

Discovery 5 Axis Plus

RELIABILITY
TECHNOLOGY
INNOVATION

Take your company to the next level!



Discovery 5 Axis Plus

Fresatrice automatica a 5 assi interpolati con manipolatore
Automatic bridge saw machine with 5 interpolated axis with manipulator

LIFT+MOVE
Blade & Tools



Fotocamera per acquisire foto
della lastra
Camera slab capture



Laser rilevatore a punti di sagome
Laser detector points of templates



Pulsantiera remotata
Hand remote control

LA FRESATRICE PIÙ POTENTE DELLA SUA CATEGORIA.

E' dotata di dispositivo con ventose, utilizzato per la movimentazione dei pezzi tagliati, al fine di aumentare il processo produttivo riducendo i tempi di lavorazione.

THE MOST POWERFUL BRIDGE SAW OF ITS CATEGORY.

It is equipped with a suction cups device, used to move cut pieces to increase the production process while reducing processing time.



Attacco utensile 1/2 Gas
Tool connection 1/2 Gas



Inclinazione automatica del disco 0° ÷ 90°
Rotazione automatica della testa 0° ÷ 370°
Automatic tilting blade 0° ÷ 90°
Automatic rotating head 0° ÷ 370°



Piano di lavoro inclinabile idraulico
Hydraulic tilting work table

))) Tele **Service**

Teleassistenza attraverso collegamento internet per la risoluzione di eventuali anomalie.

Teleservice through internet connection for the resolution of any anomalies.

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Specifiche / Details

Fresatrice automatica a 5 assi interpolati con struttura macchina e piano di lavoro realizzati in acciaio elettrosaldato, ai quali viene applicato un trattamento di zincatura a caldo in immersione che garantisce elevata resistenza all'acqua.

Il motore lama ha una potenza di Hp 24 - kW 17.6 e può arrivare ad una velocità max di 4300 Rpm (Optional tools 6000 Rpm). Permette di tagliare spessori fino a 200 mm. con disco massimo da Ø 625 mm.

Motorizzazioni assi di tipo brushless digitali, accoppiati a riduttori ad alta precisione, guide lineari con pattini a ricircolo di sfere protette da soffiotti, permettono di eseguire tagli estremamente precisi.

Con la rotazione automatica della testa 370°, l'inclinazione del disco automatico da 0° a 90°, un pannello di comando Multi-Touch 17" di facile utilizzo, può eseguire tagli ortogonali, obliqui, ellittici, circolari, inclinati, sagomature rettilinee, concave, convesse ad arco, scavi di masselli bidimensionali e tridimensionali, sfruttando l'interpolazione degli assi.

Il movimento dell'asse Z avviene mediante vite a ricircolo di sfere.

Il tavolo di lavoro opzionale basculante con azionamento idraulico, favorisce il carico delle lastre, velocizzando il processo produttivo.

La Discovery 5 Axis Plus è ideale per realizzare design da interno ed esterno come top da cucina, top da bagno, capitelli, tavoli, lavandini, scale, pavimentazioni e arte funeraria.

Automatic bridge saw with 5 interpolated axis. Machine frame and work table made of hot galvanized dipped electro-welded steel that guarantees high water resistance.

The blade motor has 24Hp - 17.6 kW power, can reach a maximum speed of 4300 Rpm (Optional tools 6000 Rpm) and it can cut thicknesses up to 200mm. with disc max Ø 625 mm.

Digital brushless type axis drives, coupled with high precision gear motors, linear guides with recirculating balls protected by bellows, allow to do cuts extremely precise.

The automatic rotation of the head 370°, the automatic tilting head from 0° to 90°, a Multi-touch 17" display easy to use, allow to perform orthogonal, sideways, elliptical, circular, tilted, straight, concave, arched convex profiles, two and three-dimensional solid excavations, exploiting axis interpolation.

The Z axis is driven by a balls circulation screw.

The optional tilting work table with hydraulic pump promotes slab loading, speeding up the production process.

The Discovery 5 Axis Plus is ideal for indoor and outdoor designs such as kitchen countertops, vanity tops, capitals, tables, sinks, stairs, floors and funerary art.



