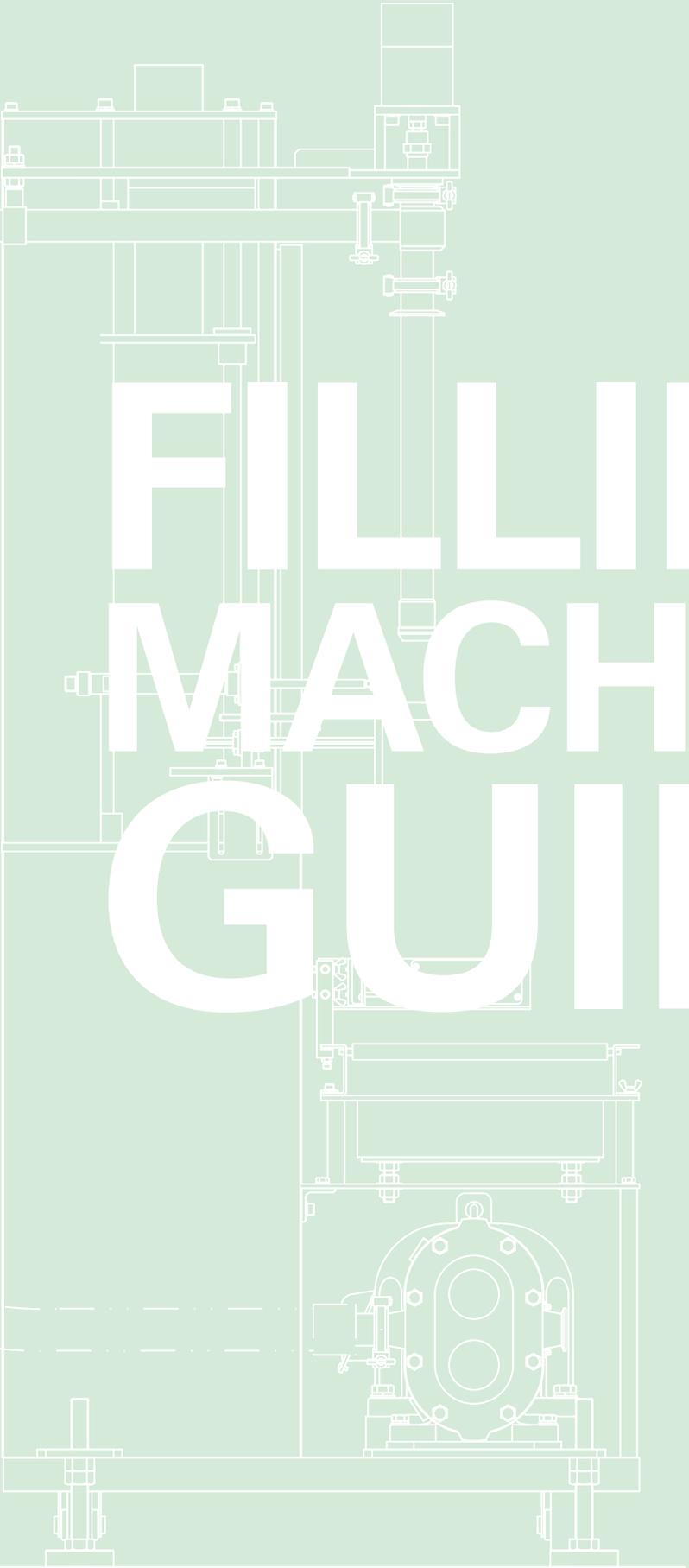


NAKAKIN

**NAKAKIN FILLING
MACHINE**



FILLING MACHINE GUIDE



1 Nakakin pump equipped

Merit of being equipped with Nakakin Rotary Pump

- Distribution all level of viscosity.
- The machine is less affected by previous process, resulting stable filling.

2 Bubbly liquid is also promptly filled

A motor is used to move the nozzle up and down. Controlling filling speed by the pump and moving up speed of the nozzle, precise following to the liquid level is possible. Thus liquid is filled with minimum bubbling.

3 Excellent quantitativity

Amount of filling is measured by method using a load cell, accomplishing high accuracy filling. Releasing the nozzle is controlled in two stages to improve its accuracy.

4 Easy operation with touch panel

Up to 99 kinds of filling data is registered. The machine has a lot of functions such as automatic free fall compensation. All filling patterns can be set.



5 Space-saving and easy to be moved

The machine has casters for easy moving.

6 Long service life

The main body of the filling machine is made with stainless steel, making the machine tough and durable.

7 Supported container

The machine supports range of containers, cans to plastics, even bag in box containers.

* For the detail, refer to Examples of supported containers in page 6.



