

STRATOS®

High performance fiber ropes for logging applications

STRATOS® -

Less weight. More timber.



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Warning

Using these products may involve hazards. Therefore, never use our products for any purposes other than those they are designed for. In particular, do not use them for lifting purposes as defined by EU Directive 2006/42/EC (except STRATOS® Lift). Customers shall make sure that all users are familiar with their correct use and the necessary safety precautions. Please keep in mind that any of the products may cause damage or harm if wrongly used, stored or cleaned, or overloaded. Check national safety regulations, industry recommendations and standards for locally applicable requirements. Teufelberger®, 拖飞宝®, STRATOS® are internationally registered trademarks of the Teufelberger Group. Subject to technical modifications as well as typesetting and printing errors.

One Company

What started back in 1790 as a simple shop making hemp ropes has since evolved into a globally successful group of enterprises specializing in the development and production of fiber and steel wire ropes as well as strapping.

Innovative products of outstanding quality

Our expertise in a wide range of technologies has generated numerous synergies between our various divisions, much to the benefit of our customers. By assigning five percent of our employees to research and development, we make sure that our customers keep benefitting from cutting-edge technologies. In addition to upholding social and environmental standards, we also pay close attention to delivering consistently high quality and make sure that all our products comply with our quality standards.

Teufelberger Headquarters, Wels, Austria



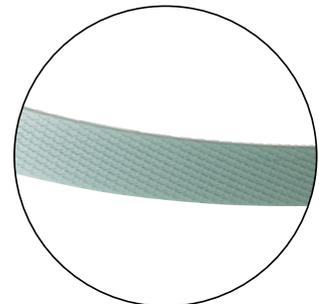
Fiber Ropes

- Industrial Fiber Ropes
- Life Safety Ropes
- Paper Carrier Ropes
- Treecare & Forestry
- Yachting Ropes



Wire Ropes

- Cableway Ropes
- Crane & Industrial Ropes
- Mining Ropes
- Offshore Ropes
- Ropes & Safety / Teci
- Tensostructures



Strapping Solutions

- PET Strapping
- PP Strapping

Infinite Possibilities

When it comes to
your safety, we leave
nothing to chance.

Whatever your requirements are, we are the right partner for you!

We work on an equal footing with our customers to find optimal solutions in the field of fiber ropes and their applications. The continuity and stability of our family business make us a reliable partner who can support you in solving your daily challenges.

Together with our customers, we develop ropes that make work easier, safer and more ergonomic. The keys to our success are international locations and a high degree of interaction with the customer. Our product development teams in Europe and the US work closely with our customers and external partners, like research institutes and certification authorities, to create products that do not only meet European and International standards but also live up to the high expectations of industry professionals.

Product development is key

The development of our product portfolio is an ongoing process fueled by our innovative spirit, our aspirations for continuous improvement and our passion to develop the best products for work at great heights.

Our product development process incorporates fiber research and testing, prototype development, internal inspections, tests for compatibility with commercially available products, field tests and practical trials by experienced users. Finally, the process culminates with the product certification conducted by independent third parties.

This comprehensive product development process was developed and refined over the years and has played an important role in making Teufelberger a key player in the world of work in the forestries.

Quality without compromises

At Teufelberger, quality is a key priority. From the receipt of the raw materials to the delivery of the finished product, strict quality checks are standard practice. Each rope, lanyard or sling made by Teufelberger has its individual inspection number which not only indicates the year it was manufactured but also ensures the traceability of the product.

Your trusted partner

Our portfolio is already extensive, nevertheless we continue to develop innovative products that meet your evolving needs and requirements. Teufelberger offers comprehensive expertise in various segments of rope engineering, which gives you a decisive advantage in the selection and development of your rope. Our research and development department engineers custom-tailored solutions and implements them in the best possible way.

Comprehensive product development process

- Fiber research
- Prototype development
- Internal inspection
- Compatibility testing
- Practical field testing
- Certification

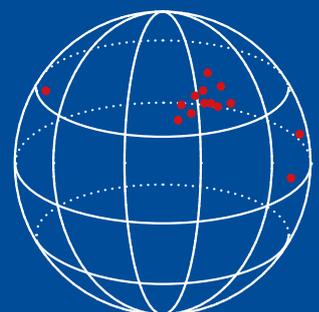
Extensive product portfolio

- Static ropes
- Dynamic ropes
- Heat-resistant ropes
- Throwlines
- General purpose ropes
- Technical laces
- Accessories

Global network and market proximity

14 locations around the world, including manufacturing sites in Austria, Italy, Poland, Thailand, the Czech Republic, and the U.S.

