

morbidelli ux100/ux200

CNC machining centre for flexible boring, routing and hardware insertion



morbidelli ux

the professional drilling

Working centre realized to satisfy all the operations of **boring, routing, cutting and hardware insertion**, the only one in which the high efficiency of a through-feed boring machine joined to the maximum flexibility of a working centre lead to the maximum performance. Uniflex is equipped with upper and lower units **to allow simultaneously working on the opposite faces**. Thanks to the highest versatility and to the different displacement systems of the pieces with automatic loading-unloading devices **Morbidelli UX** can work integrated in line or as stand-alone machine.

- **Eliminates machine set-up times**, thanks to the displacement of the 2 independent clamps;
- **Excellent drilling capacity on the 6 faces of the panel**, with opposed machining heads (LOWER and UPPER);
- **Simple and practical to use**, dedicated and powerful software for increased optimisation of the machining phases. The highest levels of productivity achieved with the minimum number of spindle down strokes.

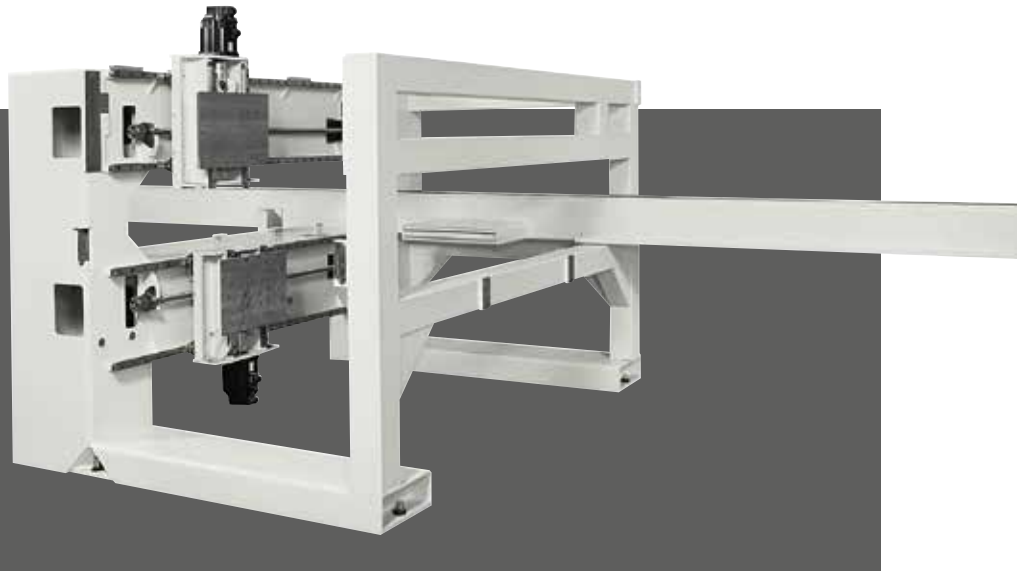




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Simple, practical

Arc-welded O-frame closed structure guarantees maximum rigidity of the machining heads in order to achieve the best quality finish of the workpiece.



The panel hold-down grippers with X independent movement allow drilling and routing operations also in positions inside the gripper area thanks to new geometry, optimizing the re-clamping of the workpiece, reducing the cycle times and allowing to process on all 6 faces of the panel.

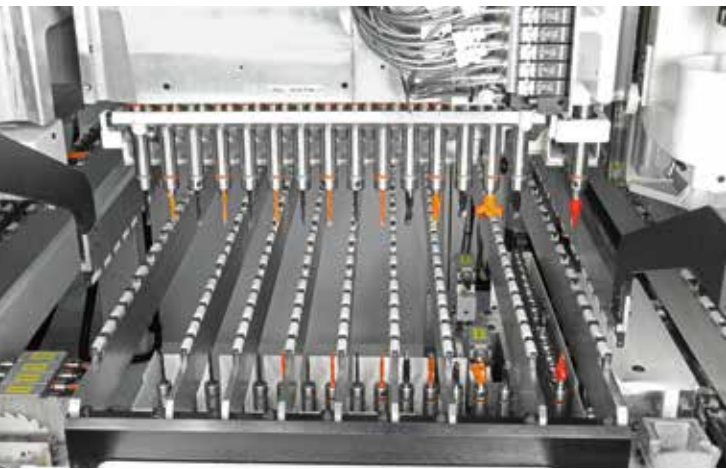


The work table is designed to perform all machining operations in the spaces between the supports. It is made of special rollers in a scratch resistant material, it guarantees the careful movements of the panels to ensure that the panel surfaces are not scratched. Rigid pressers at the infeed and outfeed to the work area, guarantee the positioning of the workpiece during the machining phase.

