

NORMIT

our ideas work

NORMIT HONEY DRYER

VACUUM HONEY DRYER

HOT-AIR HONEY DRYER

CONDENSING HONEY DRYER



**ISO
9001**



NORMIT HONEY DRYER

*VACUUM HONEY DRYER
CONDENSING HONEY DRYER
HOT-AIR HONEY DRYER*

Company NORMIT provide honey dryer, whose range can be divided into three basic product lines.: VACUUM, CONDENSING, HOT-AIR,

COMPANY NORMIT is the largest producer of honey dryers in the world

Market leader

- Developed in Slovakia- world unique
- Made from the finest materials- exclusively EU originating
- ISO 9001 Quality Certificate
- Meets CE standards
- Quality stainless steel AISI 304 or. AISI 316



Drying of honey are used when the humidity of honey is above 20%. Optimum moisture of quality honey is 17-18%. Excessive moisture in honey due to its early harvest or poor quality, leading to separation and fermentation. Moisture content of 17% is considered as a safe level to slow down yeasts activity.

Increased productivity

Bees spend considerable time and effort to dry the honey in the hive. Possibility of drying honey after removal from its frames significantly increases the harvest of honey per season.

SAFE REMOVAL OF MOISTURE FROM HONEY

NORMIT HONEY DRYER have been designed specifically for honey take care to its sensitive.

Effectively remove humidity without heating or with low temperature heating in a short time, which does not lead to increased the hydroxymethylfurfural concentration (HMF).

Hydroxymethylfurfural arises by heating glucose and fructose . The presence of HMF in honey points out that it is an old or over-heated. 5-HMF is suspected of cytotoxic genotoxic effects on the human organism organismus. Codex Alimentarius the World Health Organization and the European Union provides the maximum amount of 5-HMF honey at 40 mg / kg. Honey from Slovak and Czech republic has a more stringent standard only to 15 and 20 mg / kg.

For HMF is important not only increased temperature, but also the time in which the temperature operates. For example. a short heating to 60 ° C does not cause hardly any increase in HMF. However, long term storage at 40 ° C will increase the content of HMF in few weeks.

WHY DRIED HONEY IN THE NORMIT HONEY DRYER?

NORMIT HONEY DRYER Dryer is designed specifically for honey and its features:

- Can increase the amount of honey harvested per season, with the possibility of achieving high quality and fine drying honey straight from the hive. This significantly improves the quality of immature honey and increases its durability.
- It is an effective means of destroy undesirable components in the honey, such as crystals and yeast cells
- Honey drying in dryers NORMIT there is no increasing amount of HMF or destruction of nutritionally important enzymes and other beneficial substances (under the recommended maximum drying temperature).

OTHER USES

Dryer is also suitable for the production of invert syrup and also for the manufacture of artificial honey. This means you can use the facility throughout the year, even if the processing of natural honey is over. Artificial honey is nutritious and very popular product used in confectionery industry, also often used for feeding bees in winter.

Dryer may also be used in food, pharmaceutical, chemical industry.



NORMIT VACUUM HONEY DRYER

The vacuum dryer is an effective means of destruction of undesirable constituents in honey, such as crystals and yeast cells. The dryer operates in vacuum. Honey retains all its specific properties, color, taste, smell, better holds diastase (an enzyme that occurs naturally in honey, enzyme activity decreases during aging honey or exposure to higher temperatures) and there is no increase of HMF or destruction of nutritionally important enzymes.

Due to the large heat transfer surface area, which covers the inner walls of the chamber and the entire surface of the agitator, we significantly reduce the cost of energy in comparison to conventional vacuum dryers.



