

# CIP cleaning and sanitizing stations

Model: CIP



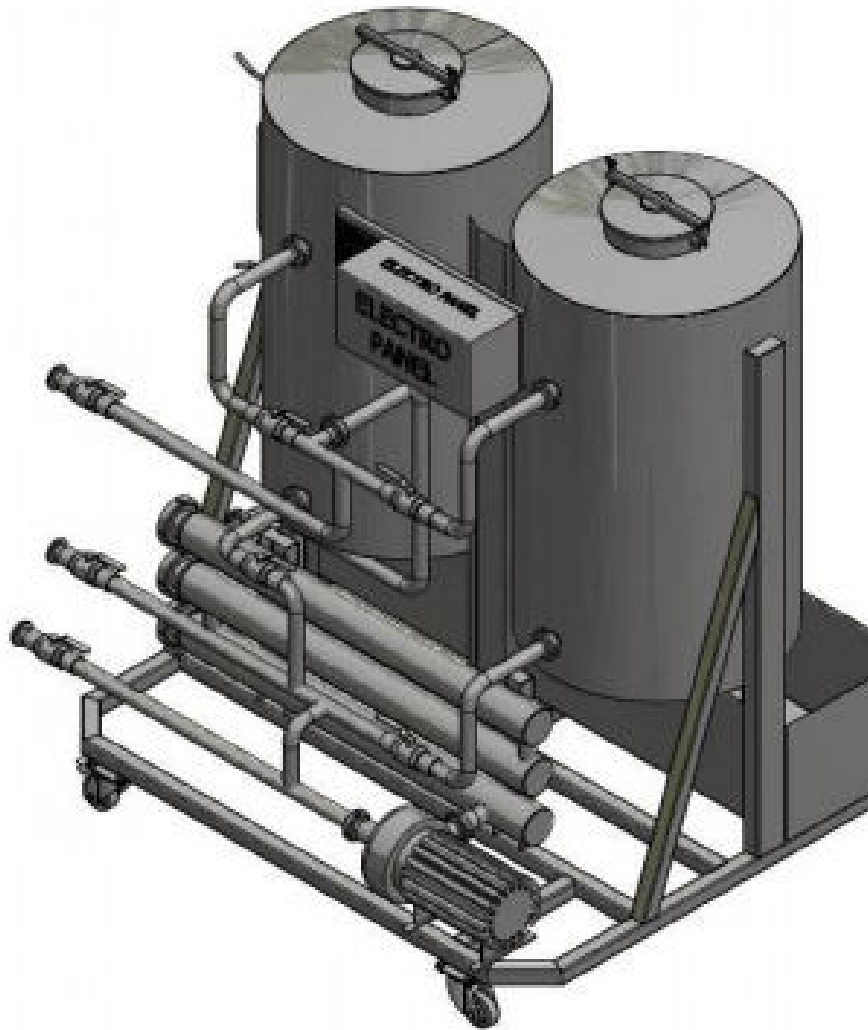
Clean-in-place (CIP) is a method of cleaning and disinfecting the internal surfaces of pipes, vessels, industrial equipment, filters, and related fittings, without disassembly.

CIP stations are equipped with all components necessary for simple and effective cleaning and sanitizing; production machines, pipe routes, fermentation tanks, maturation tanks, other tanks, filters, water storage containers.



# CIP cleaning and sanitizing stations

## Model: CIP



NORMIT CIP cleaning systems meet the most strictest European standards and requirements for quality and equipment reliability while being an affordable solution that can be implemented in modern washing facilities in practically every sector.

### Benefits:

CIP system greatly improves the economic performance of the company due to its advantages:

- Significant reduction in cleaning time
- decreasing number of personnel
- saving money - CIP system uses software for the effective use of detergent
- improving the quality of sanitation facilities

