



TYROLIT SPECIAL PROJECTS

Machines, tools and project support
at the highest level

Premium grinding tools since 1919
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 and a system supplier of tools and machines for the construction industry, the family-run TYROLIT company has been synonymous with superior quality, innovative spirit and outstanding service since 1919.

Day in, day out the experts at TYROLIT are busy working on solutions that accommodate the individual requirements of customers around the world; thus contributing to their business success. Some 80 000 available products set the standard in various industrial sectors.



TYROLIT company headquarters in Schwaz, Austria

TYROLIT business units



Construction

In the construction division, TYROLIT is the leading system supplier for drilling systems, wall- and wire saws, floor saws and surface treatment.



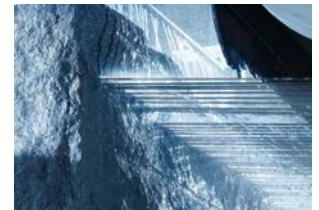
Trade

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



Metal / Precision

From precision machining in the engine and gear 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 huge variety of applications.



Stone – Ceramics – Glass

Our customised diamond tools and grinding solutions in the Stone – Ceramics – Glass business unit cannot fail to impress through their exceptional performance and quality.

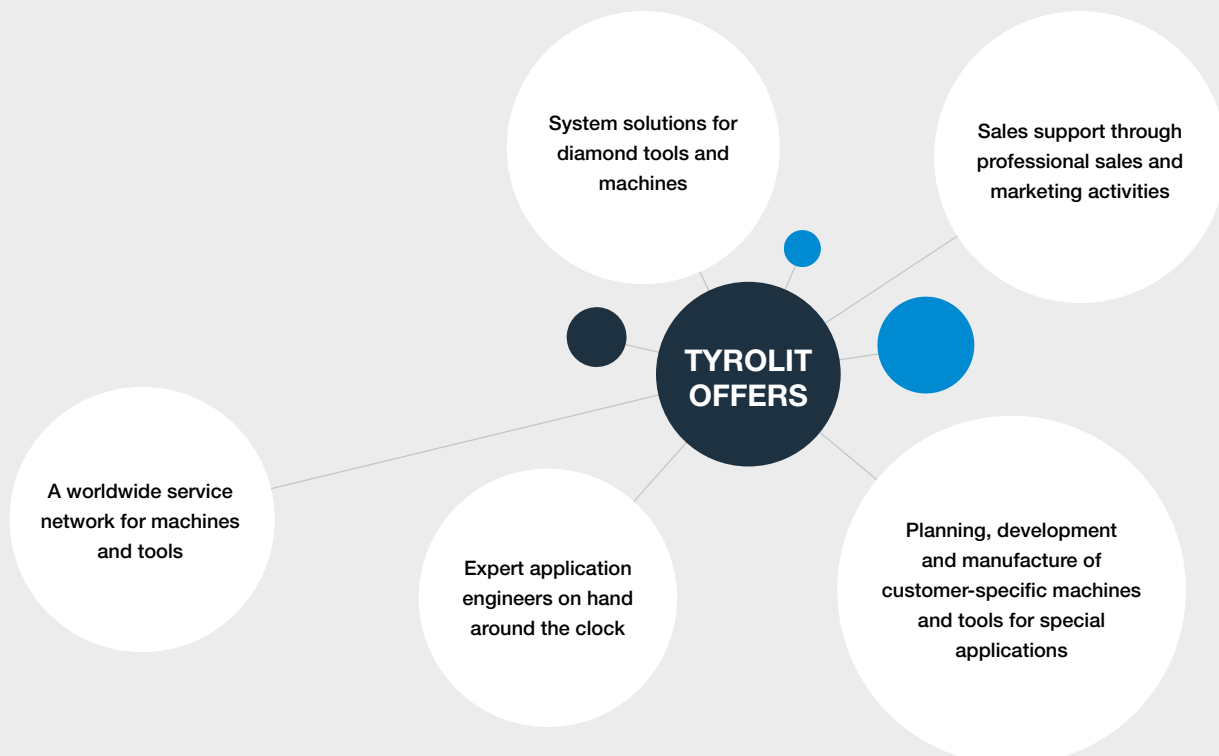
The Construction business unit

As a pioneer in the development and manufacturing of machinery and diamond tools for the construction industry, our partners benefit from our long-time experience and know-how as a system provider. In the construction division, TYROLIT is therefore the leading system supplier for drilling systems, wall- and wire saws, floor saws and surface treatment.

