

# KIT

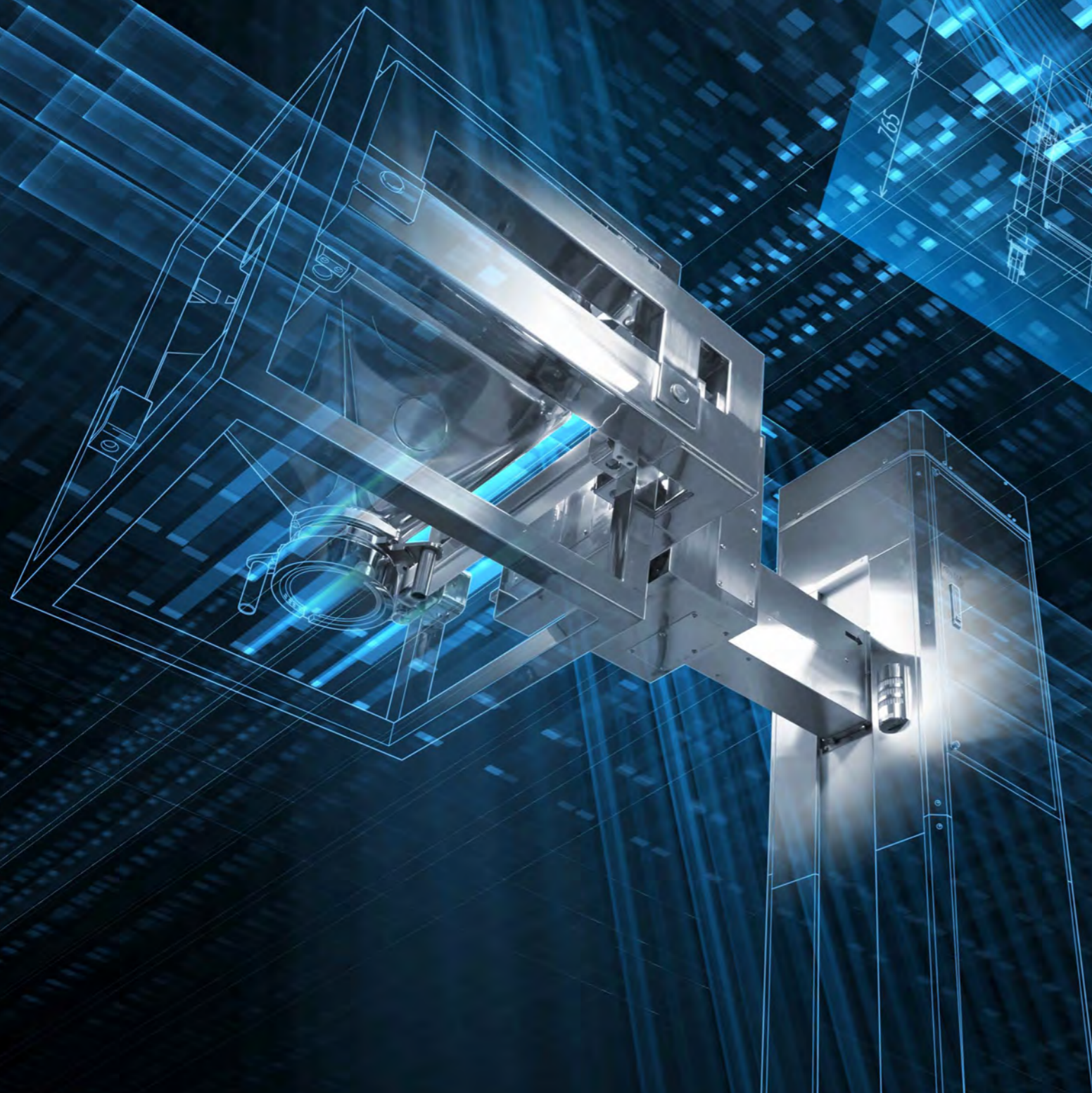
Deeper **K**nowledge.  
More innovate **I**deas.  
More advanced **T**echnology.

PRODUCTION LINE  
FOR PHARMACEUTICAL & COSMETICS  
GRANULAR MATERIAL HANDLING/DOCKING/CLEANING





KIT responds to the customer's needs by making high-quality reliable products.



KIT works closely with its customers to provide the most reliable products that are used by industries, such as pharmaceuticals, which requires an extremely high-level production quality.

KIT and the customer work side-by-side in order to design and create the best solution for problems the customer faces on the production line.

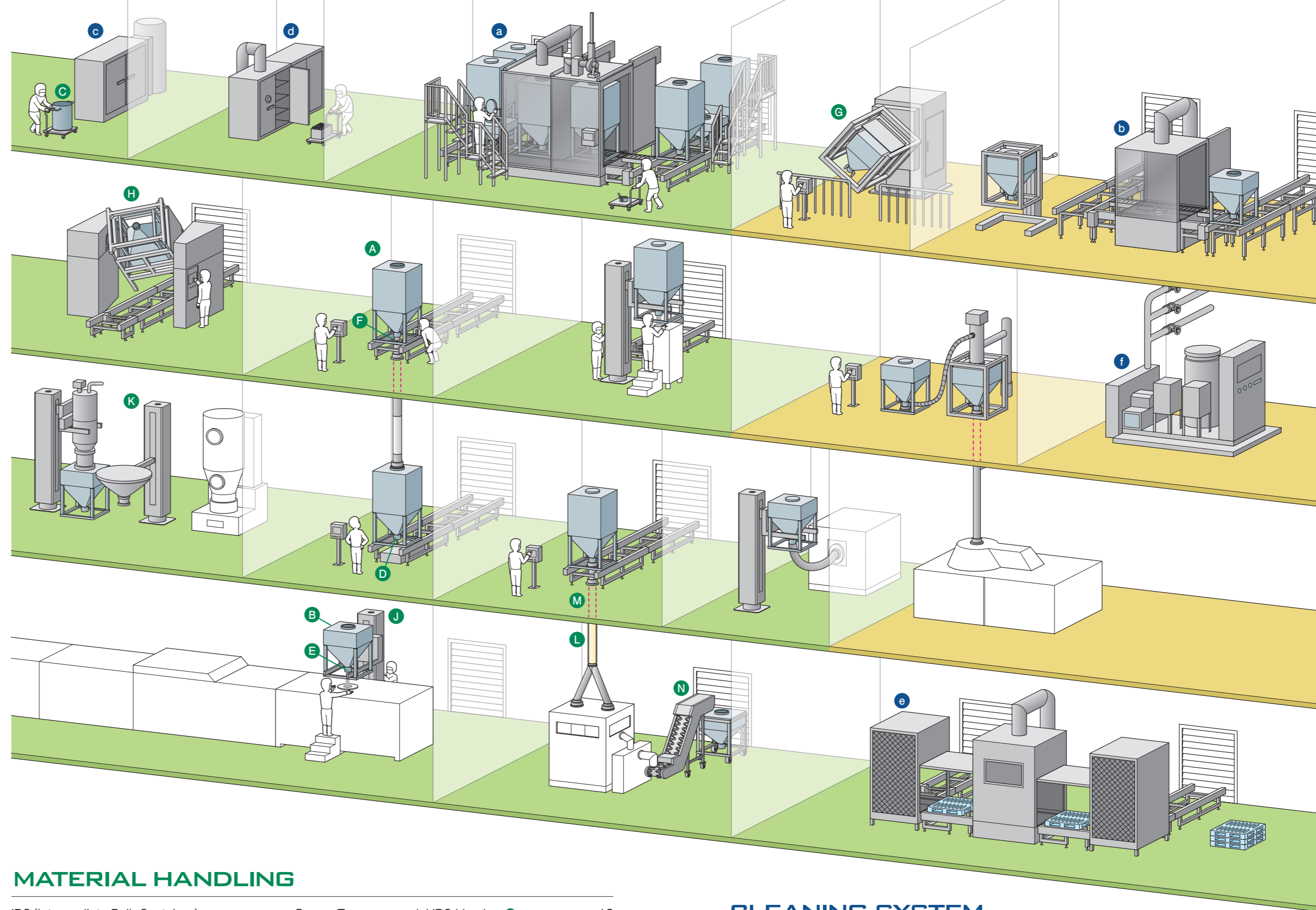
KIT hopes to be the best partner for the customer while supporting the customer's safety and stable productivity.





KIT responds to the customer's needs by making high-quality reliable products.

KIT PRODUCT LINEUP



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# IBC (Intermediate Bulk Container)

In the manufacturing process using IBC, the design of container is extremely important in all stages, such as input, weighing, mixing and cleaning. Since a container has close link with a chain of handling, such as a finish of the contact area (an area contacting with granular/liquid), the shape of its legs and the location to install, the design of a valve should go forward taking well balance with the entire design. KIT proposes the ideal container making the best use of its in-house planning and designing.



**The customer's concept**

- We request to change the volume of the container without restriction in accordance with the product.
- We request the shape easy to carry, clean and dry.
- We request to put coating on the granular/liquid contact area.

**KIT design**

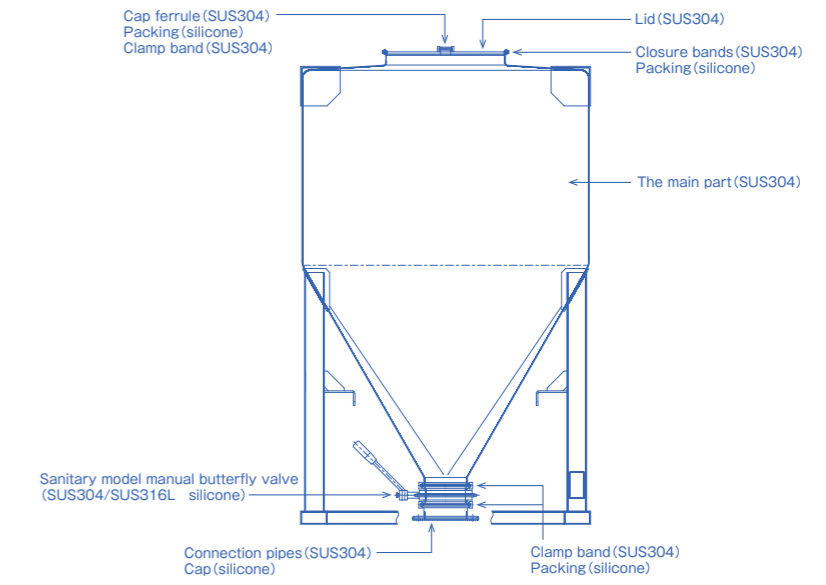
- KIT designs specifically from 10L up to 2000L in house.
- KIT proposes the best shape of the customer based on the KIT's past know-how.
- Able to make all sorts of coatings such as Teflon coating.

**In accordance with the customer's requirement, KIT designs and proposes various specs of IBC.**

With D-tag	With handle	Inspection window
With caster Antistatic tire	With exclusive dolly Adding assist function is also available	

## IBC for GRANULAR MATERIAL

Row material handling container for such as pharmaceutical & food.  
Capable size : 50L ~ 2000L

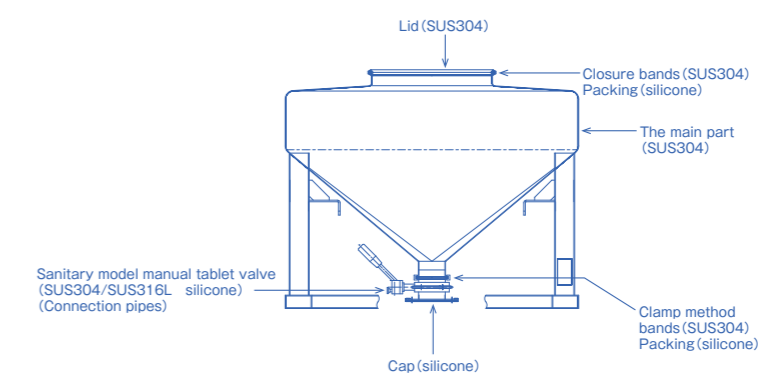


※It is available to alter SUS304 into SUS316L if required.

Volume	sizes mm (Available to produce other sizes.)			Standard specification (Basic finish)	Option specification		Consumables
	W	D	H				
600L	1100	1150	1200	Interior #400	●Material change	●With card holder	Packing Cap ※Please let us know the drawing number.
1000L	1100	1100	1530	Exterior #240~	●Container change	●With ID tags	
1500L	1100	1100	1950		●With caster	●Bar-code label installation plate	
2000L	1100	1100	2380		●With exclusive dolly	●Air removing ferrule	

## IBC for TABLET

Tablet/capsule handling container  
Capable size : 300L ~ 600L



※It is available to alter SUS306 into SUS316L if required.

