

80 YEARS
1930 - 2010



DE - DF

Automatic CNC drilling, marking
and sawing lines for beams,
channels and flats



FICEP
Sp.A.



The H-I-U etc. rolled steel sections are the supporting frame of all the modern civil and industrial constructions.

Technical & Economical choices:

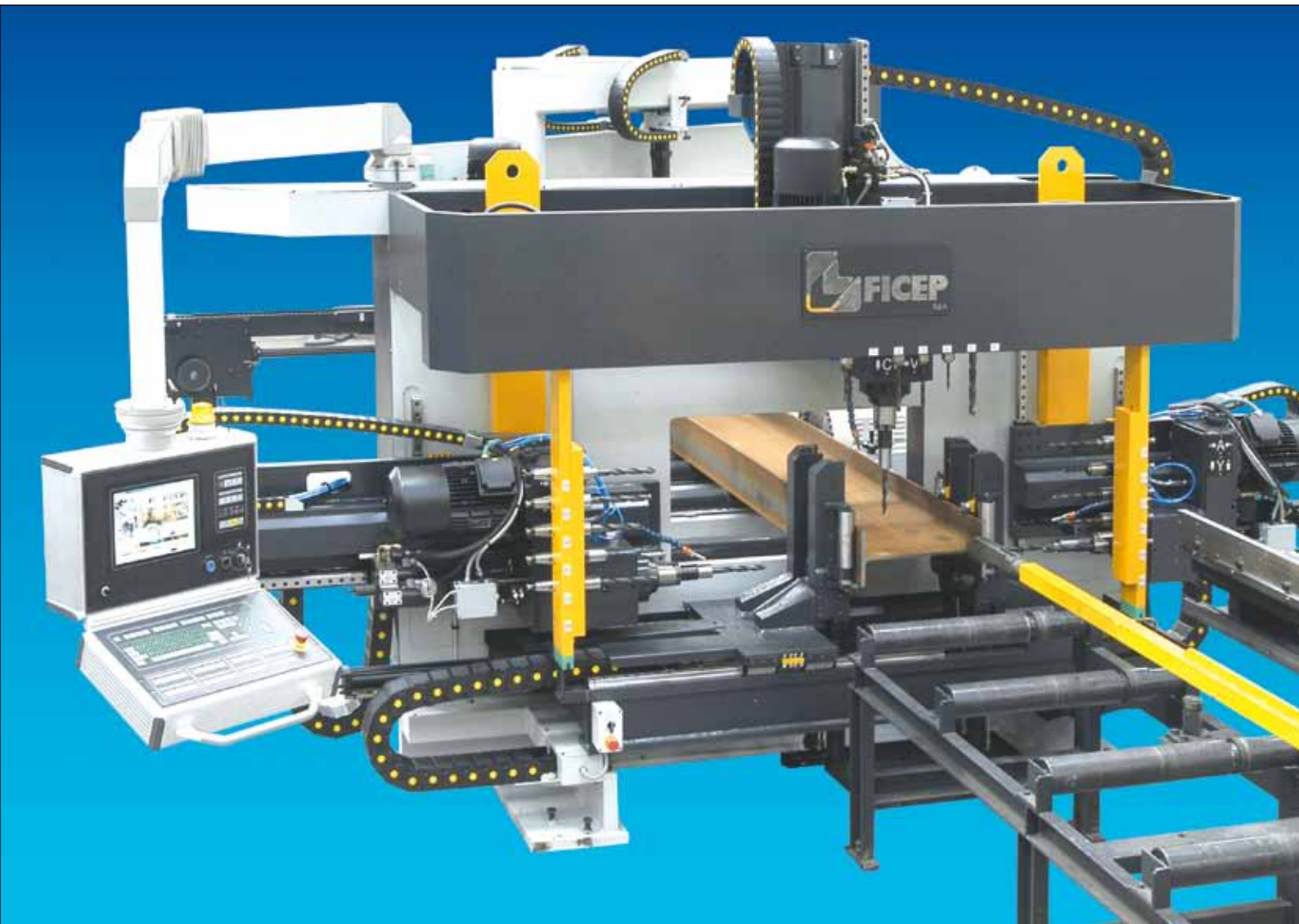
- Interfaces within your existing environment
- Reduced cost per linear meter
- Ease of assembling
- Planning simplicity
- Possibility to identify and trace the manufactured workpiece
- Good adaptability to the anti-seismic requirement

justify the strong demand for processed sections, and the parallel development of steel construction industries and service centers.

