



**YOUR PARTNER IN THE  
GLASS INDUSTRY**

Tools and Solutions

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



# TYROLIT Group

## A global company

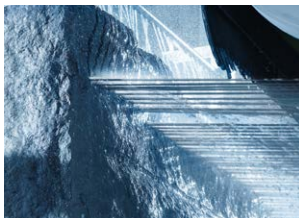
As one of the world's leading manufacturers of bonded grinding, cutting, sawing, drilling and dressing tools as well as a system supplier of tools and machines for the construction industry, the family-run company TYROLIT has been synonymous with top quality products, innovative spirit and outstanding 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 division, TYROLIT is the leading system supplier for drilling systems, wall- and wire saws, floor saws and surface treatment.

## 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 glass industry

Automotive &  
Technical glass

Cutting & De-coating

Flat Glass

Optics

CNC tooling

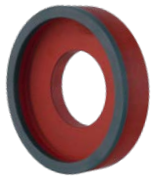


# Milestones for glass industry

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 Glass 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.



**1979**  
TYROLIT is leader supplier of polishing plateau for glass



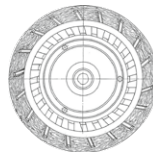
**2002**  
TYROLIT introduces long life resin cup wheels



**2013**  
TYROLIT presents high speed peripheral wheels for solar glass



**2017**  
TYROLIT creates a new peripheral wheel named HYLAS



**1992**  
TYROLIT develops breakwater system for straight bevelling machines



**2010**  
TYROLIT creates new specifications for high speed automotive edge grinding



**2014**  
TYROLIT introduces the first single-use automotive wheel: HALO



**2018**  
TYROLIT presents STARFLEX the universal set of metal and resin cup wheels for double edgers machine

# Global presence Local availability

## Global presence

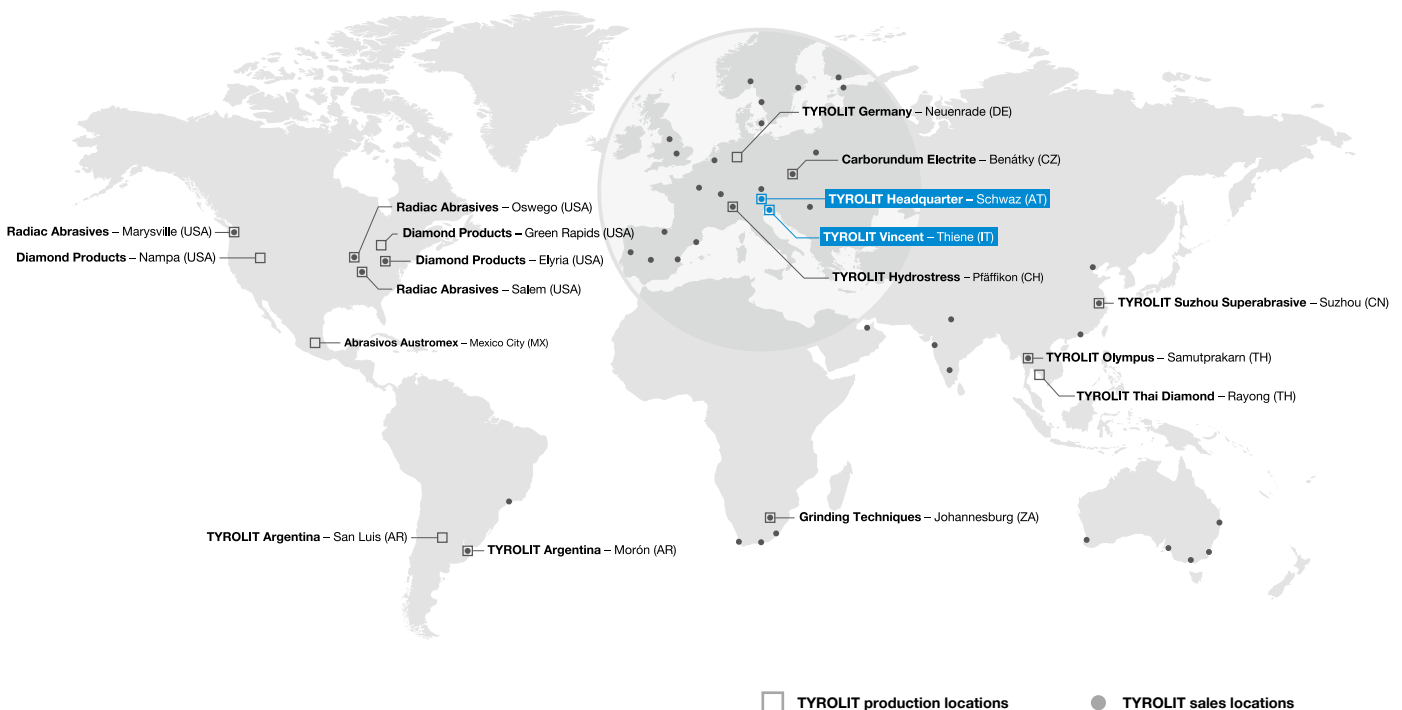
TYROLIT stands for global thinking and activities. With a worldwide sales network currently in 65 countries and with our own production plants in 12 countries on five continents, we offer our customers all the advantages of a globally operating company.

