



NORMIT

our ideas work

EVAPORATORS



vacuum evaporator

Model: UFO 100

Unbeatable price, possibility to adjust and choose desired modules



Suitable products:

- sirups
- condensed milk
- jams
- must

Wide range of viscous products

Boilers and vacuum - evaporators Normit are designed for cooking a wide range of viscous products in vacuum conditions, where the boiling process takes place at lower temperatures. This preserves the natural taste, aroma and color of the products.

vacuum evaporator

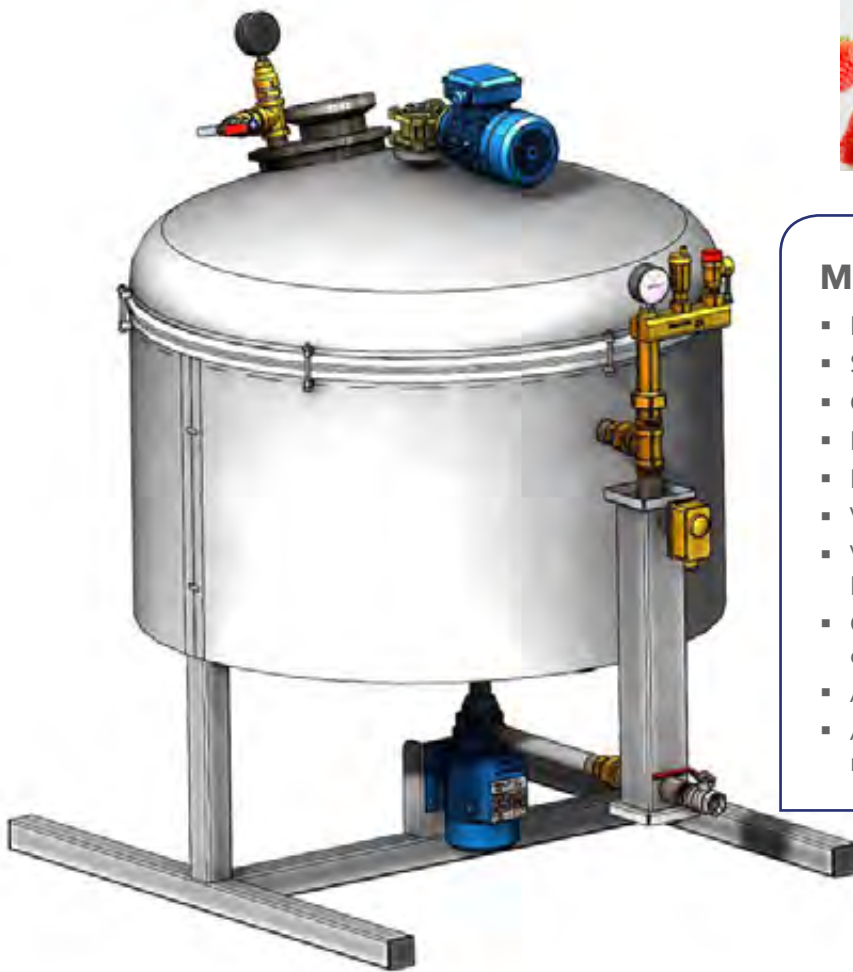
Model: UFO 100

Increased shelf life

Vacuum effectively removes air bubbles from the finished product. Ready meals have a homogeneous structure without air inclusions, which favorably affects the shelf life of the finished product.

Controls:

- Basic - setting of required temperature - and manual activation of vacuum
- Semi-automatic
- Full automatic with relay logic
- Full automatic with PLC



Modules:

- Electric heating
- Steam
- Circulating pump
- Pump for mixing and drain
- Hydrodynamic mixing
- Vacuum unit - suction (ejector)
- Vacuum Unit - Vacuum Ring Pump
- Condenser + condensate collector
- Agitator - manual stirring
- Agitator - stirring using motor



