

dmc eurosystem md

dry deburring-finishing machine



SOLID



Sturdy main frame for high production capabilities.

Up to 22 kW power for **high deburring**.

MADE IN ITALY



From our **70 years' experience** in the design and manufacturing of machines using flexible abrasives we have developed a new and innovative line of dry surface processing machines for metal.

RELIABLE



Technical and design features ensure a correct functioning and a **long-lasting reliability**.

MODULAR



The dry deburring-finishing machine is featured with modular devices that allow for very **large number of configurations**, from the most versatile and flexible to the most specialized one by type of application.

LEAN



The design, the concept and the general principles for the machine project are inspired by **lean production** to grant the customer a maximized result.

TECHNOLOGICAL



dmc eurosystem md, with its advanced technology, comes to the market as **a state-of-the-art dry deburring and satin-finishing** process solution for high production performance.

18

SOFTWARE

20

TECHNICAL DATA

APPLICATIONS



automotive | food industry | industrial ventilation



metal structures | metals processing



Genial.

Reliable.

Efficient.

Adaptable.

Technological solutions.

GREAT machines for metal processing.

TECHNOLOGICAL FEATURES

TECHNOLOGICAL ADVANTAGES

DRY DEBURRING-FINISHING MACHINE

dmc eurosystm md dry deburring finishing machines combine both top quality machining and system flexibility to meet a wide variety of production requirements. Based on a rich package of standard features and countless devices, this machine is the ideal solution for mid-sized modern and dynamic manufacturing companies.

- **SAFETY**
High adhesion effect conveyor belt combined with vacuum of work table allows the processing of small and thin workpieces.
- **USER-FRIENDLINESS**
Management and storing of working programs through color touch screen “eye-S” e “eye-M” control panels.
- **MODULAR STRUCTURE**
Flexible working unit placement offers solutions for any production requirement.
- **RELIABILITY**
High efficiency power transmission through the use of Poly-V drive belts (on working unit drive motors).
- **PRODUCTIVITY**
Abrasive belts length 2.620 mm for long life and working width 1.350 mm for wide or multiple machinable pieces.
- **VERSATILITY**
Quick tool change systems and extractable discs unit for fast replacement of abrasive discs.

KEY BENEFITS

- + **Up to 4 operating groups for today's and tomorrow's needs:** frame structure from 2 to 4 operating groups configurable to solve a wide range of dry applications. The versatility of the empty module allows the future installation of a new group, expanding the production capacity of the machine.
- + **Up to 2 mm edge rounding:** double row of 17 counter-rotating vertical brushes able to offer unparalleled results of edge breaking and oxide removal (from thermal cutting). The group is fully extractable for a complete tool change in less than 2 minutes.
- + **Long-Life mechanic drive belt:** multi-groove Poly-V belt with self-tensioning system for an extremely powerful, efficient and silent transmission, independent of the abrasive belt used, even in the most demanding working conditions.
- + **External groups to improve the quality of worked pieces:** the abrasive cloth roller with a 200 mm diameter and lateral oscillation allows to soften the surface roughness for a more uniform finish over the entire surface. The group of timed rotary blowers allow optimal cleaning of the machined pieces.

stem md

dmc eurosystem md
dry deburring-finishing machine



OPERATING UNITS

ROLLER UNIT



ROLLER UNIT

A wide range of contact rollers are available to meet any specific deburring or finishing application:

- Diameters of 250 and 320 mm
- Helical grooving (for cooling)
- Oil and heat resistant rubber coatings
- High motor powers up to 22 kW

LONG BELTS 2620 MM

For greater productivity and finishing quality

WIDE RANGE ADJUSTMENT OF THE ROLLER WORKING POSITION

Allows the ability to equip the unit with very thick abrasive cloth belts and non-woven abrasive drums

