Special transport of an excavator of 24 tons with our carriage Skybull 60
No limits
The use of transport solutions made by Seik will widen your horizon.

Transport systems of Seik are used especially in difficult areas of application, such as marsh or wetlands, mountainous regions and specially protected natural landscapes.

Conventional transport by truck, helicopter or mobile cranes is often reaching its limits.

Seik’s systems can position loads close to rock walls, keep the load for a long time exactly at a position or serve large areas in rough terrain.

Cable cranes, ropeways and winches have a lot of applications:
- Pipe laying
- Construction of road and bridges
- Protective measures in mountainous regions
- Digging winches for gravel
- Ropeway in quarry
- Transport of material and equipment
- Construction of lifts
- Hauling of timber
- Dam construction

... and many more

Advantages of transport systems made by Seik:
- Fast assembly and disassembly
- No major interference with landscape
- Exact control of loads at any position
- Variable duration of employment
- Work without time pressure
- Independent of weather conditions
- Highest security level
- Overcoming of big differences in altitude
- Easy serving of large areas
- High flexibility by adaption to requirements and landscape
- Cost advantages compared with conventional systems
- Compact size and dimensions
- Protecting the environment

Crossbar cable crane Skytruck of Seik in action at the construction of a ski-jump, Pragelato/Italy.

Seik ropeway transports pieces of Laas marble with a weight of up to 20 tons.

Pylons with height of 120m for a double-track crossbar cable crane Skytruck 200, which can also work in tandem, India.

This traction rope winch has an electric motor with 740kW (1.000 HP).
Stationary cableway for transport of Laas marble. Distance between pylons 1.350 m
Laas Weißwasserbruch/Italy
In excellent form
The expert for safe and efficient transport solutions

Depending on requirements, the transport solutions of Seik are adapted to the needs of customers and the conditions of the terrain. Small and large systems are part of the program.

Well-planned and perfectly executed ropeway systems ensure low operating costs and avoid high follow-up costs.

Most important is the optimal overall solution. Some maximum values:
Transport systems of Seik carry loads up to 40 tons on a length of 2,000 meters or more, and climb inclinations of more than 100%.

Skybull 2.80 with two independent load hooks and locking of load; payload 15 tons

Two hoisting units at 8 tons each driven by one carriage. The hoisting units can be controlled together or separately, Skybull 40 and Skybull 40 NL.

Laying of a pipeline to tons payload with two cable cranes (SFM 30/60). Two redundant hoisting units for 6 tons each. Pipes can be transported quickly and efficiently and brought in the correct position.

A fundamental innovation is the radio-controlled motor-carriage Skybull 60 with light, powerful diesel engine and hydrostatic transmission. Hoist and travel drives operate independently. This type offers up to 24 tons lifting power with the biggest carriage.
Stationary ropeway for transport of Laas marble, distance between pylons 1,500 m; Laas Jennwand/Italy
Respecting nature
Sustainable and preserving the environment and ecosystems

Cable crane and ropeway systems made by Seik protect the environment from major interferences. Transportation by cable does neither require heavy lumbering nor building roads. Especially in conservation areas this type of transport is an ideal solution.

The intervention for setting up, for example, a cableway is minimal and can be brought after completion of the work back to the original state with little effort.

Environmental protection and sustainability are an important aspect for Seik. It starts already in the planning stage: construction methods and technologies must be adapted to the design environment.

This minimizes transport and use of materials. Low maintenance and inspection costs as well as a close look at the life cycle cost of a ropeway benefit the customer more than short-term savings in the construction, which usually creates high follow-up costs.

Advantages for the environment at a glimpse:

- Minimal earthmoving
- Minimal clearance lane
- Minimal noise exposure
- Energy recovery
- No dust formation
- Little impact to nature
- Restoration of the original state after temporary installations

Especially in view of the increasingly stringent requirements regarding to the environmental impact these aspects are becoming more and more important.
SKYTIGER ST 30 - The carriage for forestry! Strong, practical, easy to use, lightweight and robust. This motorized carriage was developed based on the practical application experience in forestry. Therefore it meets all requirements for ropeways used in forestry. Tensile force 30 kN.
Especially for forestry applications Seik supplies equipment that can be operated by two persons. This facilitates rational work and high productivity.

