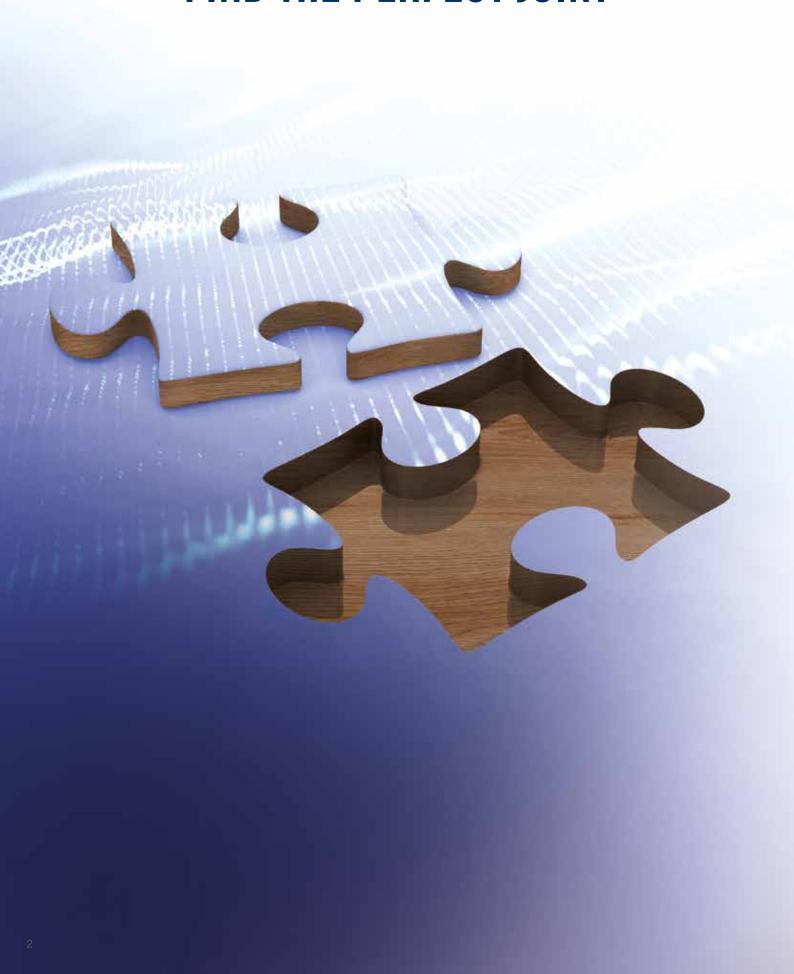
balestrini pico and fox range





FIND THE PERFECT JOINT





balestrini pico md



balestrini pico tn



balestrini pico ff



balestrini fox md



balestrini pico fj





balestrini pico om

WITH THE NEW RANGE OF SCM TENONING-MORTISING **MACHINES**

FLEXIBILITY



Multifunctionality with small footprint: it's one of the technological goals underlying the project of the new balestrini pico range. The design of two-faced machine and the integrated electrical cabinet are the main innovative features that strongly reduce machine overall dimensions.

PRODUCTIVITY



Thanks to the *Infinity* work cycle that uses the interpolation of the two NC axes, on the new balestrini pico machines it is possible to execute pendulum machining without interruption, depending on the presence of the workpiece on the worktable.

Balestrini fox is equipped as standard with an **automatic workpiece hopper feeder:** the operator shall just fill the loading station with the raw pieces and it's done.

PROMPT DELIVERY



The reorganization of the supply chain on a "lean" approach base has made more efficient the supply system allowing to maximize machine reliability and to guarantee fast delivery times.

SAFETY

At SCM, safety always comes first. The machines are designed respecting the higher security requirements for European and non-European markets.

The **CE protection enclosure**, standard on all the machines, protects the operator from accidental ejection of workpieces and contact with mechanical parts in motion.

