

Carbo-Fill® Reliability & Cleanability

CF211 & CF212 Carbo-Fill®

Carbonation Excellence: when recipe changeover matters

The OMVE CF211 & CF212 Carbonators exemplify advanced carbonation technology for beverage prototyping. Designed for precise pre-mix and post-mix operations, they ensure exceptional accuracy in carbonation and dosing.



The CF211 fills one bottle or can per minute with a single filling head, whereas the CF212, with two filling heads, fills each bottle or can in an average of 40 seconds. Both models feature a Clean-in-Place (CIP) program that connects to an external CIP unit for automatic cleaning.

The systems are versatile, able to fill glass bottles with crown corks, PET bottles with screw caps and cans, meeting diverse packaging needs. Automatic closing devices for PET and glass can be integrated in the filling chamber.

Features & Benefits

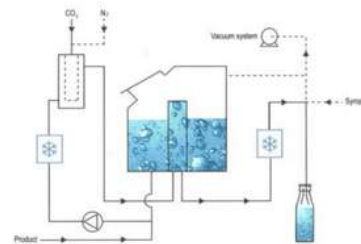
- Operates in batch and continuous modes to ensure uniform CO₂ saturation and consistent product quality, guaranteeing food safety
- 46L pressurized tank (42L net capacity) maintains required CO₂ pressure for consistent carbonation throughout the filling process
- Processes 5L to 42L of product to meet varying production demands
- Equipped with food-grade pumps and valves
- Compact, integrated cooling system to produce a wide variety of beverages without needing extensive space
- Extended Clean-in-Place (CIP) package with wider drains enables quicker, easier cleaning cycles by automatically emptying or filling the product vessel

Working Principle

OMVE's CF211 and CF212 models use a seamless carbonation process with a specially designed OMVE CO₂ injector.

The process starts by cooling the product to the optimal temperature, followed by CO₂ injection for efficient, uniform saturation while maintaining key temperature and pressure parameters. A Programmable Logic Controller (PLC) ensures consistent saturation at about 1 liter per minute, preparing the product for filling.

During filling, the packaging is precisely aligned, pre-flushed with CO₂ for stabilization, pressurized, filled, and then depressurized for retrieval. Both models can store up to 50 operational programs, allowing quick adjustments for various beverages and production needs, enhancing efficiency and product quality.



Applications

- Energy drinks
- Spirits
- Malt-based beverages
- Club soda
- Seltzer water
- Flavored carbonated beverages
- Functional beverages
- Dairy & plant-based beverages
- Non-alcoholic cocktails
- Alcoholic cocktails
- Tea & coffee-based carbonates

Optional Accessories

- Integrated cappers for PET and glass bottles
- External can seamer
- Built-in vacuum pump allowing for deaeration of the product vessel and/or evacuation of glass bottles prior to filling
- Additional pre-cooler to enable running multiple tests within a shorter timeframe, increasing efficiency.
- Nitrogen connection for filling non-carbonated drinks, adding versatility to beverage production
- Hot filling capability from external HTST/UHT systems, specifically for non-carbonated products
- Syrup dosing pump to facilitate post-mix production

Specifications

Process Parameters	CF211	CF212
Max. operational pressure	3bar [43,5psi]	
Cooling temperature (internal)	4-6°C [39-42,5°F] accuracy 0,1°C [0,18°F]	
Flow rate	60L/hr	105L/hr
CO ₂ content	Max. 11g/L	
Cleaning temperature	Max. 80°C [176°F]	
Weights & Dimensions		
Standard saturation vessel	46L	
Weight	430kg [948lbs]	480kg [1085lbs]
L x W x H	1760 x 780 x 1900mm [6,93 x 30,7 x 74,8"]	
Required utilities		
Electrical supply	200-240Vac /1ph+N+E /50Hz/ 16A or 200-240Vac /2ph+E /60Hz/16A	
Water supply	2-3bar [29-43psi]	
Compressed air	6bar [87psi]	
CO ₂ supply/ Nitrogen supply	4-5bar [58-72,5psi]	
Drains	Required	



CIP350 - CF212 (with two filling heads) - HT205 Spray Pasteurizer

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Lab & Pilot Equipment 