

windor nt1

angular machining centre for windows and doors



THE MORE FLEXIBLE AND ECONOMIC SOLUTION FOR WINDOW FRAME MANUFACTURING



QUALITY



Best-in-class performance

Production of all types of tenon, straight and angled.

Excellent accuracy during the processing thanks to the solid structure of the tenoning carriage.

EFFICIENCY



Enhanced productivity

No limits to profile execution: to meet all the profiling requirements, the machine can be fitted with two 50x320 mm spindles.

VERSATILITY



High flexibility

The drilling-routing unit allows to perform all complementary machining, including horizontal milling: the work-pieces are ready to be assembled.

STRENGTH



Reliable technology

High performance and quick set-up: the machine can be equipped with “HSK” interchangeable spindles in both the tenoning and the profiling units.

RELIABILITY



Ergonomics

Completely enclosed machine's structure in order to reduce noise to a minimum and ensure maximum safety for the operator.

INNOVATION



Ease of use

The exclusive Maestro active windoor software, specifically developed for windows production, is able to optimise the working process.

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SOFTWARE

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TECHNICAL DATA

TECHNICAL FEATURES OVERVIEW

TECHNOLOGICAL ADVANTAGES



Profiling unit
Enhanced productivity.

Console "eye-M evo"
Ease of use.



Machine structure
Ergonomics.



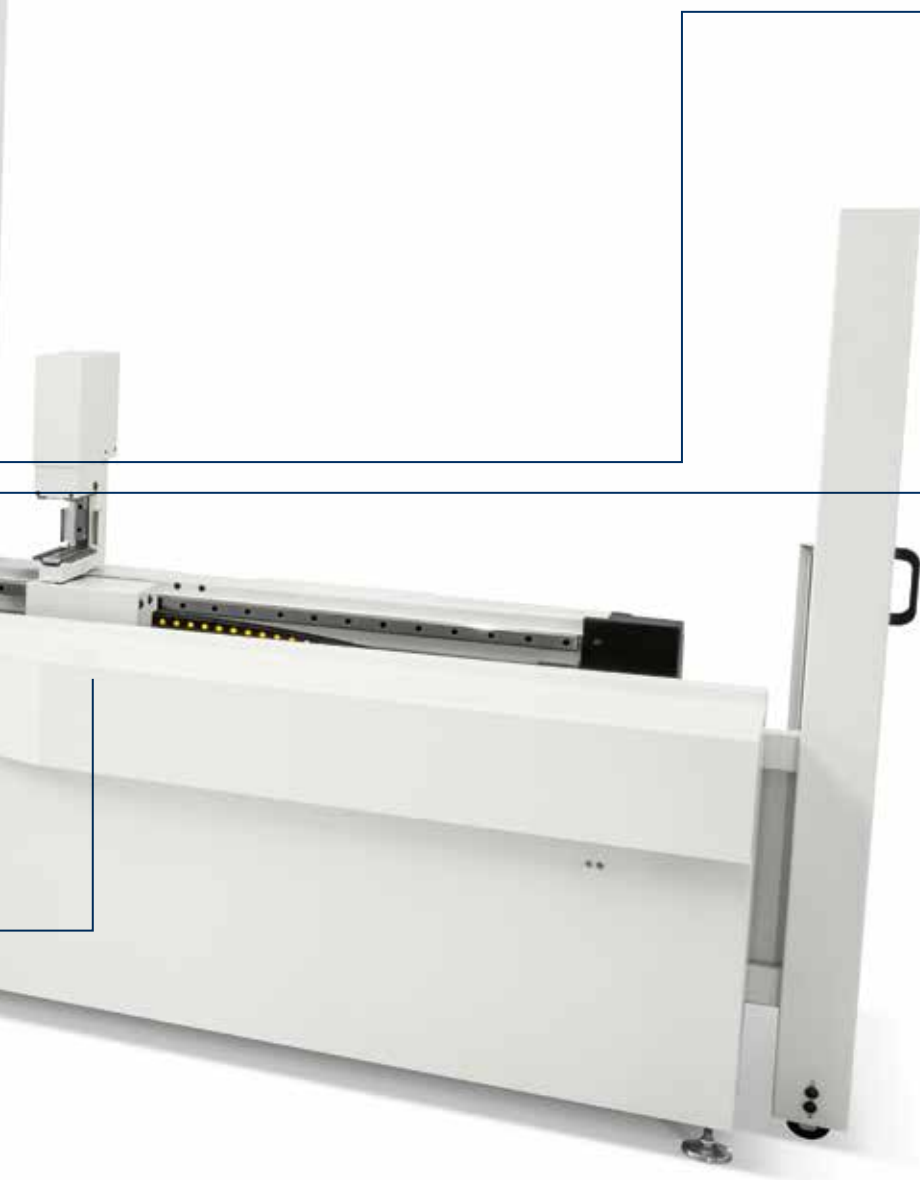
Storm proofing
Complete process.

