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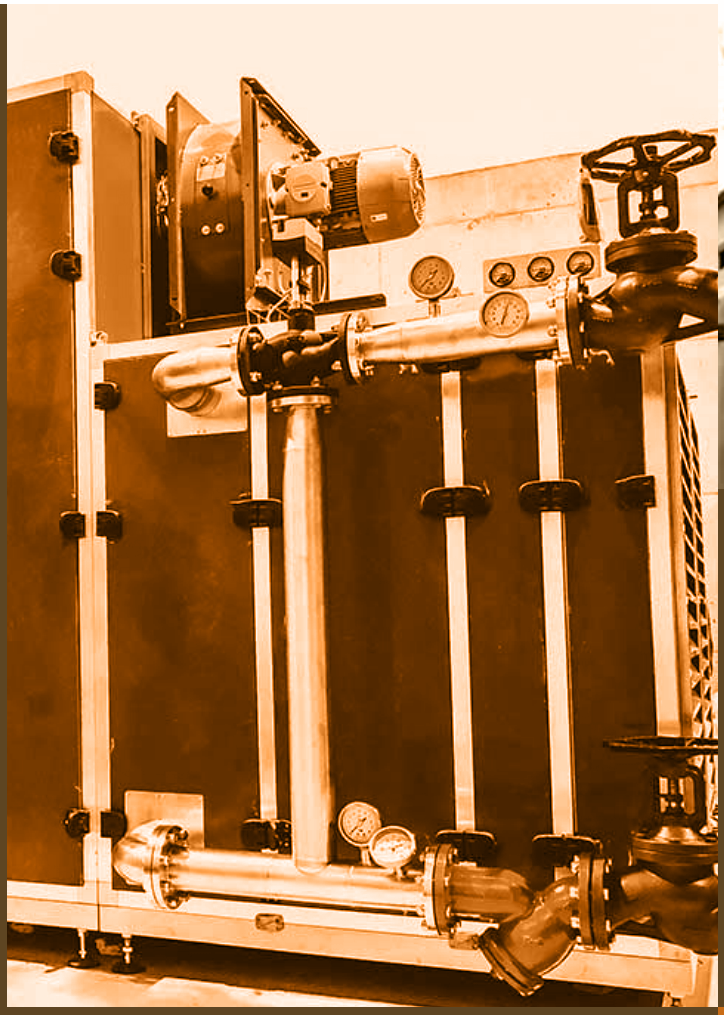

DAHU
AIR HANDLING AND DRYING UNIT

Air flows
from 100 m³/h to 20.000 m³/h

DAHU AIR HANDLING AND DRYING UNIT

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FECOATEC

WHO WE ARE?

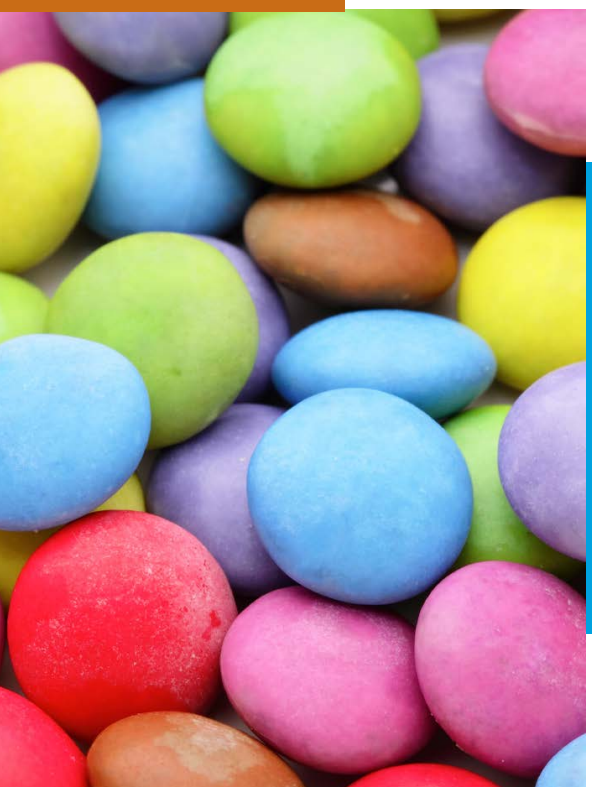
FECOATEC is a company founded in year 2000 in Madrid (Spain) by qualified engineers, with great experience in food industry, specially in confectionary and chocolate sectors.

Our customers are from small and medium companies to the biggest multinationals in the sector.

The custom-made projects, technical quality of the works, and constant technology evolution allowed us to achieve a remarkable position in market.

Our technical-focused company structure, allow us to offer excellent technical solutions at competitive prices.

All equipment shown is designed / manufactured by FECOATEC.



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MAIN FEATURES

WHAT IS DAHU?

The Air Handling and Drying Unit, DAHU (Dessicant Air Handling Unit), is a completely automatic machine that generates a filtered, low humidity, and at set controlled temperature, for food processes.

The drying process is carried out by means of a SILICA GEL ROTOR, installed in the unit, and thanks to adsorption principle, adsorbs humidity contained in the air that pass through, achieving an extremely dry air at the outlet of it.