The two guides and the Brushless motors combined with the rack and pinion kinematic mechanism, offer rigid movement and precise positioning (± 0.005) with positioning speeds up to 120 met/min.



and the one and only

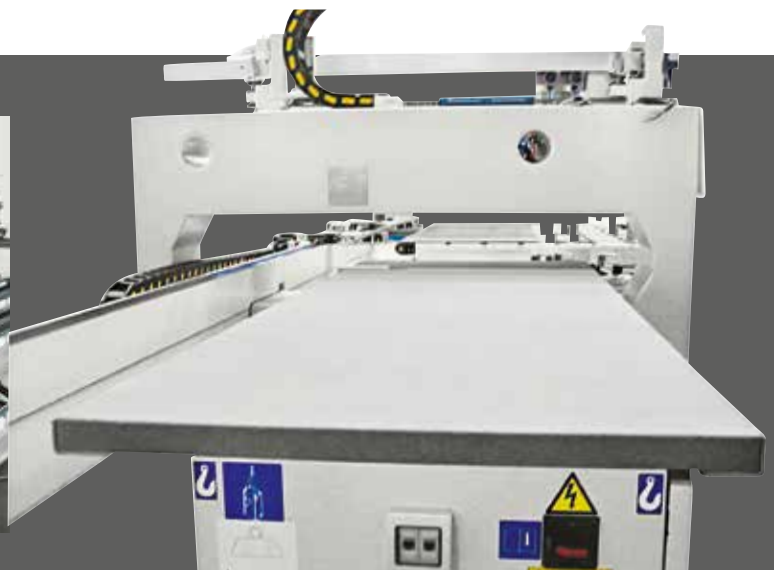


Latest generation boring heads with RO.AX technology (Rotoaxial spindle technology): up to 136 independent spindles.

Zero Backlash with the new RO.AX technology (Rotoaxial spindle technology) that ensures perfect boring. The most efficient spindle on the market.



The 3 pneumatic pressure devices equipped with support rollers guarantee the perfect reference of the panel on the work table next to the area of X and Y horizontal boring, assuring the accuracy of Z quote.

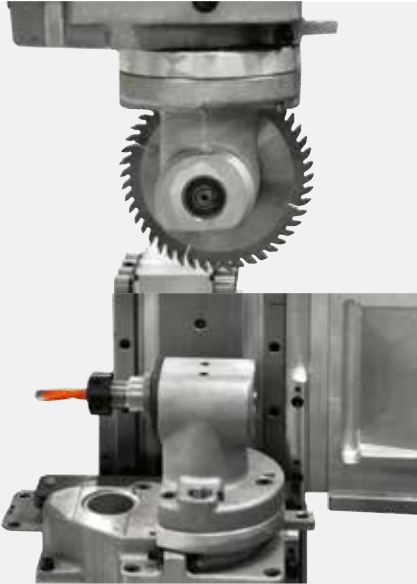


Highest versatility according to the customer's requirements, with various types of loading and unloading systems available for the Morbidelli UX, when used as a stand-alone machine or inserted in production cells:

- FLOTEX table for manual loading;
- longitudinal and transversal roller conveyors for automatic loading and unloading;
- automatic loading and unloading devices (cells).

