

STONE TOOLING

TOOLS FOR STONE AND SYNTHETIC
MATERIALS PROCESSING

DIAMUT



A SOLUTION FOR ALL PROCESSING OPERATION NEEDS



THE MARKET DEMANDS


innovative solutions for achieving the highest quality standards across all types of stone and synthetic material processing operations.

DIAMUT RESPONDS

with a wide range of tools, born of more than 30 years of experience and in-depth knowledge of the sector and of the various different types of materials and machines. Developed and tested according to rigorous quality standards, these machines guarantee excellent results in terms of processing quality and durability.

- **WIDE RANGE OF TOOLS FOR ALL PROCESSING OPERATIONS**
- **VERSIONS AVAILABLE FOR THE MOST POPULAR MACHINES ON THE MARKET**
- **EXTENSIVE SALES AND SERVICE NETWORK**
- **TESTING CARRIED OUT DURING DEVELOPMENT AND IN ORDER TO ENSURE RELIABILITY OF TOOLS IN COLLABORATION WITH INTERMAC**
- **DESIGN AND MANUFACTURE OF TOOLS TAILORED TO CUSTOMER NEEDS.**

WHO WE ARE



FOR OVER 30 YEARS, DIAMUT HAS BEEN A LEADING PLAYER IN THE MARKET WITH ITS COMPLETE RANGE OF TOOLS FOR PROCESSING GLASS, STONE AND SYNTHETIC MATERIALS WHICH CAN BE USED ON MOST NC MACHINES, BOTH AUTOMATIC AND SEMI-AUTOMATIC. THANKS TO THE SUPERIOR QUALITY OF OUR TOOLS, WE ARE THE TRUSTED PARTNER OF A RANGE OF SUCCESSFUL COMPANIES OPERATING IN A NUMBER OF INDUSTRIES, FROM FURNITURE TO ARCHITECTURE AND CONSTRUCTION.