Volume	sizes mm (Available to produce other sizes.)			Standard specification (Basic finish)	Option specification		Consumables
	W	D	H				
300L	1100	1100	760	Interior: #400+EP	●Material change	●With ID tags	Packing Cap ※Please let us know the drawing number.
500L	1100	1100	930	Exterior: #240~	●Container change	●Bar-code label installation plate	
600L	1100	1100	1000		●With exclusive dolly	●Air removing ferrule	
					●With card holder	●Electro conductivity PTFE lining treatment	

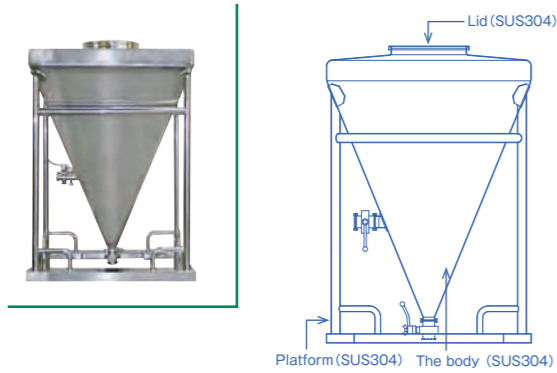


## OTHER IBCS

KIT designs and offers a wide selection of shapes and materials to best suit the customer's criteria.

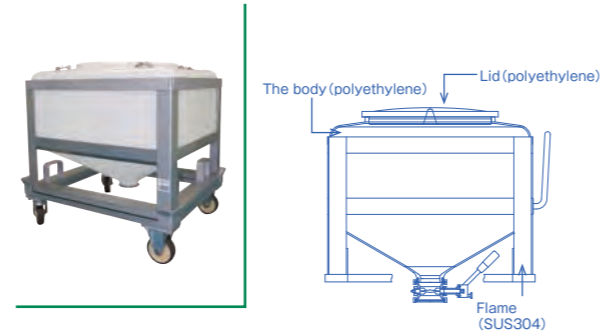
### IBC for ointment

Use : Cylinder pressing container, Pyramid container



### Resin type IBC

Use : Tablet and Capsule storage container

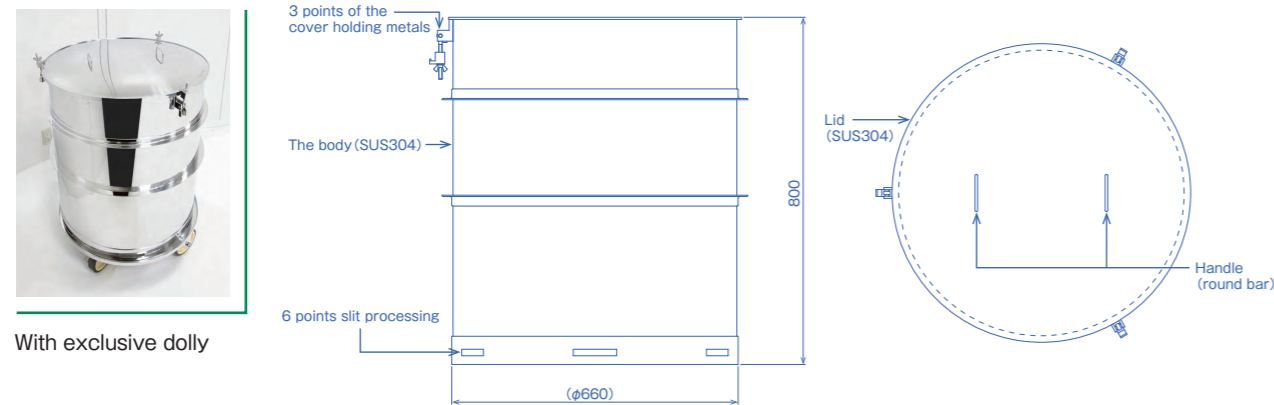


### Sanitary container

Use : Storage container for such as pharmaceuticals, food, etc Size: 10L ~ 250L

KIT produces sanitary containers with wide-ranging widths and shapes suitable for the customer's use or handling method.

Example 250L sanitary drum can



With exclusive dolly

**The smooth surface does not allow water or other foreign substances to accumulate.**

Welding is done entirely on the flanges and handles. This optimizes cleaning efficiency.



# SANITARY VALVE (Butterfly Valve for Powder and Tablet Supplies)

Sanitary valve (The valve for manufacturing solid type drugs) needs to be absolutely divided, easy to handle and easy to clean. As the general agent of STERI VALVES Italy, KIT delivers the valves with the specification and standard suitable to Japanese customers' needs.



## STERI VALVES

Varieties of STERI's sanitary valve have been well-received and widely used in pharmaceuticals, cosmetics and food industries in many countries, not only in Europe, but also in North and Central American countries. STERI's compact and cavity-less design has satisfactorily maintained the strict hygienic and functional requirements of the pharmaceutical industry for a long time. KIT supplies its valves with FERRULE standard in order to make the best use of STERI's achievements in Japan.

### History

- Established in 1991
- ISO 9001 : 2008 OHSAS 18001 : 1999
- Certified as
- GMP (Good Manufacturing Practice)
- EHEDG (European Hygiene Engineering Group Guideline)
- KIT started imports from STERI VALVES as Japan's general agent in 2003.





## Sanitary Valve features

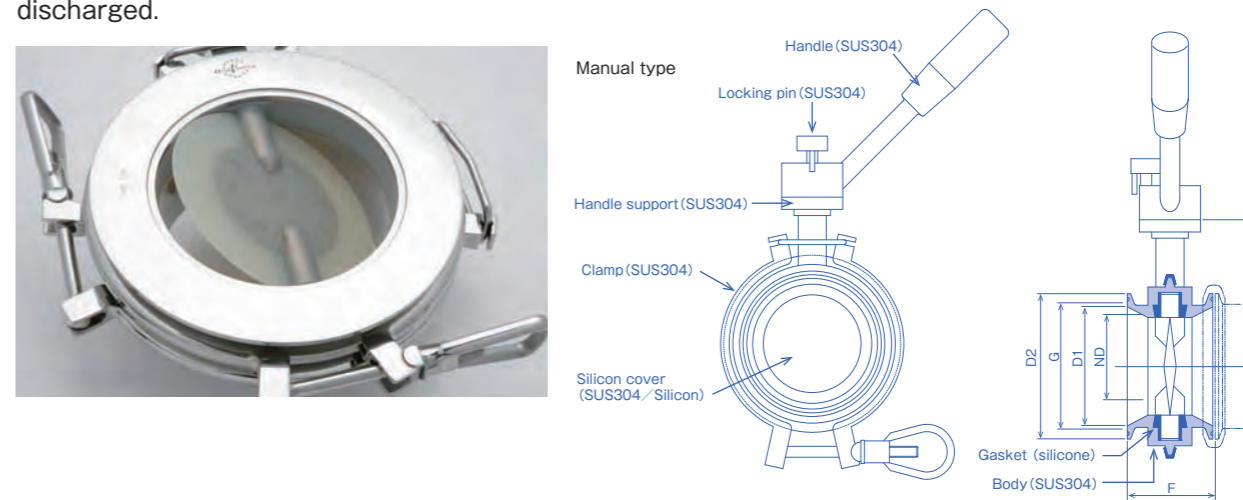
- Light weight : By making the inner space between walls narrower, weight reduction is achieved.
- Easy to clean : Cleaning is easy due to a simple shape and structure.
- A modular system : The valve body can be easily replaced by different types of valves, such as Butterfly, Tablet, or Rotary valves.



Automatic pressure specification: 0.45 Mpa~

## SANITARY TABLET VALVE (THE VALVE for TABLET)

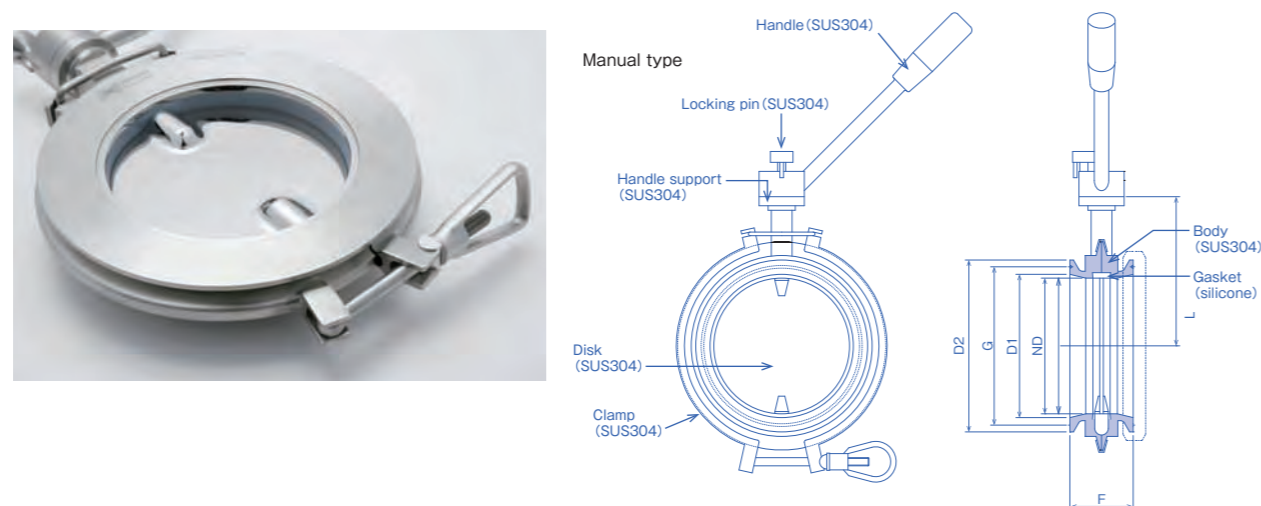
The valve body is made of elastic silicone which closes without damaging the tablets as they are discharged.



※It is available to alter SUS304 into SUS316 or SUS316L if required.

Type	Size (Gas tube standard 30 Ferrule)						Standard specifications	optional specifications	
	ND	D1	D2	G	F	L		Finish	Parts
80A	80	83.1	108	97.1	60	120	Powder contact area #400 (Ra<0.1μ) Exterior #200 (Ra<0.6μ)	Electrolytic Polishing	Japanese standard Ferrule packing silicone. Japanese standard Closing Ferrule SUS304 SUS316. Japanese standard clamp for low pressure/high pressure. Custom modifications of materials and configurations are available.
100A	100	108.3	135	123	70	130			
150A	150	158.4	190	175	70	165			
200A	200	208.3	244	230	70	190			
250A	250	259.4	290	277	80	225			

## SANITARY BUTTERFLY VALVE

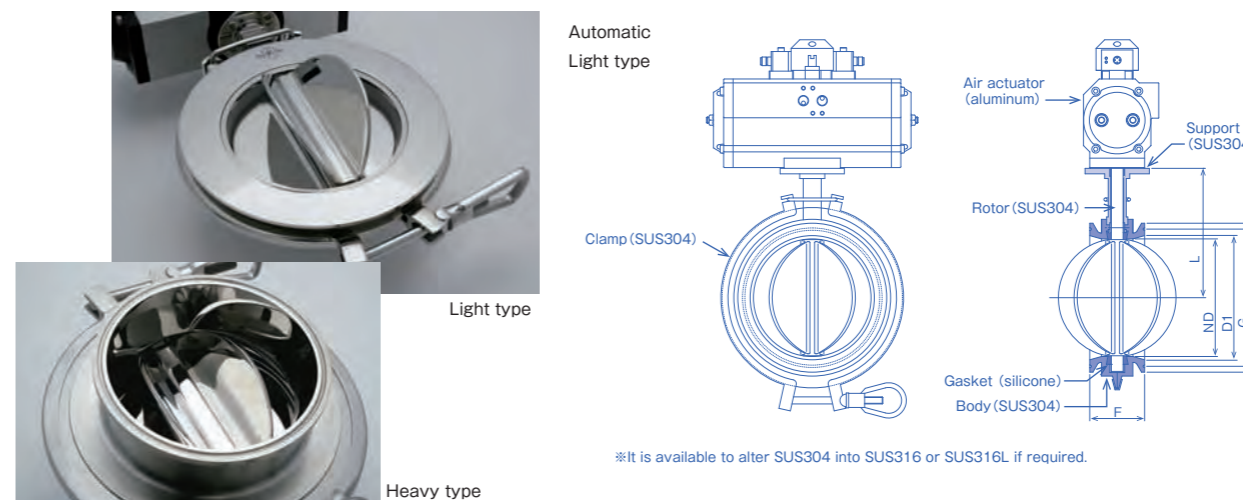


※It is available to alter SUS304 into SUS316 or SUS316L if required.