Ficep turns to these production sectors with a complete range of CNC lines suitable for the automatic processing of every kind of flat or shaped rolled section; the main goal is to increase the productivity through:

- Processing efficiency
- Reduction of handling operations between the different processing phases
- Hardware and Software connected in order to simplify the machine language and open dialogue with every external estimation and planning center.





1003 DFB
VANGUARD 10



1203 DF
VANGUARD 12





1204 DFRC
VANGUARD 12





1003 DEB BASIC VERSION COMBINED WITH SAWING UNIT

The DE and DF drilling lines become DEB and DFB when they are combined with a band sawing unit in order to carry out automatically drilling and shearing operations at 90° or at variable mitering on the same system.

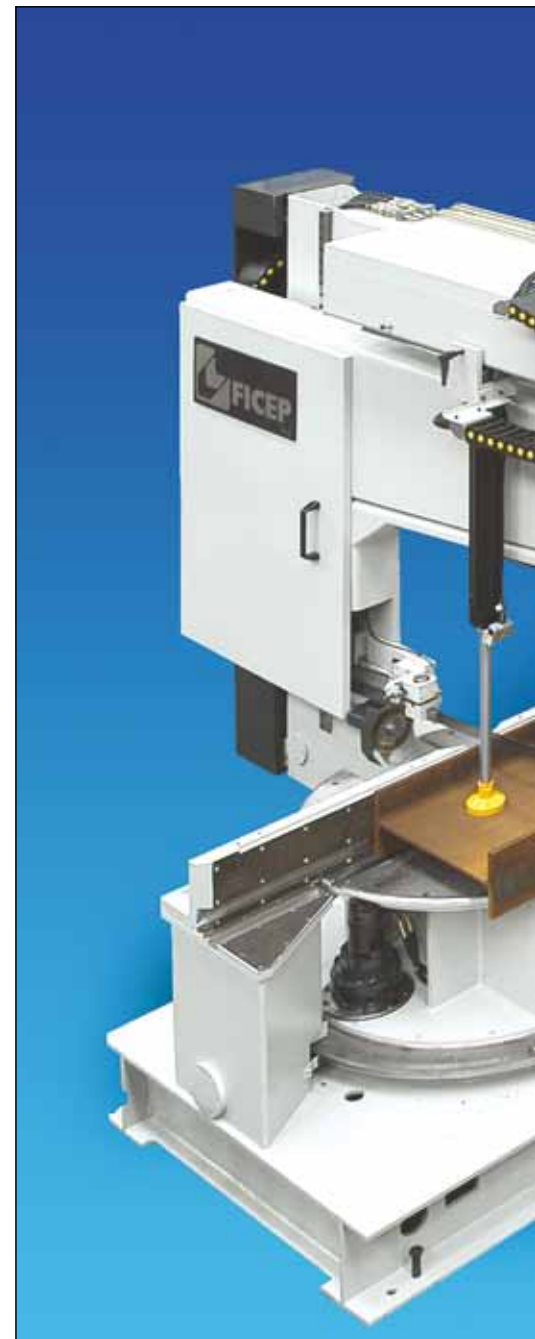
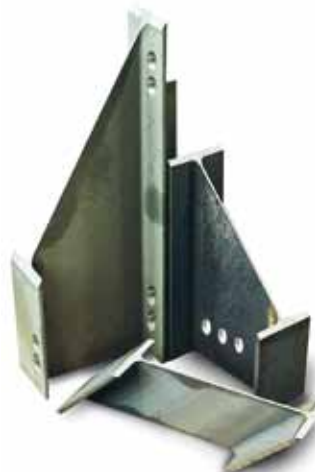
The advantages that this system offers are the following:

- Layout optimization and therefore space saving in the area
- Reduction of personell working on the system
- Reduction of the initial investment costs as the system has common elements between the two lines (CNC – rollerways – tables – service equipments)
- Reduction of handling
- Possibility to obtain very short final workpieces automatically, both drilled and cut

