



**MATHESON**

The Gas Professionals

# Gases and Equipment for *Wine Production*

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





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**For more than 90 years** (including more than 40 years serving wineries) MATHESON has provided gases, equipment, and expertise to a wide range of industries – including food/beverage, laboratory research, industrial production, medicine, and many others.

At MATHESON, we are a group that is dedicated to gases, chemicals, and equipment of special importance to wine producers. We offer many of these specialized products with off-the-shelf delivery, plus, our specialists can help you choose and use these tools for optimum results.

Count on **MATHESON** for **Quality, Purity, On-time Delivery**, and **Safety**.

## Gases and Equipment for Wine Making

Wine Making Applications	Indirect Applications
Refrigeration	Laboratory Instruments
Blanketing	Vineyard Maintenance
Pressure Transfer	Facility Maintenance
Sparging	Construction Fabrication
Purging	Heating
Preservation	Power Generation
Anti-oxidation	Forklifts

Different grades/purities of gases may be chosen, depending upon the application, such as Food Grade Gases, Beverage Gases, Specialty Gases, Industrial Gases, and Welding Gases (including our exclusive MATHESON Select® Welding Mixtures).

MATHESON's full range of container types for gas or liquid supply, including dry ice, ensures that you will get exactly what you need for your application.



Dry Ice



Cylinders



Liquid Containers



MicroBulk



Cryogenic Tanks





## Gas Handling Equipment and Delivery Systems

MATHESON has 90 plus years of experience in gas handling and delivery systems and offers a complete line of products, including regulators and flowmeters specifically designed for the wine production industry. Consult your MATHESON representative to determine the system best suited to your application.

## Specialty Products for Wine Production and Facility Maintenance

Beyond gases, specialty items of interest to the wine maker can be found in this catalog.

- **Sulfurous Acid Solution**
- **Specialty Gas Dispensing Tools**
- **Sanitary Fittings & Valves**
- **Sanitary Tools & Hoses**

## Cleaning and Sanitizing Products

MATHESON offers a complete line of specialty cleaning and sanitizing products for use in your winery, including FDA registered and food-grade products.

## Safety Equipment and Supplies

MATHESON offers an extensive line of safety equipment from world class manufacturers, everything from basic personal protection to the most advanced programmable safety devices.

## Welding Equipment & Supplies

MATHESON is your source for welding power sources, consumable products, equipment and supplies. Our MATHESON *Select*® premium brand of filler metals, welding accessories and safety supplies offers the highest quality and reliable consistent performance. At every MATHESON store you will find the brands you know and trust, and a professional MATHESON staff that's experienced, trained and committed to help with solutions for your requirements for gas, equipment and supplies.

## Commitment to the Wine Industry

- **ASEV** (American Society for Enology and Viticulture) member for over 40 years
- **R & D department in Santa Rosa, CA** for winery gas applications, equipment, supplies and fittings
- **Sonoma County Wine Technical Group** member for over 30 years



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## Gas & Liquid Solution Applications

### Wine Making

	Controlling Fruit Temperature in the Vineyard during Harvest and Transport	Must Stabilization	After Pressing	Temperature Control During Fermentation in Tanks or Open Tops	Aging Wine	Pressure Transfer from Barrels to Tanks
Argon - Gas					•	•
Carbon Dioxide - Gas					•	
Carbon Dioxide - Liquid	•		•	•	•	
Carbon Dioxide - Dry Ice	•		•	•		
Nitrogen - Gas					•	•
Nitrogen - Liquid						
Sulfur Dioxide - Gas						
Sulfur Dioxide - Liquid						
Beverage Gas 1 (85% N <sub>2</sub> / 15% CO <sub>2</sub> )						
Beverage Gas 2 (75% N <sub>2</sub> / 25% CO <sub>2</sub> )						
Beverage Gas 4 (50% N <sub>2</sub> / 50% CO <sub>2</sub> )						
Beverage Gas 6 (85% Ar / 15% CO <sub>2</sub> )						
Beverage Gas O (Oxygen)				•*		
Sulfurous Acid Solution 6%		•			•	

\* Used for Micro-oxygenation

### Wine Lab

	Laboratory Instrument Support Gases
Air, Zero	•
Argon UHP	•
Helium UHP	•
Hydrogen UHP	•
Nitrogen UHP	•



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Blanketing of Storage Tanks	Sparging of Wine during Storage or Blending	Stabilization of Wine at Bottling Stage	Blanketing of the Bottling Tank	Bottle Purging during the Filling Process	Barrel Microbial Management	In the Tasting Room
•			•	•		•
•	•		•	•		•
•						
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				•		
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### Winery and Vineyard Facility Maintenance

	Welding	Heating	Cutting	Brazing
Acetylene	•	•	•	•
Argon	•			
Carbon Dioxide	•			
MATHESON Select® C-25	•			
MATHESON Select® He-25	•			
MATHESON Select® HC-925	•			
Oxygen	•	•	•	•
Propane		•	•	•



## Gas & Liquid Solution Specifications

### Wine Making

Product	Part Number	Container Size	Pressure psig @ 70°F	Container Type	Content <sup>(1)</sup>	Valve Outlet CGA No.
<b>Argon</b>	<b>AR300</b>	300	2400	Cylinder	300 cf	580
	<b>AR250</b>	250	2265	Cylinder	250 cf	580
	<b>AR230LMP</b>	L230	350	Liquid Container	230 lt	580

<b>Carbon Dioxide</b>	<b>CD50</b>	50	830	Cylinder	50 lb	320
	<b>CD50S</b>	50S**	830	Cylinder	50 lb	320
	<b>CD20</b>	20*	830	Cylinder	20 lb	320
	<b>CD20A</b>	20A+	830	Cylinder	20 lb	320
	<b>CD180LHP</b>	L180++	350	Liquid Container	180 lt	320

\* Does not include siphon tube

\*\* Includes siphon tube for liquid withdrawal

+ Includes carrying handle; does not include siphon tube

++ 160 and 200 liter liquid containers also available; consult your local MATHESON representative

<b>Solid Carbon Dioxide - Dry Ice (Pellet &amp; Rice)</b>	<b>CD DRYICEPLT</b>	N/A	N/A	N/A	***	N/A
	<b>CD ICERICE500</b>	500 lb	N/A	Box*	500 lb	N/A
	<b>CD ICERICE600</b>	600 lb	N/A	Box**	600 lb	N/A
	<b>CD ICEBOX500</b>	500 lb	N/A	Box*	500 lb	N/A
	<b>CD ICEBOX600</b>	600 lb	N/A	Box**	600 lb	N/A

N/A - Not Applicable

\* Insulated Dry Ice box

\*\* Insulated Dry Ice box on wheels

\*\*\* Dry Ice pellets sold by the pound

Other container sizes available.

<b>Nitrogen</b>	<b>NI250</b>	250	2265	Cylinder	250 cf	580
	<b>NI 180LMP</b>	L180	350	Liquid Container	180 lt	580
	<b>NI 200LMP</b>	L200	350	Liquid Container	200 lt	580
	<b>NI 230LMP</b>	L230*	350	Liquid Container	230 lt	580
	<b>NI 265LMP</b>	L265	350	Liquid Container	265 lt	580

\* On wheels

Other liquid container sizes available.

Low pressure liquid containers also available.

<b>Sulfur Dioxide</b> (Supplied in California)	<b>SD GAS150CA</b>	150 lb	34	Cylinder	150 lb	660
	<b>SD GAS25CA</b>	25 lb	34	Cylinder	25 lb	660
	<b>SD LIQ150CA</b>	150 lb	34	Cylinder	150 lb	660
	<b>SD LIQ25CA</b>	25 lb	34	Cylinder	25 lb	660

<b>Sulfur Dioxide</b> (Supplied Outside of California)	<b>SD GAS150</b>	150 lb	34	Cylinder	150 lb	660
	<b>SD GAS25</b>	25 lb	34	Cylinder	25 lb	660
	<b>SD LIQ150</b>	150 lb	34	Cylinder	150 lb	660
	<b>SD LIQ25</b>	25 lb	34	Cylinder	25 lb	660

\* Gas withdrawal

\*\* Includes siphon tube for liquid withdrawal

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

(1) Contents shown are approximate. Actual contents are based on temperature and pressure at time of fill. Except for Carbon Dioxide and Sulfur Dioxide, which are filled by weight.