HOW IT WORKS

Partially or completely melted honey is inserted into the vacuum chamber. Thermal energy is supplied by hot water through the jacket of the chamber (duplicator) - indirect heating. The special agitator rotates, which ensures maximum heat transfer. Specially shaped blades increase the adhesion of honey, which greatly increases the surface area for evaporation. A special squeegee located between the discs of the agitators cleans the chamber wall from glued honey. The dryer can be supplemented by direct heating, but this should not exceed 40 °C, to avoid damage to sensitive substances in honey. When honey is heated above 50 °C it rapidly reduces the content of enzymes in honey as well as other valuable substances. Technically it is possible to set the temperature to 95 °C (e.g. for drying other products).

TECHNICAL DESCRIPTION

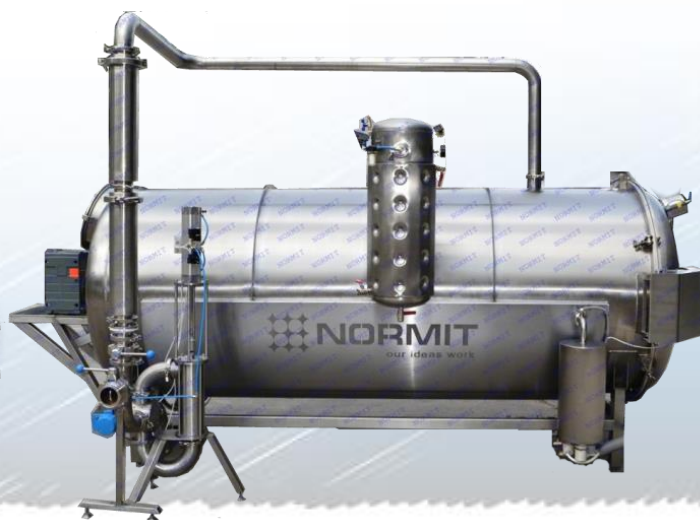
NORMIT VACUUM DRYER HONEY consists of the vacuum chamber from stainless steel AISI 304 (or. On request AISI 316) with duplicators for heating by hot water in jacket, fitted with a specially shaped stirrer, a vacuum system, a condenser, thermometer and electronic measurement of moisture. Because the drying ongoing in a vacuum can be dried at low temperature with minimal energy costs. The heating medium is usually hot water.

ADDITIONAL EQUIPMENT

Honey dryer can be equipped with a thermostat, PLC control, hot water generator (electrical, steam, solid fuel.) recirculation and filtration system to clean the fragments of wax, propolis etc. from the honey. The filter system is equipped with removable nets made from stainless steel, which allows you to choose the desired degree of purification for each application.

ADVANTAGES OF THE NORMIT VACUUM HONEY DRYER

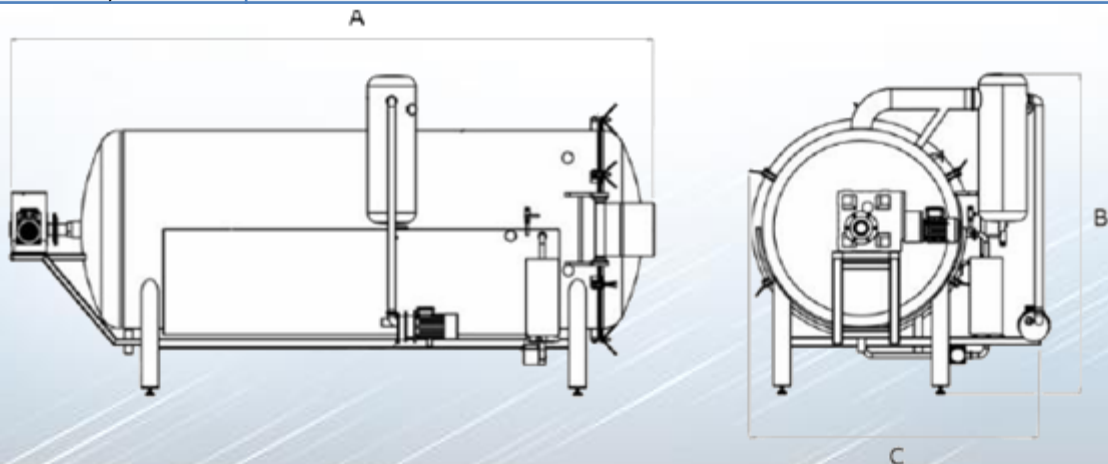
- It is the most effective professional solutions in the field of drying honey nowadays
- It is designed to operate 24 hours – anytime you need
- High energy efficiency
- Low operating costs
- Large heat transfer area provides maximum energy transfer
- The drying process ongoing at a low temperature to ensure the preservation of all nutrients in honey
- Operation is continuous, so that the honey has stable quality
- Short drying period, there is no increase of hydroxymethylfurfural
- The possibility of fully automatic operation for different products
- Environmentally
- Easy cleaning and maintenance
- Low heat loss
- Sterile environment
- Without the formation of dead zones