The Seik system protects the cable very well because the carriage operates without clamping the suspension cable, even at a lateral tension of almost 90°. Also, a separate lifting cable is used to lift the load, whereas the traction cable only moves the cable crane. Cable cranes made by Seik are usually equipped with two remote controls.

So one person at the loading location and another at the unloading location can work autonomously, safely and in an organised manner.

As a result of the rational work process, low wear on materials, reliable technology and rapid assembly, our aerial crane systems can provide real savings even in rotary operation.

These facts are the reason for Seik’s success.

Everything in the green range
Efficient solutions for forestry

The free-standing pylon “Spion” is an alternative to a yarder. This pylon is designated to keep the suspension cable at a certain height above ground. It is equipped with tension winches and a fully automatic tension-device of the suspension cable. It requires only 1 m² space.

Two independent hoisting winches for horizontal transport; this allows more length and high loads even with little ground clearance of the suspension cable. This preserves trees, pastures and soil. Skybull 30 + Skybull 30 NL.

Independent mobile long-distance cable winch with own engine and hydraulic system installed on a trailer. Performance 205 kW, cable capacity about 1700 m - Ø 11 mm.

Mobile long-range cable crane system (1.800 m suspension cable Ø 26 mm + 2500 m traction cable), an interesting alternative to a yarder. It provides the options of lowering the winch to the valley station due to the motor-driven Seik-carriage.
Electric load lifting device with payload of 6 tons used as aerial tramway for persons, Pic De Bure/France
The standard monitoring system includes also continuous speed control, even during the acceleration and deceleration ramp. At a rate of 10% above maximum speed the monitoring system reacts with mechanical shutdown by centrifugal switch.

The electric winches and circular drives of Seik are available in different tensile forces up to 20t traction.

The winches reach a speed of 8m/s and more. However, thanks to motor cooling also minimum speed of 0.1 m/s, even over long distances is possible.

The capacity of the cable drum is basically unlimited. An electrically operated cable winding device monitors the maximum deflection angle in order to prevent a malfunction. The winch is electrically operated and controlled by an inverter.

Here, the power recovery during braking of the load in descent is standard. The winch is controlled either by a control panel in the engine room, or as an option with radio via the carriage.

If necessary, the entire electrical system can be installed in a weather-proof and air-conditioned container. Many surveillance systems, electronic as mechanically guarantee maximum safety.

The electric carriage has been designed by Seik especially for small loads up to 500 kg. The batteries are charged via traction and suspension cable.

Very easy operation of an electric cable winch by touch screen.

Mobile electric cable winch DSS W250-1S, drive section integrated into cable drum.

Programming and production of the entire electronic system is made in house at Seik.

The standard monitoring system includes also continuous speed control, even during the acceleration and deceleration ramp. At a rate of 10% above maximum speed the monitoring system reacts with mechanical shutdown by centrifugal switch.

The electric carriage has been designed by Seik especially for small loads up to 500 kg. The batteries are charged via traction and suspension cable.

Under live electric power

Energy efficiency by recovery
Stationary ropeway to alpine hut Santner, payload 500 kg, South Tyrol/Italy
Seik is specialized in solutions based on technological innovations that match the local requirements.

The strength of our flexible track system is demonstrated well when it comes to laying pipelines that have to be adapted to match the geological and geographical conditions. Here, radius or height differences to be mastered are irrelevant.

Seik will always find a solution.

Seik also provides stationary material ropeways in various sizes.

As an alternative to temporary cable crane systems, these systems are designed for chalet or alpine refuge operators or private individuals who have to overcome inaccessible terrain with larger loads.

Seik designs and installs a system that is customised to the topographical requirements. Our system is designed to have the greatest possible operational security, a long lifespan and is simple to use.
System Skytruck
The clever alternative to a conventional building crane for urban construction sites

With this development Seik has combined the advantages of the cable-way and of construction or overhead cranes in one system.

Therefore, the various application possibilities of the Skytruck are of interest for large building sites in the city.

A real project example: (see sketch below) This project is for the basic roof renovation of a bus depot with an area of over 20,000 m² in Torino, Italy.

During the renovation the operation inside the bus depot must be maintained.

For this reason, the Skytruck 40/80 is preferred to conventional construction cranes, because the Skytruck can cover such an area in two phases without interfering with the operation below.