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## Wine Making - continued

Product	Part Number	Container Size	Pressure psig @ 70°F	Container Type	Content <sup>(1)</sup>	Valve Outlet CGA No.
<b>Beverage Gas 1</b> (85% Nitrogen / 15% Carbon Dioxide)	<b>BX BV01200</b>	250	2265	Cylinder	200 cf	580
	<b>BX BV0160</b>	60	2015	Cylinder	60 cf	580
<b>Beverage Gas 2</b> (75% Nitrogen / 25% Carbon Dioxide)	<b>BX BV02200</b>	250	2265	Cylinder	200 cf	580
	<b>BX BV0260</b>	60	2015	Cylinder	60 cf	580
<b>Beverage Gas 4</b> (50% Nitrogen / 50% Carbon Dioxide)	<b>BX BV04200</b>	250	2265	Cylinder	200 cf	580
	<b>BX BV0460</b>	60	2015	Cylinder	60 cf	580
<b>Beverage Gas 6</b> (85% Argon / 15% Carbon Dioxide)	<b>BX BV06200</b>	250	2265	Cylinder	200 cf	580
	<b>BX BV0660</b>	60	2015	Cylinder	60 cf	580
<b>Beverage Gas O (Oxygen)</b>	<b>BV OX200</b>	200	2265	Cylinder	200 cf	540

Product	Part Number	Container Size	Working Pressure psig	Container Type	Content <sup>(1)</sup>	Inlet	Outlet
<b>Sulfurous Acid Solution 6%</b>	<b>SG H2SO3-330</b>	330 Gallon	N/A	Liquid Container	330 gal	N/A	2" Male Camlock
	<b>SG H2SO3-42</b>	42 Gallon	0-15	Liquid Container	42 gal	1/4" Male SS Quick-Connect	1/4" Male SS Quick-Connect
	<b>SG H2SO3-6</b>	6 Gallon	15	Liquid Container	6 gal	1/4" Male SS Quick-Connect	1/4" Male SS Quick-Connect
	<b>SG H2SO3-5</b>	5 Gallon	0-40	Keg	5 gal	N/A	2" Tri-clamp End Cap

## Wine Lab - Instrument Support Gases

Product	Part Number	Container Size	Pressure psig @ 70°F	Container Type	Content <sup>(1)</sup>	Valve Outlet CGA No.
<b>Air, Zero</b>	<b>CA ZERO1L</b>	300	2400	Cylinder	314 cf	590
<b>Argon UHP</b>	<b>AR UHP1L</b>	300	2400	Cylinder	331 cf	580
	<b>AR UHP1A</b>	200	2265	Cylinder	280 cf	580
<b>Helium UHP</b>	<b>HE UHP1L</b>	300	2400	Cylinder	288 cf	580
	<b>HE UHP1A</b>	200	2265	Cylinder	244 cf	580
<b>Hydrogen UHP</b>	<b>HY UHP1L</b>	300	2400	Cylinder	284 cf	350
	<b>HY UHP1A</b>	200	2265	Cylinder	219 cf	350
<b>Nitrogen UHP</b>	<b>NI UHP1L</b>	300	2400	Cylinder	300 cf	580
	<b>NI UHP1A</b>	200	2265	Cylinder	255 cf	580

(1) Contents shown are approximate. Actual contents are based on temperature and pressure at time of fill. Except for Propane, which is filled by weight.



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## Gas & Liquid Solution Specifications

### Winery and Vineyard Facility Maintenance

Product	Part Number	Container Size	Pressure psig @ 70°F	Container Type	Content <sup>(1)</sup>	Valve Outlet CGA No.
Acetylene	AC LG310VL	LG310	250	Cylinder	300-340 cf	510
	AC SMVL	SM	250	Cylinder	110-140 cf	510
Argon	AR 300	300	2400	Cylinder	300 cf	580
	AR 250	250	2265	Cylinder	250 cf	580
Carbon Dioxide	CD 50	50	830	Cylinder	50 lb	320
Oxygen	OX 250	250	2265	Cylinder	250 cf	540
	OX 125	125	2265	Cylinder	125 cf	540
Propane*	FG PR100	100	240	Cylinder	95 lb	510
	FG PR60	60	240	Cylinder	57 lb	510
	FG PR33FL	33	240	Cylinder	31 lb	510
	FG PR20	20	240	Cylinder	15 lb	510
MATHESON Select® C-25	MX AWSC25300	300	2400	Cylinder	300 cf	580
MATHESON Select® HC-925	MX AWSHC925300	300	2400	Cylinder	300 cf	580
MATHESON Select® He-25	MX AWSHE25300	300	2400	Cylinder	300 cf	580

\*Other sizes available

(1) Contents shown are approximate. Actual contents are based on temperature and pressure at time of fill. Except for Acetylene, Carbon Dioxide, and Propane, which are filled by weight.

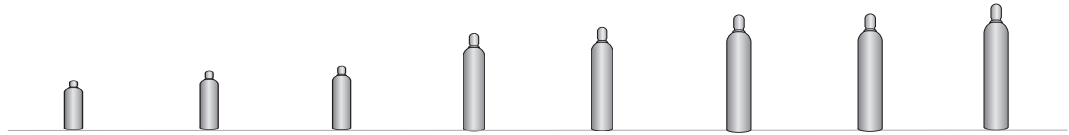
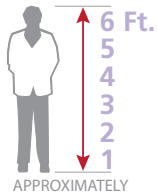


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## Common Container Dimensions

### Standard High Pressure Cylinders

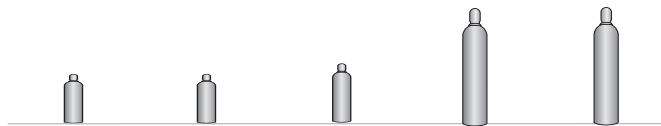
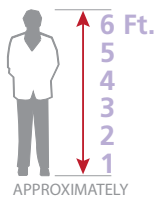


Size	60	60A	80	125	150	200	250	300
Volume (cf)	60	60	80	125	150	200	250	300
Tare Weight (lbs)	29	22.6	47	58	61	117	117	139
Height (inches)	23	28	32	43	47	51	51	55
Diameter (inches)	7	7	7	7	7	9	9	9
Water Capacity (liters)	10.3	10.7	15.4	21.6	23.4	43.2	43.2	49
Material of Construction	Steel	Aluminum	Steel	Steel	Steel	Steel	Steel	Steel

All values are approximate

Tare weight includes valve but excludes cap. Standard cap is 5 inches in length and 2 pounds in weight

### Carbon Dioxide Cylinders



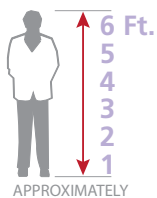
Size	20	20S*	20A	50	50S*
Volume (lbs)	20	20	20	50	50
Tare Weight (lbs)	48	50	24	104	106
Height (inches)	23	23	28	51	51
Diameter (inches)	7	7	7	9	9
Water Capacity (liters)	15.7	15.7	9.1	37.1	37.1
Material of Construction	Steel	Steel	Aluminum	Steel	Steel

\* Includes siphon tube for liquid withdrawal

All values are approximate

Tare weight includes valve but excludes cap. Standard cap is 5 inches in length and 2 pounds in weight

### Sulfur Dioxide Cylinders



Size	25 lb	150 lb
Volume (lbs)	25	150
Tare Weight (lbs)	34.5	62
Height (inches)	25	49
Diameter (inches)	12	10
Water Capacity (liters)	21.6	56
Material of Construction	Steel	Steel

All values are approximate

Tare weight includes valve but excludes cap. Standard cap is 5 inches in length and 2 pounds in weight



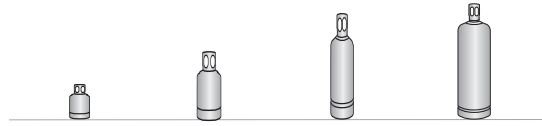
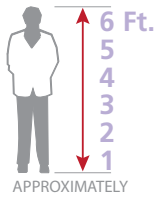
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## Common Container Dimensions

### Propane Cylinders

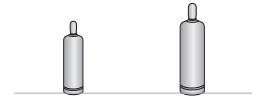


Size	20	33	60	100
Volume (lbs)	20	33	60	100
Tare Weight (lbs)	26	36	48	77
Height (inches)	19	27	44	49
Diameter (inches)	12	12	12	15
Water Capacity (liters)	21.6	36.3	64.8	108.4
Material of Construction	Steel	Steel	Steel	Steel

All values are approximate

Tare weight includes valve but excludes cap. Standard cap is 5 inches in length and 2 pounds in weight

### Acetylene Cylinders

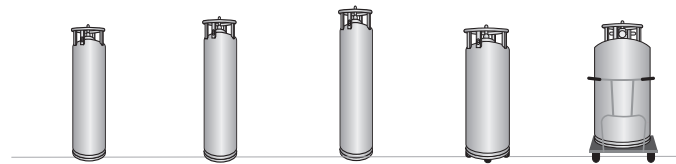
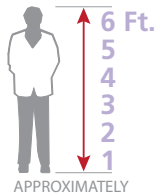


Size	SM	LG310
Volume (cf)	110-140	300-340
Tare Weight (lbs)	70	168
Height (inches)	34	41
Diameter (inches)	8	12
Water Capacity (liters)	25	53.3
Material of Construction	Steel	Steel

All values are approximate

Tare weight includes valve but excludes cap. Standard cap is 5 inches in length and 2 pounds in weight

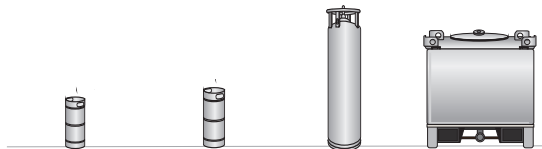
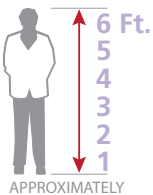
### Liquid Containers



Size	L160	L180	L200	L230	L265
Volume (lt)	160	180	200	230	265
Tare Weight (lbs)	210-280	210-300	210-300	305-367	353-430
Height (inches)	60	64	67	57	59.5
Diameter (inches)	20	20	20	26	26
Water Capacity (liters)	169	180	200	230	276
Material of Construction	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

All values are approximate

### Sulfurous Acid Solution Containers



Size	5 Gallon	6 Gallon	42 Gallon	330 Gallon
Volume (gal)	5	6	42	330
Tare Weight (lbs)	13	14	323	475
Height (inches)	24	30	64	51
Diameter (inches)	9	9	20	*
Material of Construction	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

All values are approximate

\* Width 48" and Length 42"

### Insulated Dry Ice Boxes



Size	500 lb	600 lb
Volume (lbs)	500	600
Width (inches)	36	41
Length (inches)	36	37
Height (inches)	35	40

All values are approximate



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### Model 1250 Series Dual-Stage Brass Regulator

High purity regulators constructed for use with non-corrosive gases.