Possibility to adjust the equipment to save money

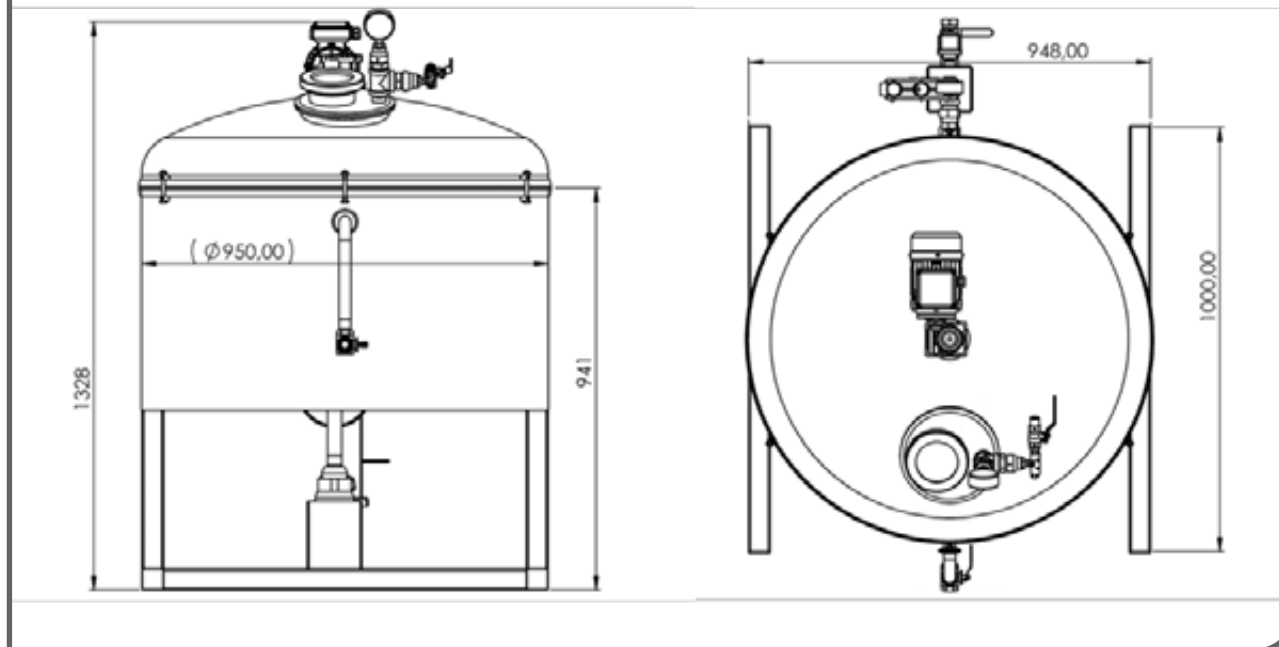
Evaporation of evaporable liquid until the desired final product density is reached. High machine modularity - it is possible to adjust the machine according to the required modules, it will save money because it is possible to throw out modules that are not interesting for the customer.



vacuum evaporator

Model: UFO 100

Technical drawings



MODEL UFO	100
Geometric volume, l	200
Working volume, l	100
Installed power kW	2-18
Length, mm	1351
Height, mm	1328
Width, mm	948

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spray evaporator

Model: LADIA 100 / 200 / 300

Normit company is constantly working on enhancing evaporator design in order to improve overall plant cost-effectiveness.



Suitable products:

- oil
- milk, dairy products
- brewing

Energy-efficient

Evaporation is used to reduce product volume, remove water prior to drying, and to improve product storage life. Evaporation is a highly energy-efficient way of removing water or other liquids and thus the primary process for the production of concentrates. It can concentrate various extracts and similar ingredients in the food, pharmaceutical and chemical industries.

spray evaporator

Model: LADIA 100 / 200 / 300

Improving cost-effectiveness

Normit company is constantly working on enhancing evaporator design in order to improve overall plant cost-effectiveness. This is accomplished by achieving the balance between energy consumption, residence time and acceptable concentrate quality for the relevant application.



Reduced processing time, evaporating at lower temperature

Using a vacuum during the evaporating process allows it to reduce the processing time. Vacuum execution allows water evaporation at lower temperatures, eliminating scorching of the product. The finished product has a natural rich flavor with maximum preservation of flavoring substances.



Ongoing Processes:

- mixing
- dissolving
- deaerating
- vacuuming
- evaporation



Advantages:

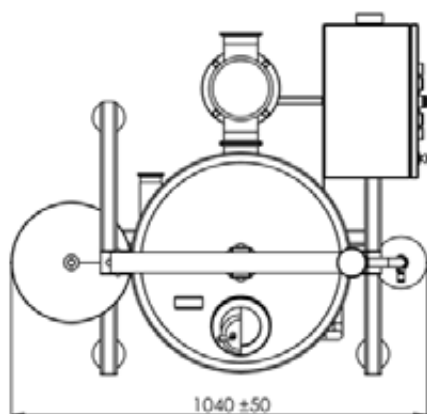
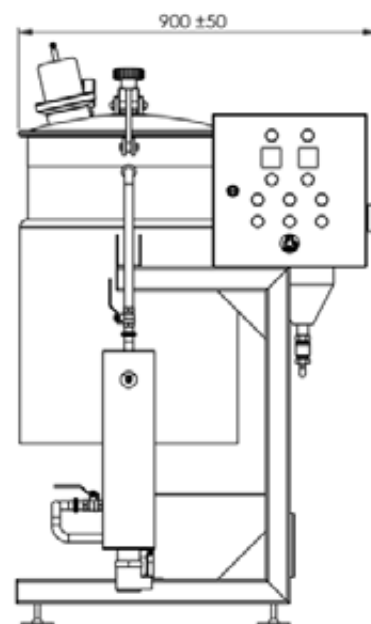
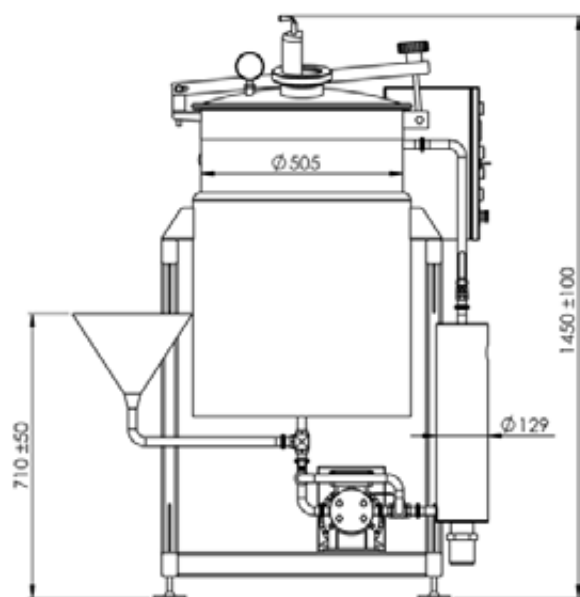
The high quality of the finished product. Thanks to the special form of the evaporation vessel, the processes of moisture removal take place as efficiently as possible, thereby reducing the processing time and therefore improving the quality of the finished product. **Hygiene.** The design of the vacuum caramel cooker is convenient for cleaning and maintenance. It is highly hygienic, with no dead zones.



spray evaporator

Model: LADIA 100 / 200 / 300

Technical drawings



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vacuum evaporator

Model: SQE 100

Vacuum evaporator with easily removable construction in case of problems, you can dismantle the machine for inspection, cleaning or repair.



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Suitable products:

- jams
- condensed milk
- sirup
- must

Preserving natural taste, aroma and colour of the product

Vacuum evaporators of the SQE series are designed for boiling a wide range of viscous products under vacuum conditions, where the boiling process takes place at lower temperatures. This preserves the natural taste, aroma and color of the products.

vacuum evaporator

Model: SQE 100

Increased shelf life of the product

Vacuum effectively removes air bubbles from the finished product. Ready meals have a homogeneous structure without air inclusions, which favorably affects the shelf life of the finished product.

Easy to operate, adjustable control system

Intuitive easy operation (everything is clear from the display on the control panel). 10 evaporation programs that can be customized for different products. The control system is fully adjustable. Customers can set: depth of vacuum, temperature, evaporation time, rotations + cycle of the stirrer.



Condenser collector

Condenser + condenser collector is a big advantage, as the vaporized liquid does not disperse into the atmosphere, but enters the external container (condensate collector). Steam can also be replaced with hot water, with a maximum temperature of 95 C at the inlet.



Advantages:

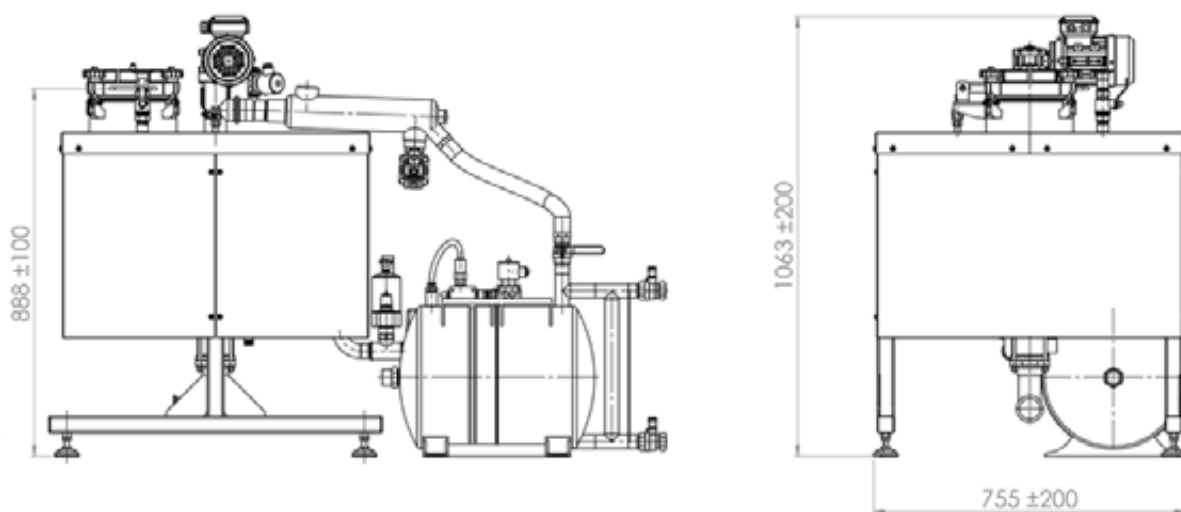
- Steam consumption is about 50 kg / one cycle (depending on the product).
- small compact design
- Multifunctional, adjustable mixer - the customer adjust the mixer according to the needs of the product.
- CIP stations, connection to CIP system



vacuum evaporator

Model: SQE 100

Technical drawings



MODEL	SQE 100
Installed power, W	500
Length, mm	1493
Height, mm	1063
Width, mm	755