Type	Size (Gas tube standard 30 Ferrule)						Standard specifications	optional specifications	
	ND	D1	D2	G	F	L		Finish	Parts
80A	80	83.1	108	97.1	60	120	Powder contact area #400 (Ra<0.1μ) Exterior #200 (Ra<0.6μ)	Electrolytic Polishing	Japanese standard Ferrule packing silicone Japanese standard Closing Ferrule SUS304 SUS316 Japanese standard clamp for low pressure/high pressure Custom modifications of materials and configurations are available.
100A (long)	100	108.3	135	123	70	130			
100A (short)	100	108.3	135	123	60	130			
150A	150	158.4	190	175	70	165			
200A	200	208.3	244	230	70	190			
250A	250	259.4	290	277	80	225			
300A	300	309.5	344	330	80	250			

## SANITARY ROTARY VALVE

The purpose of the Sanitary Rotary valve is for quantitative supply required for tablet machines, filling machines, grinding machines and weighing stations in the pharmaceutical/food industry. Depending on the usage, there are two types, "light" and "heavy".



※It is available to alter SUS304 into SUS316 or SUS316L if required.

Type	Size (Gas tube standard 30 Ferrule)						Standard specifications	optional specifications	
	ND	D1	D2	G	F	L		Finish	Parts
80A	80	83.1	108	97.1	60	120	Powder contact area #400 (Ra<0.1μ) Exterior #200 (Ra<0.6μ)	Electrolytic Polishing	Japanese standard Ferrule packing silicone. Japanese standard Closing Ferrule SUS304 SUS316. Japanese standard clamp for low pressure/high pressure. Custom modifications of materials and configurations are available.
100A	100	108.3	135	123	70	130			
150A	150	158.4	190	175	70	165			
200A	200	208.3	244	230	70	190			
250A	250	259.4	290	277	80	225			
300A	300	309.5	344	330	80	250			

## ■ SINGLE AXIS MODEL IBC BLENDER

### Customer's concept

- There is a limit to the room layout.
- We want to use a dolly when handling the container.
- We need to safely secure the container while it is rotating.

### KIT design

- KIT adapts a compact single axis method (going and returning).
- KIT offers a LIFT UP method to directly raise the container from the floor.
- KIT offers a safety fence to isolate the operating area from the safe area.

### Specifications

Facility dimensions	W3770×D2990×H2150mm (Blending space size)
Weight	1.8t
Electrical consumption	6kW
Handling	Sequencer / Touch panel
Suitable container	150L IBC

Specifications can be changed depending on the container form, inner structure and weight.



## ■ TWO AXES MODEL IBC BLENDER

### Customer's concept

- We want automatic transportation by means of a conveyor.
- We want to mix various sizes of containers.
- We want to install NIR.
- We want to measure the weight before and after blending.

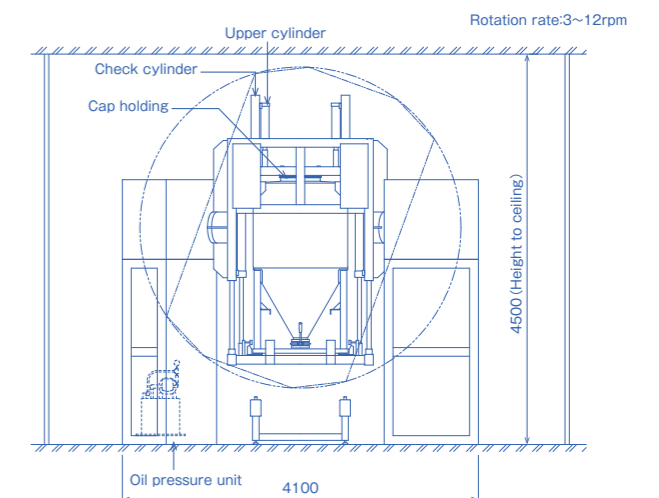
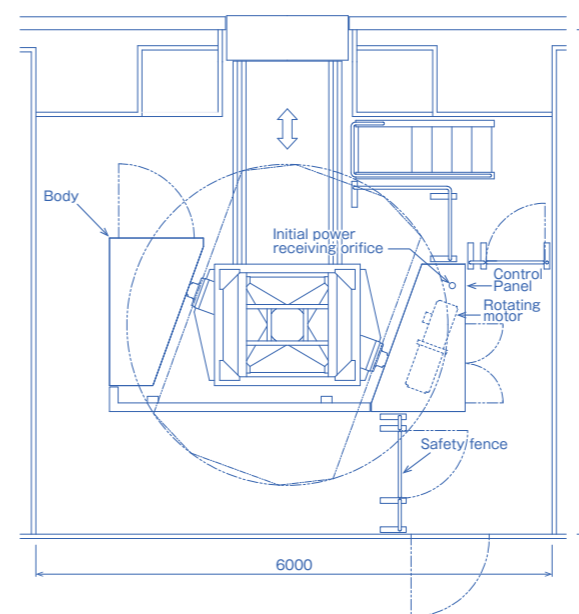
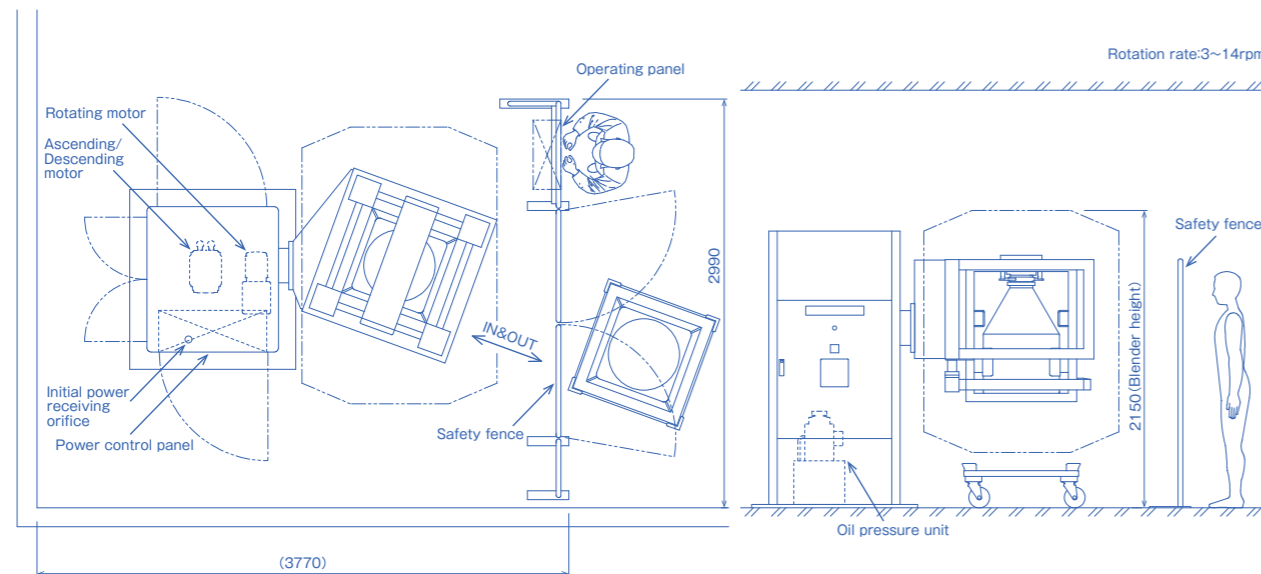
### KIT design

- KIT offers automatic chucking from the stage of conveyor transportation.
- Available for multi-sizes of container.
- Available to install NIR.
- KIT designs and produces a conveyor installed with an electronic weight scale.

### Specifications

Facility dimensions	W600×D5913×H4500mm (Blending room size)
Weight	4t
Electrical consumption	15kW
Handling	Sequencer / Touch panel
Suitable container	300L ~ 1500L IBC

※Specifications can be changed depending on the container form, inner structure and weight.  
 ※We have actual results of suitable container up to 2000L.



**In addition to the above, it is our pleasure to design and offer various specifications of containers appropriate for the customer's needs.**

According to customer's requirement, such as blending substance, the container form, blending capacity, KIT produces a container with the best form and specification based on KIT's rich business experience.

**[Installation example]**  
 A mobile model blender available to blend multiple sizes of sanitary containers.

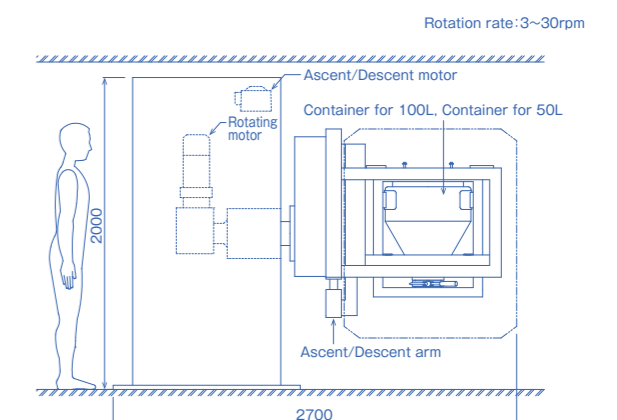


## ■ BLENDER for TESTING

**Blender testing is available.**

There are testing machines and testing containers (50L, 100L) within KIT factory so that blend testing is available by using IBC blender. If you request testing, do not hesitate to inquire.

※As to verification and judgment of blending results, it is on the basis of customer's standards.





# IBC LIFTER

The necessary movement required for the shifting of IBC and sanitary container and also for injection is precisely and safely practiced in line according to the sequence. It equips the function which secures smooth and appropriate cooperation with injection, weighing and mixing.

## REVOLVING LIFTER

### Customer's concept

- We request to ascend/descend and revolve the IBC within limited space.
- We request to directly transfer the container from the dolly or mobile cart.

### KIT design

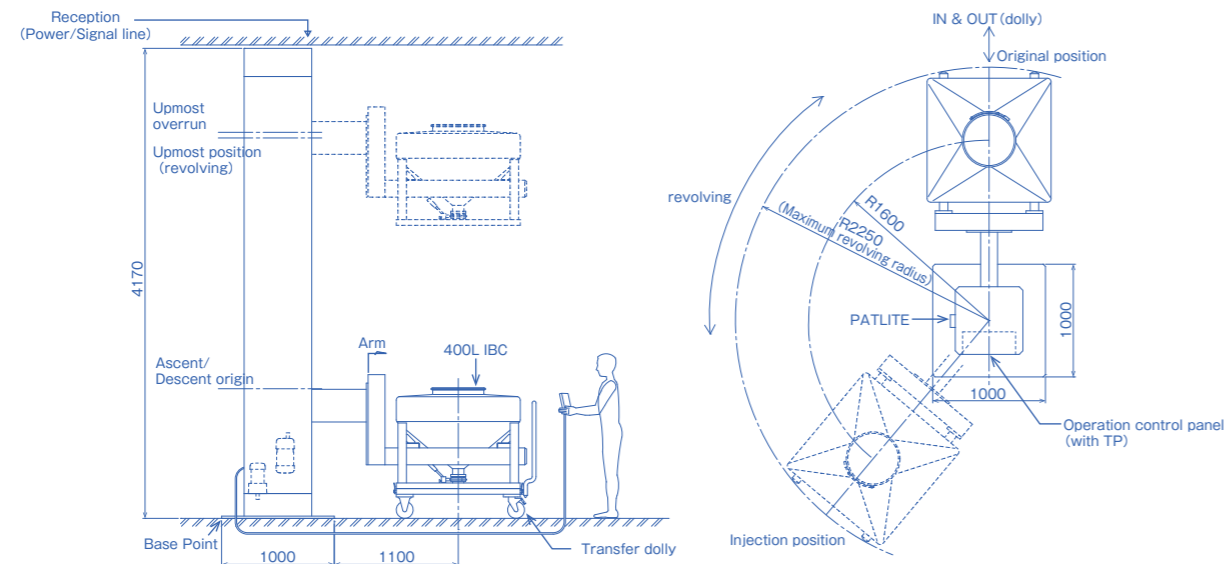
- KIT designs the control method or the form suitable for room space.
- KIT designs the arm to integrate with a dolly and caster.

### Specifications

Facility dimensions	W2750xD4270xH4170mm (width and depth are flexible)
Weight	about 1.25t
Electrical consumption	1.5kW
Suitable container	400L IBC for tablets
Ascent/Descent	The height of injection is 2500mm, speed: 1.5 m/min
Revolving	Revolving angle : 140° Maximum speed : 20~30 seconds (90°) Inverter control
Operation	Remote control, Control panel, Touch panel.



