ALEA BY CUBOTEX | TEXTILE DRYERS

Since 2020 Cubotex has acquired "Alea" brand and know-how for the production of hank dryers with automatic squeezer and belt dryers under the brand of "Alea by Cubotex".
The company Alea, founded in 1881, has transferred to Cubotex 145 years of know-how in textile dryers design and production having thousands of machines installed worldwide developed along with customers throughout the years.
Cubotex has partially acquired the product portfolio of Alea for those machines related to yarn, fibre and tow dyeing.

Main Features

The belt dryer model B72 is produced in more **than 40 different versions** combining machine belt width and number of drying bays. The machine is modular and drying chambers can be easily added in case of higher production requirements.

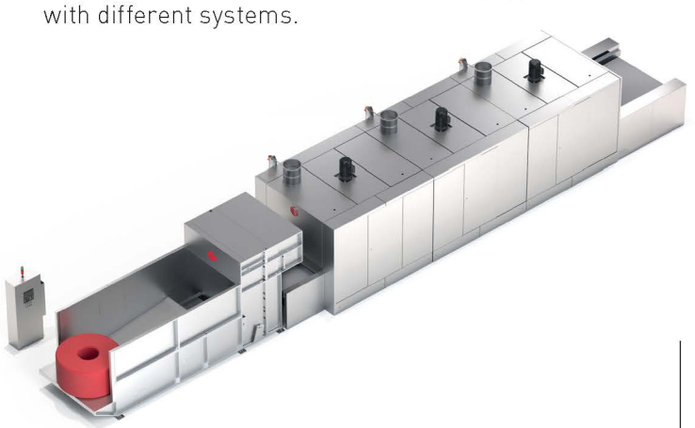
Machine purpose: The B72 dryer was originally designed to replace the traditional drum dryers for loose fiber due to very high power consumption. After a few years, with some modification, the machine has been successfully designed for processing tow, nonwovens, and wool carbonizing.

Conveyor belt: Varies from 1200 mm up to 3000 and upon request any different dimension is available. Belt width varies can be realized in different materials, from perforated stainless steel to kevlar or any other technical textile material with customized mesh.

Heating system: Radiators can be realized in different materials and the heating medium can be steam, thermal oil or superheated water. The machine can also be equipped with gas burners with any specific certification. Radiators are protected by high surface filters with stainless steel mesh easily accessible for cleaning purpose.

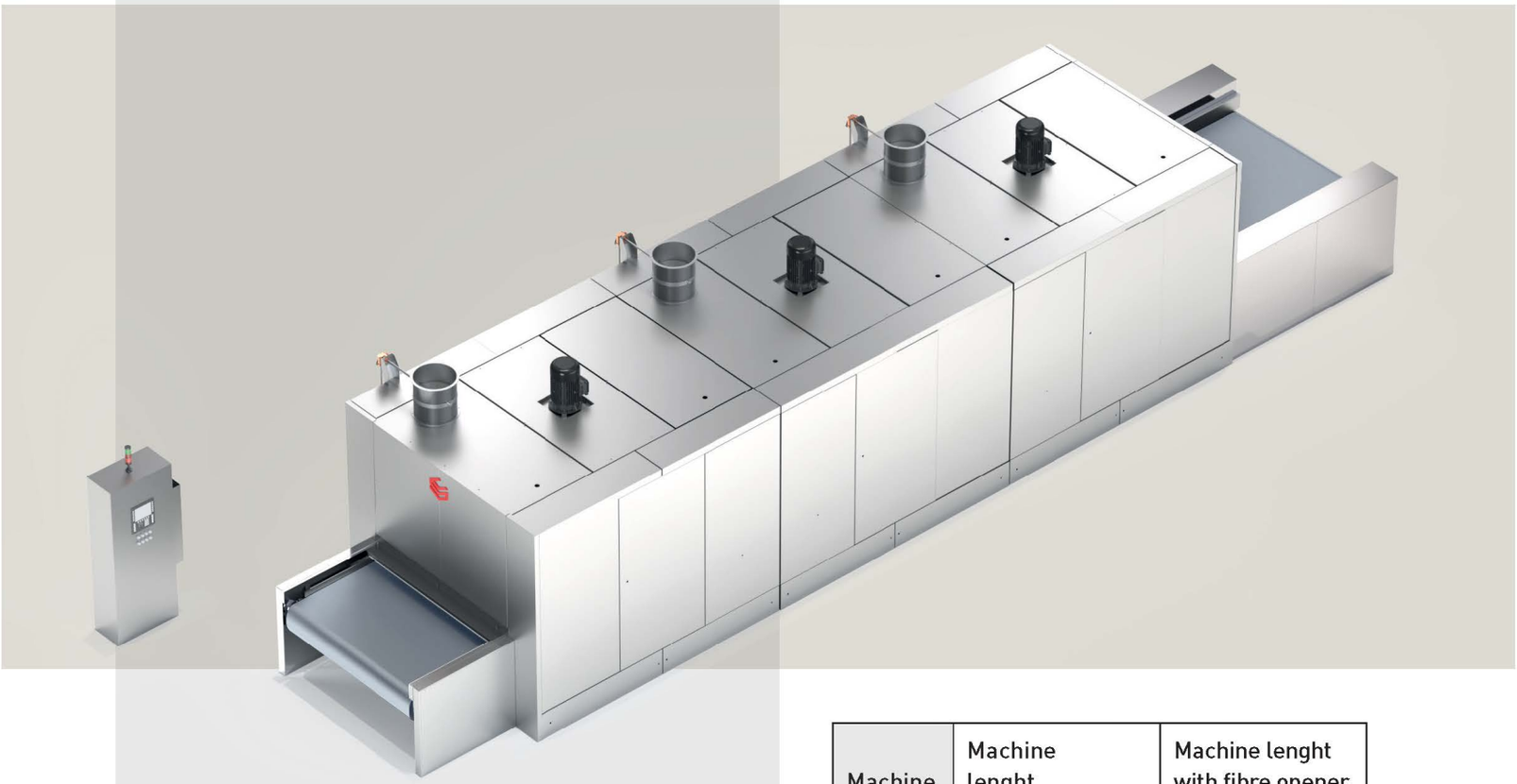
Air circulation: By means of Alea design centrifugal fans. The air distribution is perfectly uniform on the entire width of the conveyor thanks to an upper perforated grid and to the circulation circuit. The air, after crossing the fibre, is symmetrically recirculated in the machine through two side channels and partially discharged along with moisture. Due to this recirculation, there is a slight depression on the conveyor belt surface which ensures fibre stability on the belt in spite of high ventilation. All motors are inverter controlled to optimize machine consumption and adjust the veltilation according to the material in process and material thickness on the belt. The perfect air distribution and fine regulation allows to have uniform drying up to any required residual moisture rate.

