



# Your partner in the nautical industry

## Powerful tools for innovative machining processes

English

## The Tyrolit Group

Tyrolit is one of the world's leading manufacturers of grinding and dressing tools, as well as a system provider for the construction industry. For over 100 years, our innovative tools and solutions have played a crucial role in technological advancements across various industries.

With roots in the heart of the Austrian Alps, Tyrolit combines the strengths of family values with a global vision and over a century of individual corporate and technological experience.

We aim to impress both internal and external target groups and foster fair, enduring partnerships. In pursuit of our goals, we consistently optimise the quality of our products and services while continuously adjusting our business processes to meet evolving market demands.



Tyrolit headquarters in Schwaz (Austria)

## Facts & figures



**80,000+**  
standard products



**30+**  
global production sites



**4,500+**  
valued employees



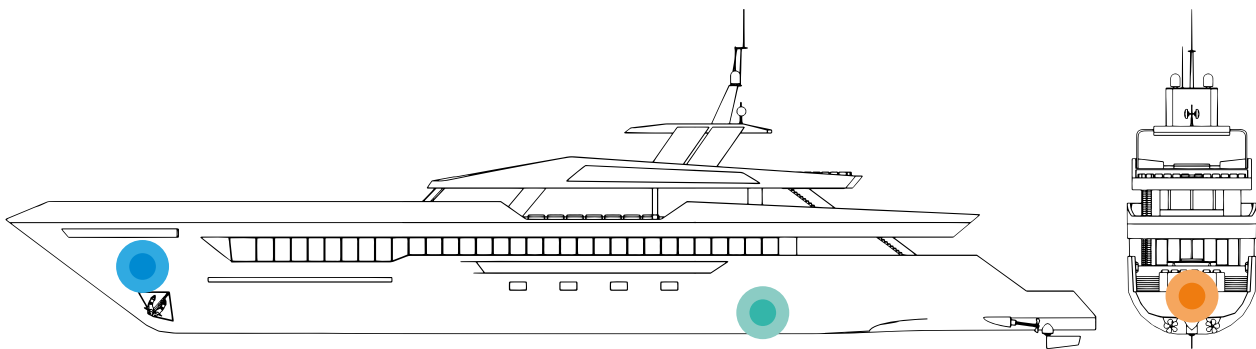
**140+**  
countries within our reach



**500+**  
patents worldwide

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# TYROLIT POWER for composites

## A new level of performance and comfort

The nautical industry is at a crossroads, facing significant challenges driven by rapid environmental changes, a dynamic market, and emerging technologies. To navigate these challenges, manufacturers of pleasure boats and sailboats must embrace technological innovations and redesign work processes to be more environmentally friendly and efficient. A key factor in this evolution is the adoption of new materials, particularly composites, which enable the construction of lighter yet durable vessels. While these materials offer many advantages, processing them efficiently and sustainably requires specific expertise and highly specialised machines.

With over a century of experience in abrasives and long-standing partnerships with machine manufacturers and customers, Tyrolit delivers exceptional tools for machining composites. The new TYROLIT POWER range supports every conceivable application, equipping you with the most innovative tools and machines to elevate your processes. From surface activation over grinding and cutting to drilling, this portfolio offers comfortable and highly efficient solutions. Combined with exceptional customer support and deep application knowledge, Tyrolit empowers you to gain a lasting competitive advantage in the nautical industry.



### **System provider**

for every application on composites



### **On-site support**

for excellent processes and results



### **Extensive experience**

from other composites industries



### **Technology leader**

through numerous patents and innovations



# TYROLIT POWER range for the nautical industry

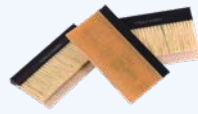
## Surface conditioning



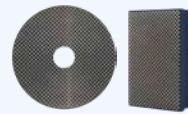
Surface sander



Handheld machine



Strips



Diamond handpads  
and diamond  
velcro discs



TFC discs

## Drilling / Milling



Core drills



Twist drills



Chamfers



Carbide burrs

## Cutting



Diamond cut-off wheels

## Boat types



Pleasure yachts



Sailboats

## Health, Safety and Quality



### Ergonomics:

With traditional dual action sanders, the working posture leads to repetitive strain injuries as users must bend over or even kneel while sanding. In contrast, the TYROLIT POWER surface sander helps you maintain an ergonomically friendly position and therefore is very gentle on the joints of the user, which will result in less fatigue, pain and frustration.