#### Applications:

- Pressure transfer from barrels to tanks
- Pressure transfer for Sulfurous Acid Solution containers
- Gas blanketing and positive pressure systems
- Supply of carrier gas/detector support gas for gas chromatography applications
- Applications where a constant delivery pressure is required
- Applications with high duty cycle/demanding operating conditions

#### Design Features/Components:

- Forged brass body
- Stainless steel diaphragms (1st and 2nd stages)
- 2" inlet and delivery pressure gauges
- 1/4" FNPT outlet connection
- One-piece encapsulated seat with (10μ) internal filter to protect against contamination

#### Materials of Construction:

Gauges:	Chrome plated brass
Body:	Chrome plated forged brass
Bonnet:	Chrome plated zinc die cast (1st and 2nd stages)
Diaphragm:	First Stage – 302 stainless steel Second Stage – 302 stainless steel
Seats:	First Stage – PTFE Second Stage – PTFE
Seals:	PTFE

#### Specifications:

Maximum Inlet Pressure:	3000 psig (20,700 kPa)
Typical Max Flow (100 psi del. press.):	7 SCFM-N <sub>2</sub>
Flow Capacity (Cv):	0.15
Operating Temperature:	-20°F to 140°F (-29°C to 60°C)
Valve Outlet Connection:	1/4" FNPT
Porting (Regulator Body):	1/4" FNPT
Porting Configuration:	2 High, 2 Low, 1 Interstage
Shipping Weight:	6 lbs

#### Ordering Information

Part Number	Delivery Pressure Range	Delivery Pressure Gauge	Cylinder Pressure Gauge
<b>SEQ1251NVCGA</b>	2-15 psig	-30" Hg - 0 - 30 psi	0-4000 psig
<b>SEQ1252NVCGA</b>	4-50 psig	-30" Hg - 0 - 100 psi	0-4000 psig
<b>SEQ1253NVCGA</b>	10-125 psig	-30" Hg - 0 - 200 psi	0-4000 psig
<b>SEQ1254NVCGA</b>	20-250 psig	0-400 psig	0-4000 psig

*\*Note: For ordering, replace letters "CGA" with the valve outlet CGA number for the gas cylinder you are using. Some CGA limitations may apply.*





### Model 18 Series Single-Stage General Purpose Brass Regulator

General purpose regulators with rugged construction for use with non-corrosive gases.

#### Applications:

- Pressure transfer from barrels to tanks
- Pressure transfer for Sulfurous Acid Solution containers
- Gas blanketing and positive pressure systems
- Applications with high duty cycle/demanding operating conditions

#### Design Features/Components:

- Forged brass body
- Neoprene diaphragm
- 2" inlet and delivery pressure gauges
- 1/4" FNPT outlet connection
- Porous metal filter to protect seat from contamination

#### Materials of Construction:

Gauges:	Brass, painted steel covers
Body:	Forged brass
Bonnet:	Chrome plated zinc die cast
Diaphragm:	Neoprene
Seat:	PTFE Teflon
Seals:	Neoprene

#### Specifications:

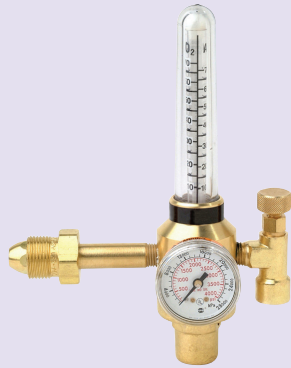
Maximum Inlet Pressure:	3000 psig (20,700 kPa)
Typical Max Flow (100 psi del. press.):	15 SCFM-N <sub>2</sub> (420 SLPM)
Flow Capacity (Cv):	0.17
Operating Temperature:	-20°F to 140°F (-29°C to 60°C)
Porting (Regulator Body):	1/4" FNPT
Porting Configuration:	2 High, 2 Low
Shipping Weight:	4 lbs

#### Ordering Information

Part Number	Delivery Pressure Range	Delivery Pressure Gauge	Cylinder Pressure Gauge
<b>SEQ18BNVCGA</b>	0-15 psig	0-30 psig	0-4000 psig
<b>SEQ18NVCGA</b>	2-50 psig	0-60 psig	0-4000 psig
<b>SEQ18LNVCGA</b>	4-100 psig	0-150 psig	0-4000 psig
<b>SEQ18HNVCGA</b>	10-200 psig	0-400 psig	0-4000 psig

*\*Note: For ordering, replace letters "CGA" with the valve outlet CGA number for the gas cylinder you are using. Some CGA limitations may apply.*





### Model 200-1 Flowmeter Regulator

#### Applications:

- Flowmeter Regulator designed to give precise flow control for in-line sparging applications

#### Design Features/Components:

- Regulator is pre-set at 20 psig
- Construction incorporates regulator and flowmeter into one compact unit
- Flow tube and float are easily changed for different gases
- Sensitive needle valve for fingertip control
- One-piece encapsulated seat design, with an internal filter and PTFE Teflon seat
- Durable, easy-to-read flow tube and cover (0-100 scfh)
- Supply pressure gauge 4000 psig
- Conforms to CGA E-4 Standard for Gas Pressure Regulators

#### Ordering Information

Part Number	Model Number	Stage	Gauge	Gas	Inlet
<b>SEQRFM2001BO</b>	200-1	Single	2" Steel	Air, Nitrogen	CGA 580



### Model M1-540-15FM Single-Stage Flowmeter Regulator

#### Applications:

- Flowmeter Regulator used for micro-oxygenation applications

#### Design Features/Components:

- Chrome-plated brass body with all brass high-pressure chamber
- Maximum rated inlet pressure 3000 psi
- Durable neoprene diaphragm
- Internal reseating relief valve protects against over-pressurization
- Sintered filter for additional safety and extended regulator life
- 2" diameter gauge
- Polycarbonate inner and outer tubes provide greater accuracy and durability

#### Ordering Information

Part Number	Model Number	Stage	Gauge	Gas	Inlet	Flow Range
<b>WES M1-540-15FM</b>	M1-540-15FM	Single	2" Chrome-plated Brass	Oxygen	CGA 540	1/2 - 15 LPM





### Carbon Dioxide Snow Horn

CO<sub>2</sub> snow horns are used with liquid and dip tube cylinders to produce CO<sub>2</sub> snow for temperature control and the effective purging of tanks, tankers, barrels, and gondolas.

#### Ordering Information

Part Number	Height	Diameter	Hose Length	Ship Weight
<b>MWB BVHOSEASSY15</b>	15"	4"	15'	5 lb
<b>MWB BVHOSEASSY25</b>	15"	4"	25'	7 lb
<b>MWB BVHOSEASSY50</b>	15"	4"	50'	10 lb
<b>MWB BVHOSEASSY75</b>	15"	4"	75'	15 lb



### Gas Blanketing Device

Gas Blanketing Devices diffuse the directional energy of the gas flow in tanks and tankers and allow the molecular weight of the gas to blanket gently (laminar flow).

Blanketing devices can be used with Argon, Nitrogen, Carbon Dioxide, and Beverage Gas mixtures. These blanketing devices reduce oxygen levels in minutes.

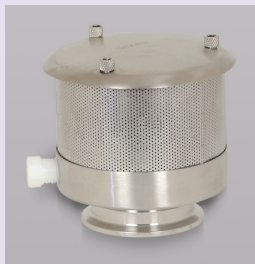
Available in 4" (stainless steel) and 1-1/2" (stainless steel).

#### Ordering Information

Part Number	Height	Diameter	Ship Weight
<b>MWB GASBLANKET4S</b>	5"	4"	6 lb
<b>MWB GASBLANKET15</b>	5"	1-1/2"	4 lb







### Tri-Action Tank Safety Vent

The Tri-Action Tank Safety Vent is used as a pressure relief device to avoid vacuum or over pressurization inside a tank or piping system.

- Standard 2" Tri-clamp connection
- Large 1/4" FNPT gas port
- Stainless steel construction
- Can be used with positive pressure system
- Other sizes and connections available

#### Sealer

Through the unique design of the Tri-Action Tank Safety Vent, the tank is automatically sealed from ambient air once blanketing, bottling, or pumping operations have ceased.

#### Pressure Relief

The Tri-Action Tank Safety Vent is designed to relieve pressure within the tank at 1 psi.

#### Vacuum Breaker

The Tri-Action Tank Safety Vent drops to a safe working vacuum of 0.09 psi.

#### Ordering Information

Part Number	Pressure Rating @ 70°F	Flow	Ship Weight
<b>DIX TVPC200300</b>	3 psi	250 GPM	2.6 lb



### In-Line Sparger with Check Valve

*Adjust the Oxygen and Carbon Dioxide accurately and effectively with our In-Line Sparger!*

The In-Line Sparger's unique design allows the wine to pass on top and around the diffuser surface generating turbulence and very small bubbles.

When used with a nitrogen regulator/flowmeter, you can sparge very effectively with the least amount of stripping of volatiles and aromatics.

