

DONATONI[®] ES-SERIES

Edge polishing machine, flat cut edges

DONATONI
Stone Tech Creators



**Compact.
Versatile.
Accurate.**

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Advantages

- Configurable models
- Easy installation and handling
- Work processes can be programmed remotely
- Multi-format and multi-thickness processes
- Possibility to select machining direction
- Possibility to monitor productivity via D-MES software
- Proprietary software with user-friendly and foolproof interface

Main features

- The DONATONI ES is designed to achieve the highest finishing quality thanks to its versatility, which makes it capable of performing increasingly diversified processes. It is a flat edge polisher, with automatic positioning of the various processing units according to the type of material, thickness, and required processing.
- Thanks to its wide range of configuration possibilities, these machines are ideal for various application sectors: kitchen and bathroom countertops, construction, furniture, interior cladding, building, and funerary art.
- Proprietary software designed to simplify the programming and creation of work recipes. It allows a 3D preview of the piece's position on the machine and the selected work area. This software makes the processing operation more intuitive and faster, optimizing every operational phase.

ES-Series machines



3840 mm

ES40 Compact

- / Max workable width 50mm
- / Maximum number of configurable devices/heads 11



4700 mm

ES47 Versatile

- / Max workable width 80mm
- / Maximum number of configurable devices/heads 16



5800 mm

ES58 Complete

- / Max workable width 80mm
- / Maximum number of configurable devices/heads 20

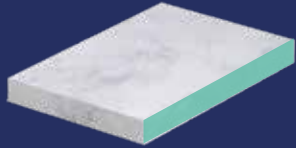
Production

The machines of the **ES-SERIES** allow the production of different types of products.

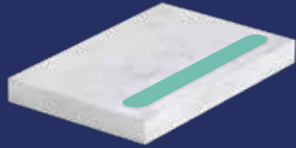


Machining processes

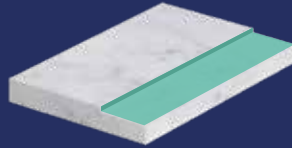
Machines from the **ES series** can be used for a wide range of machining processes, including:



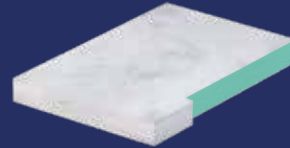
Edge polishing



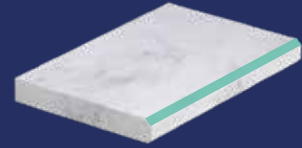
Bush-hammering



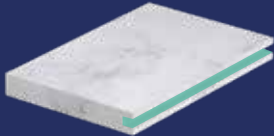
Calibration



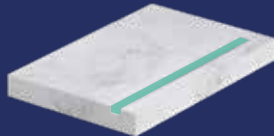
Edge rectification



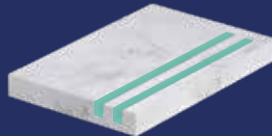
Top/bottom bevelling



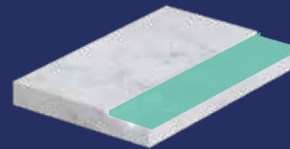
Blind/through edge
cutting



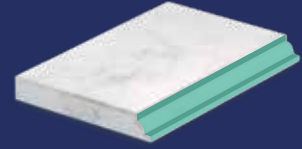
Upper and lower blind/
through blade cutting



Upper and lower
multidisc blind/
through blade cutting



Calibration/polishing



Edge profiling
(with dedicated tool)

Components



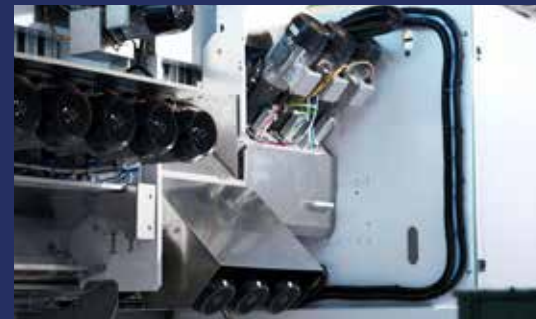
Control panel

Device for the control, use, and programming of the machine, equipped with an 18.5" touch-screen and an adjustable arm. It includes dedicated physical buttons for managing the work cycle, allowing the operator to program all processing operations in automatic mode and to handle simple manual operations. The system also features USB ports for uploading work recipes.



Machining heads for flat cut edges

The head group for flat edge processing consists of a solid machined structure that supports the working heads. An oscillating connecting rod system allows a $\pm 1^\circ$ oscillation of the entire head beam, improving the polished finish on difficult materials. Each head is powered by a 1.5 kW motor and can be equipped with abrasives up to $\varnothing 150$ mm. The activation and adjustment of the working pressure are managed independently for each head.



Top and bottom bevelling unit

The bevelling group works on the upper and lower sides of the pieces, combining the action of a diamond head with one or more abrasive heads. The diamond head is powered by a 2.2 kW motor and can accommodate $\varnothing 130$ mm tools, with a self-adjusting system that ensures uniform bevels even on pieces with variable thickness. The abrasive head, on the other hand, is equipped with a 1.5 kW motor and can accommodate abrasives up to $\varnothing 150$ mm.