In addition to an extensive standard range of products for various applications such as drilling as well as wire or wall sawing, TYROLIT also offers individual services for special applications of all types.

Individual – quick – reliable

Highest standards for quality and service



The TYROLIT Special Projects Team

Whether for the controlled decommissioning of offshore installations or nuclear power stations, the expansion and reconstruction of tunnels or for smaller specialist construction projects – TYROLIT is your reliable partner in special construction solutions.

In addition to a wide range of standard products, as well as customisable products, the TYROLIT Special Projects Team supports its customers with:

- + Feasibility studies
- + Customised products for machines & tools
- + Planning concepts
- + Project management
- + Principle sketches
- + Training courses

Many years of experience, specialised expertise and countless successfully completed projects have shown that the TYROLIT specialists ensure technically sophisticated and project-related solutions.



Convincing technologies

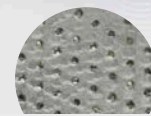


TGD®
TYROLIT GRAIN
DISTRIBUTION

TGD® – TYROLIT GRAIN DISTRIBUTION

TYROLIT diamond tools with TGD® technology feature intelligently distributed diamonds that enable even load distribution, optimised cooling and a constantly high cutting performance. This significantly extends the tool lifetime and the load on the machines is reduced.

- + Long lifetime
- + High cutting ability
- + Enhanced efficiency



TGD® segment



Conventional segment



P2®
PERMANENT
POWER

P2® - PERMANENT POWER

P2® - PERMANENT POWER - is a high-frequency technology registered by TYROLIT, which combines the compact design of electrical systems with the reliability and performance of hydraulic systems in a single machine to optimum effect. This innovative drive concept is based on the principle of drive motors with permanent magnets and enables operation at a high torque, with simultaneously reduced motor speeds. The maintenance-friendly layout of the compact devices makes servicing easier and reduces costs.

- + High reliability
- + Powerful performance
- + Compact design



Modular System

Modular System

Thanks to the TYROLIT Modular System, individual components can be used for the same area of application and for different applications. This not only makes the work easier and more efficient, it also saves on costs. One part of the TYROLIT Modular System is the ModulDrill™ quick clamping system, for example, which enables our drill motors to be rapidly attached to different TYROLIT drill rigs.

- + High economic efficiency
- + Efficient working
- + Easy operation



Reliable products for your success

For special applications in small or large-scale, complex projects, the TYROLIT Special Projects Team delivers ingenious solutions which quickly and efficiently bring our partners to their goal.

The following products are adapted according to requirements.

Drill rig for large diameters

- + Versions for drilling diameters from 1 000 – 1 500 mm and drilling depths of up to 2 m
- + Modular setup comprising 2 drill rigs (BC-2)
- + Hydraulic feed on both sides via synchronisation linkages
- + Gear reduction arm adapted to the relevant drilling diameter
- + Electric system available upon request



Drilling unit for deep drilling

Sturdy, modular drill rig comprising standard components and new accessory parts.

- | | |
|---|---|
| + Switchable direction of rotation (left & right) | + Recommended drive = PPH40RR*** |
| + Inclination = 25° to 90° | + Total weight = 120 kg |
| + Diameter = 80 – 300 mm | + Can be dismantled in 10 parts |
| + Centering device | + Clamping and locking device for loosening and extending tubes |
| + Hydraulic pipe clamping | |
| + Tractive force = 1 000 kg | |



Diamond wire saw on swivel bracket

- + Standard wire saw mounted on swivel bracket
- + Vertical and horizontal cuts can be made from a central position
- + For rectangular apertures up to approx. 1.2 m side length
- + Electric and hydraulic versions available



Curved track

- + Adjustable to various radii
- + Minimum radius = 1 200 mm
- + Rail supports welded on
- + Designed for FZ-4S saw heads, other types upon request
- + Can be produced in individual 3 m lengths
- + Combination with straight rails possible

Pilecutter R1500

- + Suitable for cutting pipes or columns
- + For pipes with diameters of 600 – 1 500 mm
- + Can also be used underwater (down to 10 m)
- + Assembly and wire loops without sleeve possible (length upon request)
- + Conversion kit for BC2 drill rig available



Tunnel milling with the TEW-7

Whether vertical or horizontal - the TEW-7 tunnel mill enables fast and flexible work in tunnels. It is the first choice when making cuts for drainage, joints, cable laying or profile extensions as well as for cutting out niches or the partial demolition of tunnel walls.



