

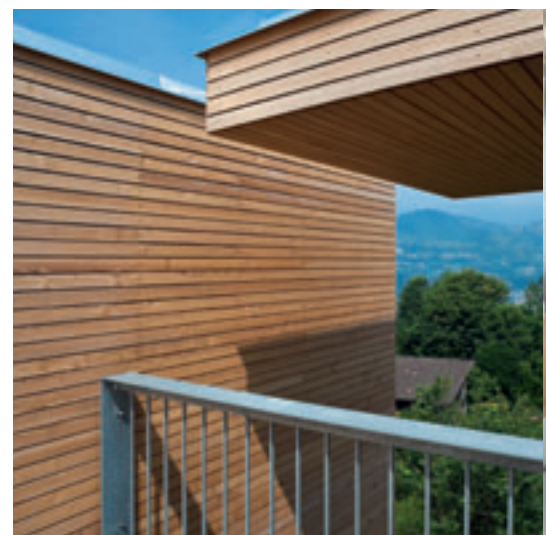
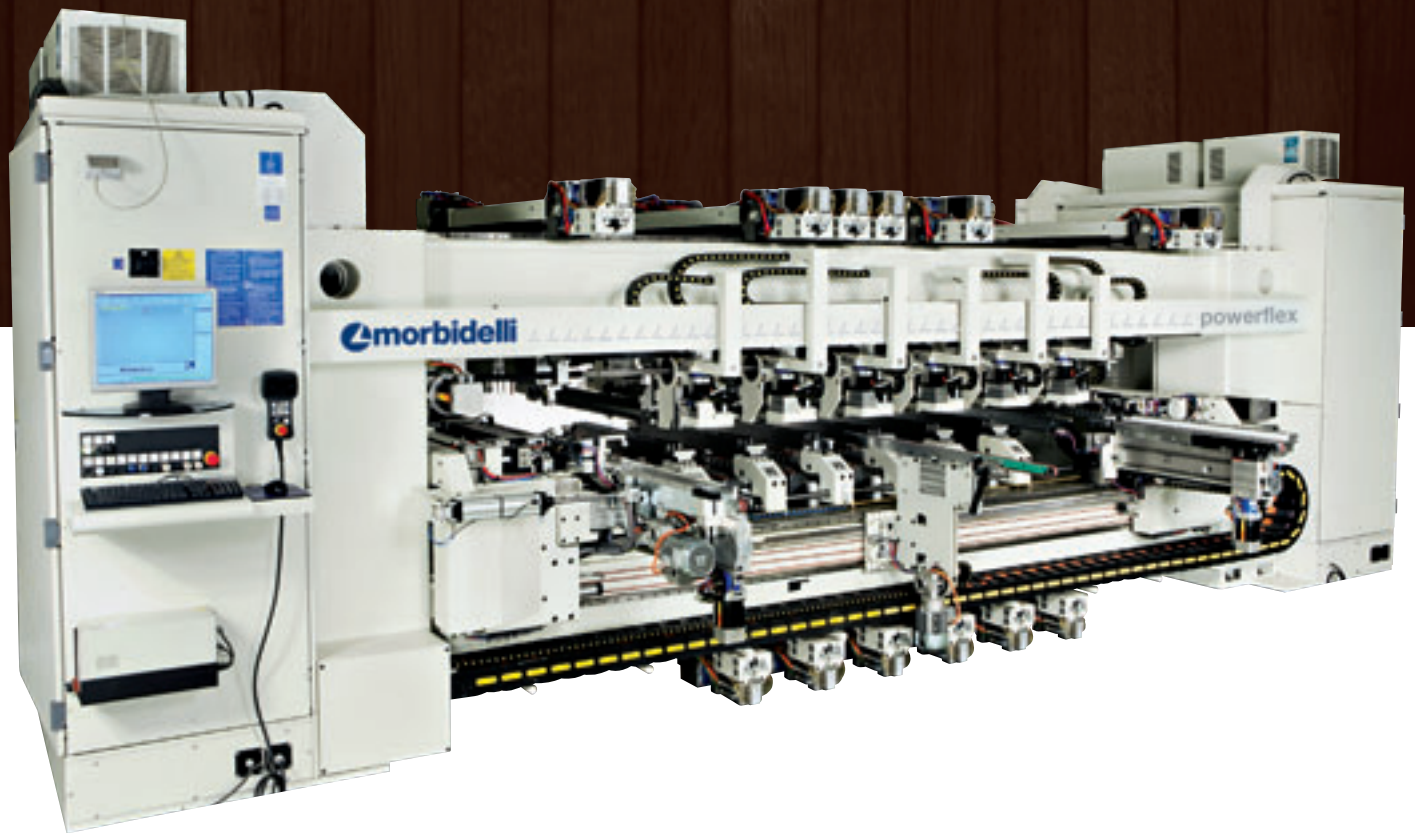
DRILLING MACHINING CENTRES

Increased productivity and flexibility



powerflex

MAXIMUM PRODUCTIVITY AND FLEXIBILITY
WITHOUT COMPROMISE





High drilling capacity



Optimised drilling cycles



Fast setup times



▶ Over 600 drilling tools can be independently selected to machine the 6 sides of a panel on a single machine.