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GLOBAL PRESENCE



Italy
Lugo
Thiene

U.K.
Daventry

Germany
Nersingen

France
Lyon

North America
Charlotte

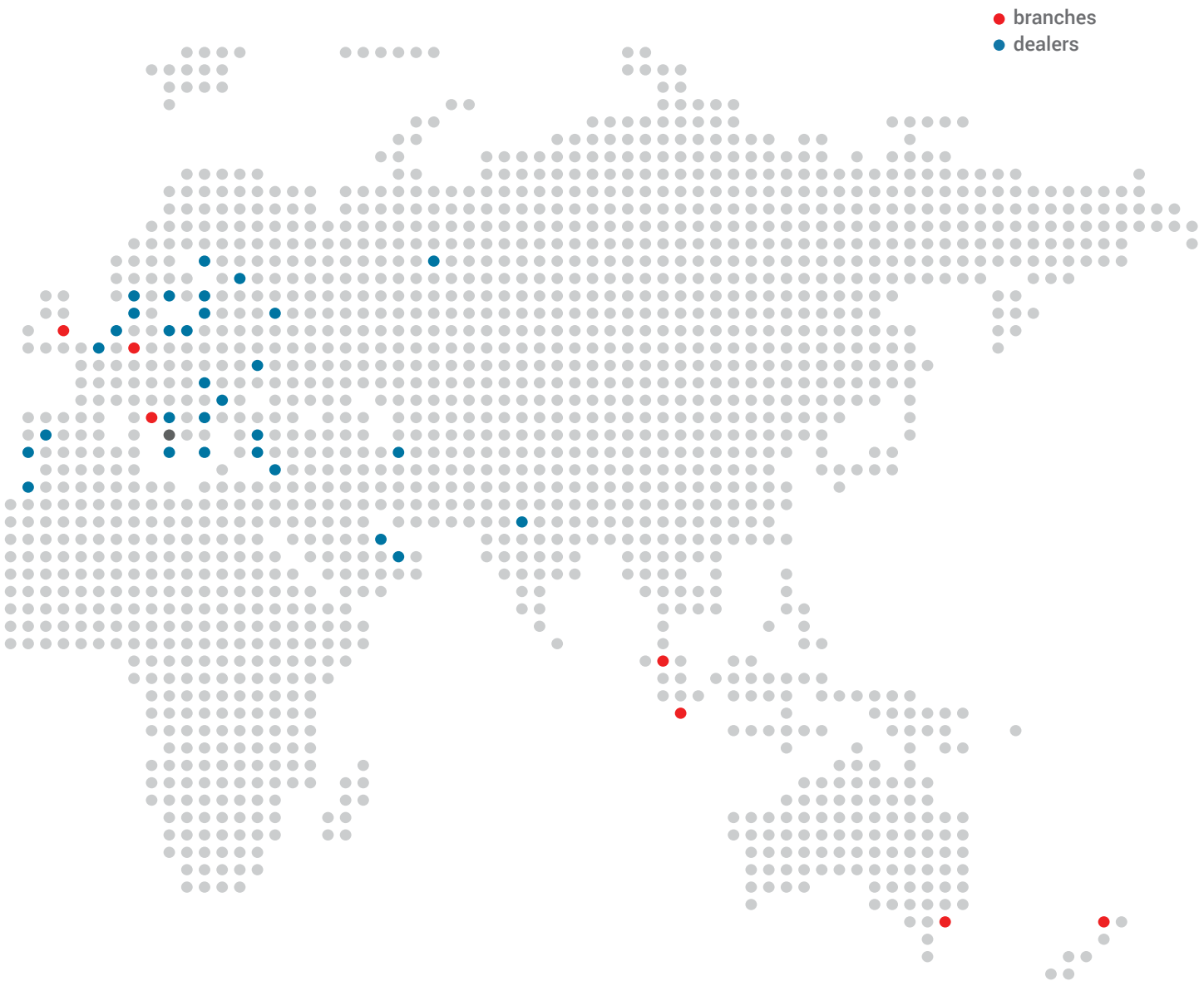
Brasil
San Paolo

Oceania
Auckland
Sydney

Dealers
Argentina
Ecuador
Mexico
Bolivia
Colombia
Perù
Venezuela
Panama
Paraguay
Portugal
Spain
Denmark
Finland

Norway
Sweden
Lithuania
Latvia
Estonia
Czech Republic
Ukraine
Hungary
Poland
Holland
Romania
Slovenia
Belgium

Serbia
Malta
Greece
Turkey
Cyprus
Marocco
South Africa
Russia
Belarus
India
United Arab Emirates
Israel
Iran
Qatar



Being part of the Biesse Group means that we can rely on a global distribution network. The 8 branches globally (Asia, Brazil, USA and Canada, France, Germany, UK, Australia and New Zealand), in addition to the dealers and agents across the world, provide strong foundations for a company which can listen to the requirements of each individual customer and design not only tools, but total solutions.

TECHNOLOGICAL EXCELLENCE

The use of the most advanced technologies available throughout the production process of our tools, along with the superlative expertise of Diamut personnel are the keys to our success in meeting the sector's highest quality standards. Diamut's unwavering commitment to research and development activities ensure that the company remains at the cutting-edge of the industry, constantly evolving towards new technological goals with regard to both process and product.



GOAL = INNOVATION

So many solutions, with one unchanging goal: innovation. All this to ensure that we can provide the best solution for your business, improve the performance of our products and allow our customers to meet their targets with maximum efficiency. Among the innovative solutions offered by Diamut is the set of tools designed for Dekton® processing, developed in collaboration with Cosentino Group.



CONSISTENT QUALITY

More than 34000 quality controls per year demonstrate our commitment to reliability and precision, providing you with superior tools. We can guarantee the precision and accuracy of an excellent product, in every single aspect.



Diamut
corporate film

IDEAS TRANSFORMED INTO SUCCESS STORIES



Not many manufacturers can rely on a technological partner for the development of cutting-edge tools. Diamut is part of Biesse Group, leader in the design and manufacture of machinery and technological solutions for processing glass, stone and metal. This grant the opportunity to carry out hundreds of hours of product testing per year to develop new products and provide our end customers with high quality tools.



A PARTNER FOR YOUR BUSINESS


We do not only manufacture tools, but are keen to liaise with you to provide the best solution based on your processing requirements and goals you want to achieve. A team of dedicated technicians is at your disposal, working with you to help research and identify the ideal tool for all types of production.

DRILLS

Machines: **CNC.**

Applications: **furniture, construction, funerary art.**





DIAMUT

Diamut's range of drills spans three main product lines, covering the majority of processing requirements; you can choose between continuous rim drills, segmented drills and blind hole drills for blind holes. All Diamut drills guarantee high cutting capacity, superior durability, impeccable finishing and high precision boring, whilst preventing material breakage.

DRILLS



CONTINUOUS RIM DRILLS FOR MARBLE AND GRANITE

Superior cut quality suitable for even the finest materials, for a flawless finish. These are the key characteristics of Diamut's range of continuous rim drills, available in diameters from 6 mm upwards.

SEGMENTED DRILLS FOR GRANITE

Suitable for even the most extreme processing operations whilst maintaining maximum precision, Diamut's segmented drills are setting new standards in terms of durability and cutting capacity. A complete range is available, with diameters from 18 mm upwards.



BLIND HOLE DRILLS

The Diamut drill range also features blind hole drills, designed for creating blind holes for slots, channels in the material and support connections.



MILLING CUTTERS

Machines: **CNC.**

Applications: **furniture, funerary art.**





As part of its range of milling cutters, Diamut has developed special tools which are distinguished by their external colours. Each of the milling cutter models available within the range has been designed, tested and created specifically to meet the unique needs of individual machining processes for all types of material, whether natural or synthetic.

MILLING CUTTERS



BLACK STORM

High-speed milling cutter with a structure composed of 7 segments, each measuring 22 mm in diameter, particularly suitable for synthetic materials, granite and agglomerates.



GOLD

Durable milling cutter for hard granites and agglomerates, available in 20 mm diameter, specially designed to ensure superior resistance to abrasion.