Automatic greasing system

The machine is equipped with a centralized automatic greasing system, designed for the lubrication of the various processing devices and the belt.

This system simplifies maintenance operations and, thanks to integrated alarm sensors, helps prevent potential machine downtime.



Pneumatic pressors roller bar

The pneumatic pressor system is automatically controlled to adapt to variations in the thickness of the pieces. The pressing force of the pressors is adjusted via a precision regulator with a pressure gauge, located on the front panel of the machine.



Monobloc frame

The rigid self-supporting frame houses all the main components of the machine, excluding the auxiliary roller tables.

The structure is made of welded and painted steel to ensure greater protection and durability. It includes support sides, a main base for the conveyor belt, and adjustable support feet that allow for height adjustment of the belt.



Worktable with belt conveyor

The worktable consists of a robust welded steel structure, on which sacrificial stainless-steel plates are mounted to facilitate the sliding of the piece feed belt. The belt is coated with wear-resistant rubber material and is driven by a worm gear reducer connected to a three-phase asynchronous motor with adjustable speed.



Extendable front bar

The machine is equipped with an extendable and adjustable workpiece support bar, designed to support pieces wider than the conveyor belt.

The bar is fitted with a series of idle rollers mounted on an aluminium structure, providing stable and flexible support for the workpieces.



Automatic sliding block in bevelling unit

The self-adjusting mechanical system ensures uniform bevels even on pieces with irregular thickness. Fully adjustable via the control panel or through preset recipes, it allows for standardizing and speeding up setup operations.



Water conveyance tanks

The machine is equipped with water troughs and conveyor slides, positioned under the belt and the various working devices. These components serve to collect and channel the processing water towards the discharge points, keeping the work environment clean and dry.



Automatic bevel group repositioning

System that allows the repositioning of the bevel group based on the thickness of the piece, thus ensuring maximum precision in processing.

This component is not available for the ES40.



Automatic workpiece thickness reading

Through two precision sensors, the system detects the thickness of the slab to manage the working devices and the geometry of the piece. This allows the software to optimize the settings, ensuring more precise processing.

This component is available as optional for the ES40.

Optional elements



Stand alone front bar

Additional workpiece support bar, equipped with independent and adjustable supports for the support of large-sized pieces. Composed of several aluminum profiles and rubber wheels for greater versatility and ease of movement.



Feeding and discharge roller conveyors

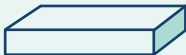
The modular workpiece support roller conveyor is made with an aluminum structure and a series of double rubber-coated idle rollers. It can be fixed both at the machine's inlet and outlet and allows the sequential mounting of multiple modules, each with a base length of 1000 mm.



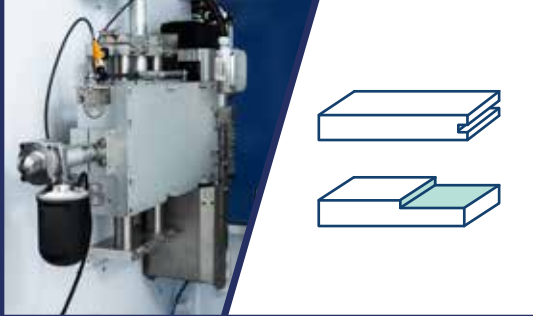
Accessories for front bar

- Double row of wheels.
- 1-meter extension of the machine's standard extendable front bar, particularly useful for supporting long pieces at both the inlet and outlet.

Configurable devices and processes

GROUP	PROCESSES
FLAT EDGE HEADS	
TOP BEVEL	
BOTTOM BEVEL	
CALIBRATOR OR KERF	 
BLADE CUTTING UNIT	  
ADJUSTABLE BLADE CUTTING UNIT	    
BLADE CUTTING UNIT OR CALIBRATOR	      
CALIBRATOR AND POLISHER	 
POLISHER AND BUSH-HAMMERING DEVICE	 
POLISHER GROUP	

Configurable devices



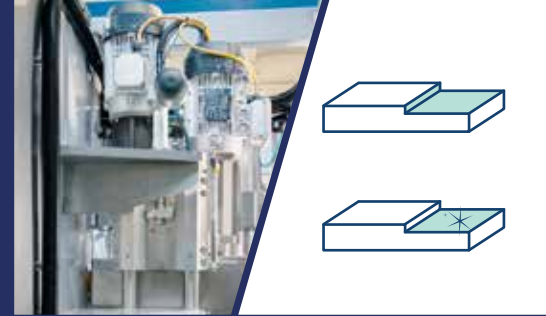
VERTICAL MOTOR (CALIBRATOR/KERF)

The Vertical Motor group uses a 3 kW motor, with vertical and horizontal movement on a linear axis. It supports various tools (calibrator, cutting disc, shaped grinding wheels) for processing thicknesses and customized profiles.



HORIZONTAL MOTOR (BLADE CUTTING UNIT/GRINDING)

The Horizontal Motor group uses a 3 kW motor, with vertical and horizontal movement via a linear axis. It can mount tools such as a calibrator for edge grinding and a cutting disc on the upper and lower parts of the piece, both blind and through cuts (drip edges).



CALIBRATOR + FIXED POLISHER

The combined group is equipped with an automatic linear axis that adjusts the working height of two spindles: one with a calibrator and a 2.2 kW motor, and the second with an abrasive head and a 1.5 kW motor with pneumatic floating movement.

