

Bulk CO₂ Systems



Ensuring bulk CO₂ supply capabilities.
Every day - All day.

Production Facility
Canton, Georgia



Our Bulk CO₂ Systems Advantage

Chart is the world's leading manufacturer of bulk CO₂ systems for the carbonated beverage and swimming pool markets. Serving a variety of usage requirements, the bulk CO₂ Carbo-Series systems meet the unique needs of every customer and application.

The Bulk CO₂ Systems provide these benefits:



Beverage

Convenience

Eliminate high-pressure cylinder change-outs and gas outages during peak rush periods. Enable a better use of employees and storage space.

Quality

Uninterrupted flow of CO₂ eliminates flat drinks and ensures proper drink calibration. Perfect soda dispensing presentation increases customer satisfaction and eliminates complaints of poor taste and flat beverages.

Safety

Gas stored at low operating pressure, plus zero cylinder handling, reduces job-related injuries.

Savings

Save on labor, lost residual gas and operational costs associated with the high cost of high-pressure cylinders.



Swimming Pools

Convenience

One stationary automatic system provides continuous CO₂ flow and eliminates high-pressure cylinder change-outs.

Quality

CO₂ lowers the alkalinity of the water protecting it against sudden spikes in pH and improving water clarity.

Safety

Eliminates the use of dangerous acids, acid feed pumps and the potential for hazardous fumes.

Savings

Reduces CO₂ use and cost up to 30% with no residual CO₂ returned to the supplier.



The Carbo-Series Systems

Serving a variety of markets and usage requirements, Carbo-Series bulk CO₂ systems meet the unique demands of every customer.

Carbo-Series systems eliminate run-outs, allowing your focus to be on customer sales rather than operations. One Carbo-Series bulk system meets all of your CO₂ requirements. The vessel requires no employee handling, continuously supplying CO₂ for a variety of applications.

Product Advantages:

- **Stationary, automatic system** 100% stainless steel vessel construction, permanently installed and self-contained with no electricity required for dispense.
- **Maximizes limited space** One system replaces all of your high-pressure cylinders, using less than 3 square feet of floor space.
- **Sized to match usage needs** Available in a variety of sizes, the Carbo-Series systems will meet the unique demands of your business.



Contact Factory for Canadian and New York City Approvals.

Ensuring bulk CO₂ supply capabilities. Every day - All day.

The Chart Beverage System

Enjoy perfectly
dispensed soda
time after time.

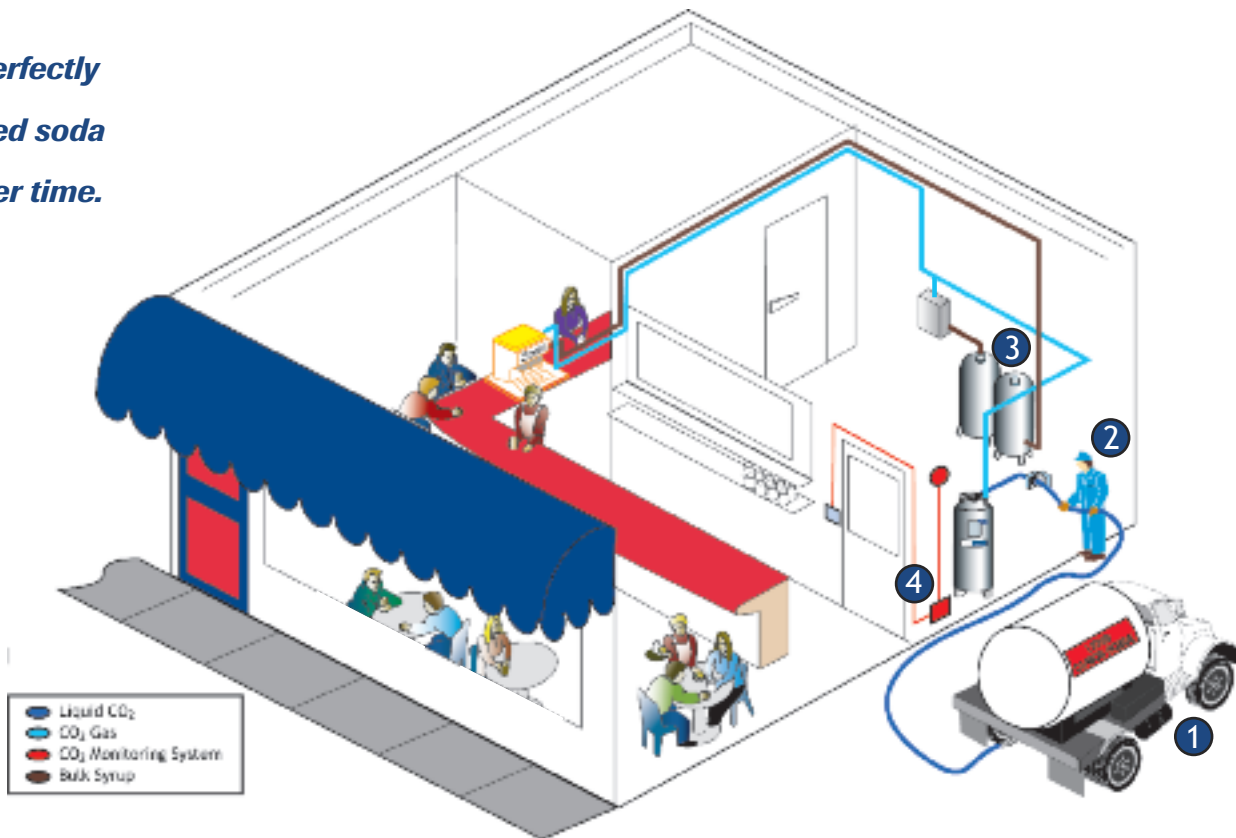


Chart Beverage Systems are a safe and reliable substitute for high pressure cylinders and bag-in-box syrup containers, and will maximize your high margin beverage profits. Chart's complete beverage solutions have proven to reduce the risk of costly run-outs and allow you to focus on spending more time with your customers. Here is how it works:

- 1 Liquid CO₂ deliveries are supported by a large network of independent companies that are equipped and trained to install, fill and maintain your system. Deliveries can occur 24/7 to ensure continuous CO₂ supply with no interruptions to your operations.
- 2 Liquid CO₂ is safely transferred through a Chart fill box located on the outside wall of your store into the appropriately sized Carbo-Mizer® CO₂ storage tank.
Note: The bulk CO₂ tank can also be installed outdoors.
- 3 Chart's innovative bulk syrup systems work in conjunction with the bulk CO₂ systems. Bulk Syrup is conveniently transferred through a fill box located on the outside wall of your store into Chart manufactured stainless steel storage vessels. Chart's clean-in-place panel sanitizes the entire system between fills with no interruption of supply.
- 4 The facility can be continuously monitored by a Chart provided CO₂ monitoring system, which detects and warns occupants of above normal levels of CO₂ usually caused by leaks in the system.