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vacuum evaporator/ crystallizer

model: NSD 5000



Plant for cyclically concentrating and crystallizing solutions. Vacuum evaporator NV 3000 ensures a complete separation of the solution into a solid fraction and pure water and is an effective solution for small- or medium-production environments.



vacuum evaporator/ crystallizer

model: NSD 5000



Plant can also be used for purifying several types of wastewater with a zero liquid discharge system.



The purified water obtained as a result of concentration can be sent on for further processing.



Processes:

- Evaporation of volatile solvents (usually water) from a solution.
- Concentration of non-volatile dissolved organic and non-organic compounds .

Example applications:

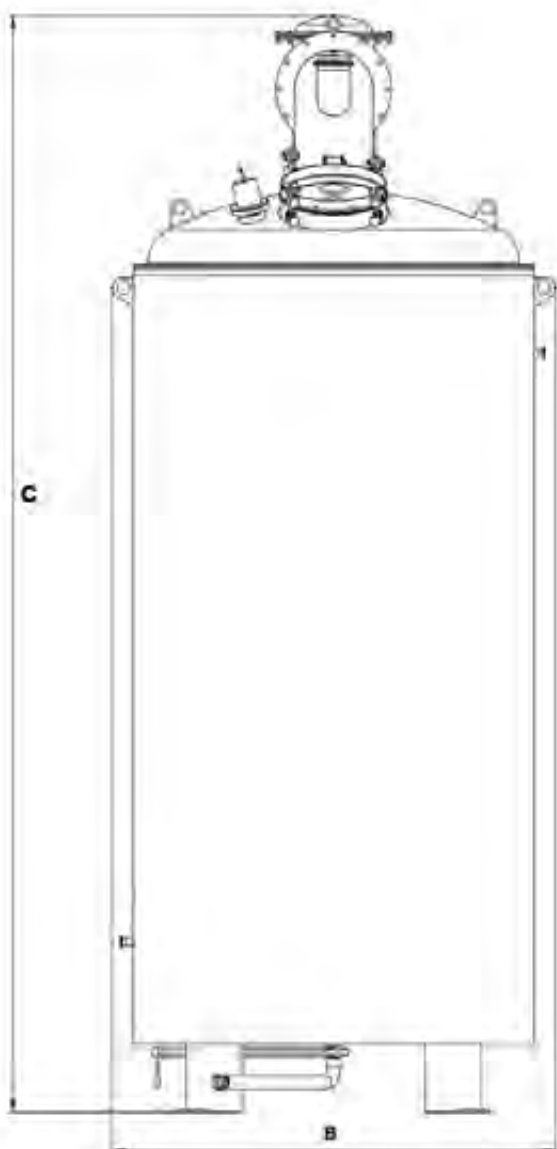
- Recrystallization of NaCl solutions for obtaining purified salts .
- Obtaining ammonium sulfate from solution, a byproduct of biogas production.
- Phosphoric acid.
- Sodium hydroxide.

Plant for concentrating and crystallizing solution offers the following advantages:

- It combines concentrating and crystallizing processes into one plant. It offers efficient removal of excess moisture at a minimal energy cost and outputs hard crystals at the end of the production cycle.
- It is easy to use. The design of the vacuum concentrator/crystallizer can be conveniently cleaned, inspected, and maintained. All of the inner area is easy to reach.
- Ready product can be easily unloaded. With reverse agitator rotation, the lower part of the screw ensures that crystallized product is evenly dozed for unloading.

vacuum evaporator/ crystallizer

model: NSD 5000



Model	NSD 5 000
A:	1 732
B:	2 121
C:	4 284

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vacuum evaporator sweetstuff

Model: SWEETSTUFF



Boiler for Turkish Delight refers to vacuum-evaporation equipment of periodic action with electric heating for processing (mixing, dissolving, boiling, boiling, concentrating) products of different viscosity, equipped with a built-in condenser, a special form agitator, a discharge device and an additional condensate collection tank. The equipment is intended for use in the food industry.



vacuum evaporator sweetstuff

Model: SWEETSTUFF



A built-in screw can be supplied for unloading the finished viscous product. An integrated system of forced condensation.



Vacuum generation system is included. SweetStuff machine is developed either with electric or steam heating.



