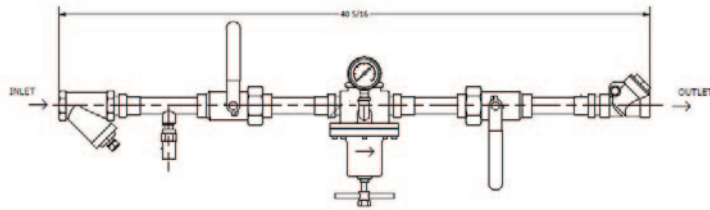
⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



# Manifold Bulk Safeties Noise Reducing Vent for Bulk Tank

▶ **MOST COMMON ITEM**

**MANF 1"**  
**SGL HSL**  
**100-200**  
**PSIG**  
Pt # HLM-1



## HOUSE LINE MANIFOLD

Part Number	Description	Quantity to Order
HLM-1	House Line Manifold, 1" SGL 100-200 PSI	Call for Info

Quantity to Order



**Bulk Safety**  
Pt # SVB-D-250-FCHH



**For More Options, Sizes  
and Additional Cryogenic Products**

**GO ONLINE**

[www.rmicyro.com/catalog](http://www.rmicyro.com/catalog)

SEE ONLINE PAGE NUMBERS LISTED BELOW

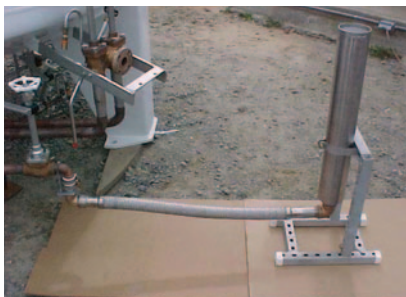


## BULK SAFETY VALVES

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ SVB-A-250-FCHH	Safety Valve, Bronze 1/2"x1" 250psi, Certificate Included	37F-3	
▶ SVB-A-350-FCHH	Safety Valve, Bronze 1/2"x1" 350psi, Certificate Included	37F-3	
▶ SVB-D-250-FCHH	Safety Valve, Bronze 3/4 x 1 inch 250 psi, Certificate Included	37F-3	
▶ SVB-D-350-FCHH	Safety Valve, Bronze 3/4 x 1 inch 350 psi, Certificate Included	37F-3	
▶ SVB-E-250-FCHH	Safety Valve, Bronze 1 X 1 1/4, Set at 250 PSI	37F-3	

Quantity to Order

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)  
For further information on Proposition 65, please go to [www.oehha.ca.gov/proposition-65](http://www.oehha.ca.gov/proposition-65)



**Noise  
Reducing  
Vent for  
Bulk Tanks**  
Pt # WV-BT-T

## BULK TANK LIQUID CYLINDER VENT

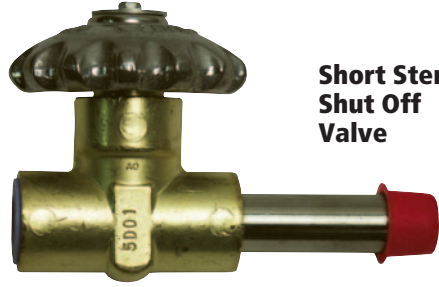
Part Number	Description	ONLINE PAGE #	Quantity to Order
WV-BT-T	Noise Reducing Vent for Bulk Tanks	39B-22	

Quantity to Order

⚠ **WARNING:** Products in this catalog can expose you to chemicals including Lead which is known to the State of California to cause cancer, birth defects or reproductive harm.  
For more information, go to <https://www.p65warnings.ca.gov>

# Short Stem Shut Off Valves **HP** Master Shut Off Valves

▶ **MOST COMMON ITEM**



Short Stem Shut Off Valve

For More Options & Additional Products – Go Online

[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)

SEE ONLINE PAGE NUMBERS LISTED BELOW

## SHORT STEM SHUT OFF VALVES

Part Number	Description	Inlet	Outlet	Orifice	Length of Valve	Height (approx) of Valve	Tube Length	CV Factor	ONLINE PAGE #	Quantity to Order
▶ VR-14F14F	Valve Replacement	1/4" FNPT	1/4" FNPT	.250	2 1/2"	2 3/4"	None	.72	29B-7	
▶ VR-38F38F	Valve Replacement	3/8" FNPT	3/8" FNPT	.406	2 1/2"	2 3/4"	None	1.08	29B-7	
▶ VR-12F12F	Valve Replacement	1/2" FNPT	1/2" FNPT	.406	2 1/2"	2 3/4"	None	1.10	29B-7	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



High Pressure Master Shut Off Valve Pt # RO-9560A

## HIGH PRESSURE MASTER SHUT-OFF VALVE

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ RO-9560A	HP Shut-Off Valve w/ CTFE Seat 1/2" FNPT x 1/2" FNPT	23A-26	
RO-9561CL	HP Shut-Off Valves w/ Copper/Monel Seat 1"-11-1/2 NPS LH M InletxLH FSwivel	Call for Info	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



