

**Our concept for
Rescue from the depths ...**

SWI-TEC 360°



AuG Kiel

Arbeits- und Gesundheitsschutz Kiel

www.AuG-Kiel.de

Low level and horizontal rescue

The SWI-TEC 360° can be used for both vertical and horizontal applications

The SWI-TEC 360° drum winch was exclusively further developed for AuG Kiel in cooperation with the companies **AuG Kiel** and **SWI-TEC** to meet the demands of the onshore and offshore wind energy sector.

Due to this further development, the SWI-TEC 360° is suitable for both **vertical** and **horizontal** use.



SWI-TEC 360° Rescue

SWI-TEC 360° Personal-Lifter

SWI-TEC 360° Load

The tested and approved SWI-TEC 360° drum winches are available in several different versions.

- The **yellow** SWI-TEC 360° Rescue On-/Offshore is used to lift, lower and position persons during rescue operations.
- The **red** SWI-TEC 360° Rescue On-/Offshore is used to lift, lower and position persons for maintenance purposes.
- The **green** SWI-TEC 360° Load On-/Offshore is only used to raise and lower loads.

Vertical use



Rescue from low level workplaces (e.g. the foundation of a wind turbine)



Operation from below an attachment point



Operation from above an attachment point

Horizontal use



Rescue, e.g. from a rotor blade or a pipe system



Operation from inside a rotor blade



Operation from outside of a rotor blade

Because of this special feature it is possible to use these components for both vertical and horizontal applications. As a rescue and recovery winch it can be used to raise, lower and position persons. The person can be rescued from both a low level or a high level from a horizontal or inclined position.

The winch operates according to the principle of a chain hoist. While the 6mm polyester-Dyneema line is used as a suspension rope which bears the load, the load is moved up and down with an endless textile pulling rope. The person or the load is held by an independently operating double drop protector. The function of this is self-explanatory and features simple operation. The rescuer can immediately identify the function of the winch and can operate it safely, **without the assistance of a second rescuer**. Because the winch operates according to the chain hoist principle, anyone can immediately recognise the function of the endless line. Pulling on one side of the endless line lifts the winch, while pulling on the other side lowers it. Operation of the endless line of the winch from above or below the attachment point is easily adjusted prior to use by simply turning the cover.

Storage of system components in a special case

Prior to delivery, the **SWI-TEC 360° Rescue On-/Offshore** is subjected to a final quality inspection and is then sealed in a special case. This case is made of ultra-high-impact ABS plastic and is dust-proof, waterproof, buoyant, monitored for moisture and tested according to MIL-STD as well as IP67 and TÜV.

Because the system is monitored for moisture, inspection only needs to be carried out after 5 years. In consultation with the owner, the manufacturer will exchange the system after 5 years on payment of a fee.

Ageing according to VDI 2500: In spite of proper storage, the breaking strength of ropes reduces after long periods. This effect is greater for natural fibres than for artificial fibres. Because of this, after a storage period of more than five years it is advisable to check the breaking strength of the rope before use.

This replacement can be carried out up to the end of the life of the winch, because the system is upgraded to the state-of-the-art with each replacement.

The **SWI-TEC 360° Personal-Lifter** and **Load** drum winches are also supplied in a special case, but must be serviced by the manufacturer every 12 months.

Technical data

SWI-TEC 360° 13m

- Weight: 6.7 kg
- Dimensions: 220 x 180 mm
- Operating load 150 kg
- One drum roll with 6 mm polyester-Dyneema rope
- Working height: 13 m
- Number of rope layers: 5 windings
- Two rope windings remain on the drum at the end of the downward movement
- Aluminium / plastic housing
- Hand wheel cover rotation by 180°

- Ambient temperature for operation between -30 °C and +50 °C
- Ambient temperature for lubricants between -30 °C and +120 °C
- Noise: ≤ 70 dB(A)
- For a maximum load of 150 kg in the top layer of the rope, a manual force of approx. 26 daN is required on the endless line
- Suspension rope:

| | |
|--------------------|-----------|
| Quality/Sheath: | Polyester |
| Quality/Core: | Dyneema |
| Diameter: | 6 mm |
| Breaking strength: | 2,500 daN |
| Length: | 13 m |

SWI-TEC 360° 22m

- Weight: 7.6 kg
- Dimensions: 220 x 200 mm
- Operating load 150 kg
- One drum roll with 6 mm polyester-Dyneema rope
- Working height: 22 m
- Number of rope layers: 6 windings
- Two rope windings remain on the drum at the end of the downward movement
- Aluminium / plastic housing
- Hand wheel cover rotation by 180°
- Ambient temperature for operation between -30 °C and +50 °C
- Ambient temperature for lubricants between -30 °C and +120 °C
- Noise: ≤ 70 dB(A)
- For a maximum load of 150 kg in the top layer of the rope, a manual force of approx. 26 daN is required on the endless line
- Suspension rope:

| | |
|--------------------|-----------|
| Quality/Sheath: | Polyester |
| Quality/Core: | Dyneema |
| Diameter: | 6 mm |
| Breaking strength: | 2,500 daN |
| Length: | 22 m |





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