

# ECO<sub>2</sub>MIZER

Supplement to Chart Carbo Series Bulk CO<sub>2</sub> Storage System Manual (P/N 22290946)



ECO2Mizer® is designed for low-volume, intermittent CO<sub>2</sub> use, such as in small restaurants, cafes or light-duty soda fountains setups.

**Maximum Recommended Usage:** 50 lbs CO<sub>2</sub>/month

**Application Suitability:** Ideal for daily use under light, intermittent demand without the need for active pressure recovery assistance.

**Important Note:** Unlike Carbo-Mizer® systems, the ECO2Mizer® system does not have an active pressure-building circuit which makes it unsuitable for high continuous flow demand. Periods of intermittent heavy use may require several subsequent days for the system to recover using passive pressure recovery. Repeated periods of heavy use without allowing time for system recovery will result in pressure reduction. Depending on the application, pressure reduction below 110 psi may result in reduced performance of downstream equipment. Pressure reduction below 60 psi will cause the liquid CO<sub>2</sub> to solidify, resulting in no flow from the system. System pressure can be checked via the pressure gauge (see Parts Identification below) and should be monitored during periods of heavy use.

## FILLING NOTE

The Sure-Fill regulator in the ECO2Mizer® is preset at 250 psi compared with 200 psi in the Carbo-Mizer®. Due to the reduced pressure differential between fill source and receiving tank, filling via the Sure-Fill may be relatively slower than some users are accustomed to. Fill procedure as outlined in the main manual is still valid for ECO2Mizer®.

## OPERATING GUIDELINES

- DO NOT use for applications requiring continuous or high flow. Contact Chart Support for additional details.
- Monitor pressure regularly. If pressure drops significantly after use, allow recovery time.

## TROUBLESHOOTING

Trouble	Probable Cause	Remedy
Low pressure after use (110 psi or less)	High Flow Draw	Reduce usage to allow pressure to recover and monitor pressure increase; this may take several days
Low pressure after use (<80 psi)	High Flow Draw	Immediately reduce usage and closely monitor pressure increase. Consult gas distributor as system may be undersized for flow needs



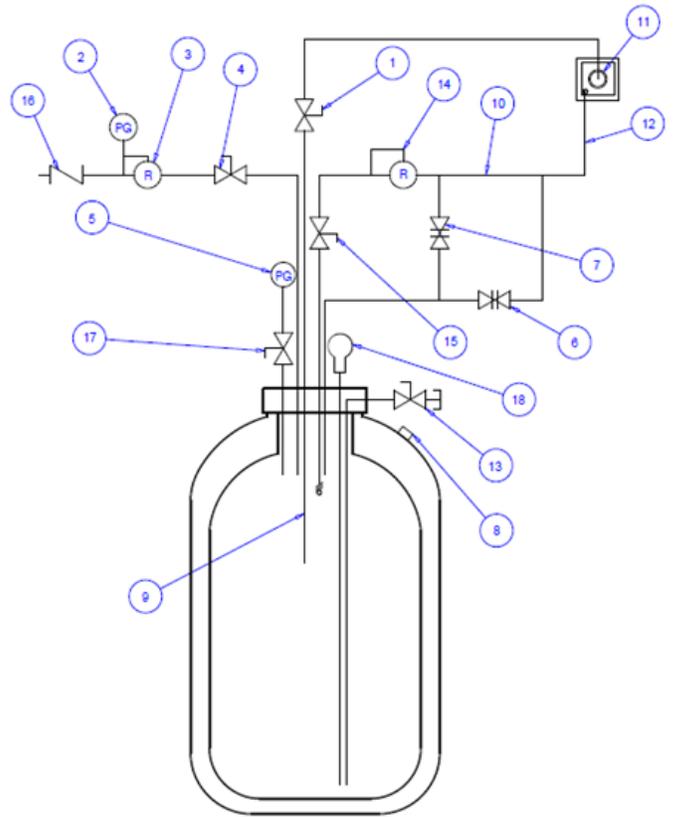
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## ECO<sub>2</sub>-MIZER FLOW SCHEMATIC:

### Nomenclature

Item	Description
1	LIQUID FILL VALVE-3/8" NPT
2	GAS USE PRESSURE GAUGE 0-160 PSIG
3	FINAL LINE REGULATOR-1/4" NPT, SET @ 115 PSIG
4	GAS SUPPLY ISOLATION VALVE (ON/OFF)-1/4" NPT (RED HANDLED)
5	CYLINDER PRESSURE GAUGE 0-400 PSIG
6	PRIMARY PRESSURE RELIEF VALVE-SET @ 300 PSIG (ASME RATED)
7	SECONDARY PRESSURE RELIEF VALVE-SET @ 450 PSIG
8	OUTER VESSEL PRESSURE PROTECTION-SET @ 23 PSIG
9	VENTURI FILL DEVICE
10	VENT LINE 1/2" OD COPPER TUBING
11	CO <sub>2</sub> FILL CONNECTION
12	VENT LINE TO FILL BOX
13	CO <sub>2</sub> LIQUID USE ISOLATION VALVE 1/4" NPT
14	SURE-FILL (AUTOMATIC VENT) REGULATOR-1/4" NPT, SET @ 250 PSIG
15	SURE-FILL ISOLATION VALVE-1/4" NPT
16	GAS USE CHECK VALVE CO <sub>2</sub> 1/4" NPT
17	CYLINDER PRESSURE GAUGE ISOLATION VALVE 1/4"NPT
18	LIQUID LEVEL GAUGE, C-STIC



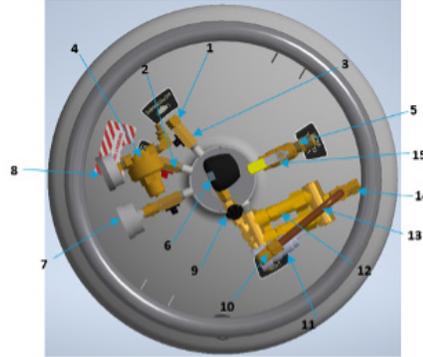
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## SPECIFICATIONS

Model		ECO <sub>2</sub> Mizer 550
Diameter (in/cm)		22/56
Height (in/cm) (with Legs)		72.9 (without legs subtract 6"
Empty Weight (lb/kg) (with legs)		294/133 (without legs subtract 12lbs)
Full Weight (lb/kg)		858/389
Net Storage Volume (gal/ltr)		60/226
CO <sub>2</sub> Storage Capacity at 125 psig (lbs/kg)		564/256
Gas Use Connection		1/4" 45-degree flare
Fill Line Connection		5/8" Male 45-degree Flare
Vent Line Connection		1/2" OD Tubing
Rates and Pressures		
Pre-Set Delivery Pressure		115 psig (7.9 barg)
Evaporation Rate (No loss in normal use)		1.5 lb/day (0.68 kg/day)
MAWP		300 psig (20.7 barg)
ASME Relief Setting		300 psig (20.7 barg)
Additional Relief Setting		450 psig (31 barg)
Sure-Fill CO <sub>2</sub> Cylinder Filling System Relief Setting		250 psig (17.2 barg)
Design Criteria		
Design Specifications		ASME Section VII, Division 1
Fill System		Single line, pressure differential
Sure-Fill System		Standard
Insulation Typar		Vacuum with Super Insulation
Pressure Control		None-No Economizer or Pressure Building Circuit
Liquid Level Gauge		Capacitance probe
Outer Cylinder Material		Stainless Steel
Inner Cylinder Material		Stainless Steel
Floor Mount Design		Permanent Legs

## PARTS IDENTIFICATION



Item	PN	Description
1	1210752	CAPS BRS HEX 1/4FPT
2	20733158	VALVE ISO BRS RED-HANDLED ABCO
3	20733160	VALVE ISOLATION BRS ABCO
4	21178190	REGULATOR .250NPT @ 115PSI
5	1110112	CONN BRS 5/8ODTX3/8MPT 45D FL
6	22042472	C-STIC CARBO 450 550 750 1000
7	21493084	PG 2"DIAL 0-400PSI 1/4"MPT CBM
8	21493082	PG 2"DIAL 0-160PSI 1/4"MPT CBM
Item	PN	Description
10	13670880	ELBOW BRS 90D 1/2ODTX1/4MPT
11	22343511	REGULATOR 1/4FPT 250PSI SF
12	21303884	REGO RV MANIFOLD CO2
13	14275419	TUBE SUREFILL VENT CO2 CTO TOP .375"NOM TYPE L SOFT
14	13832906	TEE BRS M RUN 1/2ODTX3/8MPTX 1/2ODT
15	20953805	VALVE BALL 3/8NPT W/CHECK LOW