



FTNON

Air dryer



Air dryer for drying fresh salads, vegetables
and herbs using air

There are many benefits of using the JBT FTNON Air dryer for fresh salads, vegetables and herbs which include better quality and longer shelf life due to low humidity; quick and easy cleaning to allow for frequent product changes; minimal energy consumption and optimal re-use of waste energy.

This is the only air dryer, which can be cleaned properly. Thanks to this, risks of bacteria build-up are being reduced.

Drying by air

The air dryer consists of a transport conveyor which runs through a conditioned air chamber. Air is sucked through the cooling and heating system to dry the air from the factory. With the help of axial ventilators air is brought underneath the belt. The space under the belt is constructed in such a way that the air is equally divided over the complete surface. The opening on the hood of the air dryer brings back the used air to the factory room. Large entering doors create good accessibility for cleaning and maintenance.

Products

All kinds of fresh salads, vegetables and herbs. The air dryer is based on removing 6 % surface moisture.

Suction dryer

It is always necessary to apply a suction dryer in front of the air dryer. See for more information Fact sheet SDS JBT FTNON Suction dryer.

Final surface moisture

2-3%, based upon blotting method

Factory room air temperature

F.e +39° F / +4° C, 100% RH, to be confirmed

Technical specifications - Air dryer

	AID 110-4700	AID 140-5700	AID 140-6500	AID 170-7000	AID 170-9000
CAPACITY, UP TO	1,320 lb/h / 600 kg/h	2,200 lb/h / 1,000 kg/h	2,640 lb/h / 1,200 kg/h	4,000 lb/h / 1,800 kg/h	5,000 lb/h / 2,300 kg/h
EFFECTIVE WIDTH	42" / 1,076 mm	51" / 1,376 mm	51" / 1,376 mm	66" / 1,676 mm	66" / 1,676 mm
EFFECTIVE LENGTH	185" / 4,700 mm	224" / 5,700 mm	256" / 6,500 mm	276" / 7,000 mm	354" / 9,000 mm
TOTAL HEIGHT	132" / 3,350 mm	132" / 3,350 mm	132" / 3,350 mm	132" / 3,350 mm	132" / 3,350 mm
TOTAL WIDTH, APPROX.	104" / 2,650 mm	104" / 2,650 mm	104" / 2,650 mm	116" / 2,950 mm	116" / 2,950 mm
TOTAL LENGTH APPROX.	224" / 5,700 mm	264" / 6,700 mm	295" / 7,500 mm	315" / 8,000 mm	394" / 10,000 mm

Belt

PVC mesh belt, 1x1 mm, blue

Drive

Geared motor drive

Ventilators

Axial

PLC Controls

Stainless steel control panel with:

- Main isolator
- HMI Operating panel with menu structures

- Emergency stop
- Reset button

Options

1), Cooling and heating system for air dryer

Air cooler

Initial data

Calculation is based on the following assumptions:

- Dehumidification of 6 % surface moist of the product
- The system is based upon a DX system with R404A or alternative cooling agents
- Room temperature F.e +39° F / +4° C, to be confirmed

In order to select a cooler JBT FTNON takes into account the specific circumstances in the factory rooms where the air cooler will be applied. A local cooling company, selected by you, needs to connect the 2 heat exchangers and will need to supply control valves and electrical controls for this part.

Because of the heavy moisture burdening of the cooler, JBT FTNON opts for high value coolers. These coolers guarantee an optimal performance and have a long life time. The heating of the air can be done on waste energy from the compressor, but also electrically, with steam or hot water. This needs to be discussed together with your local energy specialist.

Technical specifications - Air cooler

AIR DIRECTION	Horizontal - blowing
COOLING AND HEATING BLOCK	SS 316 / ZWB Aluminum
HOUSING MATERIAL	SS 316
INJECTION PIPES AND INJECTION HEAD OF COOLING BLOCK	SS 316
PIPE DIAMETER	Approx. 0.6x0.02" / 15x0.6 mm
PIPE PITCH	Approx. 2x2" / 50x50 mm
PIPE MATERIAL	SS 316
BLADE MATERIAL	AIMG
BLADE THICKNESS	Approx. 0.01" / 0.33 mm
BLADE DISTANCE	Approx. 0.2" / 6 mm
MATERIAL FRONT AND PARTITION PANELS	AIMG

Technical specifications - Air cooler - Cooling / heating

COOLING	
AIR IN	f.e. +39° F / +4° C, to be confirmed
AIR OUT	+36° F / +2° C
COOLING CARRIER	to be confirmed
AIR IN	+36° F / +2° C
AIR OUT TO DRYER	Approx. +64° F / +18° C
MEDIUM	Waste heat of the condenser, electrical energy, steam or hot water, to be confirmed
AIR OUT TO FACTORY	Approx. +57° F / +14° C

Piping and fittings

The piping between the cooler and the heating block will need to be supplied by your cooling company.

Insulation

All piping and insulation will need to be supplied by your cooling company.

Fittings

Fittings, like thermostatic expansion valves for air coolers, blocking valves and fluid valve will need to be supplied by your cooling company.

Condensate drains

JBT FTNON will build condensate collecting pans underneath the cooler block with drain pipe to the floor.

Electric

Temperature sensors

In order to control the temperature of the installation the following temperature sensors are mounted:

- 1 Sensor is mounted behind the cooling block.

A signal from this sensor will be provided to your cooling company, to control the temperature.

- 1 Sensor is mounted behind the heating block

A signal from this sensor will be provided to your cooling company, to control the temperature behind the heating block. Set point to be adjusted at the control panel of JBT FTNON and taken over by the control of the cooling company, selected by the customer.

Relative humidity

In order to measure the relative humidity JBT FTNON supplies 2 pieces humidity sensors. These are just used as read-out.

Electrical construction

JBT FTNON will control and wire the ventilators and conveyor. JBT FTNON will also provide signals for the temperature control of the cooler and the heater. All other controls will need to be done by your cooling company.

JBT FTNON can change the execution if this does not impact the functionality of the equipment. All mentioned sizes, capacities and figures are indicative. No rights may be derived from the information provided.

JBT FTNON delivers tailor-made machines. Therefore capacity and dimensions will depend on your product and specific requirements. All our machines are constructed of stainless steel wherever possible and comply with the stringent, international standards in the field of safety and hygiene.

COUNT ON JBT TO HELP PROTECT YOUR INVESTMENT

JBT's greatest value in PRoCARE® services comes from preventing unexpected costs through smart, purposeful, and timely maintenance based on unmatched knowledge and expertise. PRoCARE service packages are offered as a maintenance agreement in various service levels, depending on your production and cost management requirements.



JBT LIQUID FOODS

FRESH PRODUCE TECHNOLOGIES | FRESH-CUT, ROBOTICS, STEAMING | FRUIT AND VEGETABLE PROCESSING | SECONDARY PROCESSING | ASEPTIC SYSTEMS | FILLING AND CLOSING | IN-CONTAINER STERILIZING | TRAY SEALING | HIGH-PRESSURE PROCESSING | POWDER PROCESSING | TUNA PROCESSING

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