



CONTACT US

No. 41-1 Xinyuan Road, Goushan ,Qiandao Street,
Dinghai District,Zhoushan City, Zhejiang Province,China
Call Us Now: +86 18250231863
Call Us Now: +86 13186790561
joanne@willmantec.com
helen@willmantec.com



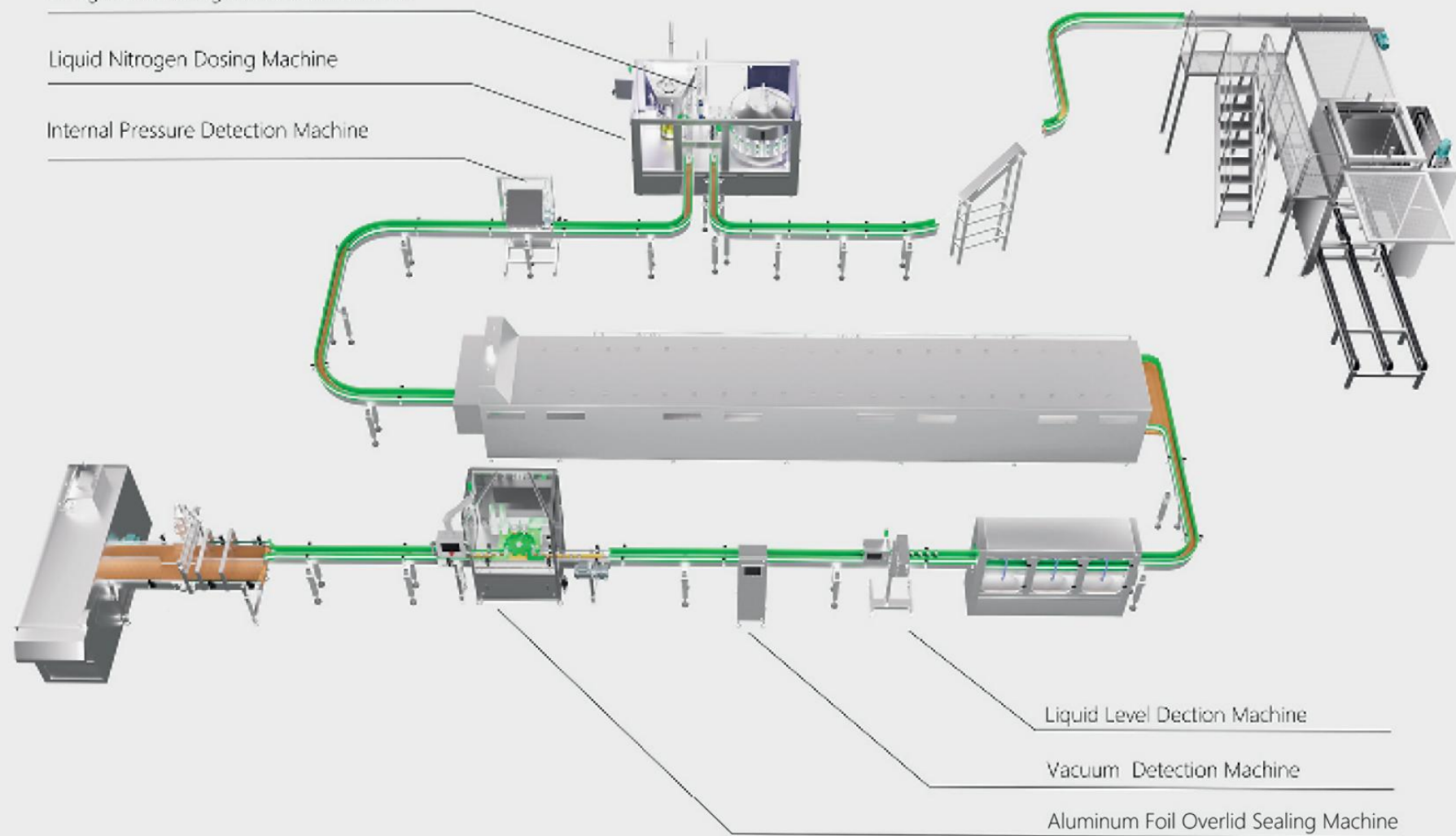
WILLMAN MACHINERY

DESIGN AND PRODUCE THE MOST APPROPRIATE
MACHINE TO THE REQUESTS OF EACH CUSTOMER, TO
FULLY SATISFY THEIR PRODUCTION NEEDS.

Filling and Seaming Monoblock Machine

Liquid Nitrogen Dosing Machine

Internal Pressure Detection Machine





About Willman Machinery

2009

Founded in 2009

100+

 More than 100
employees

3000 +

 Produced 3000 + sets
machines by 2020

CONTENT

WILLMAN MACHINERY

Established in 2009, dedicated to the research and development, production, and sales of high-quality food machinery. Our products include Liquid Nitrogen Dosing Machine, Aseptic Liquid Nitrogen Dosing Machine, Food Packaging Testing Machines (Leak Detection Machine, Vacuum Detection Machine, Liquid Level Detection Machine), Filling Machine, Seaming Machine.

OUR VISION

Willman Machinery is committed to be one of the most professional canned food machinery manufacturer in the world and to provide you with high quality and cost effective machine, create mutual benefit relationship with customers and suppliers.

OUR MISSION

Design and produce the most appropriate machine to the requests of each Customer, to fully satisfy their production needs.

Developing customized systems and ensuring competitiveness through the adoption of innovative technological solutions and the quality of products and services.

01

Liquid Nitrogen Dosing Machine

Aseptic Liquid Nitrogen Dosing System

02

Filling and Seaming Machine

Filling and Seaming Monoblock Machine
Piston Filling Machine
