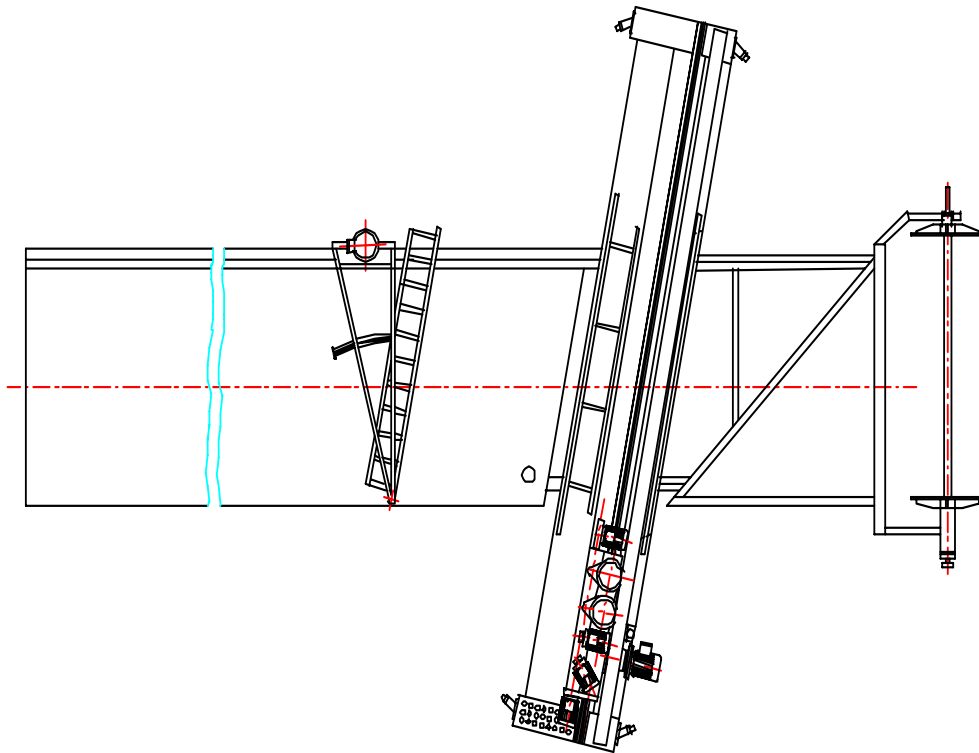




di Ermo & Romano Forgiarini S.n.c.
Via Aquileia, 8
33050 Castions di Strada (UD) - ITALIA
tel. +39 +432 / 768091 fax +39 +432 / 768793

AUTOMATIC BLUNTING TRIMMER UPPER STRAPS

MOD.: B1_02 / 10000



1) Machine's general description:

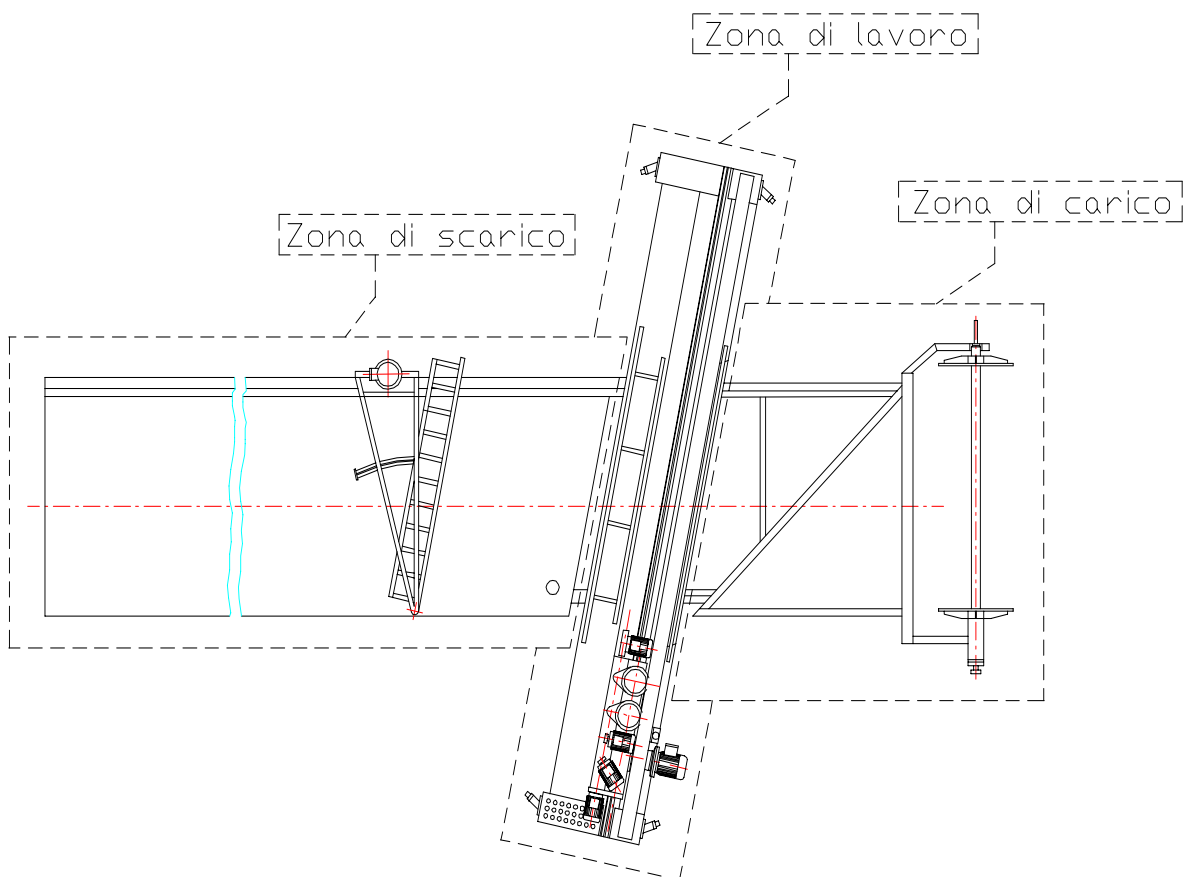
The blunting trimmer has the purpose of obtaining from a single abrasive strap's coil, fixed length "bands", preparing their ends for a following junction.

From the band's two ends' junction a closed ring strap is obtained.

The machine in subject is able to process paper, cloth or polyester support's abrasive strap's coils, that have a maximum diameter equal to 650 mm. and a maximum height equal to 1600 mm. and an adjustable grain from 36 to 400.

The machine can be basically divided in three zones (see illustration 1):

- a) loading zone;
- b) processing zone;
- c) unloading zone.



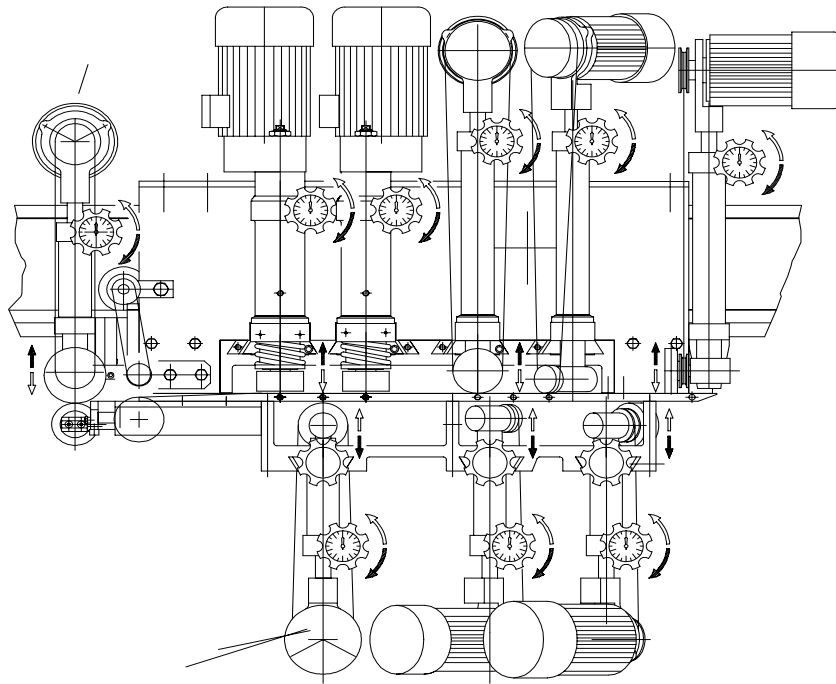
- ILLUSTRATION 1 -
(machine's overall view)