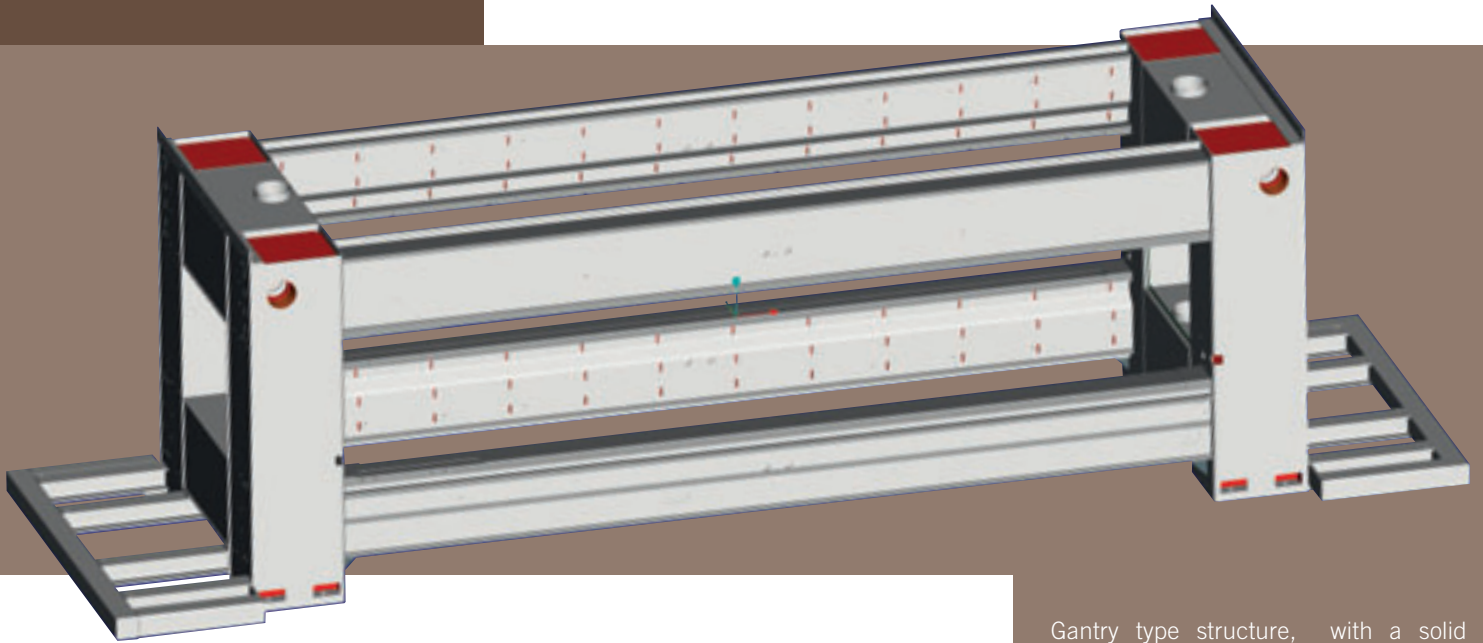
▶ Maximum optimisation of the tool position due to the automatic rotation of the drilling heads, independent from each other.

▶ Machine setup time from one program to the next less than 10". Over 80 axes controlled.