The Chart Bulk CO₂ Swimming Pool System

WHY USE CO₂ IN SWIMMING POOLS?

CO₂ is the safest, most reliable alternative to using sulphuric acid to balance the pH level of your chlorinated water. Maintaining the desired pH level of your water is critical to ensure swimmers' comfort and safety.

CO₂ replaces acid and is easily regulated by your automatic control system. It provides several benefits for your operation.

Improves Overall Water Quality

The use of CO₂ lowers the total alkalinity of the water by combining with the water to form mild carbonic acid that creates a natural buffer against sudden spikes in pH from chlorine shock treatments.

By consistently maintaining an optimum pH level, you will:

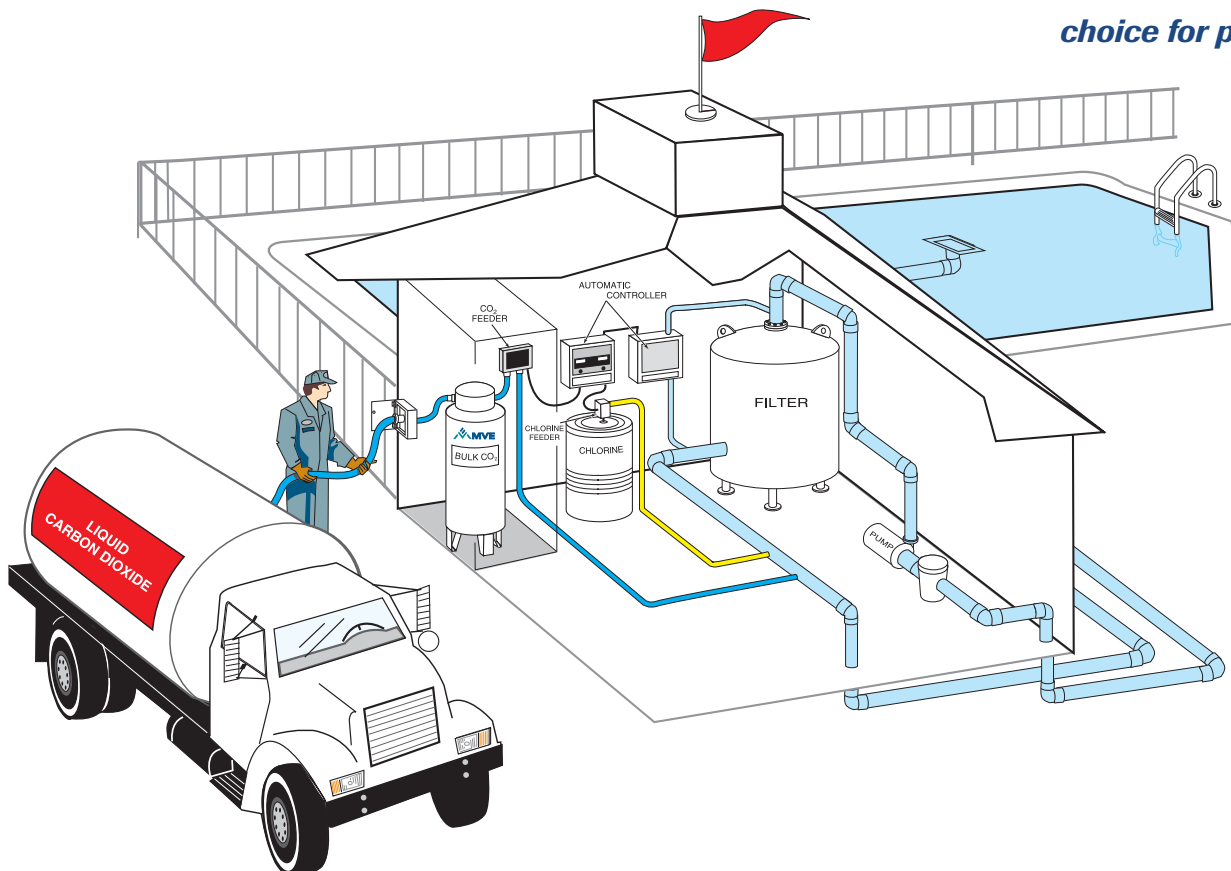
- Ensure safe water conditions
- Improve water clarity
- Use fewer chemicals
- Have less damage to pool surfaces

Eliminates Dangerous Acids & Saves Money

By using CO₂, you eliminate the dangers and costs associated with sulphuric acid:

- No more use of acid feed pumps
- No more dangerous fumes in the mechanical room from the mixing of chlorine vapor and acid
- Minimizes mechanical room corrosion
- No costs incurred for acid feed pump maintenance or tubing replacement

*The safe, reliable
choice for pH balance.*



Ensuring bulk CO₂ supply capabilities. Every day - All day.

Carbo-Mizer 200

Carbo.....
MIZER®



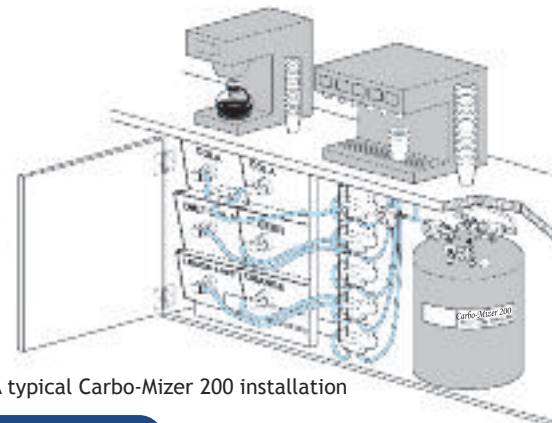
Our most compact system, the Carbo-Mizer 200 provides all the benefits of bulk CO₂, sized to fit your usage needs. Small in size, yet mighty in power, this system has a liquid storage capacity of 171 pounds (78 kg).

