

THREE TYPES OF WEB FORMING UNITS

MULTIline F

The airlay unit mod. f is a purely aerodynamic forming system. It is the preliminary batt forming and feeding system for the following airlay carding units p or s, c or d.

Thanks to the weighing system in exit, PID control and possibility to adjust the formation chamber, the airlay f can also be used as an independent airlay forming system, bypassing the following airlay carding sections (when present).

Having no opening elements, the airlay unit f is suitable to form nonwovens from non-fibrous raw materials, such as foam pieces or fiber balls.

MULTIline H

The airlay unit MULTIline mod. h is particularly designed for basis weights from medium to heavy and extremely heavy.

Opening action thanks to a drum clothed with steel pins.

Particularly suitable for short fibers, coarse natural fibers and non-fibrous mixes, but it can accept any kind of fiber.

It can be integrated into our MULTIline fpc system, in place of the F section.

MULTIline L

The web forming unit mod. L is a volumetric feeder with special characteristics.

The web forming chute in exit is complete with variation of the chamber gap and vibrating wall. In this way the feeder L works as a standard volumetric feeder.

The exit chute is also equipped with a series of blowing motorfans which allow it to work as a pressurized forming unit. This configuration is particularly convenient to increase the line productivity.

Finally the volumetric feeder L is suitable for heavy fibers such as glass or balsalt fibers, dusty short fibers such as shredded cellulose or grinded materials.

TECHNICAL CENTER

Try and test all options available for the production of airlaid and airlay carded nonwovens.



TECHNICAL CENTER

At TECHNOplants' technical center clients can conduct trials and test all options available for the production of airlaid and airlay carded nonwovens, from staple fibers to natural or recycled fibers, as well as combinations thereof.

The technical center includes three pilot lines:

Two industrial scale pilot lines of working width 2.5 meters, where clients can verify the reliability of our machines and produce samples with their own raw material. The pilot lines include opening and blending section, complete airlay MULTIline system, needle loom, thermobonding oven and end of line.

A third airlay line of working width 1.2 meters, suitable to test special fibers and develop innovative products and engineered materials.

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TECHNOplants
Nonwoven machines and complete lines