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Tenoning unit
Best-in-class performance.



Drilling-routing unit
High flexibility.

TENONING UNIT



Production of all types of tenon, straight, angled and rounded, if the "OPTIMA BR" drilling-routing unit is foreseen.
Excellent accuracy during the processing thanks to the solid structure of the tenoning carriage anchored to the machine bed through prismatic guideways and moved by recirculating ball screws and Brushless motors.



Execution of angled tenons by interpolation: the same solution used in high-level machines but with a reduced investment and provided as standard configuration.



"JOLLY" ANTI-SPLINTERING DEVICE

The automatic device prevents splintering. It can be easily removed during the tool change operations so the work changes are quick, accurate and safe.



WORK-PIECE AUTOMATIC ROTATION

Tenoning has never been so fast: due to the rotary movement of the presser, it is possible to process, in sequence, the two sides of the work-piece in a completely automatic way.



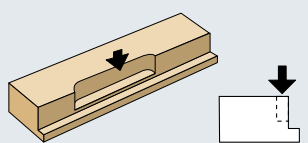
The clamping is achieved through a central presser with electronic positioning depending upon the work-piece length. The clamp ensures easy and safe locking even when components are loaded in pairs.

DRILLING-ROUTING UNIT

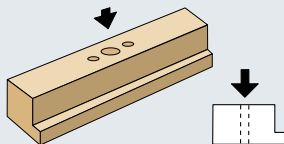


"OPTIMA BR" UNIT

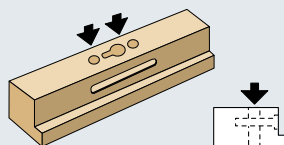
High flexibility with the drilling-routing unit that allows to perform all complementary machining, including horizontal milling: the work-pieces are ready to be assembled.



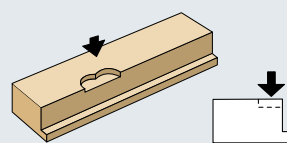
Routing for hinges groove and glazing bead cut-off.



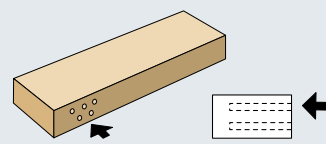
Vertical drilling from the top, centre distance: 21,5 mm (handle).



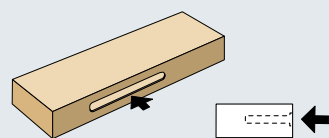
Routing for hardware groove.



Vertical drilling from the top.



Drilling on the work-piece head and right/left long-grain side (1 hole at a time).



Horizontal milling and tenons round-end.



PROFILING UNIT



No limits to profile execution: to meet all the profiling requirements, the machine can be fitted with two 50x320 mm spindles with 5-position pneumatic horizontal adjustment. It is possible to install tools with min.-max. diameter: 130-240 mm.



