

## CUTTING LINE 2405/2200 2+2C



## 1.- TECHNICAL DESCRIPTION

Our N.2405/2200 2+2 C cutting line has been designed to obtain maximum production with minimum operator work and maximum reliability of the machines that compose it.

### DESIGN SPECIAL FOR THICKNESS

The general dimensions of the production line have been adjusted to the needs of the customer, in accordance with the criteria established by the same, in terms of the dimensions of the parts to be manufactured and the finished products obtained.

The entire line is characterized by the sturdiness and reliability of the machines that make it up, all designed to withstand the toughest working conditions. It is precisely in this regard that we can contribute all the experience accumulated over the years in the design and construction of machinery for the sector.

One of the great advantages that we can highlight of the machines of this production line is that they are models whose designs have already been evaluated in their operation and which only differ from our standard machines in their fundamental dimensions, but not by all the components that integrate.

The longitudinal slitter with 2 heads on mobile bridge N.8500-2C and the transverse slitter with 2 heads N.8500-2C are machines equipped with the latest technological advances in mechanical and electronic design. Of particular note are the linear guide systems of the head bridge supported by two beams parallel to the cutting table per the first and perpendicular to the second, with precision linear guides and ball bearings and high precision and high rigidity recirculating shoe, which moves, to perform the cutting tasks.

The sliding disc-carrying heads resting on linear guides on the bridge, with recirculating ball pads, also perform the vertical movement guided on recirculating ball pads and driven by a laminated axis with a recirculating ball nut, in order to be able to position themselves very quickly and precisely, leaving everything perfectly protected by a PVC bellows. Head carriers equipped with a translation movement by displacement gear motor controlled by frequency converter and magnetic positioning rule on the X axis, and actuated by a spindle and an electric gear motor for the vertical positioning of the

cut on the axis Z. The positioning of the heads is simultaneously thanks to the independent converters of each head.

The **N.2304** cutting tables are built with a steel structure with a rectified upper plane, on which the motorized conveyor belt rests, the outer surface of which is covered with rubber to prevent the movement of the material during the cutting phase. A stone striking device, located on the table of the second cross cutter, allows cutting times to be reduced considerably.

Table **N.2590**, located at the outlet of the longitudinal knife, has a system of pneumatically controlled physical stops that allows the selection of pre-cut strips according to width for subsequent processing in the longitudinal knife.

The second table **N.2585**, has a drag device to join and align the strips before processing in the cross knife, as well as the elimination of longitudinal waste.

The belt unloading tables **N.2426** have a frame built on a steel grid with a conveyor belt to unload the cutting table, simultaneously, while the cross knife already receives the next board and is ready to cut.

The work areas are protected, limiting access to risk areas by protective fences and photoelectric cells, in order to avoid any risk of accident.

All machines and heads are equipped with a centralized gear drive system for quick and easy maintenance.

In the section on electrical installation and control, it is worth highlighting the implementation of state-of-the-art automatons with programs tailor-made by our technical department, so that the programming of the machines is as simple as possible for the operators. , thus avoiding unnecessary waste of time. The programming of the working cycle and the visualization of its sequence are carried out on two operator terminals with a display, where all the working parameters are displayed, as well as the cutting cycles.

The N.2405/2200 2+2 C cutting line includes:

- 1 Motorized plastic roller table N.2274
- 1 Longitudinal cutter Model N.8500/800-2C.
- 1 Cross cutter Model N.8500/800-2C.
- 2 Motorized Belt Tables Model N.2304.
- 1 Double displacement table with trailed motorized rollers and motorized rollers N.2585.
- 1 Table with stop selection of slice N.2590.
- 2 Belt motor tables for material output Model N2426.
- Security fence.

## 2.- DATA SHEET

LONGITUDINAL CUTTER N.8500/800-2C FEATURES	
Machine width	5500 mm
Rolling ways length	5500 mm
Maximum disks distance	2200 mm (interior)
Minimum disks distance	200 mm
Cutting disks diameter	800 mm
Maximum height of the cutting pieces	300 mm
Disk engine power	30 HP (2)
Total power installed	67.5 HP
Water consumption per disk	30-40 l/min

## TRANSVERSAL CUTTER N.8500/800 2C FEATURES

Machine width	5950 mm
Rolling ways length	5500 mm
Maximum disks distance	3500 mm (interior)
Minimum disks distance	200 mm
Cutting disks diameter	<b>800 mm</b>
Maximum height of the cutting pieces	300 mm
Disk engine power	30 HP (2)
Total power installed	67.5 HP
Water consumption per disk	30-40 l/min

## BAND CUTTING TABLE N.2304/2200 FEATURES

Table width	2957 mm
Max. Table length	4044 mm
Max. Band width	2200 mm
Band displacement speed	6.5 m/min
Drive engine power	4.5 HP



**DOUBLE DISPLACEMENT MOTORIZED ROLLER TABLE N.2585/2200**

**FEATURES**

Table width	2929 mm
Max. table length	3700 mm
Max. working width	2200 mm
Rollers forward speed	6.5 m/ min
Roller drive engine power	1.5 HP
Centring displacement speed	3.1 m/min
Transversal displacement engine power	2 HP