POLY-V BELT

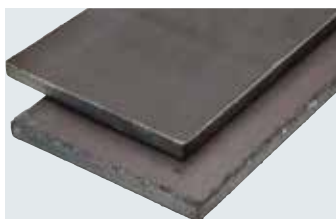
Efficient and silent power transmission

AUTOMATIC DRIVE BELT TENSIONING

Maximum available power delivery

DIGITAL READ-OUT

For quick and accurate positioning



PRIMARY BURR REMOVAL



OXIDE REMOVAL



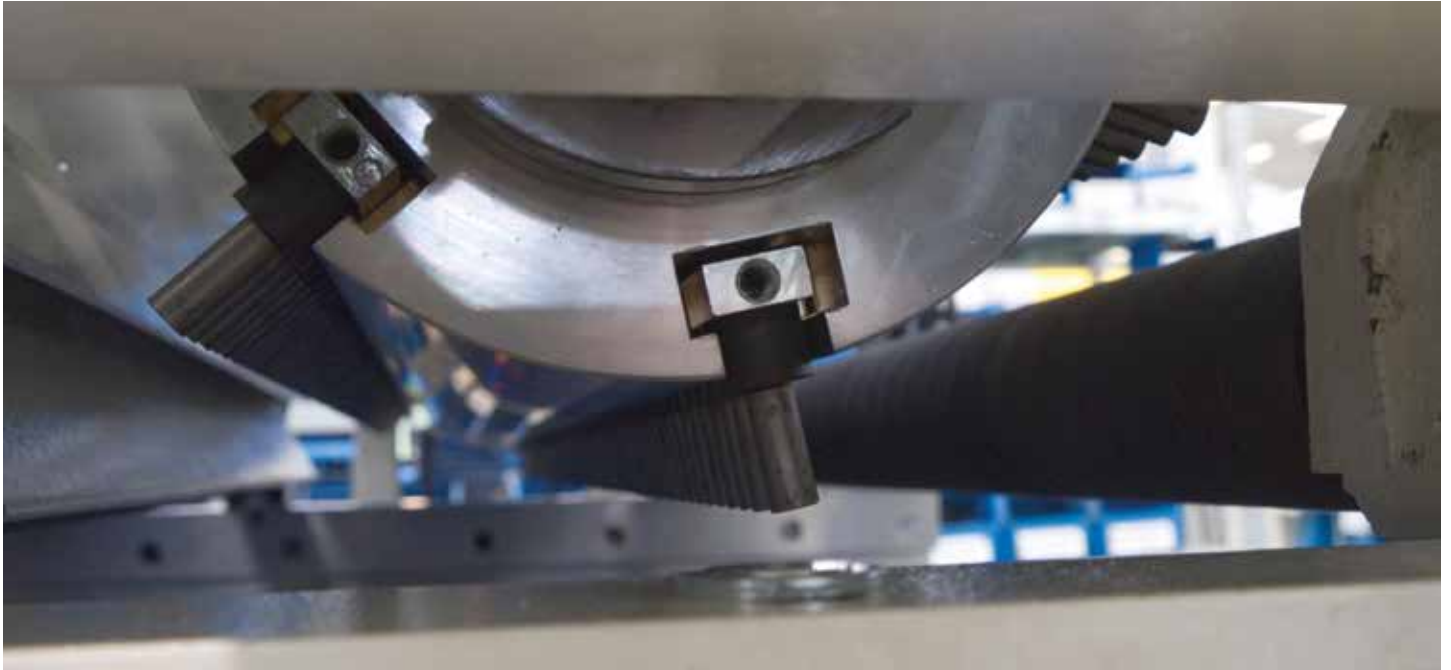
DEBURRING ON
VINYL-COATED MATERIAL



SATINIZING-FINISHING
PROCESSING

THE HAMMERBOLT GROUP

The working unit consists of flexible and replaceable bolts that remove slag with a continuous oscillation, ensuring a high-quality removal process. In this way, the configuration flexibility of the dmc machines is increased, to cover a wide range of processing and finishing in a more compact structure.