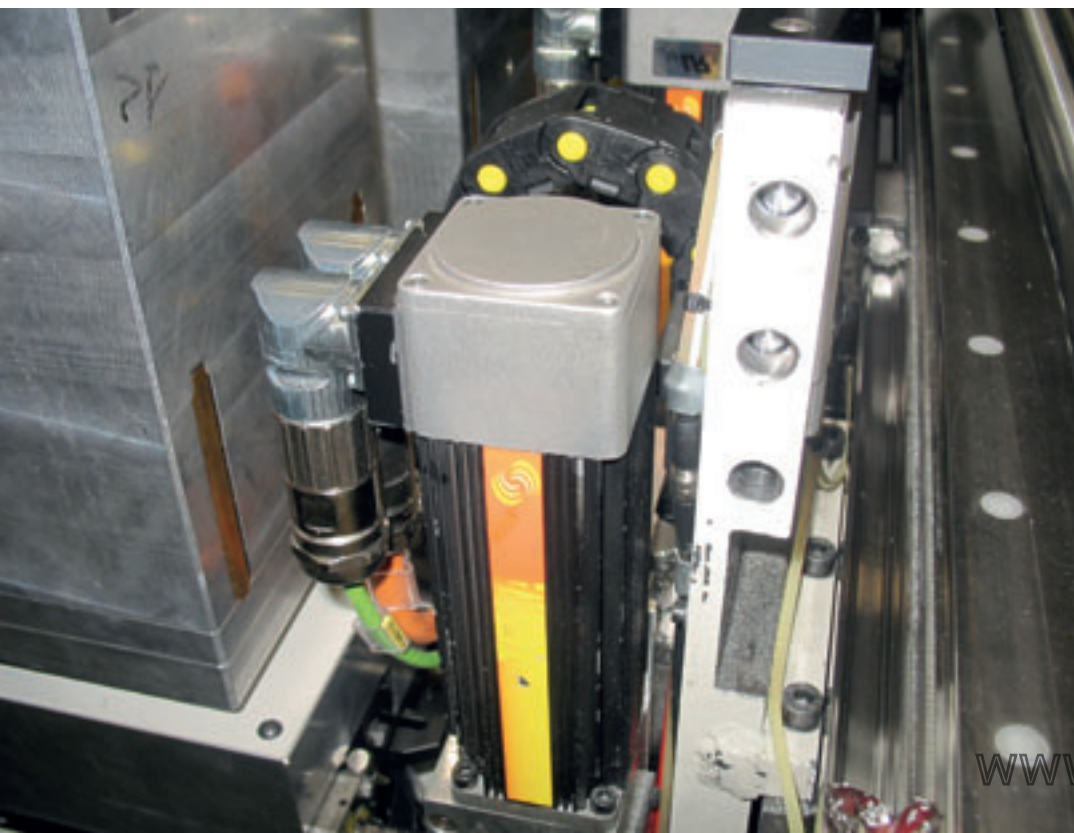
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STIFFNESS, PRECISION, REPEATABILITY



Gantry type structure, with a solid electro-welded steel frame with reinforced ribbing.

This guarantees a complete lack of vibrations and buckling even in situations with great dynamic stresses, such as the simultaneous positioning of all the machining heads that can reach movement speeds of 90 mt/min.



All the machining heads slide in the three directions X, Y and Z driven by Brushless motors and rack and pinion systems for the X axis and with recirculating ball screws for Y and Z



The maximum machine configuration features 624 drilling heads with independent selection to machine the 6 sides of a panel on a single machine. Every high section drilling spindle (Morbidelli patent) that guarantees maximum rigidity in all working conditions, is fitted with ON-OFF electronic sensors to maximise the speed of the drilling cycle and guarantee the safety of the machine. Drilling thrust greater than 55 Kg for every spindle to machine at high speed even with the most resistant materials.

Multitude of configuration choices for every type of requirement and level of investment: up to 6 upper units and 6 lower units with two drilling heads each, for a maximum of 24 drilling heads.



Complete in all its operations: possibility of inserting a specific unit for hinges on every lower machining head and on every upper head a specific unit for the horizontal drilling in Y (longitudinal).



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MAXIMUM PRODUCTIVITY EVEN WITH BATCH 1

Maximum level of electronic automation and the use of state of the art technology to achieve extremely fast machine setup times (less than 10 seconds) guaranteeing maximum positioning precision of the axes ($\pm 0.03\text{mm}$) with a recovery of any mechanical play.

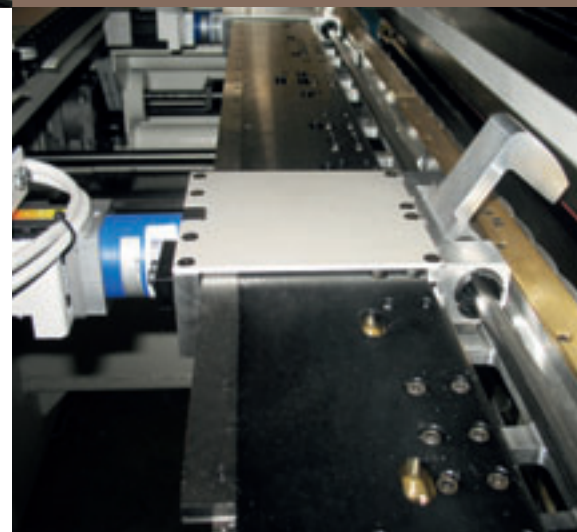


UNLIMITED DRILLING

Movement of the work tables separated from the lower units that allows drilling in every part of the panel, even close to the edge.

