

- 
- Tearing & Fibre recycling
  - Recycled Fibre Web Forming
  - Recycling lines

## Solutions for recycling



# Tearing & Fibre recycling

## ETO opener

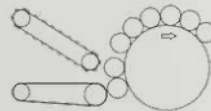
- Designed to open edges on nonwoven production lines during production also often used off-line to open hard wastes
- Equipped with sets of workers/strippers
- Working widths: 500



|                        |              |
|------------------------|--------------|
| <b>WORKING WIDTH</b>   | 500 mm       |
| <b>FIBRE PROCESSED</b> | Edges/Wastes |

## WO - Waste Opener

Designed to open production waste or other wastes. It can be **single or double** drum, dia 500 with several working cylinders dia 125 mm.



|                        |              |
|------------------------|--------------|
| <b>WORKING WIDTH</b>   | 1000-1500 mm |
| <b>FIBRE PROCESSED</b> | Edges/Wastes |

## Rotary Cutter & Rag Tearing

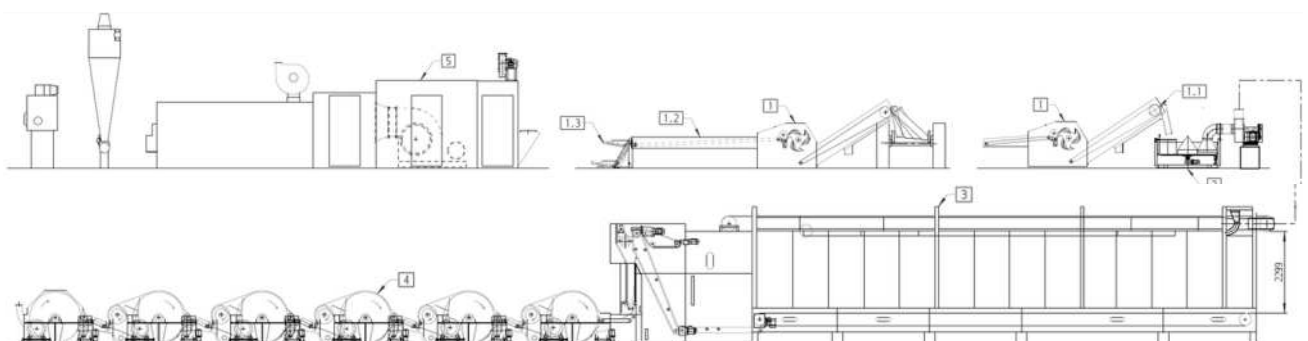
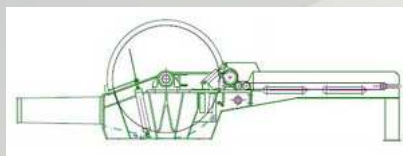
### ROTARY CUTTERS

|                       |                |
|-----------------------|----------------|
| <b>WORKING WIDTH</b>  | 800 to 1800 mm |
| <b>PROD. CAPACITY</b> | 2000/3000 kg/h |
| <b>FIBRES</b>         | All wastes     |



### RAG TEARING

|                       |                |
|-----------------------|----------------|
| <b>WORKING WIDTH</b>  | 1000to 2000 mm |
| <b>PROD. CAPACITY</b> | Up to 1500kg/h |
| <b>FIBRES</b>         | All wastes     |



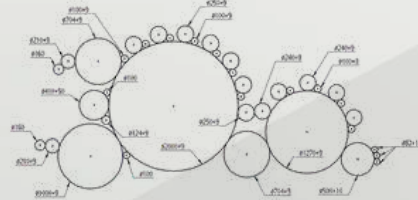
# Recycled Fibre Web Forming

## Traditional roller cards

**BCNT:** Nonwoven carding machine specially designed to process shoddy and natural fibres. The large carding surface and diameters make it the best solution for light weight recycled fibers and for crosslapped products

|                      |               |
|----------------------|---------------|
| <b>WORKING WIDTH</b> | Up to 4200 mm |
| <b>FIBRE LENGHT</b>  | 10-50 mm      |

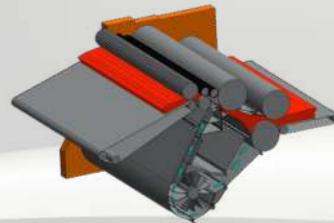
Nonwoven carding machine with large carding surface specially designed to process shoddy and hard fibres.



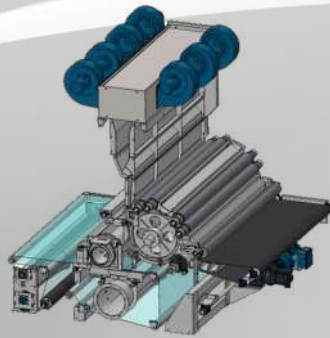
## Aerodynamic web formation

### Turbo card

The Bonino Turbocard is suitable for any kind of virgin fibre (synthetic or, natural) and recycled fibre. It can manage short and long filaments to form a 3D structured web with strict tolerances.



|                       |                                       |
|-----------------------|---------------------------------------|
| <b>WORKING WIDTH</b>  | Up to 3500 mm                         |
| <b>PROD. CAPACITY</b> | Up to 500 Kg/h/m (depending on fibre) |
| <b>FIBRE LENGHT</b>   | All                                   |
| <b>WEIGHT</b>         | Up to 10.000 gsm                      |
| <b>FIBRE DTEX</b>     | All                                   |



|                       |                                       |
|-----------------------|---------------------------------------|
| <b>WORKING WIDTH</b>  | Up to 3500 mm                         |
| <b>PROD. CAPACITY</b> | Up to 500 Kg/h/m (depending on fibre) |
| <b>FIBRE LENGHT</b>   | All                                   |
| <b>WEIGHT</b>         | Up to 4500 gsm                        |

### Grecale Airly

The Grecale Airly provides a 3D structured web similar to the Turbocard but with the possibility of reaching high weight and thickness.

Bonino produces 2 different kind of airlyays depending on the product required:

- **MODEL DG**
- **MODEL DP**



### Hydra card

The HYDRA CARD is the latest generation of the Bonino cotton card used for decades in processing of cotton wastes.

|                        |                                  |
|------------------------|----------------------------------|
| <b>WORKING WIDTH</b>   | 1000 TO 1500 mm                  |
| <b>FIBRE PROCESSED</b> | Cotton/Viscose /Natural          |
| <b>ADVANTAGE</b>       | Breast cylinder                  |
| <b>PROD. CAPACITY</b>  | Up to 180 kg/h (depend on fibre) |

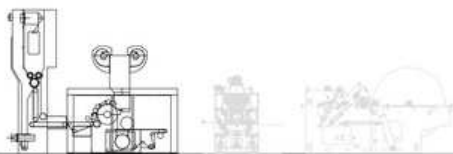
- Suitable to process very short fibres
- Suitable to reach heavy output uploads and high speed
- Stationary or rotating flats



# Recycling lines

## Middle and heavy weight

Airlay needle punched for glass fibre and synthetic fibre

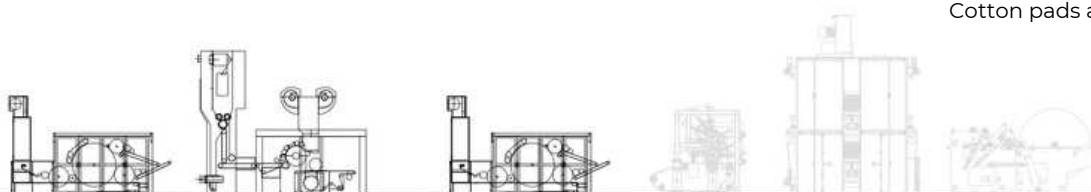


## Heavy and super heavy weight

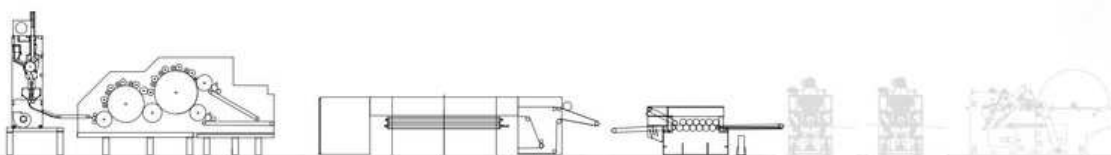
Airlay thermal bonded for any type of fibre



Cotton pads and natural fibres **medium weight** spunlace



Needle punched for recycled fibres



**BONINO1913**  
carding machines

**HDB**  
Houget • Duesberg • Bosson

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