

Pharmaceuticals • Nutraceuticals  
Cosmetics • Consumer Goods  
Diagnostics • Medical Devices



## Features

- FANUC Clean Class Multi-axis Robots
- Rotary Filling Pump
- Integrated RAB System
- Vision-guided Flexible Feeding System for Syringes
- Pick-and-Place Capping System
- Closed Loop Torque for Caps



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

# TaskMate<sup>®</sup> Syringe Filler



ESS Technologies's TaskMate<sup>®</sup> Robotic Syringe Filler and Capper integrates two (2) FANUC clean class LR Mate robots with OEM-supplied RABS (Restricted Access Barrier System) to meet the stringent requirements for 503B sterile pharmaceutical compounding applications. Empty syringes are manually fed through a sterile rapid transfer port into the ESS-supplied, vibratory hopper, which drops them gently onto a flex feeder with a powered, backlit spreading tray. The spreading tray moves parts forward to a FANUC 2D guidance vision system which allows the first LR Mate 200iD robot to pick syringes one at a time using a custom-designed vacuum style end-of-arm tool (EOAT) and place them at the filling station.

The filling system uses a stainless steel, servo driven, volumetric pump to dispense a precise amount of liquid from the bottom, up. Caps are manually fed via a drawer that can be pulled out from the RABS to load and unload trays of caps. The second FANUC LR Mate 200iD robot with custom-designed vacuum style EOAT, picks the syringe from the filling station and places it on a cap in the cap tray. The robot then places the cap with syringe into the torque station to firmly seat the cap. The robotic system discharges the filled and capped syringes via a divided gravity chute to a customer-supplied discharge bin. In the event of a station error, bad syringes are discharged via the opposite side of the chute for customer inspection. The system can fill and cap up to 15 syringes per minute.

## Technical Specifications

Item	Specification
Standard Voltage	208VAC, 3-Phase, 60Hz
EOAT	Vacuum, Gripper, Hybrid
Guarding	PLe-rated interlocked tempered glass RABS
Size Changeover	10-15 Minutes Typical
Production Speed	15 Syringes per Minute
Filling Range	50 $\mu$ l to 60ml

## Options

- Vision Inspection System
- Push-on Capping System
- Integrated Labeler
- Voltage Options Available
- Vial Filling/Capping
- Netweigh Filling with Weigh Cells
- Sartorius Aseptic Rapid Transfer (SART) for Product



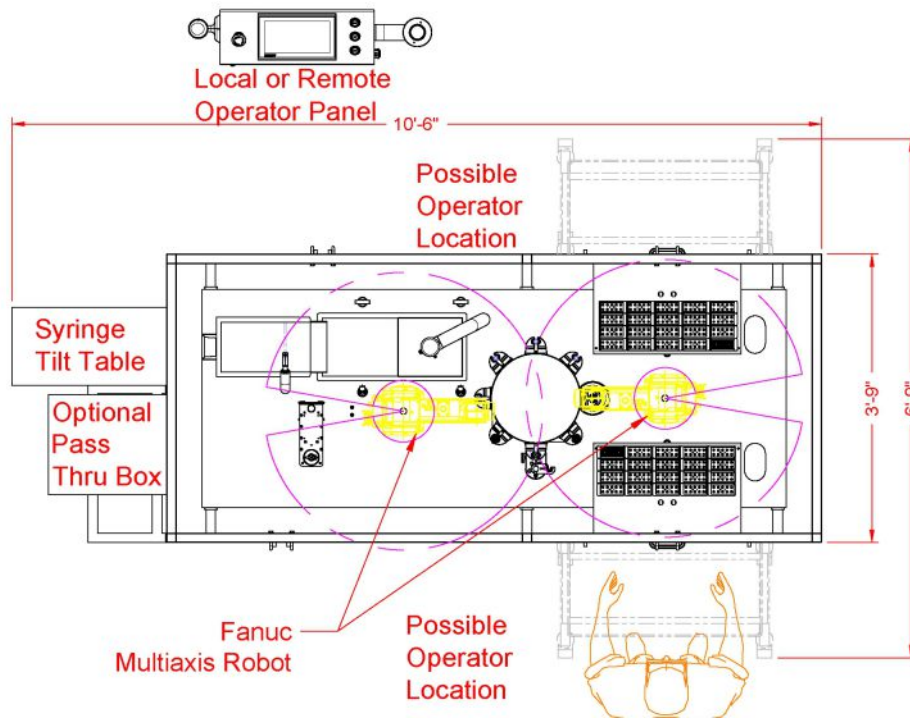
Syringe Flex Feeder



Syringe Filling Station



Syringe Capping Robot



Syringe Filling System Layout

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



**ESS**  
 echnologies, Inc.   
 Packaging Machine Design & Integration