※The specifications can be changed depending on various situations.



Additionally, KIT designs and proposes various specifications of container suitable for customer's needs.



【Installed example】  
A lifter which simultaneously ascends/descends and turns round two sanitary containers then injects.



【Installed example】  
Peripheral accessories needed for injection are available to propose and produce together with the lifter.

## INVERTING LIFTER

### Customer's concept

- We request to inject product into the device from IBC or sanitary container.

### KIT designs

- Available to cope with the operation of multiple sizes of IBC and sanitary container.
- Available for smooth injection into other equipment making use of KIT expertise.

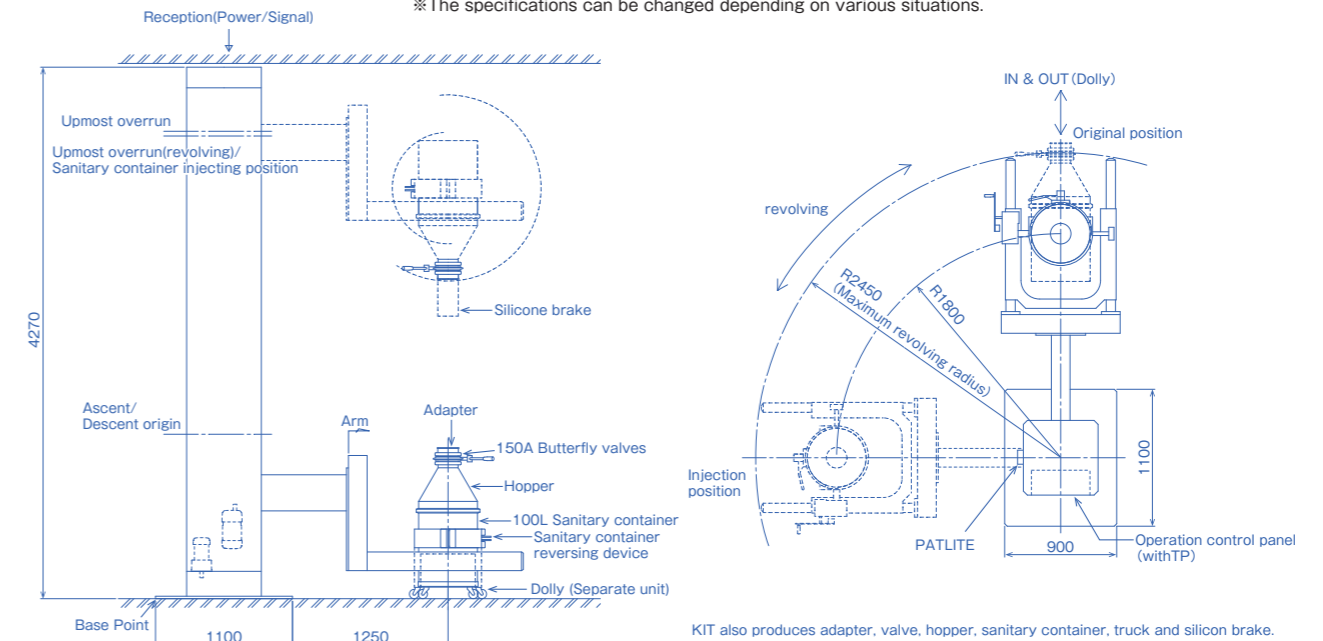
### 【Installed example】

The lifter ascends/descends, revolves/inverts the drying container and injects into other equipment.

### Specifications

Facility dimensions	W2900xD3000xH4270mm (W,D are movable range)
Weight	about 1.25t
Electrical consumption	1.5kW
Suitable container	800L, 400L IBC for powder (ascent/descent, revolving) 100L sanitary container (ascent/descent, reversing, revolving)
Ascent/Descent	Injection height : 2500mm speed: 1.5m/min
Revolving	Revolving angle : 90° Maximum speed: 20~30 seconds (90°) Inverter control
Reversing	180° (Sanitary container, only)
Operation	Remote control, Control panel, Touch panel

※The specifications can be changed depending on various situations.

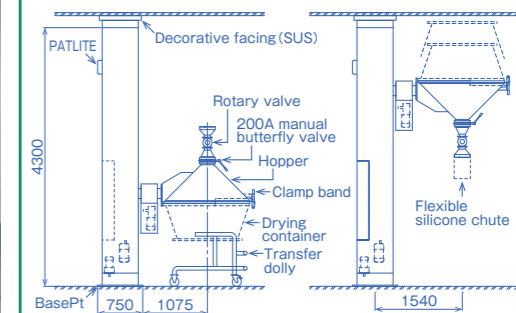
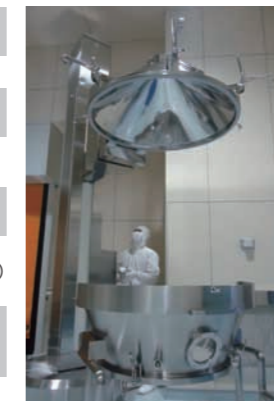


### 【Installed example】

The lifter ascends/descends, revolves/invert the drying container and injects into a power mill.

### Specifications

Facility dimensions	W2675xD2675xH4300mm (W,D are movable range)
Weight	around 1.4t
Electrical consumption	1.5kW
Suitable container	Drying container
Ascent/Descent	Speed: 2.2m/min
Revolving	Revolving angle : 90° Maximum speed : 8~11seconds (90°) Inverter control
Reversing	Rotating angle 180° Speed 2.4 rpm Inverter control
Operation	Control panel, Touch panel



※The specifications can be changed depending on the container form, inner structure and weight.

IBC (Intermediate Bulk Container)  
Sanitary valve  
IBC blender  
IBC lifter  
Docking station  
Weighing/Filling equipment  
Other handling equipment  
IBC Cleaning system  
Sanitary container cleaning system  
Other cleaning/Drying system  
CIP system



# DOCKING STATION

Today, as a trend of the handling formula for pharmaceuticals, the injection method from upper floors to lower floors by utilizing gravity is generally adapted.

A variety of knowhow is required in order to evenly drop the pharmaceutical powder without breakage.

Also for the sound management within the factory, the uncomplicated procedures for maintenance and the prevention against scattering dust are important factors.

KIT's docking station utilizes a complete system taking account of these points.



## Points of discharge

- Smooth discharge
- Powder does not disperse
- Easy to clean the connection part



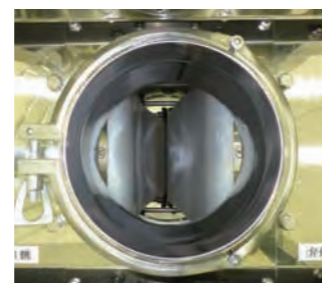
KIT introduces a vibrator in order to drop powder effectively.



KIT introduces an automatic connecting expansion seal of silicone to prevent dispersion.

## Points of injection

- A classification of powder does not take place at the time of injection.
- Tablets are not damaged when they are dropped.



A multistage chute with a tube opens in stages by means of an air cylinder.



A balloon chute that gently drops product by putting air between the inner tube (made of polyethylene) and the outer tube.

# INJECT STATION/DISCHARGE STATION

## Customer's concept

- We request to discharge and inject powder and tablet.
- We request to prevent powder scattering and tablet breakage as much as possible.

## KIT design

- KIT introduces a docking station matching each characteristic of powder and tablet.
- KIT comprehensively designs and produces the handling related to injection and discharge.

## [Installed example]

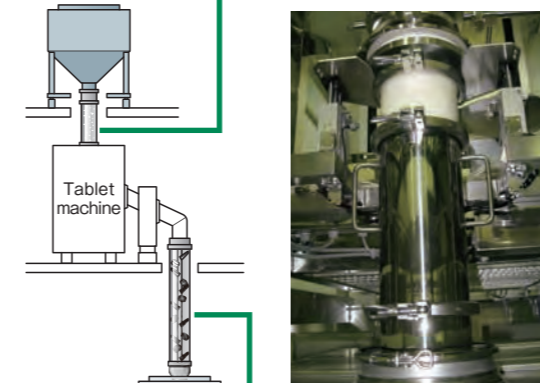
Injection equipment for powder and tablet.  
Discharge and injection equipment  
Powder IBC ⇒ Tablet machine ⇒ Tablet IBC

## Specifications

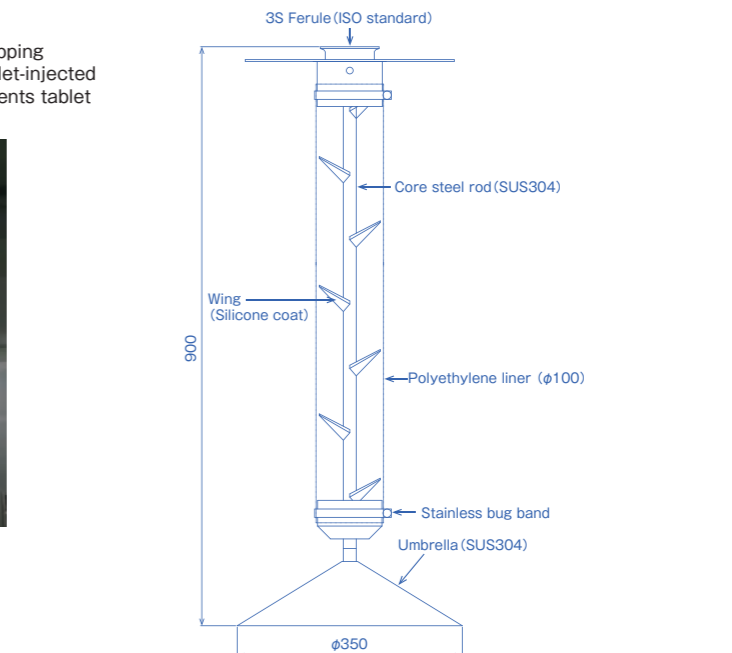
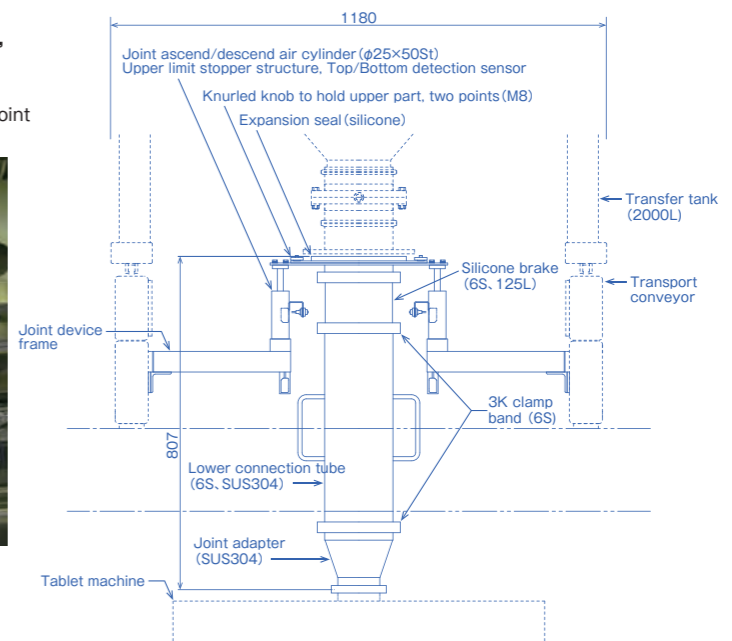
Weight	about 0,3 t
Electrical Consumption	1kW
Facility	Docking device for injecting into tablet machine. Tablet machine discharge runner SUS. Platform/Hopper. Discharge conveyor side electric-powered lifter. Upper lid holder, Upper holder detector.
Operation	Control panel, Touch panel

※Specifications can be changed depending on various situations.

**Powder discharge, injection**  
Automatic connection with inflatable seal and silicone joint prevents scattering.



**Tablet injection**  
Silicone wings ease the dropping impulse of tablets, while tablet-injected IBC's up&down motion prevents tablet breakage.





# WEIGHING/FILLING EQUIPMENT

Making the best use of achievement of the handling for injection and discharge, KIT proposes highly precise weighing and filling systems.

## WEIGHING EQUIPMENT

### Customer's concept

- We request to fill a large capacity IBC.
- We request an automatic/manual weighing in a series of steps.

### KIT design

- An automatic weighing of a large capacity IBC is available due to KIT's comprehensive design including transport system.
- In cooperation with the docking station, smooth and precise weighing is materialized.

