



## **YOUR PARTNER IN STONE INDUSTRY AND FABRICATION**

Tools and technical solutions

Premium grinding tools since 1919  
[www.tyrolit.com](http://www.tyrolit.com)

**TYROLIT**

# TYROLIT Group

## A global company

As one of the world's leading manufacturers of bonded grinding, cutting, sawing, drilling and dressing tools as well as a system supplier of tools and machines for the construction industry, the family-run company TYROLIT has been synonymous with top quality products, innovative spirit and outstanding service since 1919.

Day in, day out, the experts at TYROLIT work on delivering tailor-made solutions for customers around the world, helping to make their businesses successful. Around 80,000 available products set the standards in a wide variety of industries.



TYROLIT company headquarters in Schwaz, Austria

## TYROLIT business units



### Stone-Ceramics-Glass

Our tailored diamond tools and grinding solutions in the Stone – Ceramics – Glass business unit impress through their exceptional performance and quality.



### Metal / Precision

From precision machining in the engine and gearbox industry to the production of cut-off wheels with diameters up to 2,000 mm for the steel industry – the TYROLIT product range in the Metal & Precision business unit includes high-tech tools for a wide variety of applications.



### Trade

Thanks to its global sales network, in addition to premium product solutions in the three core areas of cutting, grinding and surface treatment, the trade business unit of TYROLIT guarantees truly customer-focused marketing support.



### Construction

In the Construction business unit, TYROLIT is a leading system supplier of drilling systems, wall and wire saws, floor saws and tools for the surface grinding of concrete motorways.

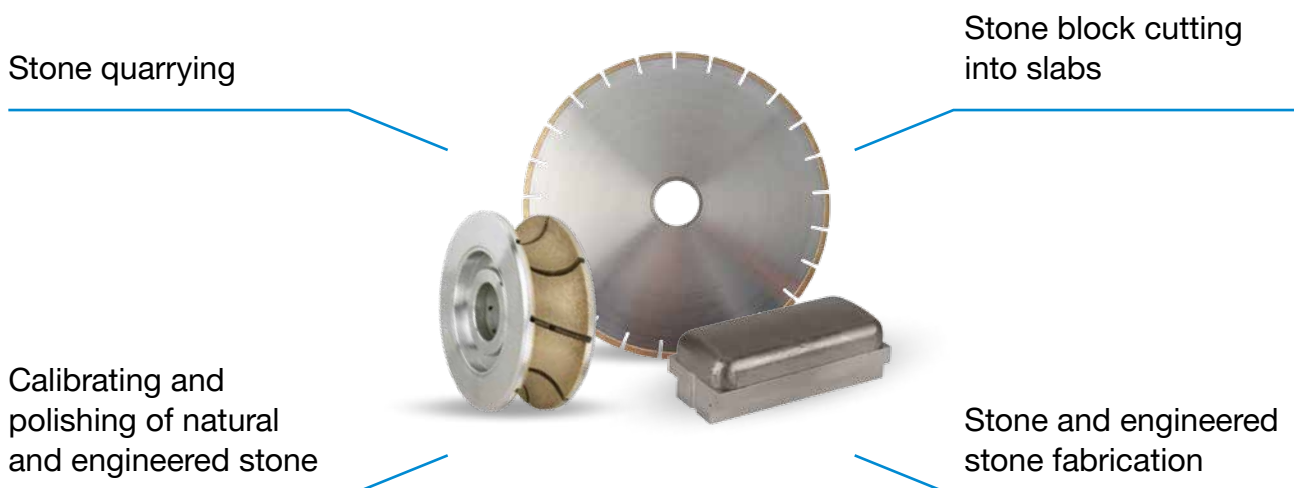
## Competence & experience

# Professional partner on equal terms

In all business development stages, TYROLIT always places the customer at the centre of its activities. An experienced team of application engineers is available to our customers throughout the world and works to produce the most economically efficient solutions.

The name of TYROLIT is synonymous with innovative products and tool quality at the highest possible level. In our Development Department we are constantly working on new and innovative products, aiming to make our customers' future processes even more efficient for the infinitive range of materials processing in all stone applications..

## TYROLIT Group A global partner for all applications in stone industry and fabrication



## Milestones for stone industry

Innovation leadership can only be achieved by constantly coming up with something new that serves the whole branch. TYROLIT did just that in 1952 when it introduced glass fibre reinforcements and thus took on a pioneering role in grinding. In Stone Industry TYROLIT plays an active role in developing innovation and the impressive milestones show it in the daily work of the customers all over the world.