The roof structure is about 200 m long and about 110 m wide.
Although conventional aerial crane systems have many advantages, they have one disadvantage: they are restricted to a more or less linear area of use along the cable. Building cranes cover a circle, but are limited in their payload, overhead cranes cannot be used in impassable areas. Therefore Seik has developed the Skytruck. This crane covers a very large area, in this case more than 22,000 m². The main characteristics of the crossbar crane Skytruck are simple operation, precise positioning of loads and no reduction of payload across the whole terrain.

The superiority of the crossbar crane was demonstrated during the construction of the Olympic ski jump in Pragelato.

The jumping platform and jump itself, as well as all the work in the landing and run-out areas, were implemented using a single crane, even though there was a 200 meter height difference.
The Skytruck 200/400 manages a payload of up to 36 tons in tandem operation for a length of 915 m and a width of 80 m. Loads can be lifted 250 m.
Incredibly flexible fields of application for crossbar crane Skytruck

Another highlight for the application of the Skytruck 200/400 is the largest railway arch bridge, the Chenab Bridge in India, which is a part of the further expansion of the railway network to the Pakistani border.

The construction of this bridge with a total length of 1,315 m, an arc length of 485 m, a height above the river level of 356 m and a steel consumption of 25000 t is a major technical challenge.

Logistically the site is very remote and accessible only with a road for transporting 20 ft. containers. Since this area is geotechnical an active earthquake zone, seismic activity up to 8.5 degrees on the Richter scale can be expected.

The climate is affected by temperatures up to 50 °C and of wind speeds up to 150 km/h.

In order to keep logistics on the actual bridge construction site in function, the construction company requested that the total area of approximately 915 m length and 80 m width has to be reached with hook and high payload as possible without any weight restrictions.

The “Skytrucks” with integrated drive used on site each have each a load capacity of 20 t and a span of 40 m.

The 420 kW diesel engine is housed together with the 600 litre fuel tank, the 600 litre hydraulic tank and the hydraulic system at one end of the lattice truss crossbar.

For balancing the self-weight the “Skytrucks” are fitted on the other side of the crossbar with a very powerful winch (direct traction 5 to 9 tons; 20 t with 4-fold chain block; cable speed up to 10 m/s and cable capacity 1200 m Ø 22 mm). By positioning the crosswise moveable 5-t-winches the balance of the framework will be further improved.

Two drive pulleys (Ø 1800 mm) on each side, in total four for each “Skytruck” help to cope with the 915 m long horizontal track, which is near the lattice truss pylons having a maximum slope of 19°.

With this project the traction cable (Ø 30 mm) is anchored on both sides (silent rope) and is along the track supported by the cable supports between each suspension cable with a distance of 700 mm.

The Skytrucks 200 also work independently like an overhead crane, however, each covering an area of 36,000 m² and having an engine performance of 420 kW. The operator can ride in the air-conditioned control cabin and therefore has a clear view on the construction site.
Quarry

Transport solution combined with power generation for broken-down material and stone blocks.

Model displays system with 40 tons payload
Difference of height 150 m
Inclined length 300 m
Capacity 172 tons/h
Another innovative development of Seik is a transport concept for gravel pits and quarries, which runs fully automated without operators.

In the mountain station the skip of the ropeway with a capacity of 20 m³ is filled. When the desired weight is achieved, the skip will automatically start the descent, will be emptied automatically at the destination and moves back to the starting point.

The unloading point can be relocated according to the needs along the route. The payload will be adapted to the requirements.

Due to two suspension ropes and high track width this system is highly wind resistant.

The system operates with electric current, is running smoothly, and has very low wear and tear.

During the descent at full load more energy is generated and fed in as is consumed during ascent with empty skip. This creates a positive energy balance.

The winch is an electric winch developed by Seik featuring especially low maintenance and quiet operation.

The entire system is completely flexible programmable to customer requirements and guarantees the trademark of Seik: safety and reliability.

Example of a feasibility study with 40 tons payload and capacity of 172 tons/h, power input 300 kW
Installation of cable winches with control panel for gravel digging system in gravel quarry, Tiefencastel, Switzerland
Sophisticated Drive Systems
Maximum functionality combined with easy operation

Here we are featuring 2 winches with electric drive for the operation of traction and suspension cable of a ropeway system.

Each winch has 2 separate braking systems, a disk brake on the gearbox input (service brake) and a disc brake directly on the drum (parking brake).

The cable winches are controlled by a central control system for digging systems. The correct input, e.g. for the position of the cable drum, is provided by an absolute encoder and rechecked by a rotary limit switch with 4 switching elements.