It is remarkable the hygienic design, the accessibility to all elements and the high energy efficiency of it.

Air flows:
From 100 m3/h hto 20.000 m3/h.

Absolute humidity achievable: Up to 1,5 g/kg / -11ºC Dew point /or its equivalent 25ºC and 8 %RH.

It is the ideal solution for food industry applications that requires a filtered, temperature and humidity-controlled air.

Typical applications that require a very dry air, are automatic coating (that is produced in our BOMBO), or in the chocolate lentils forming (produced in our FORMINGPLUS), or to control internal humidity in cooling tunnels KALTENPLUS, injecting dry air, or stored product conditioning (drying or maturing, such as jellies or chewing gums).

Process can be completely automatized, and all adjustments of the machine are set from Touch Screen HMI integrated in it.

DAHU
AIR HANDLING AND DRYING UNIT

MAIN FEATURES

WHAT DEFINES DAHU

- Custom- made design for each application: airflow, air pressure, humidity and temperature are the parameters to define in project.
- Supported over frame manufactured in stainless steel AISI304L.
- Aluminum profile structure.
- Removable closings of the unit, by means of insulating panels, in polyurethane of high density 40 mm thickness.
- Optionally closing panels manufactured in stainless steel.

- Air Filtration (Process air and regeneration air), in 3 stages as standard. Being the most common, G4,F7 and F9 efficiency, achieving a 99% efficiency of particle filtration. Each Filtration stage is equipped with differential pressure manometers and pressure switches, that generates an alarm when it is needed a filter replacement. Optionally can be added an absolute filter H13 or similar.
- Process air then pass through the SILICA GEL ROTOR, where looses humidity caused by adsorption of the humidity. The rotor is rotating continuously at low speed, driven by its own motor and belt.

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MAIN FEATURES

- At outlet of SILICA GEL ROTOR, process air is very dry and hot, so now is necessary to install a temperature control stage, by 2 heat exchangers: POST COOLING AND POST HEATING, where automatically the air temperature is set.
- Process air is moved by means of centrifugal ventilator, directly coupled, located in the unit, and sized according to the process.
- Process air flow is adjustable by means of frequency inverter that drives the ventilator.
- For a correct working of the air drying by means of SILICA ROTOR, it is necessary a second airflow, called REACTIVATION or REGENERATION AIR. The purpose of this airflow is to dry the Silica rotor, that is saturated by humidity coming from process air, allowing a continuous working cycle.

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- REGENERATION AIR is heated up in a heat exchanger by means of steam, up to 130ºC. Later the airflow passes through the rotor, evaporating the water contained in it, and driving this humid air to outside. This is how the rotor is REACTIVATED/ REGENERATED.
- REGENERATION AIR, is blown by means of a centrifugal ventilator, with direct coupling installed in the unit.
- Electrical cabinet integrated, with PLC and Touch Screen HMI, for precise control of all parameter in some models.

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OPTIONALS FEATURES

OPTIONAL FEATURES

- HEAT RECOVERY SYSTEM. With the purpose of increasing energy efficiency of the unit DAHU, the regeneration air at outlet of the unit (usually hot and humid air), can be recirculated to a static plates heat exchanger, in order to heat up previously the regeneration air entering the unit, decreasing the steam consumption needed for the unit.

- FULLY STAINLESS STEEL. The unit can be configured to be completely manufactured in stainless steel including the closing insulating panels.

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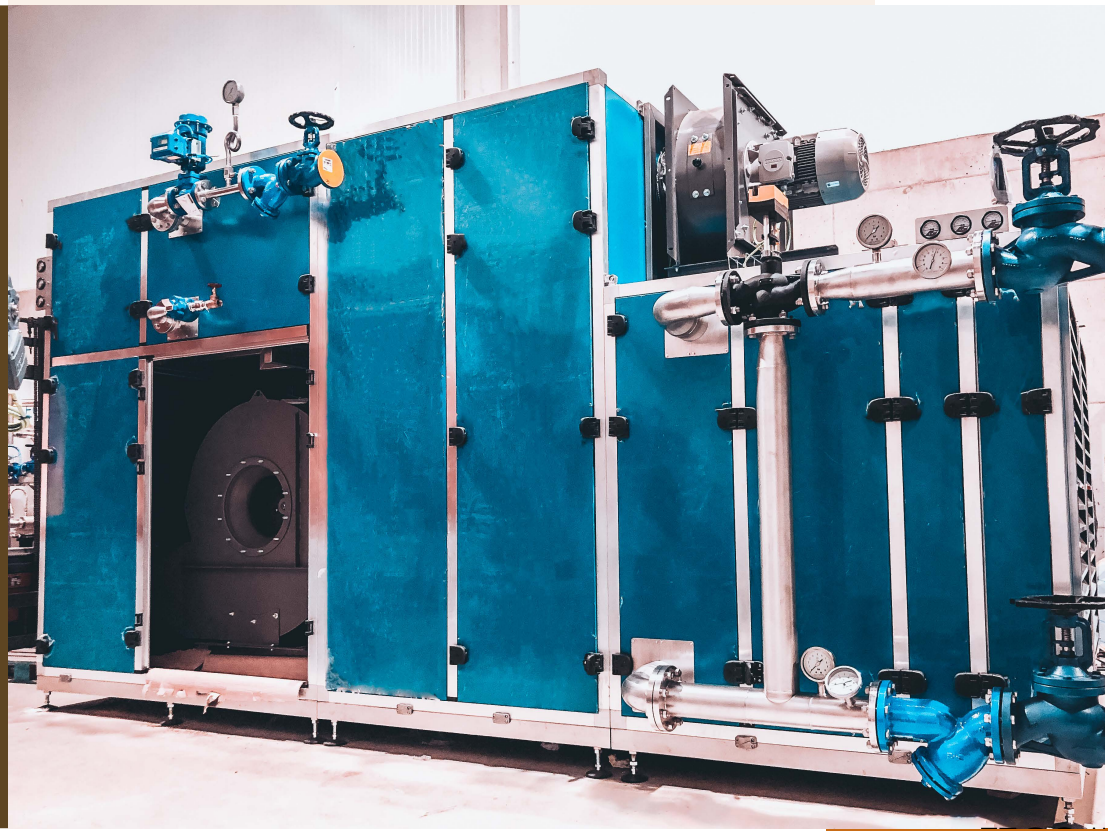