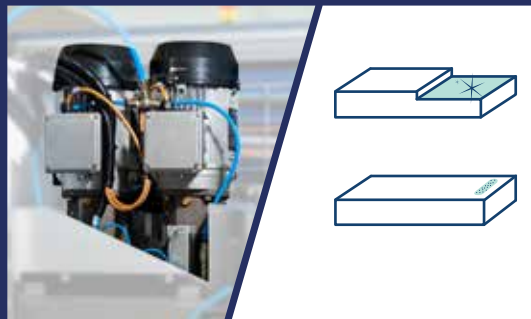
The two spindles can operate individually or together.



BLADE CUTTING UNIT/ ADJUSTABLE CALIBRATOR

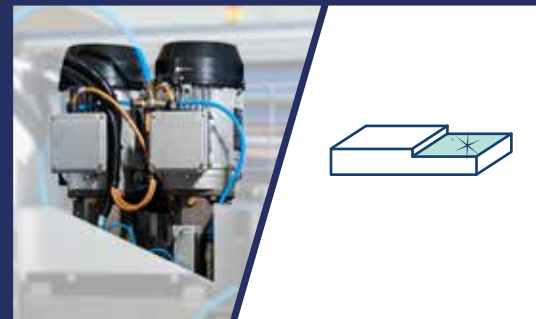
Multifunction group composed of two linear axes that automatically position a spindle along the Y and Z axes, with manual inclination from 0° to 90°. It can mount cutting discs, calibrators, and shaping grinding wheels.

Processing at 0° and 90° is managed automatically, with through or blind cuts at the inlet and/or outlet. For intermediate inclinations, the operator manually adjusts the position of the axes.



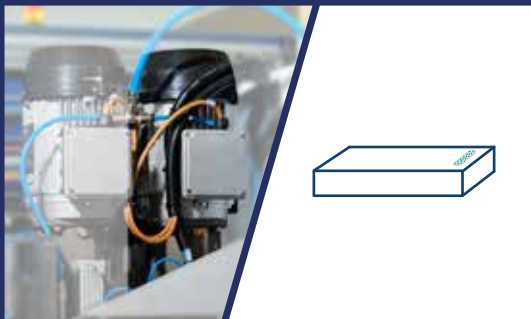
POLISHER+ADJUSTABLE BUSH- HAMMERING

The polisher/bush-hammering group can carry one or two abrasive heads and is movable horizontally using a linear axis, which adjusts the width of the area to be cleaned or the position of the area to be bush-hammered. When present, it is always the last unit at the machine outlet.



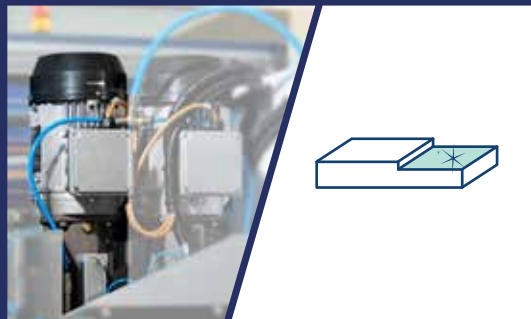
DOUBLE ADJUSTABLE POLISHER

The double cleaner group consists of two 1.5 kW heads with pneumatic floating movement at the outlet. It is mounted on a linear axis to adjust the width of the area to be cleaned. The double-head configuration ensures a high-quality finish and is always positioned as the last unit at the machine outlet.



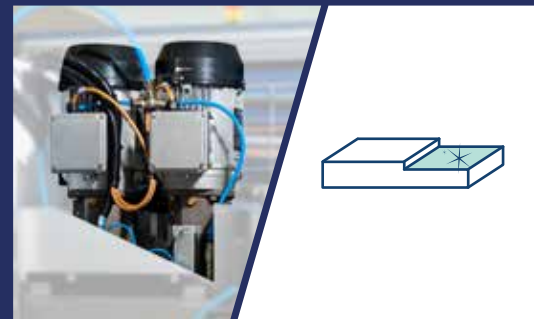
ADJUSTABLE BUSH-HAMMERING DEVICE

The single bush-hammering group is equipped with a 2.2 kW head featuring pneumatic floating movement at the outlet and horizontal adjustment via a linear axis, allowing precise positioning of the area to be bush-hammered. It is always placed as the last unit at the machine outlet.



ADJUSTABLE POLISHER

The single cleaner group is equipped with a 1.5 kW head featuring pneumatic floating movement at the outlet, mounted on a linear axis that allows adjustment of the width of the area to be cleaned. It is always positioned as the last unit at the machine outlet.



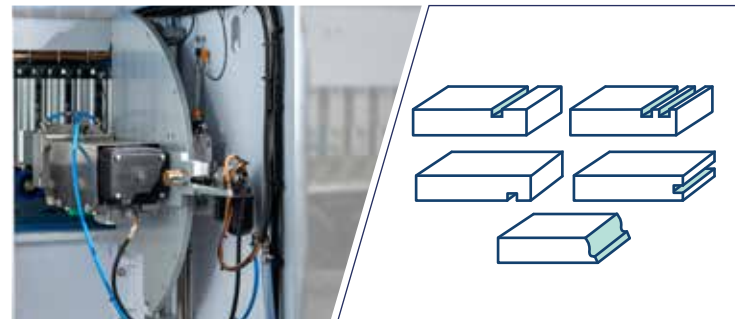
DOUBLE FIXED POLISHER

The double cleaner group features two 1.5 kW heads with pneumatic floating movement and a fixed cleaning width of 50 mm. The double-head configuration ensures a superior quality finish.