Machine feeding systems: The uniform distribution of the material in process on the belt is one of the most important aspects to obtain a uniform drying. In view of the above, according to the material to be processed, the machine can be equipped with different systems.



Fibre drying: The cake opener can be adapted to any different belt width. It can be manufactured with all the parts in contact with the fibre in stainless steel and can be equipped with an automatic tilting platform for positioning the cake on the machine inlet. In case of high productions, before the spiked belt at the inlet, the opener is equipped with cake pre-braking system and/or with intermediate fibre openers positioned among the drying bays.

Humidity control: Fibre drying machines can be equipped with humidity sensors at the exit of the last drying bay. According to customer requirement, machine parameters will be automatically adjusted to achieve and maintain the humidity set point.



Tow drying: In case of tow drying, the machine is equipped with tow the following equipments:

Detwisting platform: It allows a perfect tow feeding to the machine with the proper tension and opening. With our system, the cake can be positioned on the platform by means of forklift or transpallet, it is not required to use and keep the crane busy for cake handling.

Machine model	Machine lenght (mm)	Machine lenght with fibre opener (mm)
B72-1	5800	10300
B72-2	9050	13550
B72-3	12300	16800
B72-4	15550	20050
B72-5	18800	23300
B72-6	22050	26550

Tow finishing application: This is one of the most important phases in tow production because the tow to tops efficiency mainly depends on this production phase. We have developed along with one of our customers a special system with rollers that allows the highest efficiency in tow to tops operations.

Tow plaiter: After finishing application, machine inlet is equipped with a system for the perfect tow ditribution on the conveyor dryer belt.

Leviathan washed wool: The dryer B72 has been installed in many wool washing and combing factories worldwide. In some installations, the machine configuration has been made with intermediate fibre openers-feeders so that this process is made on partially dried wool avoiding any damage to the fibre.

Machine exit: The tow dryer is completed with a cooling system after the last drying bay and with another tow plaiter system for the distribution of tow into the trolleys or into the pressing box.

Nonwovens processing: In case of nonwovens drying, the machine inlet can be equipped with different customized systems according to the process line where the machine needs to be integrated.

Machine controller: The new generation of dryers has been completed with a new automation system where the machine consumption data can be stored and transferred to any other software via OPCUA protocol or MQTT for cloud-based applications. In combination with our **Cubotex Energy Management System**, it is possible to analyze the steam and electricity consumption of the machine in real time and analyze all data per each production lot, customer, period of time etc.