IMPROVING THE QUALITY OF UNRIPE HONEY

The vacuum honey dryer HONEMA TurboHive-V is designed for intensive and gentle removal of excess moisture from the honey under vacuum conditions. Excessive moisture content in honey (over 18-20%), due to its early collection or poor quality, leads to difficulties in long-term storage, as well as separation and fermentation.

Fermentation of honey is caused by several factors, such as high moisture content, an unfavorable storage temperature, a high content of yeast cells as well as ash and nitrogen content. However, it is the water content of the honey that is the decisive factor regarding fermentation, because at a moisture content of less than 17% fermentation is not possible, regardless of the number of yeast cells; in contrast, with a moisture content of more than 20%, the risk of fermentation is ever-present.

INCREASE IN PRODUCTIVITY

In vivo bees spend a considerable amount of time and effort on the final drying of honey in the hive. The possibility of conducting a final drying of honey after its extraction from the frames significantly increases the honey harvest per season.

Removal of moisture without increasing hydroxymethyl furfural content.

The dryer has been designed specifically for honey, bearing in mind all the features of this sensitive product, and can effectively remove moisture without heating, or with low temperature heating that does not lead to increased content of hydroxymethyl furfural. Honey dried in the HONEMA TurboHive-V vacuum dryer can be used in the pharmaceutical industry.

EFFICIENCY

Efficient removal of moisture from honey is performed not only by the vacuum, but also by means of the largest possible heat exchange and heat transfer area which includes the inner walls of the working chamber and the entire surface of the disk agitator. Due to the large heat exchange surface, we have significantly lowered energy costs for the evaporation of moisture, when compared to conventional vacuum drying apparatuses.
DESIGN

The vacuum honey dryer HONEMA TurboHive-V consists of a horizontal vacuum chamber made of stainless steel AISI304 (or AISI316 on request), equipped with a specially shaped disk stirrer system with scrapers, vacuum system, condensate and a control system based on industrial controllers. Condensate removal is carried out by a high-performance innovative cyclone separator.

The honey vacuum dryer HONEMA TurboHive-V is equipped with a built-in refractometer for controlling the level of moisture content during the process of evaporation.

The dryer can be equipped with an optional recirculation loop and honey filtration system. Filters in the filter system are interchangeable and made of stainless steel, and allow for both basic cleaning from large impurities and ultrafiltration to remove pollen grains.

The basic models include chambers with a capacity volume of 300, 500, 1000, 2000, 3000, 4000 and 5000 liters. Custom manufacturing of vacuum dryers of any size is available on request.

Capacity of the vacuum chamber is 50% of the total volume.

BENEFITS

- Sanitary design
- EU-made with high quality materials and components
- Gentle moisture removal without heating or with minimal heating, preserving all the beneficial qualities of honey; does not increase the content of HMF
- Honey dryer HONEMA TurboHive-V can be used for the production of pharmaceutical honey
- High efficiency evaporation at low energy cost and for a short period of time
- Low noise, and lack of harmful emissions.
<table>
<thead>
<tr>
<th>Model</th>
<th>TurboHive-V 300</th>
<th>TurboHive-V 500</th>
<th>TurboHive-V 1000</th>
<th>TurboHive-V 2000</th>
<th>TurboHive-V 3000</th>
<th>TurboHive-V 4000</th>
<th>TurboHive-V 5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch load, liters</td>
<td>300</td>
<td>500</td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
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Heating: Connection to the external heating source / included
More than thirty years of experience producing process equipment for the food industry and other industries and many completed projects in the design and manufacture of industrial equipment for the processing of honey allowed us to bring to market a line of equipment under the brand **HONEMA**.

The **HONEMA** range of honey processing equipment includes vacuum and atmospheric honey dryers, melting and filtering equipment, honey mixers and homogenizers, pasteurizers, cream honey processing systems, artificial honey processing line, and pumping and dosing systems.

Besides commercially developed products, we also offer the development of individual equipment designs to meet the customer's specifications.

All equipment is manufactured in our own 8,000 sq. m. European site area including the manufacturing plants, offices, and warehouses.

The EMA Europe company provides a full cycle services in the design, manufacture, implementation, and maintenance of process equipment including:

- Technological consultation
- Technological design
- Production of equipment at our own production site
- Erection and commissioning
- Guarantee service
- After-sales maintenance with a private service center

In the process of producing equipment, we use only high quality European materials and components. We do not resell equipment that has been fully or partially manufactured in China or other Asian countries.

We kindly welcome our potential customers to visit our manufacturing center to discuss technical details with our engineers and to rate our level of technique.

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honema
Industrial honey processing equipment