CLEANLINESS



The full enclosure of the machine ensures protection without reducing its ease-of-use, and keeps the outside environment clean. The side suction outlets on balestrini pico machines and those fitted to the operating units of balestrini fox, allow to convey shavings and dust towards the extraction system.

USER FRIENDLINESS



Machine control is easy and immediate thanks to the new Human-Machine Interface Maestro active joint, with an extremely simple and effective design, which allows to select numerous macros for different types of joint.

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Applications

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Technical data

THE BALESTRINI PICO AND FOX RANGE

MODEL	
BALESTRINI PICO TN	Ciscem Statement 10 To
BALESTRINI PICO MD	Coom
BALESTRINI PICO FF	C SCOTT
BALESTRINI PICO FJ	Coom
BALESTRINI PICO OM	Oscm
BALESTRINI FOX	Cescm
BALESTRINI FOX MD	C'scm

DECODIDEION	ADDITION
DESCRIPTION	APPLICATION
High productivity CNC Tenoning machine with double worktable, dedicated to the execution of straight or round end tenons: horizontal, vertical or with an inclination.	Elements of chairs and tables.
CNC Tenoning-mortising machine with double worktable, dedicated to the execution of "Miter Door" joints.	Frames and cabinet doors in solid wood or melamine-coated MDF.
CNC Tenoning-mortising two-faced machine, dedicated to the execution of "Miter Door" and "Face Frame" joints.	Frames, cabinet doors and shuttered doors in solid wood or melamine-coated MDF.
CNC Tenoning-mortising two-faced machine, dedicated to the execution of "Miter Door", "Face Frame" and "French Joint" joints.	Frames, cabinet doors and shuttered doors in solid wood or melamine-coated MDF.
CNC Tenoning-mortising two-faced machine, dedicated to the execution of tenoning, drilling and mortising operations.	Solid wood elements for tables and chairs, such as legs, crossbars and chair backs.
CNC Dual head tenoning machine for the simultaneous execution of round and straight tenons at the workpiece end, with different angles.	Elements of chairs, tables, sofas and beds.
CNC Dual head tenoning-mortising machine, dedicated to the execution of tenon-mortise joints at 45° Miter Door.	Cabinet doors with "Miter Door" joint.

TECHNOLOGICAL ADVANTAGES



The 2 cast iron worktables allow pendulum machining at the workpiece end with no interruption.

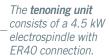


The worktables set-up is easy, thanks to the presence of adjustable handles. It is possible to adjust manually rotation of the workpiece support guide and tilting of each worktable. The workpiece length is defined by a rear reference stop.





The parking station, positioned between the two worktables, allows tool change and adjustment of the tenoning height.



To protect the operator from contact with mechanical parts in motion and from accidental ejection of workpieces, the machines are equipped as standard with a **CE-compliant** protection enclosure.





The 10" touchscreen PC Panel, integrated in the electrical cabinet, allows programming with macros.



The extraction system for shavings and dust consists of 3 outlets connected to the main system.

MACHINING FEATURES		
Workpiece cross-section	With straight cut min.	10 x 10 mm
Trainiproduction	With straight cut max.	200 x 60 mm
Worknisses langth	min.	100 mm
Workpiece length	max.	880 mm
	Tenon horizontal length max.	200 mm
Tenon dimensions	Thickness max.	30 mm
	Height	8 ÷ 50 mm
Tenon inclination		0° ÷ 90°
Productivity max.		720 tenons/hour

TECHNOLOGICAL ADVANTAGES

The **4.5** kW tenoning unit and the 2 kW mortising unit allow to realize tenons and mortises with a reduced number of passes. Tenoning and mortising depth are regulated in the parking station.



Each worktable is equipped with a workpiece reference guide with two positions 0° and 45°, a vertical pneumatic clamping cylinder with presence sensor and a clamping cylinder for side locking.





The particular path of the operating units, which exploits interpolation of the two NC axes, allows to realize frames and cabinet doors in solid wood or melamine coated MDF, avoiding any workpiece chipping.