### Options

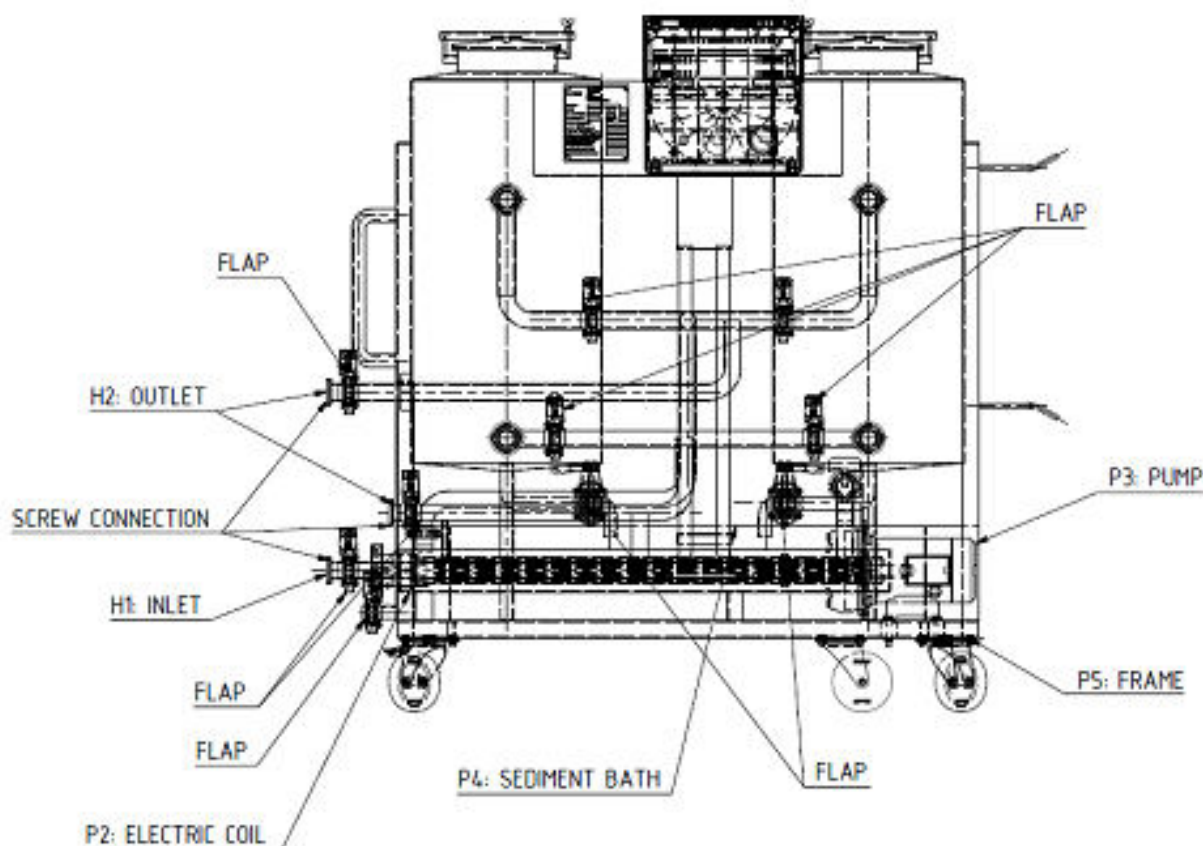
- CIP sanitation station with a usable volume of 2 x 100 liters
- CIP sanitation station with a usable volume of 2 x 50 liters

### How it works

The equipment is installed in a rigid frame provided by lockable wheels. Used material is stainless steel 1.4301 (AISI 304) or 1.4404 (AISI 316) according of selected variant. Containers (vessels) are not insulated.

# CIP cleaning and sanitizing stations

## Model: CIP



Model	2x50L	2x100L
Width mm	1430	1200
Height mm	1400	1300
Depth mm	1000	1000
H2SO4 cartridge	50L	100L
Electric spirals	5000W	5.5 kW
Electrical connection	3 * 400V / 50Hz 16A	3 * 400V / 50Hz 16A

NORMIT FOOD, s. r. o.  
Pezinská cesta 5104  
901 01 Malacky, SLOVAKIA

Skype:  
manager.normit

Telephone number:  
+421 902 400 321

E-mail:  
sales@normit.com

Web:  
www.normit.com

## Model: Ladia DR



Wetting and washing grain is a process done to prepare it for milling. When wetting is carried out, psysicbiological processes take place in the grain, and as a result, it becomes easier to separate the husk from the grain with minimal losses of the grain endosperm.





## Model: Ladia DR

### Washing and separating

During washing, the surface of the grain is cleaned, any heavy or light dirt and shrunk seeds are separated out, and microorganisms are removed.

### More efficient than a dry method

Cleaning the surface of the grain with a wet method is more efficient than a dry method. Grain at the exit of the installation has a minimum level of humidity, since it hardly has time to get wet. And does not require drying.



### How it works

The grain washer is intended to clean the surface of the grain from dirt by a wet method, microorganisms, mold and release of organic and inorganic impurities, due to wetting, physical and biological changes are required for further processing. The basis of hydroseparation is the difference in the velocity of the fall of the grain and impurities in the water.