Trusted partner for international OEMs



Your benefits with STRATOS® ropes

The benefits of STRATOS® forest ropes are obvious. Their lower weight results in ergonomic, effort-saving and fast work processes that increase productivity and make your timber harvest much more economical. Long-standing experience gained in extremely rough commercial work environments and continuous developing and upgrading guarantee that your STRATOS® ropes offer you the best in quality and longevity.

Benefits of STRATOS® fiber ropes



Less weight:

STRATOS® is about 80 % lighter than a comparable steel wire rope. STRATOS® Extension can easily be both carried and readied for assembly by only one person. With steel ropes at least three persons are required.

More timber:

Due to a substantial reduction in weight, several work steps can be performed at the same time. Only one person is needed for dragging the rope uphill. The once hard work of pulling up or carrying ropes has now been reduced or even fully eliminated.

Ergonomic work:

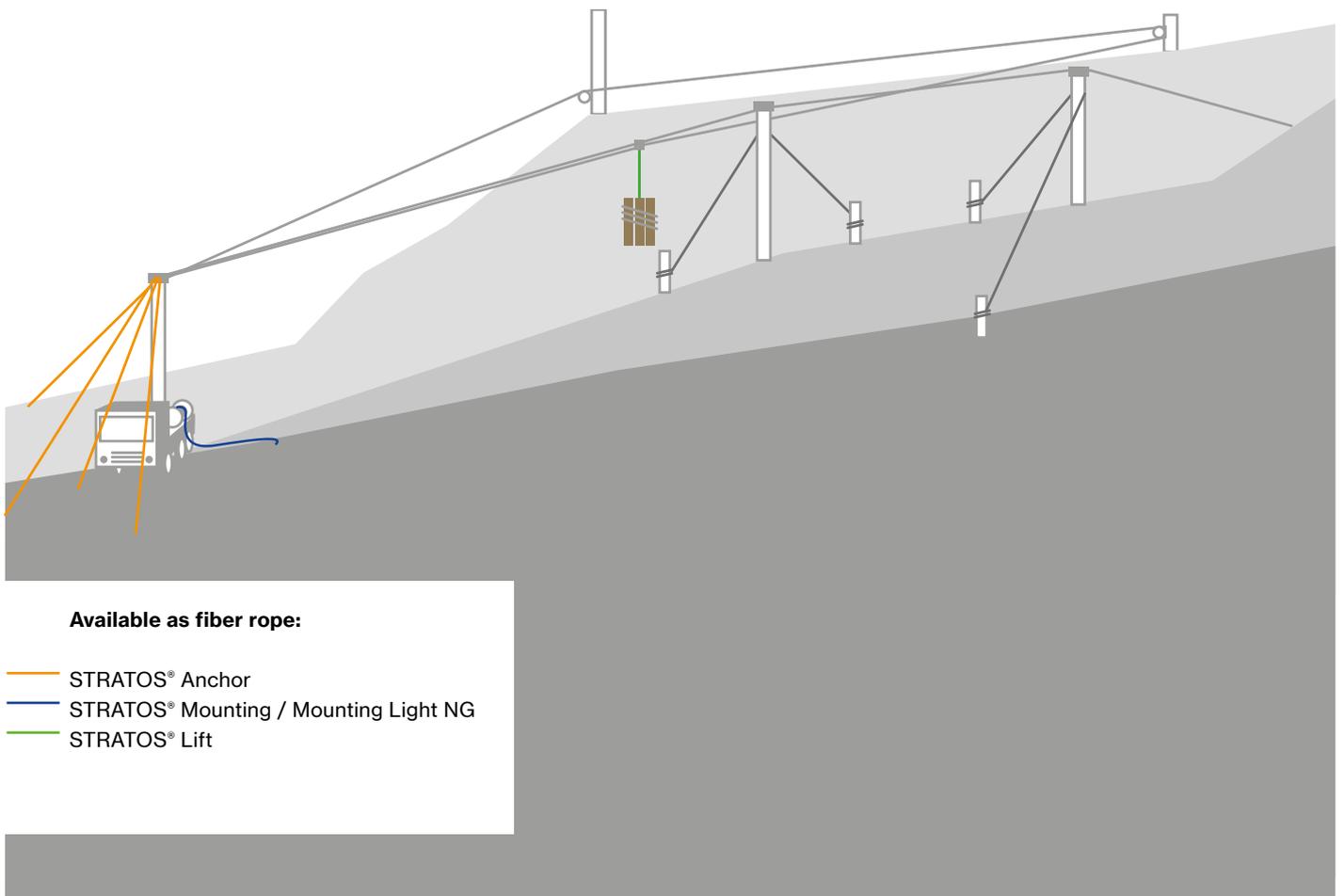
The reduction in weight means that your body, especially your spinal discs, is subjected to a considerably smaller load. Physical injury (e.g., by protruding steel wires), stress and fatigue are reduced significantly. This helps boost your workforce's productivity.