## 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





The image features a dark blue, starry space background. A glowing blue arc curves across the upper left portion of the frame. In the lower right, a car's side mirror is shown in a dark, metallic finish, reflecting the starry space. A thin, dark line extends from the top of the mirror towards the upper left, following the curve of the glowing arc. A solid blue horizontal bar is positioned in the upper middle section of the image, containing the text 'Automotive & Technical Glass' in white, bold, sans-serif font.

## Automotive & Technical Glass

## High Speed Grinding Wheel

By using its extensive experience, TYROLIT has become a worldwide trusted partner in the grinding of glass for automotive. Thanks to continuous technological developments and the wealth of process know-how, Tyrolit is able to provide sustained solutions in line with the customers demanding, technical and economic expectations. The special bonds guarantee an excellent lifetime working at very high speed and allow to re-profile the wheels several times.

+ **High working speed:**

TYROLIT grinding wheels excel in high-speed applications (up to 40m/minute in laminated applications & up to 30m / minute tempered) ensuring the highest standards of quality and lifetime in the market.

+ **Wide range of achievable profiles:**

tools are prepared by standard or customized profiles, designed to improve production cycles. The wide assortment includes special and asymmetric profiles for processing sunroofs, windshields, back-lites, laminated sidelites and thin glass.

+ **Excellent lifetime:**

the grinding wheels, provided with high diamond thickness and specifications designed for different processes / applications / operating parameters, allow to obtain the best performance and ensure the repeatability for all subsequent use.

+ **Immediate start-up time:**

bonds properly well researched and perfect preparation of the diamond surface guarantee an excellent edge finish from the first piece, reaching the maximum processing speed just after a few pieces from start up.

+ **Light weight:**

the grinding wheel bodies are mostly made of bronze and aluminum. Bronze inhibits the rust formation on tool holder cones, and bodies produced in this way, lighten the weight of tools and make easier to work on electro-spindle bearings.





# HALO

With the HALO product line, Tyrolit defines a new concept for edge grinding of automotive glass. As well as high process speed, low dressing frequency and a clean edge, the design of a single use wheel offers several new advantages and added value compared to a standard repeatedly reprofiled wheel.

- + **Minimum startup time:**  
specific alloys grant a perfect edge finish from the first piece and maximum speed can be reached after few pieces.
- + **Increased productivity:**  
thanks to a reduced set up time and to the possibility to install more wheels on the same cone, HALO allows to work continuously. TYROLIT also guarantees dimensional tolerances from the very first piece produced.
- + **Machine set up minimized:**  
because only new wheels with precise geometry are used, the machine setting and working parameters are always the same.
- + **Economic advantages:**  
minimized investment in new wheels; significant reduction of handling/logistic efforts and reduced spindle maintenance due to a lighter wheel that reduce vibrations during work.
- + **Easy installation:**  
in few seconds and proper positioning are granted by specifically designed cones and adaptors.

## Application

Edge grinding of windshields,  
side windows, laminated side windows,  
backlites and sunroofs.



## Dressing sticks for grinding wheels

The range of Tyrolit abrasive sticks, used for dressing last generation diamond tools, has been designed to improve the performance in various grinding and drilling applications of the Auto Glass Industry.



- + **Minimal impact on the quality of finishing:** regardless of the frequency of use, the Tyrolit stick allows you to quickly restore an excellent removal rate of tools without affecting the quality of edge finishing.
- + **Reduction of use frequency:** the perfect balance between the granularity and the stick hardness, combined with the generation of new bonds, allows to reduce the frequency of dressing, increasing the number of pieces processed per cycle. This benefit is particularly evident by using Tyrolit wheels and drills .
- + **Increasing of productivity:** the quality of TYROLIT sticks, allows a reduction of dressing frequency, with consequent increase of the production yield.
- + **Wide range of solutions:** TYROLIT offers a wide range of products to meet different production requirements and working conditions, by various grits and hardnesses.