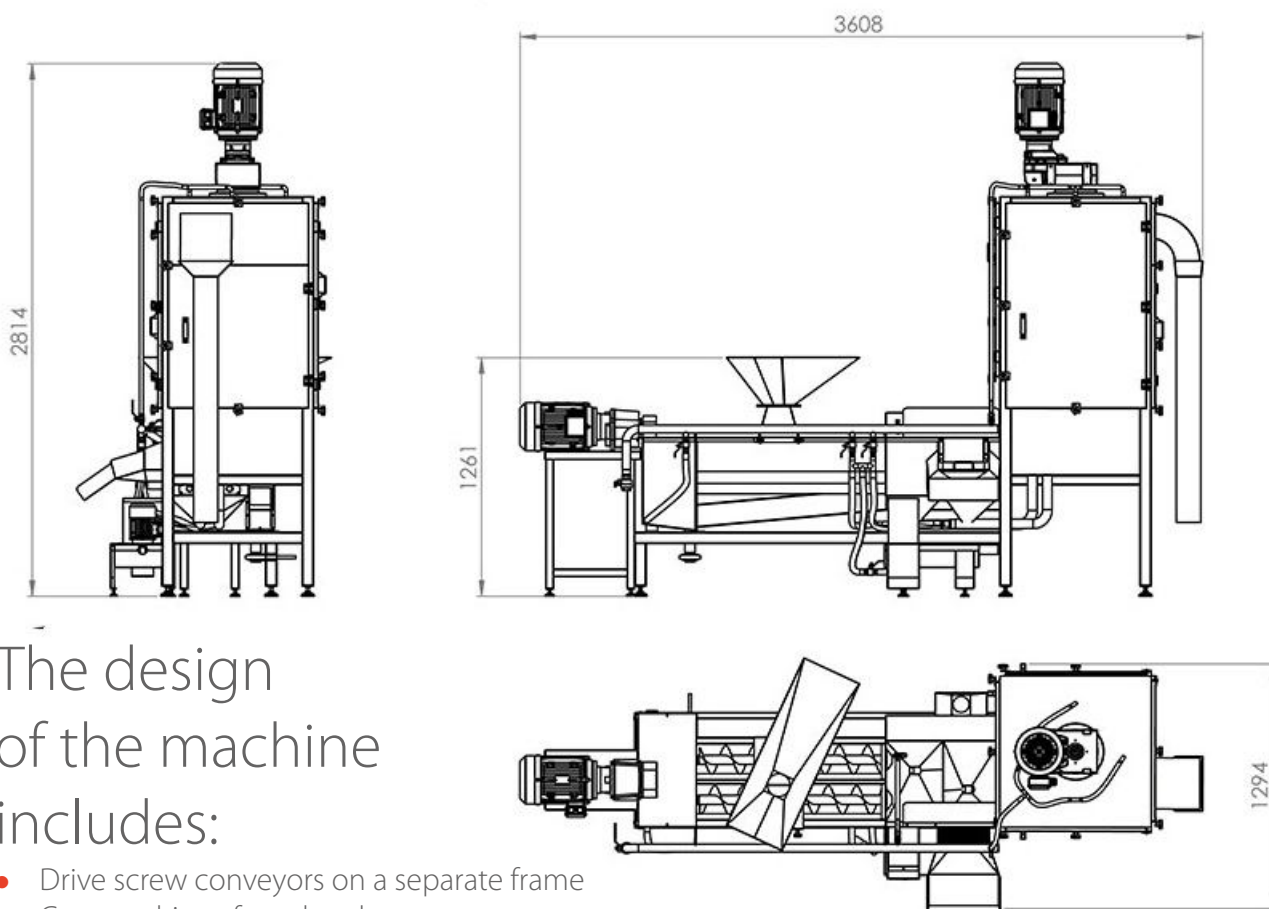


### Optional circulating water recycling system

There are no shaft seals, which often fail and need to be replaced, and cause leakage. Adjustable settings for highly efficient processing of grain of any degree of contamination. Installed effective defoamers. Adjustable water level. The machine is equipped with filters - garbage catchers. Optionally, a circulating water recycling system is provided, which gives a very significant savings in the operation of equipment.



## Model: Ladia DR



The design  
of the machine  
includes:

- Drive screw conveyors on a separate frame
- Camera drive of sand and stones
- Sand and stone removal system
- Sand conveyors for product and sand
- Ejection chamber
- The system of damping and removal of foam, dirty water
- Water level adjustment device
- Husk trap filter
- Ejectors with pipelines supplying a water product mixture to the separation column
- Rotor - stator separation column
- Separation column drive
- Separated water outlet system for circulation
- Centrifugal product discharge system
- Adjustable feet
- Shut off valves.
- Productivity 3 t / h

Model	Ladia DR
Installed power, kW	16,5
Material	AISI304
Three phase power supply:	
Voltage, Volt	400
Frequency, hertz	50
Height mm	3020
Width, mm	1100
Length mm	3650
Weight, kg	705