TECHNICAL PARAMETERS

Model	VHD100	VHD200	VHD300	VHD400	VHD500	VHD650
Geometric volume, l	100	200	300	400	500	650
Working volume, l	45	90	135	180	225	295
The volume of honey, kg	etc 63	etc 126	etc 190	etc 250	etc 315	etc 413
Power of agitator	0,18	0,18	0,25	0,25	0,37	0,37
Vacuum, bar	-0,8	-0,8	-0,8	-0,8	-0,8	-0,8
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					

Model	VHD800	VHD1000	VHD1200	VHD1500	VHD2000	VHD4000
Geometric volume, l	800	1000	1200	1500	2000	4000
Working volume, l	360	455	545	680	910	1820
The volume of honey, kg	etc 504	etc 637	etc 763	etc 952	etc 1275	etc 2550
Power of agitator	0,55	0,55	0,75	0,75	1,1	1,1
Vacuum, bar	-0,8	-0,8	-0,8	-0,8	-0,8	-0,8
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					



CONDENSING HONEY DRYER

It is known that under otherwise identical conditions, removal of moisture under vacuum is more effective than at in atmospheric pressure. However, in the NORMIT HONEY CONDENSING DRYER have been made more innovative solution - intensive drying forced by air, which result in such performance close to the performance that would be achieved with a vacuum system. In addition, special construction of agitator ensures widest possible area of evaporation.



HOW IT WORKS

NORMIT CONDENSING HONEY DRYER works on the condensation principle. Dry, hot air dry honey and absorbs moisture content evaporated from the honey. The moist air is discharged out of the dryer but condenses on cold heat pump evaporator. The air from which it is moisture content taken away, is conveyed to the heat pump, wherein is heated again and enters the dryer and dry honey. The waste heat generated by the conversion of electrical energy into heat is effectively used for further drying and thus there is no loss of thermal energy. **Dryer operates at temperatures of 5-95 ° C with minimal energy losses and extremely low operating costs.** During honey drying, however, the temperature should not exceed 40 ° C to avoid damage of sensitive substances in honey. **When honey is heated above 50 ° C, rapidly reduces the content of enzymes in honey as well as other valuable substances.**

For more effective drying may dryer have heating in jacket Special stirrer with circular disc rotates, which ensures maximum heat transfer. Special squeegee located between the discs of agitators clean the chamber wall from glued honey.

TECHNICAL DESCRIPTION

NORMIT CONDENSING HONEY DRYER consists of the chamber of high quality stainless steel AISI 304 (or. On request AISI 316), fitted with specially disk, spiral or lamellar stirrer, condenser unit, thermometer and electronic measuring of humidity. **Dryer operates at temperatures of 35-40 ° C with minimal energy losses and extremely low operating costs.**

ADDITIONAL EQUIPMENT

Dryer honey can be equipped with a thermostat, PLC control, recirculation and filtration system to clean the the honey from the wax fragment, (propolis), part of the bee bodies and etc.