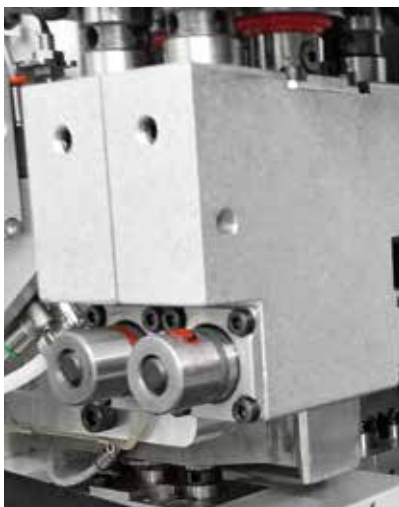
morbidelli ux

Maximum productivity and high customisation



MACHINING HEADS FOR ANY PRODUCTION REQUIREMENT

- Integrated saw blade unit fixed in the X direction with tool \varnothing 120mm;
- Automatic saw blade unit 0/90° with tool \varnothing 160mm, also suitable to fit 1 bit;
- 6,6kW electro-spindle (S1) with HSK 63 tool holder;
- Integrated drilling unit for hinges



It is possible to install:

- 2 additional spindles with 32mm step side clamps
- Dowels inserting units. The supply of the dowels is driven by a vibrator feeder and it includes the high pressure vinyl glue feeding unit.

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Create your morbidelli ux to meet your needs

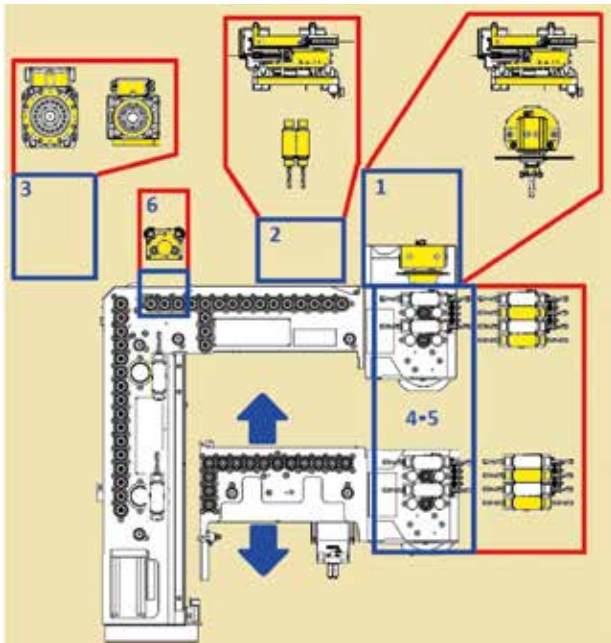
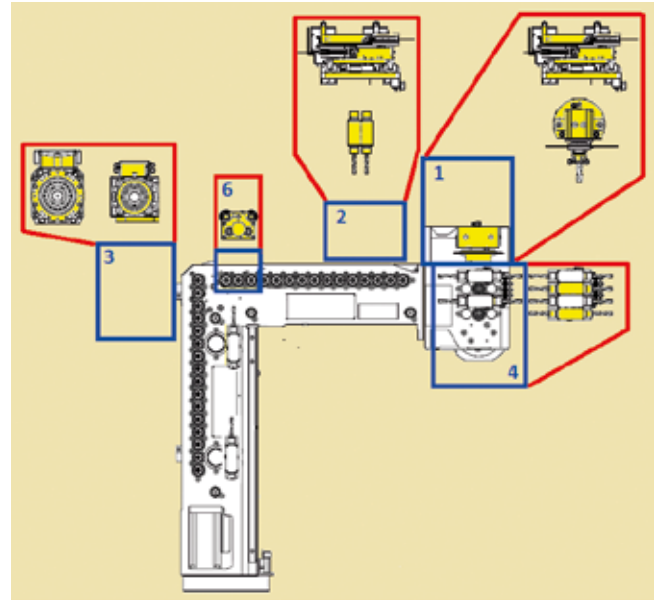
Morbidelli ux100

Essential and complete equipment on two symmetrical heads to cover all requirements:

- up to 3+31 independent vertical spindles;
- up to 10+10 independent horizontal spindles;
- 1+1 Fixed saw blade unit

Optional for a complete machining on 6 faces

- 1+1 automatic saw blade unit $0/90^\circ$ and horizontal boring (side clamp)
- 1+1 Electrospindle of 4,4 kW ISO30 or 7,5 kW HSK63F
- 1+1 dowels inserting on the upper head
- 2 horizontal spindles side clamps on the upper head