#### Features:

- 10 micron stainless steel diffuser
- Standard 2" Tri-clamp connection
- Clean out ports on both ends of stainless steel diffuser
- Other sizes and connections available

#### Ordering Information

Part Number	Height	Diameter	Length	Ship Weight
<b>MWB 2SPARGERASSY</b>	8"	2"	7"	8 lb





### Swivel Racking Arm

- Used to transfer wine from tanks for blending or bottling
- Clamps in racking port and swivels for safe and efficient racking of tanks
- Available in 2" Tri-clamp connection
- Stainless steel construction
- Custom lengths and sizes available

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB RACKARMSWIVL</b>	36"	2"	10"	10 lb



### Long Radius Racking Arm

- Used to transfer wine from barrels in place
- Stainless steel construction
- Shown with 1-1/2" Tri-clamp connection
- Custom lengths and sizes available

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB RACKARMLONG</b>	36"	1"	18"	6 lb



### Standard Racking Arm

- Used to transfer wine from barrels or kegs
- Easy to use with a single level of barrels
- Stainless steel construction
- Shown with 1-1/2" Tri-clamp connection
- Custom lengths and sizes available

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB RACKINGARM</b>	34"	1"	3"	8 lb



### Deluxe Racking Arm

- Used to transfer wine from barrels or kegs
- Site glass
- Adjustable foot
- Stainless steel construction
- Shown with 1" full port stainless steel ball valve
- Custom lengths and sizes available

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB DLXRACKNGARM</b>	36"	1"	7"	8 lb





Shown with SO<sub>2</sub> Wrench and SO<sub>2</sub> Hose

### SO<sub>2</sub> Barrel Gassing Unit

Prepare barrels for storage quickly and easily by controlling the bacteria and mold. The SO<sub>2</sub> Barrel Gassing Unit is designed to put measured amounts of SO<sub>2</sub> into empty barrels prior to storage.

#### Ordering Information

Part Number	Height	Width	Hose Length	Ship Weight
<b>MWB SO2BGU25</b>	5"	12"	25'	8 lb
<b>MWB SO2BGU50</b>	5"	12"	50'	10 lb
<b>MWB SO2BGU75</b>	5"	12"	75'	14 lb



1,000 gm 5,000 gm

### Pure SO<sub>2</sub> Dispenser

SO<sub>2</sub> dispensers allow accurate measurement of pure liquid SO<sub>2</sub> additions to wine. These 316L stainless steel pressure vessel dispensers have a fill valve, liquid valve, and a gas/vent valve.

The dispensers also have a recessed graduated cylinder for easy viewing of the SO<sub>2</sub> level and a bottom drain port for easy cleaning.

#### Available in two sizes:

- 1000 gram dispenses in 10 gram increments
- 5000 gram dispenses in 50 gram increments
- Replacement parts available

#### Ordering Information

Part Number	Height	Width	Ship Weight
<b>CAD ALPEDISP1000</b>	22"	10"	16 lb
<b>CAD ALPEDISP5000</b>	25"	9"	25 lb





**H<sub>2</sub>SO<sub>3</sub> Digital Solution Dispenser with 5 Gallon Cart**

### H<sub>2</sub>SO<sub>3</sub> Digital Solution Dispenser

This programmable digital dispenser will deliver a 6% Sulfurous Acid Solution (H<sub>2</sub>SO<sub>3</sub>) in milliliters.

The dispenser can be used at the crusher during harvest or connected directly to the must pump.

The dispenser is also used for barrel additions.

The dispenser allows the operator to remotely start H<sub>2</sub>SO<sub>3</sub> additions using a digital radio transmitter.

The batch controller automatically shuts off the H<sub>2</sub>SO<sub>3</sub> flow when the desired quantity is measured by the flowmeter.

#### Features:

- Remote controlled activation
- Accurate, reliable, safe
- Can be used to dispense any liquid solution, such as tartaric acid
- Maintains a constant solution percentage and exact metered measurement
- Closed dispensing system minimizes exposure to acid gas vapors
- Wetted surfaces stainless steel construction
- 110 A/C or rechargeable battery

#### Ordering Information

Part Number	Height	Width	Depth	Ship Weight
<b>MWB SO2DISPENSER*</b>	10"	12"	4"	15 lb
<b>MWB SO2DISPENSBU**</b>	10"	12"	4"	23 lb

\* 110 A/C

\*\* Rechargeable battery



**42 gallon liquid cylinder cart**

#### Options:

- 5 gallon stainless steel cart allows the operator to move between narrow barrel rows
- 42 gallon liquid cylinder cart allows the operator to easily and safely move the liquid cylinder around the winery

#### Ordering Information

Part Number	Description	Height	Width	Depth	Ship Weight
<b>MWB SS5GTOPCART</b>	5 Gallon Cart	41"	18"	24"	32 lb
<b>ANT 87U-4</b>	42 Gallon Cart	46"	28"	N/A	92 lb
<b>ANT 6114</b>	Folding Rear Assembly *	46"	15"	N/A	30 lb
<b>ANT 6114-R</b>	Stationary Rear Assembly *	46"	15"	N/A	30 lb

\* Large 4" replacable rear caster, heavy gauge toeplate, 10" solid rubber tires secured with locknets (no cotter pins)

### Pressure Transfer Device for Sulfurous Acid Solution

#### Features:

- 2" Tri-clamp connection
- 1/4" male stainless steel quick connections
- Stainless steel construction
- Used with inert gas
- Stainless steel 15 psi pressure relief valve

#### Ordering Information

Part Number	Length	Width	Ship Weight
<b>MWB KEGASSY</b>	29"	8"	8 lb







### Gentle Giant

The Gentle Giant uses inert gas pressure to transfer wine allowing easily controlled, gentle flow without agitation or oxidation.

#### Features:

- Adjustable foot and bung for use with various sizes of barrels and kegs
- Stainless steel construction
- Built-in 15 psi stainless steel safety relief valve to prevent over pressurization
- 1-1/2" Tri-clamp connection
- Used with Nitrogen or Argon
- Shown with short Sight Glass
- Custom lengths available

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB BARRELMASTER</b>	36"	1"	12"	10 lb
<b>MWB BRLMASTER114</b>	36"	1-1/4"	12"	10 lb



### Keg Pressure Transfer Device

Used for pressure transfer of wine from kegs or drums.

#### Features:

- 2" and 4" Tri-clamp connection
- 1/4" MNPT connections
- Stainless steel construction
- Used with inert gas
- Custom lengths and sizes available

#### Ordering Information

Part Number	Length	Width	Ship Weight
<b>MWB SSKEGASSY2 (2")</b>	28"	8"	7 lb
<b>MWB SSKEGASSY4 (4")</b>	28"	10"	8 lb



### Barrel Topping Gun

Used to top-off wine barrels.

#### Features:

- 1/2" FNPT connection
- Stainless steel construction
- Spring loaded handle
- Removable plug for easy cleaning
- Rebuild kit available\*

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB TOPGUNSTD SS</b>	10"	1/2"	5"	2 lb

\* Rebuild Kit (p/n BRA BTGKIT)



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### Barrel Cleaning Wand with Foot

- Used with a 7" barrel rack
- Stainless steel construction
- Shown with rotating spray head and 3/4" full port stainless steel ball valve

#### Ordering Information

Part Number	Height	Diameter	Length	Ship Weight
<b>MWB BCWANDFOOT</b>	19"	1"	19"	8 lb



### Spring Loaded Barrel Cleaning Wand

- Used with any barrel rack
- Spring loaded for hands free operation
- Stainless steel construction
- Shown with rotating spray head and 3/4" full port stainless steel ball valve

#### Ordering Information

Part Number	Length	Diameter	Width	Ship Weight
<b>MWB WASHWANDSPR</b>	28"	1"	5"	8 lb



### Spray Balls

Spray balls are the most widely used tank and barrel cleaning method for sanitary applications.

#### Features:

- Durable stainless steel construction
- Stationary and rotating
- 3/4" FNPT and pinned connections
- Easy mounting
- Photo shows sizes and styles available
- Rebuild kit available\*

#### Ordering Information

Part Number	Height	Diameter	Ship Weight
<b>SSP 2</b>	3"	1-1/4"	2 lb

\* Rebuild Kit (p/n SSP REBUILDKIT)



### Stirring Wands

Stirring wand ensures that the lees and the additions are completely mixed into the wine.

- Stainless steel construction
- Custom lengths and sizes available

#### Single Handle

- For use with single level barrels (unstacked)

##### Ordering Information

Part Number	Length	Width	Ship Weight
<b>MWB BARRELWAND</b>	36"	4"	4 lb



Single Handle

#### Double Handle

- Curved to allow insertion between barrels stacked in racks

##### Ordering Information

Part Number	Length	Width	Ship Weight
<b>MWB BARRELWANDDB</b>	51"	8"	8 lb



Double Handle

### Punch Down Device

- Used for punching down and mixing the must cap during fermentation
- 1-1/2" stainless steel construction
- Base: 10"x10" with perforations
- Handle: 12"
- Custom sizes and styles available

##### Ordering Information

Part Number	Height	Ship Weight
<b>MWB PUNCHDWNHRT</b>	66"	14 lb





### Kegs for Wine Storage or Topping Barrels

#### Two Sizes available:

- 5.17 gallon stainless steel keg comes with 2" Tri-clamp connection
- 15.5 gallon stainless steel keg comes with 2" or 4" Tri-clamp connection

#### Ordering Information

Part Number	Height	Diameter	Ship Weight
<b>KEG SS5.17GAL2TC (2")</b>	24"	10"	15 lb
<b>KEG SS15.5GAL2TC (2")</b>	24"	17"	20 lb
<b>KEG SS15.5GAL4TC (4")</b>	24"	17"	20 lb



5.17 Gallon Keg Cart

### Keg Carts for Topping Barrels

- Compact design to fit between barrel rows
- Available with a 5.17 Gallon Keg or a 15.5 Gallon Keg

#### Ordering Information

Part Number	Height	Width	Depth	Ship Weight
<b>MWB SS5GTOPCART</b>	41"	18"	24"	32 lb
<b>MWB SS15GKEGCART</b>	34"	17"	28"	26 lb



### Stainless Steel Pails

- Available in 3.5 and 5 gallon sizes

#### Ordering Information

Part Number	Description	Height	Diameter	Ship Weight
<b>TWM 5055PAIL09HL</b>	3.5 Gallon	14"	12"	5 lb
<b>TWM 5055PAIL18H</b>	5 Gallon	14"	16"	10 lb

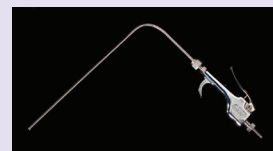




Shown with regulator and 10 micron diffuser



O<sub>2</sub> Regulator Flowmeter



### Micro-Oxygenation Equipment

The micro-oxygenation process is diffusing tiny gas bubbles using a microporous sintered stainless steel diffuser, along with an oxygen regulator/flowmeter that has been calibrated in liters per minute.