Seaming Machine
Kernel Filling Machine
Vacuum and Nitrogen Flashing Seaming Machine
Aluminum Foil Overlid Sealing Machine

03

Detection Machine

Internal Pressure Detection Machine
Liquid Level Detection Machine
Vacuum Detection Machine
Leak Detection Machine

04

Other Machines

Empty Can Dividing Machine
Liquid Nitrogen Tank
Vacuum Insulation Hose



Liquid Nitrogen Dosing Machine Application

LIGHTWEIGHTING

The internal pressure generated by the expansion of liquid nitrogen allows the reduction of material thickness while maintaining the container's structural integrity. This lightweighting approach decreases package cost.

PRESSURIZATION

The rapid evaporation and expansion of liquid nitrogen within a closed container generate pressure. This pressure can be precisely controlled by liquid nitrogen dosing machine to achieve desired effects in various applications. It effectively improves stacking capabilities of container, compensating for the thinner wall container and preventing them from collapsing or deforming when stacked during transportation and storage.

INERTING

Displacement of oxygen with inert nitrogen gas. By introducing nitrogen into food and beverage packaging, oxygen levels are reduced, creating an oxygen-free environment. This helps preserve the freshness, flavor, and overall quality of the products, extend shelf life.

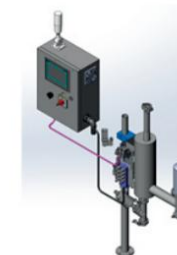
HOW IT WORKS

Liquid Nitrogen is supplied to the doser by a vacuum insulated hose and flows into the dosing head. Sensor detects speed of production line and container presence, when container appears, the dosing head valve opens and dispenses the exact amount of pure liquid nitrogen. PLC integrates the sensors, controls and human interface via a touch screen display.



