

A wide-angle photograph of a snowy mountain landscape. Two cable cars are visible on a line, moving up the slope. The background shows rugged, snow-covered peaks under a clear blue sky. In the bottom left corner, a small group of people is standing on the snow.

ROPEWAY ROPES

PASSENGER ROPEWAYS

Teufelberger-Redaelli steel wire ropes provide safety and reliability for your ropeway system.

Gathered throughout two generations, our long standing experience in steel wire rope manufacturing results in optimized products for all fields of use in the passenger ropeway segment. Our special rope designs and manufacturing technologies ideally cater to our customers' high expectations in

terms of rope lifetime and low-noise/low-vibration running characteristics. With our forward-looking rope technologies such as SOLITEC® and SUPERFILL®, we are able to guarantee long maintenance intervals and thus less downtime, which constitutes a key factor for the success of

a ropeway operator. In many cases, our carrying ropes continue in use throughout the entire lifetime of the ropeway system – and that with great reliability, low maintenance requirements, and the utmost riding comfort.

Teufelberger - Redaelli steel wire ropes excel through:

- **Maximum safety and quiet operation**

The perfect roundness of the rope ensures its quiet, near-silent operation. Exact and consistent diameters help avoid coupling issues and provide secure attachment surfaces for clamps on the rope.

- **Excellent longevity**

Our proprietary rope technology developments, SOLITEC® and STRESSLESS, ensure the extremely long lifetimes of our steel wire ropes.

- **Tremendous breaking forces**

Thanks to high quality wires and SUPERFILL® compaction technology, Teufelberger-Redaelli steel wire ropes achieve tremendously high breaking forces.

- **Long-term cost effectiveness due to low, controlled elongation**

The rope's excellent durability and the fact that maintenance can be planned ahead due to the low, controlled elongation ensure the cost effective operation of your ropeway system.

- **Great ease of splicing**

Unique Teufelberger-Redaelli splicing technology and the great spliceability of the ropes provide for continuous transitions from one rope end to another.

Up to 80 ropeway projects per year.

WARNING

Using these products may involve hazards. Therefore, use our products only for the purposes they are designed for. Customers must ensure that all users are familiar with their correct use and the necessary safety precautions. Keep in mind that any of the products may cause damage or harm when misused or overloaded.

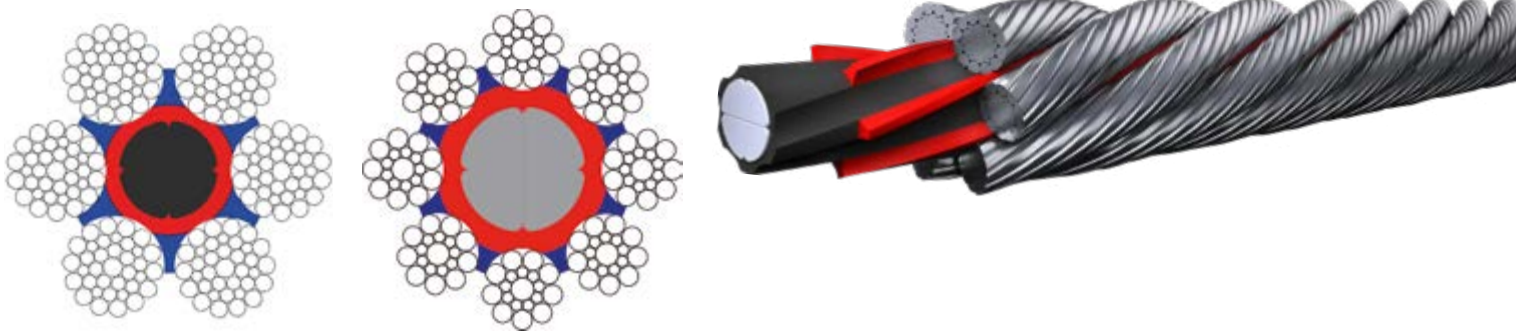
TEUFELBERGER®, Teufelberger-Redaelli, 拖飞宝®, SOLITEC® and SUPERFILL® are internationally registered trademarks of the TEUFELBERGER Group. NOROTEC™ is a trademark of the TEUFELBERGER Group registered in many countries.