PRECISION AND SPEED

Automatic mechanical stops seated in the side aligners that guarantee the perfect zero grip of every panel.



Work tables with independent movement and positioning in relation to the lower drilling units: the best optimisation of the machine work configuration allows the user to move the drilling units during machining without restrictions and risks to the panel surface coating



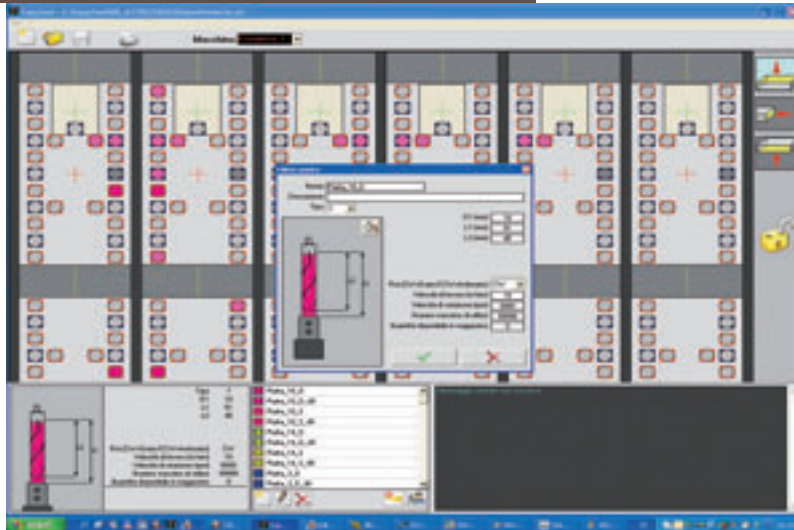
The most flexible solution which can be applied in the creation of your workpieces: the automatic and independent rotation of every drilling head, also within the single machining program, ensures utmost efficiency also with complex drilling patterns.



Independent movement pressers and workpiece hold-down with CN: in any situation the maximum panel hold-down speed married with guaranteed clamping during machining without compromising the surface of the workpiece



HIGH-PERFORMANCE SOFTWARE OF A NEW GENERATION

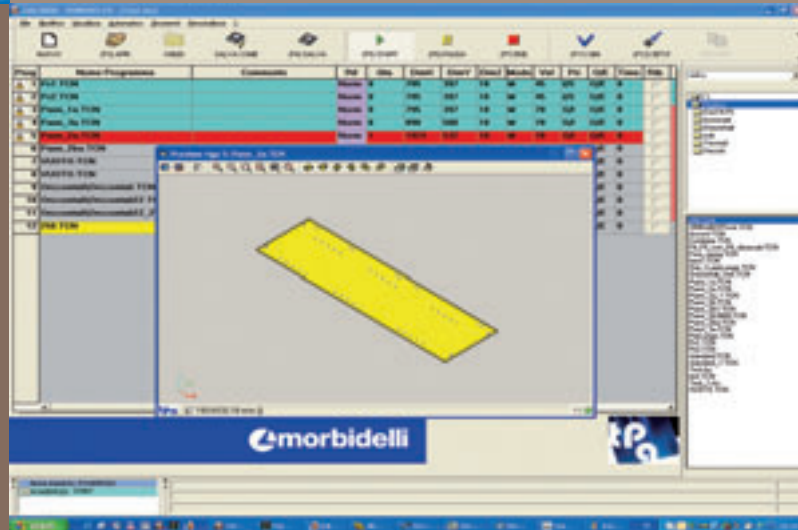


The complete machine management is supervised and guaranteed by a new generation powerful software.