TECHNOLOGICAL ADVANTAGES



The front worktables are each equipped with a workpiece reference guide with two positions 0° and 45°, a vertical pneumatic clamping cylinder with presence sensor and a clamping cylinder for side locking.





Manual and a second a second and a second an	With 45° cut	102 x 26 mm
Workpiece cross-section max.	With O° cut	150 x 26 mm
Workpiece cross-section min.		38 x 18 mm
Marknings langth	min.	100 mm
Workpiece length	max.	Not applicable
	Length max.	150 mm
Tenon dimensions	Thickness max.	12,7 mm (1/2")
	Height	8 ÷ 26 mm
	Hole diameter max.	26 mm
Hole or mortise dimensions	Mortise length max.	150 mm
	Mortise thickness max.	26 mm
	Hole or mortise depth max.	12,7 mm (1/2")
"Miter Door" work cycle time		18s (50 frames for cabinet doors/hou



MACHINING FEATURES FOR REAR WORKTABLE		
Worpiece cross-section	min.	38 x 18 mm
Worpiece cross-section	max.	150 X 50 mm
	min. with 2 clamping cylinders	220 mm
Loadable workpiece length	max.	1250 mm (STD) 1370 mm (OPT)
Machinable workpiece length	min. with 2 clamping cylinders	220 mm
	max.	1100 mm
	Hole diameter max.	32 mm
Hole or mortise dimensions	Mortise length max.	960 mm
	Mortise thickness max.	32 mm
	Hole or mortise depth max.	50 mm

TECHNOLOGICAL ADVANTAGES

The **4.5** kW tenoning unit and the 2 kW double-ended mortising unit allow to produce tenons and mortises with a reduced number of passes. Tenoning and mortising depth are regulated in the parking station.

The 21.5" touchscreen eye-m console allows to use the new HMI Maestro active joint and, thanks to the installation on mobile support, it follows the operator to the two work stations.



The front worktables are each equipped with a workpiece reference guide with two positions 0° and 45°, a vertical pneumatic clamping cylinder with presence sensor and a clamping cylinder for side locking.



The extraction system for shavings and dust consists of 7 outlets connected to the main system.



integrated in the machine structure, a solution that allows to obtain an extremely small footprint.

MACHINING FEATURES FOR	FRONT WORKTABLES	
Wasteria	With 45° cut	102 x 26 mm
Workpiece cross-section max.	With 0° cut	150 x 26 mm
Workpiece cross-section min.		38 x 18 mm
Warknings langth	min.	100 mm
Workpiece length	max.	Not applicable
	Length max.	150 mm
Tenon dimensions	Thickness max.	12,7 mm (1/2")
	Height	8 ÷ 26 mm
	Hole diameter max.	26 mm
Hole or mortise dimensions	Mortise length max.	150 mm
	Mortise thickness max.	26 mm
	Hole or mortise depth max.	12,7 mm (1/2")
"Miter Door" work cycle time		18s (50 frames for cabinet doors/hour)

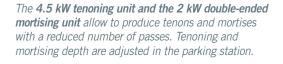


MACHINING FEATURES FOR REAR WORKTABLE		
Worpiece cross-section	min.	38 x 18 mm
Moi hiere cioss-section	max.	150 x 50 mm
	min. with 2 clamping cylinders	220 mm
Loadable workpiece length	max.	1250 mm (STD) 1370 mm (OPT)
Machinable workpiece length for "Face Frame"	min. with 2 clamping cylinders	220 mm
	max.	1100 mm
Machinable workpiece length	min. with 2 clamping cylinders	220 mm
for "French Joint"	max.	760 mm
Hole or mortise dimensions	Hole diameter max.	32 mm
	Mortise length max.	960 mm
	Mortise thickness max.	32 mm
	Hole or mortise depth max.	50 mm

TECHNOLOGICAL ADVANTAGES



The worktables set-up is easy, thanks to the presence of adjustable handles. It is possible to adjust manually rotation of the workpiece support guide and tilting of each worktable. The workpiece length is defined by a rear reference stop.