Liquid Nitrogen Dosing Machine

Choose Your Doser



Model	WYD-300		WYD-600	
Capacity (cpm)	0 - 300		0 - 600	
Head Type	Rigid		Rigid	
Dose type	Continuous dose	Single dose	Continuous dose	Single dose
Dose Accuracy	±1%		±1%	
Dose Duration (ms)	25		12	
Lowest Dose Pressure	0.03 bar		0.03 bar	
LN2 Supply Pressure	100psi (6.9bar)		100psi (6.9bar)	
Min. Dose volume	0.001 ml		0.001 ml	
PLC	Siemens S7-200		Siemens S7-200	
Line Speed Auto Detect	✓		✓	
Quick Auto Defrost	✓		✓	
Auto Line Speed Compensated Function	✓		✓	
Electronic Dose Targeting	✓		✓	
Fixed delay mode	✓		✓	
Multiple Language	✓		✓	
Heated Purge	✓		✓	
No Container No dose	✓		✓	
Discrete Dose Function	Option		Option	
Frost Protection Function	Option		Option	



Liquid Nitrogen Dosing Machine

Choose Your Doser

Ultra-High Speed Liquid Nitrogen Doser



Aseptic Liquid Nitrogen Doser



Model	WYD-2000	WYD-B-15
Capacity (cpm)	0 - 2000	0 - 2000
Head Type	Rigid	Rigid
Dose type	Continuous Dose	Continuous Dose
Dose Accuracy	±0.1%	±0.1%
Dose Duration (ms)	4	4
Lowest Dose Pressure	0.03 bar	0.03 bar
LN2 Supply Pressure	100psi (6.9bar)	2.5 - 3.0 bar
Min. Dose volume	0.001ml	0.001ml
PLC	Siemens S7-200	Siemens S7-1200
Line Speed Auto Detect	✓	✓
Quick Auto Defrost	✓	✓
Auto Line Speed Compensated Function	✓	✓
Electronic Dose Targeting	✓	✓
Fixed delay mode	✓	✓
Multiple Language	✓	✓
Heated Purge	✓	✓
No Container No dose	✓	✓
Discrete Dose Function	Option	Option
Frost Protection Function	Option	Option



Aseptic Liquid Nitrogen Dosing System

The Aseptic Liquid Nitrogen Doser offers aseptic and low-pressure liquid nitrogen dosing, making it ideal for a variety of industries, including pharmaceuticals, biotechnology, and food processing.

Aseptic Liquid Nitrogen Dosing System equipped with Siemens S7-1200 PLC platform, precisely delivers sterile, low-pressure liquid nitrogen for all aseptic filling lines at speeds up to 1500 CPM.

Smart synchronization system

Automatic synchronization with filling speed

Automatic dose compensation

Dose accuracy ±0.1%

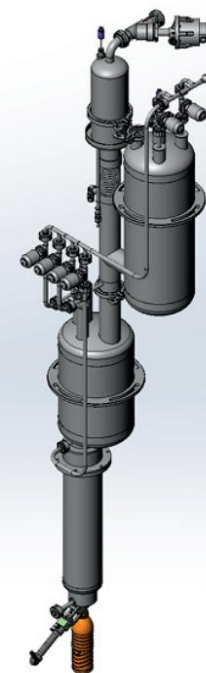
Steam sterilization

Lowest dosing pressure 0.03bar

Max. Liquid nitrogen working pressure:6.0bar

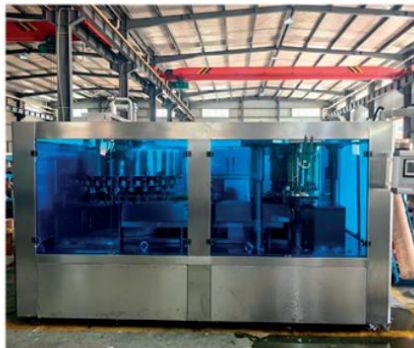
More than 10 years service life dosing valve

Self-monitored with alarm outputs



*The graphic is only a concept presentation. Actual design & dimension depend on the filling machine
 Feel free to contact us to customize a doser to best suit your application.
 We encourage you to bring your ideas to us to help design a doser perfect for your needs.

