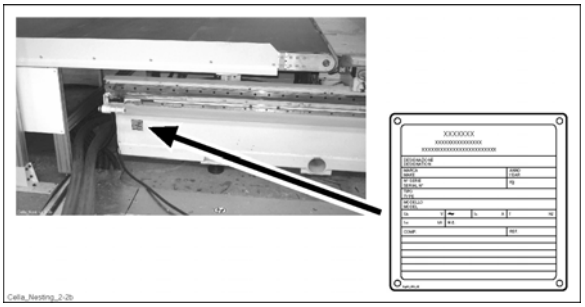
2.2 Machine Description

(cella_am600f_1.0_2.2-soll-vite)

This machine is a NUMERIC CONTROL DRILLING-ROUTER FOR MACHINING WOOD OR MATERIAL WITH SIMILAR PHYSICAL CHARACTERISTICS, fitted with the optional automatic loading and unloading device.



The control unit of the machine is installed on the electrical cabinet G and a console G1 .
The PRO-SPEED set-up foresees the presence of the front safety photocells and the double speed of axis "X" with the slowdown booking of the speed to gain access in the operational zone without stopping the machine.

For further information on the safety devices operation, consult the specific chapter.

Drilling-router description

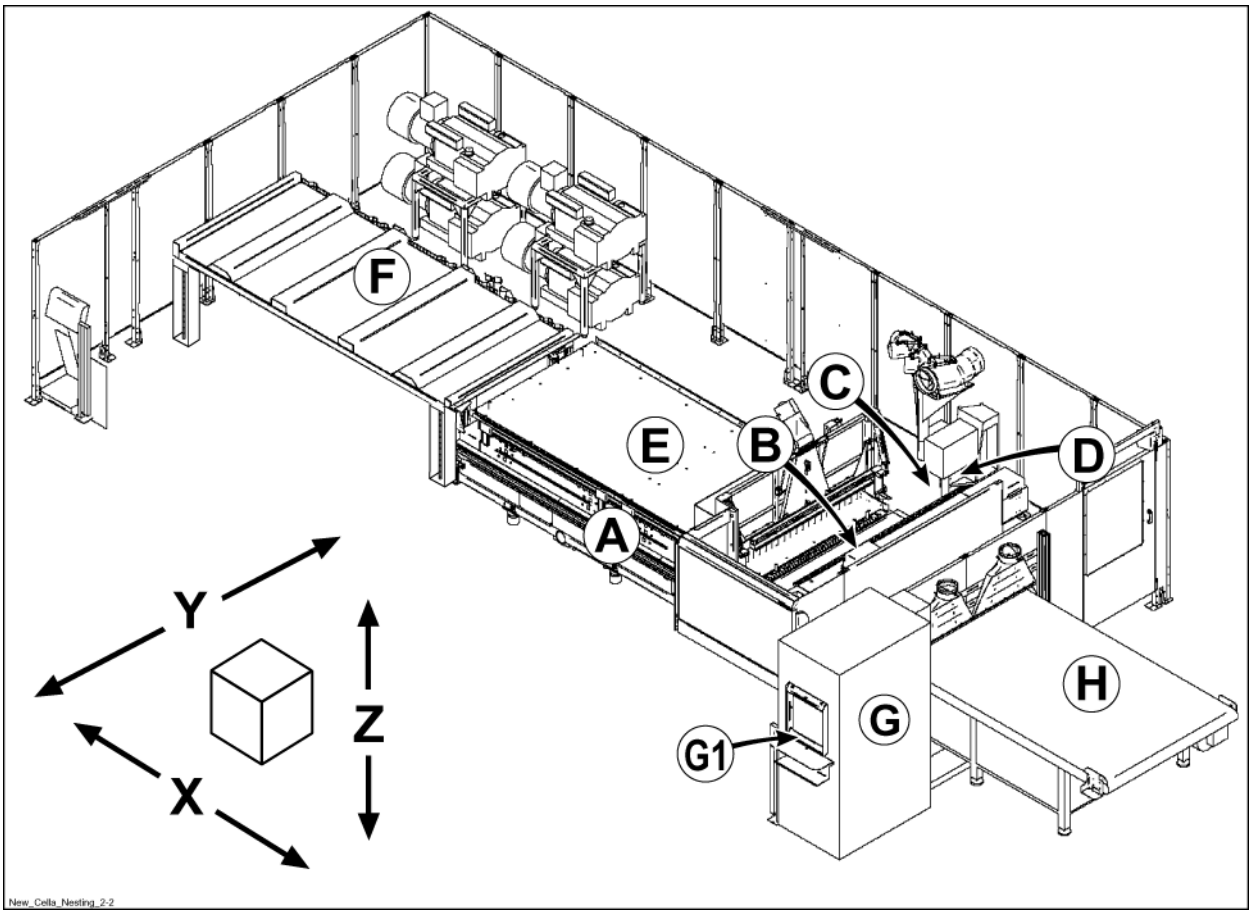
The structure has two main elements:
- the load-bearing base A
- the single-piece upright B which moves along the X-axis

Machining unit C is mounted on a slide D which is moved on the upright B mobile along the Y-axis and includes movement along the Z1 - Z2 (opzionale)-axis.
All the axes move on prismatic guides with ball bearings; high quality pinions and gear racks are used for the X and Y axes while ball bearing screws of equally high quality are used for the Z axes.

The working table “E” is a single table type Nesting: the information about this table are indicated into the specific chapter.

Integrated loading and unloading system description

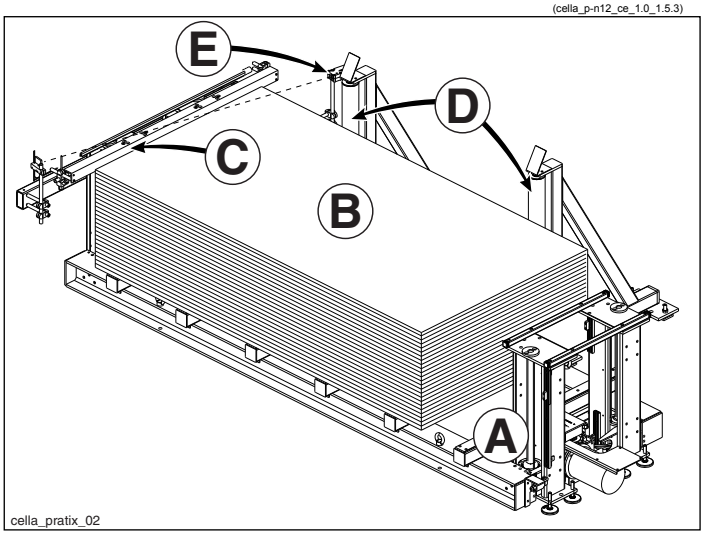
The workpieces automatic loading and unloading system consists of:
F) Panel feeding with automatic elevator for loading pieces
H) Panel unloading with piece output conveyor


F
C
E
B
D
A
Y
Z
X
G
H
G1
New_Cella_Nesting_2-2

- Elevator table description

The elevator table A makes it possible to lift a pile B panels up to work surface height, allowing the automatic loading device to hook the upper panel and drag it to the work surface.
The correct positioning of X and Y is guaranteed by strokes C - D
Panel pile height is adjusted by photocell E.

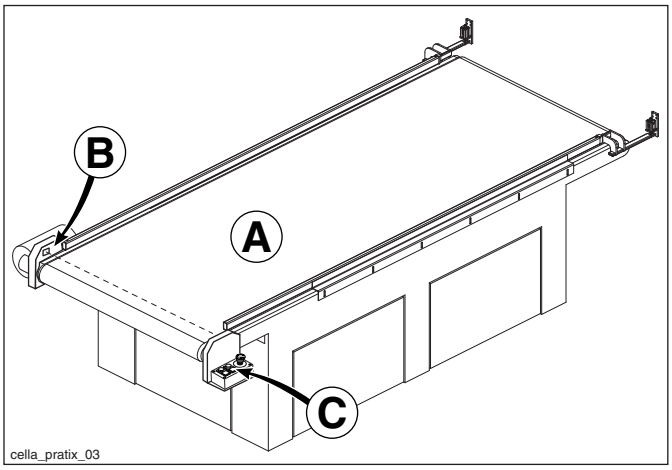
(cella_p-n12_ce_1.0_1.5.3)



- Description of the unloading conveyor

(cella-p-n12_ce_1.0_1.5.4)

The motorised conveyor A is used to transport processed pieces from the work area to the unloading station.
The unloading station is equipped with a photocell automatic stop B for stopping or restarting the conveyor by reading if pieces are or are not present.
A button C for manually advancing the conveyor is also present.



- Description of the Electrical Cabinet

(cella_am600f_1.0_2.2a)

The electrical and electronic components are located into the cabinet L.
The whole main working phases are managed by an innovative numerical control, in order to assure high speed of execution, high power processing and to execute different functions simultaneously.

The machine is controlled by means of the operator interface at PC "A" mounted on console "B", and by means of the mobile control panel "P13".

NOTE: On the electrical cabinet there is a main switch "SZ01" which operates on the power supply.

The electric general switch doesn't interrupt the pneumatic energy

WARNING: BEFORE OPENING THE DOORS OF THE ELECTRICAL CABINET FOR ANY REASON, ALWAYS TURN THE MAIN SWITCH TO THE ZERO POSITION AND LOCK IT .

ALWAYS GIVE THE KEY TO THE ELECTRICAL CABINET TO THE PERSON RESPONSIBLE FOR PRODUCTION.

ONLY SPECIALISED ELECTRICAL ENGINEERS MAY CARRY OUT WORK ON ELECTRICAL DEVICES.