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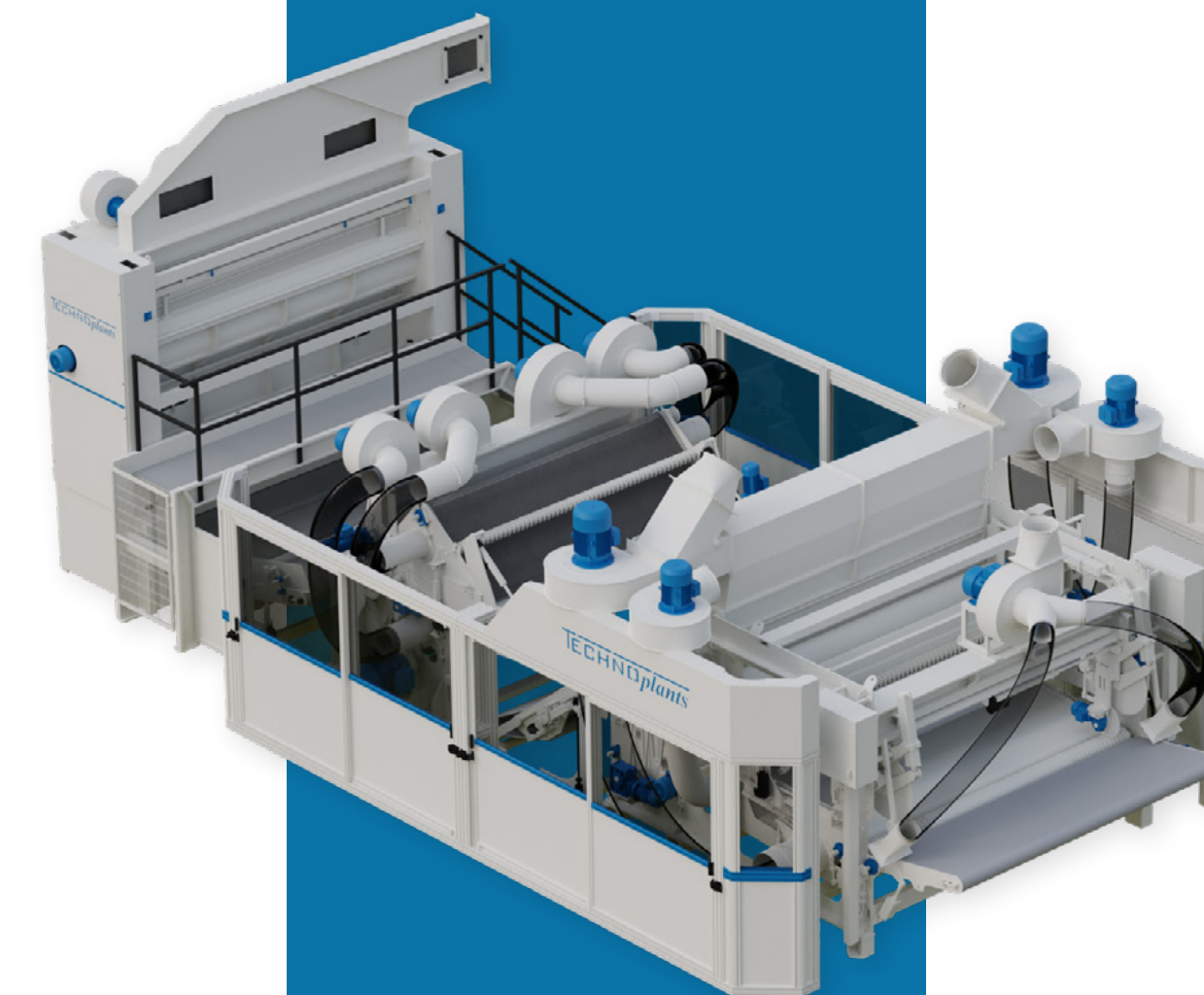
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AIRLAY SYSTEM MULTIline

The only airlay system that allows you to make from 20 to 20,000 gsm with any kind of fiber



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MULTIline FPC

The only airlay system that allows you to make from 20 to 20,000 gsm with any kind of fiber.



F

P

C

MULTIline MODULAR SYSTEM

The airlay system MULTIline is designed to form nonwoven products from all types of fibers: long synthetic fibers, coarse natural fibers, short recycled fibers, breakable mineral fibers and non-fibrous components such as resins, foam pieces, shredded cardboard, recycled leather.

All the fibers above can be processed in the same airlay MULTIline machine, in the same line and without any type of mechanical adjustment.

The airlay system MULTIline fpc is composed of three aerodynamic forming sections which can work independently or together, thanks to a series of integrated bypasses.

The three airlay sections can be replaced with special versions, depending on the client's fibers and applications: forming units H or L instead of F, airlaying carding units D or S instead of C or P. The airlaying unit can be supplied in complete configuration FPC or in simpler configurations.

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FOUR TYPES OF AIRLAY CARDING UNITS

MULTIline C

The Airlay unit mod. C works with a combination of several carding cylinders clothed with rigid wires, followed by a top + bottom air shaping system.

The airlay card model C allows the maximum fiber opening degree among the MULTIline range of machines, making it particularly suitable for nonwovens with light and medium gsm, starting from 100 gsm.

MULTIline D

The airlay card mod. D works on the same principle of the airlay card mod C.

In addition to the standard top + bottom air suction in exit, the airlay card in this version is equipped with a doffing system similar to the one of traditional roller cards.