Manipolatore con ventose
Manipulator with suction cups



Guide lineari con pattini a ricircolo di sfere
Linear guides with recirculating balls



Platello per lucidare, levigare, spazzolare
Plate for grinding, polishing or brushing



Consolle mobile con interfaccia 17" Multi-Touch
Mobile console with 17" Multi-Touch interface



Presetting disco
Blade presetting



Rilevatore spessore lastra
Slab thickness detector

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Automatic bridge saw machine with 5 interpolated axis with manipulator

Hardware / Software

Sistema basato su piattaforma Windows, integrato da scheda di controllo macchina, pannello di comando operativo Multi-Touch 17" con interfaccia M2 Easy Cut innovativa ed interattiva, che assicurano la facile esecuzione delle operazioni di gestione in modo semplice e intuitivo.

La componentistica elettronica della macchina è costituita da prodotti di brands riconosciuti a livello mondiale che garantiscono la facile reperibilità in caso di guasto.

Connessione LAN e porta USB per caricare File da dispositivi esterni.

Windows based system, integrated with machine control board Multi-Touch 17" with innovative and interactive M2 Easy Cut interface, guarantee easy, simple and intuitive control operations.

The electronic components of the machine consist of products with recognized worldwide brands easily available in the case of failure.

LAN connection and USB port to load files from external devices.

Cad Cam / Nesting

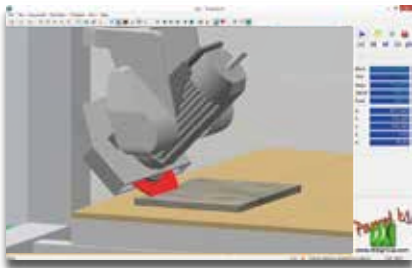
Il software Cad Cam gestisce e ottimizza tutte le fasi della lavorazione: dal disegno e/o importazione dei file, alla definizione delle strategie di lavorazione, sino alla stima dei tempi e al controllo delle collisioni con simulazione 3D, passando dalla disposizione di pezzi e sottopiezzati sul banco di lavoro.

- Generazione automatica di cicli di sgrossatura, carotatura, foratura, finitura, profilatura, svuotatura e lucidatura.
- Disegno libero di entità geometriche: archi, bi-archi, rette, rettangoli, quadrati, ellissi, cerchi, poligoni regolari, raccordi, smussi, piani di costruzione.
- Disegno da modelli parametrici predefiniti: top da bagno, piani da cucina, tavoli, compresa la gestione dei ribassi, dei canaletti e del lavello, ecc.
- Definizione di superfici tridimensionali di base in forma guidata, partendo da sezioni e/o linee guida disegnate nel piano XY (cornici, piatti doccia, lavelli concavi e convessi, lavelli a più sezioni, colonne a sezione e torsione variabile).
- Scrittura nei vari fonts anche su profili sagomati inclusi i caratteri in corsivo, i caratteri con foretti, le lavorazioni di ribasso, di rilievo e d'incisione con spigoli vivi, arte funeraria.
- Nesting manuale, facilita e ottimizza la disposizione dei pezzi sul piano di lavoro.

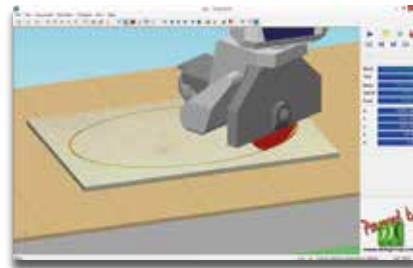
The Cad Cam software manages and optimizes all the phases of the process: from the design and/or import of file, the definition of machining strategies, to the estimated timing and control of collisions with 3D simulation, through the provision of parts and underparts on the work table.

- Automatic generation of roughing, coring, drilling, finishing, profiling, pocketing and polishing cycles.
- Free drawing of geometric entities arches, bi-arcs, lines, rectangles, squares, ellipses, circles, regular polygons, joints, chamfers, construction designs.
- Drawing from predefined parametric models: vanity tops, kitchen tops, tables, including managing the downside, the canals and the sink, etc.
- Definition of guided basic three-dimensional surfaces, starting with sections and/or guidelines drawn on the XY plane (frames, shower trays, concave and convex sinks, sinks in multiple sections, columns section and variable torque).
- Write in different fonts also on shaped profiles, including characters in italics, characters with drills, downside, relief and engraving with sharp edges workings, funerary art.
- Nesting manual, facilitates and optimizes arrangement of the pieces on the work table.