Cost-effective and safe.

STRATOS® – Less weight. More timber. In forestry, the use of cable yarding procedures with tower yarders is key in areas of difficult access. STRATOS® kicks off a new era of timber harvesting – lugging heavy steel wire ropes is now a thing of the past.

Rope layout with cable cranes or tower yarders

The following figure provides a color-highlighted view of those ropes that Teufelberger offers as fiber ropes for yarder-assisted timber harvests.





Forestry winch ropes



STRATOS® Winch Pro

The **STRATOS® Winch Pro** kernmantle rope made of UHMWPE is Teufelberger's winch rope for professional users. The tightly braided UHMWPE cover protects the load-bearing UHMWPE fibers from abrasion, the ingress of dirt and chafing and, as a result, increases the rope's lifetime by severalfold. Dimensioned and used correctly, this long-established and proven winch rope will last significantly longer than a steel rope of the same size.

Applications

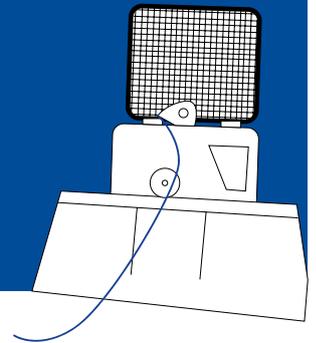
- Extremely long-lived, high-density high performance fiber rope with protective cover for use on tractor winches or skidders
- The professional rope for commercial use (forestry companies, full-time foresters)