The extraction system for

The extraction system for shavings and dust consists of 6 outlets connected to the main system.

MACHINING FEATURES FOR I	RONT WORKTABLES	
Workpiece cross-section max.	With straight cut min.	10 x 10 mm
Workpreed cross section max.	With straight cut max.	200 x 60 mm
Warkninga langth	min.	100 mm
Workpiece length	max.	880 mm
	Tenon horizontal length max.	200 mm
Tenon dimensions	Thickness max.	30 mm
	Height	8 ÷ 50 mm
Tenon inclination		0° ÷ 90°
Productivity max.		720 tenons/hour
	Hole diameter max.	32 mm
Hole or mortise dimensions	Mortise length max.	140 mm
	Mortise thickness max.	32 mm
	Hole or mortise depth max.	30 mm for pieces to be cut off 50 mm for cut off pieces



Maestro active joint, the Human-Machine Interface with an extremely simple and effective design, allows to select numerous macros for tenons, holes and mortises programming. The exclusive CAD/CAM system Smart pro lite makes balestrini pico om a machining centre for all purposes.



Top and longitudinal machining operations are carried out on different work stations but on the same machine, thus expanding the applications and reducing overall dimensions.





Jig Free Compact workpiece locking devices allow locking of curved workpieces on a single worktable. The workpiece reference is defined in a simple way with two stops fixed to the sides of the worktable.

MACHINING FEATURES FOR REAR WORKTABLE		
Werniege group agetion	min.	15 x 15 mm
Worpiece cross-section	max.	100 x 60 mm
Loadable workpiece length	min. with 2 Jig Free Compact	180 mm
	max.	1350 mm
Machinable workpiece length	min. with 2 Jig Free Compact	180 mm
	max.	1100 mm
	Hole diameter max.	32 mm
Hole or mortise dimensions	Mortise length max.	1100 mm
	Mortise thickness max.	32 mm
	Hole or mortise depth max.	50 mm

TECHNOLOGICAL ADVANTAGES

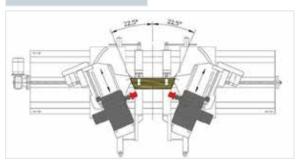


with great accuracy.





Beckhoff NC controls 4 working axes and 7 positioning axes, allowing inclined operations from -20° to 45° and rotated ones from -22.5° to 45°.





The 21.5" touchscreen eye-m console, integrated in the electrical cabinet, allows to use the new HMI Maestro active joint.

MACHINING FEATURES		BALESTRINI FOX TN	BALESTRINI FOX PLUS
			200 mm
Workpiece length		max. 2000	e 3000 mm
Manharia	Width a this large	min. 10	x 10 mm
Workpiece cross-section	Width x thickness	max. 120) x 60 mm
	Length	max.	80 mm
Tenon dimensions	Thickness	max. 30 mm	
	Height	6 ÷ 5	50 mm
	Hole diameter max.	-	32 mm
Hole or mortise dimensions	Mortise length max.	-	80 mm
Hole of Illortise difficultisions	Mortise thickness max.	-	32 mm
	Hole or mortise depth max.	-	50 mm
Cutting angles	Head units rotation	From -22,	5° up to 45°
Cutting angles	Head units tilting	From -20	° up to 45°
CNC Automatic feeder	Loadable weight on the loading station max.	20) kg

TECHNOLOGICAL ADVANTAGES





The loading and unloading of the workpieces is provided by an automatic feeder, achieving high speed in these operations and ensuring that the workpiece is positioned and locked on the worktables with great accuracy.





The 21.5" touchscreen eye-m console, integrated in the electrical cabinet, allows to use the new HMI Maestro active joint.

