

ZENIT

SINGLE-HEAD POLISHER / CALIBRATOR

DONATONI



DONATONI
HIGH INNOVATION STONE MACHINES

Highest quality For your skill

To highlight a machine and its potential often means to open the doors to new opportunities and markets



A photograph of a large industrial machine, likely a CNC lathe or mill, in a factory setting. The machine is white and grey, with various components like a tool holder and a control panel visible. The background shows a high ceiling with skylights.

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COMPLETE SURFACE TREATMENT

CNC SINGLE-HEAD
POLISHER / CALIBRATOR



EXTREME PRECISION FOR EXCELLENT RESULTS

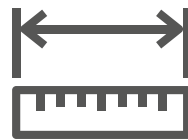
Zenit is the a **3 interpolated axes** CNC polishing / calibrating machine with automatic tools change, for the treatment of marble, granite and agglomerate surfaces. It allows to calibrate, polish, smooth, brush and also drill, to perform engravings, straight and curvilinear cuts with incremental passes by means of diamond milling tools. It is an extremely flexible machine, ideal for those

who need a complete equipment to treat even particularly delicate surfaces or to finish mosaics or inlays.

Its strength lies in the dual-control system of pneumatic and mechanical handling of the polishing and calibrating tool; the result is an extreme precision with excellent performances on any material.



**CALIBRATING AND POLISHING
IN A SINGLE MACHINE**



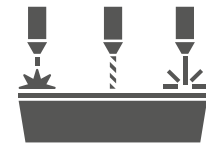
**CNC TECHNOLOGY FOR THE
MAXIMUM PRECISION AND
PRODUCTIVITY**



**AUTOMATIC SYSTEM THAT
FOLLOWS THE IRREGULAR
EDGES**



**SIMPLE AND QUICK
TO PROGRAM**



**TOOL HOLDER WITH
10 WORKSTATIONS**



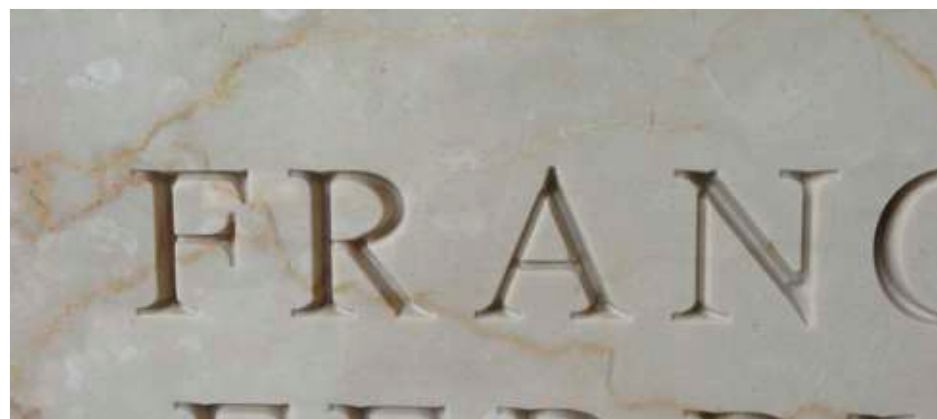
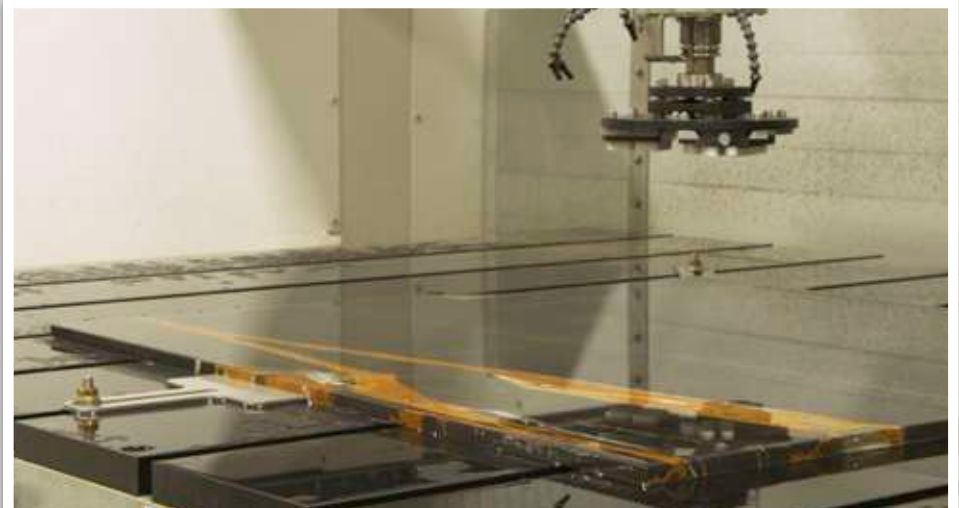
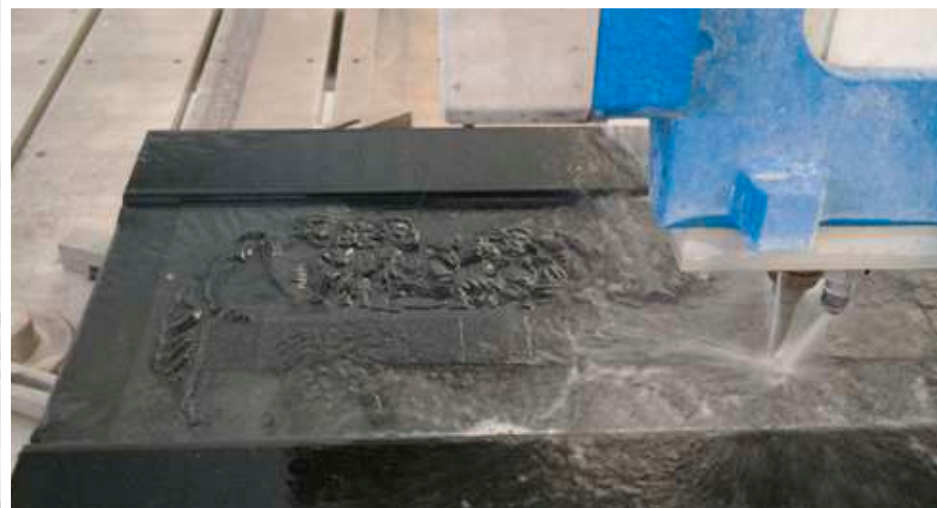
PROCESSING WITHOUT LIMITS