Technical data

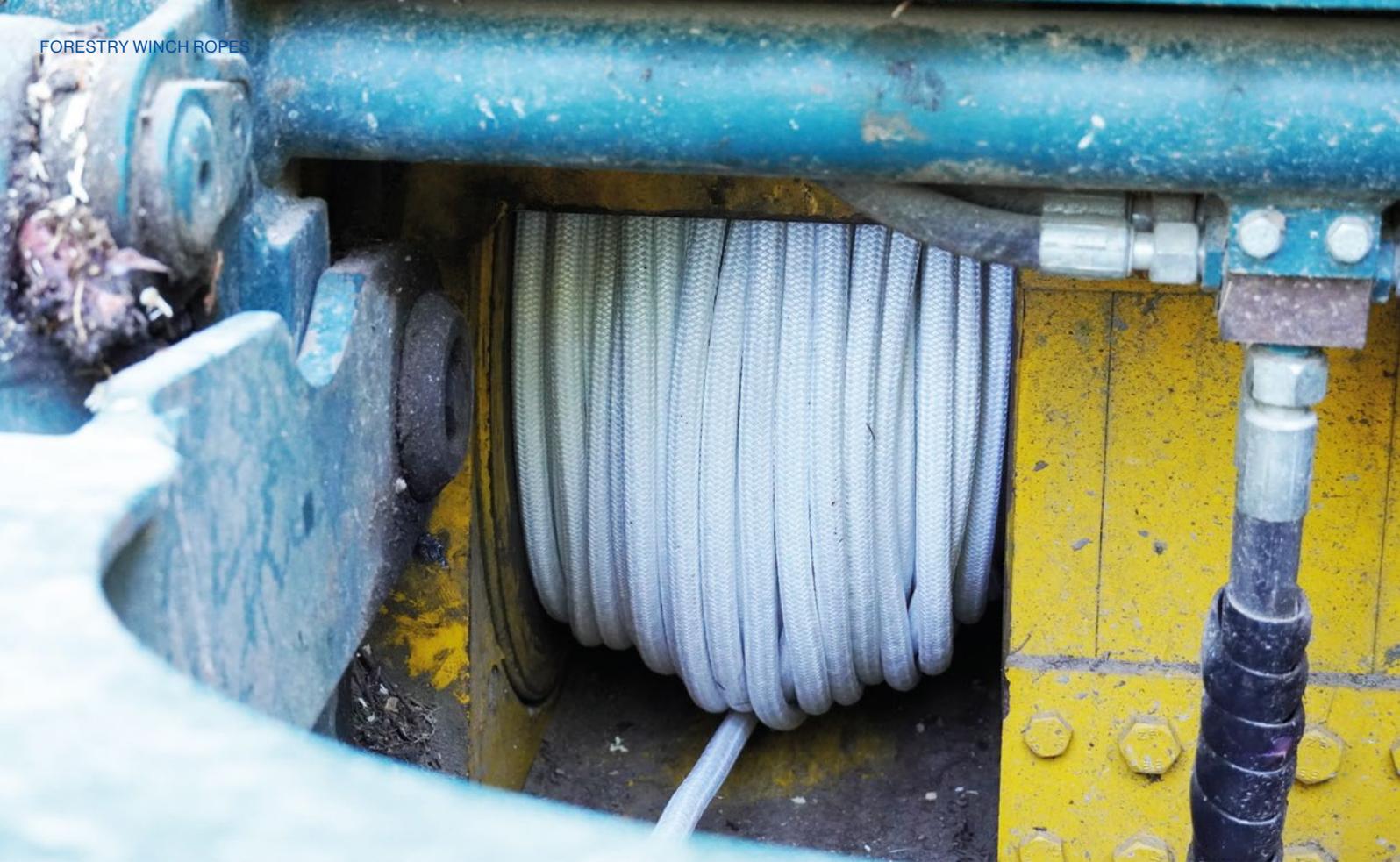
Rope-Ø	Core-Ø	Weight	Min. breaking force
mm	mm	g/m	kN
8	6	44	48
10,5	8	73	90
12	10	94	120
13	11	124	145
15	12	150	180
17	14	203	235
20	16	270	300
23	18	332	355

Benefits

- ✓ Very lightweight
- ✓ Same breaking force as a steel rope, despite protective cover
- ✓ Easy to handle, especially for downhill yarding
- ✓ No risk of injury due to protruding wires
- ✓ Best spooling behavior on drum
- ✓ "cut-ins", i.e., a scenario where in multilayer winding the rope forces its way in between lower winding layers on the drum, are largely no problem for the rope.
- ✓ Easy pull-out does not require a rope ejection system (however, it works with rope ejection systems of the most common winches)
- ✓ Excellent abrasion resistance
- ✓ Long service life







STRATOS® Winch Light H / Light S

Our **STRATOS® Winch Light**, the alternative for your forest winches offering you unbeatable value for money. In addition to the highly abrasion resistant STRATOS® Winch Pro, Teufelberger offers a rope variant without cover for lower investment costs. This product is therefore ideal for discerning part-time foresters and hobby users with high expectations in terms of quality, performance, and lifetime.

STRATOS® Winch Light consists of 12-strand braided UHMWPE. You can choose from two categories: 'Standard Construction' (S) and 'Highly Compact' (H).

The highly compact winch rope **STRATOS® Winch Light H** delivers maximum rope length and breaking strength in combination with excellent resistance to abrasion.

Das **STRATOS® Winch Light S** ist die unverdichtete Standardausführung mit guter Abriebbeständigkeit und Bruchkraft.

Benefits

- ✓ Extremely lightweight
- ✓ Easy to handle, especially for downhill yarding
- ✓ No injury risk
- ✓ Optimum spooling behavior on the drum
- ✓ "Cut-ins", i.e., a scenario where, in multilayer winding, the rope forces its way in between lower winding layers on the drum, are largely no problem for the rope
- ✓ Easy to pull out; does not require a rope ejection system
- ✓ Best spliceability

STRATOS® Winch Light H

Fields of application

- Extremely long-lived, high-density fiber rope for use on tractor winches or skidders
- The top rope for discerning part-time farmers and foresters