High Pressure Master Shut Off Valve Pt # SHW-630CW-

## HIGH PRESSURE MASTER SHUT-OFF VALVE 630 Series

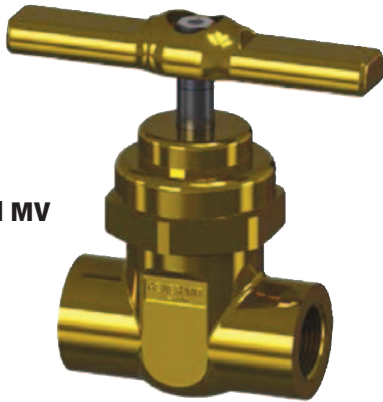
Part Number	A Inlet	B Outlet	Features	ONLINE PAGE #	Quantity to Order
SHW-630GR-4	1/2" NPT	1/2" NPT		23A-21	
SHW-630GR-6	3/4" NPT	3/4" NPT		23A-21	
SHW-630GR-8	1"-11 1/2 NPSM	1"-11 1/2 NPSM		23A-21	
SHW-630GR-4PM	1/2" NPT	1/2" NPT	Panel Mount	23A-21	
SHW-630GR-6PM	3/4" NPT	3/4" NPT	Panel Mount	23A-21	
SHW-630GR-8PM	1"-11 1/2 NPSM	1"-11 1/2 NPSM	Panel Mount	23A-21	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

# HP Gas Control Valve Cryogenic Regulator/Economizers

➤ **MOST COMMON ITEM**

For Additional Products – Go Online  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
 SEE ONLINE PAGE NUMBERS LISTED BELOW



**Model MV**



**Model MVP**



## HIGH PRESSURE GAS CONTROL VALVE

Model Number	Description	ONLINE PAGE #	Quantity to Order
Model MV	High Pressure Gas Control Valve – MV	23A-22	
Model MVP	High Pressure Gas Control Valve – MVP	23A-22	

**⚠ WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



**Model CR-B  
for Cryogenic  
Service**



**Model CE2 for  
Cryogenic Service**



**Regulator  
Pt # 2CR-375-A**

\* Other spring ranges available upon request.

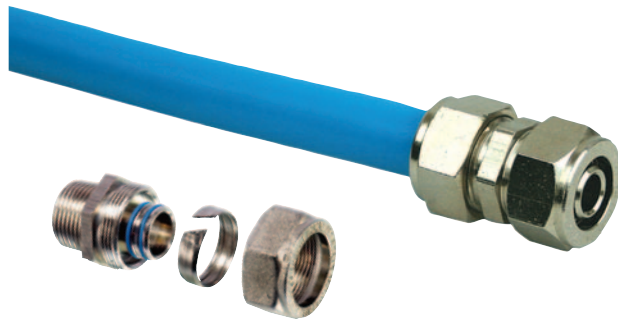
## CRYOGENIC REGULATOR / ECONOMIZERS

Part Number	Description		Quantity to Order
➤ 2CR-375-A	Cryogenic 2 Port Regulator 3/8", 0-35 PSI	Call for Info	
➤ CE-SISO-022	Cryogenic Economizer, 1/4" Side In/Side Out, 22 Set PSI	Call for Info	
➤ CE-SISO-12022	Cryogenic Economizer, 1/2" Side In/Side Out, 22 Set PSI	Call for Info	
CR-B12-150	B Regulator 1/2", 150 PSI	Call for Info	
CE2-SISO-12175	Cryogenic Economizer 2, 1/2" Side In/Side Out, 175 Set PSI	Call for Info	
CE2-SISO-12017	Cryogenic Economizer 2, 1/2" Side In/Side Out, 17 Set PSI	Call for Info	

**⚠ WARNING:** This product can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# Composite Pipe Gas Manifold Assemblies Burst Disc

▶ **MOST COMMON ITEM**



For Additional Products – Go Online

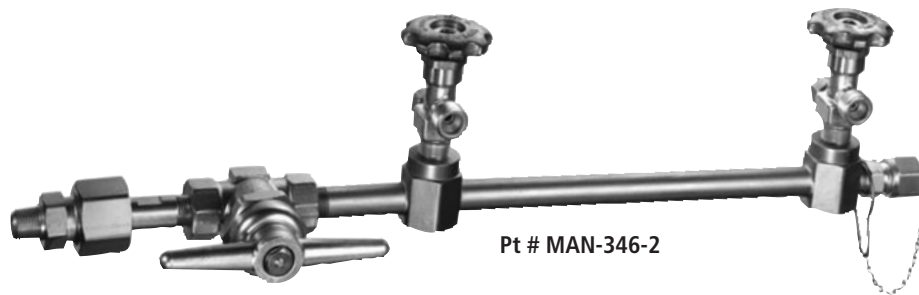
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)

SEE ONLINE PAGE NUMBERS LISTED BELOW

## COMPOSITE PIPE Working Pressure 200 PSI

Part Number	Description	ONLINE PAGE #	Quantity to Order
CMP-1-100	Composite Pipe 1" x 100 Foot Coil	22A-4	
▶ CMP-12-100	Composite Pipe 1/2" x 100 Foot Coil 200 PSI at 73 Deg F, 160 PSI at 140 Deg F	22A-6	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



Pt # MAN-346-2

## GAS MANIFOLD ASSEMBLIES

Part Number	Description	Type of Gas	ONLINE PAGE #	Quantity to Order
MAN-580-2	2 Cylinder, CGA 580	Inert	23A-14	
MAN-320-3	3 Cylinder Manifold - CGA320 No Pigtails	Carbon Dioxide	Call for Info	
MAN-580-3	3 Cylinder Manifold - CGA580	Inert	Call for Info	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