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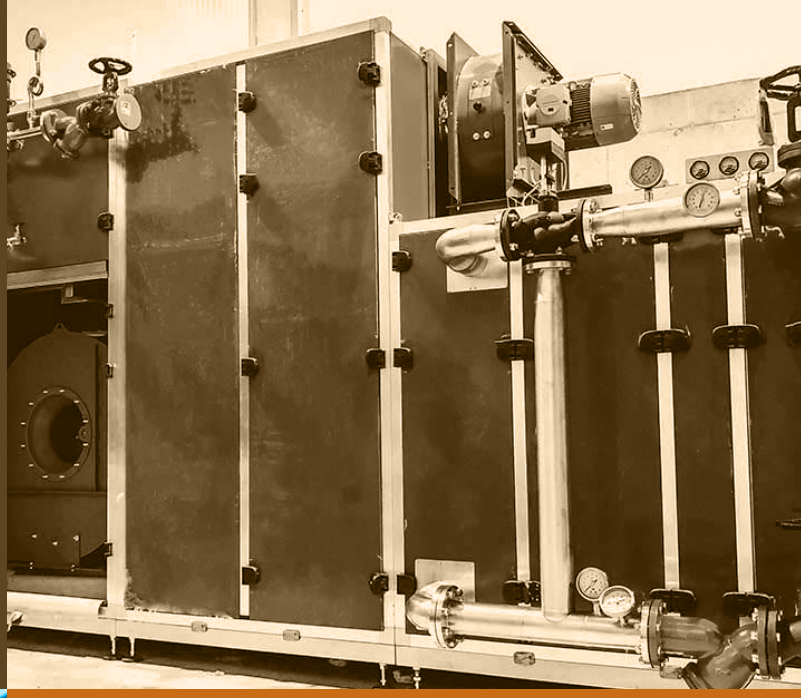

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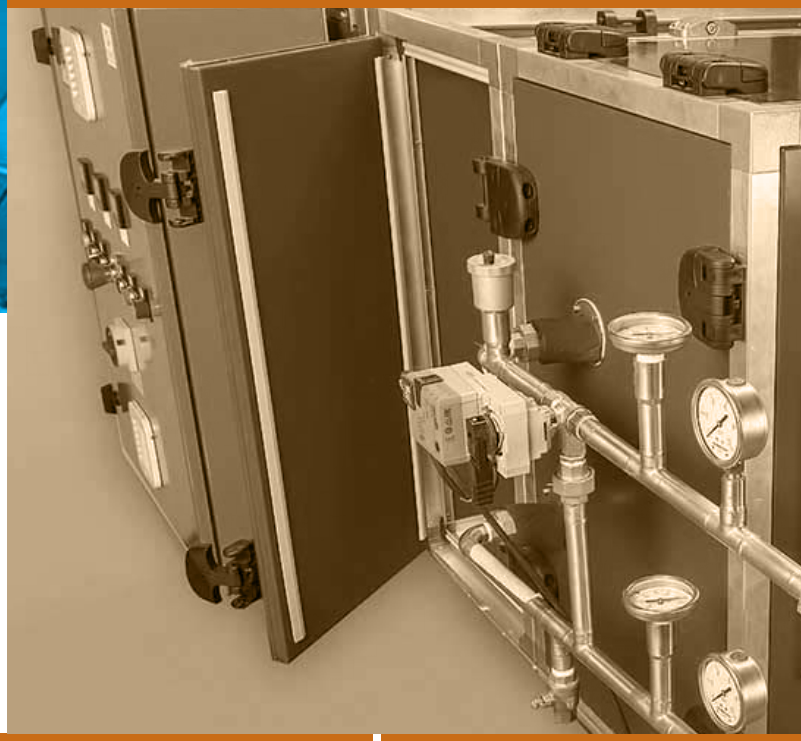

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