## Diamond drills for automotive industry

TYROLIT provides a wide range of monobloc drills and drills with mobile countersinks for the Automotive Glass Industry. They are specially designed and manufactured to guarantee the best quality of the hole at high feed rates.



- + **Excellent startup:** from the first hole you get an excellent edge quality. To speed up the startup, TYROLIT provides the drills with properly dressed diamond surface.
- + **High feed speed:** the diamond drills have been designed for a consistent performance throughout their lifetime: the high edge quality is guaranteed up to 120 mm/min working.
- + **Excellent edge finishing:** the diamond drills allow you to achieve excellent quality standards, ensuring a perfect finishing.
- + **Long lifetime:** the sintered diamond drills are manufactured using specific bonds to grant an excellent lifetime, that satisfies the highest standards in the market.

## HYLAS

With HYLAS, TYROLIT introduces a new line of wheels for grinding furniture and technical glass. The most significant benefits are: fast startup, high speed, excellent quality finishing as well as extreme flexibility of use.

HYLAS allows the same wheel to be installed on different double edging machines, regardless of the type of machine fitting, thanks to the simple use of suitable adaptors. HYLAS has also been designed to never need reprofiling and thus offers the advantage of working always with a new grinding wheel.

- + **Fast startup:** specific bonds and accurate preparation of the diamond surface guarantee excellent edge quality already from the first piece.
- + **Maximum performance:** the installation of only new grinding wheels with the maximum diameter grants always the best performance, ensuring perfect refrigeration, high speed, long life of the wheel and the excellent quality of the edge.
- + **Machine set up minimized:** thanks to specially designed adaptors, the installation is easy and fast. Because only new wheels with precise geometry are used, tool positioning and machine setting remain always unchanged.
- + **Increased productivity:** thanks to reduced installation time, fast start-up, high speed and durability, you get the highest productivity.
- + **Economic advantage:** minimum investments in new wheels and cost saving in tool reprofiling, service and logistics.







## Flat Glass

## STARFLEX

Universal set of metal and resin grinding cups for flat edge processing of float and laminated glass.

Focused on process efficiency and flexibility, TYROLIT provides STARFLEX. This is a set of flat edge grinding diamond wheels for double edging machines, specifically designed to ensure outstanding edge finishing and performance on all glasses, ranging from 3 mm mirror glass to thick glass, or even laminated glass, using always the same tools.



**+ High speed:**

the focus is the efficiency of whole machine. The specifically developed bonds and geometry and the perfect match of the metal and resin wheels allow excellent removal capacity at high speed.

**+ Flexibility:**

STARFLEX setup, composed by the slotted metal and resin grinding wheels, ensures optimal performance on all glasses. The sequence of two metal wheels followed by one resin wheel is the best technical solution for the flat edge on double edging machines.

**+ Long lifetime:**

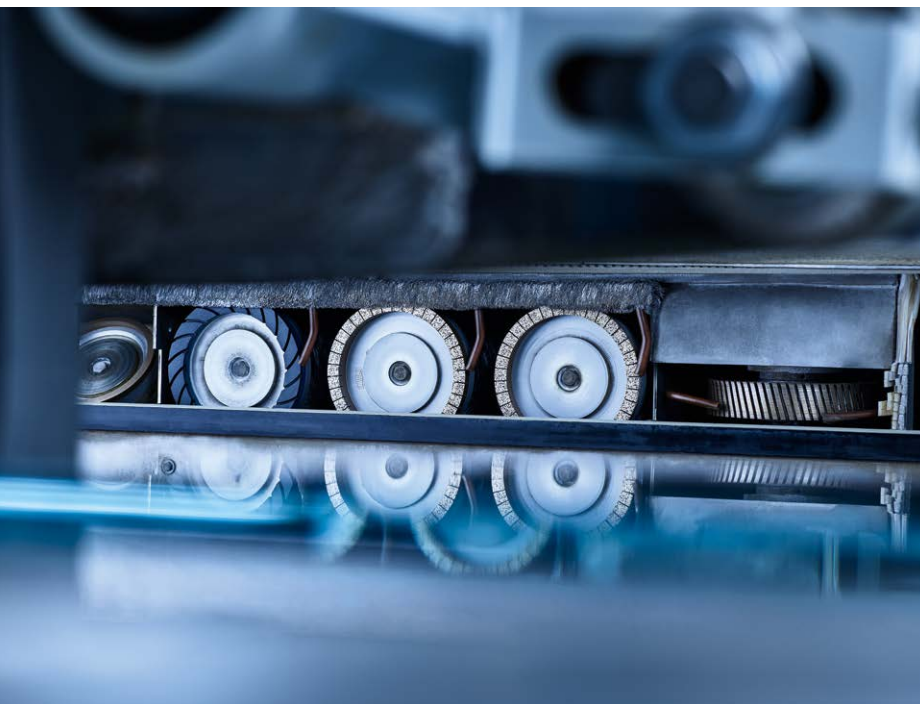
STARFLEX setup properly divides the removal rate between the different wheels to ensure the consistent consumption and the best efficiency of the tools.