ADVANTAGES

- +400% average increase in productivity compared to manual slag removal
- -30% reduction in electricity consumption compared to the configurations with contact rollers with grinding belts
- Constant processing uniformity regardless of the characteristics of the manufactured item and the size of the slag
- Rapid machine set up thanks to the easy extraction of the hammered pin carrier strips;
- Greater sturdiness and durability over time compared to cup brushes with the same hammer bolts



TECHNICAL SPECIFICATIONS

- Roller available with diameters of 220 and 250 mm
- 120 oscillations/minute at a steady speed
- Tool extraction for fast replacement
- Input and output pressure rollers for greater hold on the pieces while machining
- Pneumatic On-Off for automatic enabling or exclusion

OPERATING UNITS

DISCS UNIT

POSITIONING ACCURACY AND STORING IN WORKING PROGRAM

Always updated programs

INVERTER DRIVEN MOTORS FROM 15 KW

Power, speed and production flexibility for any operation

LATERAL OSCILLATION OF WORKING UNIT ADJUSTED BY INVERTER (OPT)

Allows the operator to choose the best speed combination depending on the specific type of operation or finish required

ESTRAZIONE LATERALE DEL GRUPPO

Easy and fast tool change and maintenance operations

DOUBLE ROW OF COUNTER - ROTATING DISCS

High machining efficiency



EDGE ROUNDING

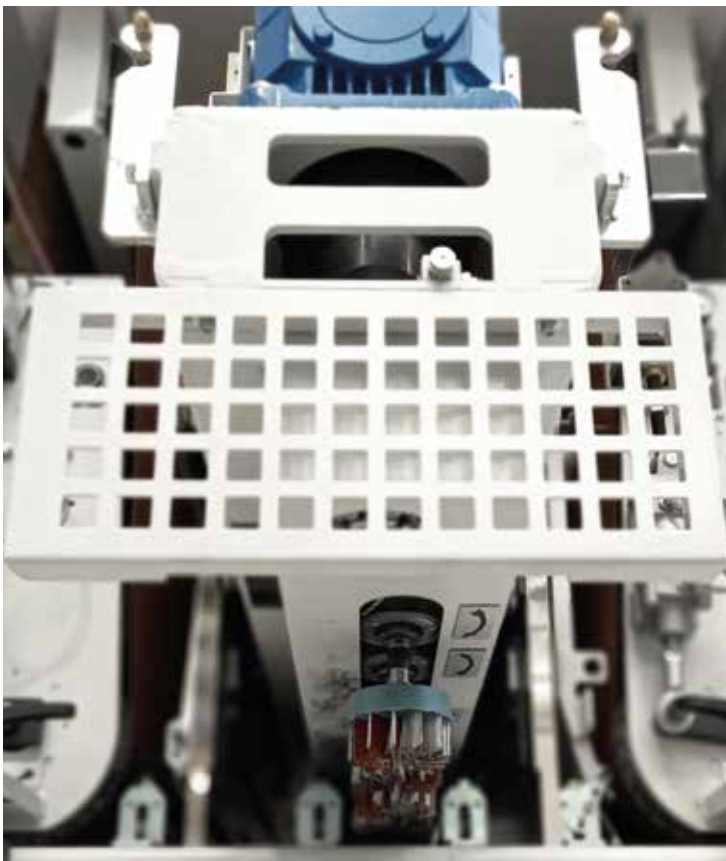


OXIDE REMOVAL



DISCS UNIT DT17

The double row discs unit can be equipped with different types of cup brushes with a 130 mm diameter, for each specific process such as edge rounding and edge oxide removal. Thanks to the intermediate pressure roller between the two rows of discs (patent pending), it is guaranteed to pull parts with compact dimensions, ensuring maximum process uniformity and repeatability.



DISCS UNIT DT15

The single row discs unit can be equipped with different types of cup brushes with an 85 mm diameter, for each specific process such as edge rounding and edge oxide removal, after thermal cutting (laser and plasma).

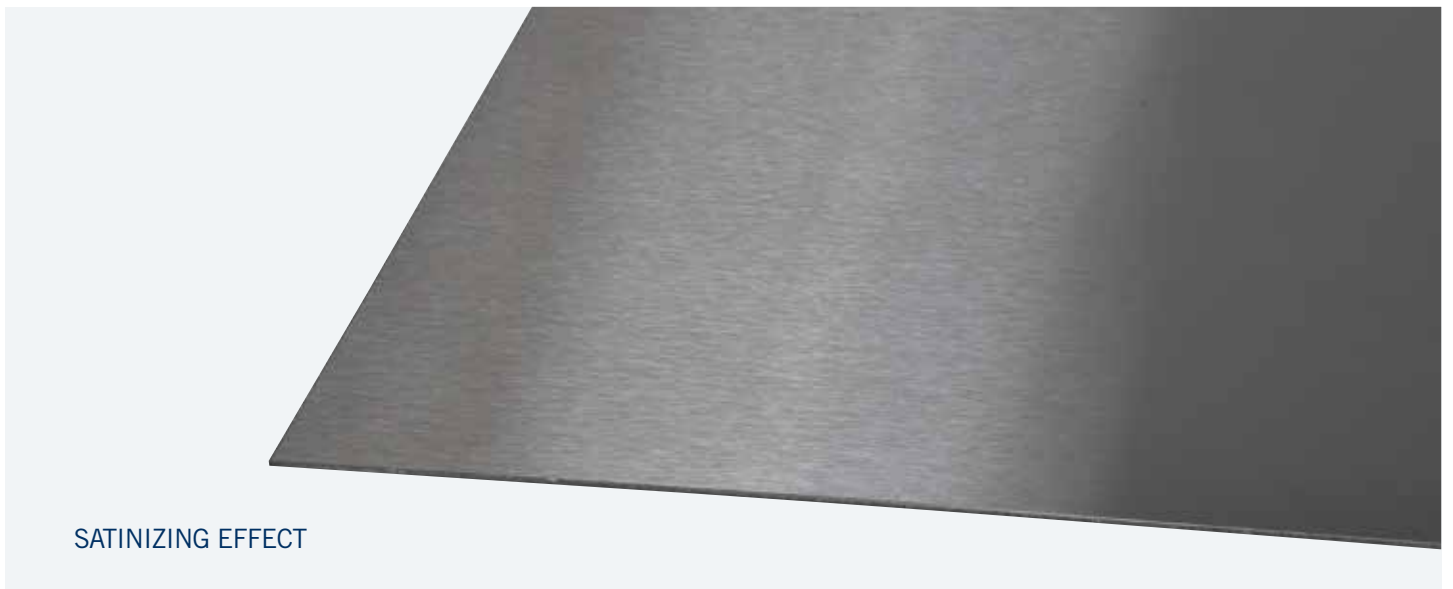
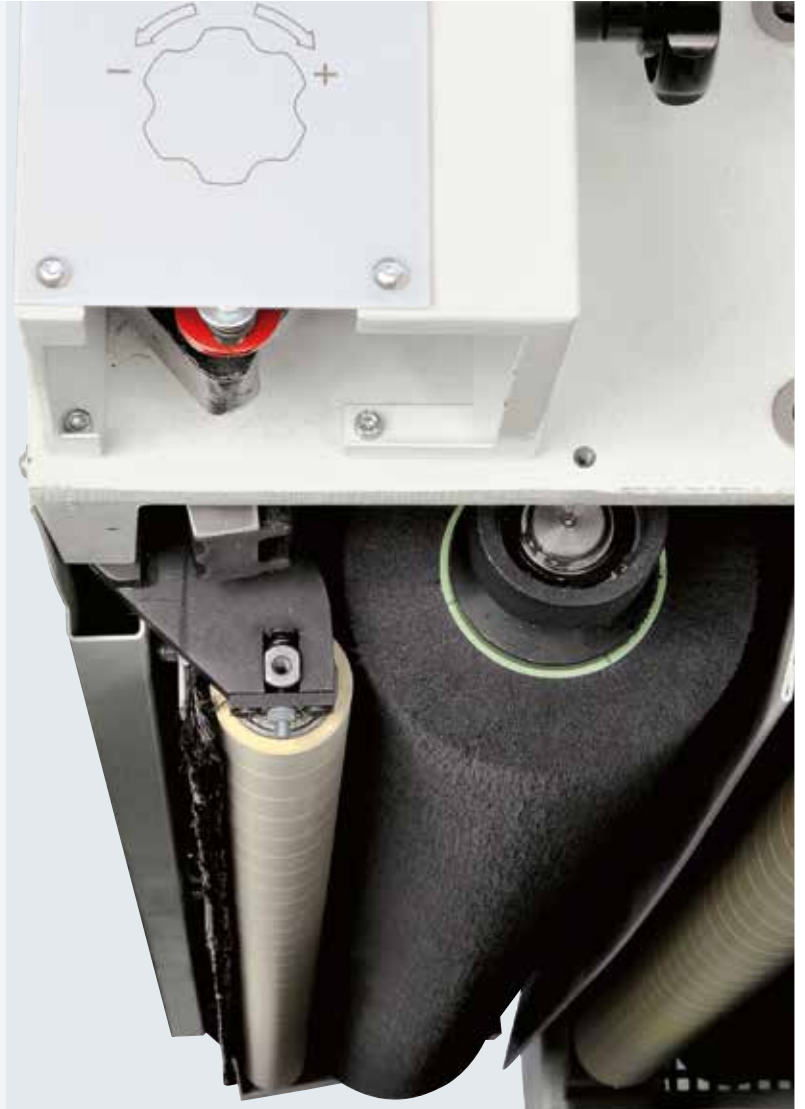
Thanks to the small size of the working tools, the presence of pressure rollers before and after the working group, ensure pulling parts with compact dimensions and maximum process uniformity and repeatability.

OPERATING UNITS

NOT WOVEN ABRASIVE DRUM UNIT

NOT WOVEN ABRASIVE DRUM UNIT SB/200

The non-woven abrasive drum unit, equipped with a 200 mm diameter drum, reduces surface ridges and roughness, creating a better finish on surfaces.



SATINIZING EFFECT



GSI/200 INTERCHANGEABLE BRUSH UNIT

External unit suitable for a 200 mm abrasive cloth brush to improve the surface quality after the finishing process or a brush to remove the metal dust from the surface of the workpieces after grinding. The brush can easily be extracted laterally from the housing and the quick coupling system reduces the machine setup time.

Some of the device specifications include:

- Lateral extraction and preparation with quick coupling
- Lateral oscillation of the brush controlled by inverter
- Fine tuning of the working position
- Input and output pressure roller
- 5.5 kW motor for even the most difficult applications
- Dust extractor hood

Some of the options include the possibility of installing a 7 kW inverter controlled motor and pneumatic On/Off system for rapid positioning of the unit working.



STANDARD DEVICES



QUICK TOOL CHANGE FOR DISC UNITS

The quick disconnecting spindle system allows for fast setup of the machine for any machining requirement, ensuring at the same time the maximum safety of the locking system.



AUTOMATIC CONVEYOR BELT CENTERING SYSTEM

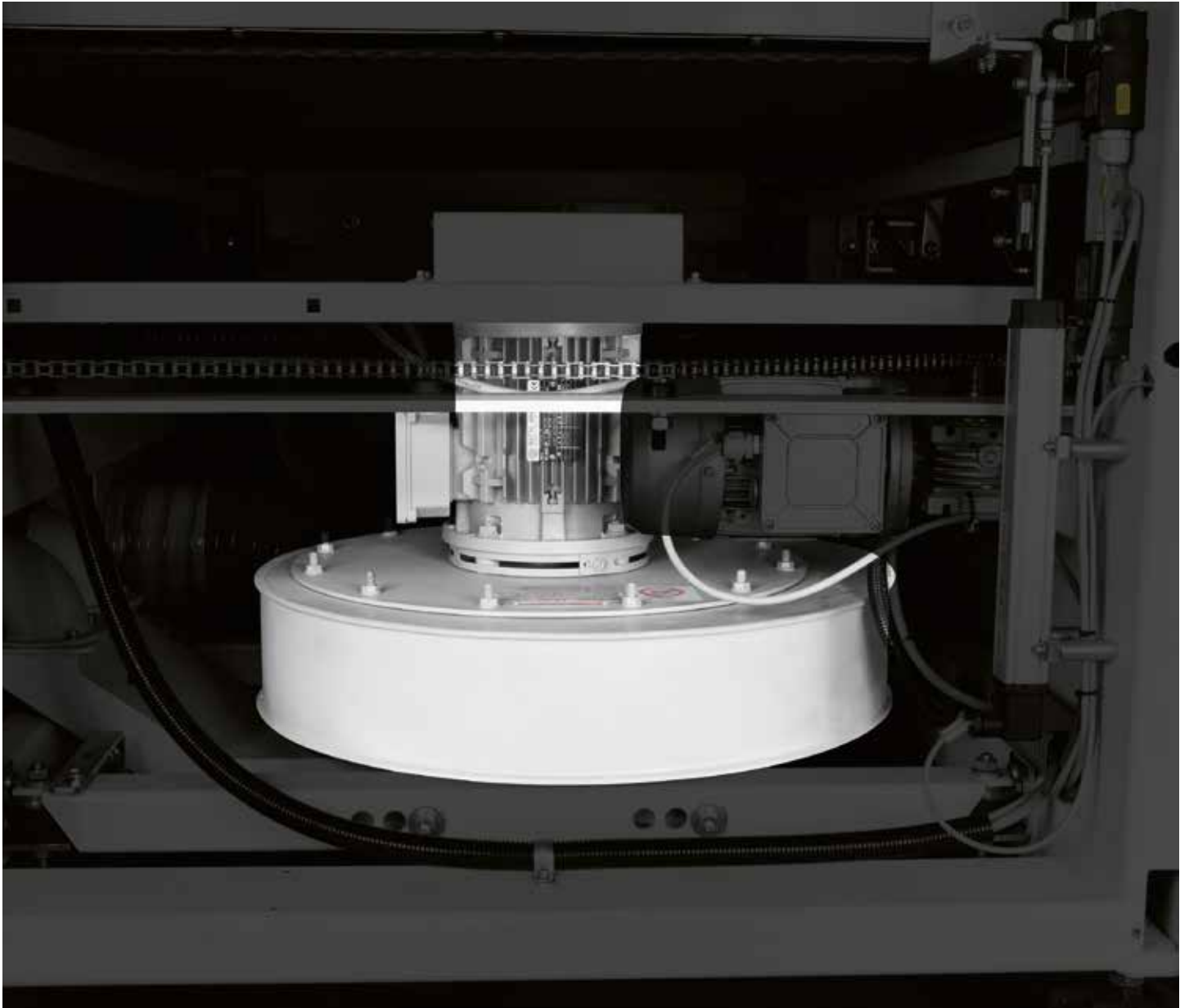
An electro-pneumatic system keeps the feed belt in the proper position and in the best condition at all times without any operator intervention.



ABRASIVE BELT TRACKING SYSTEM

The system is managed by a very reliable and precise “background suppression” photoelectric sensor ensuring the correct positioning of the abrasive belt.

OPTIONS



INTEGRATED ELECTRIC FAN

The electric fan pump positioned under the worktable allows for a reduced machine footprint and, most importantly, reduces noise emissions.



FLAT PERFORATED FEEDING MAT

The natural rubber mat with a flat profile and high adhesion effect, together with the vacuum table, allows the processing of small and thin workpieces. The machine infeed and outfeed roller conveyor, consisting of idle rollers made from cold drawn steel bars and drawn near each other, is oil corrosion resistant and can handle heavy workpiece loads.



Maestro active sand

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 sand

Maestro active sand is the innovative software interface specifically designed for automatic dry deburring-finishing machine.