ADVANTAGES OF NORMIT HONEY CONDENSING DRYER

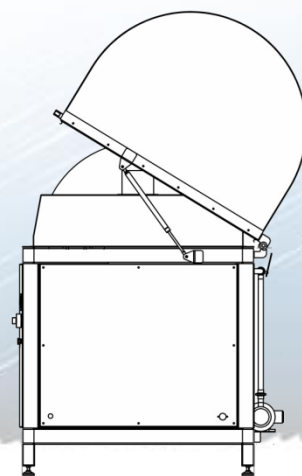
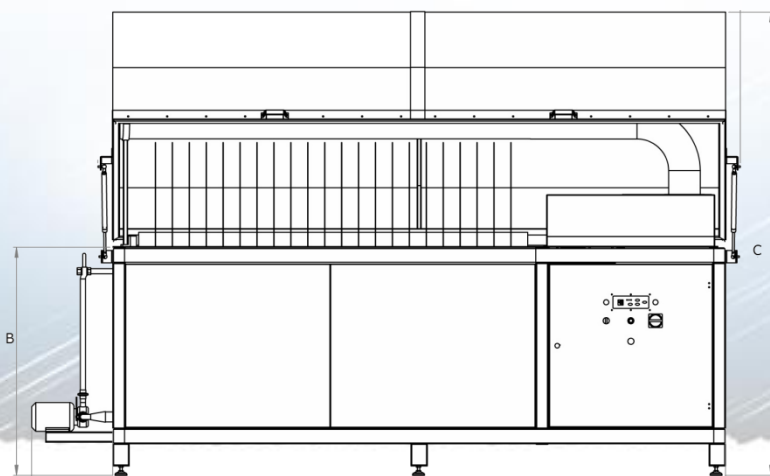
- Low acquisition costs
- Low operating costs (closed air circulation system saves a large amount of thermal energy)
- High energy efficiency
- A large area of heat transfer
- The drying process takes place at a low temperature to ensure the preservation of all nutrients in honey
- Operation is continuous, so that the honey has stable quality
- Short drying time, there are no increasing hydroxymethylfurfural
- Environmentally
- Easy cleaning and maintenance
- Low heat loss
- Without the formation of dead zones
- The possibility of fully automatic operation for different products



TECHNICKÉ PARAMETRE

Model	CHD100	CHD200	CHD300	CHD400	CHD500	CHD650
Geometric volume, l	100	200	300	400	500	650
Working volume, l	45	90	135	180	225	295
The volume of honey, kg	etc 63	etc 126	etc 190	etc 250	etc 315	etc 413
Power of agitator kW	0,18	0,18	0,25	0,25	0,37	0,37
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					

Model	CHD800	CHD1000	CHD1200	CHD1500	CHD2000	CHD4000
Geometric volume, l	800	1000	1200	1500	2000	4000
Working volume, l	360	455	545	680	910	1820
The volume of honey, kg	etc 504	etc 637	etc 763	etc 952	etc 1275	etc 2550
Power of agitator kW	0,55	0,55	0,75	0,75	1,1	1,1
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					





HOT-AIR HONEY DRYER

NORMIT HOT-AIR HONEY DRYER is designed primarily for smaller producers. It works on the principle of hot air if necessary. can be equipped with heating provided by steam or hot water.. The special design of the agitator ensures the widest possible surface evaporation.



HOW IT WORKS

Partially or completely melted honey is inserted into chamber of dryer. Thermal energy is supplied through a hot-air blower. Heating should not exceed 40° C to avoid damage sensitive substances in honey. If Honey is heated above 50° C rapidly reduces the content of enzymes in honey as well as other valuable substances. Technically it is possible to set the temperature to 95° C (e.g. for drying other products).

For more effective drying may dryer have heating jacket provided by steam or warm water. Special agitator rotates, which ensures maximum heat transfer.