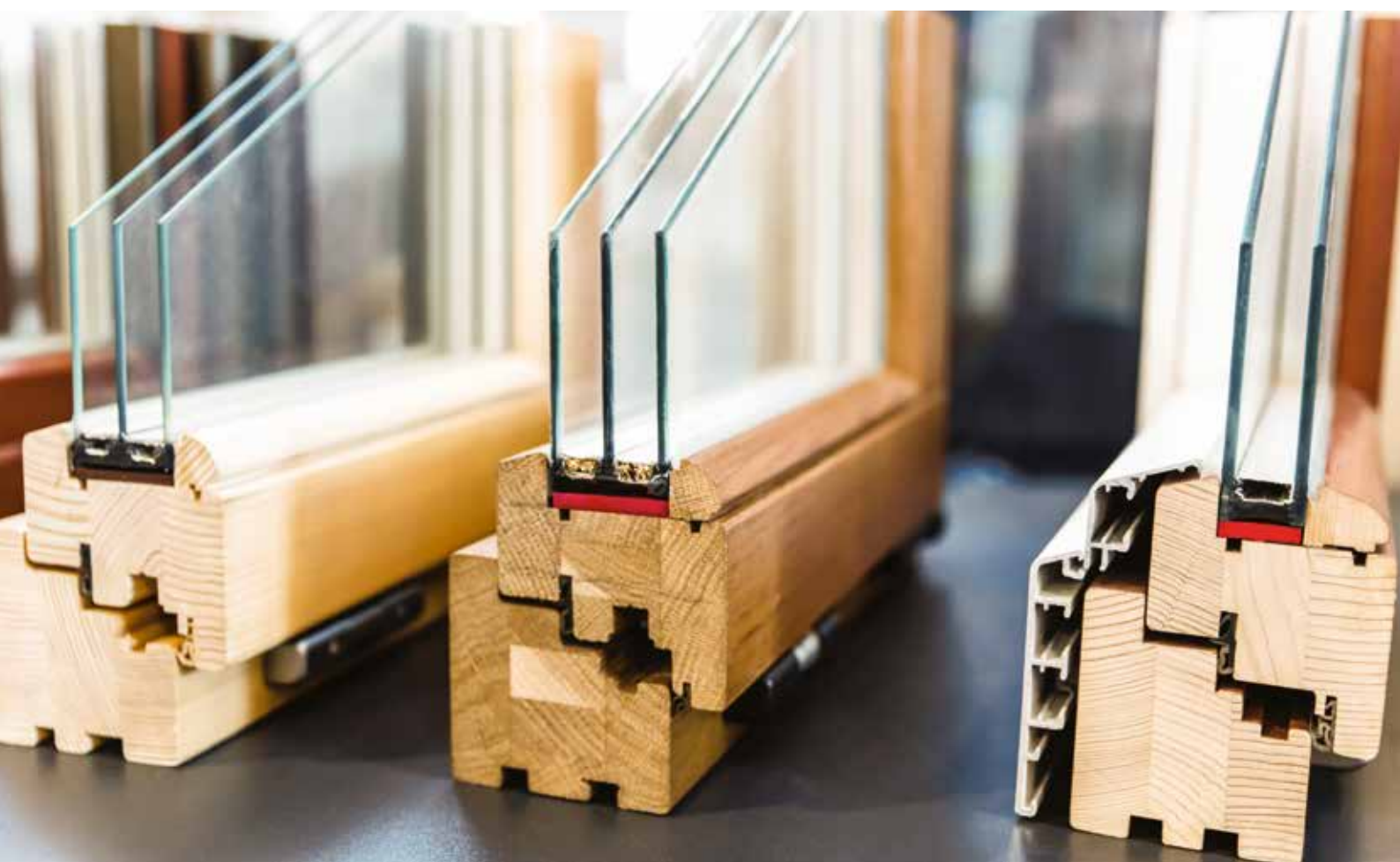
Feed system made of rubber rollers with reduced centre distance enabling the processing of even the shortest of elements.



"DUO" MACHINING UNIT

Device for glazing bead recovery and hardware grooving, in one unit.

The pneumatic angular rotation in two positions 0-90° allows the fast changeover from a machining to another.



OPTIONAL DEVICES



Horizontal spindle for the machining of the bottom side of the work-piece.



Possibility of storm proofing operation in a simple way, always ensuring an optimal finish quality.



No idle time with the work-pieces return system, located at the end of the machine.