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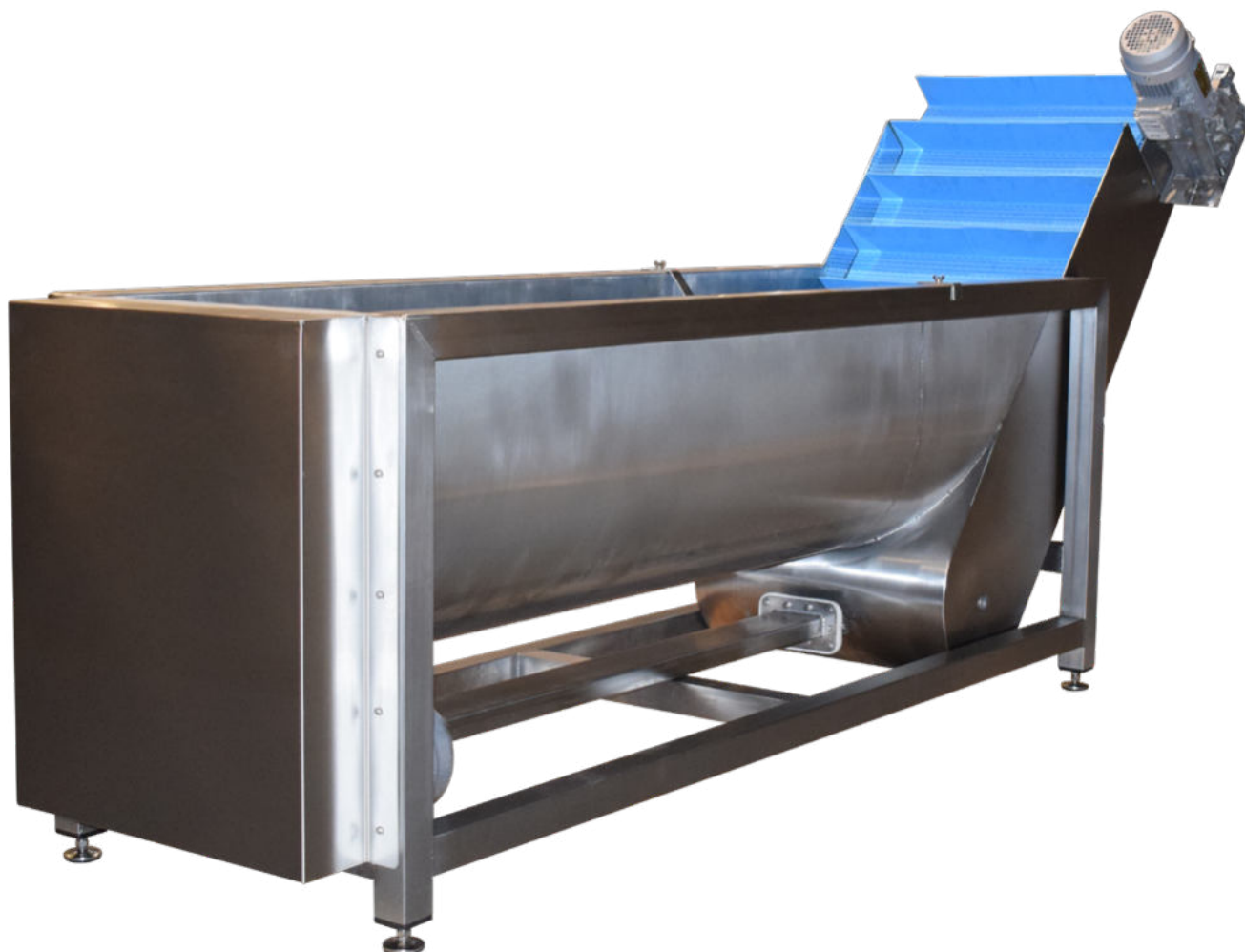
Telephone number:  
+421 902 400 321

E-mail:  
sales@normit.com

Web:  
www.normit.com

# washer

Model: UNI M



Washer with external loading conveyor UNI M is designed to effective high-performance washing of vegetables, potatoes and fruits. Purification of the product is carried out using delicate exposure to water. Is used to wash the potato, to clean seaweed from impurities or to inject substances into products.



# washer

Model: UNI M

## Stainless steel material

Production material: food stainless steel AISI304

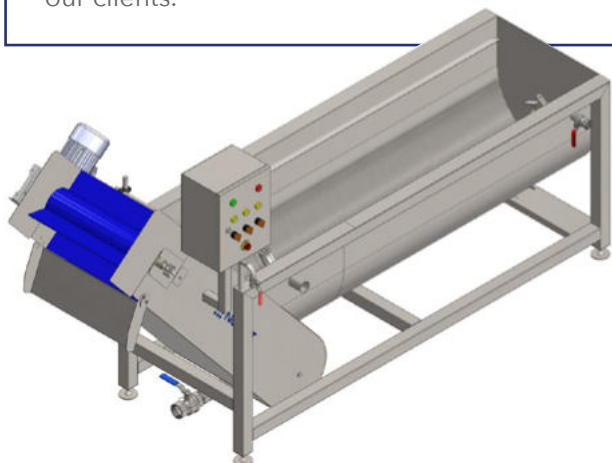
## Gentle washing of the product

The product is washed out through hydrodynamic means, gently, without harming the product.



## Adjustable according to needs of a customer

The Normit line of conveyor washers are smartly engineered, elegantly designed, and ruggedly constructed. Size of the washers can be adjusted according to customers needs and measurements. We provide custom made solutions for our clients.