Technical data

Rope-Ø mm	Weight g/m	Minimum breaking force kN
5	20	40
6	25	48
8	47	90
10	65	120
11	73	145
12	101	180
14	130	235
16	176	300
18	215	355
20	253	440
22	270	500
24	350	600

Benefits of Light H

- ✓ Higher breaking force than a steel wire rope, thus allowing for greater rope lengths
- ✓ High abrasion resistance
- ✓ Long lifetime
- ✓ Low investment costs

STRATOS® Winch Light S

Fields of application

- Long-lived fiber rope for use on tractor winches or skidders
- The cost-effective high-performing rope for discerning hobbyists

Technical data

Rope-Ø mm	Weight g/m	Minimum breaking force kN
10	54	85
12	76	125
14	107	160
16	144	220

Benefits of Light S

- ✓ Breaking force matches that of a steel wire rope
- ✓ Good abrasion resistance
- ✓ Good lifetime
- ✓ Best value for money



Fiber ropes for
tower yarders
and cable cranes



STRATOS® Anchor

Our **STRATOS® Anchor** is the textile, lightweight guyline for cable cranes or tower yarders. Its unique rope construction features a tightly braided, abrasion resistant and UV stable polyethylene-monofil cover. Made of UHMWPE fibers, its highly stretched core provides breaking forces that match those of a steel wire rope, this at 80% less weight.

Applications

- Guyline for cable cranes, tower yarders and long distance ropeways

Technical data

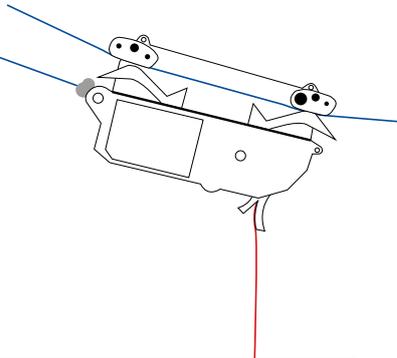
Rope-Ø	Core-Ø	Weight	Min. breaking force
mm	mm	g/m	kN
20	16	240	300
22	18	289	355
26	22	383	500

STRATOS® Lift

STRATOS® Lift is the textile, lightweight hoist rope for cable cranes. Its unique design features a thermally pre-stretched UHMWPE core and an immensely abrasion-resistant, coated UHMWPE cover. At 1/5th the weight of a conventional steel wire rope, this rope allows transporting a higher payload and makes work in difficult terrain much easier. Optimum spooling behavior and avoidance of injuries caused by protruding wires make this rope an ideal and safe working tool for forestry professionals.

Applications

- Hoist rope for cable cranes



Technical data

Rope-Ø	Core-Ø	Weight	Min. breaking force
mm	mm	g/m	kN
13	11	102	145
15	12	150	180



Benefits

- ✓ Very lightweight
- ✓ Extremely stable
- ✓ Easy to handle
- ✓ No risk of injury due to protruding wires
- ✓ Minimal stretch
- ✓ Excellent abrasion resistance



Benefits

- ✓ 80 % lighter than comparable steel wire ropes
- ✓ Higher payload on rope cranes due to lower empty weight
- ✓ Best spooling behavior on drums
- ✓ Easy pull-out
- ✓ Best handling, especially in difficult terrain
- ✓ "cut-ins", i.e., a scenario where in multilayer winding the rope forces its way in between lower winding layers on the drum, are largely no problem for the rope
- ✓ No injury hazard due to protruding wires
- ✓ Minimal elongation; hence, exact positioning of loads
- ✓ High abrasion resistance and lifetime
- ✓ Certified to Machinery Directive 2006/42/EC for the lifting of loads

STRATOS® Mounting Light NG

The **STRATOS® Mounting Light NG** auxiliary and mounting rope is a super-lightweight fiber rope. The high density UHMWPE fiber makes this rope highly resistant to abrasion and durable. This rope's benefits include extremely high breaking loads and low weight, great ease of splicing, and low investment costs.