**Burst Disc**  
Pt # BD-12-CN-50



**Burst Disc**  
Pt # BD-1-N-350

## BURST DISCS

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ BD-12-CN-50	Burst Disc, Brass body, Nickel Disc, 1/2" MNPT x Free, Range: 48-57 PSI	37A-9	
▶ BD-1-N-250	Burst Disc, Brass body, Nickel Disc, 1" MNPT x Free, Range: 240-268 PSI	37A-9	
▶ BD-1-N-350	Burst Disc, Brass body, Nickel Disc, 1" MNPT x Free, Range: 336-375 PSI	37A-9	

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

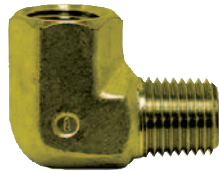
# High Pressure NPT Fittings PTFE Paste & Tape CGA Fittings

▶ **MOST COMMON ITEM**

For Additional Products – Go Online  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
 SEE ONLINE PAGE NUMBERS LISTED BELOW



**45° Brass Street Elbow**  
Pt # FIT-45SEF12M12



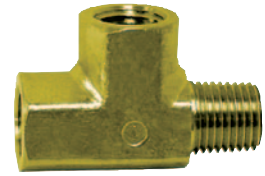
**90° Brass Street Elbow**  
Pt # FIT-90SEF14M14



**90° Brass Elbow**  
Pt # FIT-90F14



**Brass 3 Way Tee**  
Pt # FIT-TF12



**Brass Street Tee**  
Pt # FIT-TBLOCK14

## HIGH PRESSURE BRASS NPT FITTINGS

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ FIT-45SEF12M12	45° Brass Street Elbow 1/2" NPT	21A-6	
▶ FIT-45SEF14M14	45° Brass Street Elbow 1/4 inch NPT	21A-6	
▶ FIT-90F12	90 Brass Elbow 1/2 inch FNPT	21C-20	
▶ FIT-90F14	90° Brass Elbow 1/4" FNPT	21C-20	
▶ FIT-90SEF14M14	90° Brass Street Elbow 1/4" FNPT x 1/4" MNPT	21A-6	
▶ FIT-M12M12	Connector, 1/2" MNPT X 1/2" MNPT, Brass	21A-7	
▶ FIT-TBLOCK14	Street Tee, 1/4" NPT, 2-Ports Female & 1 end Male	21A-6	
▶ FIT-TF12	Brass 3 Way Tee 1/2 inch FNPT	21A-6	
▶ FIT-TF14	Brass 3 Way Tee 1/4 FNPT	21A-6	

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**PTFE Tape**  
Pt # TAPE-1



**Green PTFE Tape**  
Pt # TAPE-2-GREEN



**PTFE Paste**  
Pt # OXY-PTFE-8

## PTFE PASTE, PTFE TAPE AND GREEN OXYGEN PTFE TAPE

Part Number	Description	ONLINE PAGE #	Quantity to Order
OXY-PTFE-8	PTFE Paste	33A-3	
TAPE-1	PTFE Tape – 1/4"	33A-3	
TAPE-2-GREEN	Green Oxygen PTFE Threaded Seal Tape – 1/2" x 520"	33A-3	

## CGA FITTINGS

Part Number	Description	Quantity to Order
▶ CGA-295NUT	CGA 295 HEX NUT – Argon, Nitrogen and Liquid	Call for Info
▶ CGA-440NUT	CGA 440 HEX NUT – Oxygen and Liquid	Call for Info

## PIPE NIPPLE

Part Number	Description	Quantity to Order
▶ RO-1075-30	Pipe Nipple 3/4" x 3/4" x 3" Length	Call for Info
▶ RO-1075-60	Pipe Nipple 3/4" x 3/4" x 6" Length	Call for Info

# Gauges Cryogenic Liquid Level Indicator

▶ **MOST COMMON ITEM**

For Additional Gauges –  
Go Online  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
SEE ONLINE PAGE NUMBERS LISTED BELOW



**Gauge Lower Mount Brass – 400 PSI**  
Pt # PG-LM40025



**Gauge 0-200 PSI Low Mount**  
Pt # PG-LMS200



**Back Mount Pressure Gauge**  
Pt # PG-400

## GAUGES

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ PG-100	Gauge 0-100 PSI Back Mount 1/4" NPT	25A-2	
▶ PG-200B	Gauge 0-200 PSI Back Mount 1/4" NPT	Call for Info	
▶ PG-400	Gauge 0-400 PSI Back Mount 1/4" NPT	25A-2	
▶ PG-600	Gauge 0-600 PSI Back Mount 1/4" NPT	25A-2	
▶ PG-LM40025	Gauge Lower Mount Brass - 400PSI Dual Scale - 2-1/2" Diameter, Dual Scale	25A-3	
▶ PG-LMS100	Gauge Lower Mount Brass - 100 PSI Single Scale, 2" Dial	25A-3	
▶ PG-LMS200	Gauge 0-200 PSI Low Mount 1/4" NPT	25A-3	
▶ PG-LMS400	Gauge 0-400 PSI Low Mount 1/4" NPT	25A-3	

▲ **WARNING:** Products in this catalog can expose you to chemicals including Lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