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The maximum boring power on two symmetrical heads with mobile drilling row for fitting and horizontal holes:

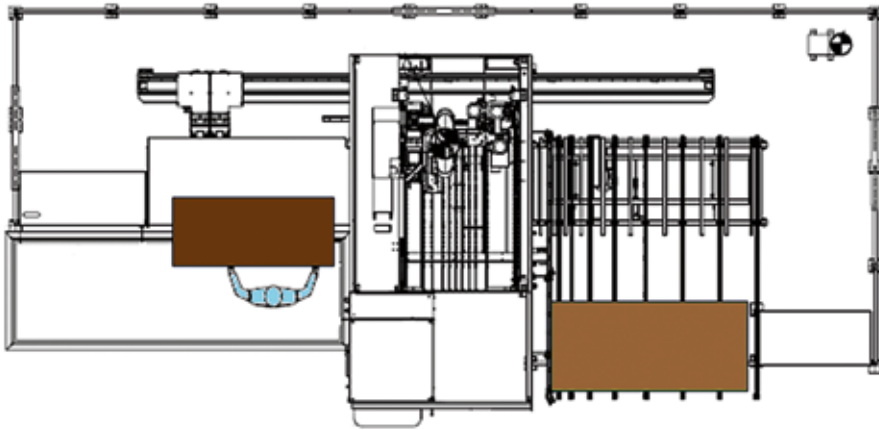
- up to 48+48 independent vertical spindles: 14 on mobile unit with adjustable centre to centre distance: min 192mm; max 512mm
- 8+8 independent horizontal unit along X direction with adjustable centre to centre distance
- 2+2 independent horizontal spindles along Y direction (lengthwise)
- 1+1 Fixed saw blade unit

Optional for a complete machining on 6 faces

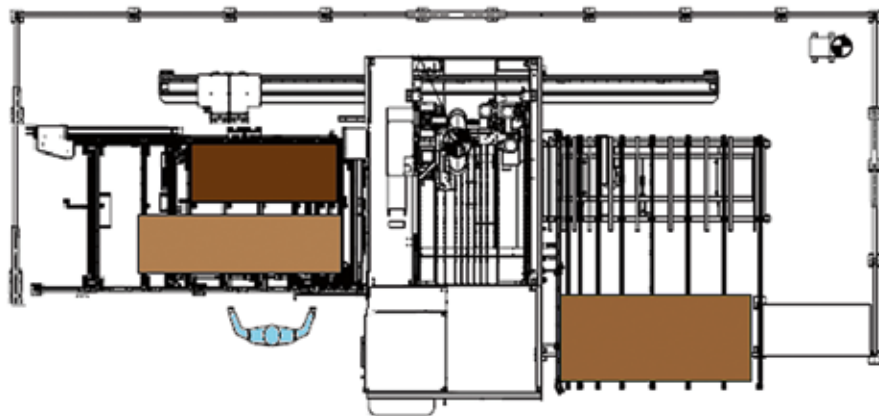
- 8+8 additional independent horizontal unit with adjustable centre to centre distance:
- 1+1 automatic saw blade unit $0/90^\circ$ and horizontal boring (side clamp)
- 1+1 electro-spindle of 4,4 kW ISO30 or 7,5 kW HSK63F
- 1+1 dowels inserting on the upper head
- 2 horizontal spindles side clamps on the upper head
- 1+1 Integrated heads for hinges instead of 3+3 vertical spindles