- + Mountable on various carrier devices
- + Modular system, perfect for individual adaptation
- + Extremely flexible and freely extendible
- + 40 kW drive for demanding cutting applications
- + Fully hydraulic basic machine with various add-on units

Mounting versions

- + **Horizontal cut**
max. cutting depth = 500 mm (blade diameter up to 1,200 mm) / rail length = 1 800 mm
- + **Cutting head/slot cutter**
max. cutting depth = 225 mm and widths of 20 – 250 mm (blade diameter up to 650 mm)
- + **Multiple blade arbour**
diameter 450 / 650 mm
- + **Vertical cutting attachment**
max. cutting depth = 750 mm (blade diameter = 1 600 mm) with multiple blade arbour, max. cutting depth = 600 mm (blade diameter = 1 000 mm)



Controlled decommissioning of nuclear power plants

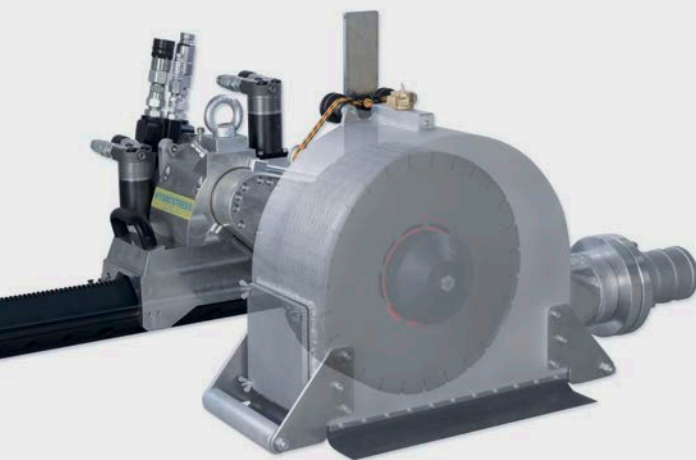
The controlled decommissioning of nuclear power plants is becoming increasingly relevant and the TYROLIT experts supply the suitable equipment for this purpose, both for dry and wet applications.

According to requirements, a wide standard range of diamond tools and machines or customised solutions are available. The best proven methods and product solutions are as follows:



The TYROLIT Wallshaver

In terms of removing contaminated concrete surfaces, the TYROLIT Wallshaver convinces in every respect:



- + Fully hydraulic basic machine
- + Suitable for removing concrete surfaces or for milling channels into concrete or asphalt surfaces
- + Cutting depth up to 100 mm (blade diameter = 400 mm)
- + Removal by cutting in stages of max. 20 mm
- + Cutting widths from 3.2 to 122 mm
- + Remote control
- + PPH40RR*** drive (40 kW)
- + Can be used wet and dry
- + Optionally available: extraction system for removing dust and slurry

The TYROLIT Dry Drilling System

The TYROLIT Dry Drilling System is the world's first solution for easy and inexpensive dry drilling of reinforced concrete.

One of a kind

- + Clean working without a compressor – particularly suitable for decommissioning nuclear facilities
- + Low cost, simple operation
- + Excellent results in reinforced concrete
- + Durable dry drill bits in TGD® Technology in various usable lengths and diameters
- + Switchable soft impact function and 1¼ and ½ chucks
- + Soft start system and LED monitoring display for optimum drilling speed
- + Centring aid for precise drill bit guidance



TYROLIT wire saw systems

TYROLIT (diamond) wire saw systems are the first choice for cutting existing metal structures, particularly steel elements.

DWM***-S / DWH***-S ATEX steel wire

- + Very high cutting performance
- + Extremely long lifetime and noticeable smooth running
- + High number of beads
- + Extremely safe thanks to robust construction



Wire saw SB / SB-E

- + Large wire storage up to 10 m
- + High power transfer thanks to multiple roller drive
- + Smooth running due to hydraulic wire tensioner
- + Recommended drive = PPH40RR***
- + Also available in an electric design in conjunction with the 26 kW motor of the WSE2226***



Controlled decommissioning of offshore installations

Whether for topside cutting orders or underwater cutting work, whether during running operation or on decommissioned facilities – the TYROLIT experts understand their customers' requirements. A special highlight of the product range is the world's first ATEX-certified wire saw system, which can be used in explosion-hazardous areas.