## Level Gauges With and Without Switches for Tank Level Applications

### Gauge Key Features

- 500 PSIG Working Pressure
- Brass Body, SS Metal Internals, Viton® Seals
- Dual Top and Bottom Connections  
1/4" FNPT Connections
- +/- 1% Full Scale Accuracy
- 6" Round Dial with Black Background and White Numbers and Lettering



**Cryo Liquid Level Indicator Gauge**  
Pt # CLIG14B-6D0-100H20

▶ **For Cryogenic & Process Gauges**  
**GO ONLINE** [www.rmlicryo.com/catalog](http://www.rmlicryo.com/catalog)  
SEE ONLINE SECTION 38A

## CRYOGENIC LIQUID LEVEL INDICATOR GAUGE

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ CLIG14B-6D0-100H20	Cryo Liquid Level Indicator Gauge 1/4" F Con 0-100" H2O	38A-4	
▶ CLIG14B-6D0-400H20-OX	Cryo Liquid Level Indicator Gauge 1/4" F Con 0-400" H2O O2 Clean	38A-4	

▲ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)  
For further information on Proposition 65, please go to [www.oehha.ca.gov/proposition-65](http://www.oehha.ca.gov/proposition-65)

# Relief Valves – ASME Rated Safety Pressure Relief Valves

▶ **MOST COMMON ITEM**

**ASME Rated  
Pressure Relief  
Pt # PR-ASME12-350**



For More Products Available –  
Go Online  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
SEE ONLINE PAGE NUMBERS LISTED BELOW

## RELIEF VALVES – ASME RATED

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ PR-ASME12-230	Pressure Relief, ASME Rated, 1/2", 230 PSI, O2 Cleaned	31A-4	
▶ PR-ASME12-350	Pressure Relief, ASME Rated, 1/2", 350 PSI	31A-4	
▶ PR-ASME12-125	Pressure Relief, ASME Rated, 1/2", 125 PSI, O2 Cleaned	31A-4	
▶ PR-ASME12-500	Pressure Relief, ASME Rated, 1/2", 500 PSI	31A-4	
▶ PR-ASME14-600	Pressure Relief, ASME Rated, 1/4", 600 PSI	31A-4	
▶ PR-ASME38-450	Pressure Relief, ASME Rated, 3/8", 450 PSI	31A-4	

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**1/2" NPT Safety  
Pressure Relief  
Pt # PR-12450**

## 1/2" SAFETY PRESSURE RELIEF GAS VALVES

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ PR-12235	1/2" 235 PSI Safety Pressure Relief Valve	29G-3	
▶ PR-12250	1/2" 250 PSI Safety Pressure Relief Valve	29G-3	
▶ PR-12450	1/2" 450PSI Safety Pressure Relief Valve	29G-3	
▶ PR-12700	1/2" 700 PSI Safety Pressure Relief Valve	29G-3	



**1/4" NPT Safety  
Pressure Relief  
Pt # PR-125**



**Pop Stop Option  
For Pressure Reliefs  
Pt # PR-MFLR**

## 1/4" LIQUID CYLINDER SAFETY PRESSURE RELIEF VALVES

Gas Relief Part Number	Qty to Order	Liquid Dewar Only Part Number	Qty to Order	Description	ONLINE PAGE #'s
▶ PR-22		▶ LPR-22		1/4" 22PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-125		▶ LPR-125		1/4" 125PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-230		▶ LPR-230		1/4" 230PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-235		▶ LPR-235		1/4" 235PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-250		–		1/4" 250PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-35		▶ LPR-35		1/4" 35PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-350		▶ LPR-350		1/4" 350PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-50		▶ LPR-50		1/4" 50PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-500		LPR-500		1/4" 500PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-700		–		1/4" 700PSI Dewar Safety Pressure Relief Valve	29G-2
▶ PR-CC				Candy Cane Pipe with 1/4" NPT Female for Pressure Relief	19A-15
▶ PR-MFLR				GPS Whisper Vent, Pressure Relief-Noise Reduction, 22-230PSI, Spring-Loaded Cap	29G-3

**⚠ WARNING:** Products in this catalog can expose you to chemicals including Lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

# High Flow & Line Regulator Rebuild & Retrofit Kits

➤ **MOST COMMON ITEM**



For More Options Available –  
Go Online  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
SEE ONLINE PAGE NUMBERS LISTED BELOW

## 4 PORT REGULATORS

Size	PSI Range	Part Number with EPDM Seals	Qty to Order	Part Number with Viton Seals	Qty to Order	ONLINE PAGE #
1/2" F NPT	0-55 PSI	4GDR-500B-EP-A		4GDR-500B-V-A		24A-5
1/2" F NPT	50-135 PSI	➤ 4GDR-500B-EP-B		➤ 4GDR-500B-V-B		24A-5
1/2" F NPT	125-225 PSI	➤ 4GDR-500B-EP-C		4GDR-500B-V-C		24A-5
3/4" F NPT	0-55 PSI	4GDR-750B-EP-A		4GDR-750B-V-A		24A-5
3/4" F NPT	50-135 PSI	➤ 4GDR-750B-EP-B		4GDR-750B-V-B		24A-5
3/4" F NPT	125-225 PSI	➤ 4GDR-750B-EP-C		4GDR-750B-V-C		24A-5
1" F NPT	0-55 PSI	4GDR-1000B-EP-A		4GDR-1000B-V-A		24A-5
1" F NPT	50-135 PSI	4GDR-1000B-EP-B		➤ 4GDR-1000B-V-B		24A-5
1" F NPT	125-225 PSI	➤ 4GDR-1000B-EP-C		➤ 4GDR-1000B-V-C		24A-5
Replacement Seal Kits		Part Number with EPDM Seals	Qty to Order	Part Number with Viton Seals	Qty to Order	ONLINE PAGE #
1/2" Size Seal Kit		➤ GDR-RK-1-EP		➤ GDR-RK-1-V		24A-5
3/4" and 1" Size Seal Kit		GDR-RK-2-EP		GDR-RK-2-V		24A-5