VERSATILE REALIZATIONS



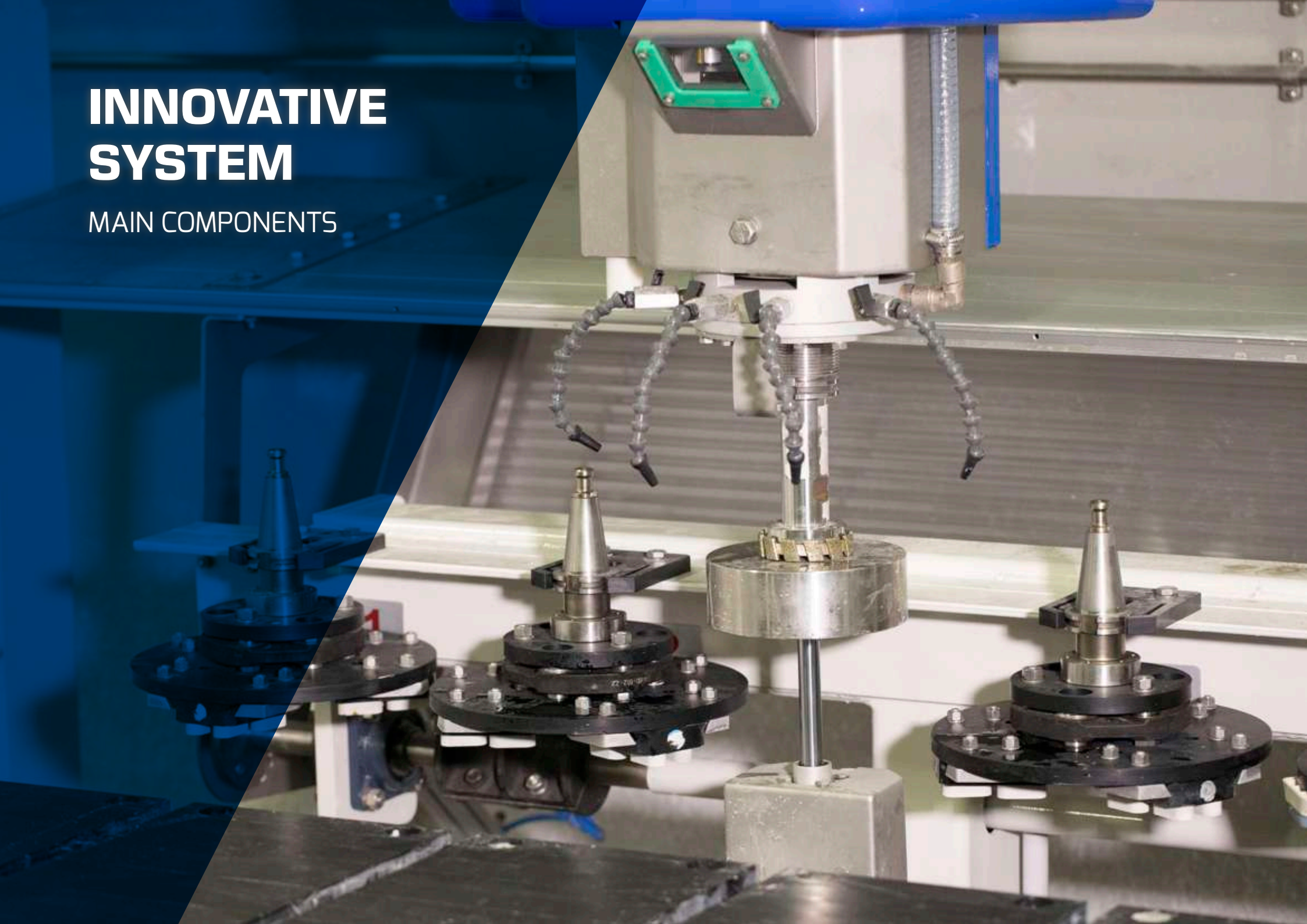
PROCESSING

Inlays, mosaics, marble slabs, bas-reliefs, engravings.



INNOVATIVE SYSTEM

MAIN COMPONENTS



- / 3 INTERPOLATED AXES X-Y-Z
- / PNEUMATIC PRESSURE SYSTEM FOR POLISHING
- / MECHANICAL POSITIONING BY MEANS OF RECIRCULATING BALL SCREWS FOR CALIBRATION
- / SINGLE-HEAD MACHINE WITH ATC ISO 40 BRUSHLESS MOTOR AND HIGH PRECISION GEARBOX
- / PNEUMATIC SYSTEM FOR LOCKING AND RELEASING THE ISO 40 CONE
- / Z-AXIS STROKE UP TO 370 MM
- / NORMALIZED, SANDBLASTED AND PAINTED STEEL STRUCTURE WITH TRIPLE-LAYER

TYPE OF PROCESSING



CALIBRATING



DRILLING

necessario
software
CAD-CAM



POLISHING



STRAIGHT AND
CURVILINEAR
CUTS



SMOOTHING



ENGRAVINGS



BRUSHING

INNOVATION IS STANDARD

STANDARD COMPONENTS



Bridge: structure normalized and sandblasted in painted steel, equipped with a brushless motor and a gearbox to move on the lateral guides.



Electro-spindle and carriage unit: made up of 17.6 kW ISO 40 electro-spindle with automatic tool changer, mounted on a normalized, sandblasted and painted triple-layer steel carriage.



Bench: bench with manual locking system, of different types and versions, fixed or tilting, in wood, aluminum or plastic.



Tool holder + ISO 40 tools: equipped with 10 ISO 40 cone holders, nr. 9 plates with a diameter of 300 mm with 3 Frankfurt abrasives and one with a calibrating tool.



Tool presetting: measuring unit detecting the thickness of the tools ensuring greater precision during processing.



Laser to detect slab thickness: system to detect the slab perimeter using a laser pointer that generates the working area on machine board, speeding up the programming proceedings.



Slab thickness detector: system for automatic detection of slab thickness.



Front and rear access guards: front doors equipped with safety lock complying with current safety regulations.



Side crosspieces: in normalized, sandblasted and painted triple-layer steel, where the sliding guides are greased automatically and protected by bellows.



Control panel: consisting of double-jointed carrying arm, manual controls, video 15" color touch-screen, keyboard and usb port for importing files.



ACCESSORIES

OPTIONAL



Suction Cup Kit (needs aluminum bench): piece clamping system for processings such as engraving, millings, bas-reliefs. Complete with suction cups, vacuum pump with tank and distributor with taps.