**MOTORIZED ROLLER TABLE N.2274/2200 FEATURES**

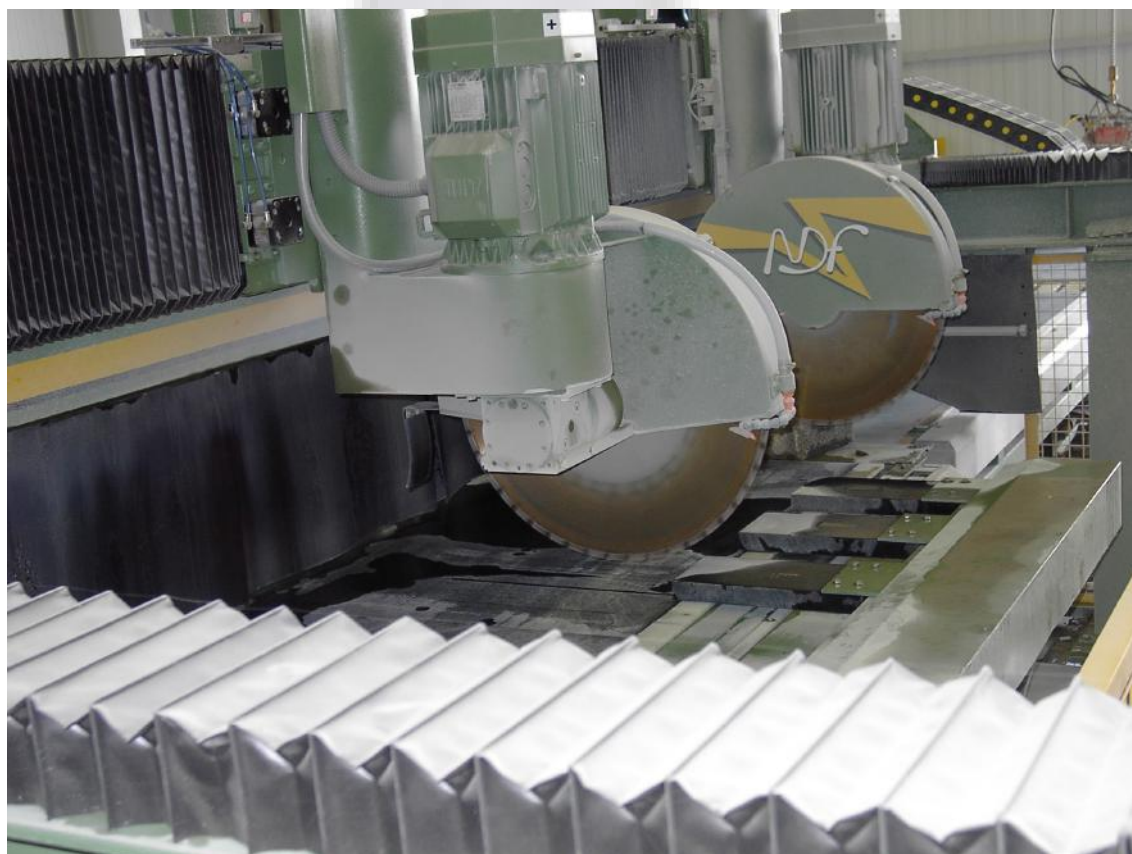
Table width	2929 mm
Maximum table length	3500 mm
Maximum working width	2200 mm
Forward speed	6.5 m/min
Drive engine power	1 HP

**ROLLER TABLE WITH SELECTION STOPS N.2590/2200 FEATURES**

Table width	2929 mm
Max. table length	3900 mm
Max. working width	2200 mm
Rollers forward speed	6.5 m/min
Roller drive engine power	1.5 HP

## MOTORIZED BAND TABLE N.2426/2200 FEATURES

Table width	2930 mm
Max. table length	3500 mm
Max. working width	2200 mm
Roller forward speed	11.5 m/min
Roller drive engine power	2 HP



## OPTIONAL: PALLETISING/ELABORATION ROBOT N.3530



### 1.- TENCHICAL DESCRIPTION

Supply of a Robot for the elaboration of finishes and palletizing with articulated vacuum suction cup for granite curbs.

The scope of delivery includes:

- 1 Robot mod. KR-360.
- 1 Chamfering group, disc case, water diffuser, etc.
- 1 Flaming torch, regulators, valves, etc.
- 1 Vacuum group, with pump, tank, suction cup, valves, etc.
- 1 Electrical panel and control panel with touch screen.
- 1 Feeding table with belt.
- 1 Device for butting and squaring edges.



- 1 Turntable for the elaboration of borders.
- 1 Safety barrier to limit access to the moving part of the machine.

The robot is specifically designed to perform automated tasks in the completion of edge finishing, edge milling or rounding, face buckling and subsequent palletizing, based on the same operating principles applied in Nodosofer's standard machining and palletizing, and offers multiple advantages: optimization of work processes, reduction of cycle times and efficient use of downtime, etc.



A compact and specially designed head is implemented on the wrist of the Robot, on which the milling motor unit, the torch to perform the buckling, as well as a suction cup for manipulation are based.

The receiving suction cup, also of particular design, consists of a rectangular plate, capable of supporting horizontal loads of up to 160 kg.

The motorized belt table, located at the entrance of the Robot, constitutes the feeding point of the processing unit. In addition, it acts as an intermediate warehouse to guarantee the smoothness of the work cycle and minimize the downtime of the whole line. It basically consists of a frame made of steel sections on which the axes of the rollers rest. All wheels are scrubbed to help synchronize tile advance speeds along the line.

A double butting and squaring device located on the belt table, allows the positioning and control of the edges before reception by the robot.



The turntable for the edging is located in the working area of the robot and allows to considerably reducing the times during the elaboration process.

The work area is protected, limiting access to risk areas by means of protective fences and photocells, to avoid any risk of accident.

The programming and the work sequence is variable and configurable, it is done by selection from the control panel.

PALLETISING ROBOT N-3530 FEATURES	
Max. load	360 kgs.
Central vacuum	90 m3/h
Installed power	50 HP