SPINDLES WITH "HSK" TOOL CHUCK

High performance and quick set-up: the machine can be equipped with "HSK" interchangeable spindles in both the tenoning and the profiling units.



For spindles with "HSK" tool chuck, a manual device for the tool change enables the operator to work in easy way and safe conditions.

M Maestro Digital Systems

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

Maestro active

Factory

SOFTWARE

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.

SCM accompanies woodworking companies throughout their whole process combining machines with matching software solutions and digital services, with a constant strive 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.

Transforming the way it delivers services to its customers through digital technologies and particularly, the IoT platform that collects and analyses data coming from the machine, SCM created a world of services enabled by Maestro connect.

Meaning that connecting an SCM machine through Maestro connect will let customer subscribe a program of fast-evolving services and access a wide range of benefits that even go beyond the machine experience and will support and assist you through the whole life-cycle of your machine.

Tips on how to
correctly use
the machine

Machine
maintenance

Machine
monitoring, KPI,
instant
notifications

Maestro connect A REAL MASTER OF EFFICIENCY

Report and
historical
data export
to ERP

Warranty
extension

Predictive
maintenance,
Machine
learning





Maestro active windowor

Maestro active is the new operator interface software which has been unified across all SCM technologies. A single operator can easily and confidently run multiple machines due to controller and interface consistency: regardless the machine, Maestro active maintains the same *look&feel*, with many identical icons and navigation buttons, thus ensuring the same approach to interaction.

EASE OF USE

The new interface has been specifically designed and optimized for immediate use via touch screen. Graphics have been redesigned for simple and comfortable navigation, with tablet-like icons on touch screen controller.

“ZERO” ERRORS

Improved productivity thanks to guided procedures that reduce the possibility of error from the operator's side.

SOFTWARE

Factory

Maestro active windowor

Maestro active windowor is the innovative software interface specifically aimed at windows production. It is available on “eye-M prime” console with Full HD LCD (24”) display to ensure an effortless and convenient experience.

FULL CONTROL OF PRODUCTION PERFORMANCES

The creation of customizable reports by operator, shift, program, forecast period (and much more) allows to monitor, optimize and improve the production performance.

ORGANIZE YOUR PRODUCTION

Maestro active windowor allows to create different users with different roles and authorizations (e.g.: operator, maintainer, administrator, ...). Any user can only execute the functions whose permissions have been assigned to him. It is also possible to define the work shifts on the machine and then detect activities, productivity and events that occurred in each shift.