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Bars

Product Advantages:

- Low operating pressure
- Enhanced drink quality
- Added back room security
- Peak flow rate of 1.5 pounds per hour
- No more changing high-pressure cylinders
- Eliminate running out of CO₂ during peak rush periods



A typical Carbo-Mizer 200 installation

Specifications

Mizer 200

DIMENSIONS

Diameter	20 in	(50.8 cm)
Height (no legs)	38.625 in	(98 cm)
Empty Weight	154 lb	(70 kg)
Full Weight	341 lb	(154.7 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI†	

CAPACITY

Gross Volume	22.2 gal	(84 ltr)
Net Storage Volume	20 gal	(75.7 ltr)
Storage Capacity at 125 psig	187 lb	(84.8 kg)

PERFORMANCE

Evaporation Rate [§]	1.2 lb/day	(.54 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	.75 lb/hr	(.34 kg/hr)
Peak Flow Rate‡	1.5 lb/hr	(.68 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Liquid Level Gauge	Float Type (magnetic)



* ASME Boiler and Pressure Vessel Design Section VIII, Div. I,
‡ Four consecutive hours at room temperature, † Super Insulation/High Vacuum,
§ No loss in normal applications, @ 12 consecutive hours at room temperature

Carbo ●●●●●
MITE



The Carbo-Mite 220 is a new generation bulk liquid CO₂ storage container designed for the small 20/50 lb. high-pressure cylinder user. The revolutionary design and construction of the Carbo-Mite provides all the benefits of bulk storage with no gas losses between refills up to six months apart.*

* Minimum account size CO₂ use: 1.0 lbs/day

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Bars
- Concession Stands

Product Advantages:

- Compact package reduces floor requirements
- Built in stainless steel external vaporization coil
- SS handling ring protects plumbing from stacked goods
- Roto-Tel™ – New generation accurate liquid level gauge, telemetry ready
- Economizer Regulator
- Harris Final Line Regulator
- Standard Fill Valve
- Manifoldded primary and secondary safety valves with single vent connection
- Optional 6 inch legs meet sanitation requirements

Specifications

Mite 220

DIMENSIONS

Diameter	20 in	(50.8 cm)
Height (add 6" for legs)	40 in	(101.6 cm)
Empty Weight	156 lb	(71 kg)
Full Weight	377 lb	(171 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI†	

CAPACITY

Gross Volume	27.4 gal	(103.7 ltr)
Net Storage Volume	25.5 gal	(96.5 ltr)
Storage Capacity at 200 psig	221 lb	(100.2 kg)

PERFORMANCE

Evaporation Rate§	1.0 lb/day	(0.45 kg/day)
Gas Delivery®	1.0 lb/hr	(0.5 kg/hr)
Peak Flow Rate‡	1.5 lb/hr	(.68 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Relief Valve Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Liquid Level Gauge	Roto-Tel™ **



* ASME Boiler and Pressure Vessel Design Section VIII, Div. I, † Super Insulation/High Vacuum, ‡ Four consecutive hours at room temperature, @ 12 consecutive hours at room temperature, § At 125 psig at room temperature, no loss in accounts at 1.0 lb/day minimum, **Telemetry Ready

Ensuring bulk CO₂ supply capabilities. Every day - All day.

Carbo-Mizer 300

Carbo
MIZER[®]



The Carbo-Mizer 300 bulk CO₂ system is an affordable alternative to high-pressure cylinders. This system is designed to meet the requirements for operations using less than 306 pounds (139 kg) of CO₂ per month.

Each Carbo-Series vessel is equipped with a proprietary vacuum maintenance system to ensure optimized long-term performance. Unique to the market, this feature offers greater efficiency over longer periods of time.

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Bars
- Concession Stands

Product Advantages:

- Stainless steel, double-walled, vacuum-insulated container
- Proprietary vacuum maintenance system for convenient, on-site maintenance
- Safe, low operating pressure
- Easy-to-read gauges for contents and tank pressure
- Efficient gas withdrawal system supplies CO₂ gas up to 3 pounds per hour (1.4 kg)
- Fully automated system requiring no electricity
- Optional 6 inch (15.2 cm) welded uni-body legs

Specifications

Mizer 300

DIMENSIONS

Diameter	20 in	(50.8 cm)
Height (with legs) [□]	55.625 in	(141.28 cm)
Empty Weight	216 lb	(98 kg)
Full Weight	515 lb	(233.6 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI [†]	

CAPACITY

Gross Volume	34.3 gal	(129.8 ltr)
Net Storage Volume	32 gal	(121 ltr)
Storage Capacity at 125 psig	299 lb	(135.6 kg)

PERFORMANCE

Evaporation Rate [§]	2.0 lb/day	(0.91 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	1.0 lb/hr	(0.5 kg/hr)
Peak Flow Rate [‡]	3.0 lb/hr	(1.4 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Liquid Level Gauge [°]	Differential Pressure



* ASME Boiler and Pressure Vessel Design Section VIII, Div. 1, [□] Height without legs subtract 6 in,

[‡] Four consecutive hours at room temperature, [†] Super Insulation/High Vacuum,

[§] No loss in normal applications, [@] 12 consecutive hours at room temperature, [°] Float gauge available upon request



The Carbo-Mizer 450 bulk CO₂ system is an affordable alternative to high-pressure cylinders. This system offers flow rates that meet the demands of high-volume applications.

Each Carbo-Series vessel is equipped with a proprietary vacuum maintenance system to ensure optimized long-term performance. Unique to the market, this feature offers greater efficiency over longer periods of time.

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Bars
- Concession Stands

Product Advantages:

- Proprietary vacuum regeneration system for convenient, on-site maintenance
- Safe, low operating pressure
- Easy-to-read gauges for contents and tank pressure
- Efficient gas withdrawal system supplies CO₂ gas up to 10 pounds per hour (4.5 kg)
- Fully automated system requiring no electricity
- Optional 6 inch (15.2 cm) welded uni-body legs
- Optional collection ring ensures quality CO₂ gas delivery

Specifications Mizer 450

DIMENSIONS		
Diameter	20 in	(50.8 cm)
Height (with legs) [‡]	71.875 in	(162.6 cm)
Empty Weight	273 lb	(123.8 kg)
Full Weight	750 lb	(340.2 kg)
DESIGN CRITERIA		
Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI [†]	
CAPACITY		
Gross Volume	52 gal	(196.8 ltr)
Net Storage Volume	48 gal	(182 ltr)
Storage Capacity at 125 psig	477 lb	(216.4 kg)
PERFORMANCE		
Evaporation Rate [§]	2.5 lb/day	(1.1 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	5.5 lb/hr	(2.5 kg/hr)
Peak Flow Rate [‡]	10 lb/hr	(4.5 kg/hr)
COMPONENTS		
ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	
CONSTRUCTION		
Inner Vessel Material	Stainless Steel	
Outer Vessel Material	Stainless Steel	
Liquid Level Gauge [°]	Differential Pressure	



* ASME Boiler and Pressure Vessel Design Section VIII, Div. 1, [‡] Height without legs subtract 6 in, [‡] Four consecutive hours at room temperature, [†] Super Insulation/High Vacuum, [§] No loss in normal applications, [@] 12 consecutive hours at room temperature, [°] Float gauge available upon request

Ensuring bulk CO₂ supply capabilities. Every day - All day.