MACHINING FEATURES		
Workpiece cross-section	min.	38 x 20 mm
Workpiece cross-section	max.	75 x 25 mm
Workpiece length measured on the long side	With cross-section min.	min. 178 mm max. 1950 mm
	With cross-section max.	min. 102 mm max. 1870 mm
	Horizontal tenon length	max. 80 mm
Tenon dimensions	Thickness	max. 30 mm
	Height	max. 50 mm
	Hole diameter	max. 24 mm
Hole or mortise dimensions	Mortise length	max. 80 mm
	Mortise thickness	max. 24 mm
	Hole or mortise depth	max. 50 mm
CNC Automatic feeder	Loadable weight on the loading station max.	20 kg



Maestro Digital Systems

SMART SOFTWARE AND DIGITAL SERVICES TO ENHANCE PRODUCTIVITY OF WOODWORKING AND FURNITURE INDUSTRIES.

Maestro active joint

MAESTRO ACTIVE JOINT IS THE HUMAN-MACHINE INTERFACE SOFTWARE FOR TENONING AND MORTISING MACHINES.

THE SOFTWARE PRESIDES OVER THE CREATION OF THE WORK PROGRAMS AND ALLOWS THE MACHINE OPERATIONS TO BE MONITORED IN REAL TIME DURING EXECUTION.



SOFTWARE

Maestro active joint

FACTORY

Simple, smart and open.
Maestro software are tailored on the
machine technology as well as on the
entire process. All Maestro software
share a common mission:

easy to use, so that any operator can easily and confidently learn and use the software

smart, with algorithms and computing modules aiming at the best possible result

open, in order to integrate existing software, and provide customer the coverage of all his process.

FUNCTIONS

The human-machine interface guides the operator during machine programming, which consists of the following steps:

- Programming the shape, size and position of the joints
- Tool selection
- Work cycle selection
- Sending the program to the machine



SCM accompanies woodworking manufacturers throughout their whole process combining machines with matching software solutions and digital services, with a constant commitment to enhance company productivity.

The software solutions powered by SCM are developed to optimize machine usage as well as the entire process, providing integration with the different software existing in the company.

Smart Pro Lite

THE EXCLUSIVE APPLICATION OF THE BALESTRINI PICO OM IS A 2 AXIS CAD/CAM SOFTWARE THAT ALLOWS TO PERFORM DRILLING AND MORTISING OPERATIONS ALONG THE SIDES OF CURVED WORKPIECES WITH EASE-OF-USE AND RELIABILITY.



Smart Pro Lite

FUNCTIONS

The main functions include:

2D DRAWING

Parametric CAD/CAM system with macro for simplified programming and free drawing.

2D AND 3D FILES IMPORT

2D Formats .dxf, .dwg 3D Formats .step, .iges, .stl

MACHINING MACRO

Possibility to insert predefined macros for a quick creation of the typical machining operations (single and multiple drilling, mortising).

2-AXIS MACHINING

Automatic blank and machining definition

Possibility to modify one or more automatically calculated parameters

Machining library with tool association and machining path.

WORKPIECE POSITIONING IN THE MACHINE

Workpiece positioning in the machine on Jig Free Compact workpiece locking devices.

SIMULATION AND COLLISION CONTROL

Control of generated program
Control of eventual collisions
ISO code generation and sending to the machine.

"HELP" FUNCTION

In case of software malfunction, the user can use the Help function. This function provides:

Sending an e-mail containing the machine configuration to service Remote assistance.