**+ Optimized edge finishing:**

the combination of geometry and bond of STARFLEX allows the optimal flat edge finishing, preparing all glasses for final polishing.

### Application

Edge grinding of all glasses, ranging from 3 mm mirror glass to thick glass, or even laminated glass on double edging machines



## CERIUM polishing cup wheel

Through the new line of CERIUM cups, TYROLIT provides a great solution for the last steps in flat glass processing. With this product TYROLIT offers to the market a tool that combines high performances and high quality with a proper cost benefit.

+ **Immediate startup:**

CERIUM tools grant an excellent finishing from the very first piece up to the whole tool life. This is possible due to the homogeneous adhesion to the glass edge achieved by the perfect balance and parallelism of the tool.

+ **High performance:**

TYROLIT CERIUM cups can be used at very low pressure and high speed and still grant a perfect edge surface quality.

+ **High productivity:**

the high quality materials used to produce this tool, guarantee a lifetime above current market standards.

+ **Excellent finish:**

the new specification grants an excellent polishing quality that reduces roughness ( $R_a = 0.05$ ) of the edge to a very close level to the glass surface.



**Application**

Float and laminated glass processed on double edgers machines







A close-up photograph of a CNC machine's tool holder assembly. Several grey, conical tool holders are mounted on a white, multi-ported carousel. The central holder is holding a blue-coated drill bit. The machine is wet with water droplets, and a blue coolant stream is visible at the bottom. The background is a blurred industrial environment.

## CNC Tooling

## CNC wheels

Metal bond tools, with segmented and continuous rim for different applications and work sequences in horizontal and vertical CNC machines. The wheels are available in various diameters from 25 to 200mm for both flat and laminated glass in all thicknesses.

- + **High stock removal rate:**  
thanks to the developed combination of grits and bonds, these tools are able to work in every working condition and always grant an high stock removal rate.
- + **High speed:**  
the tools are able to reach speed rate over standard on all glass thicknesses.
- + **Long lifetime:**  
thanks to the technical features of the products, the tools achieve a great benefit in terms of duration.



## CNC arris wheels

Metal bond tools designed for double glazing processing on vertical CNC machines.



- + **Outstanding quality:** during all their lifetime, TYROLIT Arris wheels grant an outstanding finishing quality that is extremely important for all the next processing phases.
- + **High speed:** TYROLIT is the world leader in this application. These tools grant a processing speed above the market standards.
- + **Long lifetime:** although working at high speeds and always ensuring perfect quality standards, the tool guarantees an excellent lifetime.

## Milling cutters and Combined routers

Tyrolit offers a wide range of milling cutters and combined tools. The combi tools are used for milling and edging all type of glass on CNC machines.



### + Long lifetime:

thanks to an excellent homogeneity in consumption during use and stability of the product, the best yields are guaranteed both with the milling cutter and with the combined - which is designed to align the wear of the router with the underlying profile

### + Noiseless:

these grinding tools produce significantly less noise compared to the other tools on the market.

### + Immediate startup:

TYROLIT production pays extreme attention to the dressing of the tools, this leads to an immediate startup of TYROLIT cutters and combined routers

### + High productivity:

high removal and excellent finishing are always granted. For this reason, by using TYROLIT tools, the cycle times are always optimized compared to the standard.

## Core drills

TYROLIT offers optimum solutions for the drilling of holes with perfect edges - even at high drilling speeds, right from the very first hole.

The company's long-standing experience and expertise in the development of diamond tools for drilling applications as well as the use of highly-developed manufacturing technologies ensure the best results.



### + Excellent start up:

from the first hole you get an excellent edge quality. To speed up the startup, TYROLIT provides the drills with properly dressed diamond surface.

### + High feed speed:

the diamond drills have been designed for a consistent performance throughout their lifetime: the high edge quality is guaranteed up to 120 mm/min working.

### + Excellent edge finishing:

the diamond drills allow you to achieve excellent quality standards, ensuring a perfect finishing for both surfaces.

### + Long lifetime:

sintered diamond drills are manufactured using specific bonds to grant an excellent lifetime, that satisfies the highest standards in the market.