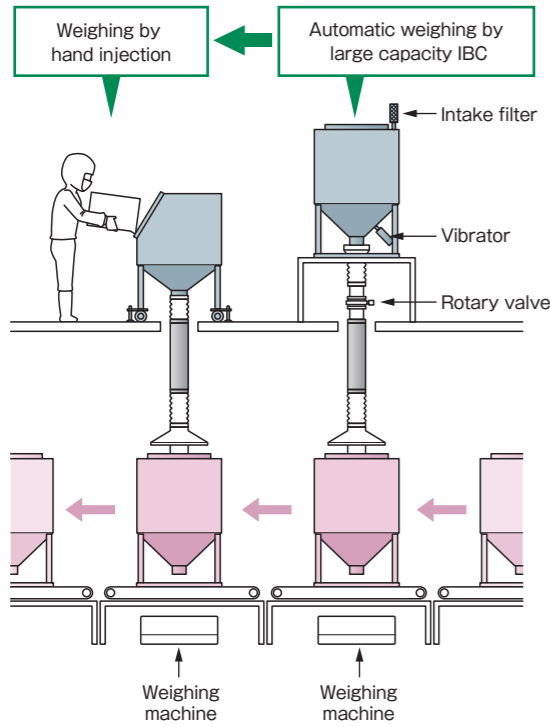
### [Installed example]

Weighing equipment for a large capacity IBC. The equipment which weighs and transports from IBC (1400L) to IBC (1800L).

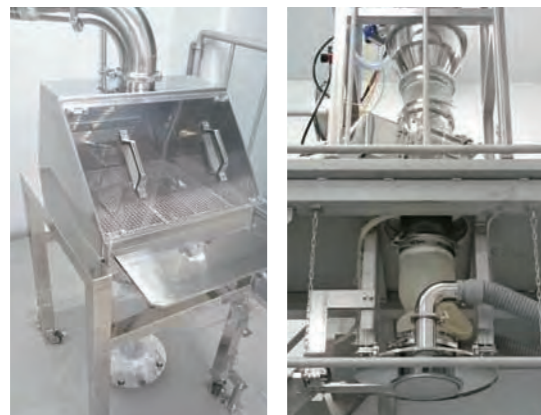
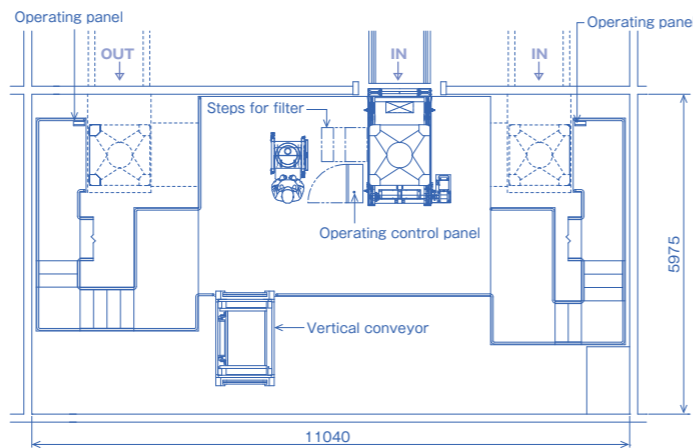
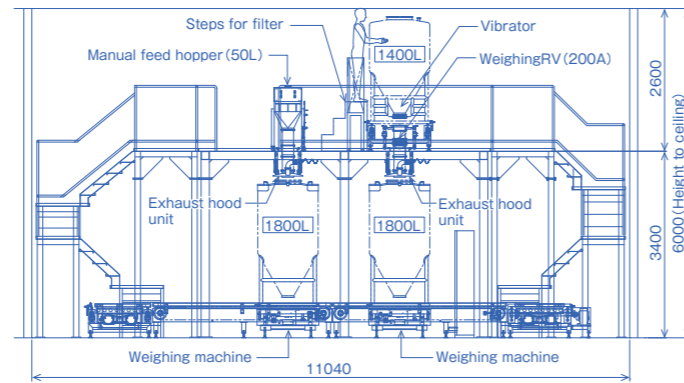
### Specifications

Weight	about 8.7t
Electrical consumption	19kW
Facility	Docking unit, Exhaust hood unit Weighing machine, Injection hopper, Rotary valve, conveyor, Platform, Control panel
Weighing conditions	● Accuracy : 1/3000 ● Minimum scale : 500g ● Weighing : 1.5t
Operation	Control panel, Touch panel

※The specifications can be changed depending on various situations.



Equipment for weighing large capacity two times: automatic weighing as well as manual feeding. In cooperation with a rotary valve or weighing machine, 1/3000 precision is secured.



Manual feed hopper  
Connection Exhaust hood unit

# OTHER HANDLING EQUIPMENT

KIT offers its original design to suit to the specifications or environment required by the customers.

## Z-MODEL CONVEYOR (for TABLET/CAPSULE)

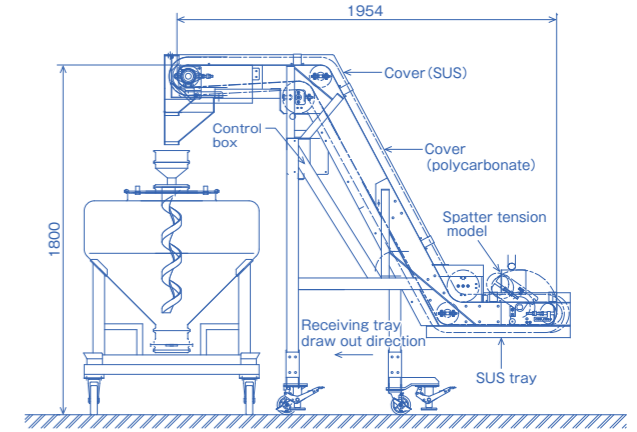
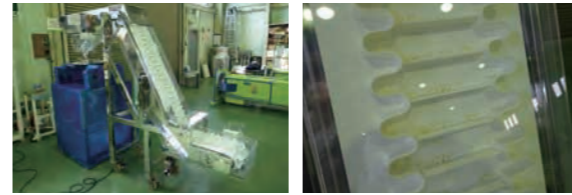
Resinous unique shaped conveyor carries tablet or capsule without breakage.

### Customer's concept

- We request to transport tablet from lower discharge point to higher injection point.

### KIT design

- Z-model conveyor to gently carry tablet without breakage.



## AQUA LIFTER

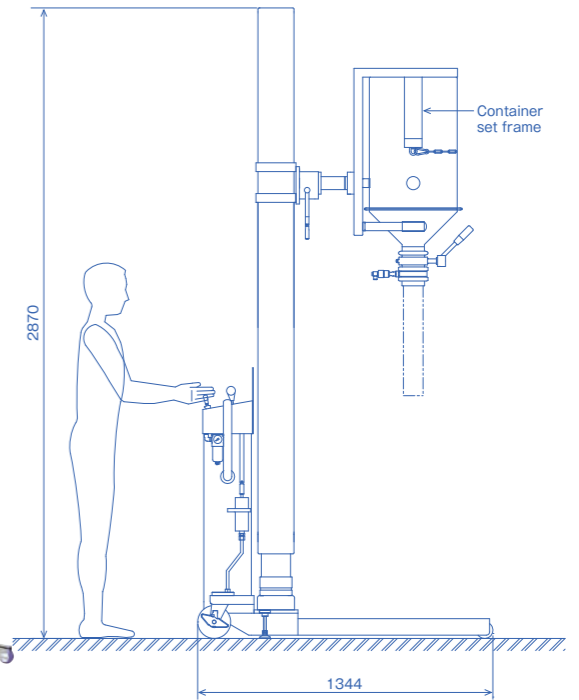
Since the power source uses only water pressure, it can be operated within the explosion-proof area. It can be completely washed when powder scatters as it is made of SUS304 and uses no electrical power.

### Customer's concept

- We request to use the transportation lifter within the explosion-proof area or containment area of high level pharmacological activity.

### KIT design

- Ascent/Descent, Revolving, Inverting Lifter easy to move and can be whole washed.



In line with customer's concept, KIT designs and produces other accessories/equipment indispensable for handling.



Dolly truck  
Platform  
Conveyor

IBC (Intermediate Bulk Container)  
Sanitary valve  
IBC blender  
IBC lifter  
Docking station  
Weighing/Filling equipment  
Other handling equipment  
IBC Cleaning system  
Sanitary container cleaning system  
Other cleaning/Drying system  
CIP system



# IBC CLEANING SYSTEM

CLEANING SYSTEM



KIT succeeded in developing a rotary nozzle to automatically clean inner tanks in 1981. Since then KIT has been making every effort to mechanize and automatize cleaning. The cleaning system using the lightweight, high pressure, low flow rate KIT 3D nozzle makes it possible to flexibly meet various conditions such as cleaning target, location of equipment or a fully-closed system. KIT offers a safe, practical and environmentally-friendly cleaning system.

## IBC AUTOMATIC CLEANING/DRYER AUTOMATIC TRANSPORTATION/2 BOOTH TYPE

### Customer's concept

- We request to clean and transport IBC without manual labor.
- Problem is that IBC has multiple sizes and various kinds of stain.

### KIT design

- KIT introduces an automatic transportation type which operates together with the distribution facility.
- KIT practices cleaning and drying processes in two separate booths.
- KIT has wide selection from SUS 100L container up to 1800L IBC.
- KIT cleans with a washing pattern determined by each IBC.

[Installed example] IBC cleaning / drying equipment

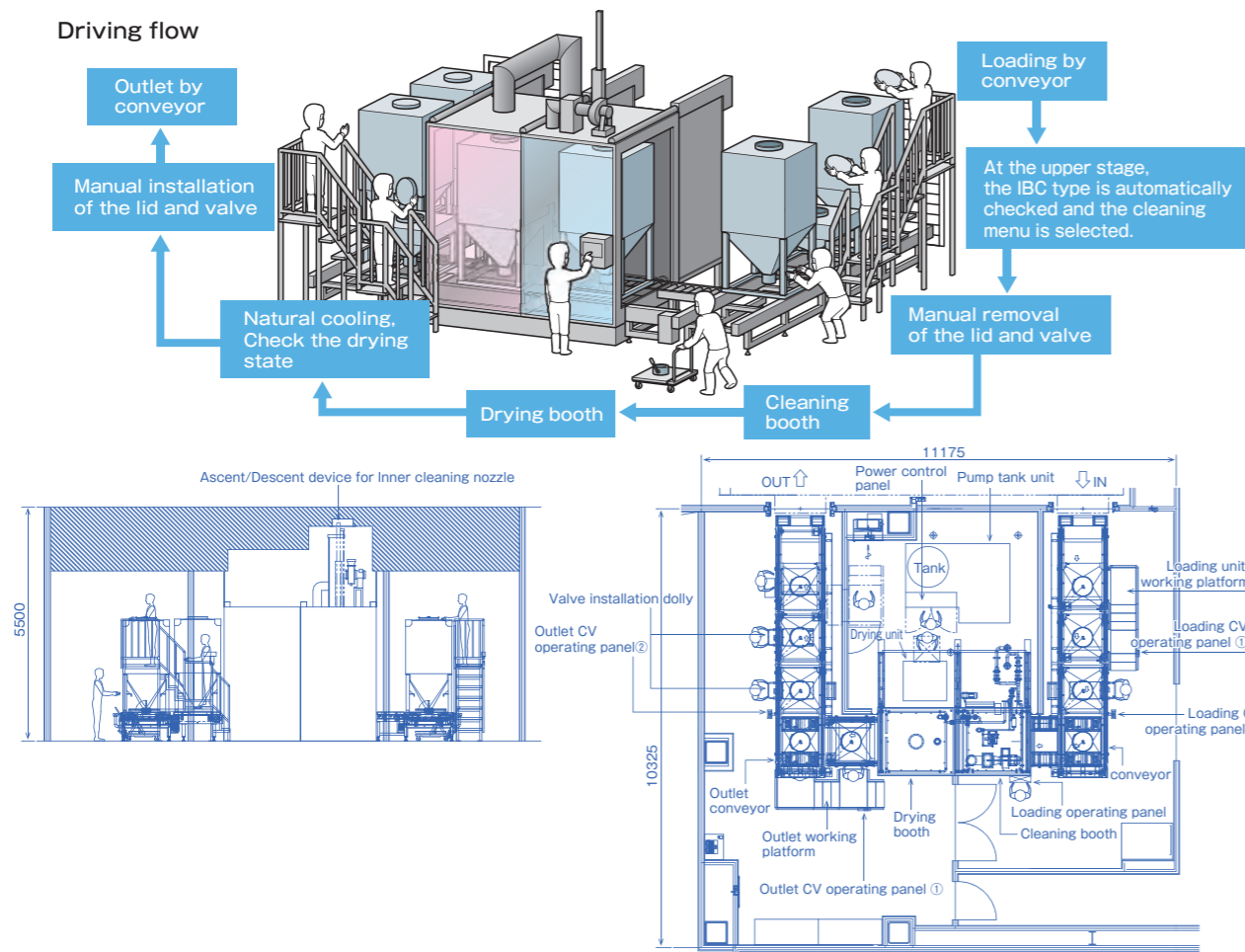
### Specifications

Facility dimensions (Room size)	W11175xD10325xH5500mm
Weight	Around 10.4t (At the time the pump is filled with water)
Electrical Consumption	30kW
Suitable IBC	1800L · 1200L · 800L · 400L for powder · 400L for tablet.
Cleaning	Hot water rough cleaning Hot water detergent cleaning Hot water finish cleaning Purified water rinse cleaning
Drying	Circulating hot-air blow method (together with a HEPA filter)
Operation	Control panel, Touch panel



※The specifications can be changed depending on various situations.