## Unloading conveyor

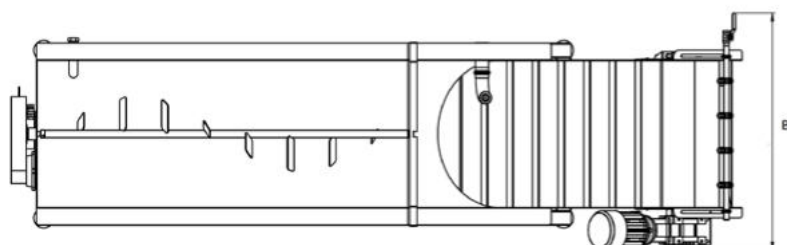
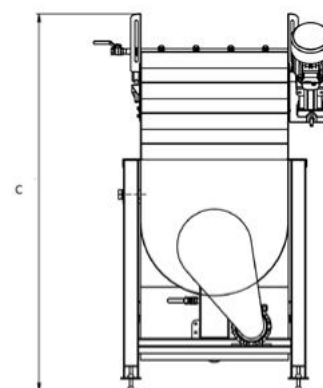
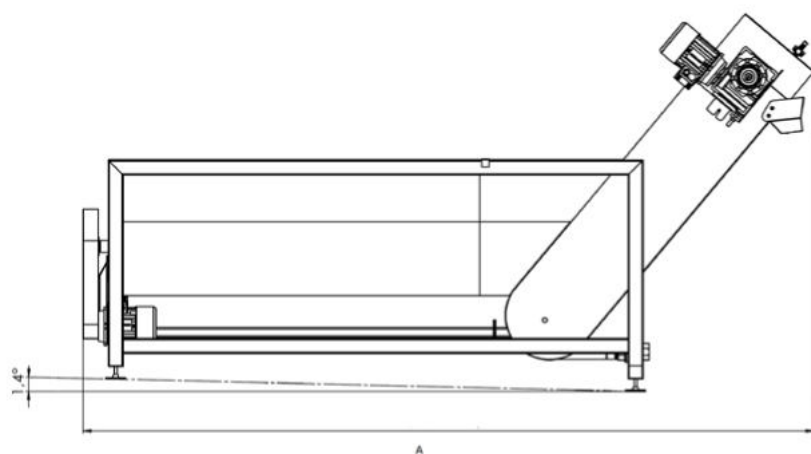
The machine consists of an operating tank filled with water, a system for mixing the product and moving it further, and an unloading conveyor. Our specially designed mixer ensures that the product is mixed in an ideally uniform fashion and moved towards the unloading section.





# washer

Model: UNI M



Model	UNI M
Installed electrical power, kW	4
Lenght, A mm	2953
Width, B mm	957
Height, C mm	1523

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# drum washer with conveyor

Model: NormitDrum Wash



Washer is an effective solution for washing potatoes, carrots, beets, and other root vegetables, including highly dirty ones with a large amount of soil, clay and other impurities stuck to them. The process of vegetable cleaning is carried out through friction between the product and the perforated walls of the drum, or between the vegetables themselves, and also through water rinsing.



# drum washer with conveyor

## Model: NormitDrum Wash

### Three section drum

Three section drum, two different perforated and one not perforated

### Optional discharge conveyor

Drum washer can be equipped with a discharge conveyor. In production lines, it is used after a machine for preliminary washing, soaking, and separation of stones ( when processing a highly dirty product).



### Design of the equipment:

- frame, feet and drum.
- drum has a special shape for easy cleaning
- variable speed motor-gear unit with electronic frequency converter
- infeed and discharge chutes
- waste removing conveyor belt