Lavorazioni / Processings



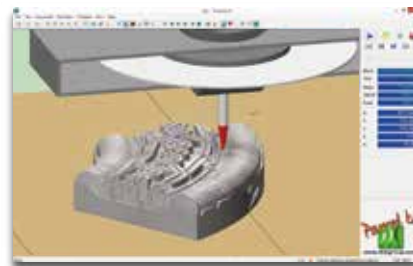
Tagli inclinati
Inclined cuts



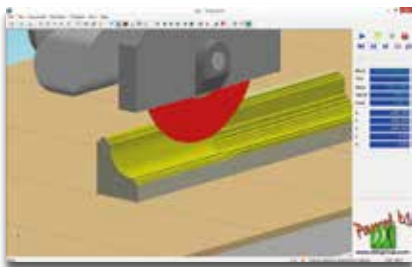
Tagli rotondi e ovali
Circle and oval cuts



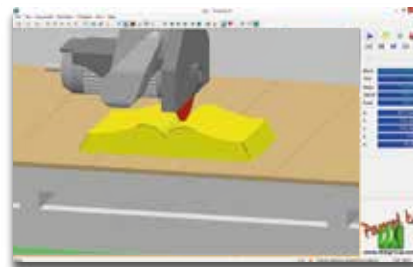
Tagli multipli
Multiple cuts



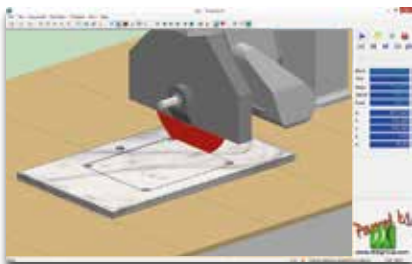
Lavorazioni in bassorilievo
Low relief workings



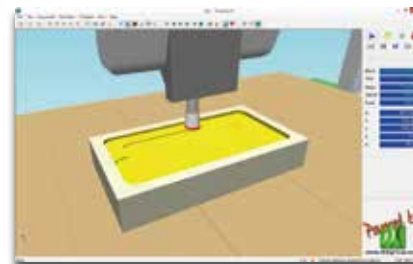
Tagli longitudinali con disco e finitura a spatolatura
Longitudinal cuts with blade and shape finishing



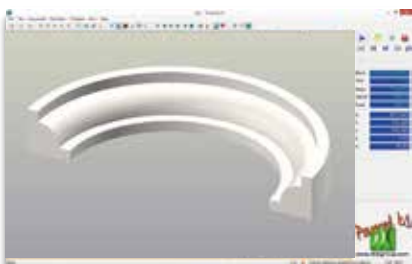
Tagli trasversali con disco e finitura a spatolatura
Transversal cuts with blade and shape finishing



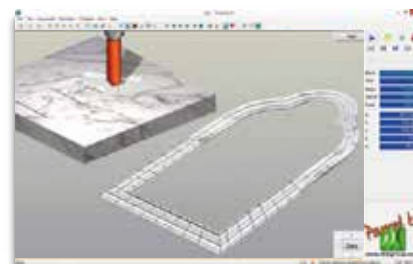
Apertura top con foretto e disco
Counter top opening with core bit and blade



Svuotamento di masselli con utensile
Hollowing with tool



Capitello curvo con disco a 90°
Curve capital with 90° blade



Incisione
Engraving

Utensili / Tools

Frese Cilindriche
Finger bits



Foretti
Core bits



Punte per bassorilievi
Tips for low reliefs



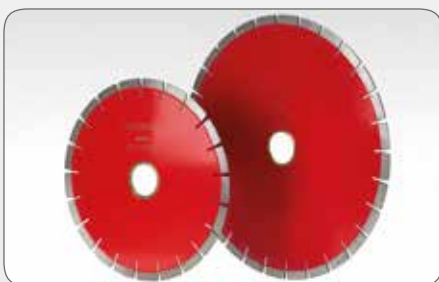
Punte per scrittura
Tips for engraving



Fresa da scasso
Milling tool



Disco diamantato
Diamond blade



Accessori / Accessories

Struttura monoblocco zincata

Galvanized monoBlock structure

Estensione corsa asse Y 2.800 mm.

Y axis extension 2.800 mm. (110.23")

Banco fisso con piano in legno

Fixed table with wood surface

Banco di lavoro 3.500x2500 mm.

Work table 3.500x2500 mm. (137.79"x98.42")

Emmedue Easy Cut

Emmedue Easy Cut

Laser segna taglio

Laser for cutting line

Protezioni laterali fisse e porte anteriori scorrevoli

Fixed side protections with sliding front doors

Manipolatore con ventose

Manipulator with suction cups

Rilevatore spessore lastra

Slab thickness detector

Presetting disco

Blade presetting

Sistema automatico di lubrificazione

Automatic lubrication system

Nesting manuale

Nesting manual

Optionals

Spalle in acciaio / Muri in cemento armato 2.800 mm.