WF-1M

Filling nozzle

The wide variations of nozzles support many kinds of containers.

- 1.5 S 1.2 A
- 1.0 S 1.0 A
- 1.5 A 8 A

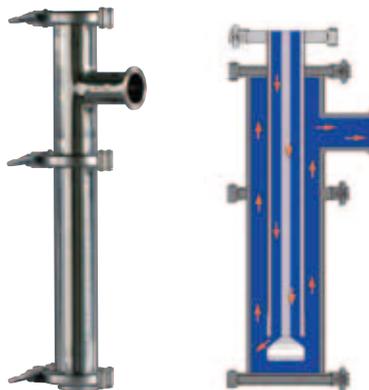
* Nozzles other than listed above are manufactured.



CIP adapter

Easy cleaning !

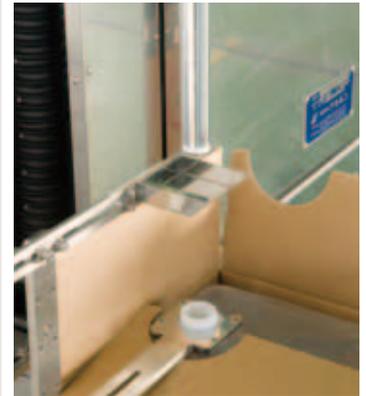
Automatic cleaning can be performed by attaching CIP adapter. The pump, piping, and valves have sanitary specification. (easy to disassembly and cleaning) SUS316 and heat-proof hose for food are used in wetted parts.



Dripping pan

Keeping containers clean

After filling, dripping from the nozzle is prevented by the dripping pan. It helps smooth work and good hygiene. Attaching and detaching of the dripping pan is easy.



Options

Printer

The printer prints out the filled weight. Winding type of a printer, which does not hang down the printed paper is also available.

For paperless management, an option to store the filled data into a compact flash media and read them out from a personal computer is also available.

BIB adapter

The adapter secures a mouth of a bag in box container. The bag in box container is filled as it is or after taken the bag out. As a matter of course, there is no need to inflate it before filling.



Plastic bottle adapter



The adapter secures a mouth of a plastic bottle.

Compressor

Equipping a compressor eliminates need of compressed air supply.

Others

Thermometer, foot-operation switch, cushion tank, adapter for slanted mouth, special adapter for pail can and the like.

* Other than listed above, we will manufacture and have discussion.



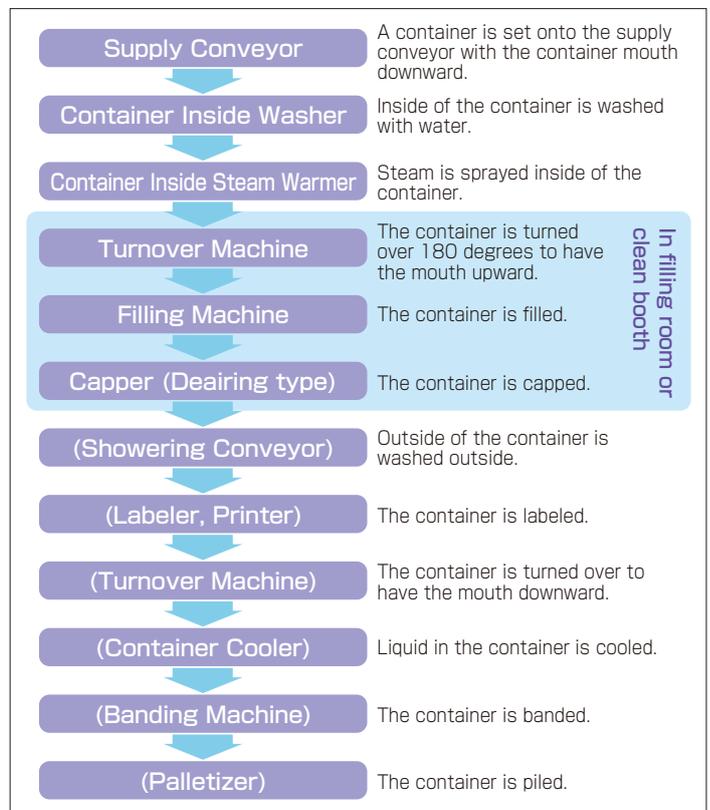
WF-3S2LINE

Nakakin develops and manufactures automatic filling line. We construct a set of filling line, from a container supply conveyor to a palletizer, satisfying customer's requirements.

The above picture shows a filling line for 18-liter square cans. Besides the line, we construct lines for a variety of containers such as plastic bottles, BIB (bag in box) containers, plastic containers, and metal barrels. Making full use of our know-how as a pump manufacturer, we support many kinds of liquid to be filled such as *bubbly liquid and hot liquid*.

