

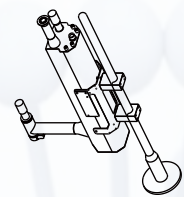
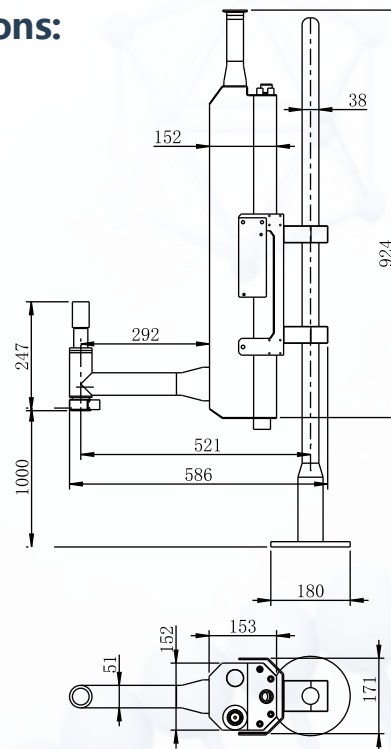
# CryoFiller

## Automatic LN2 Filling System



CryoFiller automatic liquid nitrogen filling system is designed to inject LN2 into containers at required pace. After filling into container, liquid nitrogen vaporizes to nitrogen gas and expel air out of container. As a result, oxygen and humidity concentration are reduced, and a suitable pressure is built in container.

### Dimensions:



### Advantages of CryoFiller system

- Siemens touch screen controller and PLC platform, fully automatic operation.
- Adjustable filling pace, up to 1200 CPM in discrete dosing mode or 2000 CPM in continuous injection mode.
- Speed sensor: real-time detection of bottle movement speed, filling speed will be adjusted accordingly.
- Product sensor: installed at upstream of the filling machine, detecting whether bottle is coming. If no bottle coming, liquid nitrogen will not be injected to avoid waste.
- $\pm 3\%$  accuracy of dose weight.
- Electric heating at nozzle, prevent condensation water and freezing ice.
- 3 sizes nozzles are supplied as standard, customized nozzle available.
- Gas-liquid separator to guarantee liquid nitrogen is injected.
- Vacuum insulation for low liquid nitrogen consumption.
- Imported high quality electromagnetic valve for high reliability.
- Stainless steel SUS304 material for easy cleaning and no rust.

## CryoFiller system brings various of benefits ///

- Inert packaging (low oxygen concentration) maintains product freshness and extends product shelf life.
- Reduce the gram weight of PET, lower cost and more environmentally friendly.
- Maintain the original shape of lightweight bottle, keep the hardness of the bottle wall consistent, and improve labeling efficiency.
- Build a suitable bottle pressure and eliminate the problem of flat bottles.
- Enhance product stacking capacity and improve warehouse space utilization.
- Maintain the high quality of organic products.

## PET bottle ///

- Plastic bottle: soft drink, edible oil, mineral water
- Aluminum can: soft drink
- Steel can: milk powder, protein powder, organic supplement powder
- Glass bottle: wine



## Cases ///



## Specification ///

Model	CryoFiller-L	CryoFiller-S	CryoFiller-H
	<b>Features</b>		
Application	Low speed, for beverage & water	Low speed, for edible oil	High speed
Maximum Discrete Dosing Speed (CPM)	500	200	800
Continuous Stream Dosing Speed (CPM)	2000	2000	2000
Dose Duration	15 ~ 1000 ms	15 ~ 1000 ms	15 ~ 1000 ms
Nozzle Size	1.0mm, 1.5mm, 2.0mm	1.0mm, 1.5mm, 2.0mm	1.0mm, 2.0mm, 2.5mm
Accuracy by Dose Weight	±5%	±5%	±5%
LN2 per Dose	0.01-14 g	0.01-14 g	0.01-14 g
Touch Screen Display	Siemens	Siemens	Siemens
PLC Platform	Siemens	Siemens	Siemens
Speed Sync Compensation	√	√	√
Injection Positioning Tech	√	√	√
Fixed Delayed Injection	√	√	√
Constant Speed Mode	√	√	√
Vacuum Insulation	√	√	√
LN2 Consumption	0.15 L/h	0.20 L/h	0.20 L/h
Material	SUS304	SUS304	SUS304
Weight	15Kg	12Kg	22Kg
Power	100W	100W	100W
Power Supply	110~240V,50/60Hz	110~240V,50/60Hz	110~240V,50/60Hz
LN2 Supply Pressure	≤0.15Mpa	≤0.15Mpa	≤0.15Mpa
Pressurized Air Pressure (N2 recommended)	0.4~0.65Mpa	0.4~0.65Mpa	0.4~0.65Mpa