# **HEAT**Treatment **EQUIPMENT**

Thermal bonding machines for the nonwoven industry



### AN OVERVIEW OF OUR SOLUTIONS FOR HEAT TREATMENT

TECHNOplants is specialized in hot air bonding and contact bonding equipment for nonwoven lines. Our bonding machines can be used to melt, dry, thermoset and laminate nonwoven materials coming from airlay and card-crosslapper lines or from direct carding lines.

The design of all our heat treatment ovens is modular, to easily fit any productivity need, budget and space constraint.

TECHNOplants ovens can be heated with gas or liquid fired burners or with electric resistances.



# 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.





### **TECHNOPlants S.r.l.**

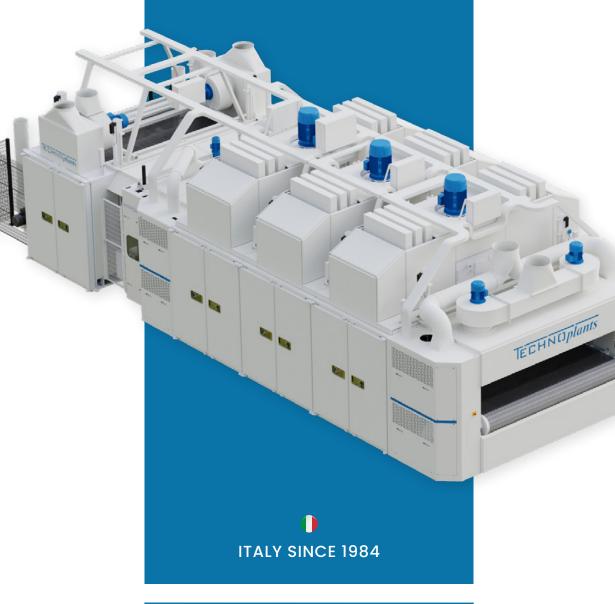
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# HEAT TREATMENT EQUIPMENT

Thermal bonding machines for the nonwoven industry









### MULTILine OVEN

### **AIR BONDING OVEN**

The MULTIline air bonding oven is the perfect choice whenever the application requires high speeds or high automation and for demanding tasks such as large working widths or high density materials.

### SYMMETRICAL STRUCTURE

Symmetrical design, with the heating means and airflow motorfan positioned on top of the fabric passage area. Uniform web quality along the working width, easy access for cleaning from both sides.



**APPLICATIONS** 

Mattresses, bedding

• Packaging Insulation

Automotive

Technical felts

• Upholstery and furniture nonwovens

• Building, decorative insulation

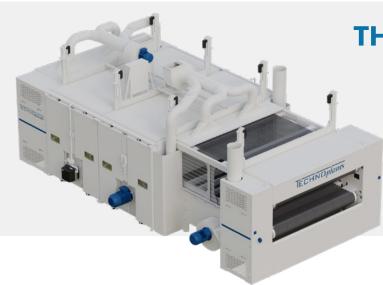
• Hygiene nonwovens (ADL, ...)

Medium density nonwovens

#### **MAIN FEATURES**

- Working width up to 5000+ mm.
- Modular structure, with modules length 2170 mm.
- Automatic airflow change in each half section (top-to-bottom or bottom-to-top).
- Automatic air width adjustment.
- Symmetrical shape, completely accessible from both sides for cleaning.
- It can accept any type of belt (metallic, PTFE coated, hybrid).
- Heat recovery system (up to 30% saving).





# THERMOBonding KBO

### **COMPACT OVEN**

The KBO air bonding oven is a compact and flexible thermobonding machine suitable for airlay and card-crosslapper lines.

# EXTRACTABLE FILTERS AND NOZZLES

For both the MULTIline and KBO ovens the air distribution nozzles and dust filters are extractable in order to clean the oven quickly and easily.



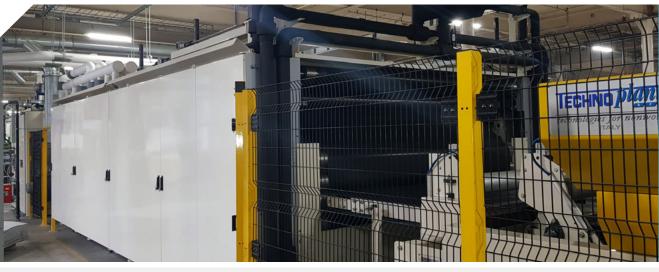
- Working width up to 4000+ mm.
- Modular structure, with modules length 2170 mm.
- Manual airflow change in each half heating section (top-to-bottom or bottom-to-top).
- Manual air width adjustment.

**MAIN FEATURES** 

- Completely accessible from both sides for cleaning.
- Glass fiber PTFE coated belts. It can be equipped with magnets and metallic or hybrid belts as an option.
- The filters are extractable and cleanable during production.

### **APPLICATIONS**

- Mattresses, bedding
- Upholstery and furniture nonwovens
- Building, decorative and packaging Insulation
- Automotive
- Technical felts





# MULTIForce OVEN

### DOUBLE BELT HEAT TREATMENT UNIT

The MULTIforce oven is a double belt heat treatment unit suitable to perform compression, calendaring, lamination and surface smoothening operations on nonwoven products and composite materials. The MULTIforce oven is available in version for high compression, medium compression or simple surface treatment.

# HIGH COMPRESSION CAPACITY WITH REDUCED DIMENSIONS

For the same kg/h, the MULTIforce oven is much more compact than the standard double belt presses and the traditional heated calenders: one 2000 mm long MULTIforce heated section is equal to a 2 cylinders calender with rollers diameter 850 mm.



#### MAIN FEATURES

- Working widths up to 4000 mm.
- Modular structure, with modules length 2000 mm.
- Compression and surface heat treatment thanks to a series of heated plates and water-chilled plates, plus pressing rollers.
- Plates heating thanks to diathermic oil, electric resistances or hot air.
- Seamless solid glass fiber PTFE coated conveyor belts. The plates and rollers are positioned behind the belts.

### APPLICATIONS

- Surface smoothening and lamination for mattresses and furniture nonwovens
- Building, decorative and packaging Insulation
- Sandwich materials and composites
- Calendering and heat treatment of technical felts
- High density nonwovens