**1988**

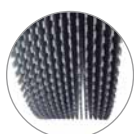
**Metal bond diamond fickerts** cause a revolution in the polishing of granite by increasing productivity and reducing processing costs.

**1991**

**TYROLIT develops a wire saw assembly for granite quarries** which is still today the industry reference.

**2004**

**New design of metal bond diamond fickerts** with continuous diamond layer and specific geometry grants an excellent finishing of slab surfaces in granite and engineered stone.

**2011**

**Multilayer segments for circular saw blades** customers need speed and high productivity. Multilayer segments guarantee ultra fast cutting of hard stones

**1990**

**Tyrolit introduces metal bonded diamond profiling tools with continuous rim** for profiling edges of granite on CNC machines.

**1995**

**Calibrating rollers with packed discs on either fixed or rotating heads,** set a new standard in the natural and engineered stone industries.

**2006**

**WINNER CNC polishing wheels** are the first to grant a perfect finish with no need of additional hand buffing.



# Global presence In your vicinity

## Global presence

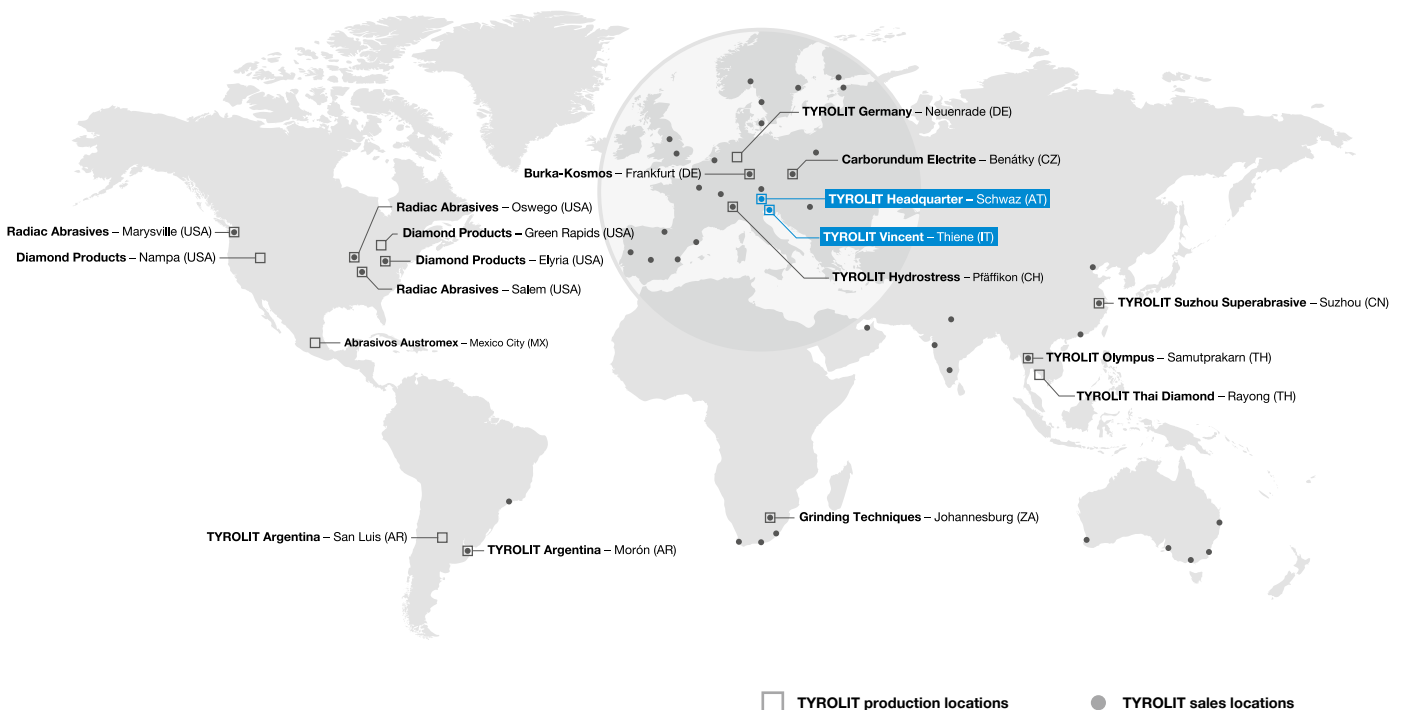
TYROLIT stands for global thinking and activities. With a worldwide sales network currently in 65 countries and with our own production plants in 12 countries on five continents, we offer our customers all the advantages of a globally operating company.