## HEAVY DUTY LINE REGULATORS

Part Number	Description	Quantity to Order
➤ RO-1784A *	HD Line Regulator BrassBody/AluminumBonnet Regulator 5 - 55 PSIG, 1/2" NPT	Call for Info
➤ RO-1784B *	HD Line Regulator BrassBody/AluminumBonnet Regulator 40 - 110 PSIG, 1/2" NPT	Call for Info
➤ RO-1784C *	HD Line Regulator BrassBody/AluminumBonnet Regulator 100 - 200 PSIG, 1/2" NPT	Call for Info
➤ RO-1784CE *	HD Line Reg Brass Body/Aluminum Bonnet 100 - 200 PSIG, 1/2" NPT-for CO2&N2O	Call for Info
➤ RO-1786A **	HD Line Regulator Brass Body/AluminumBonnet Regulator 5 - 55 PSIG, 3/4" NPT	Call for Info
RO-1786B **	HD Line Regulator Brass Body/AluminumBonnet Regulator 40 - 110 PSIG, 3/4" NPT	Call for Info
RO-1786C **	HD Line Regulator Brass Body/AluminumBonnet Regulator 100 -200 PSIG, 3/4" NPT	Call for Info
➤ RO-1788A **	HD Line Regulator Brass Body/AluminumBonnet Regulator 5 - 55 PSIG, 1" NPT	Call for Info
RO-1788B **	HD Line Regulator Brass Body/AluminumBonnet Regulator 40 - 110 PSIG, 1" NPT	Call for Info
RO-1788C **	HD Line Regulator Brass Body/AluminumBonnet Regulator 100 -200 PSIG, 1" NPT	Call for Info

Please Note: The green \* denotes that the above Line Regulators and the below Retrofit Kit work together.

Please Note: The orange \*\* denotes that the above Line Regulators and the below Retrofit Kit work together.

## REBUILD KITS AND RETROFIT KITS

Part Number	Description	Quantity to Order
➤ RO-BR-1788-7SKA	Retrofit Kit for BR Series	Call for Info
RO-BR-1788-7SKB	Retrofit Kit for BR Series	Call for Info
➤ RO-BR-1788-7SKC	Retrofit Kit for BR Series	Call for Info
➤ RO-BR-1780SC	Retrofit Kit for BR-1780 Series	Call for Info
➤ RO-BR-1784-80 *	Retrofit Kit for BR-1784 Series 1784 Series	Call for Info
➤ RO-BR-1786-80 **	Retrofit Kit for BR-1786 Series BR-1788 Series, 1786 Series, 1788 Series	Call for Info

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>



# Tube Fittings Compression Fittings

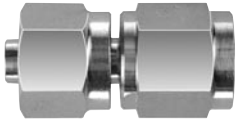
➤ **MOST COMMON ITEM**



Fluid Connectors

**BI-Lok**  
Series D

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[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)  
SEE ONLINE PAGE NUMBERS LISTED BELOW



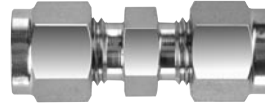
**An 37° Flare Adapter – DAN**  
Pt # DAN-4-4-SS



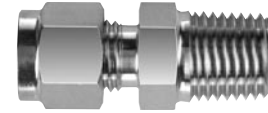
**Plug – DBA**  
Pt # DBA-4-B



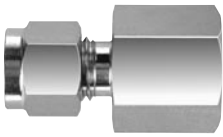
**Nut – DNA**  
Pt # DNA-10-B



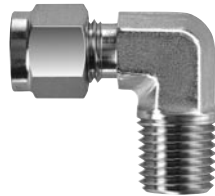
**Union – DUA**  
Pt # DUA-12-SS



**Male NPT Connector – DCT**  
Pt # DCT-12-8-SS



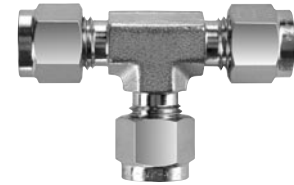
**Female NPT Connector – DSA**  
Pt # DSA-12-8-SS