Carbo-Mizer 550

Carbo
MIZER[®]



The Carbo-Mizer 550 bulk CO₂ system is an affordable alternative to high-pressure cylinders. This system offers flow rates that meet the demands of high-volume applications.

Each Carbo-Series vessel is equipped with a proprietary vacuum maintenance system to ensure optimized long-term performance. Unique to the market, this feature offers greater efficiency over longer periods of time.

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Bars
- Concession Stands

Product Advantages:

- Proprietary vacuum regeneration system for convenient, on-site maintenance
- Safe, low operating pressure
- Easy-to-read gauges for contents and tank pressure
- Fully automated system requiring no electricity
- Optional 6 inch (15.2 cm) welded uni-body legs
- Efficient gas withdrawal system supplies CO₂ gas up to 10 lbs per hour.

Specifications

Mizer 550

DIMENSIONS

Diameter	22 in	(55.8 cm)
Height (with legs) [‡]	72.9 in	(185.1 cm)
Empty Weight	318 lb	(144.3 kg)
Full Weight	902 lb	(409.1 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI [†]	

CAPACITY

Gross Volume	65.1 gal	(246.4 ltr)
Net Storage Volume	62 gal	(235 ltr)
Storage Capacity at 125 psig	584 lb	(264.9 kg)

PERFORMANCE

Evaporation Rate [§]	2.5 lb/day	(1.1 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	6.5 lb/hr	(2.9 kg/hr)
Peak flow rate (gas use) [‡]	10 lb/hr	(4.5 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Liquid Level Gauge [°]	Differential Pressure



* ASME Boiler and Pressure Vessel Design Section VIII, Div. 1, † Height without legs subtract 6 in, ‡ Four consecutive hours at room temperature, † Super Insulation/High Vacuum, § No loss in normal applications, @ 12 consecutive hours at room temperature, ° Float gauge available upon request

Carbo •••••
MIZER®



The Carbo-Mizer 750 bulk CO₂ system is an affordable alternative to high-pressure cylinders. This system offers flow rates that meet the demands of high-volume applications.

Each Carbo-Series vessel is equipped with a proprietary vacuum maintenance system to ensure optimized long-term performance. Unique to the market, this feature offers greater efficiency over long periods of time.

A unique feature to this vessel's construction is its liquid withdrawal port, making high flow liquid CO₂ readily available.

Common Installations:

- Stadiums
- Brew Pubs
- Microbreweries
- Bars
- Restaurants
- Concession Stands
- Cineplexes
- Swimming Pools

Product Advantages:

- Stainless steel, double-walled, vacuum-insulated container
- Proprietary vacuum regeneration system for on-site maintenance
- Optional patented Sure-Fill™ system enables tank filling with no manual venting
- Stable 6 inch uni-body legs meet health department sanitation requirements
- Safe, low operating pressure
- Easy-to-read gauges for CO₂ contents and tank pressure
- Efficient gas withdrawal system supplies CO₂ gas up to 15 lbs per hour.

Specifications

Mizer 750

DIMENSIONS

Diameter	26 in	(66 cm)
Height (with legs) [‡]	73.875 in	(187.6 cm)
Empty Weight	430 lb	(195 kg)
Full Weight	1219 lb	(552.9 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI [†]	

CAPACITY

Gross Volume	89.1 gal	(337.3 ltr)
Net Storage Volume	82 gal	(310 ltr)
Storage Capacity at 125 psig	789 lb	(357.9 kg)

PERFORMANCE

Evaporation Rate [§]	3.0 lb/day	(1.4 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	10 lb/hr	(4.5 kg/hr)
Peak flow rate (gas use) [‡]	15 lb/hr	(6.8 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Vaporizer Coil	Stainless Steel
Liquid Level Gauge [°]	Differential Pressure



* ASME Boiler and Pressure Vessel Design Section VIII, Div. I, [‡] Height without legs subtract 6 in,

[‡] Four consecutive hours at room temperature, [†] Super Insulation/High Vacuum,

[§] No loss in normal applications, [@] 12 consecutive hours at room temperature, [°] Float gauge available upon request

Ensuring bulk CO₂ supply capabilities. Every day - All day.

Carbo-Max 750 High Flow

Carbo
MAX



The Carbo-Max 750 High Flow bulk CO₂ system meets the demands of high-volume customers. A first in the beverage market, the Carbo-Max 750 system offers flow rates necessary for high-volume users such as: stadiums, brew pubs, cineplexes and microbreweries.

Corrosion Resistant Coating can be an important addition to your Chart Beverage System in certain regions of the country or in specific applications (e.g. - swimming pools). The Chart Beverage Coating system consists of one coat of primer and two coats of quick dry enamel with Xylene reducer on sandblast-finished stainless steel.

Common Installations:

- Stadiums
- Brew Pubs
- Microbreweries
- Bars
- Restaurants
- Concession Stands
- Cineplexes
- Swimming Pools

Product Advantages:

- Stainless steel, double-walled, vacuum-insulated container
- Proprietary vacuum regeneration system for on-site maintenance
- Optional patented Sure-Fill™ system enables tank filling with no manual venting
- Stable 6 inch uni-body legs meet health department sanitation requirements
- Safe, low operating pressure
- Easy-to-read gauges for CO₂ contents and tank pressure
- CO₂ liquid withdrawal system with built in vaporization coil allows for higher maximum flow rates up to 40 lbs per hour.