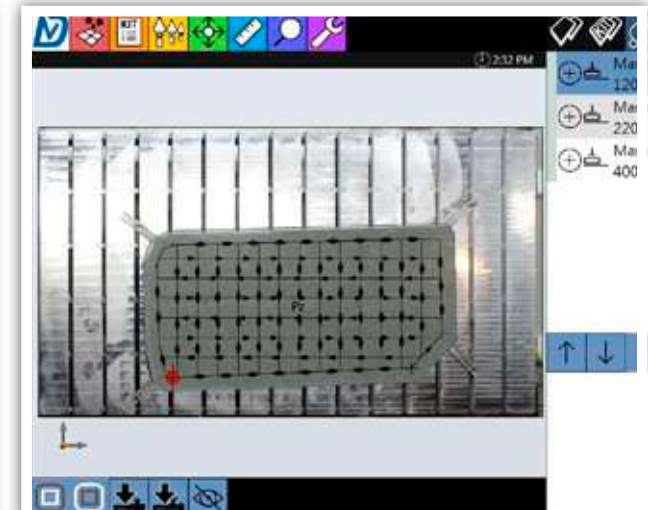
Support walls painted, normalized and sandblasted.



Single-piece frame: painted, normalized and sandblasted.



Camera for slabs: slab detection system, with camera placed above the workbench and software for image record. The application allows to speed up the machine programming.



AN INTELLIGENT SYSTEM TO MAKE YOUR WORK EASIER

LET US DRIVE YOU TOWARDS
AN INTELLIGENT CHOICE OF
MACHINE



D-INSIDE:

EQUIP YOURSELVES WITH
A SUPERIOR FORM OF
INTELLIGENCE



OPERATOR INTERFACE WITH PC AND 15" VIDEO

COLOUR TOUCH-SCREEN

PRECISION OF MOVEMENTS WHICH ENABLES
COMPLEX AND INTRICATE PROCESSING

USB PORT FOR TRANSFERRING FILES

CONTROLS FOR MANUAL MOVEMENT OF AXES



Perfection in the machining is achieved through multiple movements that need perfect coordination between them. While in the human body all movements are managed through brain impulses, similarly in our machines the management of movements takes place through the **integration of the machine with the programming software.**

Every Donatoni machine is born with an intelligent work management system, integrated with all the parts that manages its movements; we call this system **D-Inside**, the real brain of the machine; it is an advanced but simple interface in terms of its usability, even for inexperienced operators, which enables the machine software system to be coordinated.

The D-Inside system offers many programming options and can be interfaced with the different kinds of Donatoni software, such as Parametrix and all additional modules, or the CAD-CAM DDX EasySTONE, in such a way as to make it possible to adapt the machine in the best way to suit the requirements of the customer.

LUXTRA

Luxtra is the specific software for the Zenith single-head polisher. This software was created by Donatoni and allows polishing, calibrating and smoothing processing on slabs of marble, granite and stone in general.

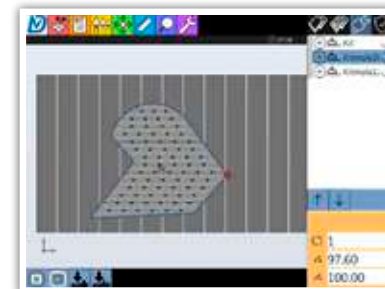
Thanks to the slabs camera on board, the software allows to perfectly follow the slab edges, even the irregular ones, based on the desired type of cut.

During the processing it is possible to preview the passes; the operator can also adjust the pressure according to the type of abrasive mounted and to his own experience.

Type of passes:

- Peripheral: pass along the perimeter of the slab.
- Longitudinal
- Transversal
- Zig Zag
- Oblique

The software controls the pressure system used by the machine for polishing or calibrating processings. If the calibration is selected, the Luxtra software disable the pneumatic pressure system by enabling the mechanical pressure system. This system allows to get an higher quality controlled result even on soft processing such as mosaics and onix or semi-precious inlays.





DDX EasySTONE

OPTIONAL

DDX Easystone is powerful, simple and intuitive CAD / CAM software for machines Donatoni.

The software allows to design, import and execute 2D and 3D files in DXF, IGES, STL, PNT, STEP and RHINO formats and to define surfaces and shapes through laser scanning. Multiple processes can be set: roughing, drilling, profiling, emptying and polishing, which can be carried out by optimizing the execution process.

After the import, the software optimizes processing paths, performs roughing / finishing taking into account the raw material resulting after processing.