FIXED POLISHER

The single cleaner group is equipped with a 1.5 kW working head with pneumatic floating movement. The width of the area to be cleaned is fixed at 50 mm.



ADJUSTABLE BLADE-CUTTING UNIT

The group consists of two automatically positioned linear axes and a spindle along the Y and Z axes, which can be manually tilted from 0° to 90°. It can be equipped with cutting discs and shaping grinding wheels. Operations at 0° and 90° are managed automatically, with through or blind cuts. For intermediate angles, the operator manually adjusts the position of the axes.

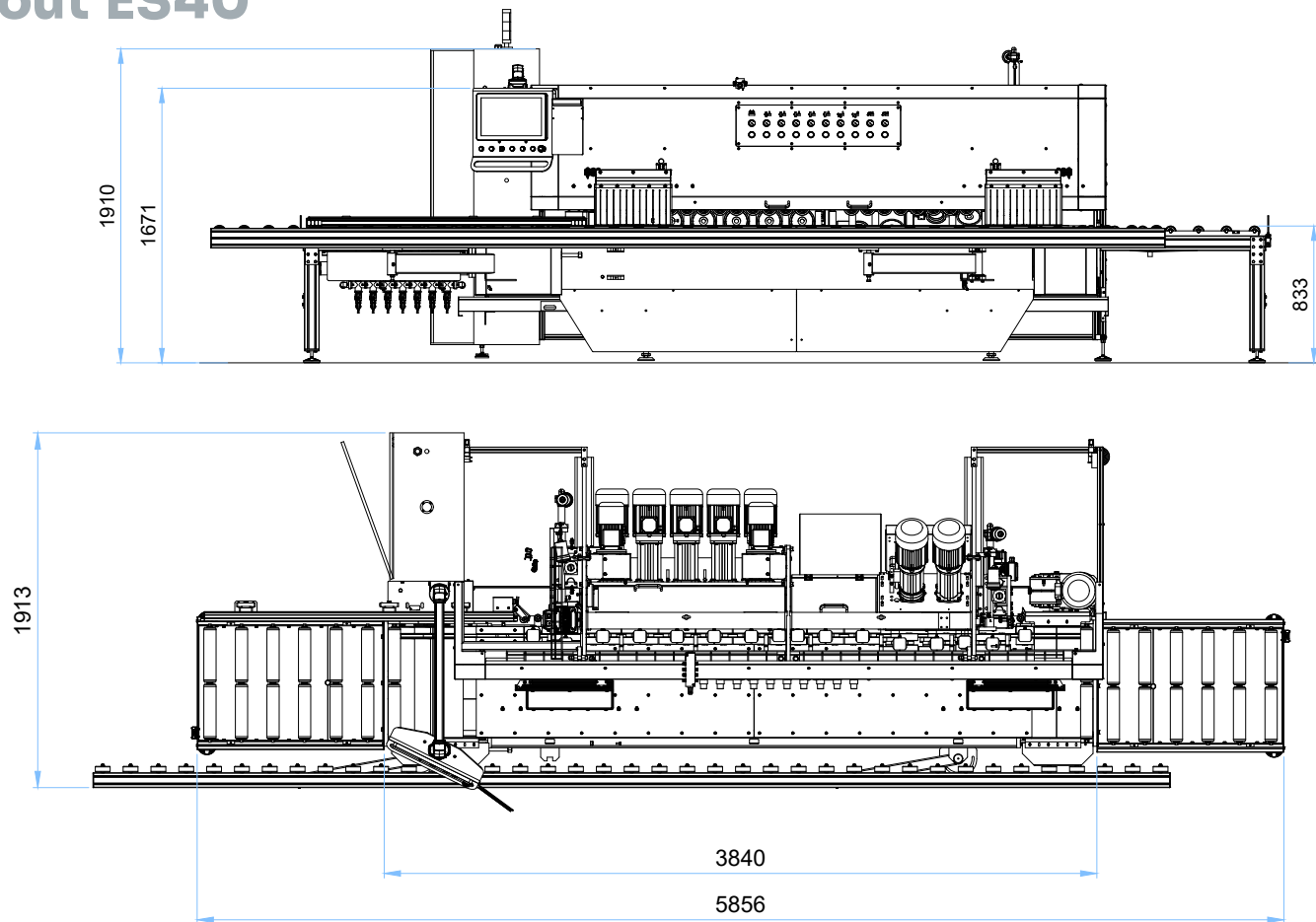
Technical data sheet

		ES40	ES47	ES58
Belt width	mm	600	600	600
Bench length	mm	3840	4700	5800
Max number of configurable devices	N°	11	16	20
Max dia of abrasive tools	diam.	150	150	150
Belt speed (min/max)	cm / min	30/300	30/300	30/300
Pressors type	-	Pneumatic	Pneumatic	Pneumatic
Min. workable width	mm	50	50	50
Workable thickness (min/max)	mm	5-50	5-80	5-80
Installed power (max)	kW	25	35	45
Standard electrical voltage	V/Hz	400±10% / 50	400±10% / 50	400±10% / 50
Water consumption	l/min	150	200	300
Air consumption	NI/min	80	100	150
Height of the workbench from the ground	mm	800-860	800-860	800-860
Overall dimensions excluding rollers (width/length/height)	mm	3840 x 1900 x 1900	4700 x 1900 x 1900	5800 x 1900 x 1900
Machine weight	kg	3000	3800	4500

