

Hygienic Air Handling Units

For Food Industry



Customized is our standard



Quality and reliability

Through years of experience in climate solutions for processes within the food industry, Dutch Blower knows better than anyone that the processes should be very reliable and of the highest quality. Customers should not have to worry about the quality of the food that they are eating neither does the maintenance department want unnecessary delays in the production process. The technical specialists of Dutch Blower guarantee a solid and reliable climate solution in your production process.

The best quality for the best products

To produce the best products for the food industry it is important that the air handling unit is reliable, hygienic and that the required air conditions are achieved. The air quality is essential for the sustainability of the food. The correct air condition can accelerate the production process, extend the life time of products, reduce labour and manufacturing costs and provide the perfect environment for the process.

Different Materials

- Aluminium
- Pré-painted Galvanized Plastisol (RAL 7032)
- Galvanized / Coated (RAL colour)
- AISI304
- AISI316L

Casing Properties

(according to EN 1886)

- Mech. Strength class: D1
- Air leakage enclosure class: L1
- Filter bypass leakage: F9
- Therm. Conduction: T2
- Thermal bridge factor: TB2

F7 – F9 Filter

F7 and/or F9 High efficiency Prosafe filters are applied. These filters are particularly designed for other Process Safety (Cleanrooms Life Science applications). These filters are the latest development in glass fiber media and provided with high water repelancy. Food contact compliant - EC1935-2004 and Anti-microbial growth certified according ISO846 - VDI6022.

Heating coil and Cooling coil

To improve the accessibility, particularly in a hygienic environment, the heat exchangers are provided with inspection sections before and after the coil. The droplet eliminator behind cooling coils are mounted in a slideframe in order to improve accessibility when cleaning the heat exchanger. The cooling coil is selected according the project specific air conditions and refrigerant type. Direct expansion (Freon or Amonia) and chilled water are common applied refrigerants. The coil can be produced in several materials; Cu/Al, Cu/Cu, stainless steel AISI304 or AISI316.

Plugfan

Standard are direct driven high-performance centrifugal plug-in fans provided. The impeller is fastened with a clamping bush to the shaft of the foot motor, balanced statically and dynamically according to DIN ISO 1940. A flexible junction is placed between the intake cone and the housing. Additional are fully welded stainless steel AISI304 or AISI316L impeller and base frame possible.

HEPA filter E10 – H14

To ensure the quality of supply air around critical processes, (H)EPA filters are applied, these absolute filters in hygienic execution are placed in a 100% airtight stainless steel welded filter frame at the outlet of the air handling unit. Flanged connections with air tight gaskets are mounted in overpressure position in order to prevent any leakage into the primarily process.

Drip pans

To make sure all water runs out of the different sections during cleaning, there are welded 1,5 mm AISI304 sloped drip trays with drains provided. These solid drip trays are reinforced so they are easily walkable for inspection or cleaning purposes.



Hygienic execution

As a producer of air handling we know units for different climate solutions for processes within the food industry that hygiene is decisive.

The air handling units are executed smooth from the inside and provided with strong sloped AISI304 drip pans for easy cleaning. Cavities are avoided at all times and critical connections are fully welded.

Applications

Dutch Blower builds air handling units for different climate solutions within the food industry; from the climate control in large production halls, to the drying of small candy.

Dutch Blower has build Air Handling Units for following food products:

- Candy
- Chocolate
- Dairy
- Soda
- Meat
- French-fries
- Cheese
- Bread
- Vegetables





Dutch Blower stands for; Creativity and troubleshooting!

Dutch Blower exists more than 30 years and has over the years build a strong know-how when it comes to specific air conditioning.

Our engineers are challenged by the customer's climate problem and search for solutions aiming for simplicity, low power consumption, reliability and of course a good total price.

Dutch Blower Key values are:

- Effective solutions
- Reliability
- Optimal price / performance ratio
- Reliable suppliers
- Applying solid materials
- Accessibility and internal short lines
- Combination of multiple functions in one unit
- Short delivery times