**Male NPT Elbow – DLN**  
Pt # DLN-10-8-B



**Union Elbow – DLA**  
Pt # DLA-14-SS



**Union Tee – DTA**  
Pt # DTA-8-SS

## COMPRESSION FITTINGS

Brass Part Number	Qty to Order	Stainless Steel Part Number	Qty to Order	Description	Oxygen Cleaning -X*	ONLINE PAGE #
		➤ DAN-4-4-SS		Tube Fitting 37 Degree Flare Adapter, 1/4 Tube OD x 1/4 Tube Size		21D-6
DAN-8-8-B				Tube Fitting 37 Degree Flare Adapter, 1/2 Tube OD x 1/2 Tube Size		21D-6
➤ DBA-4-B				Tube Fitting Plug, 1/4 Tube OD		21D-6
		➤ DBA-4-SS		Tube Fitting Plug, 1/4 Tube OD		21D-6
➤ DCT-10-8-B		➤		Tube Fitting Male NPT Connector, 5/8 Tube OD x 1/2 NPT		21D-9
		➤ DCT-12-8-SS		Tube Fitting Male NPT Connector, 3/4 Tube OD x 1/2 NPT		21D-9
		➤ DCT-4-4-SS		Tube Fitting Male NPT Connector, 1/4 Tube OD x 1/4 NPT		21D-9
➤ DCT-8-8-B				Tube Fitting Male NPT Connector, 1/2 Tube OD x 1/2 NPT		21D-9
		➤ DLA-12-SS		Tube Fitting Union Elbow, 3/4 Tube OD		21D-13
		➤ DLA-14-SS		Tube Fitting Union Elbow, 7/8 Tube OD		21D-13
➤ DLN-10-8-B				Tube Fitting Male NPT Elbow, 5/8 Tube OD x 1/2 NPT		21D-15
		➤ DLN-4-1-SS		Tube Fitting Male NPT Elbow, 1/4 Tube OD x 1/16 NPT		21D-15
		➤ DLN-8-8-SS		Tube Fitting Male NPT Elbow, 1/2 Tube OD x 1/2 NPT		21D-15
➤ DNA-10-B				Tube Fitting Nut, 5/8 Tube OD		21D-16
		➤ DSA-12-8-SS		Tube Fitting Female NPT Connector, 3/4 Tube OD x 1/2 NPT		21D-19
		➤ DSA-8-6-SS		Tube Fitting Female NPT Connector, 1/2 Tube OD x 3/8 NPT		21D-19
		➤ DTA-8-SS		Tube Fitting Union Tee, 1/2 Tube OD		21D-23
		➤ DUA-12-SS		Tube Fitting Union, 3/4 Tube OD		21D-27

\* For Oxygen Cleaning add "-X" to the end after selecting Brass or Stainless Steel.

⚠ **WARNING:** Products in this catalog can expose you to chemicals including Lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

# Gas Pipe & Valve Markers, Dewar Valve Labels

➤ **MOST COMMON ITEM**

Go Online for Additional Information  
[www.ratermannonlinecatalog.com](http://www.ratermannonlinecatalog.com)

SEE ONLINE PAGE # 8A-34 & FOR CUSTOM PRINT 8A-39



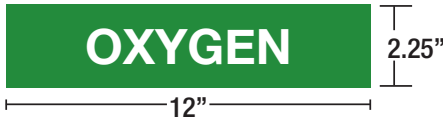
For Gas Pipe Markers  
with Arrows

SEE ONLINE PAGE  
NUMBER 8A-35



For Pipes 2-1/2" to 6" Outside Diameter use  
**Style 14**

2.25" x 12"



Letter height for Style 14 is 1.5"-2" tall.

For Pipes 8" to 10" Outside Diameter use  
**Style 16**

3" x 24"



Letter height for Style 16 is 2 1/2" tall.

Gas Service	Description	Colors	Style 14 2.25" x 12"	Qty to Order	Style 16 3" x 24"	Qty to Order
Argon	Argon Pipe Marker	Brown/White Print	PML-AR-14		PML-AR-16	
	Directional Arrow Pipe Marker	Brown/White Arrow	➤ PML-DA-BROWN-14		PML-DA-BROWN-16	
Carbon Dioxide	Carbon Dioxide Pipe Marker	Gray/White Print	PML-CO2-14		PML-CO2-16	
	Directional Arrow Pipe Marker	Gray/White Arrow	➤ PML-DA-GRAY-14		PML-DA-GRAY-16	
Oxygen	Oxygen Pipe Marker	Green/White Print	➤ PML-OX-14		PML-OX-16	
	Directional Arrow Pipe Marker	Green/White Arrow	➤ PML-DA-GREEN-14		PML-DA-GREEN-16	
Nitrogen	Nitrogen Pipe Marker	Black/White Print	PML-N-14		PML-N-16	
	Directional Arrow Pipe Marker	Black/White Arrow	➤ PML-DA-BLACK-14		PML-DA-BLACK-16	
Liquid	Liquid Pipe Marker	Blue/White Print	PML-LIQUID-14		PML-LIQUID-16	
	Directional Arrow Pipe Marker	Blue/White Arrow	➤ PML-DA-BLUE-14		PML-DA-BLUE-16	

For Pipes 1-1/2" to 2" Outside Diameter use  
**Style 15**

1.125" x 8"



Letter height for Style 15 is 3/4" tall.

For Pipes 3/4" to 1-1/4" Outside Diameter use  
**Style 17**

1.125" x 8"



Letter height for Style 17 is 1/2" tall.