The right rope for any type of use

Every application poses its specific challenges that need to be mastered. Using the right rope is key to success. Teufelberger-Redaelli has the necessary know-how for any type of ropeway and is therefore in a position to provide you with the right rope for your specific need. The structure of a rope is decisive for its quality. Cross-sectional views and rope rendering depict the key characteristics of our high quality steel wire ropes.

SOLITEC®

Long lifetime and ultimate flexibility are characteristics that set our SOLITEC® technology apart. Teufelberger-Redaelli SOLITEC® ropes are used as haul/carrying ropes on monocable ropeways and as haul ropes/track ropes on unidirectional multicable ropeways, reversible aerial ropeways, and funicular railways.



STRESSLESS DATA

Our STRESSLESS technology plays a pivotal role on reversible aerial ropeways and unidirectional multicable ropeways. This innovative technology can be used either to only carry loads, or, in an enhanced DATA version, to also transmit information through integrated optical fibers.



Our portfolio features the following standard products:

- Surface lift ropes
- Tensioning ropes
- Surface lift hanger ropes
- Pulling lines
- Personal protective equipment against fall from a height

Reference projects



Photo: Doppelmayr

TirolS / Fieberbrunn and Saalbach Hinterglemm Leogang, Austria (monocable ropeway)

Year of manufacture and delivery: 2015

Haul rope used: SOLITEC®

- Length: 5,980 m
- Rope diameter: 54 mm

Since December 2015, the TirolS ropeway has linked the Fieberbrunn ski resort to the Saalbach-Hinterglemm-Leogang Ski Circus. This 10 passenger monocable ropeway is pulled by a Teufelberger-Redaelli haul rope and brings 2,600 passengers per hour to their destinations. This ropeway link makes the Saalbach Hinterglemm Leogang Ski Circus and Fieberbrunn one of the world's biggest skiing arenas.



Photo: LEITNER ropeways

Brunn / Kitzbühel, Austria (chairlift)

Year of manufacture and delivery: 2015

Haul rope used: SOLITEC®

- Length: 3,420 m
- Rope diameter: 50 mm

The 2015/2016 skiing season in Kitzbühel kicked off with the opening of a new 8-passenger high speed chairlift featuring bubbles and seat heating. Pulled by a Teufelberger-Redaelli SOLITEC® haul rope, this 1,460 m long chairlift transports up to 3,300 passengers per hour.



Photo: Steurer ropeways / Hanno Thurnher

Grünbergbahn ropeway / Gmunden, Austria (reversible aerial ropeway)

Year of manufacture and delivery: 2014

Carrying rope used: STRESSLESS

- Length: 4 x 2,250 m
- Rope diameter: 46 mm

Haul rope used: SOLITEC®

- Length: 4,240 m
- Rope diameter: 28 mm

Since 2014, the new Grünbergbahn ropeway, ascends 550 m in altitude to the recreational area near Lake Traunsee. Carried by a Teufelberger-Redaelli STRESSLESS track rope and hauled by a SOLITEC® rope, each of its two cabins offers space to 60 passengers. In its first season, it transported more than 100,000 visitors, double the expected number.



Mandalay Bay Casino / Las Vegas, USA (funicular railway)

Year of manufacture and delivery: 1999/2013

Haul rope: SOLITEC®

- Length: 1,800 m
- Rope diameter: 33 mm

Since 1999, the Cable Liner of the Mandalay Bay Casino in Las Vegas has carried up to 65,000 passengers per day (it operates 12 hours a day). This 865 m long funicular railway is pulled by a Teufelberger-Redaelli haul rope which has already withstood 60,000 operating hours and more than one million bending cycles.

Teufelberger-Redaelli is an OEM partner of:



Photo: Fridolin Wiedner

Arosa-Lenzerheide, Switzerland (reversible aerial ropeway)

Year of manufacture and delivery: 2013

Carrying rope used:

STRESSLESS DATA (with fiber optics)

- Length: 4 x 1,800 m
- Rope diameter: 76 mm

Haul rope used: SOLITEC®

- Length: 2 x 3,600 m
- Rope diameter: 42 mm

In 2013, the two Swiss ski resorts of Arosa and Lenzerheide were linked with a spectacular reversible aerial ropeway. 1.7 km long, it connects Mount Hörnli with the Urdenfürggli Pass and uses 2 rope types made by Teufelberger-Redaelli. This ropeway is capable of carrying up to 1,700 passengers per hour. It also continues in service through the high season in summer.