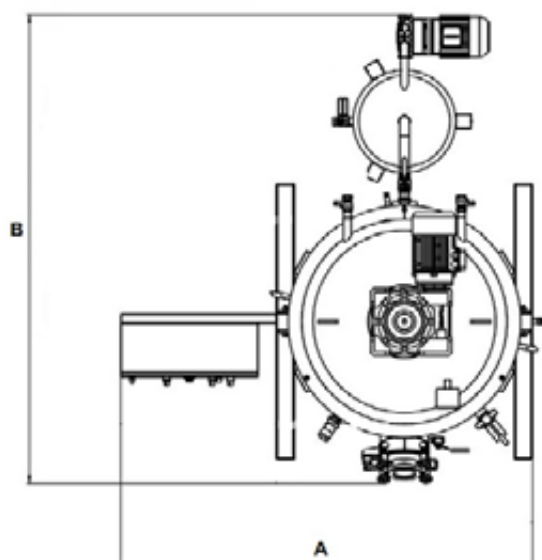
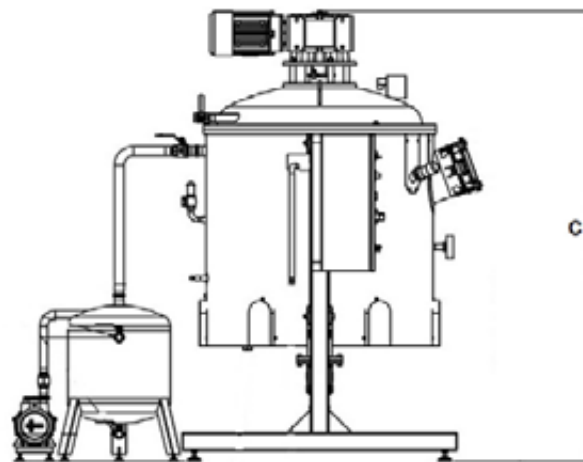
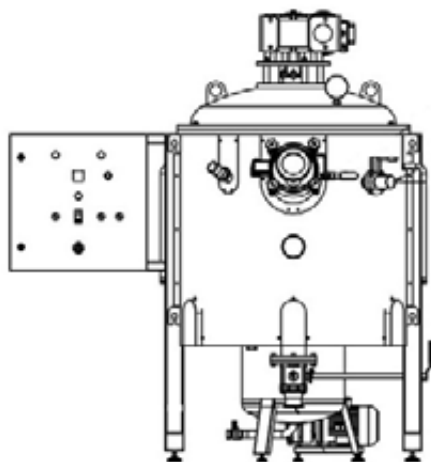
The mixing device is an enhanced agitator developed specifically to mix high-viscosity products that tend to stick. The stirrer is double-sided and is supplied with a teflon scraper. It mixes the product in the cooking process and when switched to reverse rotation, it helps to unload the finished product.

BENEFITS:

- High evaporation efficiency.
- Product cooking takes a minimum amount of time.
- The machine is compact and occupies a minimum of space.
- Ability to choose the desired temperature - Evaporation process starts at 40 °C, it is possible to evaporate even at temperatures up to 115 °C when caramelization of the product is required.
- Ability to work with a viscous product.
- Even mixing, heat treatment, and simple unloading.

vacuum evaporator sweetstuff

Model: SWEETSTUFF



Model	SWEETSTUFF
The volume of the working capacity of the boiler, l (geometric)	200
Material	AISI 304
<i>Three phase power supply:</i>	
Voltage, Volt	400
Frequency, hertz	50
Weight, kg	555

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vacuum evaporator

Model: VAC U 1900



The vacuum evaporator for preparing sugar-milk-syrup is a vertical cylindrical container made of high-quality stainless steel with a heating jacket and thermal insulation. In the upper lid of the tank there is a hatch with a viewing window, a backlight, filling fittings with ball valves. In the bottom there is a temperature sensor fitting.



vacuum evaporator

Model: VAC U 1900



The syrup is mixed using an anchor stirrer with mechanical seal.



The equipment can be an integral part of the semi-automatic line of other production site.



Ongoing Processes:

- mixing
- dissolving
- pre-cooking
- cooking
- deaerating
- caramelising
- vacuuming
- tempering