## Local availability

Global thinking, local action – in your national language and in your vicinity. This is the principle we follow in dealing with our customers. Local contacts near your premises and a global team of specialist application engineers ensure optimum customer support and first-class service.

## Your benefits

- + Global presence with local contacts
- + Short response and service times





132

SB101

SB 22



A photograph of a stone quarry. The background shows a large, light-colored rock face with several vertical cracks and horizontal lines, possibly from drilling or blasting. In the foreground, there are several pieces of industrial machinery, including a large circular saw blade on the left and several metal boxes or containers. One of the boxes has the label 'SB126' and another has 'SB127'. The machinery is situated on a wooden pallet. A blue rectangular overlay is positioned in the upper right quadrant of the image, containing the text 'Stone quarrying' in white. The overall scene is brightly lit, suggesting a sunny day.

## Stone quarrying



## Diamond wire for granite quarries

In collaboration with customers, machine operators and leading machine manufacturers TYROLIT has revolutionized existing performances in terms of cutting speed and also lifetime. TYROLIT quarry wires impress with long lasting rubber assembly.

Beside the original yellow rubber with bullet-shaped design that guarantees an optimal water distribution along the wire and perfect slurry removal, Tyrolit also offer an easy handling multipurpose wire with black rubber with various bead size and thicknesses.

### Technical data

Bead diameter	Assembly	No. of beads
11,5 mm	Rubber	40 b/m
12,0 mm	Rubber	40 b/m
12,5 mm	Rubber	40 b/m



*Vulcanized quarry wire with bullet shape and yellow rubber*



*Vulcanized quarry wire with universal shape and black rubber*



# Diamond wire for marble quarries

For a wide range of marbles and limestones  
TYROLIT is offering 2 different type of beads:



## Electro plated beads:

- + For very compact and non abrasive marbles;  
fast cutting and block dressing



## Sintered beads:

- + Diameter 10.3 mm for fast cutting and/or low powered machines
- + Diameter 11.3 mm for abrasive marbles and high lifetime

## Technical data

Bead diameter	Assembly	No. of beads
10,3 + 11,3 mm	Rubber & springs	28 and 32 b/m
10,3 + 11,3 mm	Plastic	26 and 32 b/m
10,3 + 11,3 mm	Spring assembly	26 and 32 b/m



*Spring assembled marble wire with sintered beads*



*Plastic assembled marble wire with sintered beads*

Beside the traditional spring assembly TYROLIT is offering marble wires with the safe and long lasting, yellow colored rubber assembly, which properly protects the steel cable for a long time. The reinforced patented version with springs in the slim rubber design stands for high safety and allows high pulling forces in order to increase the cutting speed.



*Vulcanized quarry wire with slim shape and yellow rubber*





TRUCK

MURDER





## Natural stone block cutting into slabs

## Diamond wire for stationary machines

TYROLIT products cover the whole range of wires for marbles and granites; the patented spring and plastic assembly protects the wire even when the slabs move. The TYROLIT wire can be used to the end of its life without the need for replastification.



### Technical data

Material	Application	Recommendation	Diameter	No. of beads	Assembly
Granite	slab cutting	universal	11,2 mm	37	plastic
	slab cutting	reinforced assembly	11,2 mm	36	plastic & springs
	profiling	universal	11,2 mm	37	plastic
	slab cutting	universal	9,0 mm	37	plastic
	slab cutting & profiling	universal	8,3 mm	36	plastic
Marble	slab cutting	compact marble & limestone	10,3 mm	28	plastic & springs
	slab cutting	abrasive marble & travertine	11,3 mm	28	plastic & springs
	slab cutting	electroplated	10,6 mm	28	plastic & springs
	slab cutting & profiling	compact marble & limestone	8,5 mm	30	plastic & springs
	slab cutting & profiling	abrasive limestone & marble	8,5 mm	30	plastic & springs
	slab cutting & profiling	electroplated	8,5 mm	30	plastic & springs
Sandstone	slab cutting	compact sandstone	11,3 mm	36	plastic & springs
	slab cutting	grit stone	11,2 mm	40	plastic & springs
	slab cutting & profiling	compact sandstone	8,3 mm	36	plastic
	slab cutting & profiling	grit stone	9,0 mm	40	plastic



