

Pharmaceuticals • Nutraceuticals
Cosmetics • Consumer Goods
Diagnostics • Medical Devices



Features

- Allen Bradley CompactLogix PLC w/ PanelView Plus 600 HMI
- Cap Placement with Inspection
- Category 4 Lexan Safety Guarding
- One (1) Set of Tooling

Options

- Net Weigh Filling System
- Intrinsically Safe (XP) Controls
- Plug/Stopper/Brush Insertion
- Positive Shut Off Nozzles
- Soft Reject System w/ Conveyor
- Feedback Loop From Net Weigh System to Adjust Fill Levels
- Integrated Nitrogen Purge System
- Integrated Laser Coders, Print & Apply Labelers, etc.



ESS Technologies, Inc.
3160 State Street
Blacksburg, VA 24060
(540) 961-5716 • (540) 961-5721
info@esstechnologies.com
www.esstechnologies.com

Precision Filling & Capping w/ MB Series Net Weigh Filling Systems



Overview

Pharmaceutical, diagnostics and cosmetics filling applications often require precise control of the container handling, filling and capping processes. Many applications call for bottling solutions in small amounts (1-5 milliliters). These smaller containers often call for precision feeding, cap handling, plug, wiper, dropper or brush insertion, and precise torque specifications. The ESS MB Series of Monoblock Fillers/Cappers offer an innovative machine designed to handle the stringent requirements of these types of applications.

System Description

The MB Series can be ordered with a net weigh filling system and special bottle and cap handling features that create a very compact and very precise automatic filling and capping system. Weigh scales are integrated with the Monoblock starwheel to allow containers to be weighed before and after filling. The weights are compared to pre-programmed values in the system HMI (Allen-Bradley CompactLogix PLC with PanelView Plus 600 HMI is standard). Containers with correct fill weights are tagged as "good" while incorrect containers remain untagged and are automatically rejected, ensuring that all bad fills are removed from production. The HMI can be programmed to include automatic adjustments to the fill level to provide accuracy over the entire production run.

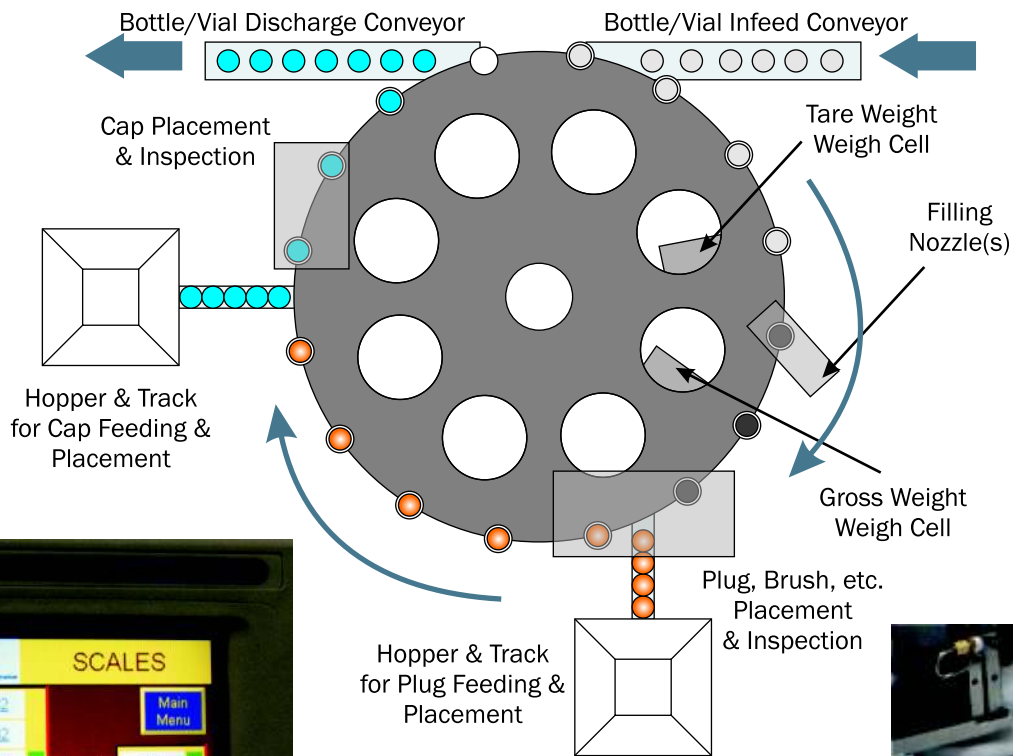
Technical Specifications

Item	Specification
Speed	Up to 100 Bottles per Minute
Fill Range	1-500ml
Size Changeover	20-30 Minutes Typical
Drive Options	Servo or Mechanical
Machine Dimensions	5'5" W x 6'11" L (1651mm x 2108mm)



INDUSTRIES AND APPLICATIONS

Net Weigh Filling System Typical Sequence of Operations



Tare and Gross Weights Are Recorded by the HMI

Correct feeding and placement of bottles, vials, micro-tubes, etc. is essential in order to create a system for reliable high speed filling. Reliable feeding of very small bottles and vials or micro-tubes has the added challenge of container stability due to the small diameter of the container. ESS provides a number of options for handling small containers and vials, including puck carriers and gripper carriers. Unloading options include robotic systems or pick and place automation.



Robotic Unloader



Plug Inserter Station



Cap Placement & Torque Stations



Pick & Place Unloader

ESS Technologies, Inc.
3160 State Street
Blacksburg, VA 24060
(540) 961-5716 • (540) 961-5721
info@esstechnologies.com
www.esstechnologies.com



ESS
Technologies, Inc. 
Packaging Machine Design & Integration