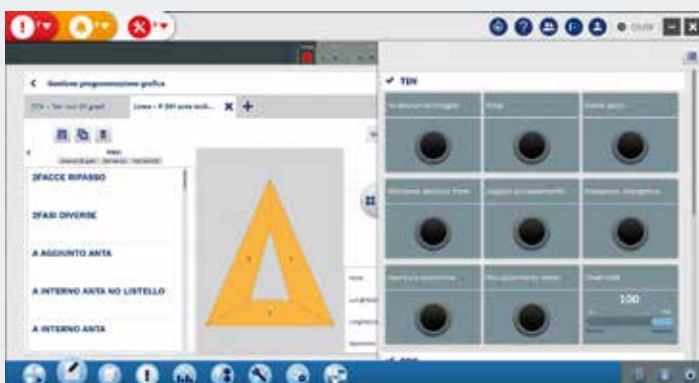
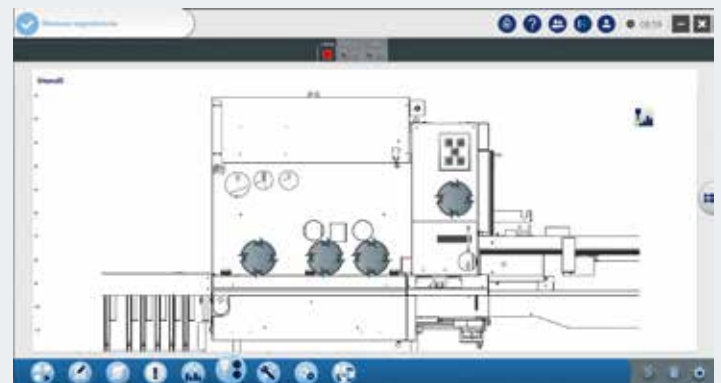
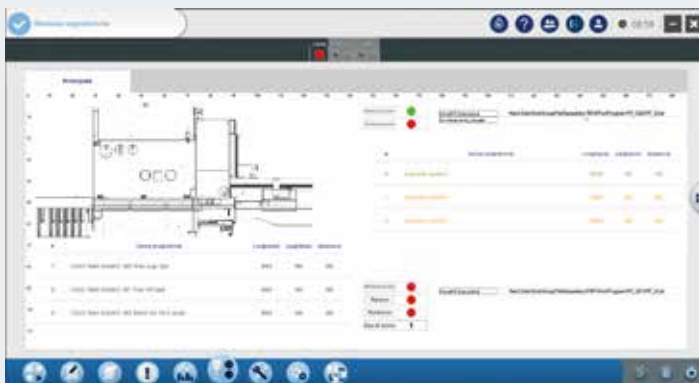
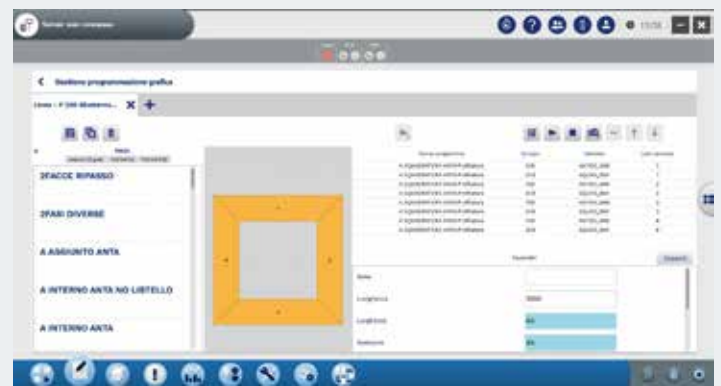
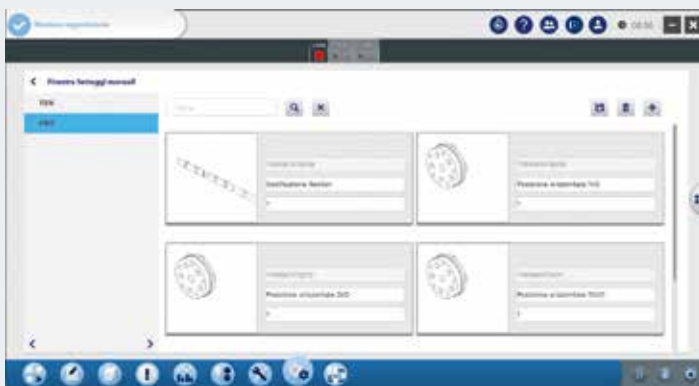
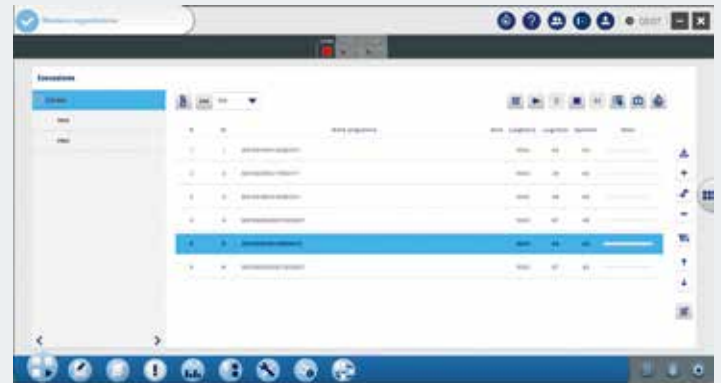
TOTAL QUALITY OF THE FINISHED PRODUCT

With Maestro active windowor the quality of the finished piece is no longer put at risk by worn tools. The new Maestro active Tool Life Determination system sends notification messages as the tool reaches its end of life and recommends its replacement at the most appropriate time.