### Driving flow



## IBC AUTOMATIC CLEANING/DRYER 1BOOTH TYPE

### Customer's concept

- We request the facility to be as compact as possible.
- We request to clean highly active IBC container.

### KIT design

- KIT performs fine-tuned cleaning and drying according to the IBC shape and its characteristics within one booth.
- KIT offers "wet-down" method compatible with highly active and general-use IBC.

[Installed example] Cleaning system for highly active IBC container.

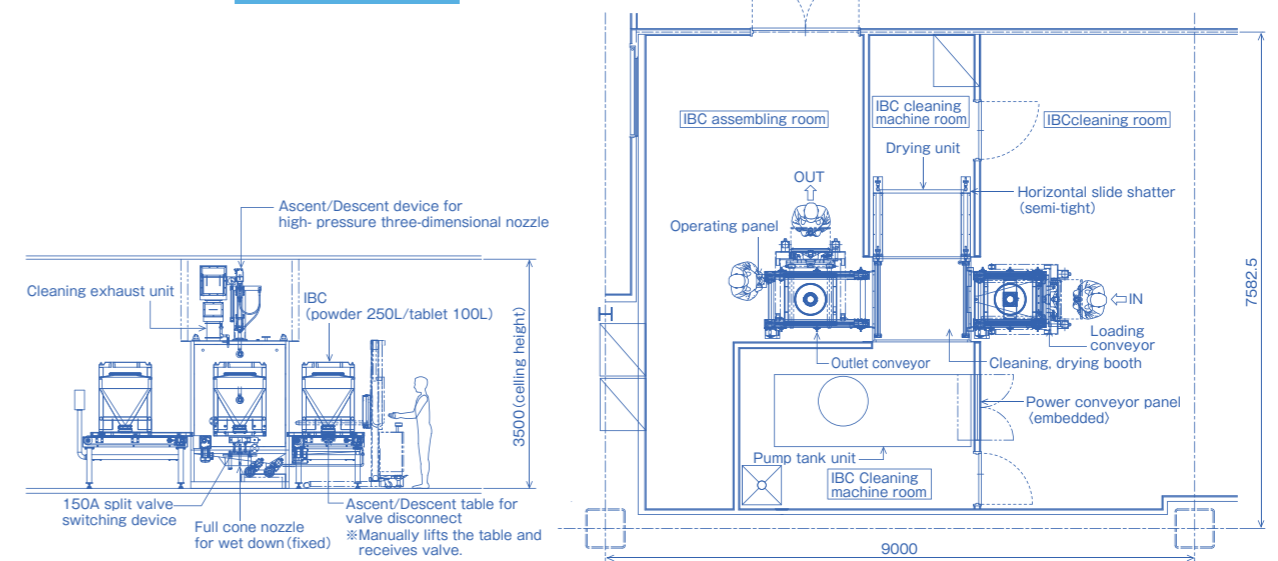
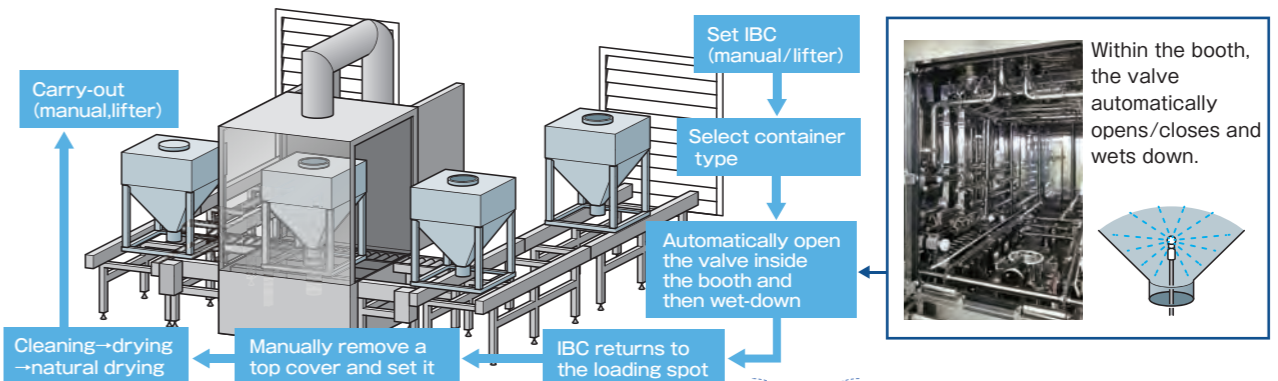
### Specifications

Facility dimensions (Room size)	W9000xD7582.5xH3500mm
Weight	about 9.2t
Electrical Consumption	40kW
Suitable IBC	250L for powder/100L for tablet / for highly active/for general pharmaceuticals, multiple use.
Cleaning	Inner IBC wet-down Hot water rough cleaning, Detergent cleaning, Purified water rinse
Drying	Circulation method with HEPA
Operation	Control panel, Touch panel



※The specifications can be changed depending on the container form, inner structure and weight.

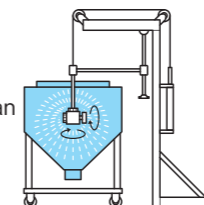
### Driving flow for Containment



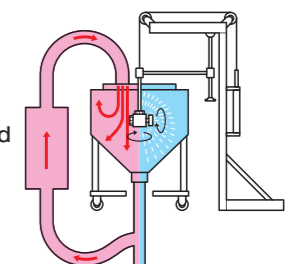
### IBC SIMPLIFIED CLEANING TYPE

Inserting the nozzle into IBC for cleaning or drying.

**Inner surface cleaning type**  
A simplified type. Simple to clean by inserting the 3D nozzle into the IBC.



**Inner surface cleaning and drying type**  
Simple to clean and dry by inserting the 3D nozzle into the IBC.



IBC (Intermediate Bulk Container)  
Sanitary valve  
IBC blender  
IBC lifter  
Docking station  
Weighing/Filling equipment  
Other handling equipment  
IBC Cleaning system  
Sanitary container cleaning system  
Other cleaning/Drying system  
CIP system



# SANITARY CONTAINER CLEANING SYSTEM

An automatic sanitary container cleaning/drying machine, which is connected with logistic conveyance, has varieties of patterns Removing the lid top, cleaning, drying and conveyance are all automatically conducted.

## SANITARY CONTAINER CLEANING/DRYING AUTOMATIC/2 BOOTH TYPE

### Customer's concept

- We request the facility which requires minimum workers.
- We request fully automatic operation, if possible.
- We request to clean the appliances together.

### KIT design

- KIT offers an automatic cleaning and drying system available to remove the container's lid as well.
- Reading the container number and selects suitable cleaning menu.
- Designing exclusive use of tray makes it available to clean appliances together.

[Installed example]  
Automatic cleaning system

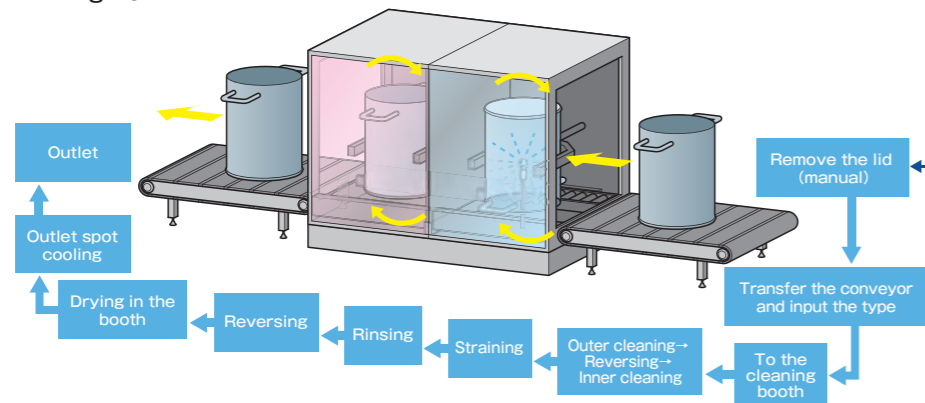
### Specifications

Facility dimensions (Room size)	W11200xD7205xH3500mm
Weight	about 8.1t (at the time pump filled with water)
Electrical Consumption	32kW
Cleaning object	200L Sanitary container 25L Sanitary container & Lid
Cleaning	Hot purified water cleaning (inside, outside, lid) Alkaline detergent cleaning
Drying	Hot air circulation method With HEPA unit
Cooling	Room air
Operation	Control panel, Touch panel

※ The specifications can be changed depending on various situations.

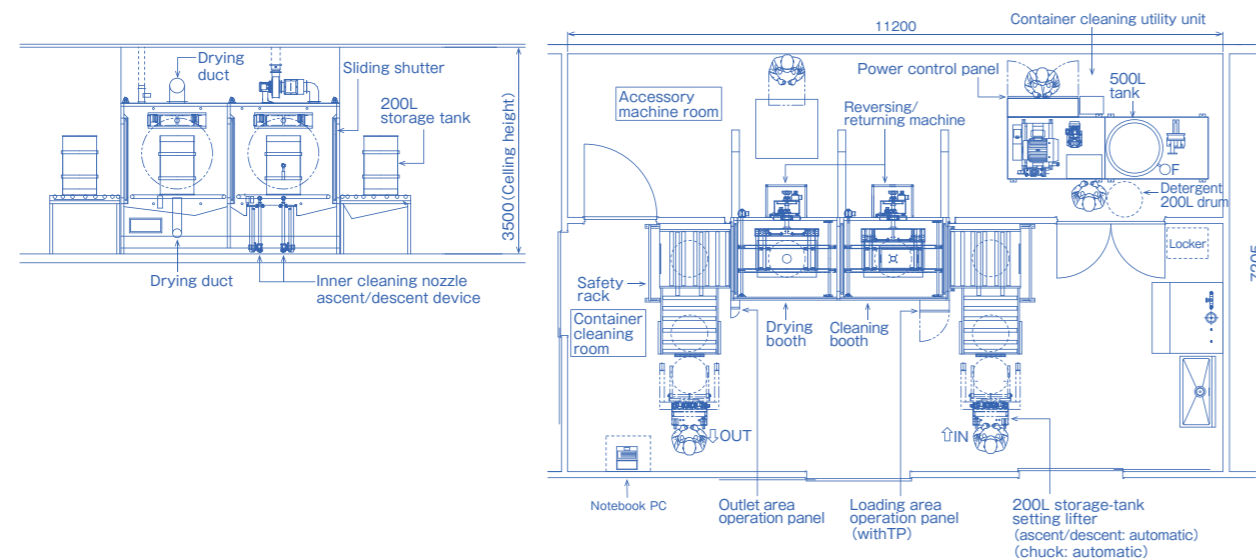


### Driving flow



### Option: An automatic top-cover removing function

It is available to clean the container lid together by absorbing and removing the lid.



## SANITARY CONTAINER CLEANING/DRYING RACK TYPE/1 BOOTH TYPE

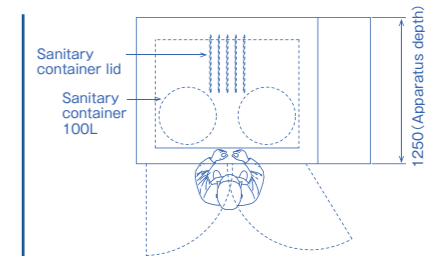
### Customer's concept

- We request to clean a small number of containers.
- We request to operate without manual labour.
- We request to clean the lid together.