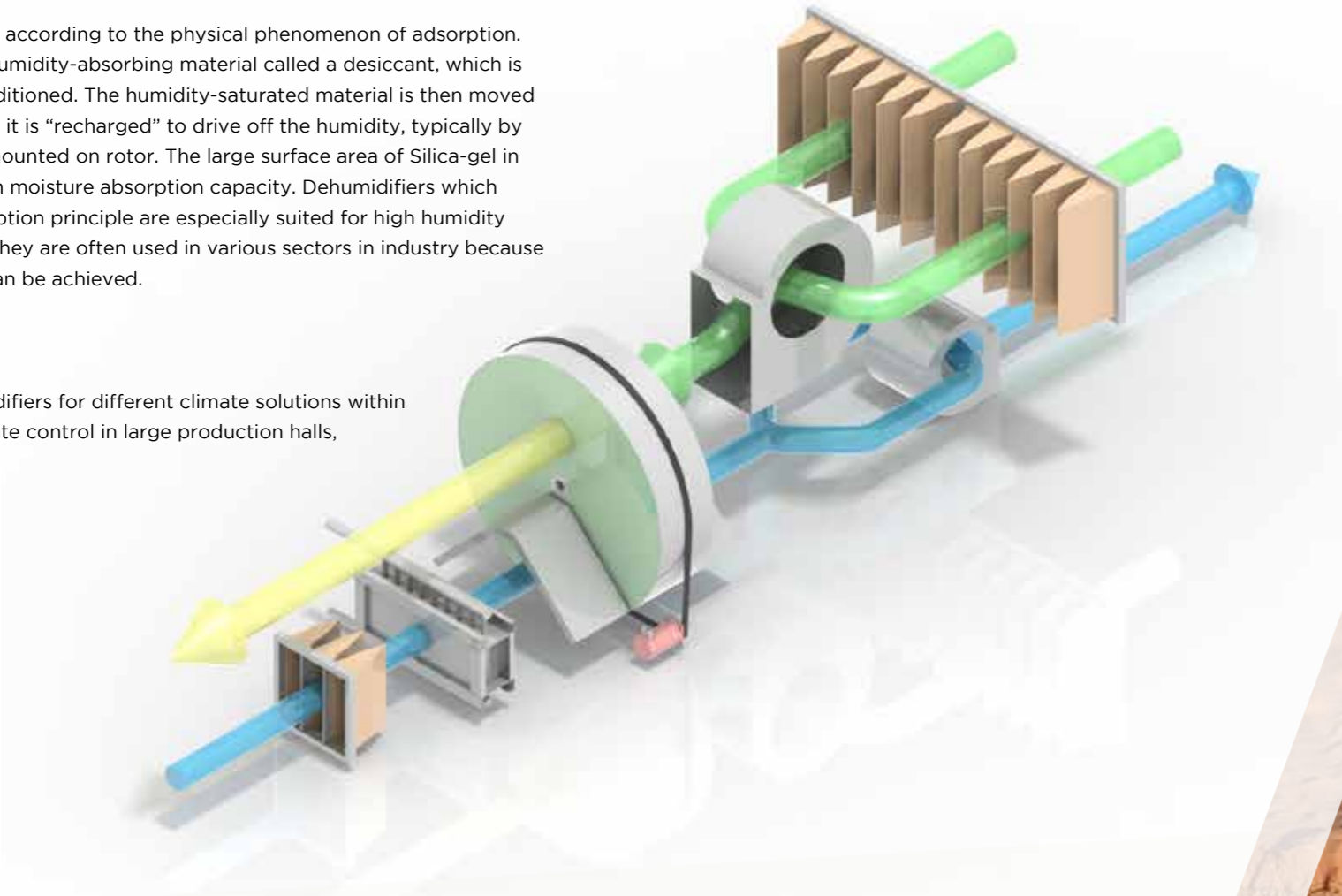
Industrial Dehumidification

Function

Dehumidification takes place according to the physical phenomenon of adsorption. This process uses a special humidity-absorbing material called a desiccant, which is exposed to the air to be conditioned. The humidity-saturated material is then moved to a different location, where it is "recharged" to drive off the humidity, typically by heating it. The desiccant is mounted on rotor. The large surface area of Silica-gel in the rotor ensures a maximum moisture absorption capacity. Dehumidifiers which work according to the adsorption principle are especially suited for high humidity levels at low temperatures. They are often used in various sectors in industry because humidity levels below 35% can be achieved.

Food industry

Dutch Blower builds dehumidifiers for different climate solutions within the food industry; from climate control in large production halls, to drying of small candy.





Heater (reactivation)

The reactivation air can be heated by means of electricity, a direct-fired gasheater, steam or with a heat pump.