EASY TO USE

Main functions:

- diagnostic system: Maestro active windowor detects and displays alarms and warnings
- loading of program lists, individual programs, also via barcode (optional)
- execution of manual commands
- axis calibration
- machine status management
- paddle (virtual keyboard command)
- creation of programs for each individual part
- programming with text files in XML format



Maestro connect

CONNECT YOUR MACHINE AND GAIN ACCESS TO A WORLD OF SERVICES

Connecting your machine through IoT technology Maestro connect will let you subscribe a program of fast-evolving services. You will access a wide range of benefits that even go beyond the machine experience and will support and assist you through the whole life-cycle of your machine.

FASTER SERVICE INTERVENTION AND PROBLEM RESOLUTION

Maestro connect provides real time data and Health Records of the machine also to SCM Service, drastically reducing its troubleshooting time.

WORKING ALWAYS IN PERFECT CONDITIONS

Maestro connect can provide a full kit of sophisticated sensor devices to detect and warn the operator in case of alarming conditions of the machine.

SMART MACHINE

THE ENTIRE MACHINERY FLEET AT YOUR FINGERTIPS



- **REAL-TIME MONITORING** of the machine status, components, and performance in term of availability and efficiency.
- **INSTANT NOTIFICATIONS** on pc, tablet, and smartphone when machine alarms occur, allowing you to act timely and avoid additional equipment damages.

SMART MAINTENANCE

PLANNING AND MAINTENANCE: PREVENTION IS BETTER THAN... REPAIRING!



- **PLANNING:** In the Smart Maintenance section, you can find all the tools you need to plan the maintenance of the entire machinery fleet to prevent downtimes.
- **TROUBLESHOOTING:** Thanks to intuitive smart documents, Maestro connect guides the operator in the maintenance activities procedures step by step.
- **SERVICE REQUEST:** Do you need further support? Open a ticket in one click, and our experts will assist you.

WARRANTY EXTENSION

Is your machine still under warranty?

You will be able to activate the second year of warranty with facilitated conditions directly via Maestro connect.



SMART ANALYTICS

REPORT AND KPI: GET TO KNOW BETTER YOUR MACHINE



Maestro connect reports and KPIs provide an in-depth analysis of production results, enabling you to know your machine's performance in detail.

