



**TYROLIT - YOUR PARTNER IN NUCLEAR
& OFFSHORE DECOMMISSIONING
TOOLS AND SYSTEM SOLUTIONS**

A Company of the SWAROVSKI Group
www.tyrolit.com

TYROLIT

TYROLIT – Your partner in nuclear & offshore decommissioning

TYROLIT is one of the world's largest producers of grinding, cutting, drilling and dressing tools as well as machines for the construction industry. The family-owned company founded in 1919 is based in Schwaz, Austria and has over 4,600 employees at 29 production locations in 12 countries.

TYROLIT Construction Division

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 addition to a broad standard range of products for various applications such as drilling, wire sawing and wall sawing, the TYROLIT Construction Division also offers outstanding services for the nuclear and offshore industry.

The service portfolio includes planning and application services as well as a range of state-of-the-art equipment.

Besides ready-made solutions, TYROLIT has the ability to design and manufacture on request special customized products to meet the needs of our customers.

TYROLIT's Construction, Trade, Natural Stone, Glass, Metal Fabrication and Precision Machining Divisions manufacture 80,000 different products. They are supplied to customers all over the world by 36 sales companies and additional distributors in 65 countries. Embedded within the dynamic, internationally active and entrepreneurial Swarovski Group, TYROLIT has the independence and support to realize its long-term corporate objectives.



TYROLIT company headquarters in Schwaz, Austria



TYROLIT Hydrostress company in Pfäffikon, Switzerland

The TYROLIT performance package

At a glance

The development and production of machines and diamond tools poses enormous challenges in terms of the quality of the products used. High levels of application expertise and flexible customer service are crucial to the successful completion of jobs. The extensive range of services makes TYROLIT a competent partner for its customers in all general matters, and in needs surrounding nuclear decommissioning and offshore projects in particular.



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Know-how & experience Innovations for generations

Decades of experience have enabled TYROLIT to build up an impressive record of innovations and successful collaborations with well-known players. As a result our proven team of specialists is able to provide answers and solutions to companies and organizations dealing with demanding projects in the nuclear and offshore decommissioning.

How you benefit

- + Professional project support
- + Efficient and effective planning and realization of jobs
- + Accurate time and cost indications based on past reference values
- + Best practice examples



System solutions The one-stop-shop

TYROLIT's ability to manufacture next-generation diamond tools and machines ensures the optimal interplay between system components, which in the end guarantees maximum performance and quality. Consulting, application engineering and after sales service are not only offered but are a cornerstone of our philosophy in dealing with partners. This distinguishes us as a convenient one-stop-shop for meeting customer needs.



How you benefit

- + Reduction in administration overheads from choosing a single-source supplier
- + Highest output and quality due to perfectly matched system components
- + Cost savings thanks to a modular approach
- + Continuous improvement of existing products and development of new solutions