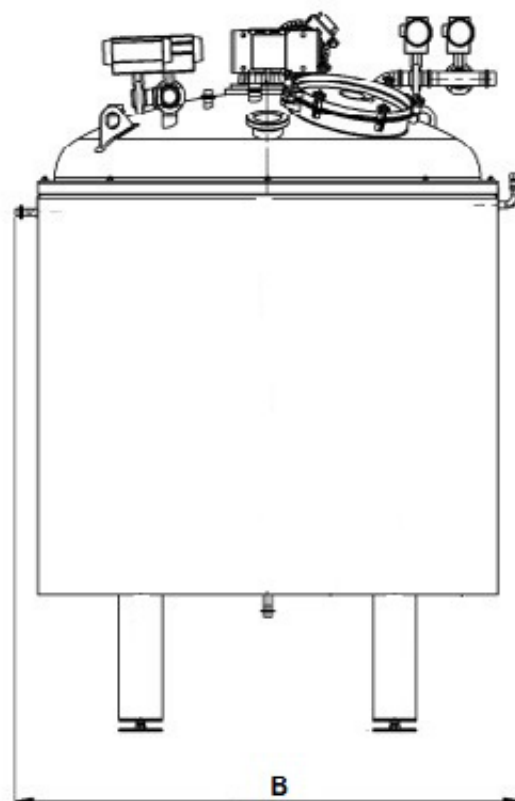
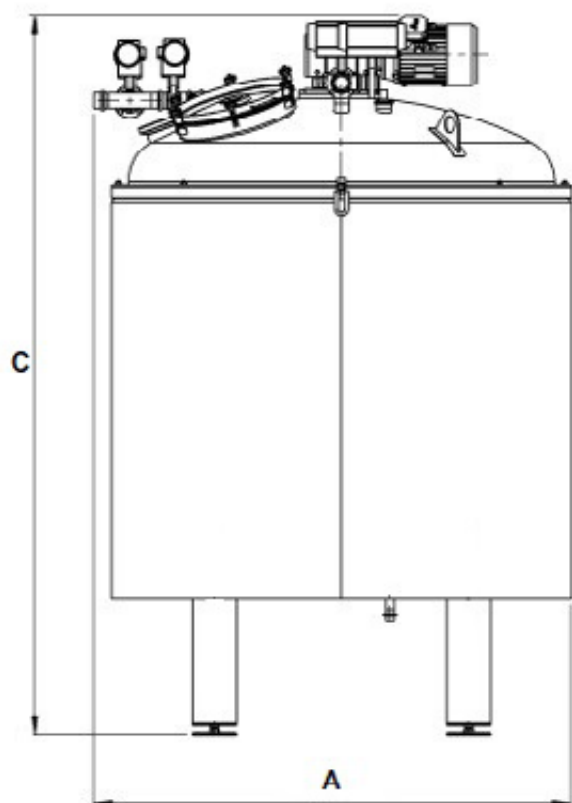
The design and form of the vacuum evaporator was developed in collaboration with leading process engineers with years of practical experience in the production of toffee and caramel masses. This succeeded in achieving the optimal in the processes of moisture removal and caramelization. The finished product has a smooth homogeneous structure.

Applications:

- caramel
- toffee mass, condensed milk
- fudge
- gum base
- fillings
- jellies
- marmalades
- mixes of soft varieties of sweets

vacuum evaporator

Model: VAC U 1900



Can be equipped with all necessary equipment to complete the production cycle:

- Storage tanks for ingredients (syrup, condensed milk ...)
- Sugar syrup cooking plants
- Measuring tanks
- Mixer units
- Dosers and more.

Model	VAC U 1900
Material in contact with the product	AISI 304
Weight, kg	555
Volume, l	1900
Working temperature, °C	up to 100
Diameter, mm	1550
Height, C mm	2485
Lenght, A mm	1681
Width, B mm	1786

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vacuum evaporator for sugar syrup

Model: VAC U 1000



The vacuum evaporator for making sugar syrup is a cylindrical container made of high-quality stainless steel with a heating jacket and thermal insulation. The syrup is mixed using an anchor stirrer with mechanical seal. The equipment is an integral part of the semi-automatic line of the toffee mass production.



vacuum evaporator for sugar syrup

Model: VAC U 1000

Evaporation is a condensation of solid non-volatile solutions, the solvent leaks out in the form of a vapor, and the dissolved substance remains in a thickened solution (chemical technology, pharmaceuticals, artificial fibers, cellulose, dairy, sugar, ...). Evaporation usually takes place at the boiling point of the solution under a constant heat supply.

HOW IT WORKS:

Initial feedstocks are loaded into the vacuum evaporator (via the reservoir and the trap). In a vacuum evaporator, the mixture is stirred with vigorous stirring. The final product is passed through a homogenizer and pumped into the container, then sent to the package.

Vacuum evaporator is a device that uses vacuum to evaporate moisture from products.



Evaporation at a temperature below the boiling point - evaporation from the free surface (eg salt recovery from sea water).



Model	VAC U 1000
Material in contact with the product	AISI 304
Weight, kg	540
Capacity, l	1080
Operating temperature, ° C	Up to 110
Product diameter, mm	1800
Product height, mm	1550
Working pressure in the tank, kgf / cm ²	Atmospheric

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vacuum evaporator

Model: VE 100



Vacuum evaporator is a device of the cylindrical shape used for mixing, dissolution, evaporation and concentration of mineral and organic acids, polyhydric alcohol, further during the cooking processes and the concentration of products with different viscosities under atmospheric pressure. It is used for cooking and evaporating fruits and vegetables, evaporated milk, tomato paste, ketchup and many other products.



vacuum evaporator

Model: VE 100

Evaporation at the boiling point

Evaporation usually takes place at the boiling point of the solution under a constant heat supply. Evaporation at a temperature below the boiling point (eg salt recovery from sea water).