Specifications

Max 750

DIMENSIONS

Diameter	26 in	(66 cm)
Height (with legs) [‡]	73.875 in	(187.6 cm)
Empty Weight	430 lb	(195 kg)
Full Weight	1219 lb	(552.9 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI [†]	

CAPACITY

Gross Volume	89.1 gal	(337.4 ltr)
Net Storage Volume	82 gal	(311 ltr)
Storage Capacity at 125 psig	789 lb	(357.9 kg)

PERFORMANCE

Evaporation Rate [§]	3.0 lb/day	(1.4 kg/day)
CO ₂ Gas Delivery (Continuous) [@]	15.0 lb/hr	(6.8 kg/hr)
Peak flow rate [^]	40.0 lb/hr	(18.1 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Vaporizer Coil	Stainless Steel
Liquid Level Gauge [°]	Differential Pressure



* ASME Boiler and Pressure Vessel Design Section VIII, Div. I, [‡] Height without legs subtract 6 in, [§] Four consecutive hours at room temperature, [^] Can achieve flows up to 40 lb/hr, for 12 hours continuous use. At these higher flow rates, gas supply temperatures from the tank will be lower than freezing (32°F). Additional external vaporization should be added to achieve gas temperatures above freezing (32°F).
[†] Super Insulation/High Vacuum, [§] No loss in normal applications, [@] 12 consecutive hours at room temperature, [°] Float gauge available upon request

Carbo-Max 1000 High Flow



The Carbo-Max 1000 High Flow system is an innovative bulk CO₂ system that meets the demands of high volume customers. A first in the beverage market, the Carbo-Max 1000 High Flow system offers the capacity and flow rates necessary for high volume users such as: stadiums, brew pubs, cineplexes and microbreweries.

Corrosion Resistant Coating can be an important addition to your Chart Beverage System in certain regions of the country or in specific applications (e.g. - swimming pools). The Chart Beverage Coating system consists of one coat of primer and two coats of quick dry enamel with Xylene reducer on sandblast-finished stainless steel.

Common Installations:

- Stadiums
- Brew Pubs
- Microbreweries
- Bars
- Restaurants
- Concession Stands
- Cineplexes
- Swimming Pools

Product Advantages:

- Internal vaporization coils with continuous flow rates up to 30 lbs/hr
- Internal pressure build coil
- 1000 lbs of CO₂ storage capacity
- Standard tank includes Sure-Fill system
- 30” diameter x 72” height allows tank to fit through standard doorways
- Pallet jack compatible base
- Differential Pressure liquid level gauge

Specifications Max 1000

DIMENSIONS

Diameter	30 in	(76.2 cm)
Height	72.5 in	(184.2 cm)
Empty Weight	788 lb	(357.4 kg)
Full Weight	1788 lb	(811.0 kg)

DESIGN CRITERIA

Code	ASME*	
MAWP	300 psig	(20.7 bar)
Insulation Type	SI†	

CAPACITY

Gross Volume	89.1 gal	(337.4 ltr)
Net Storage Volume	118 gal	(446.6 ltr)
Storage Capacity at 125 psig	1000 lb	(453.6 kg)

PERFORMANCE

Evaporation Rate§	3.0 lb/day	(1.4 kg/day)
CO ₂ Gas Delivery (Continuous)@	30.0 lb/hr	(13.6 kg/hr)
Peak flow rate@	50.0 lb/hr	(22.7 kg/hr)

COMPONENTS

ASME Relief Valve Setting	300 psig	(20.7 bar)
Secondary RV Setting	450 psig	(31.0 bar)
Sure-Fill RV Setting	200 psig	(13.8 bar)
Gas Use Connection	1/4 in 45° Flare	
Fill Line Connection	5/8 in Male 45° Flare	
Vent Connection	1/2 in OD Tubing	

CONSTRUCTION

Inner Vessel Material	Stainless Steel
Outer Vessel Material	Stainless Steel
Vaporizer Coil	Stainless Steel
Liquid Level Gauge°	Differential Pressure



* ASME Boiler and Pressure Vessel Design Section VIII, Div. I, † Super Insulation/High Vacuum, § No loss in normal applications, @ 12 consecutive hours at room temperature, ° Float gauge available upon request

Ensuring bulk CO₂ supply capabilities. Every day - All day.

Gaslog Beverage Telemetry

With escalating fuel costs, increasing and erratic customer usage, Gaslog provides a cost-effective solution that accurately tracks gas use, tank levels and triggers alarms, allowing you to reduce run outs and optimize deliveries. Gaslog telemetry is an economical tank monitoring system for beverage carbonation.

Gaslog Beverage Telemetry benefits:

Eliminate Emergency Deliveries

Better gas inventory management eliminates gas delivery surcharges.

Reduce Run Outs

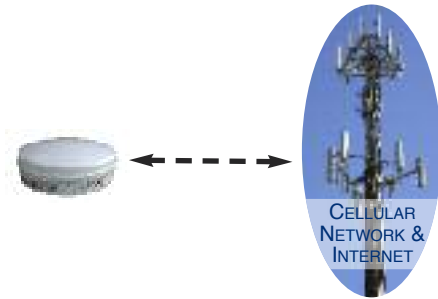
Respond to reported alarms when the bulk CO₂ tank drops below critical levels.

Reduce Delivery Costs

Use daily tank levels and usage patterns to schedule deliveries and optimize routes.

Improve Customer Service

Identify leaks and proactively service syrup and dispensing equipment.