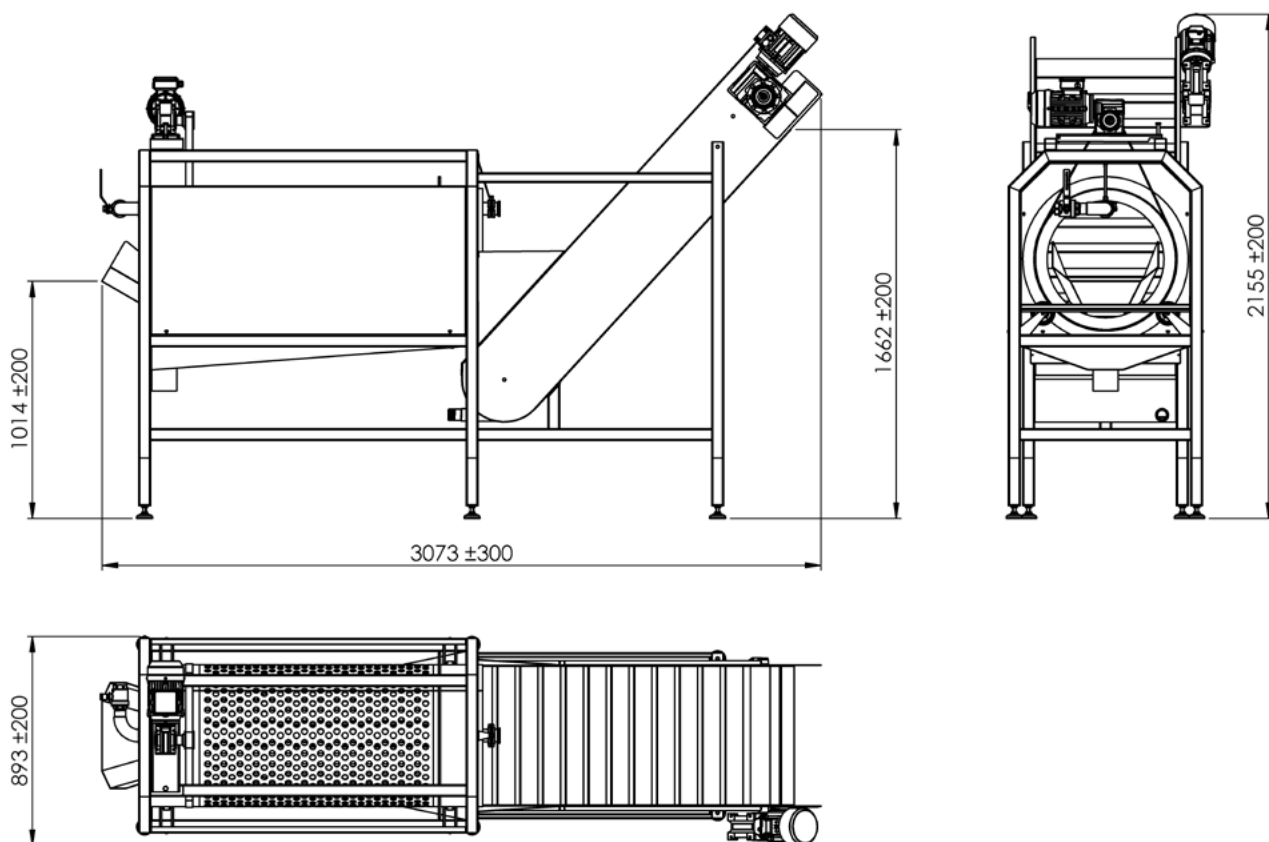
### How it works

The product is loaded into the washing machine mechanically, after processing (washing) the product is unloaded using a conveyor elevator.



# drum washer with conveyor

Model: NormitDrum Wash



Model	Normit Drum Wash
Drum drive power, kW	1,1
Drive power of conveyor elevator, kW	0,25
Dimension (H / W / L), mm	2190/2170/850
Weight, kg	336

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## brush washer

Model: DP Wash

The machine is used for brushing, cleaning, and also prewashing root vegetables.

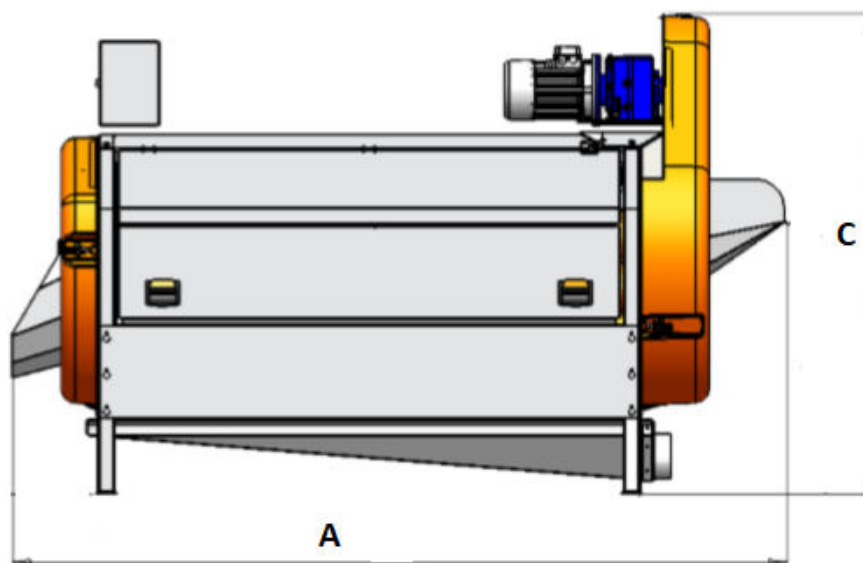
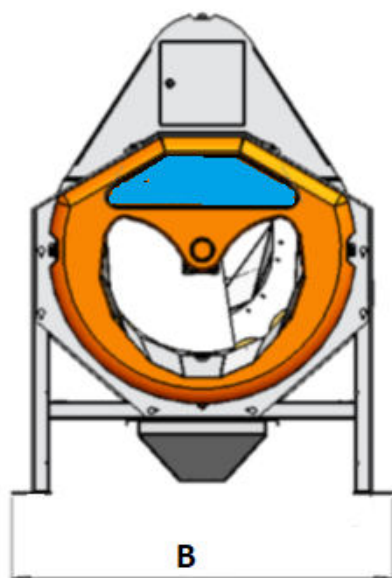




Processing of vegetables in a horizontal drum with a continuous flow of water. Perfect cleaning and washing of the product is performed by special cylindrical brushes. The machine occupies a small space and can be placed directly behind the drum washer, or at the expense of lower capacity can be used as an alternative to the cleaning machines.

The machine is equipped with an inverter for smooth adjustment of the rotational speed of brushes. There are two versions available: 7-brush

designed for washing round vegetables: celery, beet, etc. and 9-brush recommended for washing parsley, carrots etc. In both models the brush's active length is the same. The panel is equipped with a special lock that prevents the above-mentioned protective covers from being opened automatically and removing the front cover and the cover of the transmission belt. The brush washer is equipped with four pieces of adjustable feet / legs that allow you to adjust the machine's height and alignment.