SPECIFICATIONS OF THE SAWING UNIT IN DEB and DFB MODELS

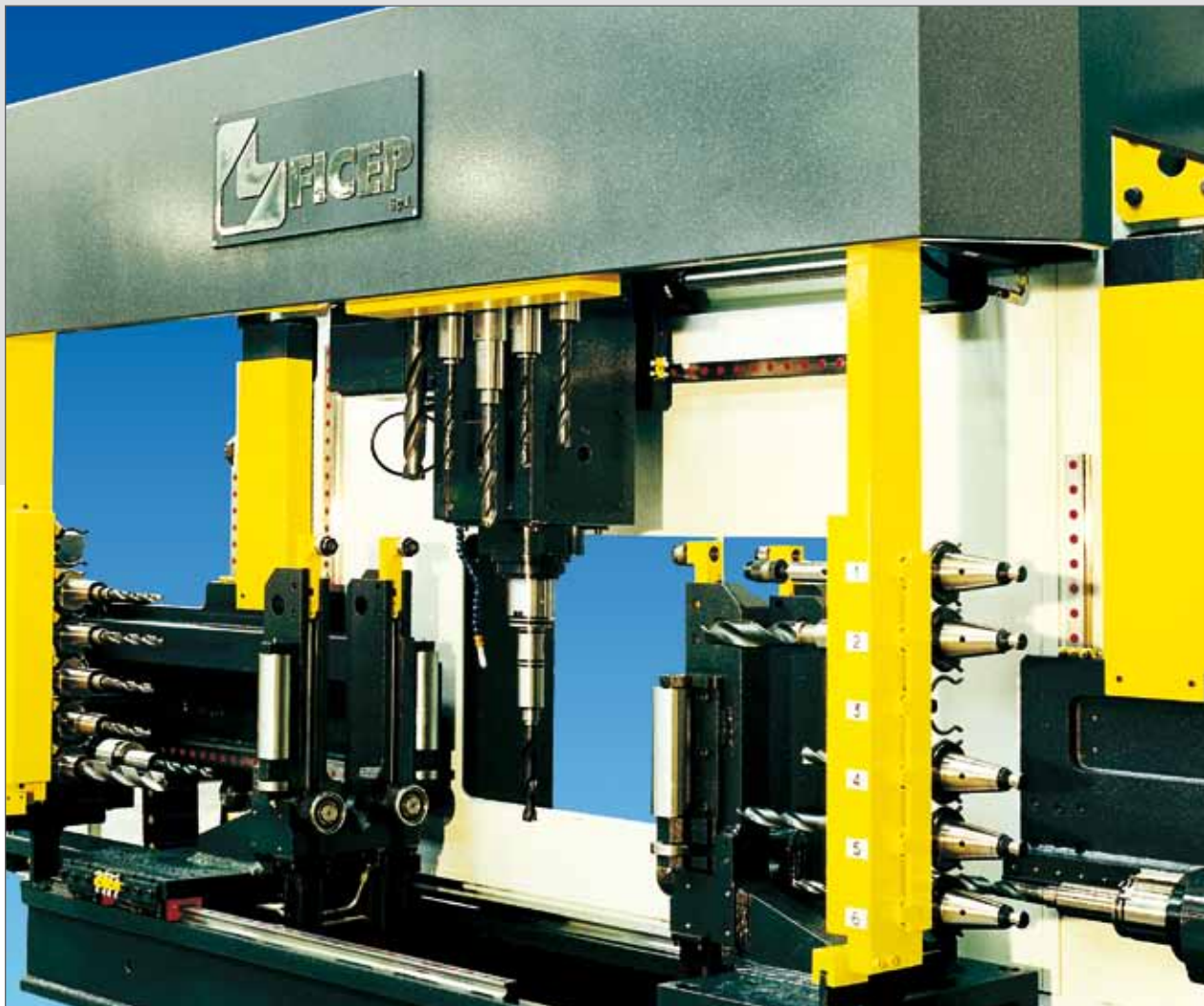
Sawing unit built with:

- Sturdy structure welded into a closed frame in order to minimise the vibration
- Prismatic sliding guides installed on the basic structure
- Blade guide system
- Blade lubrication and cooling system
- Brush for blade cleaning
- System to adjust cutting speed according to the section of the profile
- Swarf conveyor
- Automatic saw mitering at +45°/-45°
- Automatic control of the vertical blade stroke