The package includes:

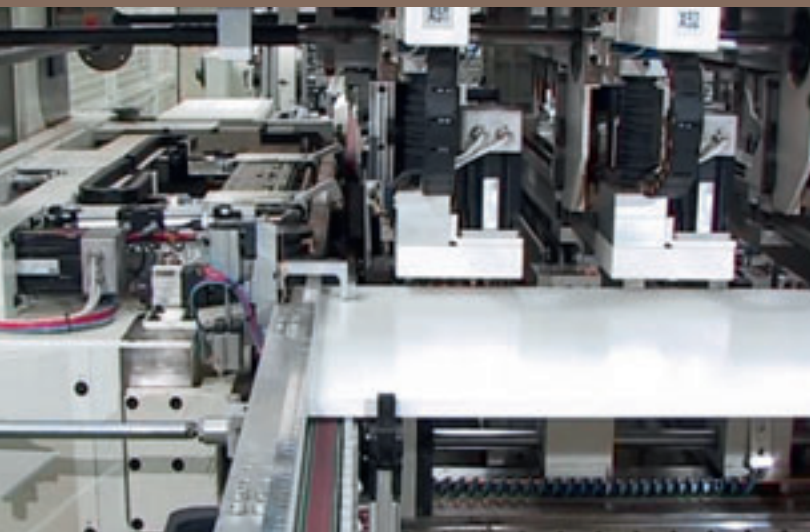
- CAD drawing functions
- operation and machining execution simulator (Powerflex Show)
- tool wear database for the best finish quality in every production phase
- fixturing optimisation function for an improved machine productivity.

The software processes the best optimisation of the drilling downstrokes for the highest machine productivity reducing to minimum the movement of the axes and the units.



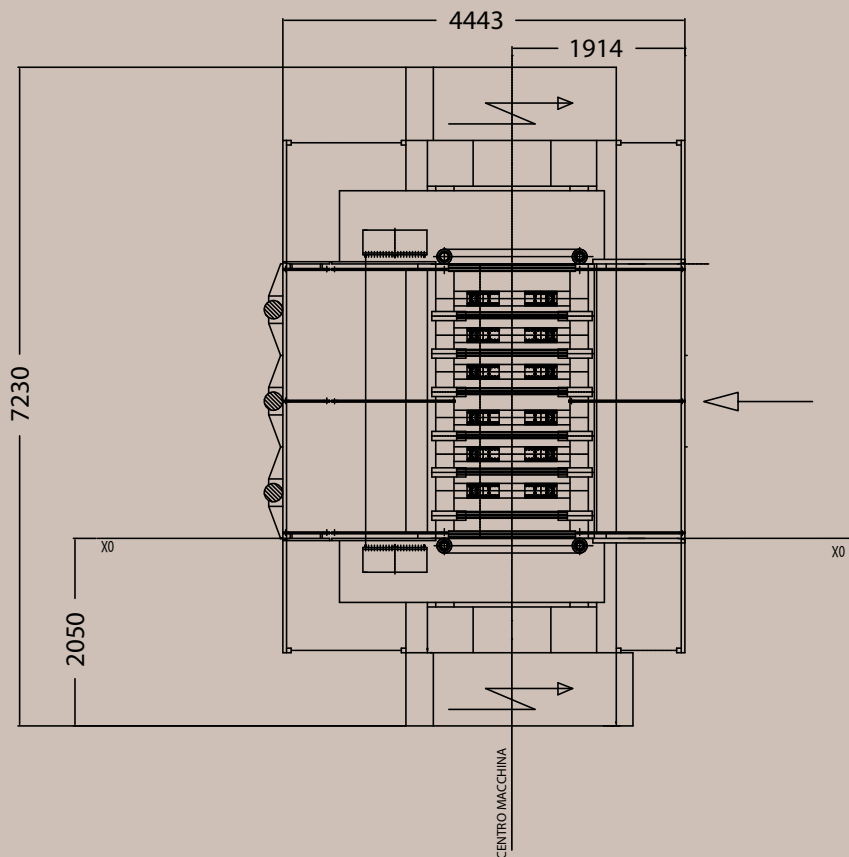
SIMPLICITY AND PRECISION

Instant measurement at the machine infeed of the dimensions of each workpiece (X-Y-Z): The data updates the program variables edited in a parametric way for a simpler programming phase and, most importantly, absolute precision in machining.



TECHNICAL SPECIFICATIONS

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Axis X	mm	250 - 3000
Axis Y	mm	100 - 920
Panel passage	mm	12 - 60
X-axis stroke	mm	3050
Y-axis stroke	mm	224
Z-axis stroke (Lower unit)	mm	80
Z-axis stroke (Upper unit)	mm	145
Vertical Drilling Unit Power	kW	2,2
Horizontal Drilling Unit Power	kW	1,5
Drilling spindles rotation speed (with inverter)	m/min	4000 - 6000
UPP/ LOW drilling units positioning speed X-axis	m/min	67
UPP/ LOW drilling units positioning speed Y-axis	m/min	30
Drilling units speed in Z-axis	m/min	19
UPP/LOW drilling heads automatic rotation		0 - 90°



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