Capacity, kg/h	1 500
A: length, mm	2 745
B: width, mm	1 350
C: height, mm	1 700
Weight, kg	1 100

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# vessel washer

Model: CEP



Vessel washer CEP is designed for cleaning various containers - for example z-blades mixer, which can be tilted. The washer also allows the use of steam. The device is equipped with spray nozzles for rinsing water. Mobile washing equipment for washing of various mixers with tilting bowl, boilers, kneaders and other similar equipment





# vessel washer

Model: CEP



Allows on-site fast and convenient conduct of high-quality hygienic processing of various equipment, as well as scalding with steam.



The device is attached to the top of the mixer.



The device for washing the vessel is a mobile device equipped with a tilt system in the horizontal state. The device is equipped with nozzles for supplying water to the container in a tilted position.

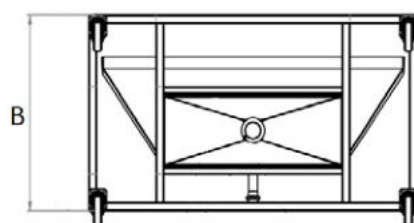
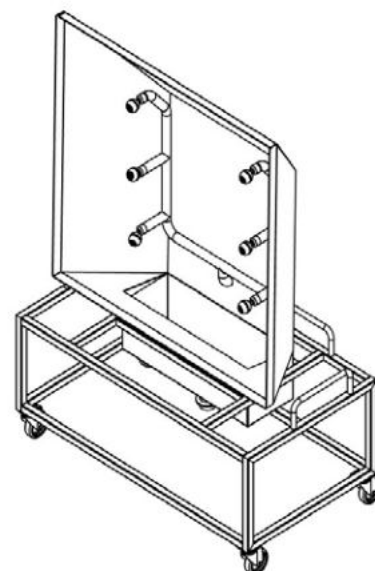
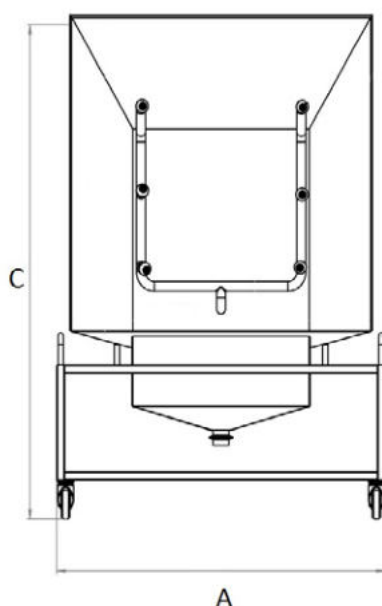
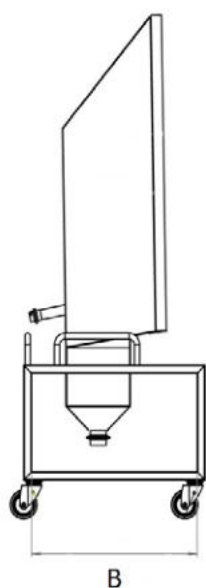
## Areas of use:

- food industry
- chemical industry
- pharmaceutical industry



# vessel washer

Model: CEP



## Advantages:

- Has a return bath, several chip heads, the screen can hermetically dock with the washable equipment.
- Universality - is applicable for a wide range of products
- The device is completely made of stainless steel
- High efficiency and productivity
- Automatic temperature control
- Low water consumption
- Full safety when using

Model	CEP
Material	AISI 304
Weight, kg	85
Maximum pressure, bar	1,5
Length, mm	1250
Width, mm	680
Height, mm	1720

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## can washer

### Model: CanWasher 1

**This product is designed for the cleaning and sterilization of glass, metal and plastic cans, glasses and similar containers.**

Due to the fact that the conveyor washer is designed individually for each type of packaging, it is ideal for cleaning, sterilizing and drying containers of various shapes and sizes. Inner and outer side processing can be carried out simultaneously, so the machine can be used to sterilize containers before filling with the product, as well as for the final rinsing and drying of the product-filled cans after autoclave.

The washing and sterilization cans machine can be programmed to work in either an automatic or semi-automatic mode, for any capacity. Depending on the type of container and the customer's needs, the machine can perform in continuous mode for the **following operations**:

- pre-rinsing with clean water
- washing cans, using any detergents
- rinsing with clean water
- steam sterilization
- drying using compressed air

# Principle of operation

Cans are loaded into the washer by the feed conveyor, inside which there is a mesh conveyor made of stainless steel. The conveyor speed is adjustable, so you can change the performance of the machine and the processing time at any stage.

Perfectly designed for the cleaning and sterilization of containers, CanWasher 1 has adjustable side limiters that allow for handling of cans with a variety of sizes.

In the first stage, cans are processed from top to bottom with a jet of high-pressure water or cleaning solution (optionally, with the detergent dosing system). In the second stage, they are rinsed with pure water, followed if necessary by steaming for sterilized cans and intensive drying with compressed air.

Control of the process of washing and sterilization of containers is carried out by means of the electronic control unit found on the logic controller, which allows the user to monitor, control and record various parameters, such as conveyor speed, temperature, the level of the cleaning solution supply tank and others factors.

The machine is designed to allow for easy disassembly, and for easy cleaning and maintenance; the top cover can be removed for easy access to internal components.