GREEN

Milling cutter specifically designed for hard granites, available in 20 and 22 mm diameters, suitable for cutting operations and developed to ensure increased durability with these types of material.



BLUE

Universal milling cutter available in 22 mm diameter, combining elevated cutting power with increased durability, thus avoiding the need to use two different tools.



CUSTOMISED MILLING CUTTERS

All Diamut drills can be customized according to customer requirements, for different sizes, diameters and tool attachments in accordance with processing requirements.



ELECTROPLATED

Designed specifically for use with marble, this cutter is available in diameters from 6 to 22 mm, and is perfectly suited for processing the most valuable stones.

PROFILE GRINDING WHEELS

Machines: **CNC, manual machines.**

Applications: **furniture, funerary art.**



STONE TOOLING



Over 200 of the most widely available profiles in the Diamut catalogue, with the option to creating new ones on request. These are the figures in the Diamut range of profile grinding wheels, available in a whole host of versions starting with a 20 mm diameter, across two different product lines; the KPL and the HYS lines.

Both product lines include diamond and polishing wheels, for use on granite, marble and synthetic materials. The use of EDM in the production process ensures that the profile generated on each of the wheels belonging to the same set remains constant across the different tools, guaranteeing absolute accuracy in the final result.

HYS RANGE

Fruit of Diamut's in-depth research and expertise, the grinding wheels in the HYS range are characterized by special binders and a cooling system designed especially for processing operations at speeds twice those achievable with wheels from the KPL line.

KPL RANGE

The new line of peripheral wheels made in Diamut developed to meet the markets demands in continuous growth. It is the perfect technological evolution of the Diamut standard line.



PROFILE GRINDING WHEELS

MARBLE GRINDING WHEELS

Diamut also produces complete sets of electroplated diamond and polishing wheels for use with marble for numerous profiles, with a diameter of 120 mm, ideal for processing operations including steps and vanity tops for bathrooms.



POLISHING WHEELS

Flash range polishing wheels with rubber body that guarantee an optimal finishing.



RECESS KIT

Machines: **CNC with dedicated software.**
Applications: **furniture.**



The Diamut recess drain kit is available in a special version for granite as well as in a universal version. The universal version can be used on both granite and synthetic agglomerates.

The sequence of 12 tools guarantees superb finish quality, and above all, a consistently superb performance, far superior to that offered by kits consisting of fewer tools.

Two of the key characteristics of the Diamut recess kit include the production of recessed surface edges not only at 60 degrees angle with sharp edge, but also at 45 and 90 degrees. Another important characteristic is the intersection angle, which is characterized by a corner instead of a radius.



DRAINING TOOLS

Machines: **CNC.**

Applications: **furniture.**



Diamut's range of tools for draining includes shaped milling cutters and scoring wheels for machines equipped with dedicated incision aggregates.

The range of milling cutters can be used on granite, marble and synthetic

materials and is available in diameters ranging from 10 to 20 mm.

The range of grinding wheels for draining is composed of both diamond and polishing wheels, in different diameters.

WRITING AND BAS-RELIEF

Machines: **CNC.**

Applications: **funerary art.**



WRITING TOOLS

Diamut provides tools specifically for marble and granite, with cutting edges designed expressly for these materials. For marble, the cutting edge is forged from Widia hardened metal, whilst for granite it is made from polycrystalline granite. Angles available vary from 60 to 105 degrees.

TOOLS FOR BAS-RELIEF

The Diamut bas-relief tools are specifically designed for use with marble, and are characterised by their Widia metal drill bit for both soft and hard marble. The range of tools is extensive, and is categorised according to the desired end result. Diamut has also devised a sequence of bas-relief tools for granite.

GRINDING WHEELS FOR ENGRAVING

Machines: **CNC.**

Applications: **Furniture, art and sculpture, construction, funerary art.**

The Diamut series of grinding wheels for engraving is available for marble and granite. The electroplated series for use with marble features a range of diameters, from 50 to 150 mm.

For granite, Diamut has developed a traditional series with diameters ranging from 50 to 150 mm, as well as a range of fretted wheels for major removal operations, also available in diameters ranging from 50 to 150 mm.

All the grinding wheels can be combined with extensions of different lengths, according to processing requirements.



FUNERARY ART

Machines: **CNC.**

Applications: **funerary art.**

CUP GRINDING WHEELS

The Diamut set for bevel processing operations is available for Intermac 5-axis machines, with a 0.3 and 7 degree gouge.

EDGE POLISHING

For polishing straight edges, Diamut has created a new set of rollers which come in two different heights (120 and 170 mm), with 80 mm diameter, 35 mm bore and a tapered power coupling which can be used on different manufacturers' machinery.

The new set eliminates all of the issues that are typically encountered during operations of this type, such as ridged and orange peel effects, ensuring a superb finish.



EDGE POLISHING

Machines: **edge polishing.**

Applications: **furniture, funerary art.**



The Diamut range for edge polishers is available for all of the major machinery manufacturers, and includes calibrating grinding wheels, pre-cutting wheels, generating grinding wheels and discs.