*Patented reinforced assembled wire with plastic and springs*



*Sintered wire with plastic assembly*



## Diamond wire for multiwire machines

TYROLIT multi wires are either supplied open or as endless loops and are all sharpened mechanically to secure easy starting on all kind of granites. TYROLIT wire can be used to the end of its life without the need for replastification

### Technical data

Bead diameter	Assembly	No. of beads
7.3 mm	plastic - open	36
8.3 mm	plastic - open	36
6,3 mm	plastic - endless	36
7,3 mm	plastic - endless	36
8,3 mm	plastic - endless	36



*Plastic assembled wire*



## Diamond circular blades

The different stones pose enormous challenges in terms of quality of the cutting tools used. Each material has its own particular hardness and abrasive properties and the cutting tool has to meet the different characteristics of the material, machine and application.

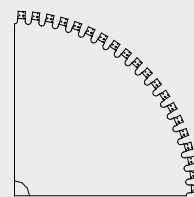
Our team of experts from the technical and R&D Departments are constantly working on bond and diamond development to satisfy specific client requests in terms of cutting quality, speed and life time of circular blades.

**Tyrolit provides blades with normal, silent or semi-silenced steel cores in different geometries for all cutting machines:**

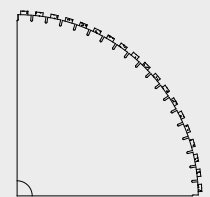
- + Multiblade
- + Horizontal
- + Trimming
- + Block saw
- + Multicross
- + Bridge saw



**Type of blade for block saws**



C1



C2 wide core tooth

## Diamond gang saw blades

Marble, limestone and sandstone can be cut into slabs with different thicknesses or into square blocks using the diamond gang saw blades. For each material TYROLIT provides the best technical solution:

- + Extremely clean, precise cut
- + High cutting speed
- + Specific segments to ensure optimum efficiency





## Technical data

Blades	Ø (mm)	Segment Shape	Segment Type	Application machine	Material
C1	900 - 1600	conic	sandwich / multilayer	multiblade	granite
C2	900 - 1600	conic / parallel	sandwich / multilayer	block saw	granite / marble / sandstone
C1	1650 - 3500	conic / parallel	sandwich / multilayer	block saw	granite / marble
C2 - C2P	300 - 850	conic / parallel	normal / sandwich / multilayer	bridge saw / trimming / multicross cutting / horizontal cutting	all
C2L	350 - 500	parallel	normal	bridge saw / trimming / multicross cutting	marble / engineered stone
C8I	300 - 350	-	normal	bridge saw / trimming / multicross cutting	marble / engineered stone
C2J	350 - 625	turbo	normal	bridge saw	marble

Today the stone industry is focused on productivity like never before. Fast cutting and the high quality of finish are the primary needs of customers. Research has allowed TYROLIT to develop different formulations for multilayer segments, which give several benefits:


- + Fast and easy cutting
- + Lower noise compared to standard segments
- + Low amps absorption











Calibrating and polishing  
of natural and engineered stone



## Diamond tools for surface calibration

Over 30 years of experience make TYROLIT the market leader in surface calibration of natural and engineered stone. Today clients are focused on process efficiency like never before. Calibrating and polishing processes in particular pose enormous challenges in terms of the quality of tools used. Thus the calibrating tool set up must be perfectly tailored to the individual customer requirements of productivity, removal capacity and line speed for a range of different materials.

Our team of experts from the technical and R&D Departments are working constantly on bond development, diamond composition and different tool geometries in order to resolve specific client requests and continuously improve our range.





## Rollers on rotating heads



### Entering calibration

Specifically designed for positions 1 and 2 of the 1st calibrating machine. It allows a lower positioning of the head compared to standard rollers due to its excellent cutting capacity. Entry thickness variations do not anymore slow down production speed by using these rollers



### Calibration

It's the newest design and development to guarantee process efficiency like never before: high calibrating speed, remarkable energy cost saving, very long lifetime. This roller, available in different specifications, ensures the main part of the calibrating process.



### Pre-finishing

This roller can be used before the finishing one to improve the surface quality and roughness of slab after calibration. It allows also a lifetime improvement of the finishing roller.



