CARBONATER

Overview of CARBONATER

CARBONATER is batch type small capacity filling equipment which adjusts the mixed-solution of water, or syrup and water to arbitrary temperature and pressure, and is automatically filled up with the bottom of the optimal conditions into containers for drinks, such as a can, a bottle, and a PET bottle, after pressurizing and dissolving carbon dioxid.

1. Main equipmnt

①One Tank Automatic filling　type(10RA、20RA)
・Suitable for trial production of carbonated beverages with small capacity.
・Compact equipment can be installed in tight spaces.
②Two Tank Automatic filling　type(2020RA)
・You can proceed with filling and carbonation at the same time.
・One tank operation is also possible.

2. Feature

①Easy filling volume setting by adoption high-precision electromagnetic flowmeter.
②Renewal of the gas volume setting screen.
③The flow screen makes it easy to understand the equipment status.
④It subdivide a filling process and support easy foaming drink flexibly.
⑤Easy to change filling type and conditions.
⑥Convenient trend graph screen.
⑦By spray type carbonation, carbon dioxide is dissolved quickly.
⑧It can filling by both of the systems, a post mix and pre mix.
⑨Cleaning the equipment is very easy.
⑩Automatic degassing of dissolved air in raw liquid is possible.
⑪There are many options.

3. Detailed description of features

①Easy filling volume setting by adoption high-precision electromagnetic flowmeter.
It is possible to directly set numerical values without having to set or adjust the gas volume or color tone of the filling liquid, or the material or shape of the filling container. Filling accuracy has also been improved.

Filling quantity measurement method	error range	Reproducibility	Operability	Effect of filling liquid amount	Effect of filling liquid presser
Electromagnetic flowmeter	±0.2%	High	High	Small	Small
CCD camera	±0.5%	Medium	Low	Small	Large
Photoelectric sensor	±1.0%	Low	Very Low	Small	Large
Timer	±2.0%	Very Low	Low	Large	Medium

※ Carbonation condition: 4.0℃／0.20MPa
※ Filling container:PET bottle 500mL

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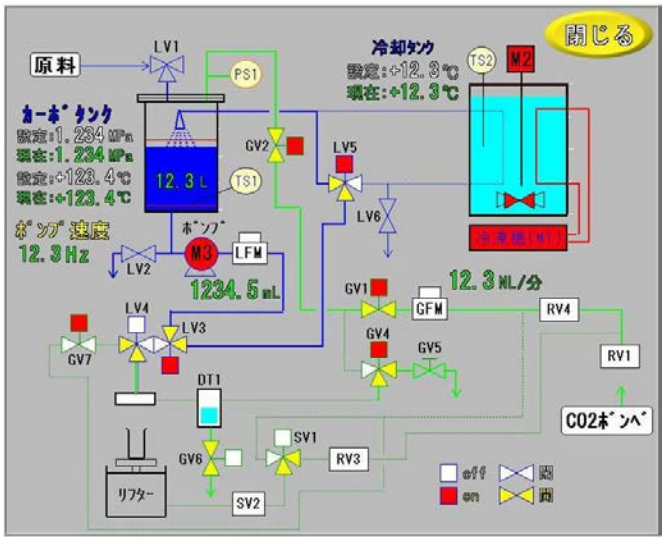
②Renewal of the gas volume setting screen

The screen has been renewed so that carbonation conditions(temperature and pressure) can be selected while checking the gas volume list. Intuitive operation is possible without worrying about settings.

Example:
Select 4.0℃ and 0.18 MPa
→ Set 4.06NmL･CO2/cc･water



③The flow screen makes it easy to understand the equipment status.

The flow screen shows the temperature, pressure, filling amount, valve status, pump speed, etc.
You can grasp it at a glance.

④It subdivide a filling process and support easy foaming drink flexibly.

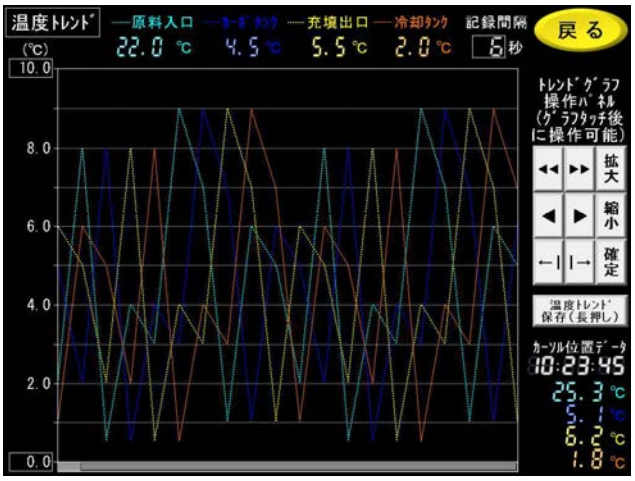
The filling process is divided into two, and the pump rotation speed for each process is subdivided into 16 steps, enabling optimal filling.
Various settings are possible, such as slowing down the filling speed before the end when forming is easy,and increasing the filling speed in the first half of the process for large containers.

Start ▶▶ Middle ▶▶ End

⑤Easy to change filling type and conditions.
One-touch selection of filling type. Each parameter such as filling amount can be set for each filling type. We eliminated manual adjustments as much as possible toeliminate errors between workers.

You can One-touch selection from preset types.

⑥ Convenient trend graph screen.
Displays the set value and current value of temperature, pressure, and carbon dioxide gas flow rate in a line graph. You can easily check the transition of the operating state. It's easy to check past data, and you can change the vertical and horizontal axes as you like.



⑦By spray type carbonation method, carbon dioxide is dissolved quickly.

⑧It can filling by both of the systems, a post mix and pre mix.

⑨Cleaning the equipment is very easy.
Just introduce the cleaning liquid, attach the cleaning container, and press the start switch.

⑩Automatic degassing of dissolved air in raw liquid is possible.
Carbonation and carbonation tank evacuation are performed automatically at any time and frequency. Degassing and cooling of raw liquid can be performed simultaneously.
※Standard for 10RA and 20RA, optional for 2020RA

⑪There are many options.
We support various options such as high temperature sterilization, full automation of cleaning, multiple filling ports, portability with heavy weight casters, pre-replacement of inside the filling container, filling into beer kegs, and control by external input/output.

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4. Appearance photo

① One Tank Automatic filling type (10RA、20RA)

② Two Tank Automatic filling type (2020RA)

5. Standard specifications

Model	10RA	20RA	2020RA
Volume of carbonation tank	10L×1tank	20L×1tank	20L×2tank
Production capacity (*)	20L/hour	40L/hour	80L/hour
Volume of cooling tank	70L	90L	90L
Design temperature and presser	0.0～80.0℃, 0.49MPa (Use no frozen and boiling)		
Filling method	Container pressurization method		
Measuring method	Electromagnetic flowmeter		
Fillable container	PET bottle、glass bottle、Can、Bottle can		
Cooling capacity	0.75kw	1.0kw	2.0kw
Pump capacity	0.2kw×1unit	0.2kw×1unit	0.2kw×2unit
Required power	3P AC200V		
Power consumption	1.4kw	1.8kw	3.0kw
Main material	SUS304, SUS316, POM, PTFE, others		
Approximate size(WHD)	1,370×850×2,100	1,370×850×2,100	1,930×910×2,100

5. Notes

① When using CARBONATER, be sure to install a carbon dioxide concentration meter and perform safety management. In addition, please use it safely according to the precautions in the instruction manual.
② Each screen is for printing, so the display may be partially different on the actual equipment.
③ Subject to change without notice for functional improvement.

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