

Aseptic Filling with Automatic Decontamination

FS213 Asepto-Fill® & FS214 Asepto-Fill®

Semi-automatic isolator fillers

There is a growing demand for cold aseptic filling equipment for nutraceuticals, functional beverages, and pharmaceutical alternatives on a laboratory scale. Suitable for both the food and pharma markets, the FS213 & FS214 aseptic filling cabinet combines SIP and chemical sterilization using both the isolator principle and a down flow of sterile air. By automating the chemical sterilization of the outer surface of the bottles, risks of contamination when transferring the bottles into the filling are eliminated. A bottle transfer cabinet connected to the filling cabinet enables the use of various sizes & styles of packaging. During production both cabinets are fully conditioned to prevent operational errors.



The semi-automated un-capping filling and closing option enables filling at line capacities up to 100L/hr. The FS214 is configured with 2 filling points and allows glove access by 2 operators.

The sterility of the machines has been validated according to the ISO 11138 standard. This means that this packaging station has been proven to meet the highest standards for aseptic operation as required in the pharma and food industries. Consequently, this unique cabinet is suitable for filling a large number of sterile samples for any application, regardless of the pH-level.

Features & Benefits

- Isolated filling chamber held at positive pressure, combined with a down flow
- Monitoring of Critical Control Points with data logging of SIP cycle for traceability & quality control
- Automated decontamination by a fogging system using hydrogen peroxide or peracetic acid
- Integrated de-capping and capping devices for semi-automatic filling
- Automated volume dosing control (accurate filling of every sample)
- Disinfection & sterility assurance is validated according to ISO 11138 standard
- User controlled operation with PLC supervision

Applications

- Dairy & plant based alternatives
- Non carbonated beverages
- Juices and concentrates
- Tube feeding formulation
- Functional beverages
- Nutraceuticals

Working Principle

The OMVE Asepto-Fill® consists of 3 interconnected cabinets: the packaging cabinet, the main filling cabinet, and an outlet box. The packaging cabinet is sterilized by a fogging system or connected with a pre-sterilized bag with packaging (depends on the execution). The main filling cabinet is pre-sterilized via an automated fogging cycle and a SIP procedure for the connected filling lines. Both the packaging cabinet and outlet box are operated as hygienic locks. This allows loading and unloading of packaging materials into the main cabinet while maintaining process sterility. The filling points in the main cabinet have CIP and SIP capabilities.



Optional Accessories

- Different closing devices for PET packaging
- Nitrogen jet for lower oxygen in the packaging
- Heat sealer (non-aseptic)

Specifications

| Product code | FS213 Asepto-Fill® | FS214 Asepto-Fill® ++ |
|--|--|--|
| Flow direction | Downward | Downward |
| Air flow | 0.45m/s | 0.45m/s |
| Operators required | One | Two |
| Type of decontamination | Automated fogging | Automated fogging |
| PET bottle loader w/ automatic decontamination | No | Yes |
| HEPA-Filter | ULPA U17 in compliance with EN1822 | ULPA U17 in compliance with EN1822 |
| Filling controlled by | Volumetric control | Volumetric control |
| Cleaning/ sterilization suitable | CIP/ SIP | CIP/ SIP |
| Materials | | |
| Product line | SS AISI 316 | SS AISI 316 |
| Weights & Dimensions | | |
| Weight | 270kg [595lbs] | 600kg [1323lbs] |
| L x W x H | 1460 x 1150 x 1900mm [57,5 x 45,3 x 75"] | 2800 x 1050 x 2100mm [110,3 x 41,3 x 82,7"] |
| Required utilities | | |
| Electrical supply | 200-240Vac/ 1ph+N+E/ 50Hz/ 16A or 200-240Vac/ 3ph+E/ 60Hz/ 16A | 200-240Vac/ 1ph+N+E/ 50Hz/ 16A or 200-240Vac/ 3ph+E/ 60Hz/ 16A |
| Compressed air | 4-7bar(g) [58-100psi]; 5Nm/hr | 4-7bar(g) [58-100psi]; 5Nm/hr |
| Nitrogen supply (optional) | Max. 3,5bar(g) [51psi] | Max. 3,5bar(g) [51psi] |
| Water supply | Max. 3,5bar(g) [51psi] | Max. 3,5bar(g) [51psi] |

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| FS213 Asepto-Fill® | FS214 Asepto-Fill® |
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| Microbiological isolated filling bench with CIP, SIP capabilities. Packaging insert through an air lock from a stainless steel storage cabinet or bag with flange. | Microbiological isolated filling bench with CIP, SIP capabilities. Packaging insert through an air lock from a stainless steel storage cabinet or bag with flange. |

OMVE Netherlands B.V.
 Gessel 61
 3454 MZ, De Meern
 The Netherlands
 Tel +31 30 241 00 70
 sales@omve.com
 omve.com

OMVE Americas Inc.
 251 Main Street East, Suite L01
 Milton, ON L9T 1P1
 Canada
 Tel +1 416 986 8442
 sales@omve.com
 omve.com