

AccuFill™

Large volume automatic aseptic filling equipment



Large Volume Aseptic Filler

The AccuFill™ large volume aseptic filler provides a step change in the way single-use systems between 1 L and 1000 L are filled. Multiple benefits can be harnessed by using this filler to automate traditional buffer and media filling operations.

How it Works

The AccuFill™ large volume aseptic filler is an automated filling system that facilitates high accuracy aseptic filling operations using a completely single-use fluid path. The machine features dual filling stations that are independently monitored via a separate Coriolis flow meter. Filling operations consist of the following steps:

1

A sterile single-use assembly is loaded into the machine by inserting a short length of fill tubing that is sealed with a silicone cap, into the filling area which is classified as an ISO 5 filling environment.

2

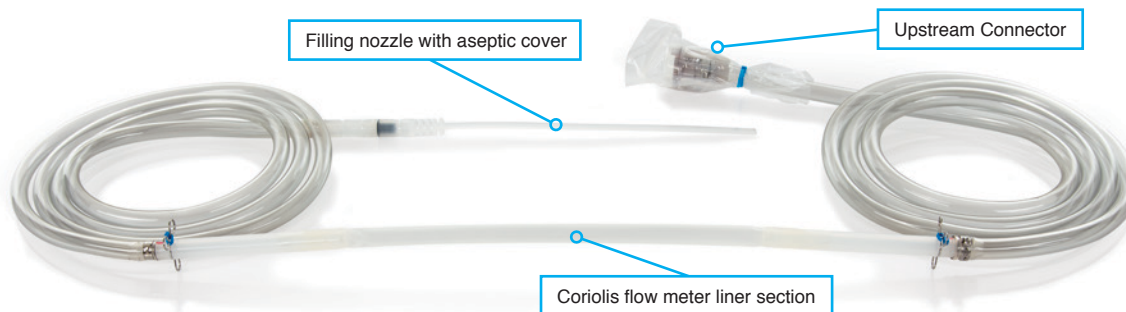
Inside the ISO 5 area, the machine automatically removes and dispenses the silicone cap, inserts the fill nozzle into the biocontainer's integral fill tubing, and then fills the biocontainer to the operator's preset fill volume. Once the fill volume has been achieved, as monitored and controlled via the Coriolis flow meter, the aseptic filler permanently seals the fill tubing.

3

The sealed single-use assembly is removed from the machine and another can be loaded. Note that both filling stations can be operated concurrently, but independently. This means the filling stations can be cycled separately during filling operations.

Fill Liner

A single-use fluid path, or fill liner, used in conjunction with the large volume aseptic filler is shown below. The fill liner is easily installed at the beginning of a batch (typically between 100 L to 20,000 L). It is then used to fill all of the single-use assemblies that are part of that batch. Change over between batches is quick and results in minimal downtime, as all fluid contact surfaces are single-use.



Support Stands

The AccuFill™ large volume aseptic filler is available with support stands for filling biocontainers between 1 L to 20 L, while larger single-use assemblies are filled via an extended fill tubing section.



Benefits For Your Process

The benefits of the AccuFill™ large volume aseptic filler as compared to traditional manifold filling operations are outlined in the following two process flow diagrams.

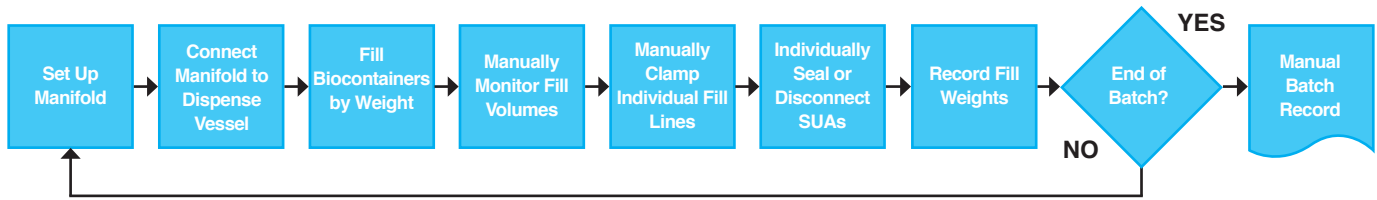


Figure 1. Traditional manifold based filling operations.

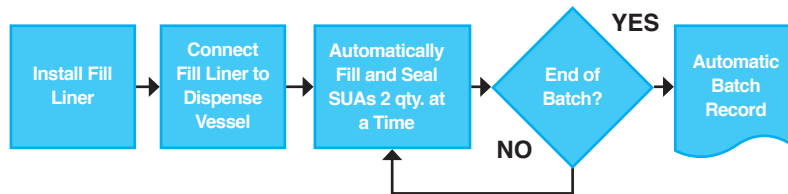


Figure 2. AccuFill™ large volume aseptic filler based filling operations.

✓ Speed

The AccuFill™ large volume aseptic filler automates and simplifies the repetitive part of the filling process. It also includes two filling stations to help accelerate your processing.

✓ Operational Flexibility

Manifolds inherently limit flexibility to some degree as operations is committed to fill or discard all of the individual biocontainers attached to the manifold being deployed. With the AccuFill™ Filler, different sized single-use assemblies can be filled during the same batch simply by selecting this within the control system, and then loading a different biocontainer size.

✓ Repeatability

Manual operations associated with traditional manifold filling operations (e.g. flow control, dosing and sealing) are eliminated when using this machine, which increases repeatability. Fill volumes are accurately controlled via the integrated Coriolis flow meters.

✓ Automation

Operations are recipe driven and machine controlled. Batch records are automatically generated.

✓ Large Batch Volumes

Large batches can be filled quickly while also eliminating a substantial amount of waste associated with manifold fill tubing, connectors, etc. Elimination of this waste also results in economic benefits.



AccuFill™ Aseptic Filler Features

Coriolis Flow Meter

- 2 qty. total on machine, (1 qty. / filling station)
- Interfaces with single-use fill lines to accomplish a completely single-use fluid path

ISO Class 5 Filling Area

- Self contained environment
- Continuous particulate and pressurization monitoring
- Automated cap removal and fill and sealing operations take place in a controlled environment

Filling Stations

- Dual stations can be operated independently
- Optional carts available to support end-ported biocontainers during fill operations

Control System

- Recipe driven operation with touch screen controls

Ordering Information

Part Number / Item

KFAS-L2

Description

Standard filler with Allen Bradley PLC

(see data sheet for additional details)



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