Applications

- Extremely lightweight and high-strength pull-in rope for steel wire ropes along cable cranes, tower yarders and long distance ropeways

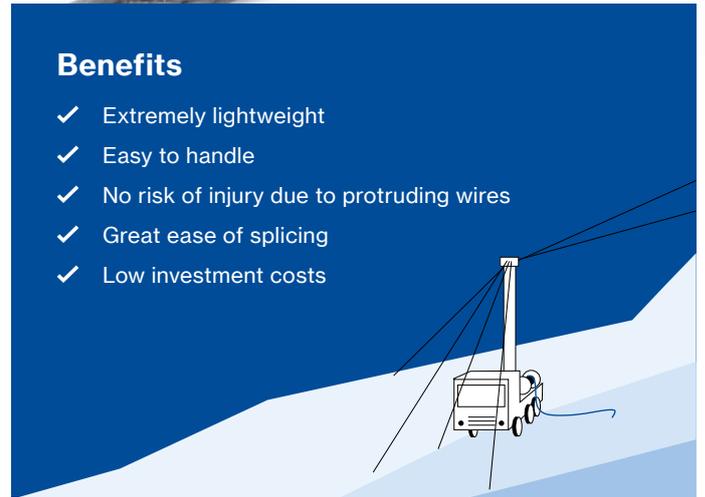
Technical data

Rope-Ø	Weight	Min. breaking force
mm	g/m	kN
5	20	40
6	25	48
7	36	70



Benefits

- ✓ Extremely lightweight
- ✓ Easy to handle
- ✓ No risk of injury due to protruding wires
- ✓ Great ease of splicing
- ✓ Low investment costs







Accessories

STRATOS® Easyglide

Rope glider made of high-strength plastic material

STRATOS® Easyglide is the cutting-edge rope glider par excellence from Teufelberger. It impresses us with its low weight accomplished by using high-strength plastic material and a rope sling made of UHMWPE material. Compared to other commercially available rope gliders, STRATOS® easyglide provides a large entrance radius which prevents any squeeze of the winch rope by the choker. As a consequence, the main cause of ruptured synthetic ropes is now a thing of the past. STRATOS® Easyglide can be used for 7, 8 & 10 mm choker chains on all STRATOS® winch ropes. Its individual components are available as separate items as shown above. It is suited for use with any STRATOS® winch rope.

Technical data

Features	Rope-Ø mm	Tensile force kN	Weight kg/m
STRATOS® Easyglide for 8 mm chain	8-17	70	0.75
STRATOS® Easyglide for 10 mm chain	8-17	70	0.85



Log Slide

Log Slide, the ideal steel rope twitch hook for all STRATOS® winch ropes. This twitch hook has a large entrance radius for the synthetic fiber rope used and thus prolongs the life of your rope. It can be used for both chains (with Connex connector and chain lug) and steel wire ropes (in combination with Connex connector).

Weight: 1 kg

CONNEX Connector

The **CONNEX Connector** is used to establish the connection between Log Slide and your choker rope.

Weight: 0.33 kg

Max. traction force: 80 kN



GO 10

The **GO 10** (Pewag) Twitch Hook is suited for winching operations with choker ropes (made of synthetic material or steel). The GO 10 Twitch Hook is used for winch ropes having diameters up to 17 mm. Weight: 0.73 kg, Opening width for winch rope: up to 17 mm

Technical data

For a rope-Ø mm	Traction force kN	Weight kg/m
8-20	70	0.73



Twitch Hooks

In winching operations, the **twitch hooks** are used where steel rope chokers with nipples are available. Twitch Hooks can be used for winch ropes of diameters 18 mm and above.

Weight: 0.9 kg

Opening width for winch rope: 18 mm and above



A 120 & A 180

Aluminum deflection pulleys for forestry

Deflection pulleys of this type come in a very lightweight, but extremely strong design. They are suited for use with steel wire ropes, but also with polyamide ropes. This system allows for the simple and fast introduction of ropes. The lateral parts are made of a special aluminum alloy. Polyamide pulleys are mounted on roller bearings.



Technical data

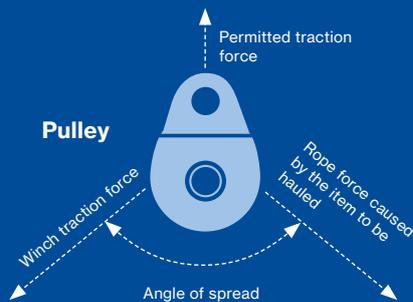
Type	Permitted max. force kN	Max. rope Ø mm	Weight kg/m	STC*
A 120	120	14	2.6	S
A 180	180	18	4.3	S

⚠ Please note!

Be sure to observe the following when using pulleys : The angle of spread of the deflected rope has a significant influence on how the deflection pulley is subjected to load.

