



TIPO D4 and D8

Automatic CNC lines for the punching and cutting of flat and angle bars





BASIC VERSION

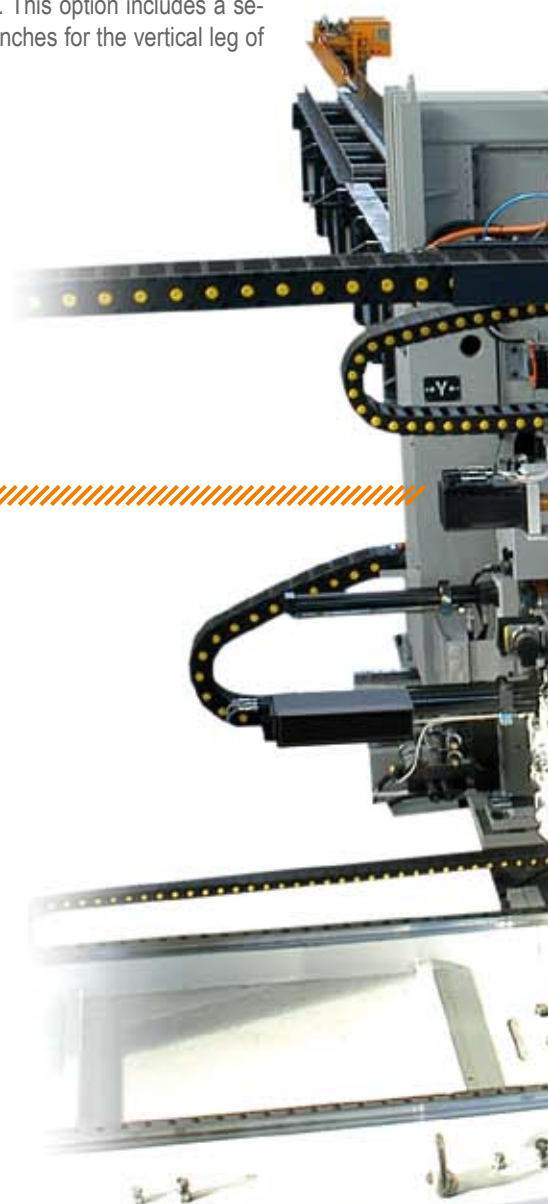
Structural steel work requires a huge number of plates designed for use as base plates and other connection plates. These plates are generally thick and almost always punched, perforated and cut to shape. Sometimes there is a need to automatically marking the component. The D4 – D8 make it possible to process very thick plate carrying out several operations in a single pass. The basic versions have punching capability with either 4 or 8 1100kN punch stations. This is combined with a 2200kN rotating shear unit for cutting 510 mm wide by 25 mm thick plates. Flats slide on an idle rollerway and are moved by a **CNC controlled carriage with hydraulic pincher**.

Hydraulic horizontal and vertical clamps tightly keep the material in the working position.

The fully optional lines of the Tipo D4 and D8 include the possibility to have both flats and angle working units on the machine at the same time. This option includes a separate punching unit with 2 punches for the vertical leg of the angle bar.



D4 punching unit





D8 complete with shears for angles and for flats, and thermal cutting unit

TIPO D8



PUNCHING UNIT



Tipo D8 punch for plates. 1100kN punching unit provided with automatic selection and rotation of 8 different punching diameters.



Tipo D4 punch for plates. 1100kN punching unit provided with four punches selected from the automatic program.



Punch for angle unit. Horizontal punching unit with 2 selectable punches for putting holes in the vertical flange of angles on any gauge line.