The use of a high purity food grade gas such as "Beverage Gas O" for Oxygen or Compressed Air is recommended to avoid any risk of wine contamination.

#### Features:

- Regulator calibrated in liters per minute
- Stainless steel diffuser available in 10 micron

#### Ordering Information

Part Number	Description	Height	Width	Ship Weight
<b>WES M1-540-15FG</b>	Regulator	8"	8"	5 lb
<b>MWB DIFFUSER410</b>	10 Micron Diffuser	4"	1"	2 lb
<b>WES M1-540-15FM</b>	O <sub>2</sub> Regulator Flowmeter	10"	6"	5 lb

### A Frame Parts Board

Used to store and clean winery parts.

#### Features:

- Perforated stainless steel allows for various layout of parts
- Stainless steel construction
- Two lockable swivel stainless steel casters for easy maneuverability
- Open center allows for multiple storage
- Designed to fit through 36" doorways
- Custom configurations available
- Stainless steel pegs sold separately

#### Ordering Information

Part Number	Height	Width	Length	Ship Weight
<b>MWB PARTSBOARD</b>	52"	34"	52"	175 lb

### Bottle Blanketing Device

Used to blanket open bottles of wine to prevent oxidation and wine spoilage. When used with Beverage Gas mixtures the device produces a blanket of protective atmosphere on the wine's surface and displaces oxygen.

#### Features:

- Single hand operation
- Thumb operated gassing valve
- Stainless steel blanketing tube
- Different hose lengths available

#### Ordering Information

Part Number	Width	Length	Ship Weight
<b>MWB 601GASINGGUN</b>	11"	10"	1 lb



### Quick-Connect Couplers

These Quick-Connect couplers are ideal for compressed gas applications due to their unique eight stainless steel ball bearing seal system, which prevents leaks. They are machined components that are manufactured using brass and stainless steel bar stock. They also have stainless steel ball retaining rings and springs, which maximize corrosion resistance and extend the service life.

#### Features:

- EPDM seals provide a temperature range of -40°F to 250°F
- Valve seals are crimped in place to ensure integrity during excessive flow and pressurized conditions
- Check valves are standard and built-in
- 1/4" stainless steel couplers have a PTFE anti-extrusion ring
- 1/4" brass couplers have a redundant O-ring sealing system (dual O-rings; no PTFE back-up ring)
- Other body sizes available with or without check valves



1/4" Brass

1/4" Stainless Steel

### Male Quick-Connect Couplers

#### Ordering Information

Part Number	Body Size	Material	Threads	Length	Maximum OD	Hex Inch
<b>DIX PH2F2B</b>	1/4"	Brass	1/4" - 18 FNPT	1.55"	0.83"	3/4"
<b>DIX PH2F2S</b>	1/4"	Stainless Steel	1/4" - 18 FNPT	1.55"	0.83"	3/4"
<b>DIX H6F6B</b>	3/4"	Brass	3/4" - 14 FNPT	3.55"	1.12"	2.22"
<b>DIX H6F6S</b>	3/4"	Stainless Steel	3/4" - 18 FNPT	3.55"	1.12"	2.22"



1/4" Brass

1/4" Stainless Steel

### Female Quick-Connect Couplers

#### Ordering Information

Part Number	Body Size	Material	Threads	Length	Maximum OD	Hex Inch
<b>DIX P2HF2B</b>	1/4"	Brass	1/4" - 18 FNPT	2.26"	1.12"	7/8"
<b>DIX P2HF2S</b>	1/4"	Stainless Steel	1/4" - 18 FNPT	2.26"	1.12"	7/8"
<b>DIX 6HF6B</b>	3/4"	Brass	3/4" - 14 FNPT	3.55"	1.12"	2.22"
<b>DIX 6HF6S</b>	3/4"	Stainless Steel	3/4" - 18 FNPT	3.55"	1.12"	2.22"



## Clamp Ferrules

### Short Weld Ferrules - 14WMP

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	B	C
<b>BRA 14WMPG100</b>	1"	.500	.870	1.000
<b>BRA 14WMPG150</b>	1½"	.500	1.370	1.500
<b>BRA 14WMPG200</b>	2"	.500	1.870	2.000
<b>BRA 14WMPG250</b>	2½"	.500	2.370	2.500
<b>BRA 14WMPG300</b>	3"	.500	2.870	3.000
<b>BRA 14WMPG400</b>	4"	.625	3.834	4.000

### Long Weld Ferrules - L14AM7

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	B	C
<b>BRA L14AM7G100</b>	1"	1.125	.870	1.000
<b>BRA L14AM7G150</b>	1½"	1.125	1.370	1.500
<b>BRA L14AM7G200</b>	2"	1.125	1.870	2.000
<b>BRA L14AM7G250</b>	2½"	1.125	2.370	2.500
<b>BRA L14AM7G300</b>	3"	1.125	2.870	3.000
<b>BRA L14AM7G400</b>	4"	1.125	3.834	4.000

### Single Pin Heavy Duty Clamps with Cross Hole Wing Nut - 13MHM

#### Ordering Information

Part Number	Tube OD	Service Pressure Rating @ 70°F	Service Pressure Rating @ 250°F	A
<b>BRA 13MHM100150</b>	1" - 1½"	500	300	2.122
<b>BRA 13MHM200</b>	2"	450	250	2.654
<b>BRA 13MHM250</b>	2½"	400	200	3.185
<b>BRA 13MHM300</b>	3"	350	175	3.717
<b>BRA 13MHM400</b>	4"	300	150	4.820





## Clamp Elbows

### 90° Clamp Elbows - B2CMP

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	R
<b>BRA B2CMPG100</b>	1"	2.000	1.500
<b>BRA B2CMPG150</b>	1½"	2.750	2.250
<b>BRA B2CMPG200</b>	2"	3.500	3.000
<b>BRA B2CMPG250</b>	2½"	4.250	3.750
<b>BRA B2CMPG300</b>	3"	5.000	4.500
<b>BRA B2CMPG400</b>	4"	6.625	6.000

## Clamp Gaskets

### Buna-N Clamp Gaskets - Black

#### Features:

- Color code: red dot
- Meets 21CFR 177.2600

#### Ordering Information

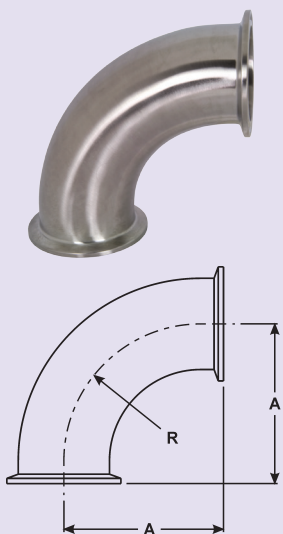
Part Number	Size
<b>BRA 40MPU100</b>	1"
<b>BRA 40MPU150</b>	1½"
<b>BRA 40MPU200</b>	2"
<b>BRA 40MPU250</b>	2½"
<b>BRA 40MPU300</b>	3"
<b>BRA 40MPU400</b>	4"

## Clamp Reducers

### Clamp Concentric Reducers - B3114MP

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A
<b>BRA B3114MPG2015</b>	2" x 1½"	3.000
<b>BRA B3114MPG2502</b>	2½" x 2"	3.000
<b>BRA B3114MPG3015</b>	3" x 1½"	7.000
<b>BRA B3114MPG3020</b>	3" x 2"	5.000
<b>BRA B3114MPG3025</b>	3" x 2½"	3.000
<b>BRA B3114MPG4020</b>	4" x 2"	9.125
<b>BRA B3114MPG4030</b>	4" x 3"	5.125



Type 1 - Standard  
½" - ¾"



Type 1 - Standard  
1" and larger



## Clamp Elbows

### 45° Clamp Elbows - B2KMP

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	R
<b>BRA B2KMPG150</b>	1½"	1.437	2.250
<b>BRA B2KMPG200</b>	2"	1.750	3.000

## Miscellaneous Clamp Configurations

### Clamp Laterals - B28AMP

#### Ordering Information

316L Stainless Steel Part Number	Tube OD	A	B	C
<b>BRA B28AMPR100</b>	1"	7.000	1.500	5.500
<b>BRA B28AMPR150</b>	1½"	8.375	1.688	6.688
<b>BRA B28AMPR200</b>	2"	9.750	2.125	7.625
<b>BRA B28AMPR300</b>	3"	11.750	2.375	9.375
<b>BRA B28AMPR400</b>	4"	14.062	2.640	11.312

### Clamp True Wyes - B28BMP

#### Ordering Information

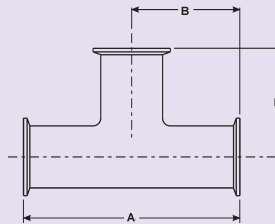
316L Stainless Steel Part Number	Tube OD	A	B
<b>BRA B28BMPR100</b>	1"	2.500	2.938
<b>BRA B28BMPR150</b>	1½"	2.500	2.938
<b>BRA B28BMPR200</b>	2"	3.125	3.750
<b>BRA B28BMPR300</b>	3"	4.500	5.375
<b>BRA B28BMPR400</b>	4"	6.000	6.000