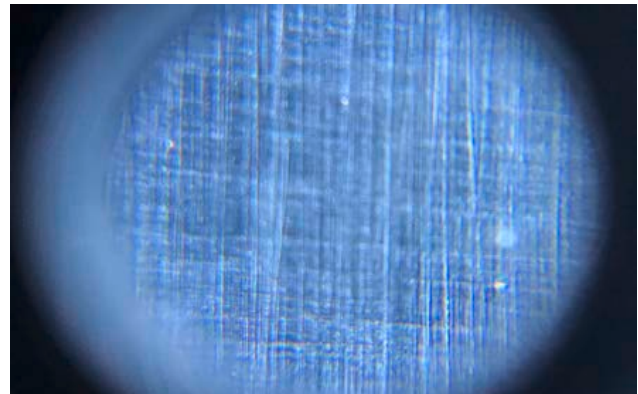
### Dust generation:

The dust generation when working with composites is often substantial and can lead to health issues for the operator as well as contaminate the environment. The TYROLIT POWER system is designed to activate the surface by removing as little material as possible, resulting in a significant reduction of dust. The residuals are easily removable with our specially designed equipment.



### Vibrations:

Due to the high vibrations caused by conventional machines, long-time users could experience serious health issues such as "Vibration white finger" which is triggered by continuous use of vibrating handheld machines. In more and more countries the allowed daily use is reduced to one and a half to two hours. Thanks to the innovative design of the TYROLIT POWER sanding system, the vibration level has been decreased significantly, allowing users to work with it for a full day.



### Surface results:

With traditional dual action sanders, scratches vary and the risk of sanding through the material is ever-present. Our innovative TYROLIT POWER strips produce perfectly uniform grinding patterns and homogenous scratches. The system consequently minimises surface flaws and notably increases process safety. Thereby, the risk of sanding through is reduced vastly, no changes in geometry are created and minimal stock is removed.

# TYROLIT POWER handheld machine

for machining narrow surfaces



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## ADVANTAGES

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- + **Healthier working:** Vibrations and dust generation are reduced to a minimum, supporting healthier and safer processes.
- + **Flexibility:** The strips adapt perfectly to uneven or rounded composite parts of the boat because of their flexibility – inside and outside.
- + **Cost efficiency:** By shortening the machining time and extending tool lifetimes, the daily production rate is significantly increased.
- + **Extensive range:** Various strips and grain sizes provide a universal solution for surface conditioning.

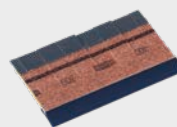
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## STRIPS

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**D101 FINISH Strips**  
(100 mm / 200 mm)



**D105 REMOVAL Strips**  
(100 mm)

# TYROLIT POWER surface sander

for machining large surfaces



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## ADVANTAGES

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- + Exceptional efficiency:** Up to 10 times reduced machining times and a long lifetime increase daily production and lower costs.
- + High comfort:** Thanks to the upright posture, the most ergonomic working processes are enabled.
- + Perfect results:** Flawless surfaces are guaranteed thanks to consistent grinding pressure.
- + Healthier working:** Vibrations and dust generation are reduced to a minimum, supporting healthier and safer processes.

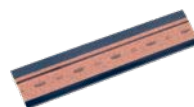
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## STRIPS

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**D101 FINISH Strips**  
(265 mm)



**D105 REMOVAL Strips**  
(265 mm)

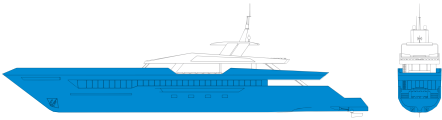


# Applications





## Hull

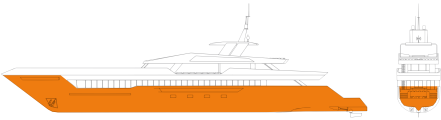


### Surface activation: lamination and bonding

Diverse composite surfaces have to be activated in order to bond materials to the core of the boat. From very narrow to large areas, TYROLIT POWER offers tools to condition even, rounded and uneven surfaces as efficiently and fast as possible. Whether teak wood has to be laminated to the deck, structural parts bonded to the bridge or an additional glass carbon layer must be applied to the boat shell – all of these surfaces can be activated with TYROLIT POWER in no time. Depending on the width, operators can rely on the surface sander to cover large areas quickly, use the handheld machine for smaller parts and process hard-to-reach areas with TFC discs or diamond handpads. This range offers a solution for every composite surface on a vessel and creates results like no grinding machine before.