With EasySTONE it is possible to display the processing 3D image with virtual milling and to modify it if required. The 3D simulation of the processing, including free displacements, is realistic as it is based on the Customer's machine model and shows the three-dimensional model of the working center, of the bench, of the motors, the tools, the sub-pieces and the pieces .

Once the design phase is completed, EasySTONE generates the piece-programs and sends it directly to the Customer's working center.

Finally, it calculates times, lengths and processing costs, allowing accurate reporting of the work performed.

WITH DONATONI YOU ARE NEVER ALONE

AFTERSALES
SERVICE AND ASSISTANCE

The relationship with the customer does not end with the supply of the product but continues and is strengthened through a reciprocal collaboration which creates value for both customer and supplier.



DIRECT CONNECTION WITH OUR TECHNICIANS

The commitment to our Customers continues even after delivery of the machine, offering a service of support and aftersales service of utmost quality. For Donatoni Macchine the best service is to supply **efficient and long-lasting machines which require little maintenance and aftersales assistance.**

We believe that **the added value that we can offer customers is a series of services including technical advice and support and training activities** for operators regarding technical aspects or the software.

MACHINE INSTALLATION

Our machine are installed by highly specialized technicians granting extraordinary levels of professional work. Installation includes a careful installation service, commissioning of the machine and training of operators according to the model of machine installed.

ON SITE ASSISTANCE

We provide on site assistance at the clients premises if not possible to use the Tele Assistance by modem.

CAD-CAM TECHNICAL ADVICE

we help our customers in creating and designing projects and objects.

DIRECT CONNECTION - ON-LINE ASSISTANCE

Each machine is supplied with a system that enables it to be connected by Tele-Assistance to our After-sale service (we require connection to the network via a cable). This service enables our technical staff to virtually access the customer machine and to carry out checks, updates and to provide technical assistance as if they were there at the machine location in person.

PARTS AND REPLACEMENTS SERVICE

We handle requests for parts and replacements in any part of the world, in short time frames in order to minimise machine down-time.

EXTENSIVE SALES AND ASSISTANCE STRUCTURE

Donatoni is present in many countries worldwide thanks to a structure of reliable and competent partners and agents, among which the Biesse group Intermac branches.

THEORETICAL/PRACTICAL TRAINING

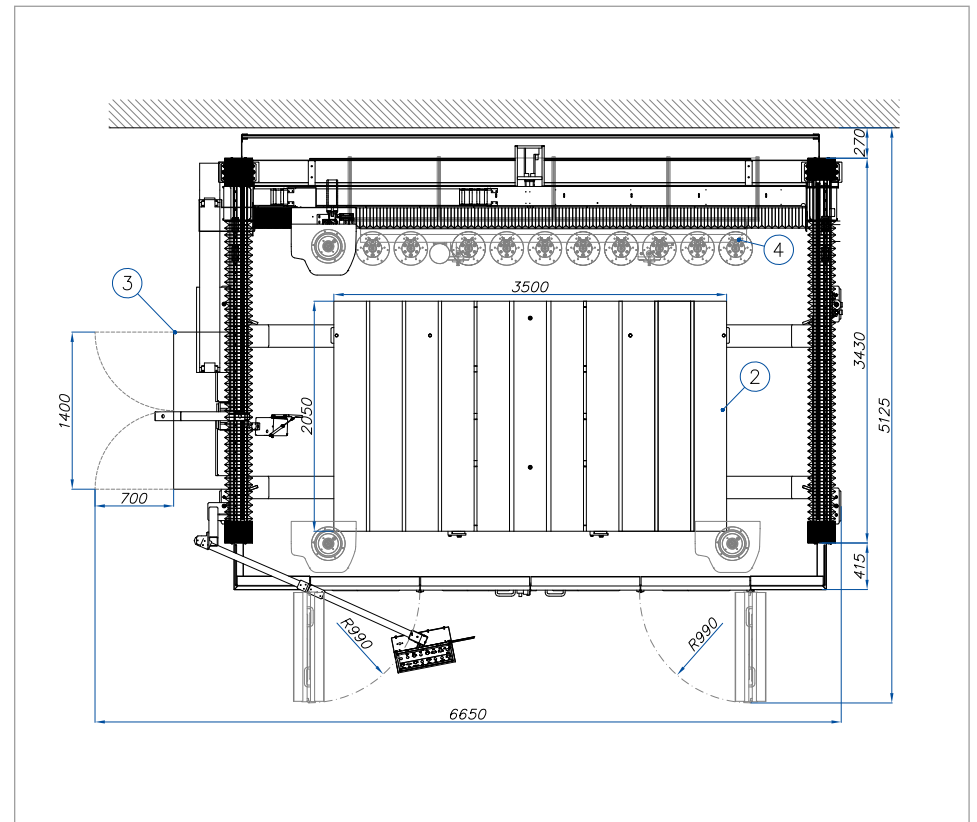
Training courses and update courses regarding new applications and software at our offices or at customer premises. Our offices are equipped to host courses for technicians and operators. The rooms are next to the machines on display in our show room and therefore this allows tests and checks to be carried out directly on the console of the machine and the level of learning can be evaluated.