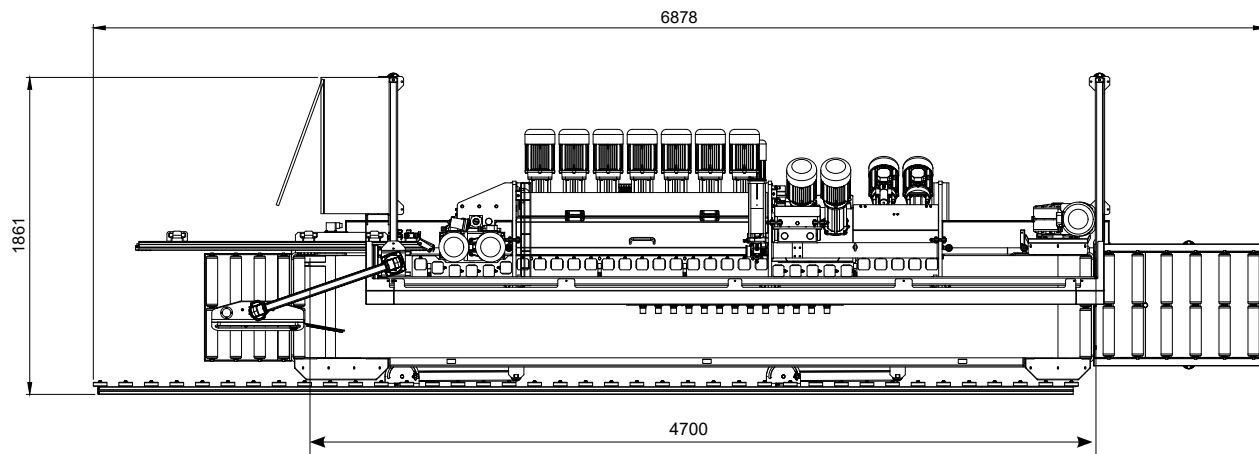
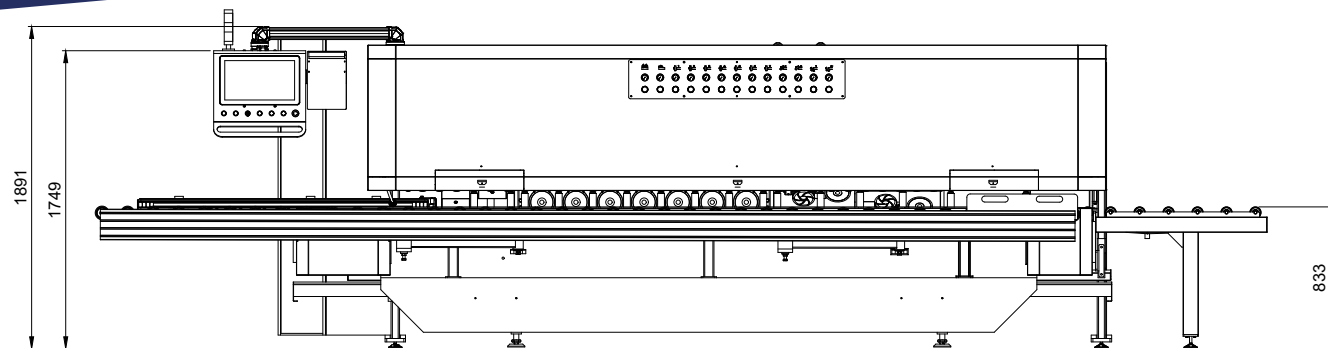
Devices technical data sheet

	Spindle power	Spindle speed	Tool dia
	kW	Rpm	mm
Group calibrator/kerf motor	3	3000	150
Group blade cutting/calibrator motor	5,8	3000	200
Group calibrator/polisher calibrator motor	2,2	3000	150
polisher motor	1,5	1500	150
Group polisher motor	1,5	1500	150
Group heads for flat-edge motor	1,5	1500	150
Group bevels (top+bott) diamond head motor	2,2	3000	130
abrasive head motor	1,5	1500	150
Group polisher/bush-hammering abrasive head motor	1,5	1500	150
bush-hammering head motor	2,2	3000	150
Group rectification/blade-cutting motor	3	3000	150