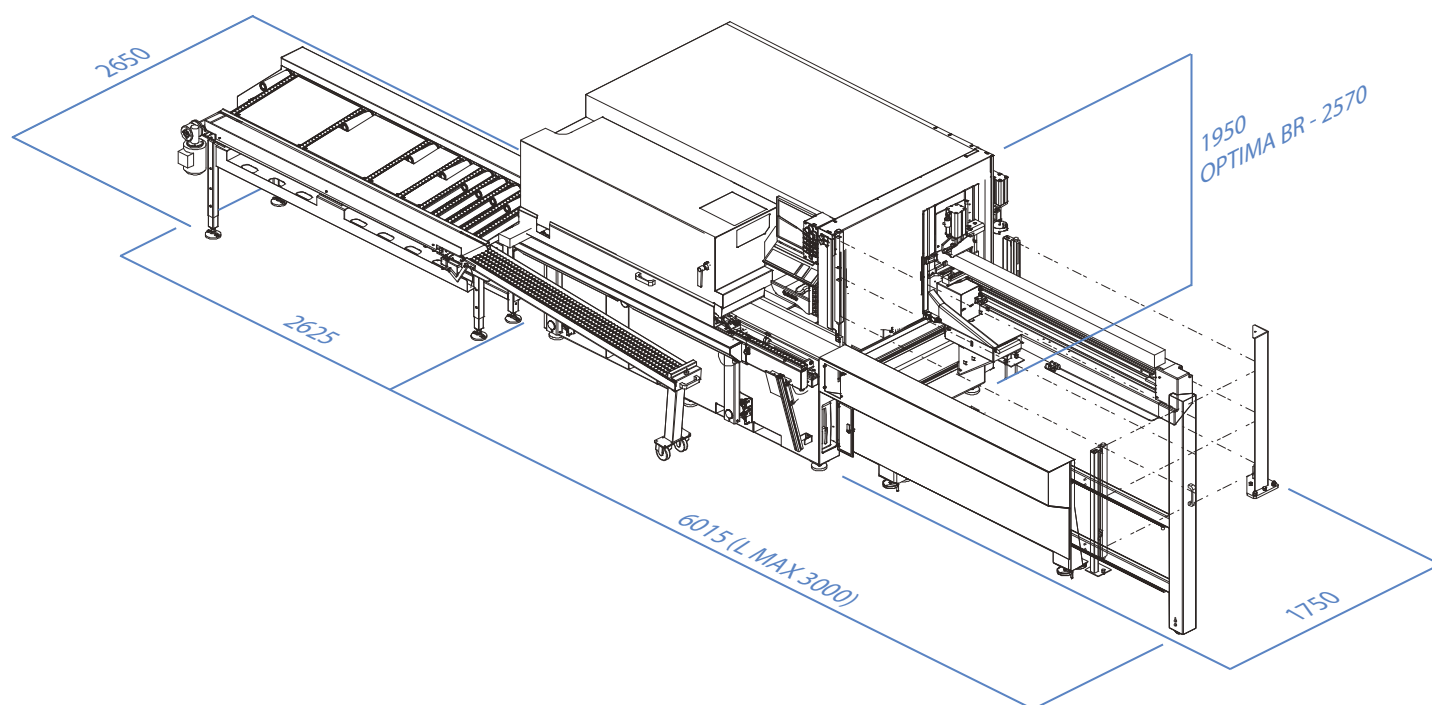
OEE: WHY IT'S IMPORTANT TO KNOW IT



The Overall Equipment Efficiency Indicator (OEE) allows you to monitor the three variables: **Availability, Performance and Quality**. By doing so, you'll be able to detect the lower one and act on it: the performance of your machine will be the highest ever.

WINDOR NT1

Min. - max. work-piece length	mm	200 - 3000 (200 - 3800 opt.)
Min. - max. work-piece width	mm	40 - 200
Min. - max. work-piece thickness	mm	40 - 140
Maximum tenon angle	degrees	± 60
Feed speed of the tenoning carriage	m/min	0 ÷ 12
Feed speed of the profiling unit	m/min	4 ÷ 10
Worktable height of the tenoning unit	mm	990
Worktable height of the profiling unit	mm	870



**COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
= 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 foreseen by the CE Norms.

*Maximum noise levels measured according to the operating conditions established by ISO 7960 - 1995 / H.
Acoustic pressure in process 90 dB(A) (measured according to EN ISO 11202:1995, uncertainty K = 5 dB).
Acoustic power in process 100 dB(A) (measured according to EN ISO 3746: 1995, uncertainty K = 4 dB).*

Even if there is a correlation between above mentioned "conventional" noise emission values and average levels of personal exposure over eight hours of operators, these last also depend on the real operating conditions, duration of exposure, acoustic conditions of the working environment and presence of further noise sources, this means the number of machines and other adjacent processes.

SOLUTIONS AND SERVICES ALWAYS CONNECTED FOR YOU

SCM, A STRATEGIC PARTNER, BY YOUR SIDE AT EACH STAGE OF YOUR BUSINESS PROCESS

SCM has always stood alongside companies in the woodworking sector, with **technological solutions and services which are constantly connected to maximise the machine's efficiency, improve product quality and reduce operating costs.**

70+ 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

SCM GROUP, THE MOST ADVANCED SKILLS AND KNOW-HOW IN THE FIELDS

INDUSTRIAL MACHINERY

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



Woodworking
technology



Composite, aluminium,
plastic, glass, stone, metal
technology



Technologies for the profiles
processing of aluminium,
PVC and light alloy



Automated systems for
industry



OF MACHINERY AND INDUSTRIAL COMPONENTS OVER THE LAST 70 YEARS

INDUSTRIAL COMPONENTS

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

HITECO

Electrospindles
and technological
components

les

Electrical
panels

steelmec

Metalworking and
mechanical machining

scmfonderie

Iron castings



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