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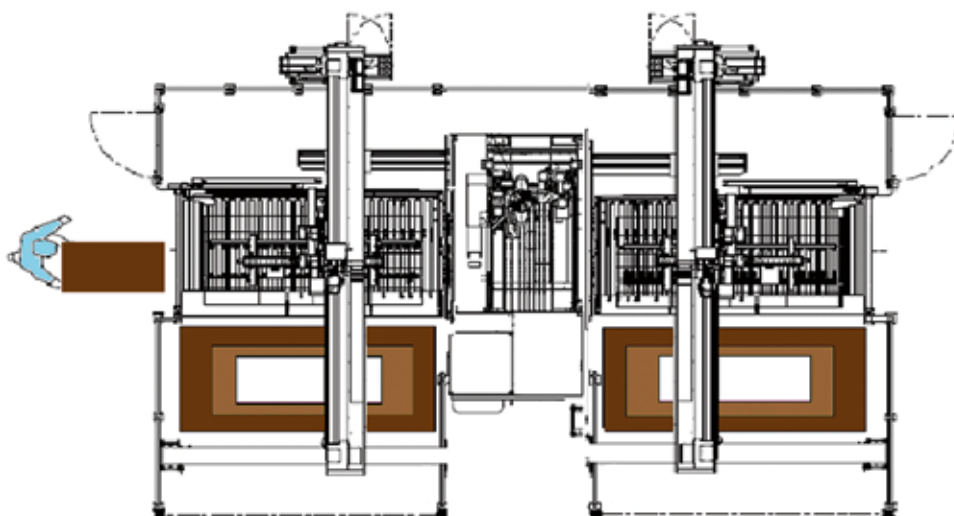
Example of integrated cell:



Manual loading and unloading devices



Manual loading at double station and manual unloading



Cell

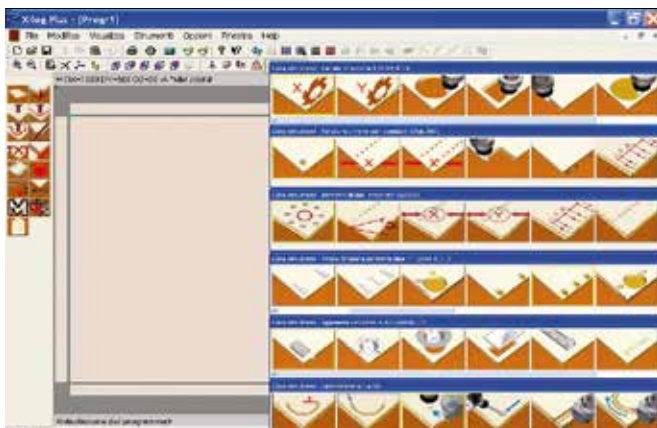
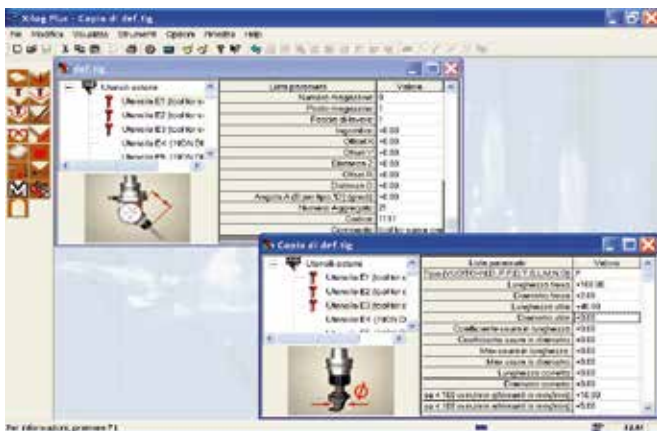
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powerful and easy to use

POWERFUL 'NEW-CONCEPT' NUMERICAL CONTROL, FOR DRILLING-ROUTING MACHINING CENTRES WITH PERSONAL COMPUTER INTERFACE.

PC Office: very familiar and easy to use by the operator for all the machine's operations, with the latest hardware specifications.

The Windows environment forms the basis of the Morbidelli software. Simple and effective, it has been designed by taking the exact requirements of the end-users, whether expert operators or users new to machining centres, through graphic help prompts and specific MACRO.



MAIN SOFTWARE FEATURES

- fixturing management with tool display and graphic support to avoid the possibility of entering incorrect data;
- files in DXF format imported immediately and directly;
- dynamic optimized drilling;
- graphic and syntactic help to speed up the data entry operations;
- parametric programming, to automatically update the program when the dimensions of the workpiece being machined are altered, to avoid writing a new program;
- self-diagnosis and warning of any errors or possible failures through alarm messages in the user language, with an online manual to quickly understand and resolve any issues;
- graphic help for the work support positioning to avoid collisions with the tools in the case of through drilling and/or routing as well as to eliminate the empirical tests directly on the machine;
- program execution with barcodes.