Gas Service	Description	Colors	Style 15 1.125" x 8"	Qty to Order	Style 17 1.125" x 8"	Qty to Order
Argon	Argon Pipe Marker	Brown/White Print	➤ PML-AR-15		➤ PML-AR-17	
	Directional Arrow Pipe Marker	Brown/White Arrow	➤ PML-DA-BROWN-15		➤ PML-DA-BROWN-17	
Carbon Dioxide	Carbon Dioxide Pipe Marker	Gray/White Print	➤ PML-CO2-15		➤ PML-CO2-17	
	Directional Arrow Pipe Marker	Gray/White Arrow	➤ PML-DA-GRAY-15		➤ PML-DA-GRAY-17	
Oxygen	Oxygen Pipe Marker	Green/White Print	➤ PML-OX-15		➤ PML-OX-17	
	Directional Arrow Pipe Marker	Green/White Arrow	➤ PML-DA-GREEN-15		➤ PML-DA-GREEN-17	
Nitrogen	Nitrogen Pipe Marker	Black/White Print	➤ PML-N-15		➤ PML-N-17	
	Directional Arrow Pipe Marker	Black/White Arrow	➤ PML-DA-BLACK-15		➤ PML-DA-BLACK-17	
Liquid	Liquid Pipe Marker	Blue/White Print	PML-LIQUID-15		➤ PML-LIQUID-17	
	Directional Arrow Pipe Marker	Blue/White Arrow	PML-DA-BLUE-15		PML-DA-BLUE-17	

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## DEWAR VALVE LABELS

Part Number	Description	VENT	GAS	ONLINE PAGE #	Quantity to Order
➤ DL-OVPK50	Vent			6A-30	
➤ DL-OGPK50	Gas			6A-30	
➤ DL-OLPK50	Liquid			6A-30	

# Non-Sparking Tools

▶ **MOST COMMON ITEM**

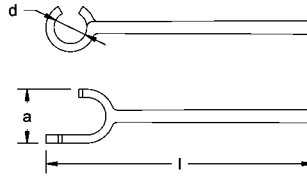


For Cryogenic Bulk Hoses  
**GO ONLINE** [www.rmicyro.com/catalog](http://www.rmicyro.com/catalog)  
 SEE ONLINE SECTION 38B

## Non-Sparking Hammer Club

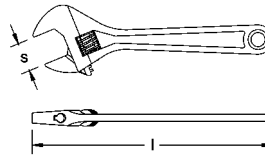
Part #	Material	Head Wt. Lbs.	Head Wt. Kg	Qty to Order
NST-HM-1A	Aluminum Bronze	1	0.50	
▶ NST-HMC-2A	Aluminum Bronze	2	0.91	
NST-HMC-2C	Copper Beryllium	2	0.91	
NST-HMC-4A	Aluminum Bronze	4	1.81	
NST-HMC-4C	Copper Beryllium	4	1.81	
NST-HMC-7A	Aluminum Bronze	7	3.18	
NST-HMC-7C	Copper Beryllium	7	3.18	

## Non-Sparking Wrench, Valve Wheel (DIN 87311)



Pt #	d Inch	a Inch	l Inch	Wt. lbs.	d mm	a mm	l mm	kg	Qty to Order
NST-WRVW-08	1 1/4	2 1/4	8 9/16	0.86	32	56	215	0.39	
NST-WRVW-11	1 7/16	2 1/4	11 9/16	2.27	36	56	290	1.03	
NST-WRVW-16	1 7/8	3 3/16	16	1.90	48	80	400	0.86	
NST-WRVW-19	2 3/8	4	19 9/16	4.30	60	100	490	1.95	
NST-WRVW-32	2 3/8	4 3/8	32	12.57	60	110	800	5.70	

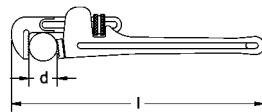
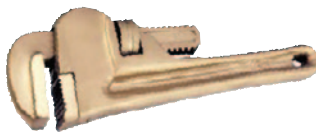
## Non-Sparking Wrench, Adjustable End



Pt #	s max Inch	l Inch	Wt. lbs.	s max mm	l mm	kg	Qty to Order
NST-WRAE-06	3/4	6	0.29	19	150	0.13	
NST-WRAE-08	15/16	8	0.62	24	200	0.28	
▶ NST-WRAE-10	1 1/8	10	1.06	28	250	0.48	
▶ NST-WRAE-12	1 3/8	12	1.68	34	300	0.76	
NST-WRAE-15	1 3/4	15	3.13	45	375	1.42	
NST-WRAE-18	2 3/16	18	6.19	55	450	2.81	
NST-WRAE-24	2 3/8	24	10.87	60	600	4.93	

## Non-Sparking Wrench, Pipe (American Type)

(American Type)



Pt #	d max Inch	l Inch	Wt. lbs.	d max mm	l mm	kg	Qty to Order
NST-WRP-06	3/4	6	0.66	20	150	0.30	
NST-WRP-08	1	8	1.04	25	200	0.47	
NST-WRP-10	1 3/16	10	2.25	30	250	1.02	
NST-WRP-12	1 9/16	12	3.26	40	300	1.48	
NST-WRP-14	2	14	3.59	50	350	1.63	
NST-WRP-18	2 3/8	18	6.28	60	450	2.85	
NST-WRP-24	3	24	10.67	75	600	4.84	
NST-WRP-36	3 3/8	36	17.17	85	900	7.79	
NST-WRP-48	4 3/8	48	29.92	110	1200	13.57	

## Zone Definitions Gas, Mists or Vapors

- **Zone 0** - An atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is present frequently, continuously or for long periods.
- **Zone 1** - An atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is likely to occur in normal operation occasionally.
- **Zone 2** - An atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is not likely to occur in normal operation but, if it does occur, will persist for only a short period.