Global presence

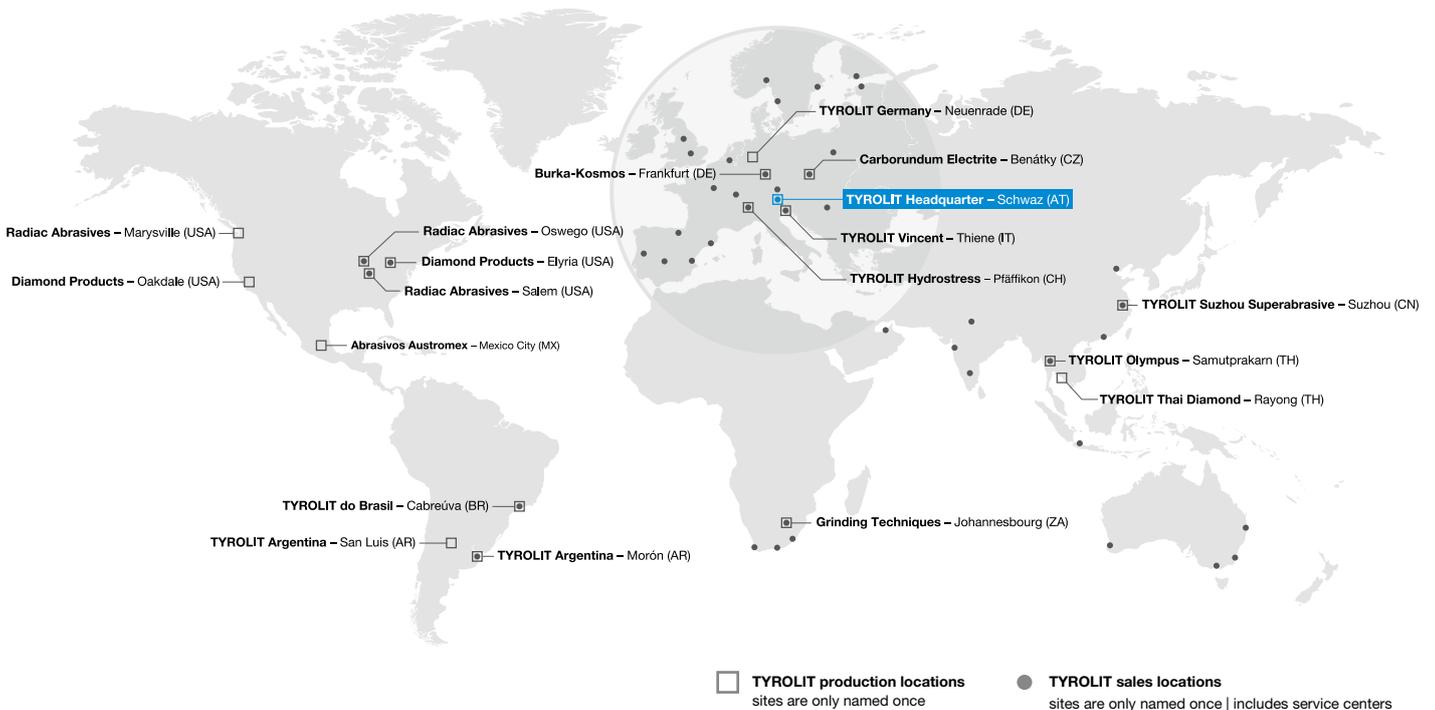
Directly at the customers' premises

TYROLIT stands for global strategies. With a worldwide sales network in 65 countries and 29 production centers on five continents, we offer our partners all the benefits associated with a global business. We have the global reach and local market experience to ensure our customers achieve their objectives.

Think global, act local – in the customer's national language and directly on their premises. This is the principle we follow as we grow hand-in-hand with our customers. Our experts are permanently available directly on your doorstep. Local contacts and local technical distribution also guarantee optimum customer support.

How you benefit

- + Think global, act local – in the customer's national language and directly on their premises
- + Experts permanently available directly on your doorstep
- + Local contacts guarantee optimum customer support



Flexibility

Standard & customized solutions

The ability to quickly adapt solutions as circumstances and conditions change is critical and one of our core competences. Alongside the complete range of standard products, TYROLIT is an expert in providing customized solutions. A flat organizational structure further ensures fast process times and flexible adjustments.

How you benefit

- + Large selection of ready-made solutions
- + Ability to adapt equipment to your specific application and needs
- + Fast adaption to changed conditions
- + Short handling times



Application engineering

Worldwide support & service

An experienced team of application engineers is available to our customers throughout the world. Customized training sessions and seminars either carried out at the customers depo or at our training centers in Switzerland and Austria ensure a know-how transfer within a short time. Furthermore a worldwide network of service centers staffed by highly skilled technicians guarantees that your equipment is serviced and repaired fast and effectively.

How you benefit

- + Highest performance and minimized downtimes due to trained operators
- + Fast reaction times
- + Smooth start up according to schedule
- + Cost savings as all training can be provided through TYROLIT



Quality & reliability

Built to last

Industry standards and the challenging environment of nuclear decommissioning and offshore projects are demanding high quality, reliable and long-lasting products. As we know that expensive and time-consuming downtimes are the main concern of our customers, we place particular emphasis on the development and testing of solutions before they are finally launched. The long and proud history of success stories impressively proves TYROLIT's strengths in this field.