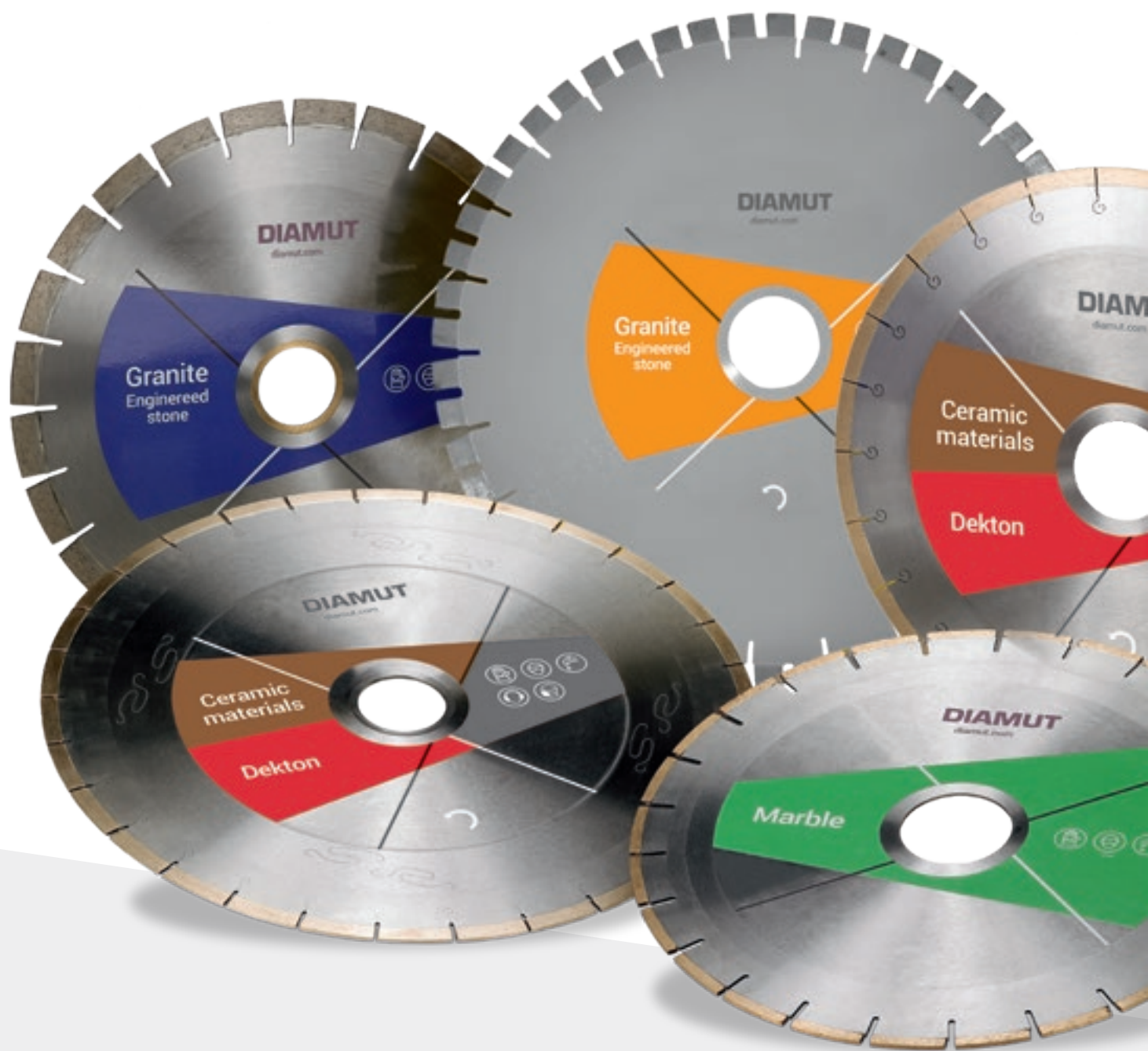


NEW SET OF POLISHING WHEELS FOR EDGE POLISHING MACHINES

The new set of polishing wheels for edge polishing machines is available in the 130 and 150 diameter versions, covers a wide range of grains (from 30 to 3500), and can be used on both straight and toroidal edges. A universal polishing wheel that's suitable for all types of processing needs is also available. A special geometry has been designed for each size and processing operation; What's more, the "eccentric" version is even available for the 150 diameter models in order to minimise the marks generated by the processing operations. The structure of the grinding wheels include another important feature; an elastic bearing has been fitted inside the wheels thus enabling a floating movement for a better processing even on the most complex geometry with uncanny precision. Diamut's new polishing wheels for edge polishing machines cover the entire range of machine makes and models and are available with right or left spiral coupling. Their mix is universal and is suitable for processing agglomerates, granite, marble, and other synthetic materials.