APPLICATIONS









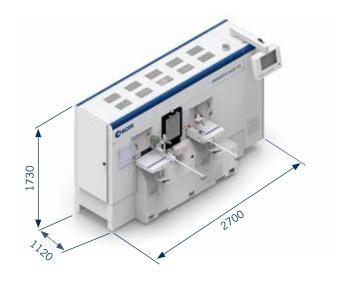




TECHNICAL DATA

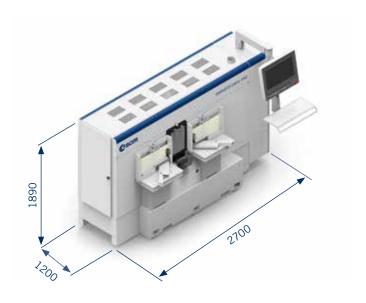
BALESTRINI PICO TN

	Total	10 kVA
Installed power	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption	Per work cycle (N° 2 tenons)	1 NI/cycle
	N° outlets	3
Suction	Outlet diameter	100 mm
	Air volume suctioned at 25 m/s	4200 m ³ /h



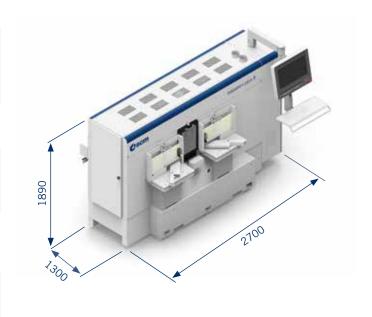
BALESTRINI PICO MD

Installed power	Total	14 kVA
	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption	Per work cycle (tenon+mortise)	55,4 NI/cycle
	N° outlets	3
Suction	Outlet diameter	100 mm
	Air volume suctioned at 25 m/s	4200 m ³ /h approx.



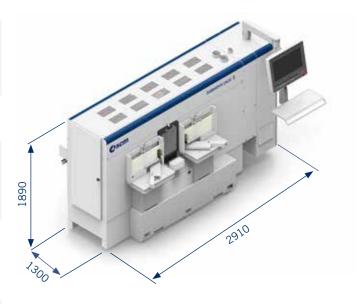
BALESTRINI PICO FF

	Total	14 kVA
Installed power	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption on front worktables	Per work cycle (tenon+mortise)	55,4 NI/cycle
Compressed air consumption on rear worktable	Per work cycle (N° 3 mortises)	11,8 NI/cycle
	N° outlets	6
Suction	Outlet diameter	100 mm
	Air volume suctioned at 25 m/s	8400 m³/h



BALESTRINI PICO FJ

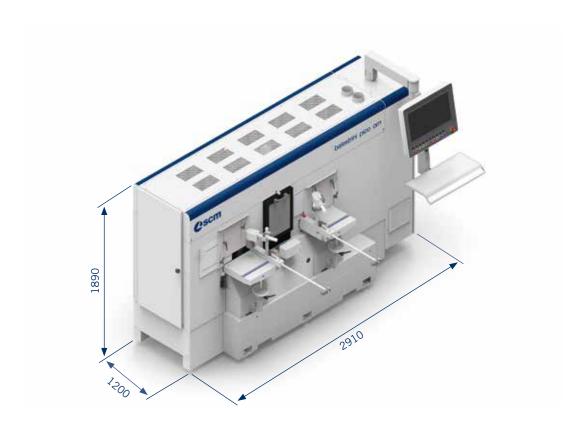
Installed power	Total	17 kVA
	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption on front worktables	Per work cycle (N° 1 tenoning + 4 notching operations)	1,3 NI/cycle
Compressed air consumption on rear worktable	Per work cycle (N° 3 notching + 3 mortising operations)	112 NI/cycle
	N° outlets	6
	Outlet diameter	100 mm
Suction	Outlet dimeter for "French Joint" operating unit	1 x 60 mm
	Air volume suctioned at 25 m/s	9200 m3/h approx.