Example:

Angle of spread: 90° = 0.7x100 kN (permitted max. force exerted on the deflection pulley)
= 70 kN winch traction force



	Angle of spread	Winch traction force
	0°	0.5 x permitted traction force
^	90°	0.7 x permitted traction force
^	120°	1.0 x permitted traction force

STRATOS® Lea Chain Lug

STRATOS® Lea Chain Lug was designed specifically for use with Teufelberger's Easyglide and Log Slide products (in combination with Connex-connector). The Chain Lug is suited for use with choker chains 7 & 8 mm

Technical data

Type	Rope-Ø mm	Weight kg/m
STRATOS® Lea Chain Lug 7/8	7-8	0.4



GBGV Chain Lug

The **GBGV Chain Lug** is used in combination with Teufelberger's end bond. The combination of these two elements ensures that in winching operations the line of pull on the winch rope will be as straight as possible. This helps counteract any problems of the winch rope being forced off due to great deflection angles of the twitch hooks.

Technical data

Type	Rope-Ø mm	Traction force kN	Weight kg/m
GBGV Chain Lug 7/8	8-14	60	0.61
GBGV Chain Lug 10	10-16	85	1.38





Grouting

STRATOS® VGE Winch Pro end bond

The patented **VGE Winch Pro end bond** is the ideal rope end termination and protects rope and cover along the rope's entire length. The fact that the protective cover extends all the way into the interior of the end bond ensures ideal protection, especially at the end of the STRATOS® Winch Pro rope – where the high loads caused by twitch hooks occur. STRATOS® VGE Winch Pro has a connection feature for choker chains or choker ropes. Use this connection feature in your winching operations in order to ensure the long service life of your STRATOS® Winch Pro. The "straight pull" on the winch rope resulting thanks to this feature helps prevent severe bending of your STRATOS® Winch Pro due to the twitch hooks and can be cast by the user without great effort. Grouting set and inner cone are available as separate items.



Technical data

Possible combinations	Rope diameter STRATOS® Winch Pro in mm							
	8	10	12	13	15	17	20	23
Chain lug for 7 & 8 mm chain	x	x	x	x	x			
Chain lug for 10 mm chain							x	x
Steel rope up to 11 mm	x	x	x	x	x			
Steel rope up to 14 mm							x	x

STRATOS® Grouting Kit

The **STRATOS® Grouting Kit** was designed specifically for the STRATOS® product line. It is a two-component grouting kit consisting of a curing agent, an epoxy resin, a syringe, a measuring cup and user's instructions that is designed for about two socketing procedures. When used correctly, as described in the user's manual, the socketed part will be capable of bearing almost as much load as the rope itself.





Splicing

STRATOS® Rope Puck

The **STRATOS® Rope Puck** is suited for use with STRATOS® Winch Pro, STRATOS® Winch Light up to 15 mm in diameter, or other commercially available synthetic fiber ropes.

The unique design of our new **STRATOS® Rope Puck** brings significant advantages for heavy-duty use in forests:

- ✓ Lightweight design
- ✓ Tool-free installation
- ✓ A deep rope groove to avoid rope squeeze caused by choker gliders



0.5 kg
Total weight

100 mm
in diameter

80 mm
in width

STRATOS® Splicing Kit

The **STRATOS® Splicing Kit** for STRATOS® Winch Light (suited for use with rope diameters ranging from 5 - 16 mm) consists of a set of splicing needles, splicing scissors, whipping twine, a needle, insulating tape, a permanent marker, and splicing instructions. It comes packaged in a stable and weatherproof bag.