DISCS

Machines: **CNC, Bridge saws, portable machines.**
Applications: **furniture, construction.**





DISK FOR MARBLE, GRANITE/ENGINEERED STONE

Sintered disk with close segments and medium/hard binder, perfect for machining marble. For cutting granite and engineered stone, Diamut has created a sintered disk with a softer binder that ensures visibly improved results. A disk with twin segments is also available, ideal for straight cuts but especially for tilting cuts.

UNIKO: FOR DEKTON® AND CERAMIC MATERIALS

Disk purposely designed for cutting highly compact material. With close diamond segments for a perfect finish, minimising machining complexity in the cutting phase. This disk can also be used to process other materials such as Laminam®, Ston-eglass®, Neolith®, Ker-lite®, etc. with revolutionary binders that ensure maximum machining performance.

* The manufacturers' names are used for identification purposes only. Diamut and Biesse Group have no ties of any nature with these companies.

DISCS



DISCS FOR NC CENTRES

Diamut produces a wide range of wet discs with silent core for the major machine manufacturers. The range also includes curved discs for shaped cutting.



DISCS FOR PORTABLE MACHINES

Diamut's selection of discs is completed by dry discs for portable machines like angle grinders and sanders. The discs are available in diameters from 115 to 230 mm for granite, sandstone and marble.

TOOLS KIT FOR DEKTON®

Machines: **CNC.**





Developed in collaboration with the Cosentino Group, the Diamut tool kit for Dekton® embodies Diamut's state-of-the-art research and development operations in the field of machining of synthetic materials processing. The kit is the result of close technical collaboration between the engineers in the tool division at Biesse Group and one of the industry leaders worldwide in the development of innovative high-value surfaces.

The set consists of drill, milling cutter, peripheral wheels and cutting discs, all designed to be used on Dekton®, a sophisticated blend of raw materials used in construction, glass, leading-edge porcelain materials and quartz surfaces.

It is a material with extraordinary properties. The intelligent combination of raw materials and the latest-generation technological processes used in the production of Dekton® make it a very special product.

TOOLS FOR SINTERED MATERIALS

Machines: **CNC.**

Applications: **furniture, construction.**



Technologically innovative materials are the basis of the latest furnishing, design and architectural solutions. The new range of Diamut tools was developed with specific characteristics for machining *China Glass®, Laminam®, Whiteglass®, Kerlite®, Techlam®, Stoneglass® and other sintered materials. The entire range comes, upon request, in various diameters and suitable for different types of machine.



COMPATIBLE MATERIALS

* China Glass®, Laminam®, Whiteglass®, Kerlite®, Techlam®, Stoneglass®, Marmoglass®.

* The manufacturers' names are used for identification purposes only. Diamut and Biesse Group have no ties of any nature with these companies.

GRINDER

Using in-depth knowledge of the world of tools for stone and synthetic materials processing, Diamut has designed, produced and offered the new Grinder to all companies that want to grind their tools internally.

Completely redesigned, the Diamut Grinder can also be easily used on tools made by other manufacturers; the tool is restored to good working order in just a few minutes without the need for in-depth technical expertise.

The Grinder can be equipped with the new viewing system for real-time checks on the tool profile.



PRESETTER



The new Presetter Diamut is an instrument that reads the profile of the tool through a fully realized software from Diamut and it transfers with extreme simplicity to all external hardware the parametric information necessary to use the tool in the machine and make it ready to shape the various materials.

The Diamut Presetter simplifies all of the setting procedures that are generally carried out manually by an operator, keeping errors to a minimum.

TOOL HOLDER

Diamut's product offering also includes a wide choice of cones available for all of the most popular machines on the market.

