STEP LAP CORE CUTTING LINE FOR DISTRIBUTION TRANSFORMERS

TARGET

The core cutting line model TO 25 is designed and built for the production of grain-oriented laminations suitable for the assembly of electric distribution transformer cores with Step Lap system.
According to the transformer design, this machine is particularly suitable for the production of cores for transformer power ratings ranging from 50 to 2500 KVA.

MAIN FEATURES

The cutting line is made up of machines whose co-ordination is managed by control software.
High performance and reliability of the line ensures an high output productivity.
The line automates the functions necessary for the processing of the laminations, namely:

- Unwinding from the coil;
- Admeasurement of the shapes;
- Conveying and cutting of the sheet;
- Stacking of the finished products.

In the stacking function, various degrees of accuracy and automation can be reached depending on the selected model of the machine stacker.

Main advantages of this line are:

- Compact and strong design
- Low power consumption
- Direct decoiler control without loop pit;
- New electronic cutting system
- Silent working
- Self commissionable

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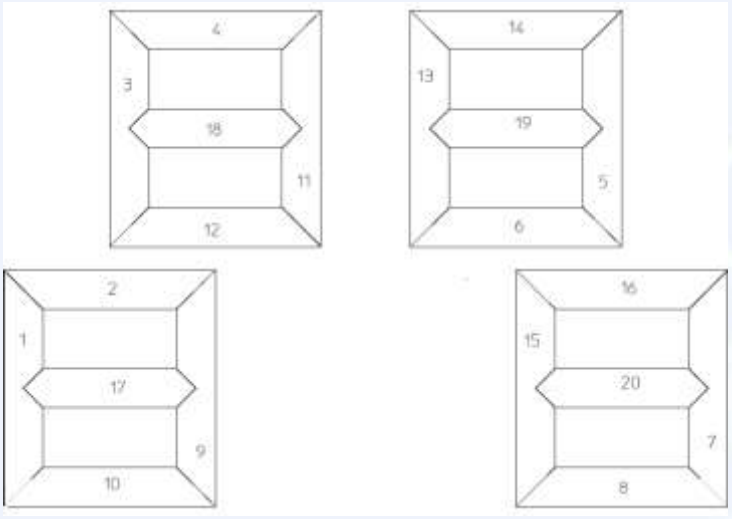
ROBOT STACKING OPTION IRE 25

The Stacker IRE 25 is an anthropomorphic robot allowing the collection of the magnetic sheets cut by the core cutting line TO25, forming from a minimum of 1 to a maximum of 4 three-phase cores, assembling each step-lap book according in the order shown on the picture below (representing the case of 4 cores).



The production occurs into lots of cores (equal or different) and the cutting sequences follow the order of the sheet widths of the column section to be produced. The stacking can occur by forming "closed" cores or by forming cores with "opened" yokes. The stacker can be equipped with up to 4 collection benches. Flat yokes can be stacked as well.

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MACHINE COMPOSITION (TO 25 Main Machine)

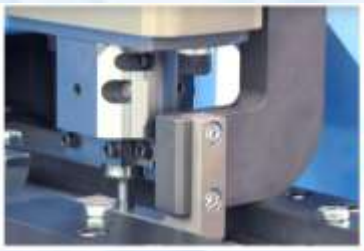
MAIN MACHINE :
(a) Decoiler
(b) Entry lamination slide with control
(c) Electronic lamination feeder
(d) Centering guides
(e) Punching unit
(f) V-notch cutting unit
(g) Swinging cutting shear 45°+ /90 45°-
(h) Transport unit
(i) Manual stacking unit ICC
(j) Controls by computer & touchscreen
(k) Internet tele-assistance
(l) Safety systems

ACCESSORIES :
(1) Double mandrel decoiler
(2) Four mandrel decoiler
(3) Robot stacker IRE 25 or Automatic stacker IMT 25
(4) Set of additional collecting pallets (for IRE 25)
(5) Scrap extraction belt
(6) Motorized centering device
(7) Optional software
(8) Additional punching unit
(9) Punching unit with transversal movement
(10) Motorized decoiler rotation

TECHNICAL DATA (TO 25 Main Machine)

GENERAL		
Weight of basic machine	approx.	3.100 Kg
Total length of the line	about	9.3 m
Total width of the line	about	4 m
Feeding speed	min/max	0 / 270 m1'

MATERIAL CHARACTERISTICS		
Lamination thickness	min/max	0.18 / 0.35 mm
Width	min/max	40 / 250 mm
Cut length (on the center)	min/max	250 / 1250 mm
Length accuracy	standard deviation	0.1 mm
Coil weight	max	1250 Kg
Coil outer diameter	max	1000 mm



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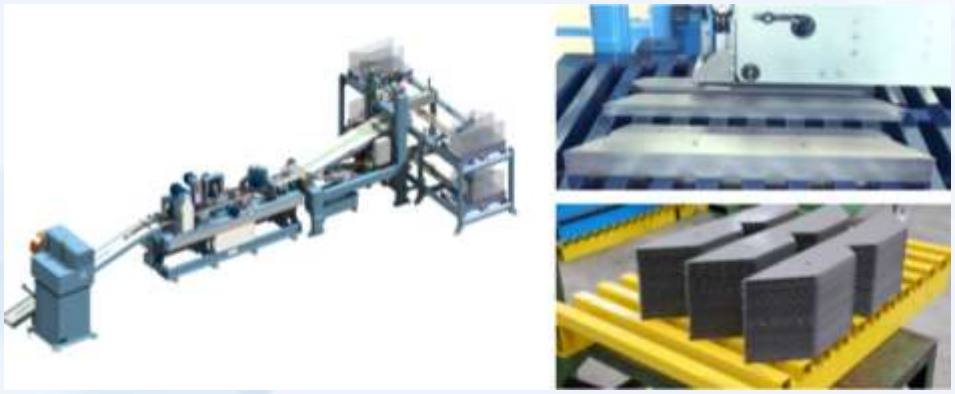
STACKING OPTIONS

MANUAL STACKER MODEL ICC		
Weight of the stacker	max.	500 Kg
Lamination width	Max.	250 mm
Pile max height	max	100 mm
Total load capacity	Max.	800 kg

AUTOMATIC STACKER MODEL IMT 25		
Weight of the stacker	max.	11300 Kg
Lamination width	Min/Max.	40/250 mm
Lamination length (central axel)	Min/max	250/1250 mm
Pile height	max	400 mm
Total load capacity	max	1.500 Kg



ROBOT STACKER MODEL IRE 25		
Lamination Width	min/max	40 / 250 mm
Lamination length (central axel)	min/max	250 / 1000 mm
Pile height	max	250 mm
N. of collection benches	Max	4
Collection bench load capacity	max	2000 kg

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