## Inner hull

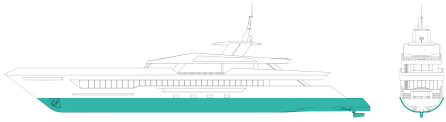


### Surface activation: spider frame

The spider frame is a vital component in a yacht's construction, ensuring that the vessel can safely and efficiently handle the various loads and forces. It plays a significant role in maintaining the yacht's structural integrity, enhancing performance, and ensuring the safety of passengers. In order to apply the spider frame, the inside surface of the hull has to be activated and prepared for bonding the parts. Because of the narrow space, the TYROLIT POWER handheld machine is the perfect tool to get this job done in the shortest time. In comparison to conventional dual action sanders, the TYROLIT POWER range ensures more uniform results, vastly less processing time, minimised dust emission and conclusively much higher productivity.



## Below waterline



### Anti fouling coating: activation and removal

The anti fouling coating prevents the hull of boats from corrosion and regular renewal ensures that the boat remains efficient, safe and compliant with environmental regulations. It helps maintain the vessel's performance. With the TYROLIT POWER handheld machine and our specialised strips, you can prepare the gelcoat surface for coating as well as remove the anti-fouling layer for renewal more easily and efficiently than ever before. Moreover, the dust extraction system of our machines enhances operator health and safety by reducing exposure to harmful dust during the process.





## General applications



### Cutting, grinding, drilling and milling

The TYROLIT POWER portfolio offers exceptional tools for every application on composites – from drilling and milling over cutting to grinding. Because of the diamond coating, longest lifetimes, aggressiveness and efficiency are guaranteed.

#### Diamond cut-off wheels

These cut-off wheels ensure the best cutting performance and high cutting edge quality on composites. Grinding forces and temperatures remain consistently low, preventing damage to the workpiece.

#### Core drills, twist drills and chamfers

The TYROLIT POWER drills are ideal for hand-guided drilling on composite workpieces. The easy cutting diamond abrasive coating enables you to achieve precise and high-quality drilling results in the most economical manner.

#### Carbide burrs

Excellent cutting performance and maximum precision characterise the TYROLIT POWER carbide burrs. Equipped with a special tooth shape and available in various designs (no endcut / endmill endcut / burr endcut / drill point endcut), this tool enables burr-free milling and drilling on composites.

#### Diamond velcro discs and diamond handpads

Ideal for cleaning, deburring and fine machining of surfaces. The diamond-coated grinding layer ensures a long lifetime of the tools and a high level of working comfort. The velcro design enables you to change discs in no time.

#### TFC discs

TYROLIT POWER TFC discs consist of a diamond coated mesh backing. The specially developed coating prevents the wheel from clogging and therefore achieves a very long lifetime on hard surfaces. TYROLIT POWER TFC discs can be used on all standard dual action sanders.





# Tyrolit Stories

## Sailing at the top: Tyrolit and Team Moonshine

Hardly any other sport combines the values of innovation, precision, cutting-edge technology and environmental friendliness as much as sailing. Tyrolit has entered a cooperation with the Italian sailing team Moonshine to support them in competitions and actively shape the sport of sailing.

### Composite parts for winning sailboats

Composite materials play a key role in the construction of modern high-performance sailing boats, as they make them faster, more maneuverable and more efficient. The demanding and dynamic sport impressively demonstrates how the combination of human skill and technological innovation pushes the boundaries of what is possible while promoting the responsible use of natural resources. The collaboration shows that both companies work according to similar values – a clear focus on cutting-edge technology combined with environmental awareness.

With the TYROLIT POWER range, Tyrolit is the perfect partner for boat manufacturers to increase production and take processes to a new level with innovative solutions. The extensive portfolio has been continuously expanded in recent years and now includes products for a wide range of applications on composites – from cutting, grinding, drilling and milling to activating surfaces with the innovative TYROLIT POWER strips. The latter, in particular, have already proven themselves to customers worldwide in the efficient and above all ergonomic machining of surfaces on ship hulls.







## Progress through sustainability

Importantly, the Moonshine project is deeply committed to sustainability, which aligns with Tyrolit's initiatives to promote environmentally friendly practices. Victories in the first year of the partnership not only signify the beginning of a promising collaboration between Moonshine and Tyrolit but also highlight the shared commitment to sustainability.

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