SHEAR FOR FLATS AND ANGLES



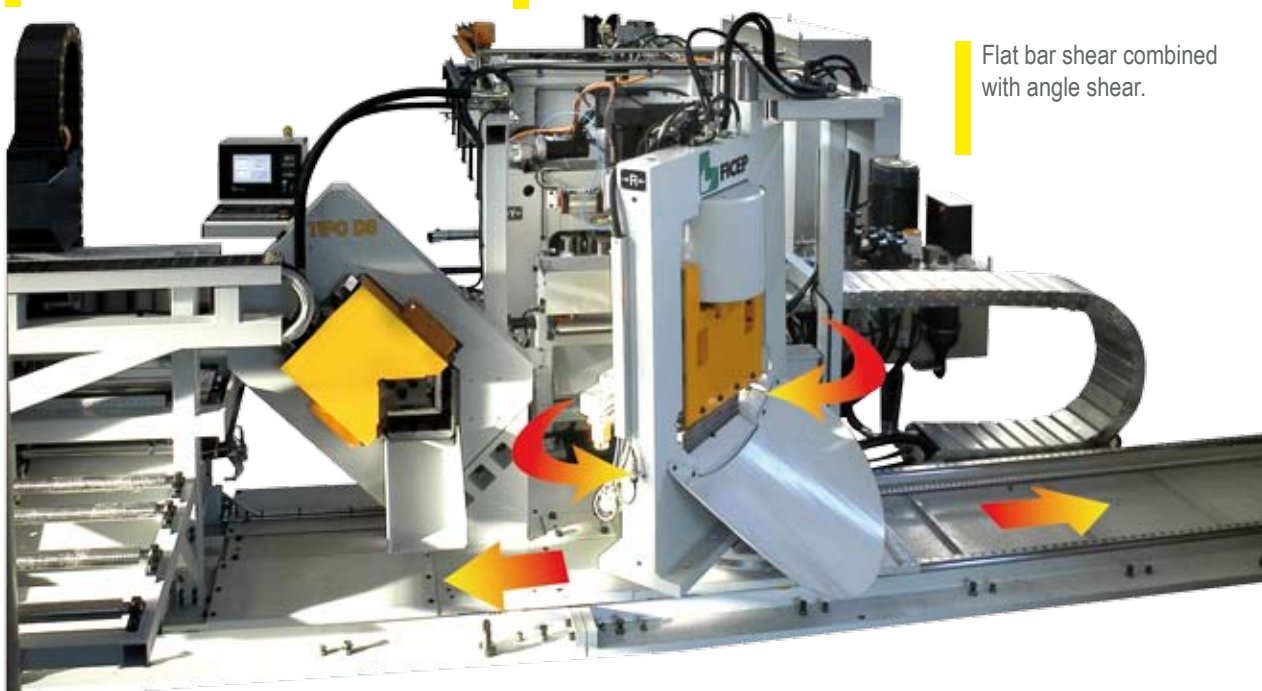
Rotating shear for flats 2.200 kN CNC controlled rotating shear for straight or mitred cutting (+45°/-45°) up to a thickness of 25 mm.



1800 kN shear for angle bar.

SHEAR FOR ANGLES

A second kN 1800 shear for angles is combined to the shear for flats. Both shears slide on linear guides and can be automatically selected by the CNC.



Flat bar shear combined with angle shear.



PLASMA CUT

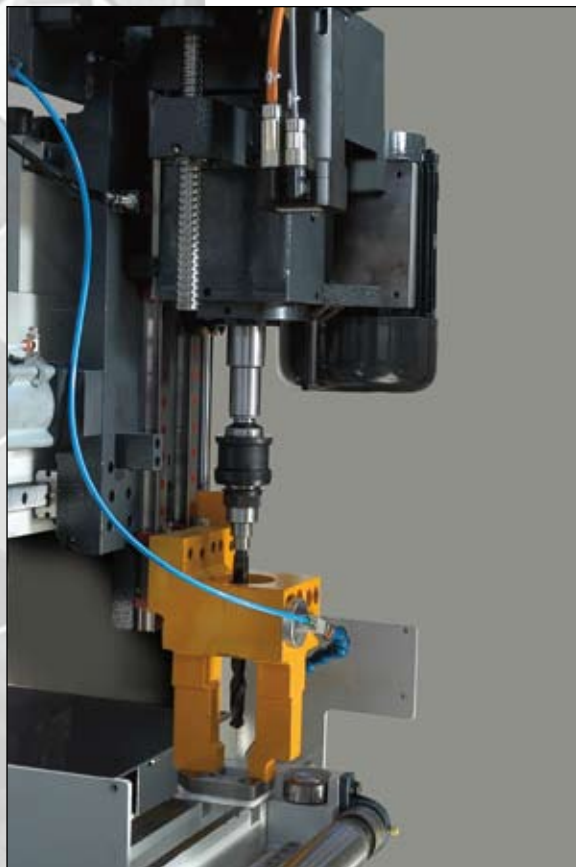


Plasma cutting unit to carry out any kind of shaped cuts.

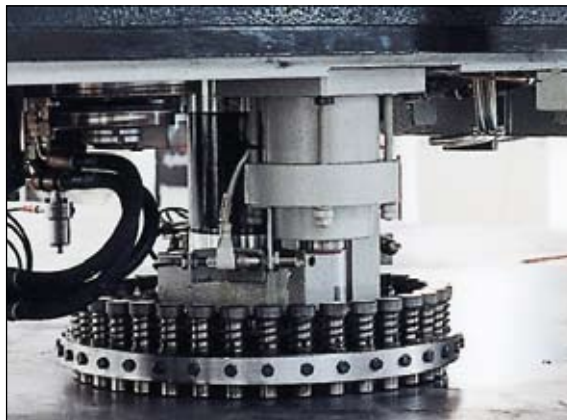




DRILLING - MARKING UNIT



Optional drilling unit. With special tools the same head can perform scribing operation for layout marking.