Steel shoulders / Concrete walls 2.800 mm. (110.23")

Banco basculante con piano in legno

Hydraulic tilting table with wood surface

Copertura piano di lavoro in gomma

Rubber work table surface

Pulsantiera remotata

Hand remote control

Pulsantiera remotata wireless (versione UL/CSA)

Wireless hand remote control (UL/CSA version)

Motore con attacco utensile 1/2" gas (6000 Rpm)

Motor with tool connection 1/2" gas (6000 Rpm)

Software fresatura

Software for milling

Software per capitelli

Software for molding

Cad Cam

Cad Cam

Fotocamera per acquisire foto della lastra

Camera slab capture

Laser rilevatore a punti di sagome

Laser detector points of templates

Quadro elettrico con aria condizionata

Switchboard with air conditioning

Platello lucida lastra

Polishing plate for slab

Dati Tecnici / Technical Specifications

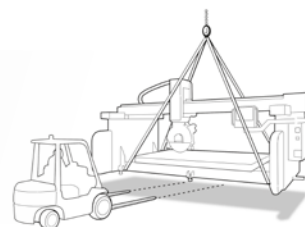
Model		monoBlock	on shoulders
Corsa max. longitudinale (asse X) Max. stroke X axis	mm. Inch.	3600 141.73"	3600 141.73"
Corsa max. trasversale (asse Y) Max. stroke Y axis	mm. Inch.	2800 110.23"	2800 110.23"
Corsa max. verticale (asse Z) Max. stroke Z axis	mm. Inch.	390 15.35"	390 15.35"
Rotazione automatica testa (asse C) Automatic rotating head C axis	°	0 ÷ 370	0 ÷ 370
Inclinazione automatica disco (asse A) Automatic tilting blade A axis	°	0 ÷ 90	0 ÷ 90
Max. velocità dell'asse X Max. speed X axis	mt/min Inch./min	30 1181.10"	30 1181.10"
Max. velocità dell'asse Y Max. speed Y axis	mt/min Inch./min	30 1181.10"	30 1181.10"
Max. velocità dell'asse Z Max. speed Z axis	mt/min Inch./min	7.5 295.28"	7.5 295.28"
Potenza motore disco (S6) Main motor power	kW/Hp	17.6 / 24	17.6 / 24
Velocità rotazione disco Speed main motor	Rpm	700 ÷ 4300 (700 ÷ 6000 opt.)	700 ÷ 4300 (700 ÷ 6000 opt.)
Attacco utensile Tool attachment	Tipo Type	1/2 Gas Optional	1/2 Gas Optional
Diametro Min. disco / Diametro foro Minimum blade diameter / Blade hole	mm. Inch.	350/50 13.78"/1.97"	350/50 13.78"/1.97"
Diametro Max. disco / Diametro foro Maximum blade diameter / Blade hole	mm. Inch.	625/50 24.60"/1.97"	625/50 24.60"/1.97"
Massima profondità di taglio Maximum cutting depth	mm. Inch.	200 7.87"	200 7.87"
Dimensioni banco di lavoro Work table dimensions	mm. Inch.	3500 x 2500 137.80" x 98.42"	3500 x 2500 137.80" x 98.42"
Max. peso sollevabile per ventosa Max. weight lifting with a suction cup	kg lb	150 330	150 330
Massa complessiva indicativa Approximate Weight	kg lb	4200 9260	4100 9039
Ingombro macchina Dimensions	mm. Inch.	6500 x 4360 x 2750 256" x 172" x 109"	6500 x 4360 x 2750 256" x 172" x 109"
Dimensioni imballo Packaging dimensions	mm. Inch.	5900 x 2300 x 2300 233" x 91" x 91"	5900 x 2300 x 2300 233" x 91" x 91"
Tensione standard Standard voltage	Volt / Hz	400 / 50 230 / 60*	400 / 50 230 / 60*

* Solo versione UL/CSA - UL/CSA version only.