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

ADVANCED PRODUCTION ORGANIZATION

Maestro active sand allows to create different users with different roles and authorizations depending on the machine's use (e.g.: operator, maintainer, administrator, ...), to detect activities, productivity and events that occurred in each shift.

TOTAL QUALITY OF THE FINISHED PRODUCT

With Maestro active sand the quality of the finished piece is no longer put at risk by abrasive belts wear. New tool store management function **enables to execute the inventory** of all the tools available on the store, **to register the belts** and **to automatically prepare bar chart reports to control their status** and to alert the operator when they have to be replaced.

EASY TO USE

Main functions:

- Tool store management
- It indicates the quantity per type of belts and automatically warns when they are running out
- Barcode management: reading of customer's barcode and automatic association of the working programme and working thickness to be used
- Creation of programs for each individual part
- Machine status management
- Following Industry 4.0 principles

MACHINE CONTROLS

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dry deburring-finishing machine



EYE-S CONTROL PANEL: EASILY AVOIDING MISTAKES

Simple and intuitive control panel with 15" touchscreen and **Maestro active HMI**, to improve dry deburring-finishing machine experience. It allows the machine to be managed in manual mode or with working programs that can be configured by the operator.

"eye-S" includes **new features enabling proper management and costs reduction** of the abrasive tools.

The possibility to store **up to 999 work programs** to recall the most frequently used machine settings makes it **ideal even for less experienced users**.