* As for pumps, refer to *Nakakin Pump* catalogue provided separately.

■ Operation Flow



Types of Capper

■ Buckling type of crimp capper



The machine performs crimp capping by buckling a container body to raise the level of liquid to the container mouth. Thus air in the container is discharged.

■ Capper



The machine automatically caps containers delivered to the capping part.

Automatic Double Filling Machine

■ WF-32



This machine is dual type of automatic filling machine that support various containers more flexibly than model WF-82.

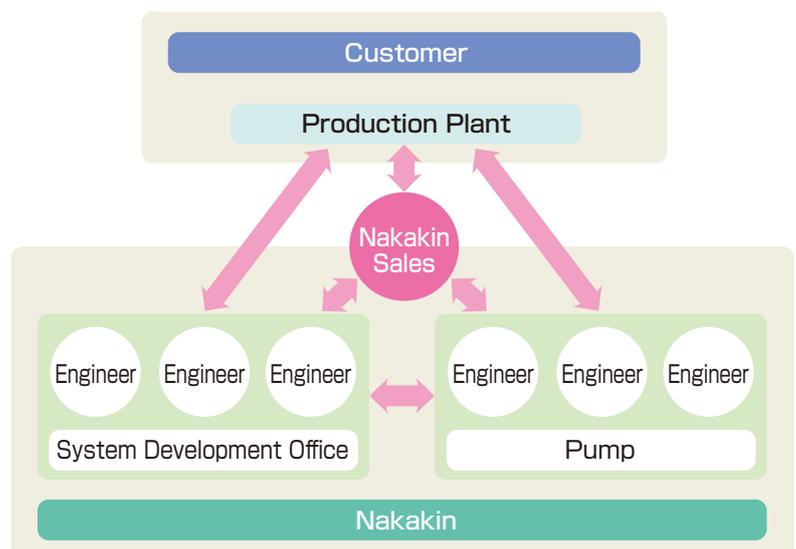
■ WF-82



This machine is dual type of automatic filling machine that need less space than model WF-32.

Introduction Flow of the Filling Line

There is one thing we always consider when we design and manufacture the filling line. That is "The answer is found at the site." Therefore, we design devices after conducting hearings directly about thought of people working in Customer's factory and problems they have. Customer, a person in charge, and an engineer together discuss what is *the really necessary device in the site*. We not only construct a filling line in accordance with the specification, but also resolve problems in the site to obtain satisfaction. That is Nakakin filling line.



■ Semi-automatic filling machine



WF-1MCAPS

This single machine performs a series of works for bag in box containers; (1) uncapping, (2) filling, (3) capping.



WF-1MD

This is the filling machine for metal barrels.



BWF-1MS

This is the filling machine operable in an explosion-proof area.

■ Full automatic filling machine



WF-92C

This is the filling machine for small containers such as plastic bottles. The only work the user does is placing containers on the supply conveyor. After that, the machine performs works from filling to capping.



WF-3 line

This is the single type of automatic filling line. The filling machine performs filling and capping, then the sealer seals containers and labeler labels the side of containers.



WF-83BIB

This is the automatic filling line for BIB containers. The only work the user does is setting BIB containers on the tray. After that, the machine performs a series of works from filling to capping and placing in a box.

Examples of Supported Containers

The picture shows examples. Other types are also supported.