The machine is made entirely of stainless steel AISI304, using European components.

## Economy

The special design of this machine's nozzles, feeding water under high pressure, means the lowest possible consumption of water.

An optional system of dosed detergent-feeding is available, to prevent changes in the concentration of cleaning solutions and to ensure optimum flow.

Waste water can either be discharged into the sewage system or used for circuit cleaning, and a facility for the reuse of water or cleaning solution can be installed.



## Advantages:

- High performance in a limited area
- Versatility of use in the selection of functions
- Flexible settings for different types of containers
- Continuity of the process, providing a unified, high quality treatment for all cans
- Economy in terms of use of energy, water and detergent
- Easy integration into any production process

Model	CanWasher 1
A: length, mm	2 012
B: width, mm	634
C: height, mm	1 200

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## air bubble washer

### Models: Wash W Air 3, Wash W Air 5

Washing machine is constructed as a compact unit consisting of the following components:

- Washing bath (basin)
- Air bubble circulation and washing system
- Working platform
- Modular discharge conveyor
- PLC

### Washing bath (basin)

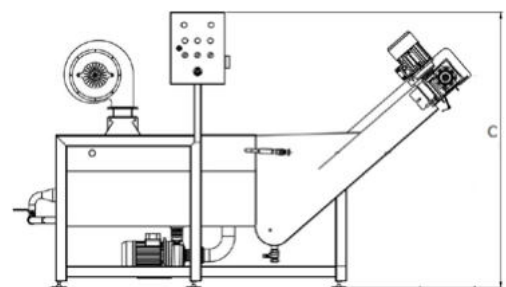
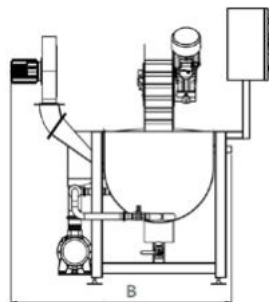
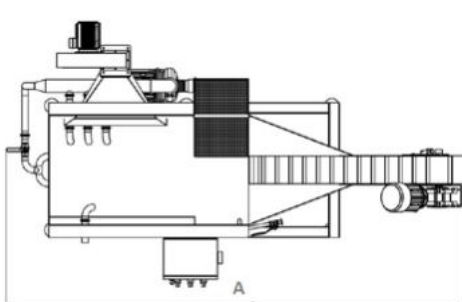
The basin is in the middle divided into two parts. In the first part, impurities are captured, the second part works as a filter tank perforated grid placed at the bottom.

Both parts of the baths are equipped with drain valves and are easy to clean. Small impurities are captured by water pump filter before discharge.





WASH W AIR 3



## Function of vegetable air washer

- dipping function (submersible dipping of products)
- conveying function ( ensures the forced displacement of washed vegetables on a conveyor belt)

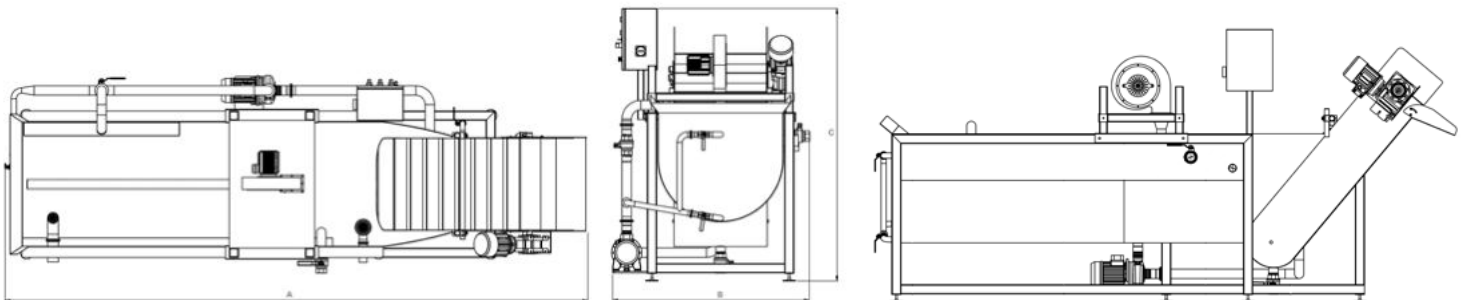
## Filter tank

The filter tank is located at the bottom part of basic. All rough impurities which flow through the basin are captured here.

## Discharge manual conveyor

It is used for transporting of washed vegetables from the washer to the other technological devices.

WASH W AIR 5



## The water circuit

The circuit is made up of water circulation pump, water distribution system and nozzles. The nozzles are adjustable, so it is possible to direct the water flow to the surface or towards the bottom, depending on the product, whether it floats or sinks. Water jet from the nozzles ensures the product is washed with washing mechanism.

## The air circuit

The air circuit consists of an air blower and air distribution. The blower provides air bubbling across the entire volume of the washing tub.

## Controlling

Ensured by automatic control (PLC), which is designed for more complex machinery, equipment and production lines, where it is necessary to record the temperature, sensors, signalling, etc.

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