The doffing system allows to produce light weight nonwoven products, as low as 20 gsm, suitable for the furniture and filtration sector, as well as to feed vertical lapping systems.

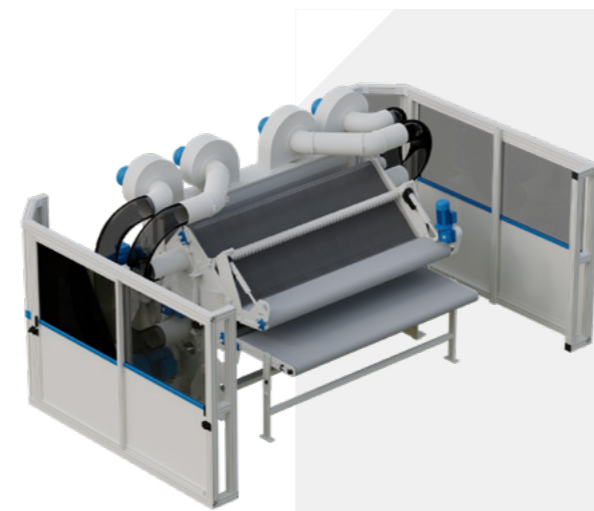
The air formation and doffer formation can be used separately - to produce purely airlaid or purely carded webs - or simultaneously, to produce sandwich nonwovens with hybrid properties.

FEEDING THE VERTICAL LAPPER

The light weight webs that can be produced in the configuration fpd, make the airlay system MULTIline suitable to feed vertical lappers.

Our vertical lapper FIBERwave arranges the light-weight airlaid web in vertical waves thanks to a set of rotating discs.

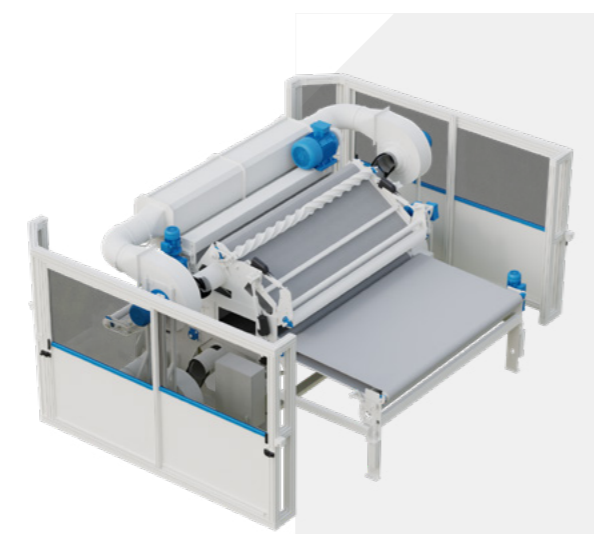
A switch apron allows to send light-weight airlay carded webs in the vertical lapper, or to pass underneath the vertical lapper with standard airlaid fabrics of any basis weight.



MULTIline P

The airlay card model P performs a homogeneous opening and blending of the fibers thanks to its first section composed of carding cylinders; at the same time it allows to obtain nonwovens of medium and high basis weights, thanks to a particularly powerful and wide-adjustable suction system in exit.

The combination of these two characteristics makes the airlay card P one of the most flexible elements of our MULTIline airlay system, making it possible to produce nonwovens ranging from 200 to 10,000 gsm.



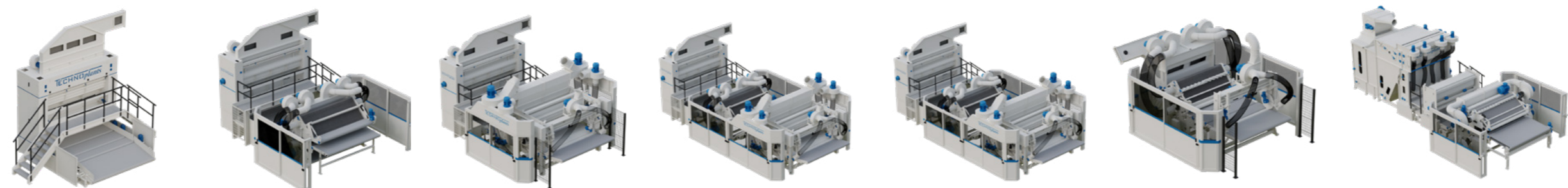
MULTIline S

Special design that allows the aerodynamic web formation of fiber mixes or fiber + powder mixes, all in one machine.