How you benefit

- + High productivity
- + Low service and repair costs
- + Focus on core business rather than on administration works
- + Compliance with safety standards



Nuclear decommissioning with TYROLIT diamond technology

With numerous nuclear power plants around the globe reaching the end of their working lifetime over the next years and decades, nuclear decommissioning is becoming a major issue and challenge.

Having contributed to numerous ground-breaking innovations, TYROLIT's recognized team of nuclear decommissioning experts is able to offer solutions to companies and organizations working in the nuclear industry. An extract of the worldwide network of partners TYROLIT has worked with supports the competence and know-how TYROLIT provides in terms of planning, application consulting and supply of diamond tools and machines for nuclear decommissioning.

References

- Forschungszentrum Karlsruhe (DE)
- SAT Kerntechnik GmbH (DE)
- KKW Obrigheim (DE)

- Hochtief Solutions (DE)
- Babcock Nuclear (UK)
- Nuvia (UK)

- Sogedec (FR)
- Corecut (UK)
- KKW Belene (BG), etc.

TYROLIT's product and service portfolio

TYROLIT offers an outstanding standard range of diamond tools and machines for the dismantling and decommissioning of nuclear power plant structures. Drilling, wire sawing and wall sawing are among the most

common and popular areas of application. TYROLIT provides equipment for both dry and wet processes. Where work is to be carried out in contaminated areas, TYROLIT is also able to supply the appropriate radio

remote-controlled equipment. Additionally TYROLIT has the ability to design and manufacture on request special customized products to meet the needs of every specific application.

Structural building dismantling

Dismantling of reinforced concrete such as foundations, walls, floors, ceilings and surface shaving of contaminated areas

Metal structure dismantling

Cutting of various metal structures such as pipes, air ducts, heat exchangers, cable connections, etc.



Application examples

The past years have been characterized by tremendous improvements regarding nuclear decommissioning methods and techniques. TYROLIT offers two established key techniques which have been proven to offer significant safety and efficiency benefits on most decommissioning projects.

Dry cutting of metal structures

The most efficient way to cut metal structures and steel elements in particular is the use of a wire saw system in combination with a diamond wire.

How you benefit

- + Flexible operation – cutting of small and large dimensioned elements
- + Controlled cuts – accurate cuts with possibility to adjust angles
- + Usage within narrow space conditions
- + Limits the risk of damage to the building structure – low vibration and noise level
- + Dry and wet as well as fully radio remote-controlled operations possible

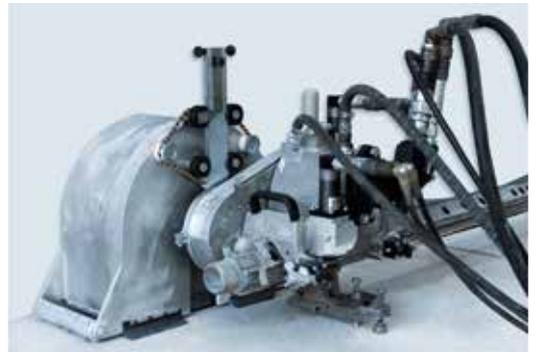


Shaving of contaminated concrete surfaces

Removing contaminated concrete surfaces is often a big challenge for our partners. With the development of the so called TYROLIT wall shaver, we are able to offer a concept with convincing benefits:

How you benefit

- + High stock removal rate – working rate
- + Adjustable cutting depths up to 100mm
- + Quick and easy assembly and disassembly
- + Surface structure override by adjusting distance plates
- + Horizontal and vertical applications possible
- + Limits the risk of damage to the building structure
- + Ease of operation
- + Ability to cut through metal objects
- + Fixation of grinding head onto various carrier systems (tracks, robots, etc.)