ID	Name	Tank	Level
154	1425 St. Joseph	00A-01	100%
52	1425 St. Joseph	00A-02	100%
14	Downey St. Joseph	00A-03	100%
74	Emery St. Joseph	00A-04	100%
137	Emery St. Joseph	00A-05	100%
138	Emery St. Joseph	00A-06	100%
139	Emery St. Joseph	00A-07	100%
140	Emery St. Joseph	00A-08	100%
141	Emery St. Joseph	00A-09	100%
142	Emery St. Joseph	00A-10	100%
143	Emery St. Joseph	00A-11	100%
144	Emery St. Joseph	00A-12	100%
145	Emery St. Joseph	00A-13	100%
146	Emery St. Joseph	00A-14	100%
147	Emery St. Joseph	00A-15	100%
148	Emery St. Joseph	00A-16	100%
149	Emery St. Joseph	00A-17	100%
150	Emery St. Joseph	00A-18	100%
151	Emery St. Joseph	00A-19	100%
152	Emery St. Joseph	00A-20	100%
153	Emery St. Joseph	00A-21	100%
154	Emery St. Joseph	00A-22	100%
155	Emery St. Joseph	00A-23	100%
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158	Emery St. Joseph	00A-26	100%
159	Emery St. Joseph	00A-27	100%
160	Emery St. Joseph	00A-28	100%
161	Emery St. Joseph	00A-29	100%
162	Emery St. Joseph	00A-30	100%
163	Emery St. Joseph	00A-31	100%
164	Emery St. Joseph	00A-32	100%
165	Emery St. Joseph	00A-33	100%
166	Emery St. Joseph	00A-34	100%
167	Emery St. Joseph	00A-35	100%
168	Emery St. Joseph	00A-36	100%
169	Emery St. Joseph	00A-37	100%
170	Emery St. Joseph	00A-38	100%
171	Emery St. Joseph	00A-39	100%
172	Emery St. Joseph	00A-40	100%
173	Emery St. Joseph	00A-41	100%
174	Emery St. Joseph	00A-42	100%
175	Emery St. Joseph	00A-43	100%
176	Emery St. Joseph	00A-44	100%
177	Emery St. Joseph	00A-45	100%
178	Emery St. Joseph	00A-46	100%
179	Emery St. Joseph	00A-47	100%
180	Emery St. Joseph	00A-48	100%
181	Emery St. Joseph	00A-49	100%
182	Emery St. Joseph	00A-50	100%
183	Emery St. Joseph	00A-51	100%
184	Emery St. Joseph	00A-52	100%
185	Emery St. Joseph	00A-53	100%
186	Emery St. Joseph	00A-54	100%
187	Emery St. Joseph	00A-55	100%
188	Emery St. Joseph	00A-56	100%
189	Emery St. Joseph	00A-57	100%
190	Emery St. Joseph	00A-58	100%
191	Emery St. Joseph	00A-59	100%
192	Emery St. Joseph	00A-60	100%
193	Emery St. Joseph	00A-61	100%
194	Emery St. Joseph	00A-62	100%
195	Emery St. Joseph	00A-63	100%
196	Emery St. Joseph	00A-64	100%
197	Emery St. Joseph	00A-65	100%
198	Emery St. Joseph	00A-66	100%
199	Emery St. Joseph	00A-67	100%
200	Emery St. Joseph	00A-68	100%
201	Emery St. Joseph	00A-69	100%
202	Emery St. Joseph	00A-70	100%
203	Emery St. Joseph	00A-71	100%
204	Emery St. Joseph	00A-72	100%
205	Emery St. Joseph	00A-73	100%
206	Emery St. Joseph	00A-74	100%
207	Emery St. Joseph	00A-75	100%
208	Emery St. Joseph	00A-76	100%
209	Emery St. Joseph	00A-77	100%
210	Emery St. Joseph	00A-78	100%
211	Emery St. Joseph	00A-79	100%
212	Emery St. Joseph	00A-80	100%
213	Emery St. Joseph	00A-81	100%
214	Emery St. Joseph	00A-82	100%
215	Emery St. Joseph	00A-83	100%
216	Emery St. Joseph	00A-84	100%
217	Emery St. Joseph	00A-85	100%
218	Emery St. Joseph	00A-86	100%
219	Emery St. Joseph	00A-87	100%
220	Emery St. Joseph	00A-88	100%
221	Emery St. Joseph	00A-89	100%
222	Emery St. Joseph	00A-90	100%
223	Emery St. Joseph	00A-91	100%
224	Emery St. Joseph	00A-92	100%
225	Emery St. Joseph	00A-93	100%
226	Emery St. Joseph	00A-94	100%
227	Emery St. Joseph	00A-95	100%
228	Emery St. Joseph	00A-96	100%
229	Emery St. Joseph	00A-97	100%
230	Emery St. Joseph	00A-98	100%
231	Emery St. Joseph	00A-99	100%
232	Emery St. Joseph	00A-100	100%

Gaslog Beverage Telemetry -

It works like this:

1. Install and activate cellular unit quickly and simply
2. Same day bulk CO₂ tank level and refill alarms
3. Access web based reporting, analysis, review and management
4. Use daily tank report to optimize delivery schedule, assess inventory needs, use alarms to avoid run outs
5. Reduce out of hours deliveries, improve driver productivity and customer satisfaction

A maintenance free and reliable end-to-end service.

- ✓ Compatible with all Chart liquid level gauges
- ✓ Same day tank level & alarms
- ✓ Web-based management & review
- ✓ Email & SMS based alerts
- ✓ Customizable ad-hoc & scheduled reports
- ✓ Remotely configurable equipment & tank alarms
- ✓ Back office application integration

Over 75,800 units installed worldwide!



Fill Gun

Chart Beverage Systems' fill gun is constructed with integral components allowing complete control of the fill process without leaving the fill point.

- Positive seal fill fitting cuts waste from lost CO₂ during filling process
- Winged sleeve construction makes gun easy to grip
- Integral wrench feature enables tightening without tools
- Maintain control of CO₂ and vent flow with fill and vent ball valves
- Pressure vent valve relieves potential excess line pressure

Flush Mount Fill Box

The stainless steel flush mount fill box mounts directly to the outside wall of your facility to be flush with the building. Features include:

- Complete with 3/4 in male fill connection and vent hose connection
- Locking door with keys
- Box size is 6 in x 6 in



Surface Mount Fill Box

The stainless steel surface mount fill box can be placed directly on the outside wall of your facility with four mounting screws. Features include:

- Complete with 3/4 in male fill connection and vent hose connection
- Locking door with keys
- Box size is 6 in x 6 in, 2 1/4 in deep



CO₂ Fill Hose with Vent Hose

Chart Beverage Systems' fill hose transports liquid CO₂ between the fill box and a Carbo-Series vessel. Highly durable, this hose has a maximum working pressure of 2,000 psi.

Other features include:

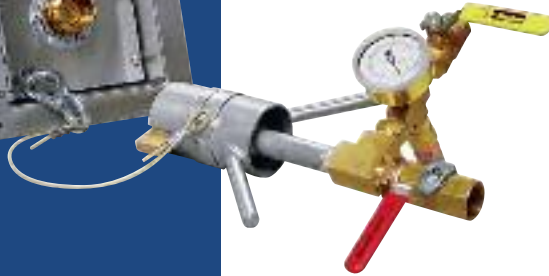
- Minimum bend radius of 3 inches (7.62 cm)
- Minimum burst pressure of 8,000 psi
- Inert in CO₂ environment



Vent hose connects vessel safety devices for safe outdoor venting.

Chart Beverage Systems Accessories

Supplement your Carbo-Series bulk CO₂ system with our bulk CO₂ accessories. These liquid CO₂ filling options and accessories ensure a convenient, secure delivery.