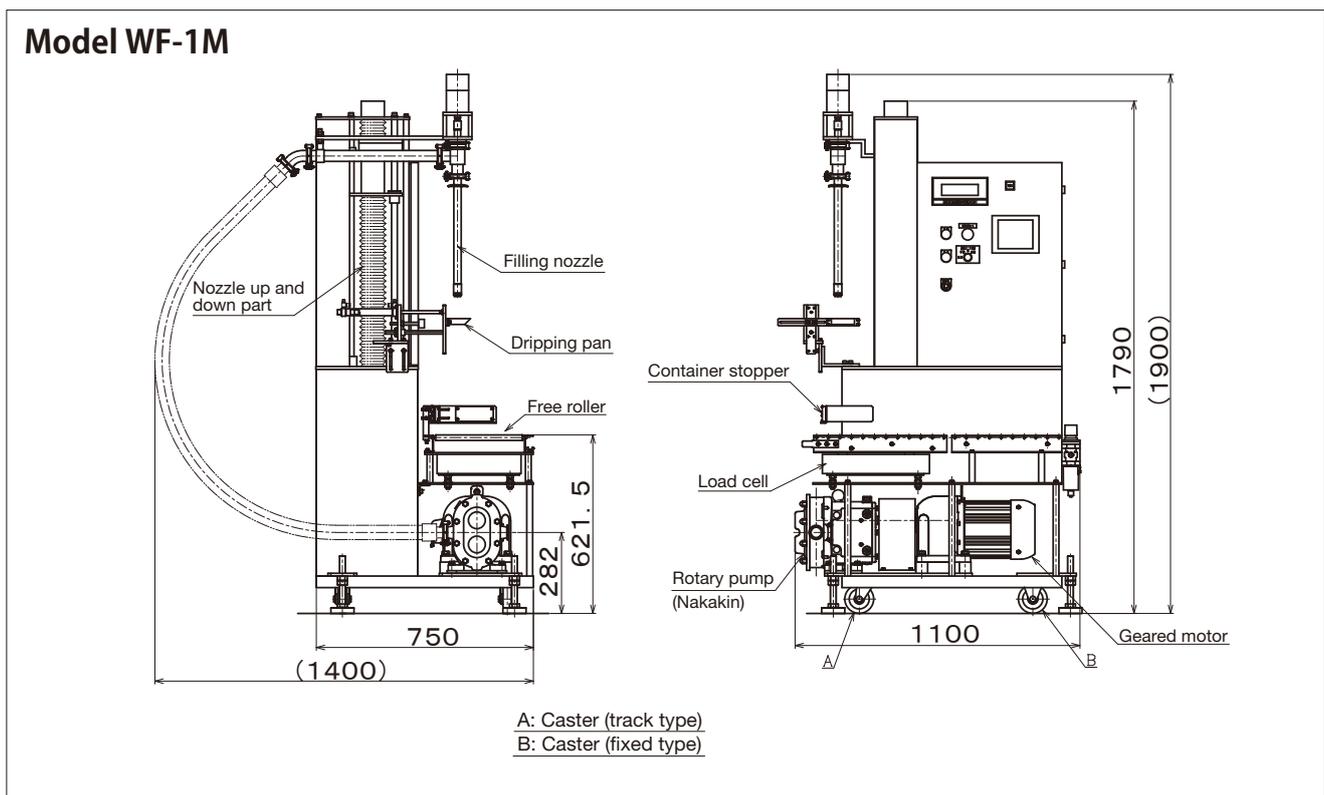
Principal Specification

	Semi-automatic Filling Machine		Full Automatic Filling Machine	
Model name	WF - 1 M	WF - 3	WF - 3 D	WF - 9
The number of kinds of data registered	Up to 99 kinds	Up to 80 kinds	Up to 80 kinds	Up to 80 kinds
Container to be filled	18-liter square can, BIB, plastic container	18-liter square can, plastic container	metal barrel, container	plastic bottle, small plastic container
Capacity (*1)	150 containers / hr. * For 18-liter square can	Single nozzle: 120 containers / hr. Double nozzle: 240 containers / hr. Triple nozzle: 360 containers / hr. * For 18-liter square can	40 containers / hr. (Filling time only) * For 200-liter metal barrel	Single nozzle: 240 containers / hr. Double nozzle: 480 containers / hr. Triple nozzle: 720 containers / hr. * For 500 ml plastic bottle
Accuracy	±30g		±500g	±3g
Range of setting	30kg		300kg	6kg
Minimum scale displayed	5g		50g	1g
Pump (*2)	JM25EP-C		JM55EP-C	JM10EP-C
Standard option (*3)	Thermometer			
	Printer			
	Large dripping pan			
	Filled weight stored into a compact flash card			
	Warning lamp			
	Pump placed separately			
	LAN - PC filled data collection system			
	Compressor Foot-operation switch BIB adapter	Sampling switch Linking function to pre- and post-processes		
Other features and functions	All parts of main body of filling machine are made with stainless steel, dripping pan, automatic subtraction of tare, inching, automatic inching, deceleration at container mouth, automatic free fall compensation, production counter, operation of solid matters, pump acceleration switching, and other functions.			
	1) Used for all kinds of liquid 2) Quick filling speed 3) High accuracy filling 4) Easy to be cleaned			

*1 In the case of operation with water (Accuracy above depends on liquid type and nozzle opening size).

*2 Additional pumps are needed along with the number of nozzle.

*3 Besides options listed above, we will manufacture other options.





Representative :

Contact person :

 **Safety precautions**

For proper operation of the machine described in this catalogue, before using, make sure to read through the *instruction manual*.

NAKAKIN CO.,LTD.

2-10-5 Kasuga Kitamachi Hirakata Osaka
Japan 573-0137
TEL: +81-72-859-8948 FAX: +81-72-858-5504
E-mail: info@nakakin.eu

www.nakakinpump.jp

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