Process of evaporation

Evaporation is a condensation of solid non-volatile solutions, the solvent leaks out in the form of a vapor, and the dissolved substance remains in a thickened solution (chemical technology, pharmaceuticals, artificial fibers, cellulose, dairy, sugar, ...)



Food can be stored longer

When the process is applied to food and the water is evaporated and removed, the food can be stored for long periods of time without spoiling. It is also used when boiling a substance at normal temperatures would chemically change the consistency of the product, such as egg whites coagulating when attempting to dehydrate the albumen into a powder.



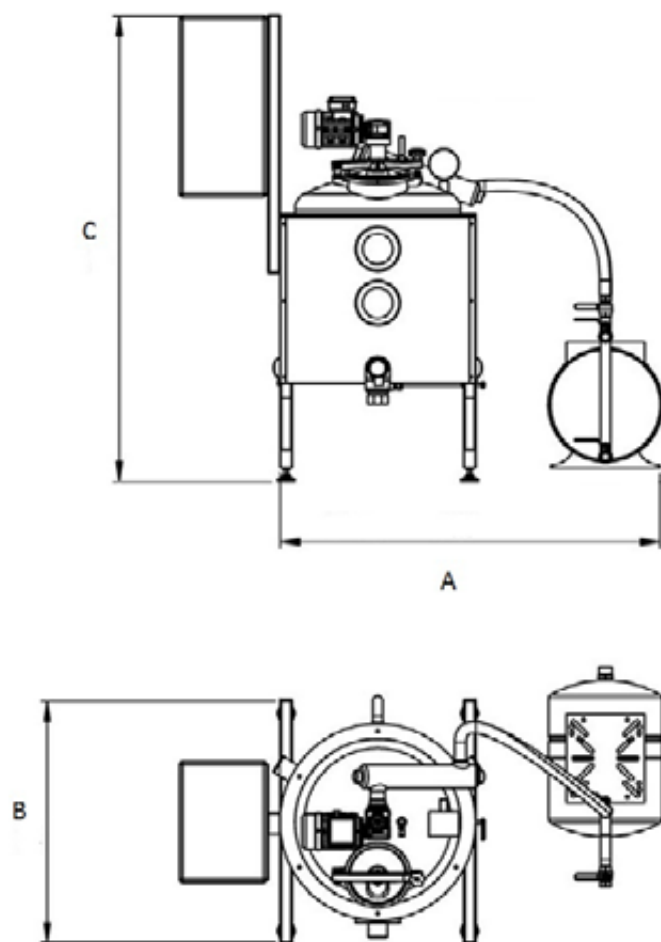
Universal use

The device is intended for use in sectors such as pharmaceutical, chemical, food and cosmetics, etc. The evaporator may be equipped with a hopper and inlet shafts. There is a drain on the bottom of the product that removes the product.



vacuum evaporator

Model: VE 100



Model	VE
Geometric volume, l	100
Power of the heating system, kW	9
Material	AISI304
<i>Three-phase power:</i>	
Voltage, V	400
Frequency, Hertz	50
Height, C mm	1510
Length, mm	1250
Width, mm	850
Weight, kg	172

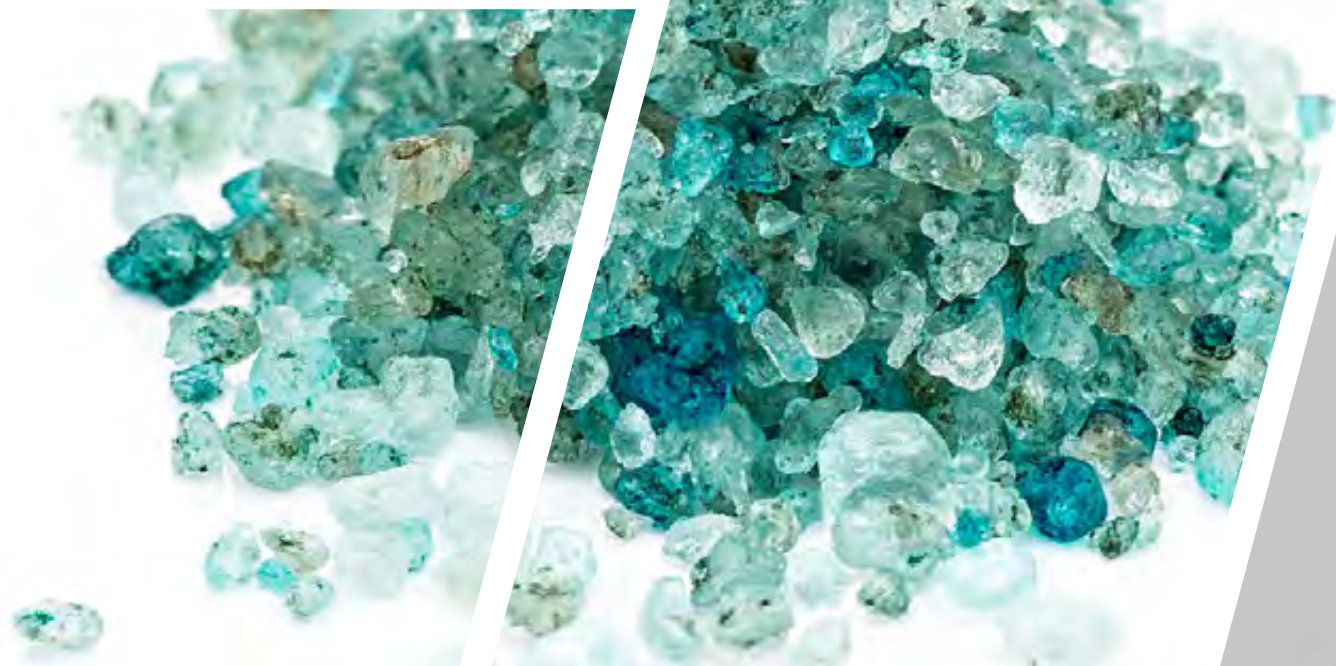
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vacuum evaporator/ crystallizer