### Clamp Crosses - B9MP

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	B
<b>BRA B9MPG100</b>	1"	4.750	2.375
<b>BRA B9MPG150</b>	1½"	5.500	2.750
<b>BRA B9MPG200</b>	2"	7.000	3.500
<b>BRA B9MPG300</b>	3"	7.500	3.750
<b>BRA B9MPG400</b>	4"	9.000	4.500



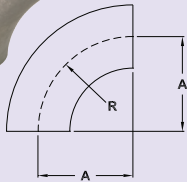
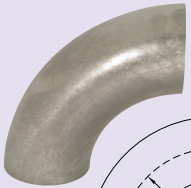


### Miscellaneous Clamp Configurations

#### Clamp Tees - B7MP

##### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	B
<b>BRA B7MPG100</b>	1"	4.750	2.375
<b>BRA B7MPG150</b>	1½"	5.500	2.750
<b>BRA B7MPG200</b>	2"	7.000	3.500
<b>BRA B7MPG300</b>	3"	7.500	3.750
<b>BRA B7MPG400</b>	4"	9.000	4.500

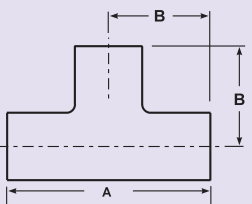


### Unpolished Elbows

#### Unpolished 90° Weld Elbows - B2WCL

##### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	R	Nominal Wall
<b>BRA B2WCLG100U</b>	1"	1.500	1.500	.065
<b>BRA B2WCLG150U</b>	1½"	2.250	2.250	.065
<b>BRA B2WCLG200U</b>	2"	3.000	3.000	.065
<b>BRA B2WCLG300U</b>	3"	4.500	4.500	.065
<b>BRA B2WCLG400U</b>	4"	6.000	6.000	.083



### Unpolished Tees

#### Unpolished Long Weld Tees - B7W

##### Ordering Information

304 Stainless Steel Part Number	Tube OD	A	R	Nominal Wall
<b>BRA B7WG100U</b>	1"	3.750	1.875	.065
<b>BRA B7WG150U</b>	1½"	4.500	2.250	.065
<b>BRA B7WG200U</b>	2"	6.000	3.000	.065
<b>BRA B7WG300U</b>	3"	6.500	3.250	.065
<b>BRA B7WG400U</b>	4"	7.750	3.875	.083



### Miscellaneous Unpolished Configurations

#### Unpolished Weld Laterals - B28WA

##### Ordering Information

316L Stainless Steel Part Number	Tube OD	A	B	C	Nominal Wall
<b>BRA B28WAR100U</b>	1"	6.000	1.000	5.000	.065
<b>BRA B28WAR150U</b>	1½"	7.375	1.188	6.188	.065
<b>BRA B28WAR200U</b>	2"	8.750	1.625	7.125	.065
<b>BRA B28WAR300U</b>	3"	10.750	1.875	8.875	.065
<b>BRA B28WAR400U</b>	4"	12.812	2.015	10.750	.083

#### Unpolished Weld True Wyes - B28W

##### Ordering Information

316L Stainless Steel Part Number	Tube OD	A	B	Nominal Wall
<b>BRA B28WR100U</b>	1"	2.000	2.438	.065
<b>BRA B28WR150U</b>	1½"	2.000	2.438	.065
<b>BRA B28WR200U</b>	2"	2.625	3.250	.065
<b>BRA B28WR300U</b>	3"	4.000	4.875	.065
<b>BRA B28WR400U</b>	4"	5.375	5.375	.083

### Clamp Adapters

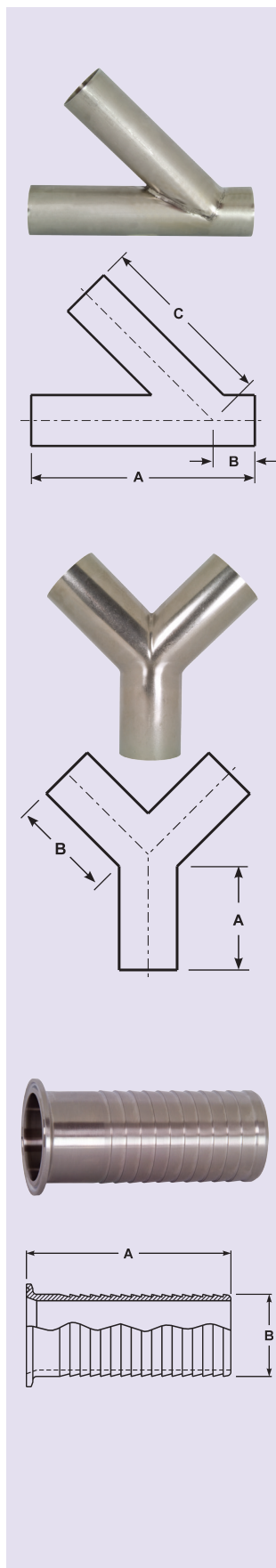
#### Hose Barb Adapters - 14MPHRL

##### Features:

- Suitable for use with band clamps

##### Ordering Information

304 Stainless Steel Part Number	Size	A	B
<b>BRA 14MPHRL100</b>	1"	3.500	1.045
<b>BRA 14MPHRL150</b>	1½"	5.000	1.545
<b>BRA 14MPHRL200</b>	2"	5.000	2.045
<b>BRA 14MPHRL300</b>	3"	5.500	3.045
<b>BRA 14MPHRL400</b>	4"	5.500	4.045



## I-line/Q-line Ferrules

### Male I-Line Short Weld Ferrules - 14WI

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A
<b>BRA 14WIG100</b>	1"	.600
<b>BRA 14WIG150</b>	1½"	.765
<b>BRA 14WIG200</b>	2"	.790
<b>BRA 14WIG300</b>	3"	.906
<b>BRA 14WIG400</b>	4"	1.031

### Female I-Line Short Weld Ferrules - 15WI

#### Ordering Information

304 Stainless Steel Part Number	Tube OD	A
<b>BRA 15WIG100</b>	1"	.785
<b>BRA 15WIG150</b>	1½"	.950
<b>BRA 15WIG200</b>	2"	1.040
<b>BRA 15WIG300</b>	3"	1.220
<b>BRA 15WIG400</b>	4"	1.350

## I-line/Q-line Clamps

### Heavy Duty Clamps - 13ILH

- Q-line service pressure rating for all sizes:  
150 PSI @ 70°F and 125 PSI @ 250°F

#### Ordering Information

Part Number	Tube OD	Service Pressure Rating @ 70°F <sup>1</sup>	Service Pressure Rating @ 250°F <sup>1</sup>	A
<b>BRA 13ILH100150</b>	1" - 1½"	700	250	2.122
<b>BRA 13ILH200</b>	2"	450	250	2.654
<b>BRA 13ILH300</b>	3"	350	150	3.717
<b>BRA 13ILH400</b>	4"	200	125	4.820

<sup>1</sup> wing nut tightened to 25 in. lb. of torque





### I-Line Gaskets

#### Buna-N I-Line Gaskets - Black 3/32"

##### Features:

- Color code: red dot
- Meets 21CFR 177.2600

##### Ordering Information

Part Number	Size
<b>BRA 40IH100</b>	1"
<b>BRA 40IH150</b>	1½"
<b>BRA 40IH200</b>	2"
<b>BRA 40IH300</b>	3"
<b>BRA 40IH400</b>	4"



### ASTM-A270 Polished ID and OD Tubing

#### Polished ID and OD - ASTM-A270

##### Ordering Information

304 Stainless Steel Part Number	Size
<b>BRA A270G100P</b>	1"
<b>BRA A270G150P</b>	1½"
<b>BRA A270G200P</b>	2"

Available in 20' lengths



### ASTM-A269 Unpolished ID and OD Tubing

#### Unpolished ID and OD - ASTM-A269

##### Ordering Information

304 Stainless Steel Part Number	Size
<b>BRA A269G100U</b>	1"
<b>BRA A269G150U</b>	1½"
<b>BRA A269G200U</b>	2"

Available in 20' lengths





### Washdown Accessories

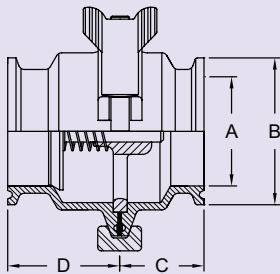
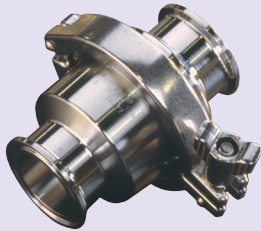
#### Spray Nozzle - Aluminum

##### Features:

- For low pressure cleaning and sanitation applications
- Rear mounted levers - reduce hand fatigue and offer smooth lever action
- Variable spray patterns; adjustable from fan spray to solid stream
- Water conservation is assured upon release of lever by the drip-free automatic shutoff feature
- ½" FNPT inlet
- Rating: 150 PSI / 200°F (93°C)
- **Do not use with steam lines** ⚠

##### Ordering Information

Part Number	Cover Color
<b>SWP 150Alb</b>	Light Blue



#### Spring Check Valves

##### Features:

- 3A Standards 58-00, Check Valves and Vacuum Breakers
- Full size flow plate
- Long stem bushing for increased cycle life
- Suitable for low and medium viscosity fluids
- Field serviceable (no special tools required) various end connections available
- Sizes from ½" thru 4"
- Operating temperature range: 15°F to 200°F
- Maximum operating pressure: 145 PSI