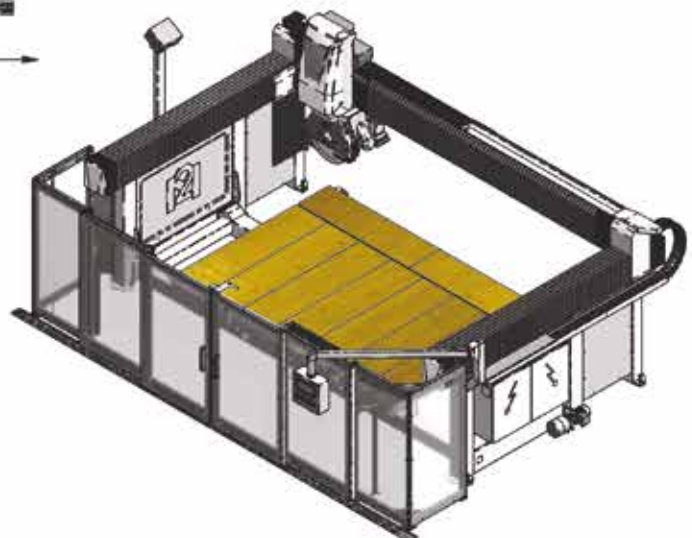
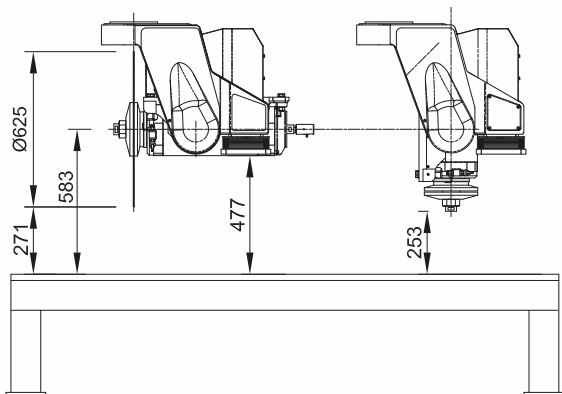
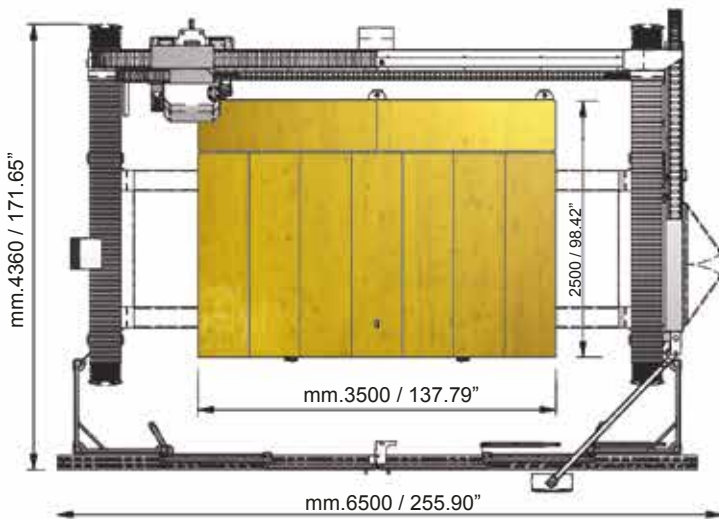
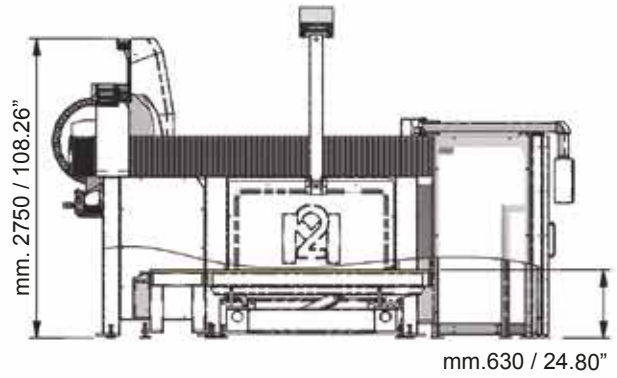
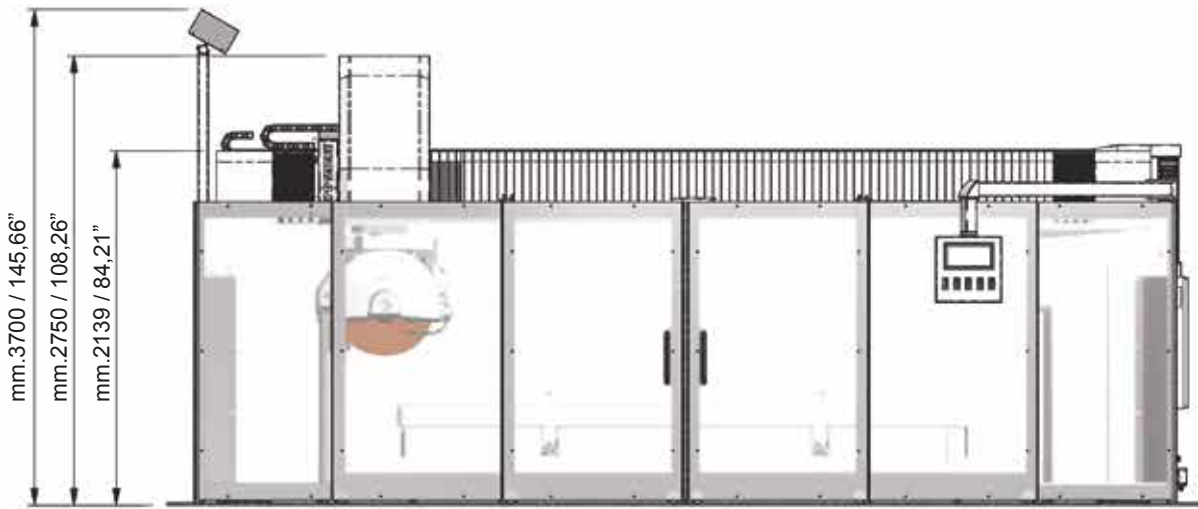
I dati tecnici di cui sopra e le foto contenute in questa brochure, sono da considerarsi indicativi e soggetti a variazioni senza preavviso.
The above technical datas and the pictures included in this leaflet, are for general information only and they can be changed without notice.