- a) In the **loading** zone the abrasive strap's coil is manually placed on a special arm provided with banner actoin; during the regular processing stroke this arm will be anchored to the respective bench.

b) In the **processing zone** the abrasive strap's cut and blunt is carried out by a special operator trolley (see illustration 2) (the operator trolley, the traverse on which it runs and the frame that supports them, will be from now on identified as Processing unit). During the cutting and blunting operations is defined which one will be the upper and lower edge in the junction stroke; and precisely the obtained edge on the new band will be the lower one, while the one obtained on the coils terminal part will be the upper one.

The two edges' blunting is carried out by two different processing heads' series placed on the trolley; the heads for the lower edge's blunt are placed on the operator trolley upper part, while the heads that carry out the upper edge blunt are placed on the trolley's lower part.

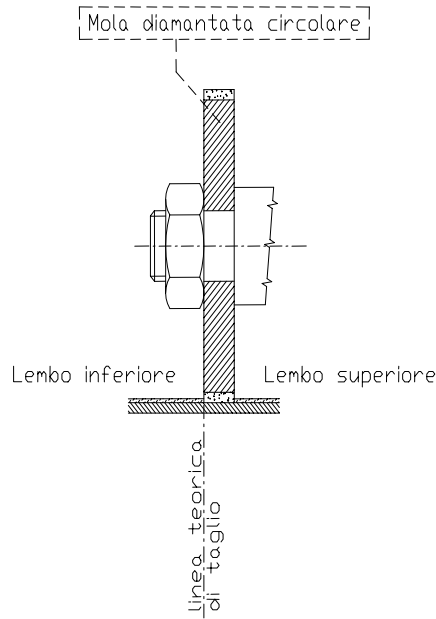
In order to prepare the upper edge for a special junction type, an additional processing head has been placed on the operator trolley's upper part.



- ILLUSTRATION 2 -
(operator trolley's overall view)

We report, here below, a description of the different processing heads present on the operator trolley:

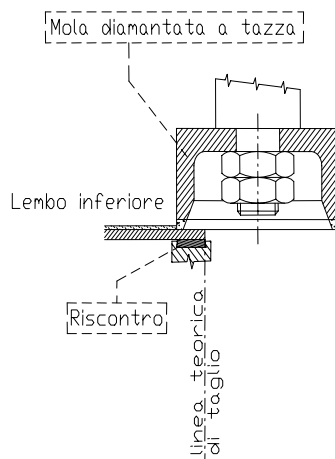
1) Front grinding-wheel : is the extra processing set placed on the trolley's upper part; it is a circular diamonded grinding-wheel whose processing field is placed outside the cutting line, precisely, removes the upper edge's abrasive coat (see illustration 3); this is the only process that takes place before the strap's cut.



- ILLUSTRATION 3 -
(grinding-wheel's processing zone's front detail)

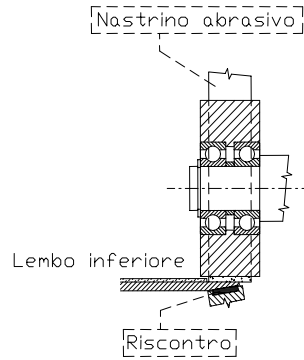
2) Cutting set : is the processing head that carries out the strap's sectioning; is composed of a circular blade (knife) and of a reference disk (counterknife).

3) I - II Upper bowl grinding-wheel : it is of two processing heads which are substantially the same, that have the purpose of removing the abrasive coat placed on the lower edge (see illustration 4). The cleaning process is carried out by two bowl diamonded grinding-wheels, their only difference is the grain; the first one of the two grinding-wheels carries out a rough cleaning (corse grain), while the second a fine cleaning (fine grain).



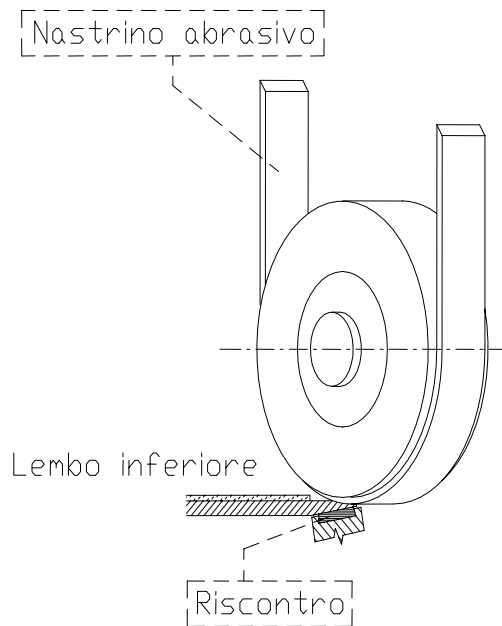
- ILLUSTRATION 4 -
(upper bowl grinding-wheel processing zone's detail)

4) 0° upper ribbon : this processing wheel carries out a first blunting on the lower edge's abrasive strap's support, by an abrasive cloth ribbon (see illustration 5). The ribbon's grain (tool) is adjustable to the processing strap's support type.



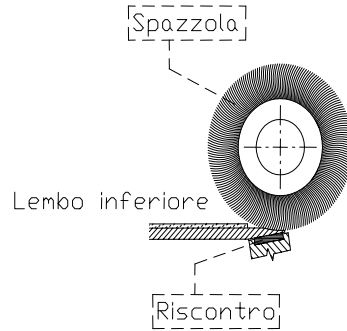
- ILLUSTRATION 5 -
(straight upper ribbon's processing zone's detail)

5) 45° upper ribbon : is a processing head similar to the previous one. During this process is carried out a second lower edge's blunt; the 45° upper ribbon processes only a part of the blunt carried out by the straight upper ribbon (see illustration 6). For this ribbon's grain count the same considerations done for the straight upper ribbon.



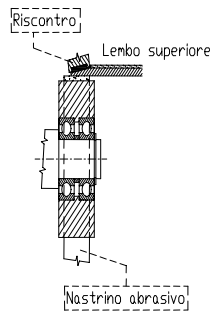
- ILLUSTRATION 6 -
(45° upper ribbon's processing zone's detail)

6) 90° upper brush : this processing head has the purpose of carrying out a lower edge's unravelling (see illustration 7). This process is carried out to obtain a better junction quality; usually it is possible to carry it out on straps with cloth support.



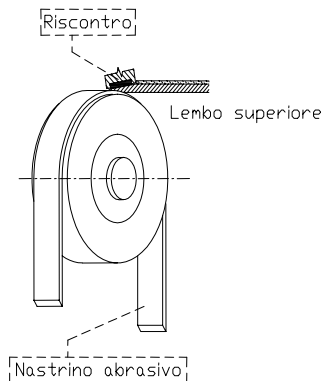
- ILLUSTRATION 7 -
(upper brush's processing zone's detail)

7) 0° lower ribbon : is the first of the three heads that processes the upper edge, obviously, since there is not abrasive to remove on the strap's lower part it is possible to carry out directly a first support's blunt with an abrasive ribbon (see illustration 8). As it is for the upper ribbons the ribbon's grain (tool) is adjustable to the processed strap's support type.



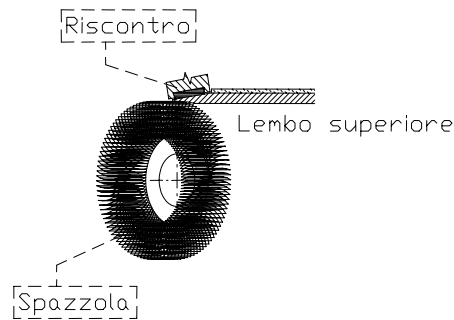
- ILLUSTRATION 8 -
(straight lower ribbon's processing zone's detail)

8) 45° lower ribbon : this processing head gives the possibility to carry out an extra upper edge's blunt, through another abrasive strap (see illustration 9). The considerations on the grains to use, for the ribbons (tool) are always valid. nastrino abrasivo (v. fig. 9).



- ILLUSTRATION 9 -
(45° lower ribbon's processing zone's detail)

9) 45° lower brush : this processing head allows to carry out an upper edge's unravelling (see illustration 10). Usually this process is carried out to obtain a better junction quality; usually it is possible to carry it out only on traps with cloth support.