**Other Zone Information Available – Contact us, we will be happy to get the info to you!**

## How to Choose the Correct Alloy for Your Application

	Aluminum-Bronze (AlBr) Alloy	Copper-Beryllium (CuBez) Alloy
<b>Zone Compatibility</b>	Fulfill demand in ATEX directive for work in Zones 1 and 2	Fulfill demand in ATEX directive for work in Zones 0, 1 and 2
<b>Hardness</b>	23-35 HRC	33-45 HRC
<b>Durability</b>	Not as durable as CuBez.	Very durable due to high hardness and tensile strength.
<b>Magnetic Properties</b>	Low magnetism due to minimal ferrous components. Appropriate for non-critical non-magnetic applications.	Non-ferrous components; safer for applications demanding non-magnetic properties.
<b>Composition</b>	<b>Al:</b> 9.5-11% <b>Fe:</b> 3.5-5.5% <b>Ni:</b> 3.5-5.5% <b>Other:</b> 0.5% max <b>Cu:</b> Balance	<b>Be:</b> 1.8-2.1% <b>Co + Ni:</b> 0.6% max <b>Other:</b> 0.5% max <b>Cu:</b> Balance

**⚠ WARNING:** Products in this catalog can expose you to chemicals including Lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

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SEE ONLINE PAGE NUMBERS LISTED BELOW



Find your Leaks  
Fast and Easily  
with the Extending  
Tube to Get in the  
Hard to Reach  
Areas.



**Leak Check Squeeze Bottle**

8 oz. size Part # LC-80Z

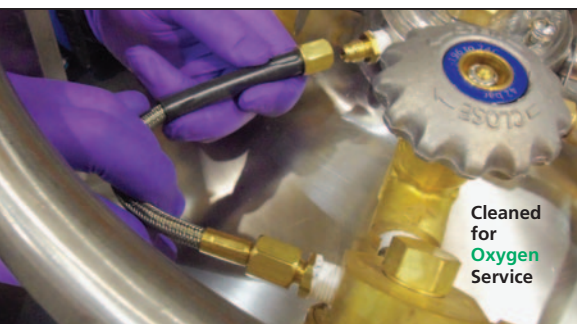
**Leak Check Gallon Size**

1 gal. size Part # LC-1GAL

READY TO USE –  
NO MIXING

Valve Leak Check

For More Sizes **SEE ONLINE PAGE 10A-21**



Cleaned  
for  
Oxygen  
Service

**Flexible Hoses for  
Pressure Builder Regulator**

Pt # PBJ-RH1112

## Other Essentials for Your Tool Kit

▶ **MOST COMMON ITEM**



**Krytox™ GPL-226 Grease**

Pt # KRY-GPL2262



**Lettering Kits for  
NFPA Placards**

Pt # PLK-NFPA-ALM-10

### FLEXIBLE HOSE FOR PRESSURE BUILDER REGULATOR Cleaned for Oxygen Service

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ PBJ-RH1112	Replacement Hose to Replace Copper Tubing for PB Regulator, 11 1/2"	29B-12	

⚠ **WARNING:** Products in this catalog can expose you to chemicals including lead which is known to the State of California to cause cancer, birth defects or reproductive harm. For more information, go to <https://www.p65warnings.ca.gov>

### VACUUM GREASE / KRYTOX™ 100% Oxygen Compatible

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ KRY-GPL2262	Krytox™ GPL-226, 2oz. (57gm) Tube	33A-9	
KRY-GPL2268	Krytox™ GPL-224 Grease, 2 oz tube	Call for Info	

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). For further info on Proposition 65, please go to [www.oehha.ca.gov/proposition-65](http://www.oehha.ca.gov/proposition-65)

### PLACARDS

Part Number	Description	ONLINE PAGE #	Quantity to Order
▶ PLK-NFPA-ALM-10	NFPA Color Diamond, 10x10 Aluminum	8A-42	
▶ PLK-NFPA-ALM-15-KIT	NFPA Color Diamond KIT, 15x15 Aluminum	8A-44	
▶ PLK-NFPA-KIT10	NFPA Numbering Kit for 10 x 10 Diamond Letters & Symbols, Removable Vinyl	8A-44	
▶ PLK-NFPA-KIT15	NFPA Numbering Kit for 15 x 15 Diamond Letters & Symbols, Removable Vinyl	8A-44	
▶ PLK-NFPA-R-10-KIT	NFPA Color Diamond KIT, 10x10 Vinyl Adhesive	8A-44	
▶ PLK-NFPA-RP-10	NFPA Color Diamond, 10x10 Plastic	8A-44	
▶ PLK-NFPA-RP-10-KIT	NFPA Color Diamond KIT, 10x10 Plastic	8A-44	
▶ PLK-NFPA-RP-15	NFPA Color Diamond, 15x15 Plastic	8A-44	
▶ PLK-NFPA-RP-15-KIT	NFPA Color Diamond KIT, 15x15 Plastic	8A-44	

⚠ **WARNING:** Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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