##### Ordering Information

316L Stainless Steel Part Number	Size	A	B	C	D
<b>BRA B46MPR100</b>	1"	0.87	1.99	1.37	1.92
<b>BRA B46MPR150</b>	1½"	1.37	1.99	1.44	1.92
<b>BRA B46MPR200</b>	2"	1.87	2.52	1.44	1.92







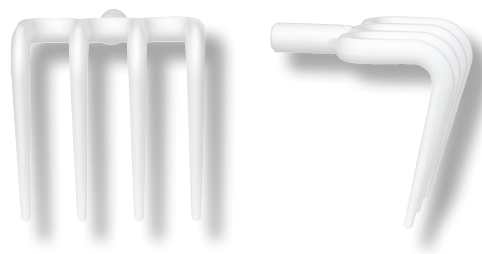
### Vikan Hygienic Rake Head

#### Features:

- The Hygienic rake is used for various winery applications
- It requires a European-thread handle

#### Ordering Information

Part Number	Length	FDA Compliant Raw Material	Material	Weight	Color
<b>REM 56915</b>	8"	Yes	Polypropylene	1 lb	White



### Vikan Handle for Hygienic Rake Head

#### Ordering Information

Part Number	Length	Handle Diameter	FDA Compliant Raw Material	Material	Other Material	Weight	Color
<b>REM 29595</b>	57.48"	0.98"	Yes	Aluminum	Polypropylene	0.57 lb	White

This standard handle can be used with the Hygienic Rake Head



### Vikan Small Utility Brush-Stiff

#### Features:

- This small, light-weight brush has a broad head and an ergonomically angled handle
- Used for cleaning small surface areas on production equipment, tables, etc

#### Ordering Information

Part Number	Length	FDA Compliant Raw Material	Block Material	Bristle Material	Weight	Color
<b>REM 30895</b>	10.5"	Yes	Polypropylene	Polyester	2 lb	White





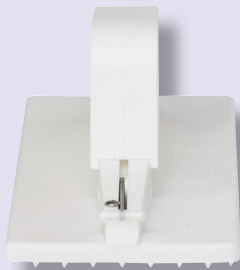
### Vikan Shovel

#### Features:

- This one-piece, heavy duty polypropylene shovel is tough, lightweight, and hygienic
- Used for various winery applications

#### Ordering Information

Part Number	Length	Width	FDA Compliant Raw Material	Material	Weight	Color
<b>REM 69825</b>	42"	14"	Yes	Polypropylene	4 lb	White



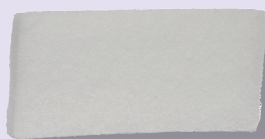
### Vikan Handheld Pad Holder

#### Features:

- This hand-held pad holder is an excellent tool for cleaning walls and tanks
- The clip mechanism is stainless steel, which prevents the pad from falling off once heavy with water

#### Ordering Information

Part Number	Length	FDA Compliant Raw Material	Material	Weight	Color
<b>REM 55105</b>	9"	Yes	Polypropylene	5 lb	White



### Vikan Pad

#### Features:

- This soft pad is gentle enough to clean stainless steel tanks

#### Ordering Information

Part Number	Length	Weight	Color
<b>REM 5525</b>	10"	1 lb	White





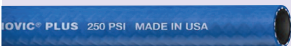
### Continental Vintner™ Reserve Hose

Primarily used for liquid transfer in wineries.

- **Construction Tube:** White Chlorobutyl tube won't impart rubbery tastes or smells
- **Cover:** Gray EPDM synthetic rubber (wrapped)
- **Reinforcement:** Spiral-ply synthetic fabric with monofilament helix
- **Working/Burst Pressure:** 250 PSI/1000 PSI
- **Temperature Range:** -30°F to 220°F
- **Packaging:** Sold per foot; maximum 100' length

#### Ordering Information

Part Number	Inside Diameter	Outside Diameter	Working Pressure	Bend Radius	Vacuum HG	Weight
CTT 20943391	1"	1.56"	250 psi	3"	27"	0.60 lb/ft
CTT 20943392	1-1/2"	2.06"	250 psi	4"	27"	0.83 lb/ft
CTT 20943393	2"	2.61"	250 psi	7"	27"	1.18 lb/ft



### Continental Pliovic® Plus Hose

Lightweight, economical general purpose hose for carrying air, water and many spray solutions.

- **Construction Tube:** Pliovic®, ARPM Class B (Medium Oil Resistance)
- **Cover:** Blue, Pliovic®, ARPM Class B (Medium Oil Resistance)
- **Reinforcement:** Spiral synthetic yarn
- **Working/Burst Pressure:** 250 PSI/1000 PSI
- **Temperature Range:** -10°F to 158°F
- **Packaging:** Sold per foot; maximum 450' length

#### Ordering Information

Part Number	Inside Diameter	Outside Diameter	Working Pressure	Bend Radius	Vacuum HG	Weight
GDY 20012678	3/4"	1.11"	250 psi	3"	27"	0.28 lb/ft



### Continental Horizon Wash Down Hose

A multi-purpose industrial hose for medium pressure wash down.

- **Construction Tube:** Versigard synthetic rubber, RMA class C (Limited Resistance)
- **Cover:** Red Versigard synthetic rubber
- **Reinforcement:** Spiral synthetic yarn
- **Temperature Range:** -40°F to 190°F
- **Packaging:** Sold per foot; maximum 500' length

#### Ordering Information

Part Number	Inside Diameter	Nominal Outside Diameter	Maximum Working Pressure	Weight
GDY 20026290	3/4"	1.12"	200 psi	0.34 lb/ft





### Kanaflex 210 HFG Suction Hose

Heavy-duty food grade suction hose for bottling and pressure transfer.

- **Construction:** Produced entirely of compounds in compliance with FDA and 3-A nontoxic specifications, flexible PVC, rigid PVC helix, smooth bore, and smooth O.D.
- **Temperature Range:** -13°F to 140°F
- **Packaging:** Sold per foot; maximum 100' length

#### Ordering Information

Part Number	Inside Diameter	Nominal Outside Diameter	Pitch	Minimum Bend Radius (72° F)	Working Pressure (72° F)	Vacuum Rating (72° F, in HG)	Weight
<b>KAN 210HFG1</b>	1"	1.25"	0.22"	1.9"	86 psi	29.8	0.26 lb/ft
<b>KAN 210HFG112</b>	1-1/2"	1.82"	0.30"	2.8"	72 psi	29.8	0.44 lb/ft
<b>KAN 210HFG2</b>	2"	2.39"	0.33"	3.9"	72 psi	29.8	0.74 lb/ft
<b>KAN 210HFG4</b>	4"	4.53"	0.43"	9.1"	55 psi	29.8	2.01 lb/ft



### Kanaflex Kanaline FW Suction and Discharge Hose

Heavy-duty food grade suction and discharge hose for bottling and pressure transfer.

- **Construction:** Produced entirely of compounds in compliance with FDA and 3-A nontoxic specifications, flexible PVC, rigid PVC helix, synthetic braiding, smooth bore, and corrugated O.D.
- **Temperature Range:** -13°F to 140°F
- **Packaging:** Sold per foot; maximum 100' length

#### Ordering Information

Part Number	Inside Diameter	Nominal Outside Diameter	Pitch	Minimum Bend Radius (72° F)	Working Pressure (72° F)	Vacuum Rating (72° F, in HG)	Weight
<b>KAN FW11/2</b>	1-1/2"	2.03"	0.39"	2.5"	110 psi	28.0	0.56 lb/ft
<b>KAN FW2</b>	2"	2.60"	0.41"	4.0"	100 psi	28.0	0.75 lb/ft
<b>KAN FW3</b>	3"	3.70"	0.59"	6.3"	100 psi	28.0	1.20 lb/ft
<b>KAN FW4</b>	4"	4.78"	0.65"	7.1"	75 psi	28.0	1.74 lb/ft



### Kanaflex Banding Coil

Food grade PVC banding coil designed to fit the corrugation of the Kanaline FW suction and discharge hose. Provides a smooth surface for banding. Sold per foot.

#### Ordering Information

Part Number	Nominal Outside Diameter
<b>KAN BANCOIL11/2</b>	1-1/2"
<b>KAN BANCOIL2</b>	2"
<b>KAN BANCOIL3</b>	3"
<b>KAN BANCOIL4</b>	4"





### Unisource Series 2700 Suction and Discharge Hose

Multi-purpose suction and discharge hose designed to handle a variety of transfer applications.

- **Construction Tube:** White Nitrile (FDA, 3-A, USDA compliant)
- **Cover:** Gray Nitrile / PVC Cover
- **Reinforcement:** Multiple textile plies with dual wire helix
- **Temperature Range:** -25°F to +230°F
- **Packaging:** Sold per foot; maximum 100' length

#### Ordering Information

Part Number	Inside Diameter	Outside Diameter	Working Pressure	Bend Radius	Weight
<b>UNS 2720100</b>	1"	1.46"	150 psi	3"	0.58 lb/ft
<b>UNS 2720150</b>	1-1/2"	1.97"	150 psi	4"	0.85 lb/ft
<b>UNS 2720200</b>	2"	2.48"	150 psi	4.5"	1.22 lb/ft



### Unisource Series 2719 Washdown Hose

Multi-purpose white hose for cold and hot water washing.

- **Construction Tube:** Black EPDM (ARPM Class C ORS)
- **Cover:** White EPDM (ARPM Class C ORS)
- **Reinforcement:** Multiple polyester spirals
- **Temperature Range:** -40°F to +200°F
- **Packaging:** Sold per foot; maximum 500' length

#### Ordering Information

Part Number	Inside Diameter	Outside Diameter	Working Pressure	Weight
<b>UNS 217934</b>	3/4"	1.17"	300 psi	0.42 lb/ft



### Unisource Series 1100 Clear Braided Tubing

Used as sight tubing.