Offshore decommissioning with TYROLIT diamond technology

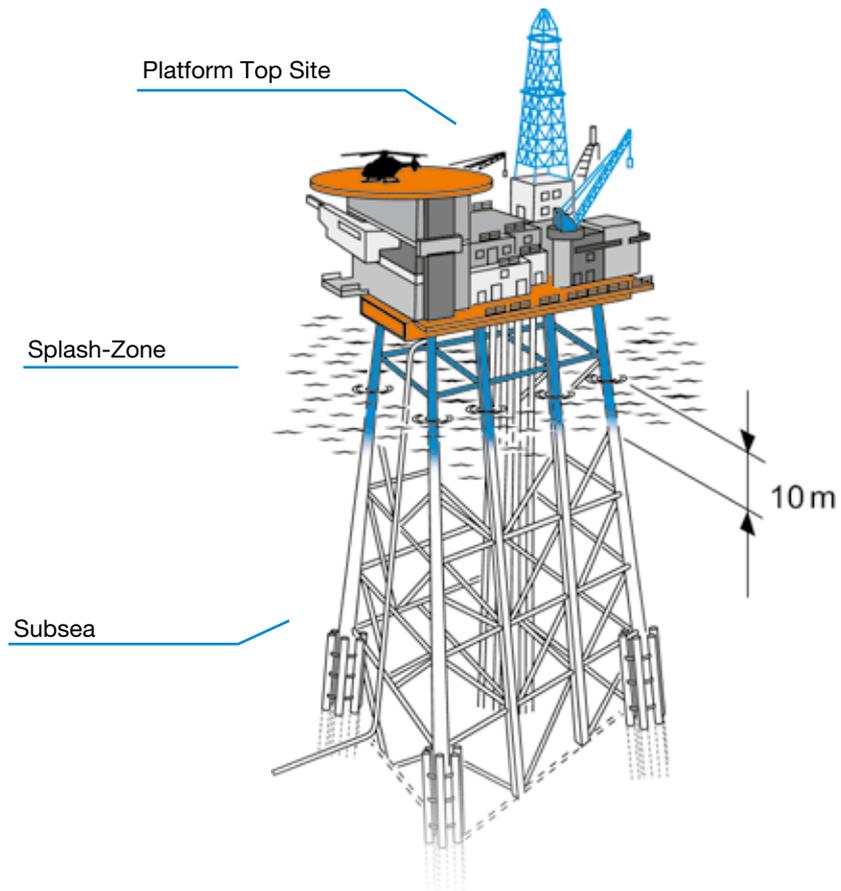
As economic and political factors are becoming increasingly important, the offshore industry is constantly looking for efficient, safe and environmentally-friendly decommissioning methods.

With its long and successful history of completed offshore projects, TYROLIT offers the know-how and services to meet customer objectives. The premier companies listed below are just some of the partners to have already benefited from the comprehensive TYROLIT support in planning, application consulting and supply of tools and consumables for the off-shore industry.

References

Companies	Decommissioning Work	Service Work
<ul style="list-style-type: none"> — Aker Solutions — Proserv — Oceaneering 	<ul style="list-style-type: none"> — Frigg Field — Ekofisk Field — NW Hutton 	<ul style="list-style-type: none"> — Snorre — Visund

In terms of tools, TYROLIT focuses in particular on topside cutting challenges and subsea cutting jobs down to 10m below sea level. In this regard, wire sawing is the most common and popular decommissioning technique. TYROLIT diamond wire is the first choice for any subsea diamond wire application.