Component combina- tions

STRATOS® Component combinations

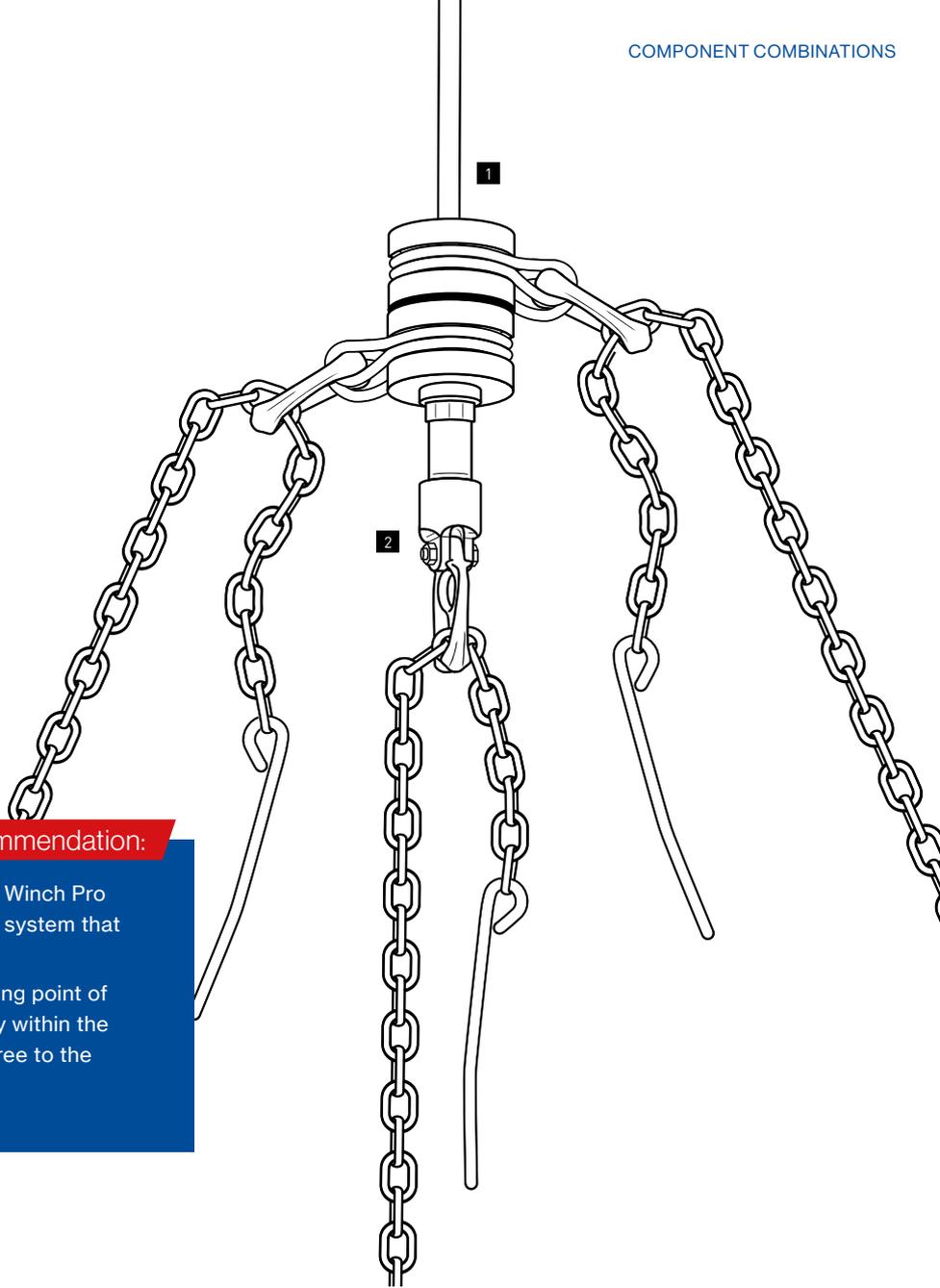
STRATOS® Winch Pro with choker chains:

STRATOS® Winch Pro with VGE Winch Pro end bond, two STRATOS® Easyglide twitch hooks and one GBG-V Chain Lug.

1 Straight-line pull = lowest possible deflection of winch rope in the area of the twitch hooks.

2 **Recommendation:**

- ✓ The use of the connection of the VGE Winch Pro ensures a relatively straight pull in the system that significantly prolongs its service life.
- ✓ Fasten the heaviest tree to the mounting point of the VGE Winch Pro. To enhance safety within the system, connect (at least) one other tree to the STRATOS® Easyglide rope glider.



STRATOS® Winch Pro with choker chains:

STRATOS® Winch Pro with one STRATOS® Easyglide twitch hook and STRATOS® VGE Winch Pro end bond.



STRATOS® Winch Light with choker chains:

STRATOS® Winch Light with two STRATOS® Easyglide rope gliders and STRATOS® rope puck.



STRATOS® Winch Light with choker chains:

STRATOS® Winch Light with two Log Slide rope gliders and one STRATOS® rope puck.

Here you find the digital version of the catalogue.



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