For an accurate measurement of the tensile force a measuring system with two load cells is installed determining the exact tensile force at the rope due to the special suspension of the winch frame.

The data are monitored by the torque determined from the inverter. Due to a set of sophisticated measuring systems and double-checked data the system can be operated in the automatic mode.
We meet all your needs
Full service at Seik

In our production process, we make use of the most up-to-date technology and only use high-quality components to guarantee problem-free operations, maximum safety and long lifespan.

The electronic controls are developed in our own engineering department and manufactured in our company.

This facilitates both a rapid exchange of data for new developments and also efficient production control.

Seik leaves nothing to chance. The components are designed for the hardest conditions and are coordinated with each other.

Seik takes tested security for granted.

Various types of cable winches with electric or hydraulic drive, produced in a modern and sturdy way. High tensile power and speed will not have any influence on the reliability.

From project to product: Special oil sump for the diesel motor of Skybull 40.

Load test of a cable drum.

Stability and safety are the basis for ensuring that all kinds of jobs are free of difficulties and disturbances, as shown here with monitoring of the lifting cable.

The fully automatic cable tensioning device is light and can be transported by air. Together with a hydraulic power pack it is used for pulling, tensioning and securing of ropes. Rope diameter from Ø 16 mm up to Ø 30 mm; maximum tensile force 25 tons. The tensile force can permanently be monitored by the oil pressure and is also used for stopping the fully automatic rope pull once the desired tension is achieved. When the cable tension is reached the second clamp will close automatically for increased safety.

Seik takes tested security for granted.
SEIK GmbH has an in-house electronics department which is responsible for the continuous improvement and new development of electric systems of our products equipped with radio and electronic high-tech.

If required, we support our customers with the necessary know-how and take over the conception and production of automation, electronics and radio remote control systems for various machines.

Our electronics department is always ready for new challenges.
Worldwide references

Around the world, customers have placed their trust in Seik. So Seik is present with its products in Russia, Korea, Albania, Chile, Switzerland, Ecuador, Africa, Malaysia, Bolivia, Burma, and also many times in Italy. Latest technology, high safety standards, excellent value for money, constant readiness for innovation, flexibility and long-term experience in this field are some of the success factors of Seik.
Crossbar cableway Skytruck electric, total length 650m, width 50m, payload 8.5 tons
Pragelato - Italy

Material ropeway. Payload 6 tons, Zugspitze/Germany

Transport of pieces of marble with motorsed Seik-carriage Skybull 60. Payload 24 tons
Laas – Weisswasserbruch - Italy

Crossbar cableway Skytruck electric, total length 600m, width 80m, payload 4 tons - Donge - Italy

Renewal of penstock with motorsed Seik-carriage SFM 20/40. Payload 5 tons
San Michele – Barzonasca - Italy

Crossbar cable crane, payload 2x20 tons, Chenab River/India

Construction of hydro-electric power station with motorized Seik-carrigae SF100. Payload 14 tons
S. Giustina - Italy

Material ropeway, payload 5 tons, Innerkirchen/Switzerland

Material ropeway, payload 6 tons, Sochi/Russia

Circular drive with automatic tensioning of traction rope in Ponte Toggia - Italy

Material ropeway, payload 6 tons, Zugspitze/Germany

Commuting ropeway, payload 6 tons + 6 tons with 2 carriages, Balangero - Italy
Seik supplies temporary and stationary ropeways, provides full service from feasibility to commissioning, motorized carriages, most modern cable winches, support towers and much more.

Well-elaborated details and precise implementation is the top priority of the company. This is the only way to provide greater efficiency and safety in the workplace.

This is the only way to provide greater efficiency and safety in the workplace. Seik offers all components for faster and safer work with ropes.

Seik also supplies personal safety equipment, fall arresters, cable technology, surveying equipment and tools for lumbering.

You have a project and you are interested in our solution?

For a rough estimate of the feasibility we need a short description of your project.

For a detailed offer we need additionally:

1. Longitudinal section (including anchoring zones) in DWG-format
2. Payload/transport capacity in tons/h
3. Energy supply
Shop

Equipment and accessories for the professional transportation by rope
Our main catalogue can be downloaded from info@seik.it

Transport by Rope - Design, production, sale and rental of ropeways, winches and cable cranes.

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