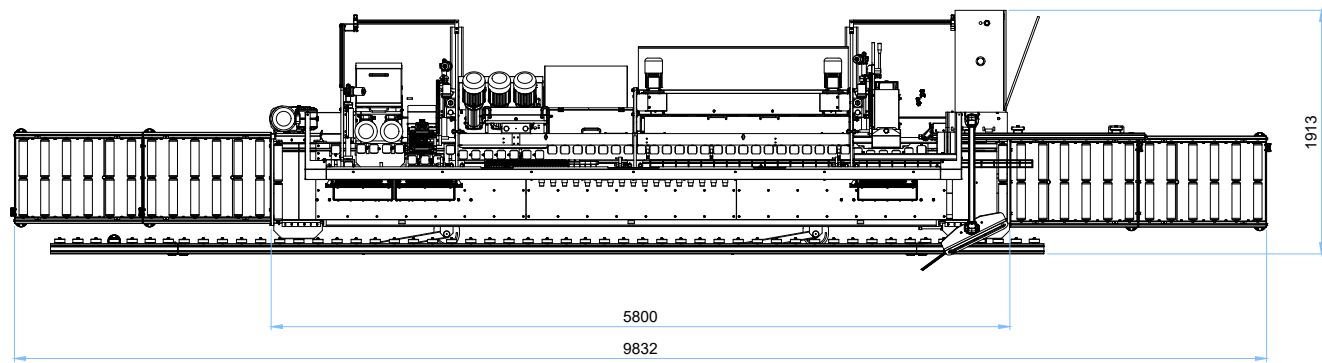
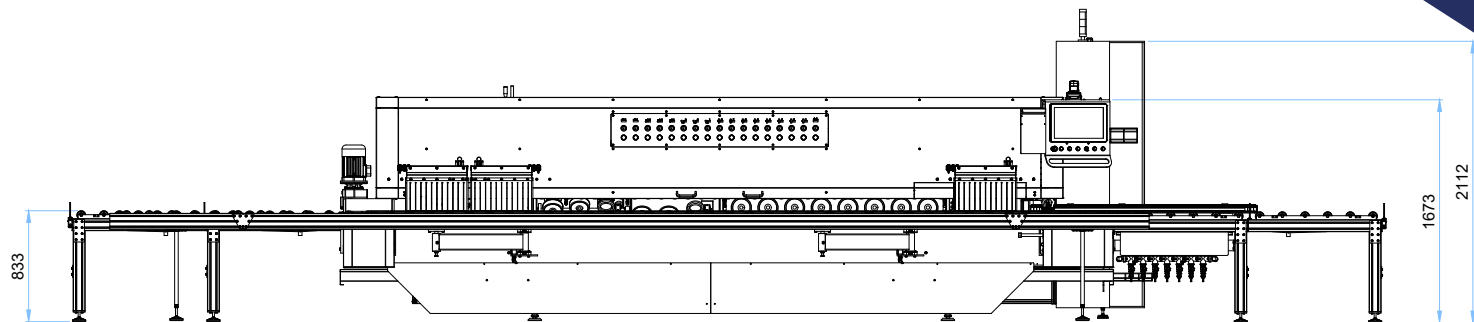
Layout ES40



Layout ES47



Layout ES58



ES40

Configuration examples



ENTRY AREA	WORKING AREA	EXIT AREA
CALIBRATOR OR KERF 	5 HEADS + 2 BOTTOM BEVELS + 2 TOP BEVELS 	BLADE CUTTING/RECTIFICATION 
-	5 HEADS + 2 BOTTOM BEVELS + 2 TOP BEVELS 	-
FIXED POLISHER 	5 HEADS + 2 BOTTOM BEVELS + 2 TOP BEVELS 	BLADE CUTTING/RECTIFICATION 

ES47

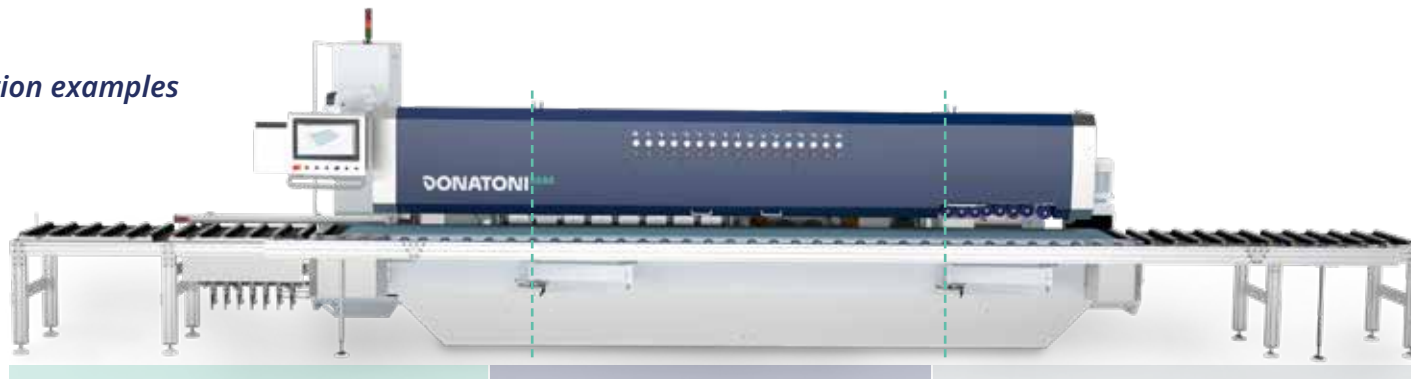
Configuration examples

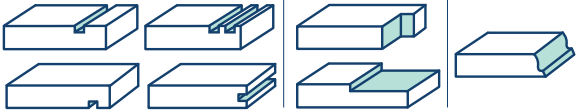
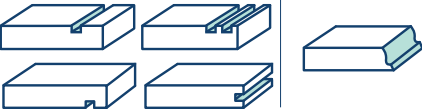
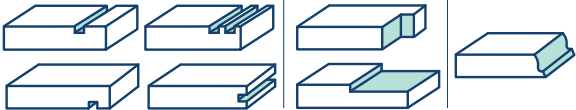


