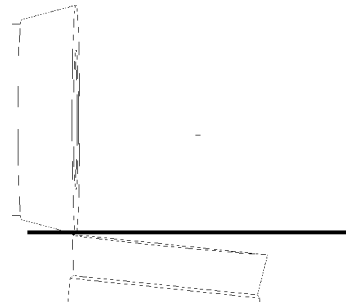
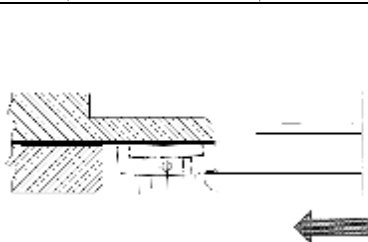




TRIMMING MACHINE R1600 CNC ROAD SIGNS*



ELECTRIC TRIMMING UNIT



**ELECTRIC FLANGING UNIT WITH
LUBRICATION SYSTEM FOR THE
ROLLERS**



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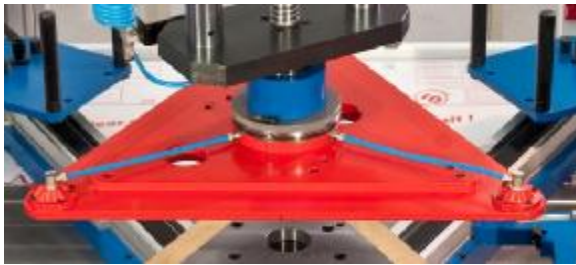
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Cap. Soc. € 5.200.000 i.v.
Registro Imprese VI N. 25331
Cod. Fisc. 08808900156
P.IVA CEE IT00899810246

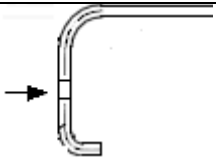




ELECTRIC UNIT FOR AUTOMATED CENTERING OF THE SHEET-METAL PIECES



ELECTRICAL PRESSER WITH VACUUM DEVICES AT THE SIGN'S ANGLES



ELECTRIC DRILLING UNIT TO PRODUCE HOLES AT THE SHEET-METAL'S EDGE

*: patented technology.

INNOVATIVE FEATURES OF THE TRIMMING MACHINE

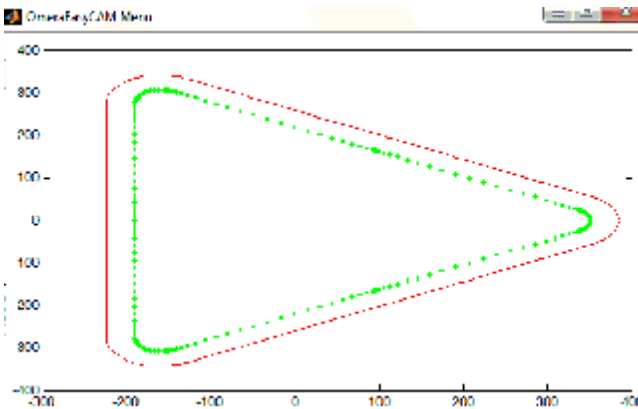
R1600 CNC

The TRIMMING MACHINE R1600 CNC represents an absolute innovation in the world market of machines for road signs production with the following features.



INNOVATIVE PRODUCTION OF ROAD SIGNS

The TRIMMING MACHINE R1600 CNC enables the execution of all operations for road sign production of any shape with just one single machine (some examples are shown here left aside), made of steel and aluminium, starting from the raw flat sheet-metal to the final road sign with vertical profile and horizontal flange. This innovative work cycle replaces the operations that until now have been done with up to seven different machines for producing polygonal signs.



INNOVATIVE CAD/CAM PROGRAMME FOR THE MOVEMENT OF THE MACHINE

The TRIMMING MACHINE R1600 CNC is equipped with an innovative CAD/CAM programme, entirely designed by OMER A, which enables to execute cutting operations and flanging operations of the piece, following the path of the dies, installed by numeric control. These paths are imported from a CAD file in "dxf" format and can be easily modified later from the final user. This solution replaces the workpiece holding tool technology with copy cams which permitted to follow only and exclusively the profile of the same cam.

With the new CAD/CAM programme of OMER A it is furthermore possible to manage the position of the presser's axes (depending on the tooling's height), the positions of the centering devices (depending on the dimensions of the initial sheet-metal), the lubrication oil quantity to be used during every cycle and the movement's gradation of the vertical flanging roller.

BRUSHLESS MOTORS: ENERGY SAVING

The TRIMMING MACHINE R1600 CNC is completely driven by axes controlled by brushless motors, it stands for a low electricity absorption, enabling a remarkable energy saving compared to previous solutions with pneumatic or hydraulic devices.