Filling and Seaming Monoblock Machine



The monoblock machine is combined with two or more machines in one unit for filling and seaming various containers like metallic can and glass or plastic jars.

PRODUCTS PRODUCED

- Cold or hot liquid like juice, fruit puree, brine soup.

GENERAL DETAILS

Round Cans : Tinplate Can, Aluminum Can, Plastic Can.

Lid : Normal Lid, Easy Open Lid, Peel Off Lid

Precise filling volume

DESIGN:

Washing in Place

Option for safety switch system

Option for Clean In Place Connection Design

Option for titanium plated roller

TECHNICAL SPECIFICATION FOR DIFFERENT MODELS

Model No.	WM-FS-12-4	WM-FS-18-4	WM-FS-24-6	WM-FS-32-6
Capacity	80 - 150 CPM	100 - 250 CPM	100 - 300 CPM	200 - 400 CPM
Can Diameter	52-99 mm	52-99 mm	52-99 mm	52-83.3 mm
Can Height	39-170mm	39-170mm	39-170mm	39-170mm
Filling Head	12 heads	18 heads	24 heads	32 heads
Sealing Head	4 heads	4 heads	6 heads	6 heads
Dimension (mm)	2800 x1500x2200	3100 x1800 x2200	3500x1950x2200	4600 x230 x2200
Compressed Air	0.6Mpa	0.6Mpa	0.6Mpa	0.6Mpa
Power	7.5kw	7.5kw	11kw	11kw
Weight	3500kgs	4000kgs	5500kgs	6700kgs



Piston Filling Machine

Piston Filling Machine is designed to fill viscous liquid especially for sauce or paste like pet food, mayonnaise, tomato paste or sauce, mustard sauce, puree, soup etc.

DESIGN

Quick-release Filling Head
 Option for Clean In Place
 Wash In Place
 No can no filling



TECHNICAL SPECIFICATION FOR DIFFERENT MODELS

Model No.	WM-PF-12	WM-PF-18
Capacity	80 - 100 CPM	100 - 200 CPM
Applicable Can Diameter	52-99 mm	52-99 mm
Applicable Can Height	39-170mm	39-170mm
Filling Head	12 heads	18 heads
Sealing Head	4 heads	4 heads
Dimension mm	2350 x1650x2100	2500 x1750x2100
Power	5kw	6.5kw
Weight	200kgs	2800kgs



Seaming Machine



This machine is a new generation can sealing machine designed and manufactured by our company according to the actual situation of domestic canning factories and referring to foreign advanced similar products. It has the advantages of simple structure, convenient adjustment, production capacity, frequency conversion and speed regulation, and can be equipped with steam jet according to customer requirements

GENERAL DETAILS

Round Cans : Tinplate Can, Aluminum Can, Plastic Can.
 Lid : Normal Lid, Easy Open Lid, Peel Off Lid
 Automatic Height Adjustment





DESIGN:

Washing in Place

Option for safety switch system

Option for Clean In Place connect design

Option for full 304 stainless steel material

Option for titanium plated roller

Suitable for any kind of filling machine



TECHNICAL SPECIFICATION FOR DIFFERENT MODELS

Model	WM-GT6B400	WM-GTZX250	WM-GT4B100
Seaming Head	6 heads	4 heads	4 heads
Capacity	≤ 400 cans/min	≤ 200 cans/min	80 cans/min
Can Diameter	D 52.5mm-83.3mm	D 52.5mm-99mm	D105 ~ 153mm
Can Height	H32-133mm	H32-133mm	H39 -178mm
Air Pressure	0.6Mpa	0.6Mpa	0.6Mpa
Power	7.5KW	5.5KW	3KW
Dimension	3300x1500x2100mm	1700 x 1600 x 2000mm	1600 x 2400 x 2000mm
Weight	3500kgs	2500kgs	2500kgs



Kernel Filling Machine

Kernel filling machine is used for filling granule into tin cane like sweet corn, green peas, chick peas, broad beans, small fruit chunks or cubes, which is widely used in canned food and beverage industry.