- ILLUSTRATION 10 -
(lower brush's processing zone's detail)

With the above stated processing heads, present on the operator trolley, it is possible to carry out the blunts to obtain essentially two kinds of junctions; precisely (see illustration 11):

a) blunts for simple joints: usually these processings can be carried out on every kind of straps, without any distinction nor of the processed strap's support type, neither of its strap's grain.

b) blunts for ground junction: this edge's special blunt type, for strap support's holding reasons after the junction, is suggested to carry it out only on straps with cloth support.

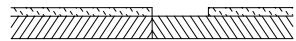
In the illustration 11 are pointed out the different processings to carry out on the edges to obtain the above described blunt.



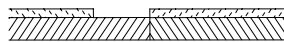
Mola anteriore



Gruppo di taglio



Gruppo di taglio



Mola a tazza



Mola a tazza



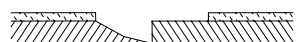
Nastrino superiore 0°



Nastrino superiore 0°



Nastrino superiore 45°



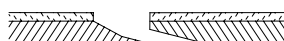
Nastrino superiore 45°



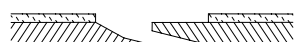
Eventuale sfilacciamento
con spazzola superiore 90°



Eventuale sfilacciamento
con spazzola superiore 90°



Nastrino inferiore 0°



Nastrino inferiore 0°



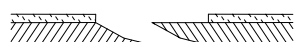
Nastrino inferiore 45°



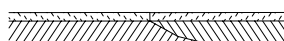
Nastrino inferiore 45°



Eventuale sfilacciamento
con spazzola inferiore 45°



Eventuale sfilacciamento
con spazzola inferiore 45°



RISULTATO FINALE :
GIUNTO SEMPLICE



RISULTATO FINALE :
GIUNTO MOLATO

- ILLUSTRATION 11 -

(processings that can be carried out with standard processing heads)

The machine in subject gives the possibility to carry out the straps' cut and blunt with chosen angulations according to the needs. The possible angulations are: 20° - 25° - 30° - 35° - 40° - 45°. The junction angulation's choice is at the operator's discretion.

c) The finished straps, that is cut and blunt, are stored in the **unloading zone**; this operation is automatically carried out by a pneumatic plier, which has also the duty to guarantee that the obtained strap's length is always the same, that is equal to the data drawn by the operator. A special vertical movement of the unloading bench, allows to pack the finished pieces up to a 70 mm. maximum height, independently from the processed strap's grain and from its support's thickness..

2) Machine's performances :

This standard version of the automatic blunting trimmer, allows to carry out the cut and blunt of abrasive straps that have the following characteristics:

- a) strap's minimum length : 200 mm
- b) strap's maximum length : 10.000 mm
- c) strap's maximum width : 1.600 mm
- d) maximum strap's cutting angle : 45° (for 1.600 mm. width 20° maximum)
- e) cycle time for the cut and blunt carrying out of a strap with a width equal to 1.600 mm. and length equal to 2000 mm. : 50 sec.

This machine's special versions both for obtainable straps' sizes and for processing heads applicable to the operator trolley can be carried out by request.

3) Machine's energetic enslavements :

The standard version of the automatic blunting trimmer needs the energetic enslavements below specified:

- a) electrical connection : 380 V three-phase + neutral
- b) installed total power : 8 kW
- c) pneumatic connection : p = 7 bar filtered compressed air
- d) compressed air consumption : 260 lt/h

4) Demands to the client:

In order to guarantee the accurate functioning of the machine in subject and the safety of the employees who use it, we remind the duties at the client's charge:

- a) the compressed air's appropriate use at the beginning of the machine feeding;
- b) 7 bar compressed air's feeding supply near the machine;
- c) the connection to the machine's metal structure establishment's earth ring;
- d) the installation at the beginning of the machine of a proper protection from the overcurrents for the main feeding wire;
- e) the machine connection to a suitable plant for the suction of dust that derives from the different processing strokes.

5) Machine's dimensions and weights :

The maximum overall dimensions for the standard version are pointed out in the drawing enclosed to this catalogue; this machine's weights are below specified:

- a) loading zone : 300 kg
- b) processing zone : 1000 kg
- c) unloading zone : 1200 kg