1003 DEB - EXCALIBUR 10
drilling line combined
with sawing unit

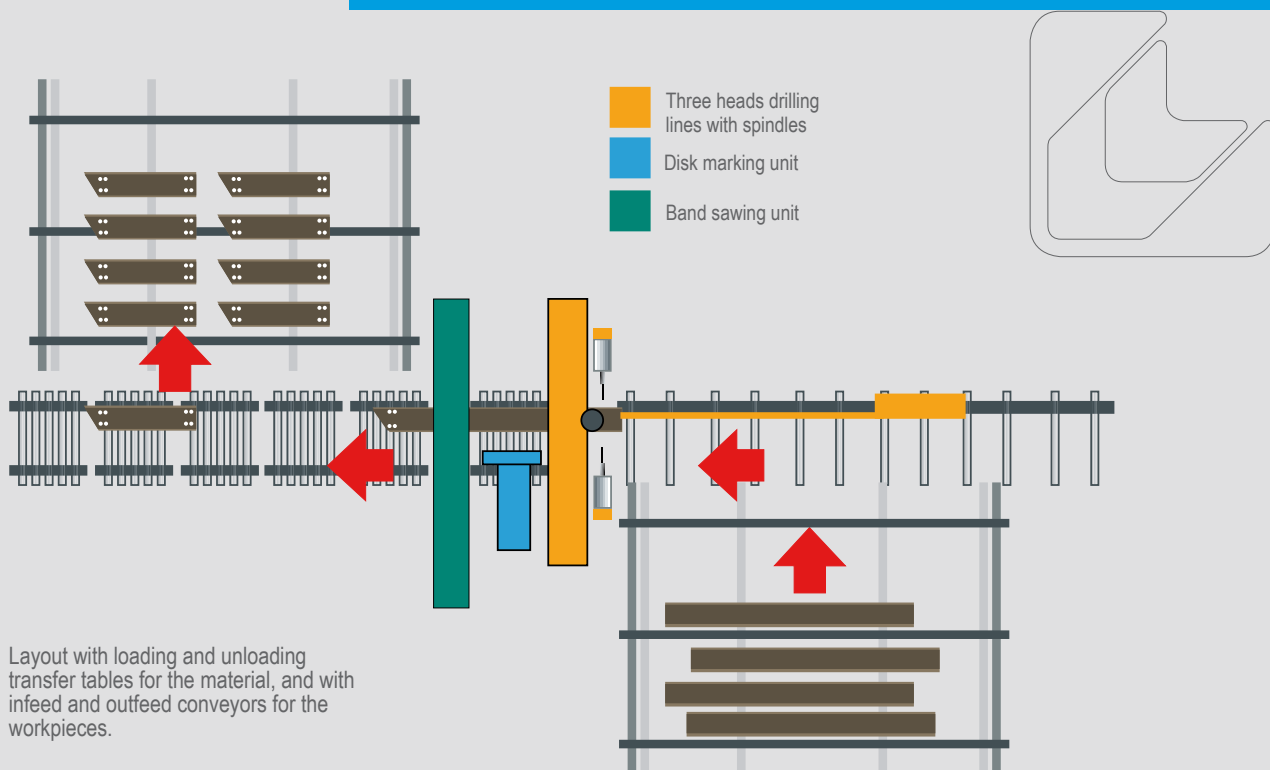




1103 DE - EXCALIBUR 11
with tool-change system



Disk marking unit



For DE-DEB and DF-DFB series:

- Infeed / Outfeed conveyor for 16 mt or 20 mt long profiles
- Loading / Unloading transfer tables with catches or carts for 12 mt or 16 mt or 20 mt long profiles
- Marking unit mod. MKT 36 N with 36 positions which is able to mark (one bar at a time) the lower flange of I beams, the flange of Channels and the vertical flange of angles. The marking unit is equipped with characters holder disk, whose rotation is controlled by CNC. The marking cycle is automatically selected by the CNC and uses the X axis of the line in the longitudinal direction.

- Only for DF-DFB series, independent tool-change device with 6 positions (one device for each drill head). The selection and the change of the tool is automatically controlled by CNC. ISO 45 connection with Morse Taper 4.

Also available for the DEB and DFB series:

- Automatic saw mitering at $+45^{\circ}/-60^{\circ}$.
- Internal/external cooling system for drills automatically selected by CNC.