DWH***-SL & DWM***-SL wire loops

- + Spliced design in lengths of 2.9 m – 52.5 m
- + Yellow rubber for better visibility, especially underwater
- + Length tolerances depending on loop length



The only ATEX-certified wire saw system worldwide

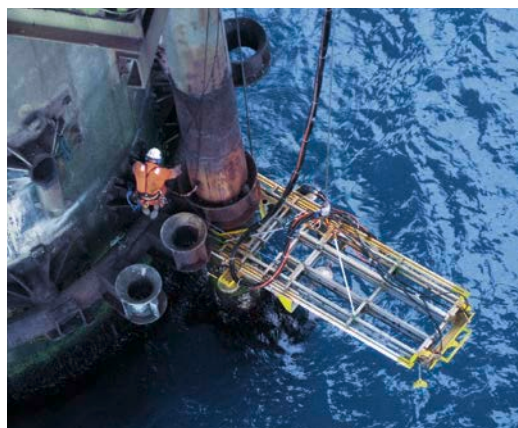
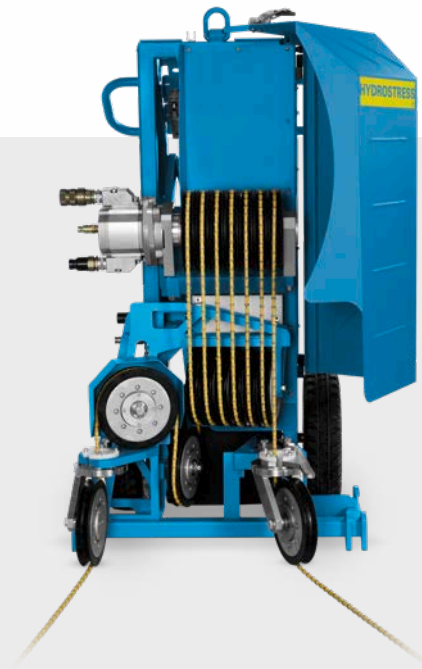


TYROLIT is the world's first supplier to present an ATEX-certified wire saw system for use in Zone 1 (EX Zone 1, II 2G IIA c T3) explosion-hazardous areas. The system, which comprises a hydraulic wire saw and electroplated diamond wire for steel, was tested in accordance with current ATEX Directives by GexCon in Norway. Certification was awarded by DNV Nemko Presafe AS.

This revolutionary cold cutting technology of the highest standard enables working on complex projects in explosion-hazardous environments as supplied by no other competitor worldwide.

- + Certified for explosion hazardous areas (EX Zone 1, II 2G, IIA c T3)
- + Modular, combinable system comprising DWH***-S ATEX diamond wire, SB hydraulic wire saw and drive.*
- + For all metals except titanium
- + Wire speed = 10 – max. 18 m/s
- + Only for wet cutting
- + With machine, only in conjunction with flow monitor

** Certified drive, either provided by customer or alternatively PPH40RR*** in a certified protective cabin (upon request).*



PPH40RR***

- + Powerful 40 kW drive
- + 4-stage control for optimal cutting speeds
- + Freedom of movement thanks to remote control; all functions can be adjusted via remote control
- + Rotational direction switch, secondary connections, operating hours counter
- + Plastic cover can be removed without tools.

**Protective cabin**

- + Certified protective cabin for PPH40RR***
- + Certified remote control
- + Small and transportable unit in pallet size
- + Integrated emergency stop function in the event of failure of the water supply to the wire saw (in conjunction with flow monitor)
- + Overpressure system and integrated cooling

**A modular system for your specific application**

Depending on the requirements or existing machines, different product offerings are available.

Tool**Machine****Drive**

Diamond wire DWH***-S ATEX	SB hydraulic wire saw PBHS-OFFSB-01 (only in conjunction with flow monitor)	Certified drive provided by the customer
		OR PPH40RR in conjunction with a certified protective cabin (optional)

In use worldwide

The TYROLIT Special Projects Team supports its customers in numerous (major) construction projects around the globe.



① **USA, Gulf of Mexico**
Underwater cutting operations



② **GERMANY, Würzburg**
Renovation of Bürgerbräu



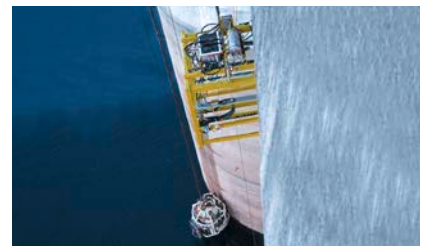
③ **BULGARIA, Belene**
Decommissioning of a nuclear power plant



④ **GREAT BRITAIN, Glasgow**
Renovation of Queen Street Tunnel



⑤ **ALGERIA, Annaba**
Decommissioning of the ship Djebel Amor



⑥ **AUSTRALIA, Sydney**
Restoration of Warragamba Dam

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