### KIT design

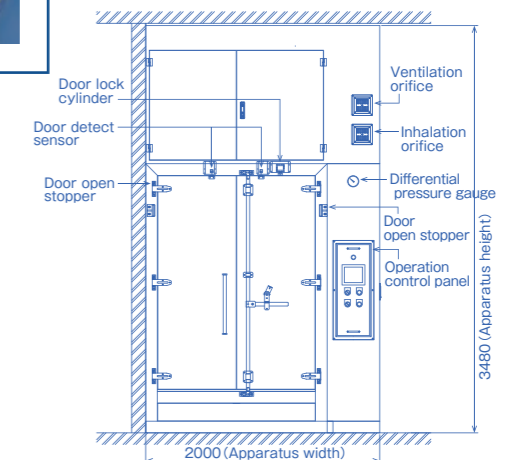
- Available to automatically clean and dry five sanitary containers and their lids.
- A semi-automatic setup is also available.

[Installed example]  
1 booth cleaning & drying system



### Specifications

Facility dimensions	W2000xD1250xH3480mm
Weight	about 1.1t
Electrical Consumption	3kW
Cleaning object	100L sanitary container and their lids x5
Cleaning	Hot water cleaning (inside, outside, lid) Purified water lines
Drying	Air blow with HEPA unit
Cooling	Room air
Operation	Control panel, Touch panel



## SANITARY CONTAINER CLEANING MANUAL/1 BOOTH TYPE

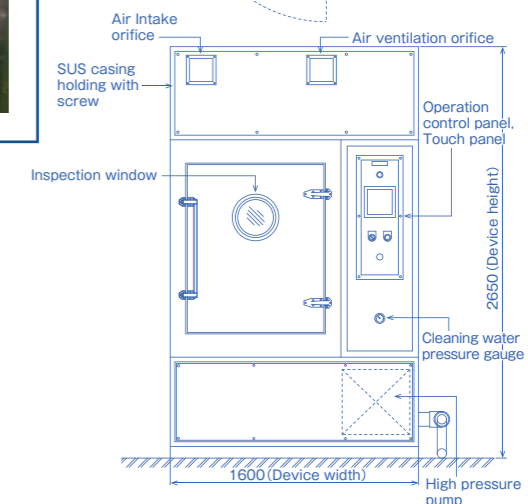
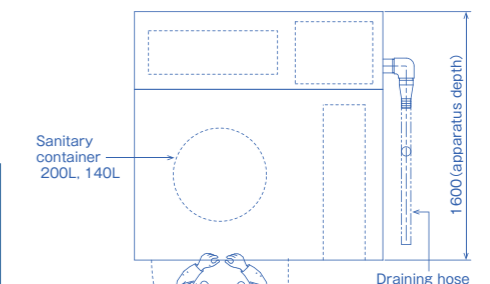
### Customer's concept

- We request to clean a large-size container.
- We request to clean with saving the space and man's labour.

### KIT design

- Available to automatically clean and dry large-size container up to height 900mm.

[Installed example]  
1 booth cleaning system



### Specifications

Facility dimensions	W1600xD1600xH2650mm
Weight	about 1.4t
Electrical Consumption	6kW
Cleaning object	Single 200L or 140L sanitary container (Maximum height : 900mm)
Cleaning	Hot water cleaning (inside, outside, lid) Purified water lines
Drying	Air blowing
Operation	Control panel, Touch panel

Other than the above installed example, depending on the number of items, cleaning pressure or the flow rate. KIT can also offer pump-unit-separately-installed-type and drying-unit-adding-type, etc.



# APPLIANCE / CONTAINER / PALLET CLEANING and DRYING SYSTEM

KIT offers various types of nozzle and cleaning method to completely clean appliances and containers of which uses and sizes are varied.  
KIT develops and designs the whole system of cleaning-drying-cooling process to meet the sort of stains and customer's cleaning requirements.

## APPLIANCE CLEANING MACHINE

### Customer's concept

- We request to clean small-size appliances, spare parts and containers all together.
- We request to fully automatize the process and make the operation unmanned.

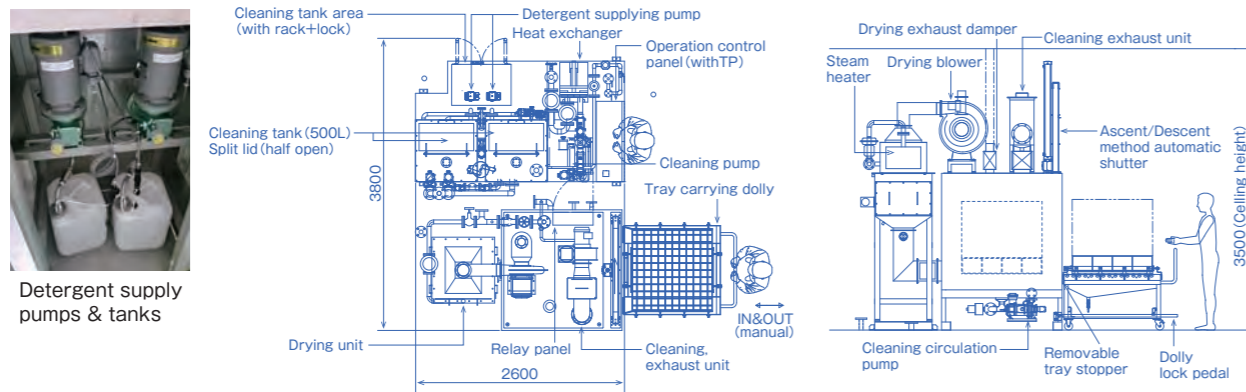
### KIT design

- KIT offers the design available to set multiple sizes of container and appliance.
- By means of automatic control system, it is available to automatically drive the whole process.
- Introducing an electric conductivity scale, the cleaning water is safely utilized and recycled.

[Installed example] Container & parts cleaning machine

### Specifications

Facility dimensions	W3800xD2600xH3500mm
Weight	about 4.3t
Electrical Consumption	30kW
Cleaning object	Small size container (5L~60L) Appliances / Spare parts
Cleaning	Hot water cleaning Alkaline cleaning & rinse Ion exchanged water rinse pH control by conductivity control
Drying	Hot blast air circulation system
Operation	Control panel, Touch panel



Detergent supply pumps & tanks

## SHELF TYPE DRYER

### Customer's concept

- We request to decide device shapes without restraint depending on the size of room and the size of appliance.

### KIT designs

- KIT flexibly designs in line with the ceiling height or the room size as well as the type of cleaning object.
- The shelf's location is movable to meet each size.

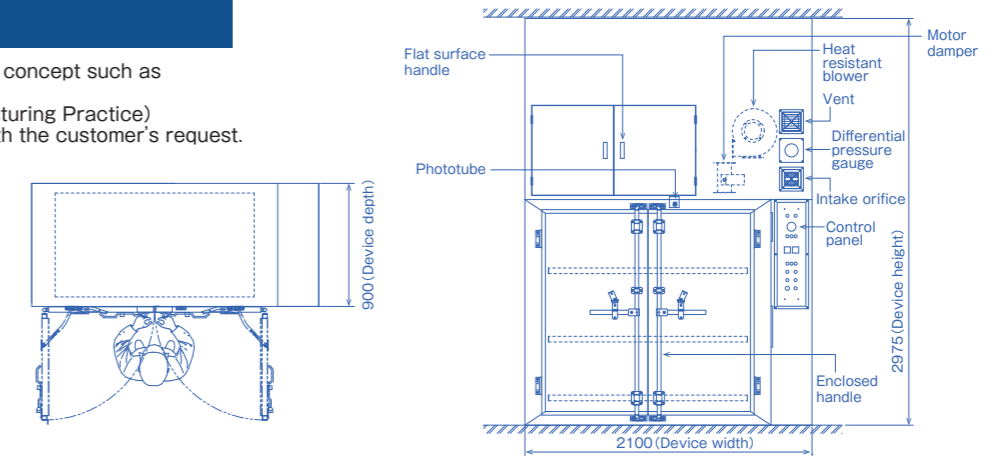
[Installed example] Dryer for appliances

### Specifications

Facility dimensions	W2100xD900xH2975mm
Weight	about 1.5t
Electrical Consumption	17kW
Drying object	Spare parts of cleaned equipment, Jig etc
Drying	Hot air circulation method with HEPA filter
Operation	Control panel



KIT materializes customer's concept such as  
 • Dryer for pharmaceuticals  
 • Meet GMP (Good manufacturing Practice)  
 • Filter processing in line with the customer's request.



## SMALL SIZE CONTAINER CLEANING MACHINE

### Customer's concept

- We request to clean narrow-mouth bottles and containers.
- We request to automatize the system and operate it unattended.

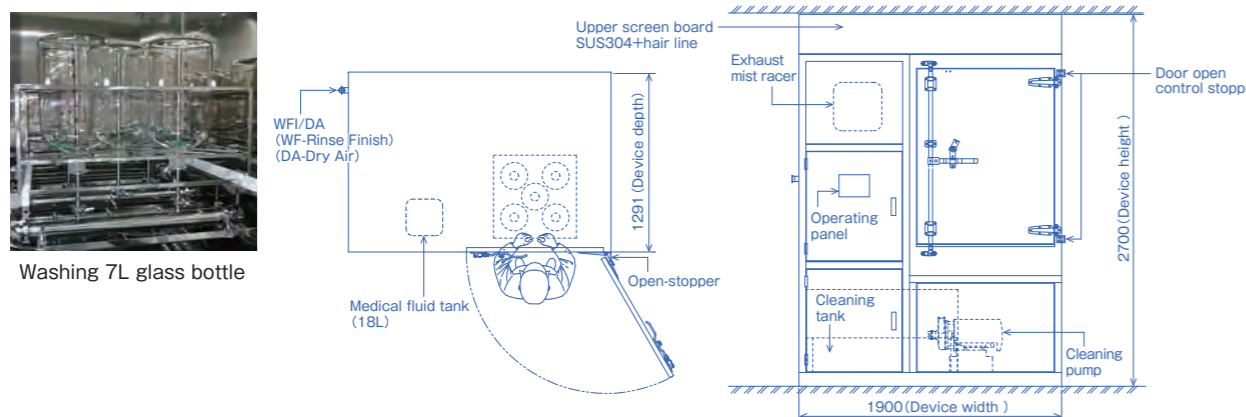
### KIT design

- KIT offers the design available to set-up multiple sizes of containers and appliances.
- KIT proposes a nozzle which needs little driving power source so that the occurrence of dust is curbed.

[Installed example] Automatic cleaning device

### Specifications

Facility dimensions	W1900xD1291xH2700mm
Weight	about 1.5t
Electrical Consumption	7kW
Cleaning object	Centrifugal pipe, 7L glass bottle 50L Polypropylene container
Cleaning	Rough cleaning by WFI (circulation) Detergent cleaning Rinse finish (WFI)
Drying	Air blow
Conducting volume	5 bottles / 13.5 minutes (7L glass bottle)
Operation	Control panel, Touch panel



Washing 7L glass bottle

## PALLET CLEANING MACHINE

### Customer's concept

- We request to efficiently clean multiple types of pallets.
- We request to operate full-automatically, nonstop 24 hours a day by exchanging information with the central computer.

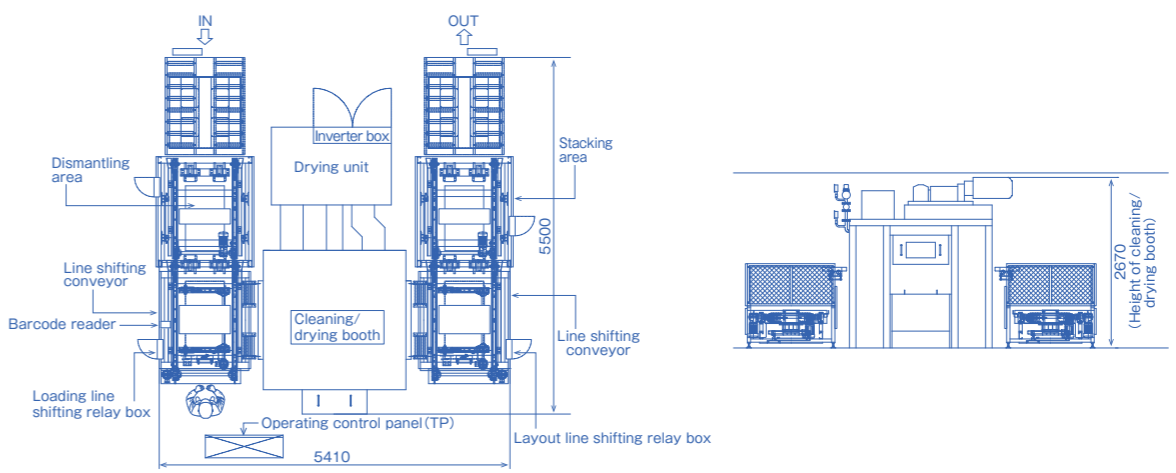
### KIT designs

- Available to select a cleaning pattern depending on the pallet type.
- After cleaning & drying, classifying & stacking, and carrying out.
- 24hour operation/control by exclusive software.