ENTRY AREA	WORKING AREA	EXIT AREA
CALIBRATOR AND POLISHER 	7 HEADS + 2 BOTTOM BEVELS + 2 TOP BEVELS 	BLADE-CUTTING 
BLADE-CUTTING / CALIBRATOR 	7 HEADS + 2 BOTTOM BEVELS + 2 TOP BEVELS 	ADJUSTABLE POLISHER - BUSH-HAMMERING 
CALIBRATOR OR KERF 	8 HEADS + 3 BOTTOM BEVELS + 3 TOP BEVELS 	-

ES58

Configuration examples



ENTRY AREA	WORKING AREA	EXIT AREA
BLADE-CUTTING / CALIBRATOR 	8 HEADS + 3 BOTTOM BEVELS + 3 TOP BEVELS 	BLADE-CUTTING + DOUBLE FIXED POLISHER 
CALIBRATOR AND POLISHER 	8 HEADS + 3 BOTTOM BEVELS + 3 TOP BEVELS 	ADJUSTABLE BLADE-CUTTING 
BLADE-CUTTING / CALIBRATOR 	10 HEADS + 4 BOTTOM BEVELS + 4 TOP BEVELS 	BLADE CUTTING/RECTIFICATION 

Software

Donatoni Digital Suite

Over the years, DONATONI has developed a suite of software and platforms that interact and support customers toward **complete process automation and digitization**. The aim is to harmonize all digital tools to make **daily operations simpler and more efficient**.

D-EDGE



D-EDGE is proprietary software specifically designed to offer an advanced and intuitive interface during the processing with ES-SERIES models, ensuring precision and real-time control.

Its main features include:

- **Interactive 3D Preview:** A detailed three-dimensional representation of the edge polishing machine, showing the current status of each component, including those enabled or disabled. This visualization allows clear and immediate monitoring of the entire processing operation.
- **Real-Time Positioning:** The software provides a real-time view of the position

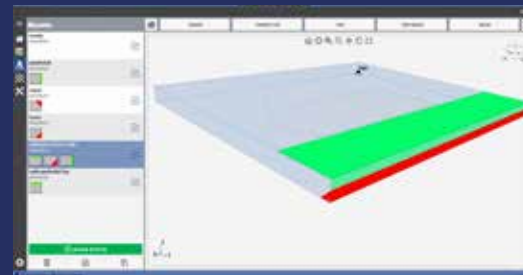
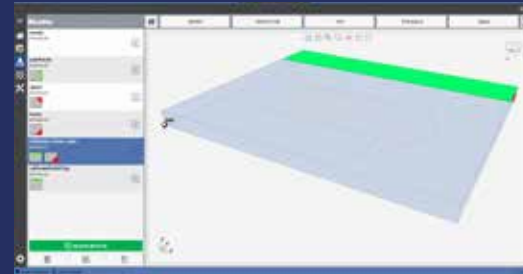
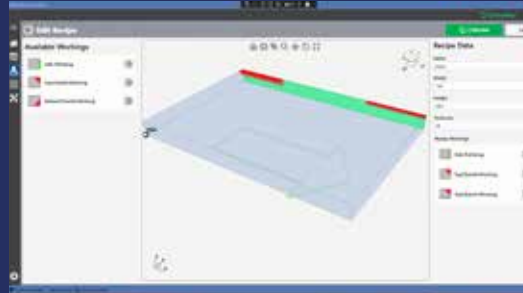


of the pieces being processed, tracking their movement within the machine. This function allows full control of the workflow and prompt intervention if necessary.

- **Work Recipe Management:** It is possible to create customized work recipes directly within the software, with the ability to save and load them from external devices. This facilitates the reuse of optimized configurations and quick adaptation to new jobs.
- **Definition of Processing Outcome:** Thanks to an intuitive system for defining processing parameters, the software automatically calculates the

measurements of the pieces based on the entered specifications. This enables precise prediction of the final result and minimizes errors.

- **3D Preview of the Processed Piece:** Before starting the operation, it is possible to visualize in 3D the portion of the piece's surface that will be processed. This preview allows verifying the correctness of the selection and making any adjustments before proceeding.
- **List of Operations:** The software provides an overview of the operations set for each recipe, listing the number and type of programmed tasks. This summary facilitates recipe management and ensures that all process steps are correctly configured.



An advanced tool not only capable of improving operational efficiency but also enhancing the precision and quality of the final products, making it essential for anyone using an edge polishing machine.

MAIN ADVANTAGES

- Guided recipe creation.
- Visual and immediate management of machine groups.
- On-screen display of the recipe result on the workpiece.
- Management of piece/recipe queue to perform different operations on sequential pieces.
- Industry 4.0 readiness and native integration with Dmes.

