

**ROPEWAYS FOR THE URBAN ENVIRONMENT AND TOURISM RESORTS.**





### **URBAN PASSENGER TRANSPORTATION. GOOD PROSPECTS FOR THE FUTURE.**

Today it is no longer just skiers who make use of installations engineered by LEITNER ropeways. With its modern, high-tech systems, the South Tyrolean company is successful on the market worldwide. And demand is growing for alternative applications, including tourism and urban passenger transportation services.

Every ropeway is a unique product, a customized solution. LEITNER ropeways is committed to state-of-the-art products that combine the latest technologies with quality, design and sustainability and meet customers' individual requirements.

To date, LEITNER ropeways has built ropeway installations in fifty countries worldwide and currently has ropeways in operation with a total line length of about 2,000 km.

### **ADVANTAGES OF URBAN ROPEWAYS IN TERMS OF ECOLOGY, TRAFFIC MANAGEMENT AND SPATIAL PLANNING:**

- Ropeways are eye-catchers that help shape the townscape. Architects have scope for creativity in designing the stations and can also influence the design and finish of the towers and cabins or tracks and cars.
- The ride offers passengers unique views.
- Aerial ropeways simply pass above the typical urban obstacles.
- Aerial ropeways have a minimum footprint.
- Ropeways can handle steeper gradients than other systems.
- There are no conflicts of use, since the line is used exclusively by the cabins.
- In comparison with other transport systems, ropeways involve relatively low capital spending and operating costs.
- Cabins and cars for up to fifty passengers do not usually require any personnel on board.
- In comparison with many other passenger transport systems, ropeways have a positive energy balance. They run on electricity, with energy recovery provided through regenerative braking.
- Just one motor is required to move several carriers.
- Energy consumption can be adjusted to suit the number of passengers.
- Ropeways are ideal for public services to sensitive recreation areas.



LEITNER ropeways is part of the  
High Technology Investments group.

Headquarters: Vipiteno (BZ), Italy

Company foundation: 1888

Business areas: Winter sports, tourism, urban transportation

Production facilities: Italy, Austria, France, Slovakia, USA and  
China

Product range: Tricable gondola lifts, bicable gondola lifts,  
detachable gondola lifts and chairlifts, aerial  
tramways, funiculars, fixed grip installations



**TRICABLE GONDOLA LIFTS** are aerial tramways with one haul rope to provide traction to cabins running on two track ropes. Each line therefore has three ropes, which explains the name of the system. Tricable gondola lifts operate with detachable cabins. Travel through the terminals is on dedicated station rollers designed to handle very tight radii. Outstanding stability in wind, the length of the spans and the height of the line above the ground are the main advantages of the tricable system.

**Technical specifications:**

System capacity	up to 5,000 pph
Line speed	up to 8 m/s
Carrier capacity	up to 35 pers.

**Rittnerbahn, Bozen (IT):**

- Public service from the city to the nearby foothills
- First tricable gondola lift in Italy
- Line length: 4,560 m
- Approx. 1 million passengers per year
- Operates from 6.30 a.m. to 11 p.m.





**BICABLE GONDOLA LIFTS** take even the most difficult terrain in their stride. The use of separate track and haul ropes permits lines to be designed with extremely long spans of 2,500 m and more for effortless negotiation of steep and rocky slopes with impressive vertical heights. That means the environment does not suffer – thanks to the small number of towers and minimum footprint. Even with their long spans, bicable gondola lifts perform extremely well in windy conditions. System capacity and the quality of the ride are very much in keeping with modern passenger expectations

Ngong Ping 360, Hong Kong (CN):

- Public service to a tourist zone
- Line length 5,828 m
- Cabin with glass floor
- 130,000 passengers per month
- Operates form 9 a.m. to 6.30 p.m.

**Technical specifications:**

System capacity	up to 5,000 pph
Line speed	up to 7 m/s
Carrier capacity	up to 16 pers.



**GONDOLA LIFTS** are aerial ropeways with carriers that are released from the haul rope in the terminals and conveyed at low speed through the loading/unloading area. As a convincing combination of innovative engineering and modern design, LEITNER gondola lifts are being deployed more and more often in urban mobility applications as in the case of the Expo gondolas in Hanover (DE) and Zaragoza (ES) and the urban gondolas in Barcelona (ES), Manizales (CO), Ordu (TR) and Tbilisi (GE).