TECHNICAL DATA

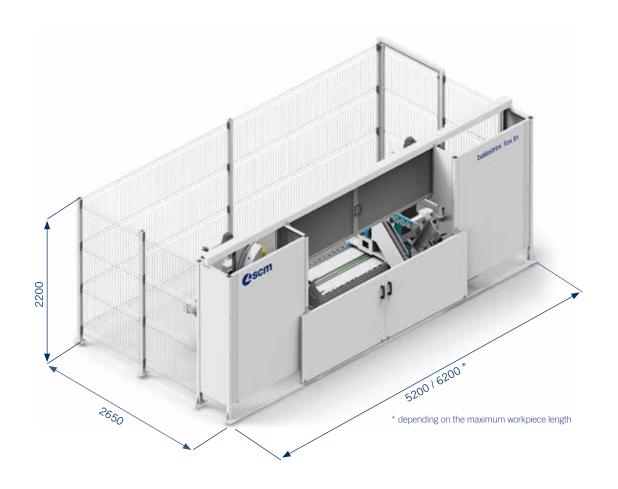
BALESTRINI PICO OM

	Total	14 kVA
Installed power	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption on front worktables	max (N° 10 tenons/min)	5 NI/min
Compressed air consumption on rear worktable	max (N° 3 work cycles/min)	230 NI/min
	N° outlets	6
Suction	Outlet diameter	100 mm
	Air volume suctioned at 25 m/s	8400 m3/h



BALESTRINI FOX

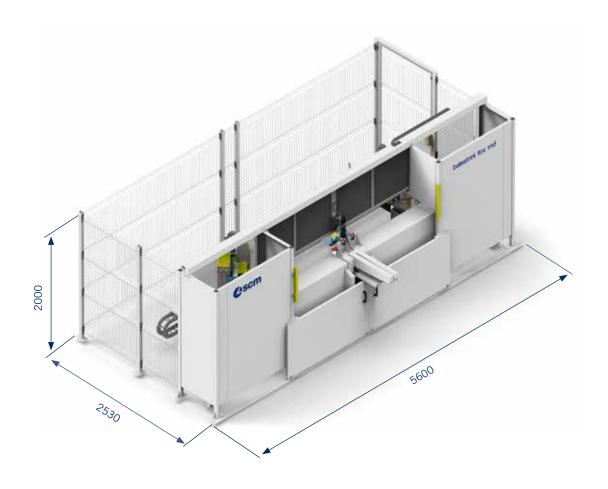
		FOX TN	FOX PLUS
Installed power	Total	9 kVA	13 kVA
	Standard supply	400 V - 50/60 Hz	
Compressed air pressure		6 BAR (m	nin. 4 BAR)
Compressed air consumption	Per work cycle	21,7	NI/cycle
Suction	N° outlets	2	
	Outlet diameter	100 mm	
	Air volume suctioned at 25 m/s	1400 m3/h	



TECHNICAL DATA

BALESTRINI FOX MD

	Total	16 kVA
Installed power	Standard supply	400 V - 50/60 Hz
Compressed air pressure		6 BAR (min. 4 BAR)
Compressed air consumption	Per work cycle	32,9 NI/cycle
	N° outlets	4
Suction	Outlet diameter	N° 2 x 120 mm N° 2 x 80 mm
	Air volume suctioned at 25 m/s	2900 m3/h



COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001= 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 prescribed by CE Norms.

Maximum recorded noise levels based on functioning parameters established by ISO 3746/1995. Acoustic pressure while working 83 dbA (measured according to EN ISO 11202:1997, K variance = 4 dB). Despite the existence of a correlation between "conventional" noise emission values mentioned above and average personal exposure of the operators during the 8 hours, these also depend on the specific functioning conditions, length of exposure, acoustics characteristics of the working environment and by the presence of additional sources of noise, that is the number of machines and adjacent processes.



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

20.000 machines manufactured per year

90% export

20 foreign branches

400 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	INDUSTRIAL COMPONENTS		
Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.	Technological components for the Group's machines and systems, for those of third-parties and the machinery industry.		
€ scm © Cms	NITECO Ces Csteelmec Cscmfonderie		
WOODWORKING TECHNOLOGIES TECHNOLOGIES FOR PROCESSING COMPOSITE MATERIALS, ALUMINIUM, PLASTIC, GLASS, STONE, METAL	SPINDLES AND ELECTRIC PANELS METALWORK CAST IRON TECHNOLOGICAL COMPONENTS		







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