La struttura monoblocco
facilita le operazioni
di carico, scarico,
trasporto e posa in opera.

Easy to load, unload,
transport and install
thanks to its
monoBlock structure.



Layout





Peculiarities and strengths of the company

- ▶ Design and construction of precision mechanical parts directly inside the Company.
- ▶ Accurate selection of raw materials, mostly made in Italy.
- ▶ Assembly check of the components during the whole production flow.
- ▶ Testing of machines through constant and scrupulous tests.
- ▶ Highly qualified technical service.
- ▶ Remote technological support, through remote connection.
- ▶ Quick and reliable after-sales service.
- ▶ Widespread commercial network around the world.

History

Emmedue, a brand of **Industrie Montanari**, was founded in the early 90s.

Its founder, Mr. Alfio Montanari, an expert in precision mechanics entrepreneur with a great pioneering vision, was among the firsts to realize bridge saws machines with monoblock structure, bringing a deep innovation in the marble's field.

To date, the Company occupies a prestigious position in the market, producing a wide range of highly sophisticated and technological products.

Mission

Emmedue intends to consolidate its leadership among the best producers of stone processing machines, through the achievement of the following goals:

Full customer satisfaction, competitive prices, flexible solutions, highly qualified and solid support service.

Continuous technological innovation, essential to optimize the productivity and the supply capacity of the Company.

Full involvement of the whole staff in achieving the winning results.

Vision

Men, values, ideas, participation, courage, devotion and hard work.

The family soul of a great industrial Company.

Christian and Ylenia Montanari, today at the helm of the Society, are following enthusiastically and with passion, the path set out by their father.

Proud of their roots, with an eye to the future.

Products

- ✓ **BENCH SAWS:** simpler and slimmer typical of construction works.
- ✓ **CNC BRIDGE SAW MACHINES:** available a wide variety of models with or without manipulator.
- ✓ **WORKING CENTRES:** with 3 or 4 interpolated axis good for profiling, polishing and for realizing bass-reliefs.
- ✓ **COMBINED MACHINES:** able to perform the work both of a saw machine and of a working center.

Emmedue offers numerous solutions in order to cut, mill and polish natural stone and agglomerates.

Emmedue can provide customized machines, from monolithic to on steel shoulders or on concrete wall versions.

The products can be subdivided into four main families:

Training

To provide innovative services, Emmedue constantly holds training courses for its operators, customers and dealers, providing them with active support to meet their needs.

Our numbers

6.000 mq of production area

Over **10.000 machines** sold

Over **70 countries** covered

1 branch in USA

Over 35 collaborators that with passion, constancy and determination, are working every days for the realization of this extraordinary vision of success!

International Fairs



Dealer



is a brand of

Industrie Montanari S.r.l.

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Rev. 02/2019



Member of:

