Automatic bar feeder CariVert6000

AUTOMATIC LOADER FOR PROFILED BARS

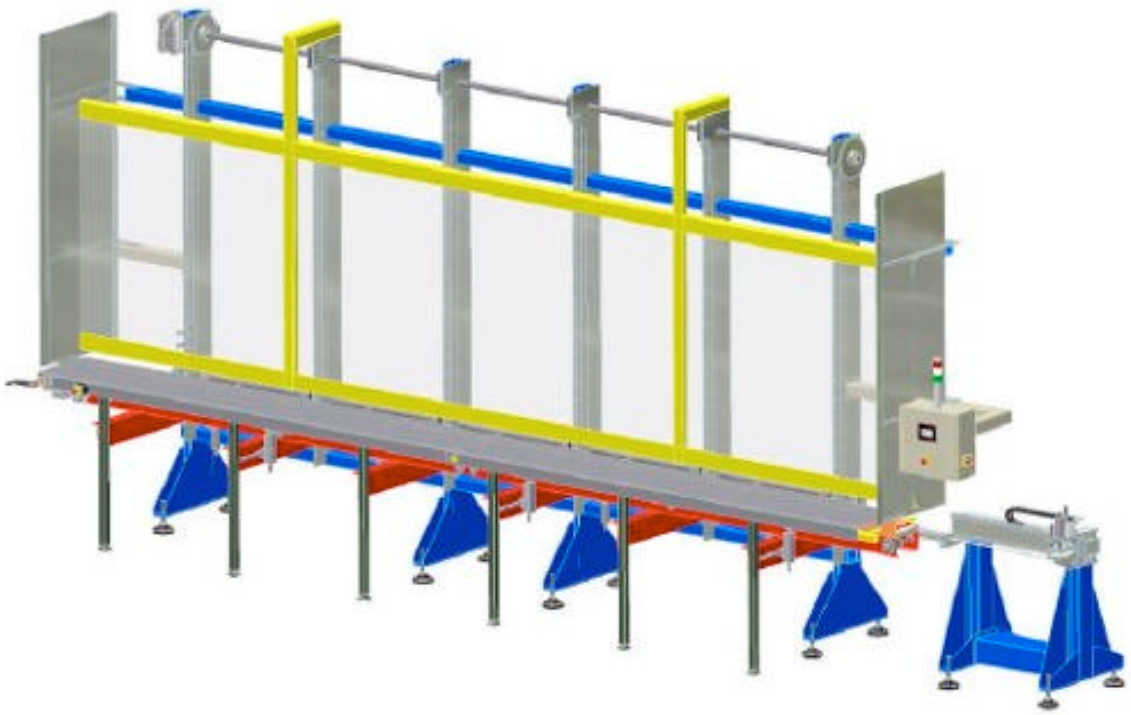

Figure 1

EXAMPLES OF MANAGED PROFILES

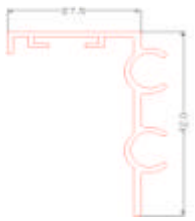

Figure 2

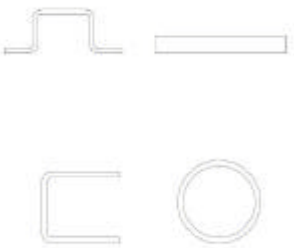

Figure 3

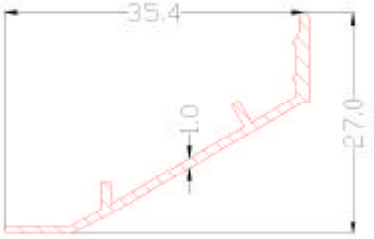

Figure 4

- **Interlockings for miter saws and presses**
- **Machine consists of: stock rods and conveying assembly (push bar)**
- **Two standard versions for bars 6m and bars 4m (CariVert4000)**