D-MES

DONATONI MES is the first MES system on the market specifically designed for the stone industry.

More than just software, DONATONI MES is a **complete Manufacturing Execution System** capable of managing and scheduling the entire production workflow—from slab acquisition and cataloging in the warehouse to final processing, packaging, and shipping.

It includes instant reporting features for production statistics, consumption tracking, and detailed reports on each production cycle.

The D-MES system provides a comprehensive solution to streamline production management, improve process traceability, and integrate all business areas into a single, unified workflow.



What needs does D-MES address?

- Support for preparing quotes thanks to the ability to program the entire work cycle.
- Real-time and final production monitoring.
- Management of slab inventory with all properties, dimensions, and associated job orders.
- Optimization and reuse of scrap materials.
- Centralized management of all production files—from job order to cutting and processing programs—in a single database.

D-PORTAL

D-Portal is an exclusive, completely free platform designed for Donatoni customers. Through D-Portal, users can access all documentation related to their Donatoni machines, including manuals, electrical diagrams, CE declarations, and layout drawings. In the **Interactive Manuals** section, machine information is easily accessible and enriched with an **interactive spare parts catalogue**.

The platform also features a collection of short video tutorials covering maintenance and machine programming tasks, helping operators independently resolve common operational questions. Finally, **D-Portal allows users to open support tickets directly**, ensuring fast and efficient customer service.



Donatoni Service

Specialized Support and Rapid Solutions to Maximize Machine and Plant Efficiency.

Support

For any need, our customer service department can be contacted to promptly identify and resolve any issue, offering the fastest and most effective solution. Our support team is always available to assist customers with all aspects related to machine functionality.

 **Tel.** +39 - 045 6862899
 From Monday to Friday, 7.30-18.30
Saturday 8.00 - 12.00
(UTC +1 CET – Central European Time)

Maintenance

Donatoni's ordinary and extraordinary maintenance service is entrusted to our specialized technicians, who ensure long-term reliability and efficiency of our customers' machines, both in Italy and abroad.

Our highly qualified experts are trained to quickly identify and resolve faults, optimizing response times and ensuring longer life for machines and systems.

Whatsapp: + 39 0457740052
Telegram: @donatonimacchine_bot

Installation and more

Donatoni Service is not only support—it also includes installation, commissioning, and training on machines and systems.

Our highly qualified technicians assist customers through every phase, ensuring a smooth start-up and providing comprehensive training to guarantee optimal and independent use of the technologies.

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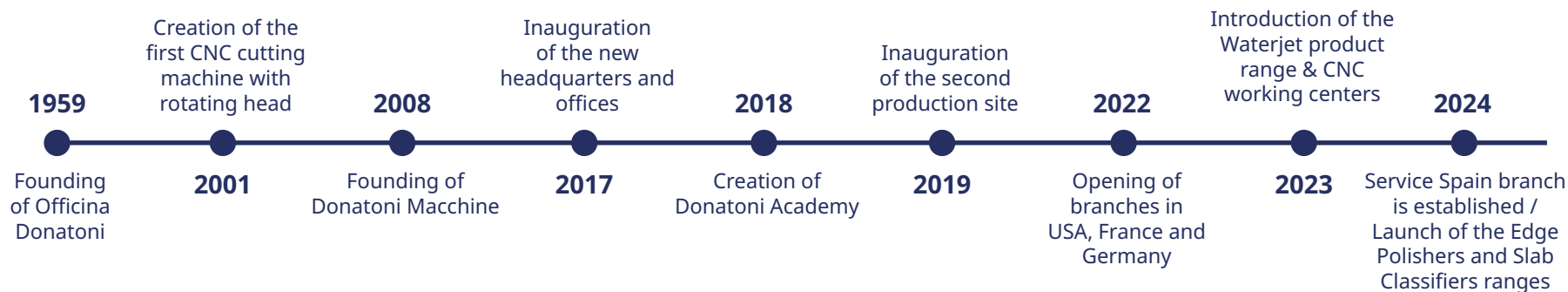
Donatoni Group

Donatoni Group stems from a **long-standing experience** that began in the late 1950s and has since evolved within the stone processing industry.

Today, it is recognized as one of the world's leading companies in the production of high-quality machinery for stone processing.

Ongoing research, technological innovation, and a strong focus on customer service are the pillars on which the company is founded. A highly qualified team ensures that customers receive products that fully meet their expectations in terms of quality and performance.

Supporting its global growth, **Donatoni Group** is present in international markets through a network of agents and direct branches.



Donatoni Academy

Training as a tool for success

Since 2018, Donatoni Academy has supported professionals in the stone industry by offering continuous training on new technologies for marble processing. The Academy combines traditional know-how with innovation, offering both practical and theoretical courses on Donatoni machines and software, and more. Training for CNC operators ensures customers receive complete and qualified preparation to face the challenges of the sector.

Contacts:

info@donatoniacademy.eu

Donatoni Showroom

A space dedicated to the customer

The Donatoni Machine showroom is always available to customers for private demos, refresher courses, and in-depth training on the use of Donatoni machines and software. It also offers customized machining tests and specific consultations on materials and special requests. An excellent service that provides a valuable opportunity to explore the machines' features in detail and optimize production processes through hands-on sessions and personalized consulting.

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