Photo: Doppelmayr

Chua Chan Pagoda, Vietnam (gondola ropeway)

Year of manufacture and delivery: 2015

Haul rope used: SOLITEC®

- Length: 2,720 m
- Rope diameter: 45 mm

The Chua Chan Mountain is the second highest peak in the south of Vietnam. At an elevation of about 600 meters above sea level, there is a Buddhist temple that attracts large crowds of worshippers, year after year. Since 2015, an 8-passenger gondola ropeway, hauled by a Teufelberger-Redaelli SOLITEC® rope, has been carrying these tourists up the mountain. Now, as many as 2,400 passengers per hour are transported up the Chua Chan.



Photo: Stubai Glacier

3S Eisgratbahn / Stubai Glacier, Austria (unidirectional aerial ropeway)

Year of manufacture and delivery: 2016

Carrying rope used: STRESSLESS

- Length: 4 x 2,850 m und 4 x 2,780 m
- Rope diameter: 54 mm

Haul rope used: SOLITEC®

- Length: 5,210 m und 4,830 m
- Rope diameter: 46 mm

Since summer of 2015, the construction work for the new 'Eisgratbahn', a tricable ropeway on the Stubai Glacier, has been ongoing. Last fall, Teufelberger-Redaelli already delivered the first four carrying ropes of the STRESSLESS type for this tricable ropeway. The delivery of another four STRESSLESS carrying ropes and two SOLITEC® type haul ropes is scheduled for spring 2016. Starting in October 2016, this unidirectional ropeway will have the capacity to carry a maximum number of 3,014 passengers per hour up to the Stubai Glacier.



Photo: LEITNER ropeways/Kob Ryple Architekten

City ropeway of IGA / Berlin, Germany (gondola ropeway)

Year of manufacture and delivery: 2016

Haul rope used: SOLITEC®

- Length: 3,340 m
- Rope diameter: 50 mm

For the occasion of the International Garden Expo (IGA) Berlin 2017, a new city ropeway will be built in the German capital. The plan is to install automatically detachable GD10 gondola lifts capable of carrying up to 3,000 visitors per hour around the water and theme gardens of the IGA. The journey along this panoramic 1.5 kilometer route is made possible by a SOLITEC® haul rope from Teufelberger-Redaelli.

BEFORE THE PROJECT IS AFTER THE PROJECT

Whatever you need – we are the right partner

The provision of special-purpose steel wire ropes custom-tailored to your specific needs is a fundamental prerequisite for a lasting, successful business relationship. However, Teufelberger-Redaelli also provides additional services that make the construction or upkeep of a ropeway system significantly easier.

– **Support in project planning:**

Teufelberger-Redaelli is a solutions provider. As early as in the project phase, our rope experts can contribute valuable expertise. This makes it possible to plan and implement the optimal solution, and to avoid unexpected additional costs.

– **Optimized transport logistics:**

Teufelberger-Redaelli gets you to the top - reliably and safely. Thanks to our decades of experience in the transport of heavyweight rope reels, we are able to assist our customers actively and effectively in handling this very important part of the project.

– **Installation:**

For this task, Teufelberger-Redaelli relies only on the best: its own specialist fitters. More than 600 installation assignments worldwide per year make us uniquely qualified for the highly complex installation of ropeway ropes. Our large team of 9 fitters is at your beck and call around the clock.

– **Service and customer support:**

The damage appraisers and rope analysts from Teufelberger-Redaelli will answer any questions about the condition of a damaged rope or a rope that has already been in use for a long time. Our experts offer competent advice near you. Our international service team is on call for maintenance, splicing and repair jobs 24/7.

24 hour hotline: +43 (0) 7242 615388



Absolute adherence to
schedules through perfect
transport logistics.
Even in mountainous terrain.



Always in action.
Wherever you need us.

More than 600 installation
assignments worldwide per year.

TEUFELBERGER Seil Ges.m.b.H.

Böhmerwaldstraße 20

4600 Wels, Austria

Telephone: +43 (0) 7242 615-0

Fax: +43 (0) 7242 605 01

wirerope@teufelberger.com

www.teufelberger-redaelli.com