Heat recovery

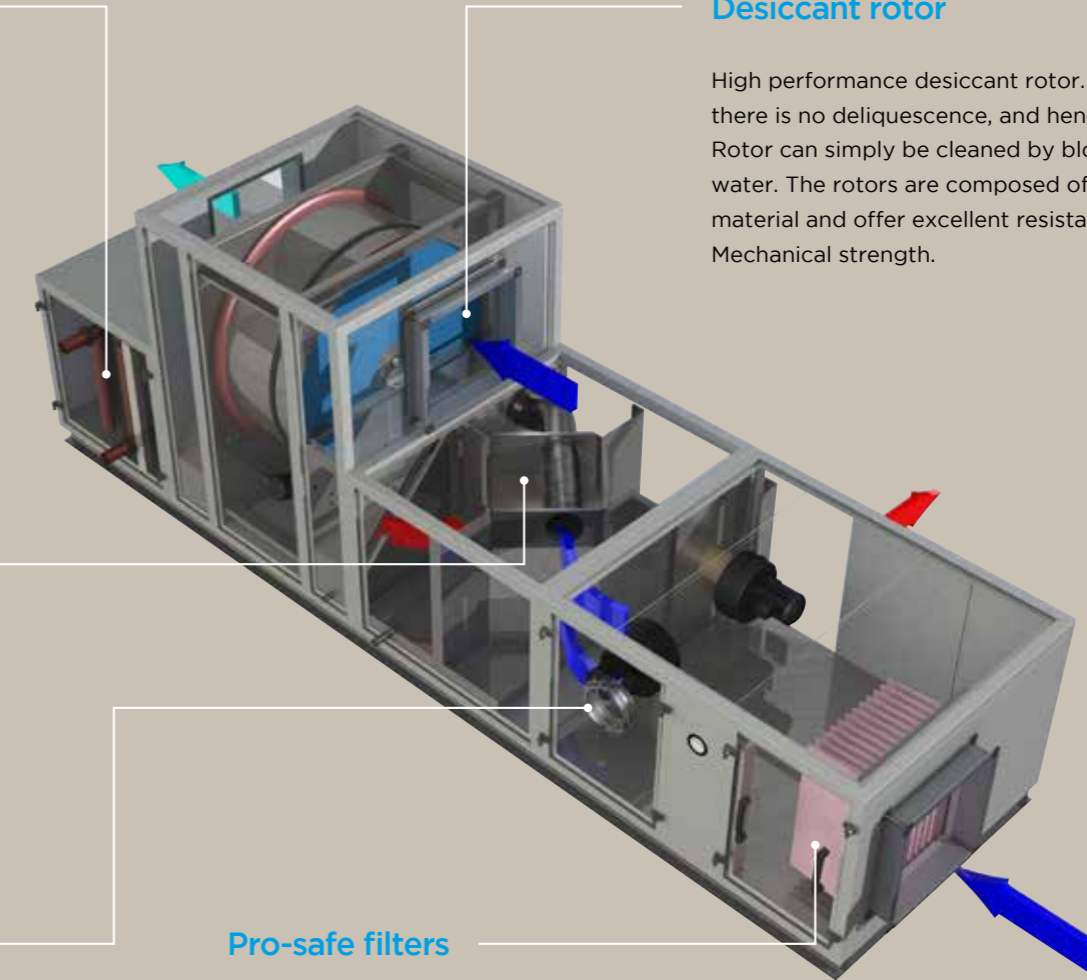
Energy can be reduced by use of a plate heat exchanger, or in case of larger air volumes by means of a twin-coil system.

Reactivation Fan

Single-inlet centrifugal fan, supplied with an impeller which has backward curved blades, and which is balanced statically and dynamically. The fan is indirect driven by V-belt or direct driven. Fan and motor are placed on one collective foundation frame. A flexible junction is placed between the outlet flange and the housing to avoid vibration in the system.

Desiccant rotor

High performance desiccant rotor. The rotor is maintenance free and there is no deliquescence, and hence no special storage needs. The Rotor can simply be cleaned by blowing air or even washed with water. The rotors are composed of stable, chemically inert inorganic material and offer excellent resistance to most chemicals. High Mechanical strength.



Pro-safe filters

F7 and/or F9 High efficiency Prosafe filters are applied. These filters are particularly designed for other Process Safety (Cleanrooms Life Science applications). These filters are the latest development in glass fiber media and provided with high water repellency. Food contact compliant - EC1935-2004 and Anti- microbial growth certified according ISO846 - VDI6022.



Onze units worden onder andere toegepast bij:



Hei'o



DANONE

Nestlé



★ Heineken

HARIBO

NUTRICIA



Contact

Bedrijvenpark Twente 52, 7602 KC Almelo
Postbus 26, 7640 AA Wierden (Netherlands)

t +31 546 - 57 64 00
f +31 546 - 57 27 82
e info@dutch-blower.nl
w www.dutch-blower.nl