[Installed example] Pallet cleaning system

### Specifications

Facility dimensions	W5410xD5500xH2670mm
Weight	around 5t
Electrical Consumption	35kW
Cleaning object	3 types of pallet (different thickness)
Cleaning	Hot water cleaning (Circulated cleaning) Rinse by room temperature water
Drying	Hot air circulation Centrifugal dehydration Local air blow
Operation	Control panel, Touch panel



CLEANING SYSTEM

IBC (Intermediate Bulk Container)  
Sanitary valve  
IBC blender  
IBC lifter  
Docking station  
Weighing/Filling equipment  
Other handling equipment  
IBC Cleaning system  
Sanitary container cleaning system  
Other cleaning/Drying system  
CIP system

IBC (Intermediate Bulk Container)  
Sanitary valve  
IBC blender  
IBC lifter  
Docking station  
Weighing/Filling equipment  
Other handling equipment  
IBC Cleaning system  
Sanitary container cleaning system  
Other cleaning/Drying system  
CIP system



# CIP CLEANING SYSTEM

## Customer's concept

- We request to clean large equipment at production facilities.
- We request to clean appliances within a containment area without disassembly.

## KIT design

- KIT offers CIP cleaning solution by means of in-house nozzles and abundant performance records.

The CIP system cleans the interior of an appliance by means of pre-installed equipment.

A pump delivers cleaning liquid into the appliance, then automatically cleans the interior.

Previously appliances of the production equipment were disassembled before being manually cleaned.

Compared to this, KIT method makes it much easier.

Moreover it is possible to clean multiple lines by only switching the control panel. Consequently its efficiency and safety improve dramatically. KIT offers the best qualification of CIP system to customers.



## Advantages and effectiveness of introducing CIP

- Available to maintain steady cleaning effectiveness and consequently to improve safe-quality and betterment of the product.
- Through automation, cleaning and manufacturing operation is much improved.
- By omitting disassembly/assembly process of the device, working time is economized and production is improved.
- Compared to manual labor, safety of operations and labor reduction are expected.
- Since there is no individual differences of result and no apprehensions over contamination at the assembly time, improvement of sanitation standard and stability can be realized.
- It is possible to save the consumption of cleaning water, steam and detergent.
- Larger production facilities can be achieved.
- Since cleaning data can be collected, it is possible to verify the cleaning process control and also to inspect whether the cleaning method meets the international standards.

## VARIETIES of CIP CLEANING SYSTEM in SOLID PHARMACEUTICAL PREPARATIONS

When cleaning pharmaceutical production lines, pass-through-method (one way method) is mainstream to avoid contamination. However recycling method is still practicable if the risk level is within limits.

## CIP SYSTEM

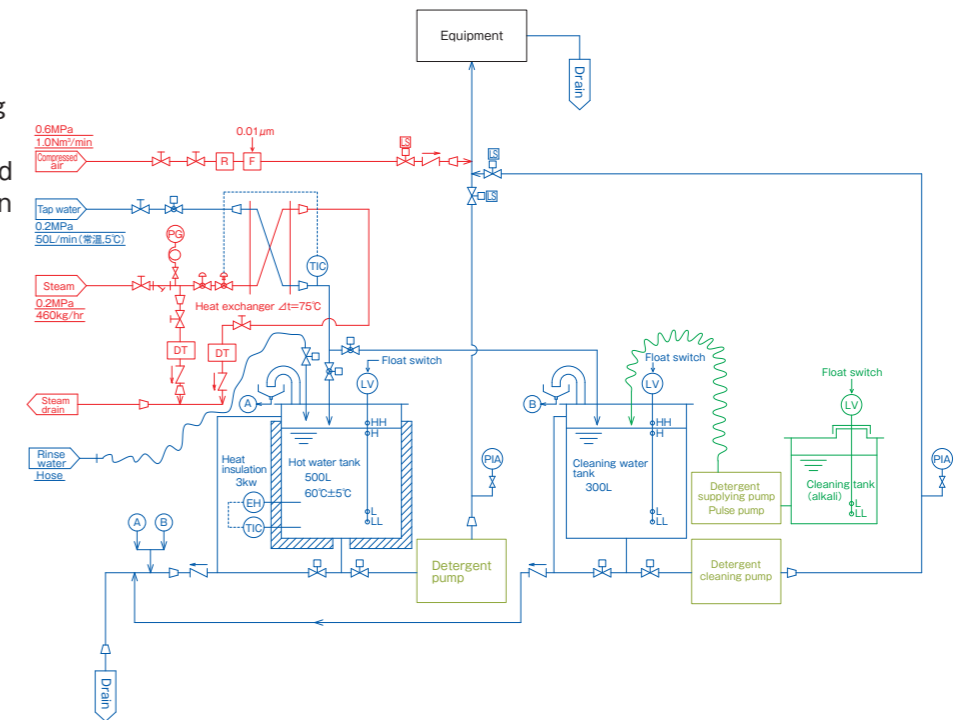
This is a system to clean single pieces of equipment.

It is suitable for cleaning large equipment or equipment within the contamination area where manual cleaning is difficult.

It can set up the detergent concentration level or cleaning method depending on the stain type.

Furthermore future oriented tackling or function addition is available by means of in-house designing.

By installing CIP system closely to the cleaning object, cleaning time and energy consumption are saved.

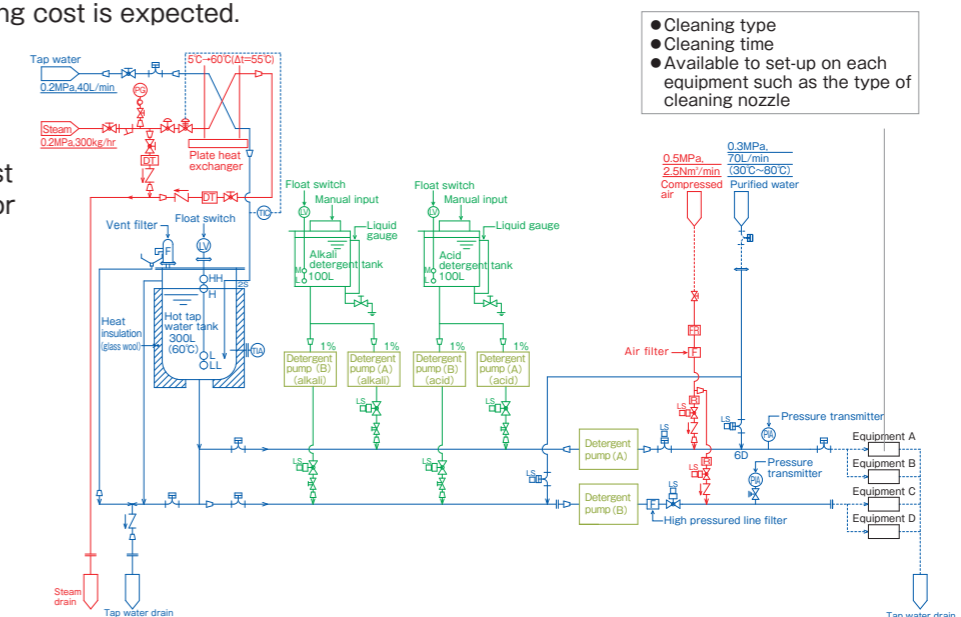


## STATION CIP DEVICE

This is the system to clean multiple equipment guided by one CIP.

Since cleaning data of multiple equipment are integrated, centralized control of the lines is possible. Also reduction of the running cost is expected.

It is available to set up the different cleaning menus in accordance with the equipment. It is also available to select the most suitable cleaning method for cleaning type or cleaning time.



- Cleaning type
- Cleaning time
- Available to set-up on each equipment such as the type of cleaning nozzle

CLEANING SYSTEM

- IBC (Intermediate Bulk Container)
- Sanitary valve
- IBC blender
- IBC lifter
- Docking station
- Weighing/Filling equipment
- Other handling equipment
- IBC Cleaning system
- Sanitary container cleaning system
- Other cleaning/Drying system
- CIP system

- IBC (Intermediate Bulk Container)
- Sanitary valve
- IBC blender
- IBC lifter
- Docking station
- Weighing/Filling equipment
- Other handling equipment
- IBC Cleaning system
- Sanitary container cleaning system
- Other cleaning/Drying system
- CIP system



# AFTER SERVICE

Skilled engineers perform maintenance and customer service so that customers are satisfied with the product.

## MAINTENANCE

### ■ PERIODIC CHECK

Periodically KIT carries out visual, physical and stethoscope inspection. If the device capacity declines due to the long term operation, KIT conducts maintenance. KIT proposes parts replacement as a preventative measure and verifies that the restored capacity maintains an expected result.

### ■ OVERHAUL

KIT replaces deteriorating parts, consumable parts and damaged parts caused by the device operation and repairs them so that the device can be operated for a long and stable state. Skilled engineers perform complete disassembly maintenance such as cleaning nozzles.

### ■ EMERGENCY MEASURES

KIT assists customers in quickly restoring against sudden part failure or malfunction caused by natural disaster.

### ■ GAUGE CALIBRATION

KIT inspects the breakdown of measuring instruments such as manometers or thermometers. When aberrations are confirmed, KIT replaces or calibrates the instruments.



Exchange of HEPA filter  
Bag in-Bag out method

## UPGRADES

### ■ IMPROVEMENT OF DEALING COMPETENCE

KIT upgrades the version following the productive improvement of electronic devices such as PLC. KIT also deals with CSV (Computer System Validation).

### ■ ADDITION OF EQUIPMENT FUNCTIONS

KIT carries out improvement of the equipment in line with the changing requirements of product convenience from its initial situation. ※KIT assists for adding the number of containers/manufacturing processes.

### ■ UPDATING DISCONTINUED PARTS

KIT quickly selects and replaces alternative or discontinued parts.



## REPAIR PARTS

### ■ SALES OF SPARES·EXPENDABLE PARTS

KIT proposes parts from database just in case and assists that customers keep best spares.

### ■ SALES OF ACCESSORIES

KIT stocks and sells spare parts and accessories such as cleaning nozzles, butterfly valves, ferule bands, and varieties of packings.



# COMPANY OUTLINE



## KIT OUTLINE

Firm name	KIT Co.,Ltd
Representative	Dai Miura President and CEO
Head office	Kawaguchi 5-11-19, Kawaguchi-shi Saitama 332-0015
TEL	+81-48-255-4586
FAX	+81-48-252-4686
Establishment	February 1954
Incorporation	February 1986
Share capital	10 million yen
Business Content	Designs, Manufacturing, Installation, Maintenance for IBC handling and cleaning facility of pharmaceutical, chemistry and food industry.
Quality policy	Securing superior quality, KIT supplies safer products and sincere services to consequently acquire trust from customers.



HEAD OFFICE/FACTORY I



FACTORY II

## HISTORY

- 1954 Establishment of MIURA Ironworks
- 1981 Development/Sales start of INNER TANK CLEANING NOZZLE TD-301
- 1983 Development/Sales start of All STAINLESS HIGH PRESSURE TYPE CLEANING NOZZLE HS-SERIES
- 1984 Design/Production start of AUTOMATIC CLEANING SYSTEM
- 1986 Changed the firm name into KIT, Inc.
- 1990 Started export of cleaning devices to oil and chemical plants. The first installation of IBC HANDLING SYSTEM at pharmaceutical plant
- 1996 Enlargement of FACTORY II
- 2006 Designated as 'The Active enterprise' by KAWAGUCHI CITY, and 'The factory of SAINOKUNI' by SAITAMA prefecture
- 2014 Awarded by the KAWAGUCHI chamber of Commerce and Industry as "Revolutionary Enterprise Award"
- 2015 THREE DIMENSIONAL NOZZLE and AUTOMATIC CLEANING SYSTEM were acknowledged as "KAWAGUCHI I-MONO BRAND"

## ACCESS MAP



Kawaguchi 5-11-19, Kawaguchi-shi Saitama 332-0015  
10 minutes on foot from the West Exit of Kawaguchi Sta.

IBC  
(Intermediate Bulk Container)

Sanitary valve

IBC blender

IBC lifter

Docking station

Weighing/  
Filling equipment

Other handling equipment

IBC Cleaning system

Sanitary container cleaning system

Other cleaning/  
Drying system

CIP system



## KIT Co.,Ltd

Kawaguchi 5-11-19, Kawaguchi-shi Saitama 332-0015  
URL <http://www.kit-coltd.co.jp/>



1706-A-5h-TK