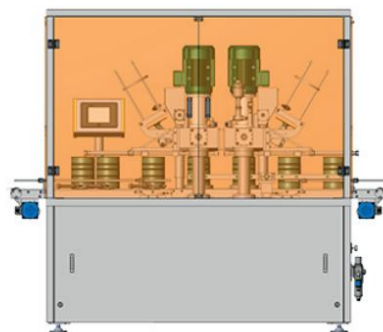


Model	WM-KL-18	WM-KL-24	WM-KL-32	WM-KL
Filling Head	18 heads	24 heads	32 heads	12heads
Production Capacity (cans/min)	0-200	100-300	100-400	20-80
Cans Diameter (mm)	D52.5-99	D52.5-83	D52.5-83	D 153
Cans Height (mm)	39-170	39-170	39-170	39-170
Power	1.5kw	1.5kw	2.5kw	3.5kw
Weight	1000kg	1200kg	1500kg	1500kg
Dimensions (mm)	1450x1550x2000	2680x1900x2100	1720x1980x2100	2100 x 2400 x2200



Vacuum and Nitrogen Flashing Seaming Machine

This machine is designed to seal the tin can used for packing high-end products like infant formula milk powder and protein powder etc. It combines automatic vacuum, automatic nitrogen flashing and automatic sealing functions in one unit of machine. The main electrical components used are Mitsubishi PLC, frequency converter and proximity switch, as well as Siemens touch screen. It provides automatic alarm and corresponding fault cause location.



Model	WM-MCP-2	WM-MCP-1
Seaming Head	2 heads	1 heads
Capacity	12 ~ 14	6~7
Residual Oxygen Percentage	<3%	
Suitable Can Size	D73-127mm(300 ~ 502)H:100-190mm	
Compressed Air Consumption	0.5 m³/min	0.3m³/min
Compressed Air	0.6~0.8MPa	
Power	9kw	4kw
Voltage	380V 50Hz or Customized	
Weight	900kg	700kg
Dimension	2060×1050×1700mm	1900×850×1700mm



Aluminum Foil Overlid Sealing Machine

Aluminum foil overlid sealing Machine is to seal the top of beverage package with aluminum foil to protect cans from dust.

The aluminium foil is heat sealed to the container without glue. This new design adds an extra element of hygiene and value to the product.

Logo can be stamped on aluminum foil overlid, which endows products with additional brand benefits



No.	Item	Specification	Remark
1	Capacity	45 cans per minute	Customizable
2	Diameter Range	50-100mm	Customizable
3	Height Range	80-150mm	Customizable
4	Voltage	380 50Hz	Customizable
5	Power	2kw	
6	Compressed Air	0.4-0.7Mpa	
7	Main Material	SUS 304, Food grade PU	
8	Dimension	L2000×W750×H1800mm	
9	Weight	800kgs	





Internal Pressure Detection Machine

This machine is used for real-time internal pressure detection of soft packaging such as aluminum can or PET bottle that has injected with liquid nitrogen or filled with carbonated drinks. It can quickly detect and remove unqualified products and provide sound and light alarms. Meanwhile, the front-end machines can be monitored at real time to prevent unqualified products from flowing into the market and causing adverse effects.

Machine adopts Siemens PLC and high-precision dynamic tracking sensors. Sensors can detect small pressure changes. And through calculation and comparison, PLC provides timely judgment to achieve real-time monitoring of each tested product that passes through.