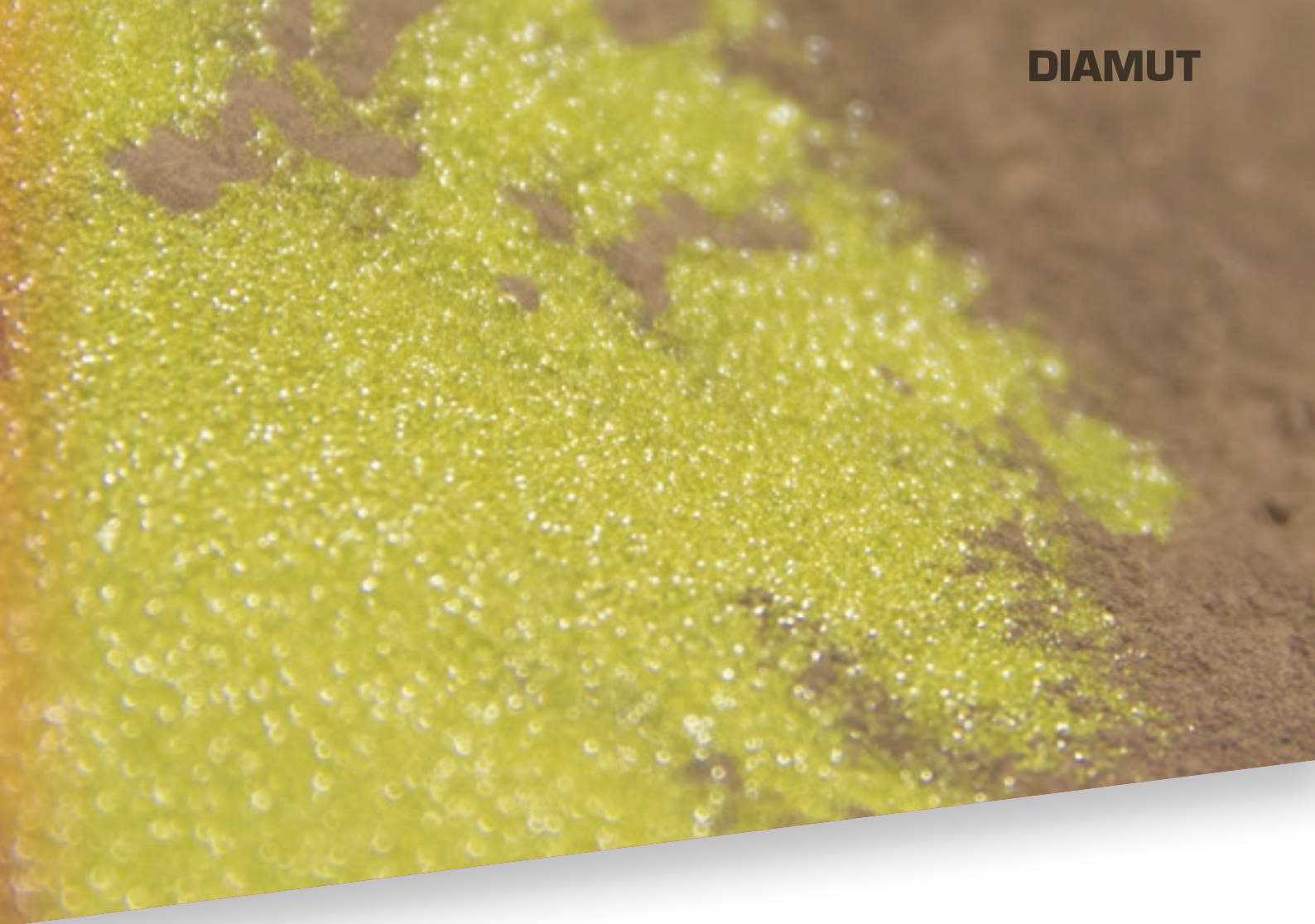
In addition to versions for wheels with 22, 35, 45 and 50 bore, cones can be requested for other tools and machines for milling cutters and drills.



QUALITY EXCELLENCE

THE RANGE OF DIFFERENT TECHNOLOGIES USED THROUGHOUT THE ENTIRE PRODUCTION PROCESS ENSURE THAT OUR TOOLS MEET AND EXCEED THE HIGHEST QUALIFY STANDARDS. EVERY SINGLE STEP OF THE PRODUCTION PROCESS, FROM INCOMING QUALITY CONTROL TO OUTBOUND LOGISTICS, IS CLOSELY FOLLOWED AND MONITORED BY INDIVIDUAL OPERATORS THROUGH A SPECIFIC SOFTWARE CREATED ACCORDING TO OUR BUSINESS SPECIFICATIONS AND A STRICT CHECKLIST OF CHECKS ON EACH OF THE PHASES

- ▣ Incoming quality control
- ▣ Preparation of mixtures
- ▣ Sintering and brazing
- ▣ Turning
- ▣ Grinding
- ▣ Balancing
- ▣ Output checks on finished pieces.



The widespread implementation of the Kaizen method across all Biesse Group companies has resulted in the application of quality controls to individual products and production phases, with a view fostering a philosophy of continuous improvement.

Fault analysis allows us to anticipate potential defects on catalogue tools and those that are custom-made on request for customers. Extensive prior analysis is also complemented by quality controls which are carried out on the tools, and include grinding wheel closure, diamond distribution, hardness and size.

Where defects are noted, the tool identification plate can be used to trace it back through each individual stage of the manufacturing process, accounting for about 70% of total information regarding the tool. In parallel, an internal non-compliance report is created, in order to allow us to undertake all necessary corrective actions immediately.

In 2018 Diamut revealed internal and external non-compliance levels of 0.07%.

