



**BOMBI MECCANICA**

**PERFORATED DRUM OVENS**

*Since 1964 one nonwoven machine for every need!*



## PERFORATED DRUM OVEN



**HEAT SETTING DRUM OVEN, 6m WIDE, 3m  
DIAM, FOR NEEDED FELT**



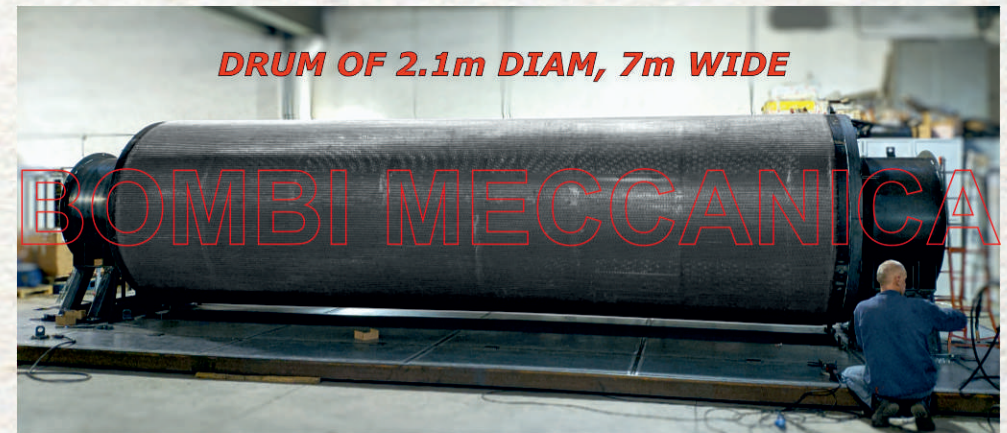
## PERFORATED DRUM OVEN

The operating principle in this oven is a **combination of a perforated drum with a large centrifugal fan**. The fan draws the air out of the drum interior, then it passes through the heating system (normally gas burner) and is forced back to the drum. **This generates a vacuum within the drum on which surface the material is held. The material is traversed by a large volume of the hot air which ensures high heat transfer.**

**Due to the complete penetration of the air throughout the nonwoven product, these ovens are extremely efficient, and require reduced floor space.** The drums diameter is optimized accordingly with the speed and the application, and they can vary from 1 to 7,5 meters with speeds up to 800 m\min.

There is also the possibility of adding more than one drum in line to achieve faster speeds.

When the felt is narrower than the width of the drum, two internal adjustable shutters stop the passage of air on the sides of the felt. This is to avoid loss of efficiency due to air flow that does not pass through the felt.



- 1) Non woven products to be treated pass around the surface of a rotating, perforated drum.
- 2) An appropriate motor driven fan sucks the air from the centre of the drum which is closed off laterally, so that all the air being aspirated has to pass through the non woven.
- 3) A heating system (Direct gas burner or thermal oil) ,heats the air until the pre-set temperature is reached.
- 4) The same air is re-circulated to the external side of the drum, to where the non woven it is located.



## PERFORATED DRUM OVEN

Machine with very high features used to treat technical felts. When a full heat setting, at core, of the needled felt is required for definitive setting and stabilization, **the perforated drum is the ideal solution.** Compact and extremely efficient because forces a great volume of hot air through the felt. The felt passage on the drum is normally at "omega" from the bottom. We built machines up to 7m, placed in line after the last needle-loom. The felt is kept at required dimensions with two steel crowns with pins, with adjustable distance from control board (like on a stenter frame). Treating felts of reduced width, two movable baffles are activated from control board to close the air on the sides. Heating with direct gas burner.

### Typical applications:

- ◆Drying of chemical bonded felts;
- ◆Thermal stabilization of technical felts;
- ◆Drying of spunlaced webs.



7,5m WIDE DRUM OVEN FOR SPUNBONDED WEB, 800m/min



## LINE WITH DOUBLE PERFORATED DRUMS OVEN

Complete line with double drums oven for drying and curing of chemical bonded needled felts. The needled felt is chemically impregnated before the oven in a foulard. The line is composed of: **Un-winder, Accumulator, Foulard, Perforated double Drum Oven, Accumulator, Cross and Longitudinal cutter and Winder**





## PERFORATED DRUM OVEN



## ROOFING LINE

**In such lines a heat drum setting oven fixes the felt, in order to avoid further shrinking.** After heat setting, the felt is impregnated by a foam fouldard. The felt is then dried and cured by a multi drums oven. Line speed up to 60 m\min.

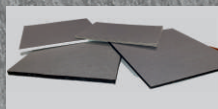
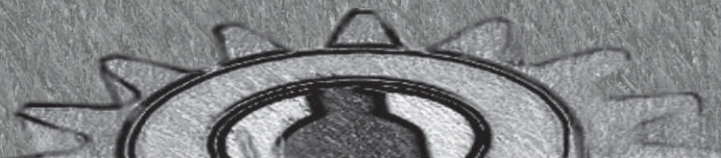
**Oversized air fan in order to have complete passage of the air throughout the felt,** equipped with inverter System to keep the felt at its (Shrinkage-proof) width; All generated heat is used within the oven, without heat losses. A felt passing "Omega", is using 97% of the drum surface. Possible to install an heat recovering unit in the air exhaust.





WE ARE PRODUCERS OF :

- ◆ Hot Calenders for felt
- ◆ Thermo bonding ovens for non woven
- ◆ Continous presses
- ◆ Perforated drums ovens
- ◆ Foam bonding lines
- ◆ Foam generators
- ◆ Foam applicators
- ◆ Cutting machines
- ◆ Pads Stackers



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