Product parameters	
Rated input voltage	220V-50HZ
Weight	150kg
Capability	Max.1200 cans/min
Test accuracy	99.99%
Missing kick rate	Less than 0.01%
Sensor Precision	Better than 0.01bar
Compressed air	Used for container rejection system 8mm diameter of air pipe is needed Pressure requirement:0.4-0.8 Mpa
Applicable product	Beer,Carbonated drinks,Liquid nitrogen injected products PET bottled products



Liquid Level Detection Machine

Liquid level detection machine adopts non-contact detection method measuring the volume of liquid materials filled in container.

Suitable for different speed of production lines and achieve real-time dynamical detection.

Equipped with stainless steel enclosure and 7-inch Siemens touchscreen, with sound and light alarm simultaneously and multilingual available.



Conveyor Belt Conveying Speed	≤ 1.8m/s
Capacity	Max.1200 cans /min(50mm diameter container)
Rejection rate of Unqualified Products	≥ 99%(speed up to 1200 cans/min)
Static Liquid Level Detection Accuracy	≤ 0.5mm(Water)
Dynamic Container Resolution	± 2mm
Power	200W
Container Diameter Range	20-100mm
Container Height	No Limitation
Working requirement	Minimum interval time between can and no can:10ms
Automatic Rejection System	✓





Vacuum Detection Machine

The vacuum detection machine adopts acoustic wave technology and non-contact online detection method to detect the sealing performance of containers, including leak detection, vacuum detection.

Suitable for metal cans, screw caps, and metal anti-theft lid sealed products. When the container passes through the probe, the probe applies a "non-contact" tapping action on the top of the container, making the top of the container emit sound. Containers with different vacuum degrees will emit different sounds. Advanced acoustic technology check if the container is leaking based on the sound and automatically remove unqualified products



Conveyor Belt Conveying Speed	70m/min
Capacity	Max.1200 cans/min(Adjustable)
Weight	50kg
Voltage	220V/50Hz
Compressed Air	0.3-0.8Mpa
Touch Screen	25inch color screen
Automatic rejection system	√



Leak Detection Machine

This machine is designed for leak detection for aluminum foil sealed or plastic film sealed products in the industries like food, beverage, medicine, and chemical, etc. It provides online real-time detection with automatic rejection system to further ensure the quality and safety of the manufacturer's products



Container Diameter	40-120mm
Container Height	100-350mm
Speed(60mm diameter container)	Leakage diameter $\geq 0.5\text{mm}$:500 cans /min
	Leakage diameter 20.25mm:300 cans /min
The higher detection accuracy, the slower detection speed, and the smaller the leakage, the more time it takes to accumulate pressure difference.	
Rejection rate of Unqualified Products	$\geq 99\%$
Max. Conveyor Belt Speed	80 m/min
Automatic Rejection System	√
Power	1.5kw
G.W	300KG
Dimension	2500×750×2100 mm





Empty Can Dividing Machine

The empty can dividing machine is designed based on the extensive use of currently stackable 2-pieces can. This equipment is used to distribute stacked empty cans onto conveyor belts, replacing place cans manually and effectively improving production speed. The equipment is suitable for round cans, square cans, and other shapes of stackable empty cans.

Capacity	200 cans /min
Suitable Can Diameter	77-99mm
Suitable Can Height	35-65mm
Power	0.5kw
Dimension	680×420×1760mm
Weight	80kg
Other Applicable Can Types	Square can, Irregular Stackable Can



Liquid Nitrogen Tank



Willman Machinery offers liquid nitrogen storage systems for customers. From 20 tons big liquid nitrogen storage tank to 175L liquid nitrogen dewar. We have the liquid nitrogen supply solution for your doser demand. The tanks are thermally efficient with reliable controls for long-term trouble-free operation.

Vacuum Insulation Hose



- This is vacuum insulated pipe, stainless steel fabricated with a highly flexible outer spiral wrap
- All ends are polished to a high luster finish
- Multiple layers of super-insulation are applied to achieve the lowest possible heat loss
- Every hose is helium leak tested and cold shocked to ensure its vacuum integrity.