### Finishing

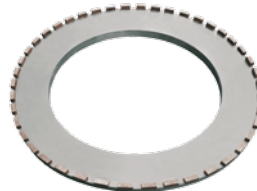
It's the finishing roller. Even if it continues the calibrating process, the hexagonal design of the diamond layer grants the best finish of the slab before polishing. Various grits are available to meet customer needs in terms of surface quality of the slab at the end of calibrating process.

## Spiral Rollers



Diamond calibrating tool with spirals for calibrating and grinding natural stone. The sequence of diamond grits ensure a high stock removal rate and excellent fine grinding. Various geometries are available for all sizes and machine types.

## Calibrating plates



Diamond calibrating tool for calibrating and grinding marble and soft natural stone.

## Diamond tools for lateral calibration, squaring and chamfering

Specific tools have been designed to meet all application requirements and ensure optimal finish on the ground edges of both natural and engineered stone.

The extensive range of metal and resin cup wheels for lateral calibration, squaring and chamfering is the professional solution for every calibrating line and squaring machine.

The geometry of the various wheels can be varied to satisfy the specific removal requirements.



**Calibrating, squaring and chamfering wheels**





## Diamond tools for surface polishing

Today the Stone Industry is processing more and more different materials with a variety of finishes. Everyday TYROLIT product specialists are working alongside the end customers providing professional and innovative solutions to guarantee the quality of slab polishing without forgoing productivity and economic expectations.



## Polishing satellites and rollers



Various geometries of wheels and rollers are available for polishing satellites and polishing rotating heads. Tyrolit product specialists and application engineers provide the optimal machine setup to satisfy the customers requests. Different bonds and grits guarantee for all tools the best performance on the specific polishing machine with the various stone materials.

*Polishing satellite wheels and rollers for granite and hard stone.*

## Frankfurt

TYROLIT frankfurts are specific for smoothing of all marble, onyx and soft stone slabs and tiles.

Various designs are available both for metal and resin frankfurts to reach excellent performance on all polishing machines. A remarkable range of metal frankfurts - from grit 36 to 150 - and resin frankfurts - from grit 60 to 400 - provide the best quality of finish and tool lifetime in the market.



*Metal and Resin frankfurt for marble and soft stone.*

## Diamond oscillating segments for surface polishing

In 1988 TYROLIT caused a revolution in the polishing of granite by a new generation of metal bond diamond fickerts and, nearly 30 years later, we are still the leader in this technology both for natural and for engineered stone.

The focus is the efficiency of whole machine. TYROLIT application engineers support customers for the best set up of the machines by a perfect match between metal, resin and buffing tools.

An extensive range of products for grinding, brushing, lapping, buffing complete TYROLIT assortment for the slab surface polishing to satisfy the newest requirements of designers and architects.





## Oscillating segments

TYROLIT oscillating segments guarantee an excellent smoothing of granite and engineered stone. They grant the proper preparation and shadows free polished surface to obtain homogeneous and high gloss slabs.

The high speed and long life of TYROLIT oscillating segment ensure the best productivity and performance. Easy and consistent cutting on all grits avoid scratches. Fine grits of metal oscillating segments allow the reduction of conventional abrasives and resin ones.



*Metal oscillating segments for engineered and natural stone*



*Resin oscillating segments for engineered and natural stone*





A large, dark stone slab is being processed on a diamond tooling machine. The machine is a large, industrial-grade device with a rotating table and a vertical spindle. The stone is being cut or polished, and a large amount of water is being sprayed onto the surface, creating a misty atmosphere. The background shows a window with a view of a building. The overall scene is industrial and focused on the precision of stone fabrication.

## Stone fabrication diamond tooling

# CNC profiling tools

TYROLIT CNC profiling tools offer an extensive quality of finish in any granite or engineered stone. Easy set up is guaranteed thanks to an individual measurement card supplied with each wheel.

The specifically developed bonds allow high feed speeds (5m / 200 inch per minute) but minimum noise and spindle absorption. An extensive standard range of profiles and diameters is available as well as a complete custom profile service. TYROLIT also offers a full factory re-profiling service to optimize tool life.