TIPO D8 optional 80 kN marking unit with 36 characters for pieces CNC controlled marking.



TIPO D4 optional 80 kN marking unit with 38 characters for pieces CNC controlled marking.



HANDLING

Flats and angles slide on an idle rollerway and are moved by a CNC controlled carriage with hydraulic pincher. The pincher is equipped with an electronic device for automatic bar length survey and automatic pincher clamping.



Horizontal and vertical clamp system to hold pieces during operations.





HARDWARE and SOFTWARE

The new generation control unit, with 2 controlled axes, is based on a fieldbus CANopen technology.

The CNC is positioned on a mobile control panel, so that the operator can have a complete view of the machine.

All the input and output cards are connected to the bus and lodged on the machine, if it's possible.

The CNC is equipped with:

- digital inputs (24V – optoinsulated)
- digital outputs (24V – protected transistors)

The control panel is an industrial PC containing the CNC and having the following specifications:

- 600 Mhz CPU with L2 512 KB “cache”
- 512 MB RAM memory
- Touch screen colour video TFT 12.1”
- Keyboard panel and auxiliary pushbutton panel
- 10/100 RJ45 Ethernet port
- USB modem
- 1 additional USB port
- WINDOWS XP Embedded operative system
- Teleservice software

Programming

- Simplified data input (with tables and workpiece on-screen graphics)
- Absolute and incremental values
- Diameters programming
- Linear, matrix and flange patterns
- Nesting of equal or different workpieces into the same bar, with on-screen graphics

Processing

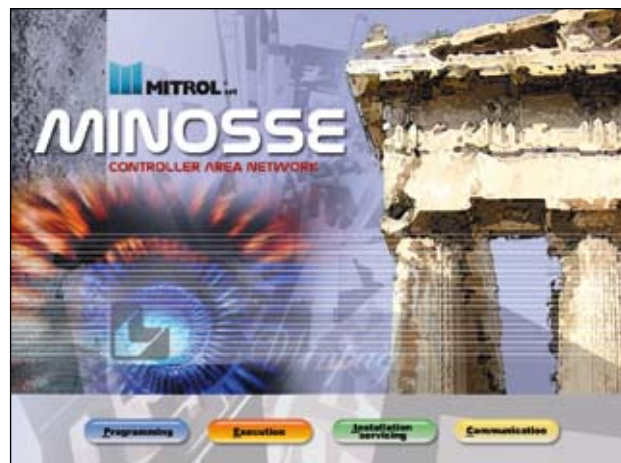
- Automatic tool assignment
- Unit offset sum
- Values ordering
- Automatic optimization on the basis of the quantities left for each single workpiece

Execution

- Automatic survey of the bar length, and re-calculation of the optimized accumulation
- Automatic cycle stop for “setup” modification, and on-screen indication of the tools to be changed
- Drilling parameters table

All the indications are clearly displayed on the screen, and concern:

- Current program indication, with clear description of the program running at the moment
- CNC inside and outside alarms
- Registration of the date and time of the last 100 alarm messages
- Diagnostic messages to the operator.





TECHNICAL SPECIFICATIONS

MODEL		TIPO D4	TIPO D8
Workable profiles			
Flat bars			
	min.mm	50 x 6	50 x 6
	max. mm	510 x 25	510 x 25
Angle bars (with optional shear horizontal punch unit)			
	min.mm	50 x 50 x 6	50 x 50 x 6
	max.mm	150 x 150 x 16	200 x 200 x 20
UPN needles (core punching – pre-cut to measure)			
	min.	80	-
	max	200	-
Profiles			
Maximum profile length (basic version)	mm	6000	6000
Punching capacity			
Maximum available punching strength	kN	1100	1100
Diameter x thickness – N/mm ² 410	mm	35 x 25	35 x 25
Max. punching diameter with standard tool	mm	46	46
Punches in basic version	no.	4	8
Shearing capacity			
Maximum available cutting strength	max. kN	2200	2200
Maximum available strength for cutting angle bars	max. kN	1800	1800
Flat bars	max. mm	510 x 25	510 x 25
Marking capacity (optional)			
Alphanumeric characters	no.	38	36
Maximum available strength	max. kN	80	80
Drilling capacity (optional)			
Drilling max. diameter	mm	40	40
Spindle motor power	kN	5,5	5,5
Controlled axes	no.	2	3

The manufacturer reserves the right to make product design and engineering changes without notice. All the specifications on this catalogue are mere indicative and not binding for the manufacturer. The above mentioned data refer to R=45 kg/mm² material. NOTE: Dimensional tolerances of the raw sections are to UNI 5783-5784/73 standards.



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