**Technical specifications:**

System capacity	up to 4,500 pph
Line speed	up to 6 m/s
Carrier capacity	up to 10 pers.









**Telefèric de Montjuïc, Barcelona (ES):**

- Public service to a leisure area
- Operates from 10 a.m. to 9 p.m.

**Skyliner Expo 2000, Hanover (DE):**

- Main public transport system at Expo 2000 in Hanover
- Station design by the architect Matteo Thun
- 9 million passengers in 5 months

**Expo Alt, Zaragoza (ES):**

- Station design by the architect Ignacio Vicens
- Public service to Expo Zaragoza 2008
- 46 m high tower





Ordu – Boztepe, Ordu (TR):

- Direct link from the beach to the Boztepe recreation area
- 900 m span

Gaziantep (TR):

- Public service to a leisure park
- Key function within the local transportation system
- Ridage: 5,000 persons per day



Narikala, Tbilisi (GE):

- Part of the general renewal plan for Old Tbilisi
- Individual cabin design with printed real leather seats
- Gondola with glass bottom



Tbilisi/GE



Tbilisi/GE



Tbilisi/GE







**AERIAL TRAMWAYS** are an attractive modern ropeway system that is ideal for extremely steep terrain, high levels of availability, good stability in wind, and outstanding operating reliability and safety. Aerial tramways have one or two carriers running to and fro either on one carrying hauling rope or on one or two track ropes, with a haul rope providing the traction.

**Technical specifications:**

Line speed	up to 12 m/s
Carrier capacity	up to 100 pers. (single track rope) up to 200 pers. (twin track ropes)





The **MiniMetro**® is an automatic people mover for short and medium-distance operations. It is designed for use as the primary means of transport in towns and small cities and as a transit system for park+ride services or links to busy locations like shopping malls, universities or interchanges.

The MiniMetro® offers outstanding flexibility for integration within the existing urban infrastructure.

#### Minimetron, Perugia (IT)

- Public service for the historical town center with its narrow streets and picturesque buildings
- Creative design by the French architect Jean Nouvel
- 3.5 million passengers per year
- 99.9 % system availability
- Operates from 7 a.m. to 9.30 p.m.

#### Technical specifications, detachable:

System capacity	3,000 pphpd
Minimum car interval	60 s
Maximum grade	15 %
Minimum track radius	50 m
Line section length	up to 3-4 km
Maximum line speed	30 km/h





Squaire Metro, Frankfurt (DE):

- Link from the multistory car park to THE SQUAIRE office building at Frankfurt Airport
- Maximum system capacity 3,000 pphpd
- 24-hour operation





**FUNICULARS** run on tracks. The line of a funicular is a very flexible affair, from straight to curved, uphill or downhill. Car capacity also varies, and the individual cars can be combined to form train-sets. With line speeds of up to 14 m/s, funiculars are the fastest rope-hauled system of all. They can be designed to operate with the high levels of availability expected of a public transport system.

**Technical specifications:**

System capacity	up to 8,000 pph
Line speed	up to 14 m/s
Car capacity	up to 400 pers.

**Hungerburgbahn, Innsbruck (AT):**

- Local public transport link from the city center to a nearby recreation area
- Stations designed by the Anglo-Iraqi architect Zaha Hadid included in Time Magazine's 2007 Design 100 list
- Now one of Innsbruck's tourism highlights
- 40,000 passengers per month
- Operates from 7.30 a.m. to 7.30 p.m.

**Montjuïc, Barcelona (ES):**

- Completely integrated in the public transport network
- 100,000 passengers per month
- Operates from 7.30 a.m. to 10 p.m.



Kalern-Caldaro/IT



Innsbruck/AT



Napoli/IT



Barcelona/ES

LEITNER urban



**LEITNER**<sup>®</sup>  
ropeways

LEITNER AG Headquarters  
I-39049 Sterzing  
Tel. +39 0472 722 111  
[www.leitner-ropeways.com](http://www.leitner-ropeways.com)  
[info@leitner-ropeways.com](mailto:info@leitner-ropeways.com)