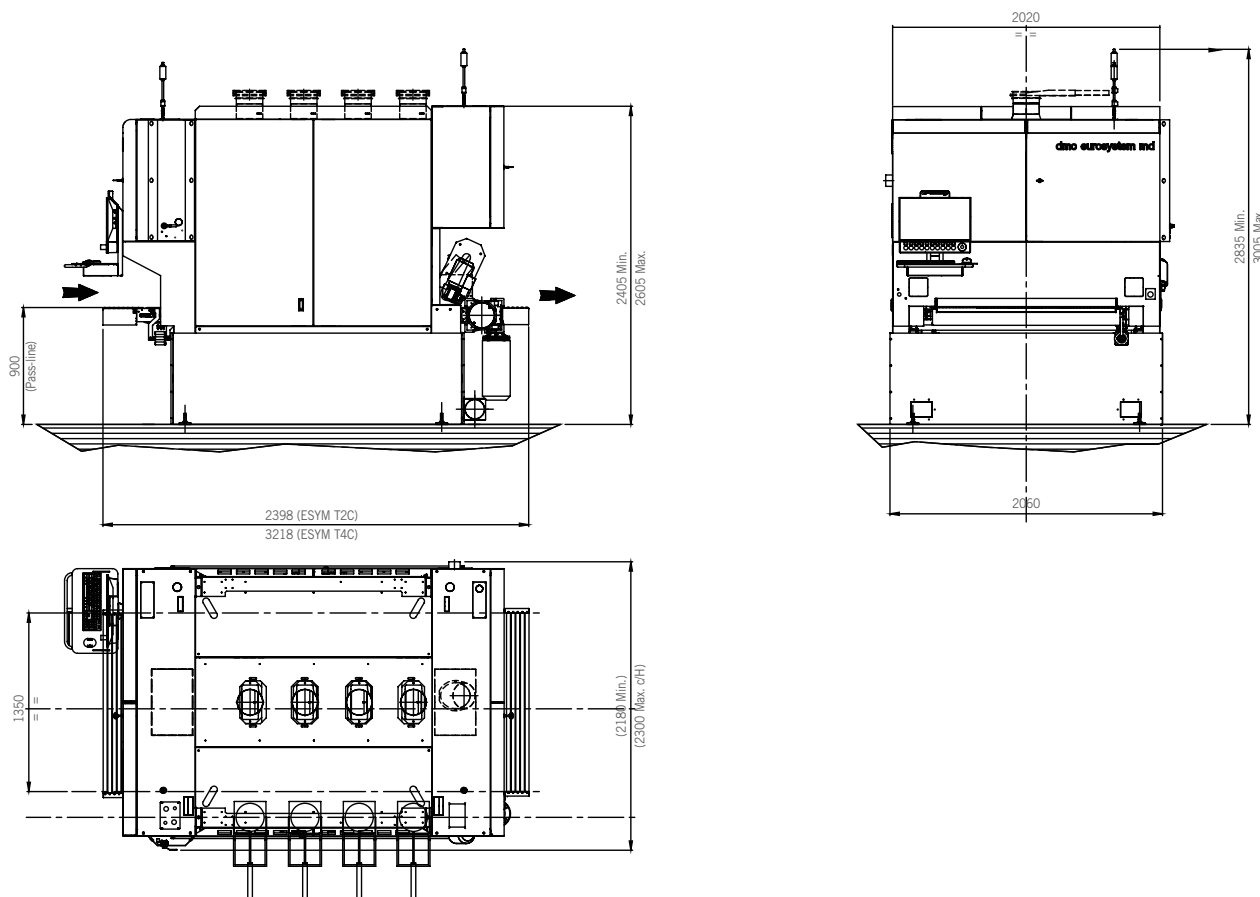
EYE-M CONTROL PANEL WITH MAESTRO ACTIVE SAND ELECTRONIC CONTROL

The "Maestro active sand" control allows you to set all the machining parameters from the "eye-M" console with 24" touch screen and **to check the correct operation** of the machine in real time. The powerful industrial PC with an **extremely simple and reliable user interface** can perfectly meet the requirements of even the most demanding operators (opt.).

OVERALL DIMENSIONS

TECHNICAL DATA





DMC EUROSISTEM MD

Number Of Operating Units		2 - 3 - 4
Working Width	mm	1350
Min / Max Standard Working Thickness (Mobile Worktable)	mm	0,5 ÷ 170
Min / Max Standard Working Thickness (Fixed Worktable)	mm	0,5 ÷ 200
Sanding Belt Dimensions	mm	1370 x 2620
Fixed Height From The Ground (Opt.)	mm	900
Conveyor Belt Speed	m/min	0,5 ÷ 10



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 EN 1870-13:2012
Acoustic pressure in process 89 dbA (measured according to EN ISO 11202:2010, uncertainty K = 4 dB) .
Acoustic power in process 103 dbA (measured according to EN ISO 3746:2010, 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.



SCM OFFERS A FULL RANGE OF **HIGHLY SPECIALISED SERVICES** WITH A QUALITY AND RELIABILITY THAT STEM FROM 70 YEARS OF EXPERIENCE IN THE INDUSTRY.