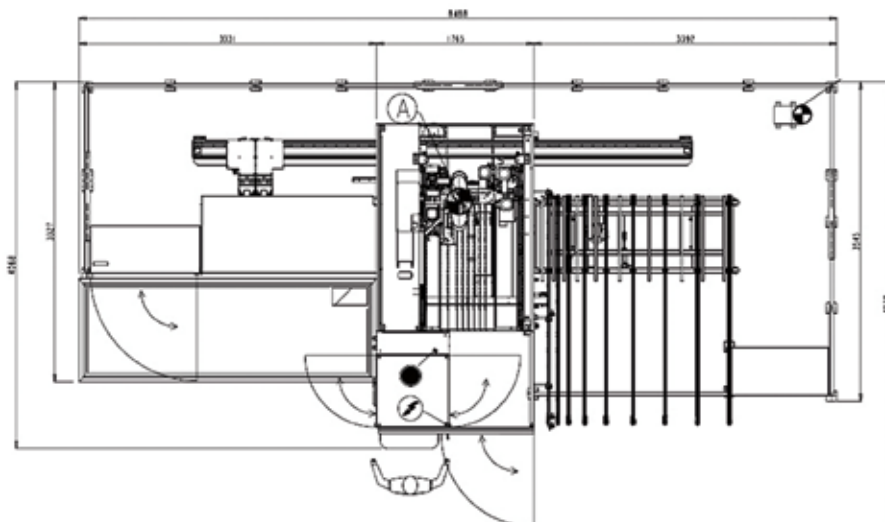
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Technical Specifications

MORBIDELLI UX		Technical Specifications	
PANEL DIMENSIONS			
Min. / Max. length panel	mm	250 / 3000	
Min. / Max. length panel without panel recovering	mm	250 / 1700	
Min. / Max. width panel	mm	70 (120)* / 1300	
THICKNESS			
Min. / Max. Single panel thickness	mm	10 / 80	
Min. / Max. overlapping panel thickness	mm	5(x2) / 35(x2)	
MAX WEIGHT PANEL	Kg	100	
WORKING TABLE HEIGHT	mm	950	
Z STROKE			
Z stroke upper boring head	mm	145	
Z stroke lower boring head	mm	90	
PROGRAMMING SPEED			
Clamps programming speed	m/min	120	
Head programming speed in Y direction	m/min	35	
Head programming speed in Z direction	m/min	30	
COMPRESSED AIR INTAKE	Bar	6,5	
CONSUMPTION AND DIAMETERS			
Medium compressed air consumption	Nl/min	500	
Max instant compressed air consumption	Nl/min	800	
Dust extraction hood diameter – upper head	mm	300	
Section air consumption upper head	mc/h	6300	
Dust extraction hood diameter – lower head	mm	200	
Section air consumption lower head	mc/h	2800	
SECTION SPEED	m/s	25	
VACUUM	Pa	2500	

* 70 mm with manual loading station 120 with automatic loading station

MORBIDELLI UX layout



THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND

Over 65 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

65 years history

3 main production sites in Italy

300.000 square metres of production space

17.000 machines manufactured per year

90% export

20 foreign branches

350 agents and dealers

500 support technicians

500 registered patents

In SCM's DNA also strength and solidity of a great Group. The SCM Group is a world leader, manufacturing industrial equipment and components for machining the widest range of materials.

SCM GROUP, A HIGHLY SKILLED TEAM EXPERT IN INDUSTRIAL MACHINES AND COMPONENTS

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.



WOODWORKING TECHNOLOGIES



TECHNOLOGIES FOR PROCESSING COMPOSITE MATERIALS, ALUMINIUM, PLASTIC, GLASS, STONE, METAL

INDUSTRIAL COMPONENTS

Technological components for the Group's machines and systems, for those of third-parties and the machinery industry.

HITECO

SPINDLES AND TECHNOLOGICAL COMPONENTS

Les

ELECTRIC PANELS

steelmec

METALWORK

scmfonderie

CAST IRON



The technical data can vary according to the requested machine composition. In this catalogue, machines are shown with options. The company reserves the right to modify technical specifications without prior notice; the modifications do not influence the safety foreseen by the CE Norms.



is more



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