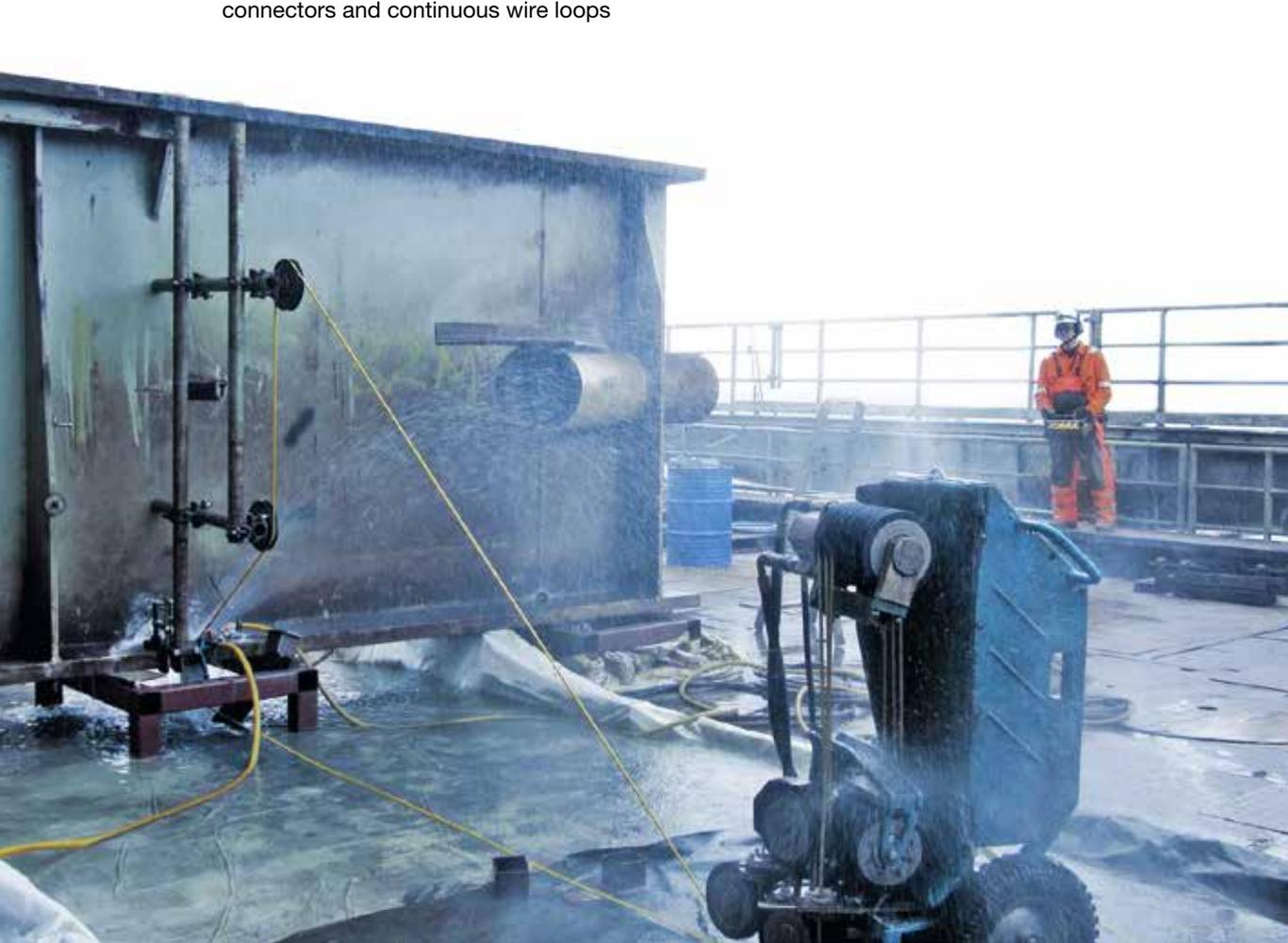


Application examples

With regards to material, space available, timeframe, etc., every cutting project is unique. As a result equipment from TYROLIT is the number one choice. We supply standard products that can also be used in any non-standard cutting job imaginable. If bespoke products are the way to go, this service is available from our special application engineers. The following key benefits are offered by certified wire sawing tools and consumables from Tyrolit.

How you benefit

- + Flexible operation – cutting of small and large dimensioned elements
- + Controlled cuts – accurate cuts with possibility to adjust angles
- + Usage within narrow space conditions
- + Limits the risk of damage to the platform structure – low vibration and noise level
- + In combination with an ROV, fully remote-controlled operations are possible
- + 100% reliability due to patented wire connectors and continuous wire loops



Topside cutting

Whether surgical cutting on live platforms or decommissioning work on cold platforms, the solution is the same; diamond wire is the tool of choice for cutting topside modules and various metal structures such as:

- + Platform footings and lifting elements
- + Concrete of gravity based structures (GBS)
- + Piles, pipes, cables
- + Deck plates, H-beams, module support frames (MSF)
- + Cold cutting applications possible

Splash zone & subsea cutting

Extremely specialized and challenging cutting applications. Success depends on using high-quality tools and consumables as well as partners who understand the needs of the contractors. The TYROLIT service supports the following cutting work:

- + Gravity based structures (GBS)
- + Jacket legs
- + Tubes and risers
- + Multistring casings
- + Anchor chains



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