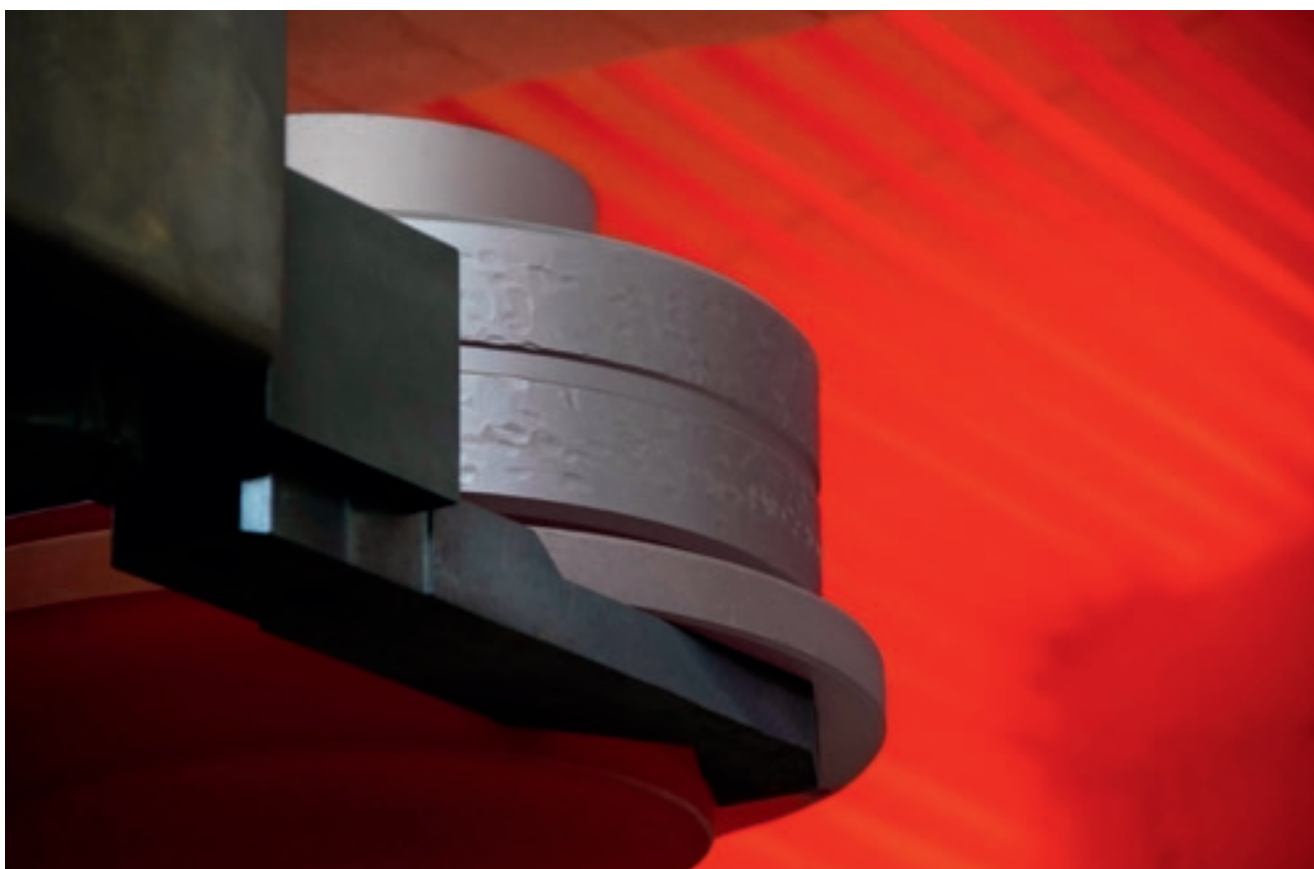
SUPPLIERS OF DIAMOND AND CERTIFIED RAW MATERIALS

Diamut selects only the best suppliers of diamond particles and metal powder. Through rigorous certification and careful quality control, the best raw materials are then used to manufacture tools. Result: Superior quality throughout the entire production process.

QUALITY EXCELLENCE

SINTERING AND BRAZING

The temperature and pressure in the sintering process are closely controlled to guarantee constant repeatability of the product.



ELECTRO-EROSION

Absolute profile precision for all tools.
The electroerosion process used on each tool drastically improves profile precision compared with traditional manual grinding.

DIAMOND DRESSING

The tool guarantees excellent standards in processing operations from the very first use.

Each tool is subjected to a diamond dressing process which, using special technology, makes the tool immediately effective from the very first metres of processing.



GRINDING WHEEL BALANCING

Any potential imbalance of tools is eliminated, regardless of the programme in use. Before they are delivered every grinding wheel undergoes balance checks. The balance quality grade required is G=6, which is usually used for high rotation parts and is much higher than the rotation speed required of grinding wheels in the various processing operations.

MARKING INDIVIDUAL TOOLS

Total traceability of each individual tool and rapid response times when assistance services are required. Each tool produced by Diamut is marked with a serial number so that each product can be traced even years later, allowing customers to establish the exact order date and obtain information on each stage of processing.

SERVICES



CUSTOMISED TOOL DESIGN

To meet a varied market demand that is increasingly geared towards customised design and materials, Diamut responds with a team of experts who can interpret and anticipate the needs of every customer, designing and manufacturing tailored tools with customised profiles and blends of diamond and alloy which can be used with any machinery on the market.

The customised same tool can be re-ordered at any time because: once delivered, the profile originally requested by the customer remains in the internal database for the following years, even if the machine for which it was designed goes out of production.

GRINDING

Diamut offers support to its customers by providing them with a grinding service for purchased tools in its main branches. With its innovative Grinder, our specialists can quickly restore the original efficiency of your tools.

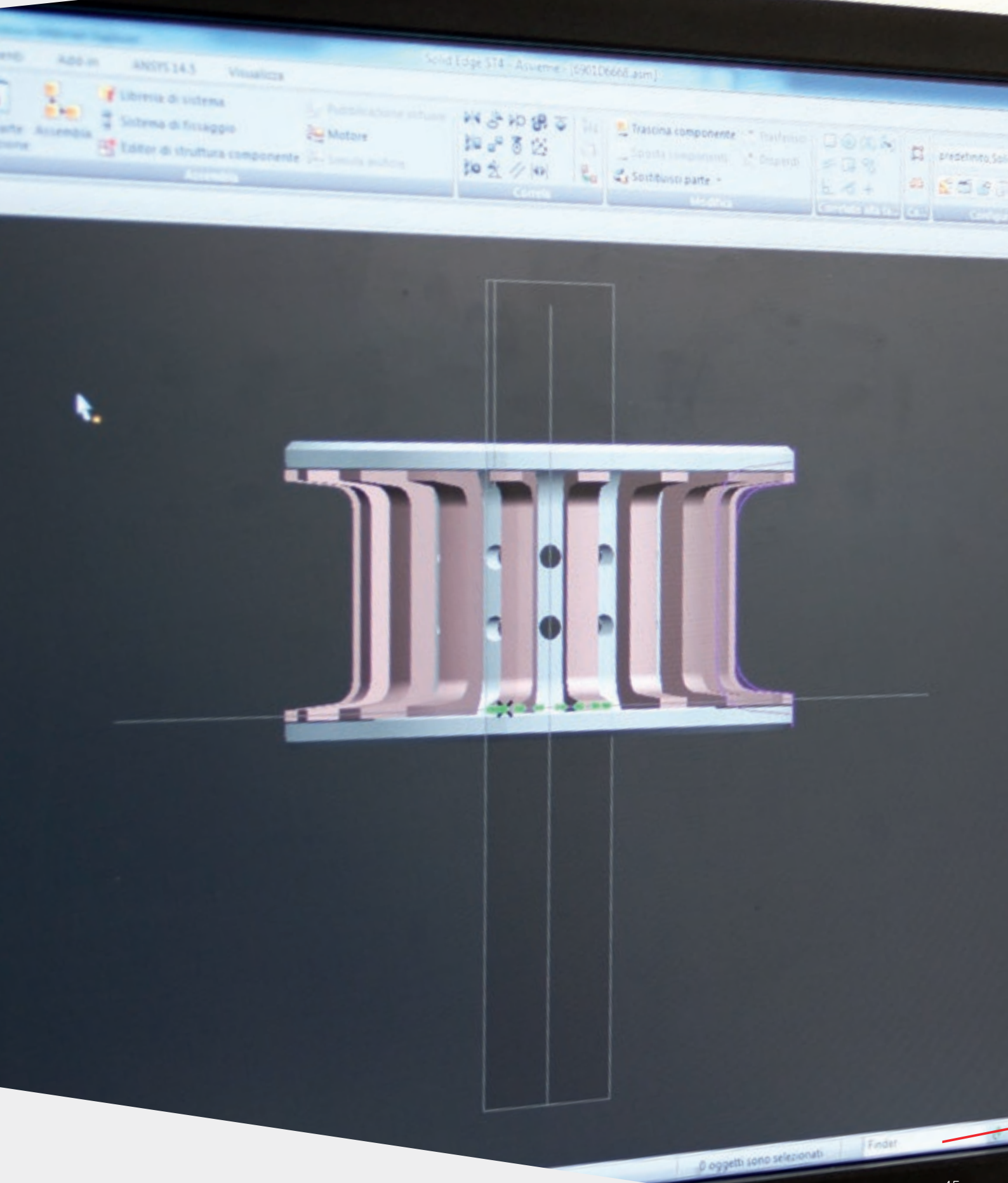
PROJECT ADVICE AND CONSULTATION SERVICES

With the constant aim of maintaining high quality standards and the complete customization of finished products, Diamut technicians provide a complete understanding and technological solutions that enhance and support the technical skills and knowledge of processes and materials.



TECHNOLOGY IN ACTION

For those who wish to experience Biesse Group technologies first hand, showroom in Pesaro offers visitors the possibility to watch live demos dedicated to the main processes, technologies and tools.



MADE WITH DIAMUT

DEKTON®

**THE TECHNICAL COLLABORATION WITH
DIAMUT HAS LED TO THE DEVELOPMENT
OF A RANGE OF TOOLS FOR USE WITH
DEKTON MIXES, WHICH GUARANTEE THE
BEST POSSIBLE RESULTS EVERY TIME.**



Cosentino Group

Dekton® is a sophisticated mix of raw materials used in construction, glass, latest-generation vitreous materials and quartz surfaces. It is a material with extraordinary properties. The intelligent combination of raw materials and the latest-generation technological processes used in the production of Dekton® make it a very special product.



COSENTINO.COM

LIVE THE EXPERIENCE



Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

**LIVE THE BIESSE GROUP
EXPERIENCE AT OUR CAMPUSES
ACROSS THE WORLD**