SIMPLE DIES, LIGHT AND COST-EFFECTIVE

The tooling of the TRIMMING MACHINE R1600 CNC are very simple to realize since they are composed by simple plates with the same shape of the sign profile. Their cost and their weight are remarkably lower than the old work-piece holding tools with copy cams which will be replaced by the new OMER A tooling.

BRUSHLESS MOTORS: PRECISION AND BETTER QUALITY OF THE PRODUCED PIECES

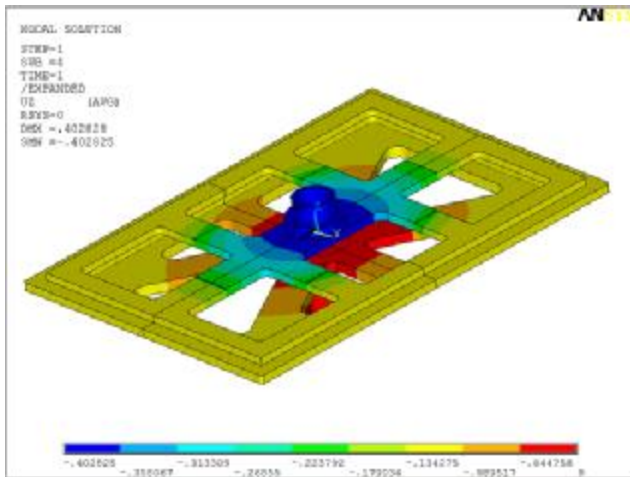
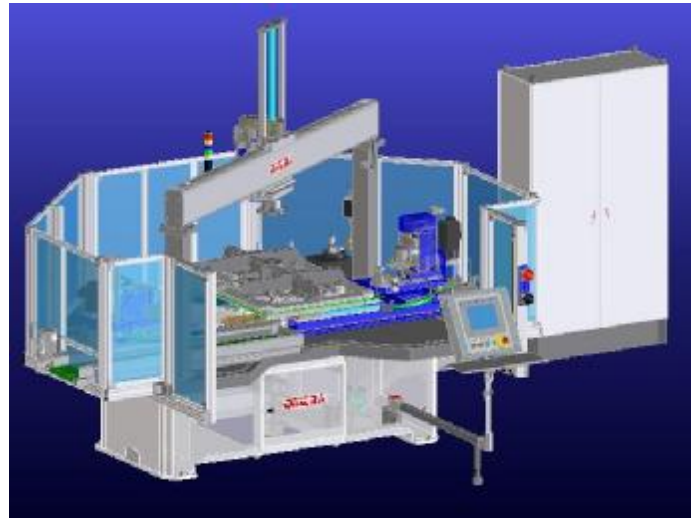
The TRIMMING MACHINE R1600 CNC is completely driven by axes controlled by brushless motors: the units and the spindles movements with zero backlash gear are "synchronized" by numeric control thus allowing very precise movements which contribute explicitly to an improvement of the quality of the produced road signs. All the final pieces are produced with the same quality because there is no problem of oil compressibility or problems of cold and warm oil.

REDUCED TOOL CHANGING TIMES

The TRIMMING MACHINE R1600 CNC makes also a difference in reduced times of tool changing of the machine. For changing the production from one sign type to another it takes 15 minutes, while with the hydraulic / pneumatic solutions and with copy cams devices it takes up to 2 hours.

LINEAR ROLLER BEARINGS: REDUCED NOISE LEVEL

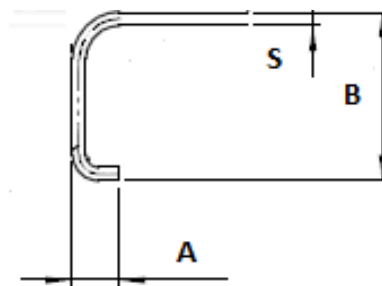
The equipment with linear roller bearings for all work movements of the TRIMMING MACHINE R1600 CNC and the absence of movements towards the copy cams, keeps the noise level of the machine low during the production cycle.



FEM STRUCTURAL OPTIMIZATION OF CARPENTRY AND TOOLING

Both the carpentry of the machine and the tooling are all developed after precise analysis of the final elements for reducing the deformation effects and to keep low the rotating inertia.

IMAGES OF THE FORM AND DIMENSIONS OF THE BEADED PIECE



S material thickness from 0,8 to 1,5 mm
in steel and from 1,5 to 2 mm in
aluminium

A flange from 5 to 10 mm

B piece height from 18 to 25 mm