- **Construction Tube:** Clear non-toxic PVC (FDA Approved)
- **Reinforcement:** Multiple textile braid
- **Temperature Range:** -25°F to 150°F
- **Packaging:** Sold per foot; maximum 100' length

#### Ordering Information

Part Number	Inside Diameter	Outside Diameter	Working Pressure	Weight
<b>UNS 1100-25-100</b>	1/4"	.468"	250 PSI	.05 lb/ft
<b>UNS 1100-38-100</b>	3/8"	.595"	225 PSI	.10 lb/ft
<b>UNS 1100-50-100</b>	1/2"	0.75	200 PSI	.13 lb/ft
<b>UNS 1100-750</b>	3/4"	1.030"	150 PSI	.19 lb/ft



### CELL-R-MASTR

Clean your wine tanks, fermenters, lines, etc. more quickly and effectively than the routine caustic products with CELL-R-MASTR. Ultra rinsability leaves a perfect shine on any metal. CELL-R-MASTR CIP and hand scrub applications can remove protein without the use of caustic or TSP and Citric Acid. Your operation will be safer, quicker and more reliable.

#### Features

- A powerful detergent blend
- Compatible with stainless steel, aluminum, iron, copper and or steel
- General purpose cleaner
- Nonsolvent and noncaustic

#### Properties

Part Number	Form	Color	Odor	pH	Foam	Biodegradable	Phosphates	Size	Shipping Weight
<b>CHE I0014845</b>	Powder	White/Tan	Detergent	11.6	Minimal	Yes	Yes	5 Gallon Bucket	50 lb



### BIRK-OX

BIRK-OX is an EPA registered (No. 63838-1-10147) 5.6% active peracetic acid (PAA or peroxyacetic acid) liquid sanitizer. BIRK-OX is an excellent post-rinse sanitizer for all previously cleaned surfaces.

#### Features:

- Reverse osmosis and ultra filtration membrane cleaning and sanitizing
- Sulfide oxidation and odor elimination
- As a sanitizer/disinfectant for use on conveyors, pipelines, equipment, floors, and walls
- As a fog adjunct for high-level microbial control

#### Properties

Part Number	Form	Color	Odor	pH @ 1%	Foam	Biodegradable	Phosphates	Density	Size	Shipping Weight
<b>CHE I024705</b>	Liquid	Clear	Pungent	2.5	None	Yes	No	1.121	5 Gallon Bucket	50 lb

### ACID BRITE #2

ACID BRITE #2 is an effective acid cleaner designed especially to enhance the mineralization (scale) removal in facilities that use hard water. Many alkaline products promote the formation of hardness salts and soaps. Use ACID BRITE #2 safely on your equipment or in CIP to remove protein, simple scale and other soils. Properly conditions stainless steel.

#### Features

- A powerful acid and detergent blend
- Compatible with multiple metals, aluminum, galvanized

#### Properties

Part Number	Form	Color	Odor	pH @ 1%	Foam	Biodegradable	Phosphates	Density	Size	Shipping Weight
<b>CHE I000395</b>	Liquid	Clear/Amber	Sharp Detergent	1.9	None	Yes	Yes	1.1	5 Gallon Bucket	50 lb

Note: Cleaning and sanitizing products are available in other sizes; consult your local MATHESON representative.



## Cleaning and Sanitizing Products

### DIACTOLATE

DIACTOLATE is an FDA Generally Recognized As Safe (G.R.A.S) food grade acid. DIACTOLATE is also effective in neutralizing and reducing pH in water and/or finished product and removing or preventing scale formation.

#### Features:

- Food grade acid
- Alkaline pH neutralizer
- Scale preventative

#### Properties

Part Number	Form	Color	Odor	pH @ 1%	Foam	Biodegradable	Phosphates	Size	Shipping Weight
<b>CHE I0020245</b>	Powder	White	None	3.0-3.5	None	Yes	No	5 Gallon Bucket	50 lb

### DYNO-MITE

DYNO-MITE is a low foaming iodophor based sanitizer. DYNO-MITE can be used as a post rinse sanitizer up to 25 ppm. Its low foam makes DYNO-MITE an especially good sanitizer for clean in place applications.

#### Features

- An iodine based antimicrobial
- Post rinse sanitizing
- Disinfection

#### Properties

Part Number	Form	Color	Odor	pH	Denisty	Foam	Size	Shipping Weight
<b>CHE I027165</b>	Liquid	Dark Brown	Sharp	1.5	1.03	Low	5 Gallon Bucket	50 lb

### PRONTO

PRONTO is a premium, non-caustic, multi-metal safe alkaline powder that is appropriate nearly everywhere in the facility. PRONTO is used for food process CIP, and is especially effective against oily and proteinaceous buildups on metals, and is excellent on concrete floors. PRONTO is USDA approved for all surfaces in the facility.

#### Features

- Widely versatile
- Noncaustic and nonsolvent
- Mild on materials
- Multi-metal safe
- Safer to handle than caustic products

#### Properties

Part Number	Form	Color	Odor	pH	Foam	Biodegradable	Phosphates	Size	Shipping Weight
<b>CHE I0023045</b>	Powder	Light Brown	Soapy	11.3	High (unstable)	Yes	Yes	5 Gallon Bucket	50 lb

Note: Cleaning and sanitizing products are available in other sizes; consult your local MATHESON representative.



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## Conversion Data

### Argon Conversion

	Weight		Gas		Liquid	
	pounds (lb)	kilograms (kg)	cubic feet (scf)	cubic meters (nm <sup>3</sup> )	gallons (gal)	liters (lt)
<b>1 pound</b>	1.0	0.4536	9.671	0.2543	0.08600	0.3255
<b>1 kilogram</b>	2.205	1.0	21.32	0.5605	0.18957	0.7176
<b>1 scf gas</b>	0.1034	0.04690	1.0	0.02628	0.008893	0.03366
<b>1 nm<sup>3</sup> gas</b>	3.933	1.7840	38.04	1.0	0.3382	1.2802
<b>1 gallon liquid</b>	11.630	5.276	112.5	2.957	1.0	3.785
<b>1 liter liquid</b>	3.072	1.3936	29.71	0.7812	0.2642	1.0

### Carbon Dioxide Conversion

	Weight			Gas		Liquid	
	pounds (lb)	tons (t)	kilograms (kg)	cubic feet (scf)	cubic meters (nm <sup>3</sup> )	gallons (gal)	liters (lt)
<b>1 pound</b>	1.0	0.0005	0.4536	8.741	0.2294	0.11806	0.4469
<b>1 ton</b>	2000.0	1.0	907.2	17,483	458.8	236.1	893.9
<b>1 kilogram</b>	2.205	0.0011023	1.0	19.253	0.5058	0.2603	0.9860
<b>1 scf gas</b>	0.1144	–	0.05189	1.0	0.02628	0.013508	0.05113
<b>1 nm<sup>3</sup> gas</b>	4.359	0.00218	1.9772	38.04	1.0	0.5146	1.948
<b>1 gallon liquid</b>	8.470	0.004235	3.842	74.04	1.9431	1.0	3.785
<b>1 liter liquid</b>	2.238	0.0011185	1.0151	19.562	0.5134	0.2642	1.0
<b>1 cu ft solid</b>	97.56	0.0488	44.25	852.8	22.38	11.518	43.60

### Nitrogen Conversion

	Weight		Gas		Liquid	
	pounds (lb)	kilograms (kg)	cubic feet (scf)	cubic meters (nm <sup>3</sup> )	gallons (gal)	liters (lt)
<b>1 pound</b>	1.0	0.4536	13.803	0.3627	0.1481	0.5606
<b>1 kilogram</b>	2.205	1.0	30.42	0.7996	0.3262	1.2349
<b>1 scf gas</b>	0.07245	0.03286	1.0	0.02628	0.01074	0.04065
<b>1 nm<sup>3</sup> gas</b>	2.757	1.2506	38.04	1.0	0.4080	1.5443
<b>1 gallon liquid</b>	6.745	3.060	93.11	2.447	1.0	3.785
<b>1 liter liquid</b>	1.782	0.8083	24.60	0.6464	0.2642	1.0

Scf (standard cubic feet ) gas measured at 1 atmosphere and 70°F. Nm<sup>3</sup> (normal cubic meter) gas measured at 1 atmosphere and 0°C. Liquid measured at 21.42 atmospheres and 1.7°F. Solid measured at –109.25°F. All values rounded to nearest 4/5 significant numbers.

### Solid Carbon Dioxide - Dry Ice

7.5 gallons = 1.0 cubic foot volumetric equivalent  
1 pound dry ice = 8.7 cubic feet



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## Conversion Data

### Volume Conversion

Volume	Multiply units in left column by proper factor below:							
	cu in	cu ft	cu yd	cu cm	cu meter	liter	US gallon	Imp gal
<b>1 cu inch</b>	1	–	–	16.387	–	0.0164	0.00433	–
<b>1 cu foot</b>	1728	1	0.0370	28,317	0.0283	28.32	7.481	6.229
<b>1 cu yard</b>	46,656	27	1	–	0.7646	764.6	202.0	168.2
<b>1 cu centimeter</b>	0.0610	–	–	1	–	0.001	–	–
<b>1 cu meter</b>	61,023	35.31	1.308	1,000,000	1	1,000	264.2	220.0
<b>1 liter</b>	61.023	0.0353	–	1,000	0.001	1	0.2642	0.2200
<b>1 US gallon</b>	231	0.1337	–	3785.4	–	3.785	1	0.8327
<b>1 Imperial gallon</b>	227.4	0.1605	–	4546.1	–	4.546	1.201	1



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