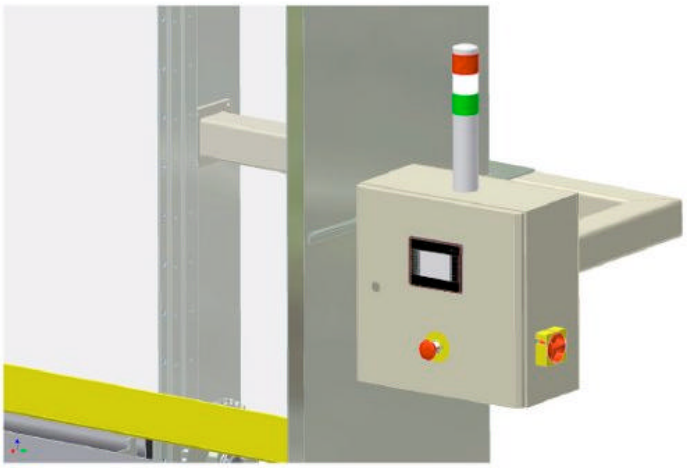

Figure 5

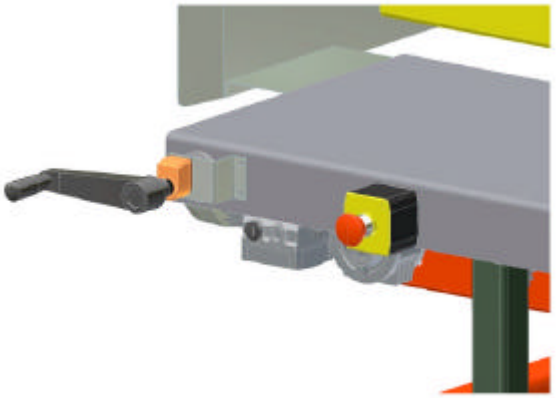

Figure 6

TECHNICAL SPECIFICATIONS	
feeding	400V - 50Hz
Absorption	1 KW
Working temperature	5 - 50°
weight	
Protection	IP54
Dimensions	1150 x L=6730 x H=3145 mm.
Pressure - Air consumption	6 bar - 60Nl/min
Autonomy	27 piatti

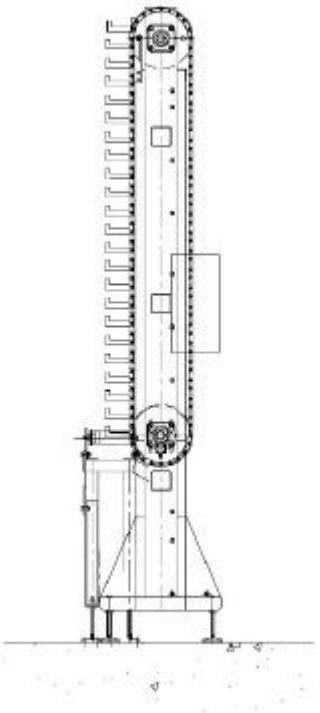

Figure 7

The autoloader vertical (Figure 1) consists of the stock bars, from the group of loading and unloading and the push rods. The bar magazine has a capacity of 27 flat bars and is suitable for bars full section or sections with various sections. Some examples of manageable profiles are shown in Figures 2,3,4. The stock bars (side view in figure 7) is constituted by a series of chains, to which supports are fixed; These ones support the bars. The group of loading and unloading (Figure 8) loads the bars in the vertical storage and it downloads the bars from the stock to be worked. The group of loading / unloading has a horizontal plane for supporting the bars. The operator will pass the bars one by one to the car to carry the load.

The third group constituting the machine is the pusher bar (figure 9 and 10). The push bar realizes precise advancements within the cutting machine.