model: vacuum NV 3000

Plant for cyclically concentrating and crystallizing solutions. Evaporator Vacuum NV 3000 ensures a complete separation of the solution into a solid fraction and pure water and is an effective solution for small- or medium-production environments.

Processes:

- Evaporation of volatile solvents (usually water) from a solution
- Concentration of non-volatile dissolved organic and non-organic compounds



Example applications:

- Recrystallization of NaCl solutions for obtaining purified salts
- Obtaining ammonium sulfate from solution, a byproduct of biogas production.
- Phosphoric acid
- Sodium hydroxide
- Urea

Plant can also be used for purifying several types of wastewater with a zero liquid discharge system. The purified water obtained as a result of concentration can be sent on for further processing.

Vacuum evaporator/concentrator/crystallizer consists of a thermally insulated vacuum chamber, a heating system, a system through which solution is circulated, a mixing system, an area for unloading obtained crystals, a condenser, and a condensation collector.

The heat-transfer medium used can be gas, electricity, steam, or exhaust gases from a piston gas generator.

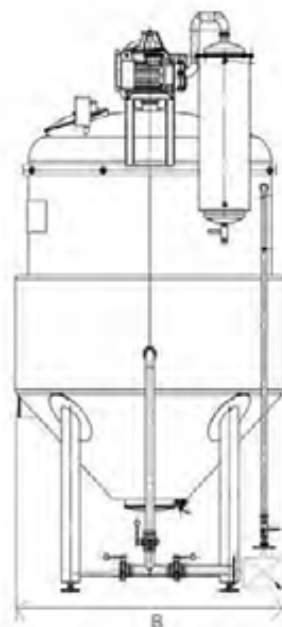
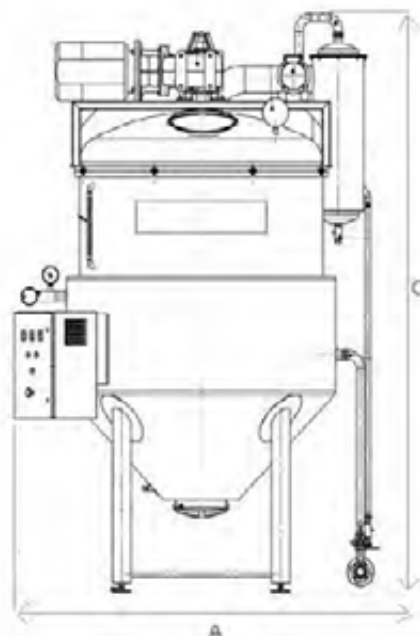
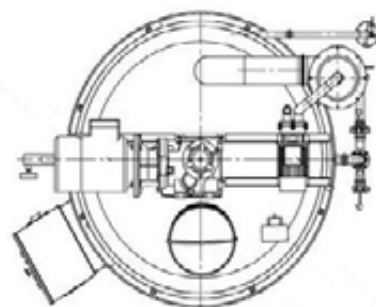
Plant for concentrating and crystallizing solution offers the following advantages:

It combines concentrating and crystallizing processes into one plant. It offers efficient removal of excess moisture at a minimal energy cost and outputs hard crystals at the end of the production cycle.

Evaporator is easy to use. The design of the vacuum concentrator/crystallizer can be conveniently cleaned, inspected, and maintained. All of the inner area is easy to reach.

Ready product can be easily unloaded. With reverse agitator rotation, the lower part of the screw ensures that crystallized product is evenly dozed for unloading.

Model	NV 3000
A: length, mm	2 250
B: width, mm	1 837
C: height, mm	3 260



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