HARDWARE and SOFTWARE

The new generation control unit, with 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

Processing

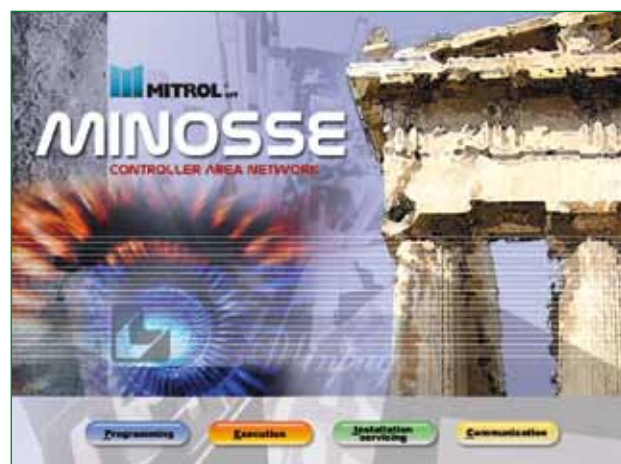
- Automatic tool assignment
- Unit offset sum
- Values ordering

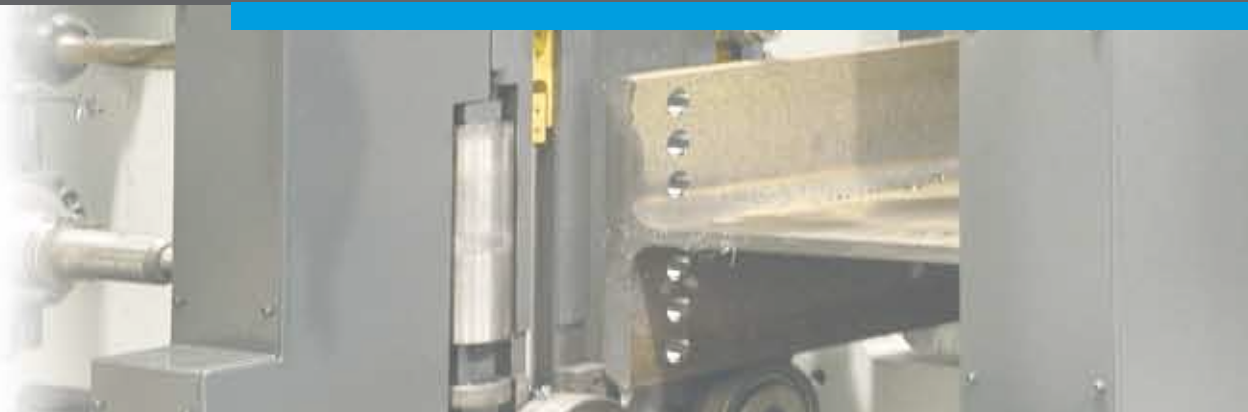
Execution

- Automatic cycle stop for “setup” modification, and on-screen indication of the tools to be changed
- Automatic control to prevent any possible collision of the drills
- 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





MAIN TECHNICAL SPECIFICATIONS			
modello		603 DE - EXCALIBUR 6	1203 DF - VANGUARD 12
web height min	mm	60	80
web height max	mm	610	1220
flange width min	mm	30	42
flange width max	mm	310	510
drill heads	no.	3	3
spindles per head	no.	1	1
tools per spindle	no.	1 (4)	1 (6)
spindle power	kW	7,5	15
maximun diameter	mm	40	40
axes CNC controlled	no.	7	7

MODEL	Web Height Min./Max.	Flange Width Min./Max.	Drill Heads	Spindle Power	Band Saw Motor	CNC Axes
	mm	mm	no.	kW	kW	no.
603 DEB Excalibur 6	60/610	30/310	3	7,5	4	7+2
1003 DEB Excalibur 10	80/1015	42/450	3	7,5	5,5	7+2
1103 DEB Excalibur 11	80/1100	42/450	3	7,5	11	7+2
601 DFB Orient 6	60/610	30/310	1	7,5	4	3+2
1001 DFB Orient 10	80/1015	42/450	1	15	5,5	3+2
1101 DFB Orient 11	80/1100	42/510	1	15	11	3+2
1201 DFB Orient 12	80/1220	42/510	1	15	11	3+2
2001 DFB Orient 20	200/2000	60/510	1	15	11	3+2
603 DFB Vanguard 6	60/610	30/310	3	7,5	4	7+2
1003 DFB Vanguard 10	80/1015	42/450	3	15	5,5	7+2
1103 DFB Vanguard 11	80/1100	42/510	3	15	11	7+2
1203 DFB Vanguard 12	80/1220	42/510	3	15	11	7+2
2003 DJB Enterprise 20	200/2000	100/600	3	19	11	7+2



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