## Standard profile list

<b>A</b>	<b>A r15+3</b>	<b>B</b>	<b>B r30+3</b>	<b>D</b>	<b>E</b>
<b>EC</b>	<b>ES</b>	<b>ES r3</b>	<b>F</b>	<b>FG</b>	<b>FG 33</b>
<b>FGS</b>	<b>FGS 30+3</b>	<b>FS</b>	<b>FS r3</b>	<b>FV</b>	<b>H</b>
<b>L</b>	<b>O</b>	<b>OG</b>	<b>PE</b>	<b>Q</b>	<b>T</b>
<b>TP 20&amp;30</b>	<b>TP 40</b>	<b>TS</b>	<b>V</b>	<b>X</b>	<b>Z</b>





### Roughing wheels for natural and engineered stone edging

To extend the life of profiling tools, TYROLIT offers segmented roughing wheels. Both single 45 degree and double 45 degree hoppers and a range of different 'Z' Wheels



### Small diameter profiling tools for natural and engineered stone edging

TYROLIT has developed a complete system of small diameter profiling wheels to get the best possible finish in tight corners.



### Profiling and edge wheels for technical ceramic slabs

Over sized technical ceramic tiles (slabs), in a wide range of thicknesses and finishes, are an important innovation for the surfacing market. In collaboration with ceramic manufacturers and stone fabricators, TYROLIT has developed an assortment of diamond tools for processing all over-sized technical ceramic tiles and slabs of any thickness and finish; Dekton, Florim Magnum, Iris, Kerlite, Laminam, Lapitec, Neolith, The Size, Techlam, Slimtech, Stoneglass, Zero.3 are some of them



## CNC cutting and drilling tools

Tyrolit provides an extensive range of finger bits and drilling tools. Different sintered bonds and design for various types of granite, marble, engineered stone and technical ceramics guarantee the best performance satisfying the various customers' needs.

TYROLIT is continually developing new technological solutions for natural and engineered stones and for the newest wide range of over-sized technical ceramic tiles. Precision and excellent quality of drilling and cutting are guaranteed for all thicknesses from 6 to 30mm.





## CNC calibrating, stubbing, drainboard tools

In addition to the wide range of stubbing tools for natural and engineered stone, TYROLIT has developed specific wheels:



- + high speed calibrating stubbing wheel for granite and engineered stone



- + top quality calibrating stubbing wheel for Dekton



- + flush fitting router for all types of technical ceramic slabs

The assortment is complete with grooving router bits, writing, sculpting and engraving tools and many different tools in Widia, PCD, Tungsten Carbide or sintered diamond to allow the stone fabricator to work all types of material, whatever the level of detail needed.

## Cup wheels for edge polishers for processing natural stones, ceramics and agglomerates

Metal wheels from calibrating to chamfering, generating, grooving and shaping; resin polishing wheels for automatic multi-spindle belt edge polishing machines. TYROLIT tools grant fast cutting tools and excellent finish on straight and round edges.



*Metal wheels for straight edging machines*



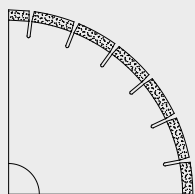
*Resin wheels for straight edging machines*

## Segmented diamond saw blades for cross cutting, bridge saws, splitting and masonry saws.

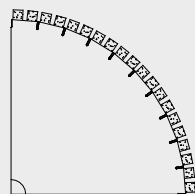
Diameters from 300 to 900 mm for cutting granite, marble, other natural stones, engineered stones and ceramic slabs. TYROLIT possesses a wealth of expertise on all types of materials and knows exactly what the customer requires. A comprehensive range of tool solutions for high speed, no chipping and long life cutting also for specific applications and materials.



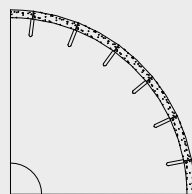
### Type of blade for bridge saws



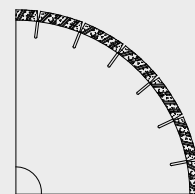
C2 Narrow core tooth



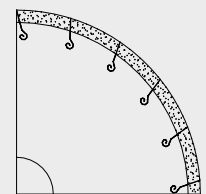
C2P



C2L



C2J Turbo segment



C8I Continuous rim



### Advantage

- + Easy, clean and precise cutting
- + Consistent quality
- + Multilayer technology for granite high speed cutting



# Diamond tools for wet or dry usage on portable machine

Working with an angle grinder is an important process for all types of stones. TYROLIT offers a complete range of tools for grinding, polishing and cutting of marble, granite, agglomerate, ceramic and concrete.

Tyrolit assortments of metal and resin grinding wheels and polishing pads meet the requirements of wet and dry applications. Quick and accurate grinding, high stock removal rates and long lifetime are their characteristics.



Saw blade



Metal grinding wheel



Resin grinding wheel



Polishing pads

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