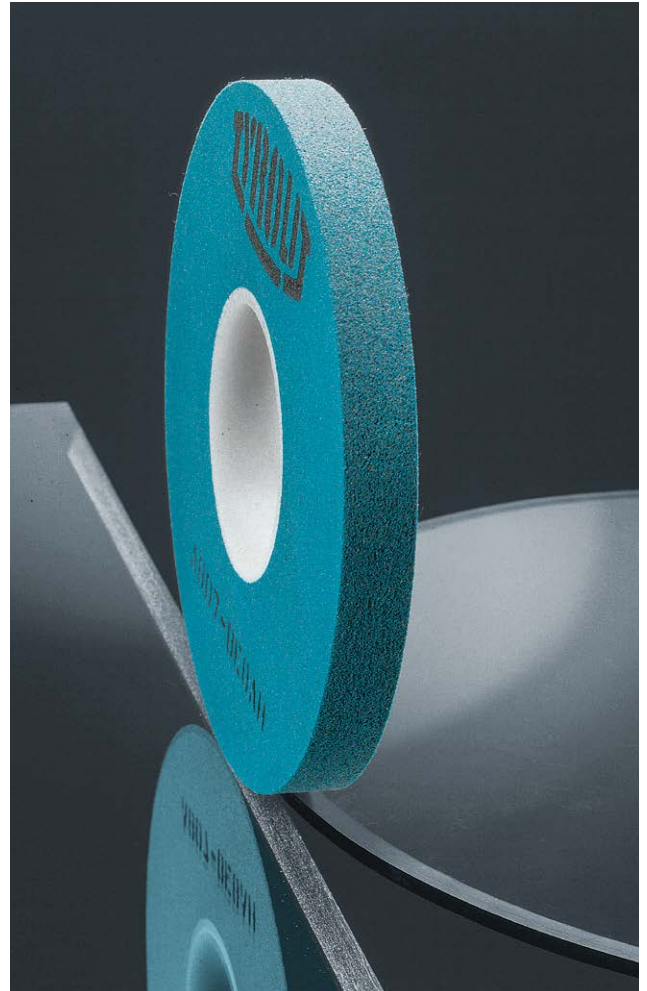


## Cutting & De-coating

## ELASTIC wheels

TYROLIT provides the best solutions for removing all kinds of metal coatings from glass using portable grinders as well as vertical stationary and bridge machines.

- + **Complete removal of glass protection:**  
allowed by the built-in damping properties
- + **For wet and dry applications:**  
the special development of this wheel allows both wet and dry use.
- + **Centre reinforced:**  
the reinforced hole of the wheel allows a longer duration and grants to be used in all working conditions



### Application

Grinding tools for low-e glass decoating



## Turbo saw blades

TYROLIT diamond saw blades provide the ideal solution for cutting laminated glass. Available in 300, 350 and 400 mm diameters.

**+ Fast cutting and Long lifetime**

due to the perfect combination of first quality diamond and new generation bond type, Tyrolit Turbo saw blades reach outstanding performances.

**+ Clean cutting edges:**

turbo segment design includes specific slots that allow an easy elimination of plastic and grant a cut homogeneous, clean and without defects.

**+ Noiseless cut:**

thanks to special "sandwich" core, the blade cut perfectly straight and noiselessly, ensuring an homogeneous consumption of the segments during processing

**Application**

Diamond Saw Blades for cutting Safety Glass.







A close-up photograph of a blue showerhead spraying water. The showerhead is positioned in the upper left, and a stream of water is visible in the lower left. The background is a soft, out-of-focus blue. A solid blue horizontal bar is overlaid on the right side of the image, containing the word "Optics" in white text.

# Optics

## Curve generating and lapping tools, lens edging wheels

Generating tools, diamond pellets and full face tools for the production of ophthalmic lenses. Diamond wheels for edging of ophthalmic lenses with manual, automatic and high-production CNC machines.

+ **Curve generating:**

high-performance diamond crown wheels and peripheral wheels for curve generators. Despite the high processing speed, the surface quality is ideal for obtaining short fining times.

+ **Lapping tools:**

diamond pellets in various grit sizes for fining, re-grinding or backside clearing of lenses, moulds or glass for other specific applications. Full face tools for re-grinding, fining or chamfering

+ **Lens edging wheels:**

the ideal specification for each application on hand edgers, CNC edging machines or industrial edgers, which allow for best results regarding cutting speed, edge quality and luster of polish.



**Application**

Curve generating and lapping tools,  
lens edging wheels



# Catalogue

## General information

the tools shown in this catalogue, the information regarding delivery, appearance, performance and dimensions shall comply with the according status at the time of printing. We develop our products continuously. We reserve the right to change without prior notice. All errors and misprints reserved.

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