TECHNICAL DESCRIPTION

NORMIT HOT-AIR HONEY DRYER consists of the chamber of high quality stainless steel AISI 304(or. On request AISI 316), fitted with spiral, disk stirrer, blower, thermometer and electronic measuring humidity.

ADDITIONAL EQUIPMENT

Dryer honey can be equipped with a thermostat, PLC control, recirculation and filtration system to clean the the honey from the wax fragment, (propolis), part of the bee bodies and etc. The filter system is equipped with removable nets made from stainless steel, which allows you to choose the desired degree of purification for each application.

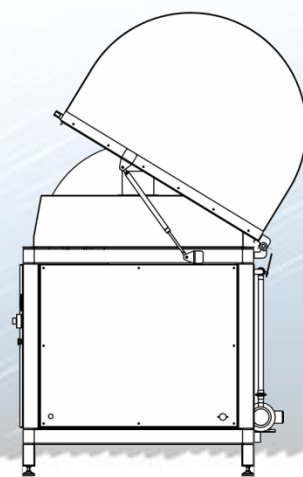
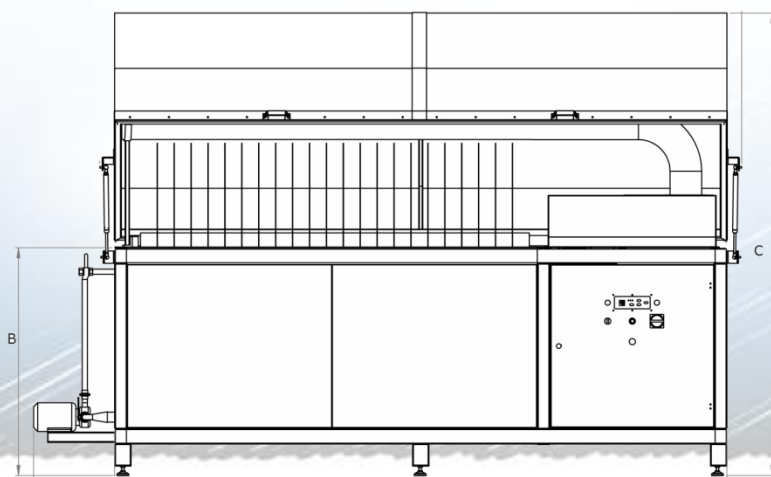
BENEFITS OF NORMIT HOT AIR HONEY DRYER

- A large area of heat transfer
- Low acquisition costs
- The drying process ongoing at a low temperature to ensure the preservation of all nutrients in honey
- Operation is continuous, so that the honey has stable quality
- Short drying time, there is no increasing hydroxymethylfurfural
- Environmentally
- Easy cleaning and maintenance
- Low heat loss
- Without the formation of dead zones
- The possibility of fully automatic operation for different products

TECHNICKÉ PARAMETRE

Model	HAHD100	HAHD200	HAHD300	HAHD400	HAHD500	HAHD650
Geometric volume, l	100	200	300	400	500	650
Working volume, l	45	90	135	180	225	295
The volume of honey, kg	etc 63	etc 126	etc 190	etc 250	etc 315	etc 413
Power of agitator kW	0,18	0,18	0,25	0,25	0,37	0,37
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					

Model	HAHD800	HAHD1000	HAHD 1200	HAHD 1500	HAHD 2000	HAHD 4000
Geometric volume, l	800	1000	1200	1500	2000	4000
Working volume, l	360	455	545	680	910	1820
The volume of honey, kg	Etc 504	etc 637	etc 763	etc 952	ect 1275	etc 2550
Power of agitator kW	0,55	0,55	0,75	0,75	1,1	1,1
Material	Stainless AISI 304 or AISI 316					
Temperature °C – adjustable	from 5 to 95 °C (for drying honey is recommended max. 40 °C)					
Temperature sensor	YES					
Electrical measurement of moisture	YES					
Noise level, dB	Less than 75					





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HONEY DRYER



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