Rockfall protection System ISOSTOP
Avalanche protection System ISOLA-NETZ
Slope stabilization System ISOFIX
We protect people, material and the environment.

Safety – THE main topic of our time. We all know that absolute safety will never exist, because life was and is an adventure. We cannot insure your life, but we can make the environment safer. Whether rockfall safety, avalanche safety or rock covering, we are your partner for highest-quality modern and secure safety installations. ISOFER AG is a pioneer in safety installations and works internationally. We research and develop in special testing facilities.

We consult you from project planning to approval. When requested, we gladly take over the monitoring, maintenance and the support of all types of protective systems for you.

We produce in our own production facilities or work with long-term partners.

We deliver technically advanced and environmentally sound safety systems against rockfall, slope and rock instability mud flow, and avalanches for many years.

We are ISO 9001:2000 certified since May 2001 and guarantee the highest quality management and reliability for our customers.
We have been on the market for your safety since 1956.

ISOFER AG was founded in 1956 and has been a successful and reliable partner for decades with a good sense for current market demand.

Several expansion and upgrading phases in product and service selections, as well as ISO certification in 2001, show a high competency and vision. That is because visionary planning and a cooperative relationship with our customers, vendors and employees create mutual trust and earn collective success.

As an innovative corporation we do everything possible to offer the best solution to our customers.

Examples for Use:

Fig. 1  Securing streets
Fig. 2  Securing houses and infrastructures
Fig. 3  Securing railway
ISOSTOP system’s main characteristics
Thanks to the dimensionally stable diagonal wire net, the double parallel cable guides and the brakes linear course of force, the ISOSTOP systems can absorb even high energy with little anchor strength. Diagonal nets, as opposed to circular nets, can be reused several times.

Diagonal wire cable net
The wirenet made from cables, diagonally fixed with elastic cross clamps preserving the cables, is integrated into the ISOSTOP system as a slack net. This permits, on the one hand, a better adjustment to the ground, and on the other hand, a secure reception of the rock, so that the rock cannot jump over the net or fall below it. In addition, the slack net ensures a significant absorption of energy through the movement within the system itself.

Double parallel cable guides
By using the double parallel cable guides of upper and lower load-bearing cables, the forces acting upon the net during an incident are guided to the neighbouring area’s brake elements, which permits unimpeded work of those elements, as well as simple re-tightening of the net after an event or – if necessary – a simple, quick and easy exchange of the brake elements.

Brake element
The ISOTOP systems key element is the brake element we developed, with linear course of force along the entire brake path. Its simple construction permits – if necessary – a simple, quick and easy replacement of the brake elements after a brake event.
Special Areas (of Application):

Fig. 1 Rope bridge
Fig. 2 Safety system against mud flow
Fig. 3 Safety system against slope mud slides
Fig. 4 Safety system against falling trees
Fig. 5 Snow in rock slide safety nets
Fig. 6 Safety system against till
Fig. 7 Mobile rockfall safety system
Fig. 8 Design of the ISOSTOP system
Avalanche safety systems are intended to prevent the breaking off of avalanches, or to prevent the start of snow movements (such movements cannot be avoided entirely) to a harmless quantity. Avalanche safety nets, such as our system ISOLA-NET, are technically equal to snow bridging and snow raking systems. For any system, the foundations are essential; therefore, a thorough review of the geology is among the most important project-related work.

The avalanche safety system ISOLA-NET conforms to the Guidelines for the Construction of Snow-Supporting Structures in Alpine Permafrost of the Swiss Federal Institute for Snow and Avalanche Research in Davos (Switzerland).
From an ecological point of view, avalanche safety nets, however, present significant advantages:

- They meld into the landscape very well – particularly important in areas used for tourism.
- Because of their flexible construction, they are less subject to destruction during a dynamic impact and can also be used where a greater danger of rockfall exists.
- Their weight is significantly lower and they can be flown to the installation site pre-assembled, a fact that significantly reduces the cost of installation and transportation.
The ISOFIX system’s main characteristics

- The dimensionally stable diagonal wire cable net, known from the ISOSTOP rockfall safety system, is used.
- The cable diameter and mesh size are determined by the engineer and by the loads which have to be expected.
- The combination with a diagonal mesh supports the safety effect against small-volume particles.
- For small loads, covering with one wire mesh is already sufficient.
- The individual nets are “sewn” with a cable, thus the entire net area is closed without gaps.
- Various applications are available. The nets can be installed either directly into the subsoil or at a distance to the subsoil.
The ISOFIX system can be used in a variety of ways, e.g., against the loosening and breaking off of stone or rock, but also generally to secure slopes, and to protect against erosion or ice slides.

Examples for Use:
Tested and Certified – For Your Safety

Since 1985 we have researched, developed and tested at special testing facilities. Thanks to the experience of more than 160 1:1 field tests, ISOSTOP is one of the globally leading systems. All ISOSTOP systems (250 up to 3,000 kJ) have been tested according to strict criteria under the control of the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL). ISOFER AG is the owner of 2 different testing facilities. One testing facility features a sloped cable car, the other testing facility has a crane. In the testing facility “Quarry Lochezen Walenstadt”, which started operations in 2001 – the first testing facility where a thrown object impacts the rock slide safety system in free fall with a speed of 24m/s (= 90 km/h) and which is government-licensed – the ISOTOP systems were certified according to the „Guideline for the approval of rockfall protection kits“ (FOEN)

Various systems have already been tested according to this newest guideline and are recommended by the Expert Federal Commission on Avalanches and Rockfall (FECAR) for practical use in subsidized structures. Additional model tests are planned. In the future we will also test according to the new EOTA [European] guideline ETA 27.

Our own testing facilities continue to be used for research and development.
PFEIFER + ISOFER: The strong connection for your benefit!

Follow-up settlements gave PFEIFER the opportunity to buy ISOFER AG and to add a new member in Switzerland to the group.

We will jointly continue to build on ISOFER’s strengths, PFEIFER’s range of products, experience and its comprehensive knowledge of applications.

Wire rope and lifting technology
Attachment and lashing equipment

- Significantly expanded product programme
- Most comprehensive application expertise for rope
- Group’s own development and production of demanding solutions to customers’ specific problems with lifting equipment
- Comprehensive solutions from one source
- Use of longstanding, worldwide contacts with suppliers and the profound possibilities for quality assessment and assurance in the PFEIFER Group.

Protective fencing

Knowledge about rope that the PFEIFER Group obtains from its own rope production is integrated into optimising and further developing of the rockfall protection-programme.

Snow and tyre protection chains

- ISOFER as well as PFEIFER have both longstanding, steady and intensive business connections with Pewag, one of the leading manufacturers of chains worldwide. The collaboration with Pewag will be intensified further through the amalgamation of ISOFER and PFEIFER.
- In Germany, PFEIFER is the sole agent for Pewag in the field of lifting chains. ISOFER is the sole agent in Switzerland for snow and tyre protection chains as well as for lifting gear equipment.

Reliable contacts

The competent and reliable support given by ISOFER’s experienced team will remain unchanged in the future.
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