Ensuring bulk CO₂ supply capabilities. Every day - All day.

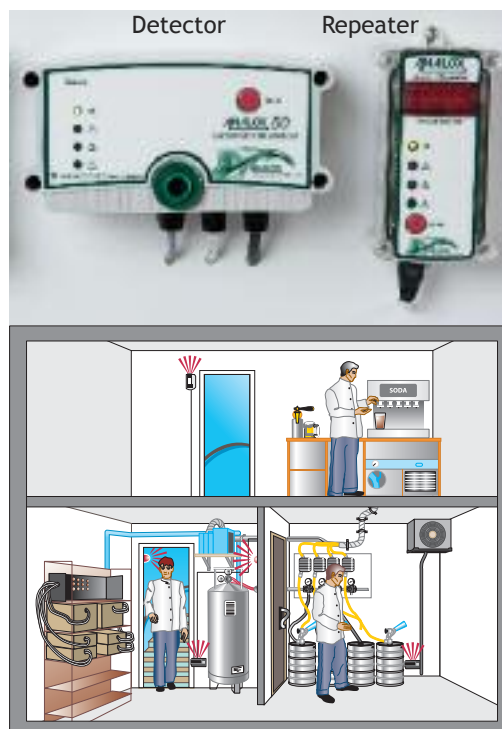
CO₂ Monitoring Systems



The Analox 50™ is a precision instrument that provides continuous, accurate monitoring of CO₂ levels to ensure a safe working environment for your employees, suppliers and yourself. A proven system with over 80,000 units installed worldwide. The Chart/Analox CO₂ Monitoring System is comprised of one detector (with visual and audible alarms) and one alarm repeater for remote mounting. Additional accessories are available including an extension repeater, detector protector, detector splash-guard and wearable protector.

Product Advantages:

- Relay on Alert 1 - Leak Alert (Set at 1.5% CO₂)
- Alert 2 - No Entry Alert (Set at 3% CO₂)
- Bright 10 LED visual and loud 80 dB audible alarms
- Detector housing designed to withstand splash environments (IP 65)
- 15 year CO₂ sensor warranty, 2 year electronics warranty
- Plug-in cables for fast and easy installation
- Accessories to customize your installation requirements



Technical Specifications

Ranges	0.1 - 5%
Repeatability	2% of full scale
Technique	Infrared absorption
Response Time	<45 seconds T90
Dual Alarms Visual And Audio	Alarm 1 & 2 visual red Fault Visual Amber
Operating Temp	23 to 113°F
Power	110/240 VAC or 9-24VDC
Dimensions	6.9 x 4.3 x 3.0 (in)
Protection	IP 65, CE marked

Specifications are subject to change without notice.

ANALOX
looking after the air YOU breathe®



Product Highlights:

- Fills CO₂ beverage tanks efficiently from vehicle with DOT-SP 14424 exemption
- Differential Pressure Flow Sensor and Meter for accurate billing in small deliveries
- Integrated ticket printer standard for fast billing with date stamp
- Lower mounted tank controls allows easy driver access
- Palletized steel cage protects equipment and allows easy mobility with integrated fork lift slots
- Stainless steel durable tank construction with five year vacuum warranty

The VLCD bulk CO₂ delivery system is an affordable alternative for transporting liquid CO₂. Ideal for start-up installations, hot shot deliveries and remote operations, the VLCD provides easy delivery to MVE Bulk CO₂ systems. The system is mounted in a secure mobile pallet base with all the inter-connecting piping and controls that are easily accessible by the driver. Heat management of the liquid CO₂ is controlled with a vacuum-insulated jacket for long hold times in periods of non-use and external pressure building systems for fast pressure recovery.



Differential Pressure Flow Sensor & Meter



Integrated Ticket Printer

Specifications	VLCD-950		VCLD-1900	
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DIMENSIONS

Length	43 in	(1092 mm)	65 in	(1651 mm)
Width	34 in	(864 mm)	46 in	(1168 mm)
Height	71.25 in	(1810 mm)	77 in	(1956 mm)

DESIGN CRITERIA

MAWP	350 psig	(24 bar)	350 psig	(24 bar)
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CAPACITY

CO ₂ Storage Capacity	950 lbs	(431 kg)	1900 lbs	(864 kg)
Tare Weight	1150 lbs	(522 kg)	2350 lbs	(1066 kg)
Full Weight	2180 lbs	(989 kg)	4250 lbs	(1932 kg)

Ensuring bulk CO₂ supply capabilities. Every day - All day.

Bulk Syrup



The Bulk Syrup program includes the bulk CO₂ system and the bulk system for Coca-Cola®. Both systems are permanently installed inside the restaurant and become an integral part of the beverage system. The tanks are refilled without interrupting operations. The bulk syrup program is a convenient and safe way to improve profits, safety and quality in a restaurant operation.

Common Installations:

- Fast Food
- Convenience Stores
- Restaurants
- Concession Stands

The Bulk Syrup system consists of two or more bulk syrup tanks permanently installed inside the restaurant. Each tank holds 75 gallons (300 liters for the international system) of Coca-Cola® syrup and replaces bag-in-a-box and other syrup packages. Syrup is withdrawn from one syrup tank at a time and fed to the beverage machines upon demand. When one tank is completely empty, the system switches to the next full tank. The empty tank is sanitized by the automated Clean-in-Place panel and ready for its next delivery of Coca-Cola. Filling the syrup tank from the truck takes less than ten minutes and is part of the store's regular delivery service.

This system is also available in a portable model for restaurants in which tanks must be moved to receive syrup delivery. Domestic and international models are available to meet the needs of different countries.

Specifications

Bulk Syrup

DIMENSIONS

Tank Diameter	22 in	(560 mm)
Overall Height	66 in	(1676 mm)
Empty Weight (Approximate)	110 lb	(50 kg)

DESIGN CRITERIA

Pressure Vessel Code	ASME** NSF-STD 18
Normal Operation Pressure	60 psig (4.1 bar)

CAPACITY

CO ₂ Storage Capacity	75 gal (300 l)
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CONSTRUCTION

Inner and Outer Vessels	Stainless Steel
Portable Tank option	Yes

** ASME Boiler and Pressure Vessel Design Section VIII, Div. I



Corrosion Resistant Coating

Corrosion Resistant Coating can be an important addition to your Bulk CO₂ system in certain regions of the country or in specific applications (e.g. - swimming pools). The Corrosion Resistant Coating system consists of one coat of primer and two coats of quick dry enamel with Xylene reducer on sandblast-finished stainless steel.