From installation and production start-up to services and maintenance. From training to the supply of specific original spare parts: **we provide solutions designed around you!**

 SERVICE AND MAINTENANCE • Remote support • Scheduled maintenance contracts • Warranty extension	 TRAINING SERVICE • Courses for machine operators • Software and programming courses • Training in production start-up
 SPARE PARTS • Recommended spare parts list • E-shop • Interactive spare-parts catalogues • Repairs on electronic parts, glue tanks and electro-spindles	 DIGITAL SERVICES • Maestro Connect - IoT platform to be constantly connected with your machines • Smartech - assistance with augmented reality • My Scm portal - opening of service ticket and single point of access to the apps and Services tools

CONTACT

SCM SERVICE

via Emilia 77 - 47921 Rimini - Italy
tel. +39 0541 700100
scmservice@scmgroup.com
www.scmwood.com

SCM SPAREPARTS

Via Emilia, 61 - 47921 - Rimini - Italy
tel. +39 0541 674111
spareparts@scmgroup.com
www.scmwood.com

My Scm



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 OF MACHINERY AND INDUSTRIAL COMPONENTS OVER THE LAST 70 YEARS

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



Electrospindles
and technological
components



Electrical
panels



Metalworking
and mechanical
machining



Cast iron



SCM GROUP SPA

via Casale 450 - 47826 Villa Verucchio, Rimini - Italy

tel. +39 0541 674111

scm@scmgroup.com

www.scmwood.com