Technical drawing of a 3D printing machine (likely a large format printer) showing dimensions and labels. The machine is mounted on a base with a textured surface.

Dimensions and Labels:

- WALLS = 1270**: Dimension for the wall height.
- 2310**: Dimension for the wall height.
- 3860**: Total height of the machine.
- 660**: Dimension for the width of the machine.
- CENTER RAIL = 5256**: Dimension for the center rail length.
- X = 3600**: Dimension for the X-axis length.
- 660**: Dimension for the width of the machine.
- 773**: Dimension for the base width.
- 3500**: Dimension for the base length.
- 773**: Dimension for the base width.
- 276**: Dimension for the base height.
- 370**: Dimension for the base height.
- 1**: Label for the main body of the machine.
- 3**: Label for the wall structure.



Maximum number of interpolated axis	N°	3
X axis stroke	mm in	3600 142
Y axis stroke	mm in	2650 105
Z axis stroke (head high/low motion)	mm in	370 14,6
Max material thickness for polishing	mm in	276 10,90
Working bench dimensions	mm in	2050 x 3500 80,7 x 137,8
Electro spindle motor power	kW Hp	17,6 / 56 23,6 / 56
Tool rotation with inverter	rpm	0 / 7500
Tool connection	ISO	ISO 40

Max speed axis X	m / min ft / min	0 – 35 0 – 114
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Max speed axis Y	m / min ft / min	0 – 25 0 – 82
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Max speed head axis Z	m / min ft / min	0 – 5 0 – 16,5
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External Water consumption (3 bar)	l / min gal / min	40 10,6
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Internal Water consumption (3 bar)	l / min gal / min	25 6,6
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Air consumption	l / min gal / min	20 5,3
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Standard voltage	Volt / Hz	400 / 50
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Approx total weight of the machine	Kg lb	5000 11023
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The technical data and images in this catalog are indicative and do not constitute a constraint. The manufacturer reserves the right to make changes to the product, technical data and images without prior notice.

RANGE OF PRODUCTS

BRIDGE SAWS



Spin 625 cnc



Jet 625 cnc



Echo 725 cnc



Sprinter 825 cnc



Quadrix DV 1100



Quadrix XL 1600



DONATONI
HIGH INNOVATION STONE MACHINES

MULTI-FUNCTIONAL CUTTING CENTRE



Quadrix DG
1300/1600/2000

ROBOT



Cyberstone CR01

POLISHING AND CALIBRATION SYSTEMS



Zenit

UNIVERSAL CUTTING CENTRE



Kronos 500/650/900

CUTTING LINES



SX3/SX-5

SLAB LOADING / UNLOADING



Geko Loader

NOTE

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



A series of 15 horizontal lines for writing, spanning most of the page width.

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A series of 15 horizontal lines for writing, spanning most of the page width.

NOTE

[illegible]

ALL IN ONE



THREE EXCELLENCES,
ONE PARTNER.



Three leaders in the stone machining sector, combine skill, technology and a widespread distribution network to support customers in the creation of the intelligent factory, elevating the service provided in order to ensure 360° customer care.



INTERMAC.COM
DONATONIMACCHINE.EU
MONTRESOR.NET

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Donatoni Macchine, founded by Vittorio Donatoni in 1959 in Domegliara, one of the main marble and granite processing districts, is recognised, thanks to their years of experience gained in the natural stone industry during this time, as one of the world leaders in manufacturing **cutting-edge machines of very high quality for working stone**.

Constant research, technological innovation and customer service are key concepts for the company and in order to pursue them the company employs highly qualified technical and commercial personnel, in order to guarantee the end customer a **product that reflects their expectations in terms of quality and performance**.