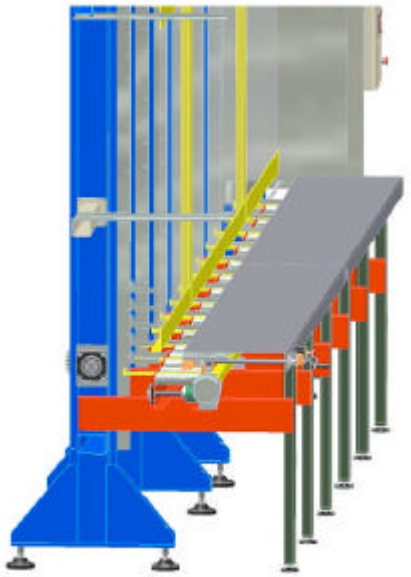

Figure 8

We have two models of push bar:pneumatic push bar and servo one. The first, more economical, is used if the slave machine tool has a reference against which to set the bar for cutting. In this case the measurement is given by reference. The servo push bar is used when there is no feedback on the machine tool and when advances are different.

Principle of operation

Warehouse loading - The load floor (Figure 8) is used for the support of the bundles of bars. The operator will extract the single bar from the beam and the rest on the load carriers. Pressing the load, the load supports have a translational motion within the machine to position the toolbar above the media support bars of the vertical storage. The chains with the supports bars are lifted up to raise the bar: the bar is now in the warehouse and load carriers are free to return to receive a new bar to be loaded. The storage capacity is saturated when all media are occupied by bars. The loading operation can be performed during the work of the machine, without interrupting or slowing of production.

Extraction bar for cutting - The vertical chains are lowered by up to support the bar on the supports of unloading (Figure 8). The unload supports have a translational motion horizontally up to bring the bar above the motorized roller ejection bars;Unload Supports , lowering, release the bar on the roller bars expulsion.The ejection roller rods, sticks his rod in the push-bar gripper furniture.

Bar advancement - To achieve the advancement of the bar inside the cutting machine, we have one pusher bar double gripper. The fixed gripper blocks the bar, while the movable gripper realizes the advancement of the bar. There are two models of push bars, which are differentiated by the command of advancement of mobile clamp. The push bar tire, using a cylinder for movement of the gripper and is usable when the cutting machine has an abutment for the bar stop in the cutting position.

The photos below depict the pneumatic group of the advancement of the bars.

Figure 9

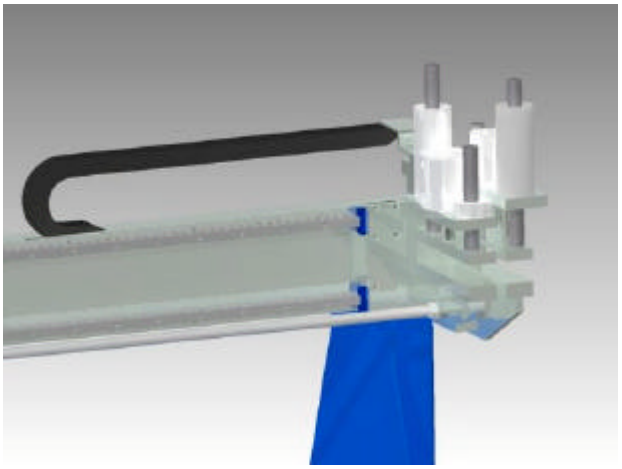

Figure 10

The servo push bar uses a servo motor for moving the movable clamp. For the advancement of the bars is not necessary feedback on the cutting machine, advances are set on the operator panel.

By setting the length of the pieces to be cut from the operator panel, Vertical Loader6000 automatically decides the number of cuts to be made to optimize any waste. Always using the operator panel, at any time you can have a ratio of the number of items produced and intervene to modify various parameters in order to optimize production.

For both the models of push bar, the last segment of bar is extracted and dropped.

AUTOMATED CENTERS OF CUTTING

- **Complete systems of power supply unit, miter saw and palletizer**
- **A single source for the entire system**
- **Ability to carry out other work such as drilling, punching and so on.**

The loader VerticalLoader6000 can be provided combined with a cutter and a palletizing system so as to provide a shear center. With this solution, the customer will have a single supplier that guarantees each component of the system and keep the interface. You can insert a palletizing system of the machined parts to further reduce the use of staff for the plant management

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