Benefits:

- Corrosion inhibition
- Heat resistance
- Humidity resistance
- Weatherability
- Low temperature flexibility
- Fluid resistance
- Impact resistance



VaporMan 125

VaporMan 125 is a CO₂ vaporizer and manifold combination intended for use with the Carbo-Max series beverage systems tanks and CO₂ configured Perma-Cyl® tanks. The VaporMan 125 consists of one 2-fin parallel style vaporizer and one 2-fin series style vaporizer, connected together. The unit also includes a manifold for connecting a single tank or multiple tanks in pairs. The vaporizers and manifold are mounted to a stainless steel pedestal, which is attached to a 27" x 27" x 3/8" stainless steel base plate.

Common Installations:

- Microbreweries
- Large Water Parks
- Large Sports Arenas



Product Highlights:

- Compact design, less than 2-1/2 ft square and 4 feet tall
- Cost effective, compared to larger traditional ambient vaporizers
- Easy to attach to bulk CO₂ tanks, using the manifold connections

Eastern and Western Repair Facilities

Beverage Cylinder Repair

Quality service and 100% satisfaction is what you'll get when you send your beverage cylinders to Chart for repair. Now you can have your cylinders repaired by the same team that builds them. Located in Ball Ground, GA and McCarran, NV, our repair centers are dedicated to restoring your cylinders to the same quality standards you expect from Chart.

Eastern Repair Facility

Chart Inc.
2000 Airport Industrial Drive
Ball Ground, GA 30107
1-800-762-0273

Western Repair Facility

Chart Inc.
1995 Peru Drive
McCarran, NV 89434
1-800-231-8276



Benefits

- Complete cosmetic, revac and rebuild services
- No hassle shipping with pick-up and delivery at your door
- Free freight available
- Cylinder inspection with estimate prior to work
- Component replacement with stock OEM parts
- DOT/TC and ASME coded facilities
- Three/Five year vacuum warranty
- Lowest life-cycle cost
- Service on all makes and models
- Guaranteed 100% satisfaction
- Quickest turn-around time in the industry

Performance



Evacuation services

- Helium mass spec leak detection of inner and outer for vacuum integrity
- 100% regeneration of molecular sieve for maximum vacuum life
- Replacement of PdO for maximum vacuum life



Structural services

- Complete cut-apart and removal of inner vessel
- Neck tube replacement for non-Dura cylinders
- Re-insulation with super insulation and proprietary wrapping process



Upgrades available

- Combo regulator
- SAES getter for CO₂ service
- Restraints and retrofits to meet CGA Bulletin SB-26-2000
- Flexible to meet special requirements



Chart Parts Features

- Browse and search features on chartparts.com allow you to find the exact part you need
- Same-day shipment is available on stock parts
- On-site oxygen cleaning capabilities
- Personalized account information
- Order history and shipment tracking
- Shopping cart stores your parts before you buy
- Parts available for all makes and models
- 24/7 ordering and order tracking



Cathy Bartusek
Customer Service
Beverage Systems

Easy To Locate Parts

Looking for a part? Search our entire inventory of parts and accessories in seconds. Locate your part by reviewing tank diagrams or search by keyword or part number.



Jeff Wick
Technical Service Rep
Beverage Systems

Account Information

Access shipment tracking, transaction history and personalized account information for convenient account management.



Linda Higginbotham
Customer Service
Beverage Systems



Personalized Service

Have a question about your order? We're ready to help! If you can't find what you're looking for, give us a call at 1-800-247-4446.



For All Of Your Parts Needs... www.chartparts.com



Chart Online Marketing Services

As Chart Inc. continues to provide distributors and customers with the best products and services in the industry, we would like to introduce you to an innovative marketing support tool designed to assist you in growing your business faster! Chart Online Marketing Services is like having your very own 24/7 marketing department providing you the marketing materials needed to drive customers to you. But this is much more than just a site to download product photos, you now have the ability to truly customize brochures, spec sheets and posters with your local contact information and company logo.

3 Easy Steps To Getting Onto Our Website To Order Marketing Materials!



1. Go to <http://literature.chart-ind.com>.



2. Enter your User ID and Password, click Log In.



3. Choose a category that you are interested in.

If you don't currently have an account set up, click on Sign Up, fill out your account details, and click Create. Chart will then have to approve access for you, and then a password will be sent to you to log in.

For All Your Marketing Needs...

literature.chart-ind.com

Bulk CO₂ Systems

CO₂ Conversion Tables



Drink Volume Guide

One pound of CO₂ serves approximately 100 16 ounce drinks. A 16 oz drink is comprised of the following:

Ice	4 oz
Water	9.6 oz
Syrup	2.4 oz
CO ₂	0.0112 lb

CO₂ Consumption Guide

Estimated CO₂ consumption based on ratio of .6 pounds of CO₂ to 1 gallon of syrup.

Weekly Syrup Usage (gal)	CO ₂ Consumption (lb)
10	6
20	12
30	18
40	24
50	30
60	36
70	42
80	48
90	54
100	60

Carbon Dioxide

	WEIGHT			GAS		LIQUID		SOLID
	POUNDS (lb)	TONS (T)	KILOGRAMS (Kg)	CUBIC FEET (SCF)	CUBIC METERS (Nm ³)	GALLONS (Gal)	LITERS (L)	CUBIC FEET (Cu Ft)
1 Pound	1.0	0.0005	0.4536	8.741	0.2294	0.11806	0.4469	0.010246
1 Ton	2000.0	1.0	907.2	17,483	458.8	236.1	893.9	20.49
1 Kilogram	2.205	0.0011023	1.0	19.253	0.5058	0.2603	0.9860	0.2260
1 SCF Gas	0.1144	—	0.05189	1.0	0.02628	0.013506	0.05113	0.0011723
1 Nm ³ Gas	4.359	0.002180	1.9772	38.04	1.0	0.5146	1.9480	0.04468
1 Gal Liquid	8.470	0.004235	3.842	74.04	1.9431	1.0	3.785	0.08678
1 L Liquid	2.238	0.0011185	1.0151	19.562	0.5134	0.2642	1.0	0.02293
1 Cu Ft Solid	97.56	0.04880	44.25	852.8	22.38	11.518	43.60	1.0

SCF (standard cubic feet) gas measured at 1 atmosphere and 70°F.
 Nm³ (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.



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