Unlike with traditional airlay technologies, using the airlay card mod. S there isn't the need to set up two separate lines - one dedicated to resin curing and one to bonding with low melt fibers - but the two type of products can be made in the same line.

The powder scattering unit is positioned between the feeder (L, F or H) and the airlay card S. Fibers and powder are intimately mixed and uniformly distributed in the airlaying section S.

The airlay card S can be integrated inside the MULTIline modular system, for example in configuration LSC or FSD.



Overview	F	FP	FC	FPC	FPD	H	LS
Weight range	600 - 5,000 gsm	200 - 10,000 gsm	100 - 5,000 gsm	80 - 10,000 gsm	20 - 10,000 gsm	300 - 10,000 gsm	200 - 20,000 gsm
Productivity	600 kg/h/m	600 kg/h/m	600 kg/h/m	600 kg/h/m	600 kg/h/m	800 kg/h/m	1000 kg/h/m
Fiber fineness	0.9 - 500 den	0.9 - 500 den	0.9 - 500 den	0.9 - 500 den	0.9 - 500 den	0.9 - 500 den	0.9 - 500 den
Fiber length	5 - 100 mm	5 - 100 mm	5 - 100 mm	5 - 100 mm	5 - 100 mm	1 - 100 mm	1 - 100 mm
Resins	NO	NO	NO	NO	NO	NO	YES



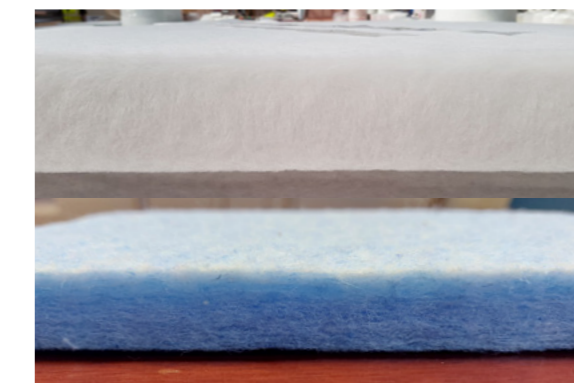
ADVANTAGES OF MULTILINE AIRLAY RANGE

- High flexibility thanks to the modular configuration and the internal bypasses
- High capacity and cost effective nonwoven production
- Very uniform basis weight distribution in MD and CD
- Intensive or more delicate fiber opening, depending on the fiber and application
- Three-dimensional fibers structure: horizontal, vertical or isotropic
- Suitable for all kinds of bonding technologies: thermobonding, needle punching, chemical bonding, resin curing
- Automatic adjustment of all machine parameters, settable by recipe directly from touch panel
- Designed to allow a fast opening and cleaning

EDGE TRIMMING UNIT

Edge trimming unit for the width trim before the introduction into the bonding section, completely managed from touch panel.

Driven crush blades of large diameter for the trimming of medium and high basis weights. Scissor blade trimming for light basis weights.



THREE-DIMENSIONAL

The air shaping elements allows to orientate the fibers in the vertical plane, displacing them in a vertical or horizontal shape, depending on the type of fibers and final application.

FIELDS OF ACTIVITY



MATTRESSES



WADDINGS



INTERLININGS



FILTRATION



BUILDING INSULATION



AUTOMOTIVE



WOOD REPLACEMENT



FOAM REPLACEMENT



HYGIENE