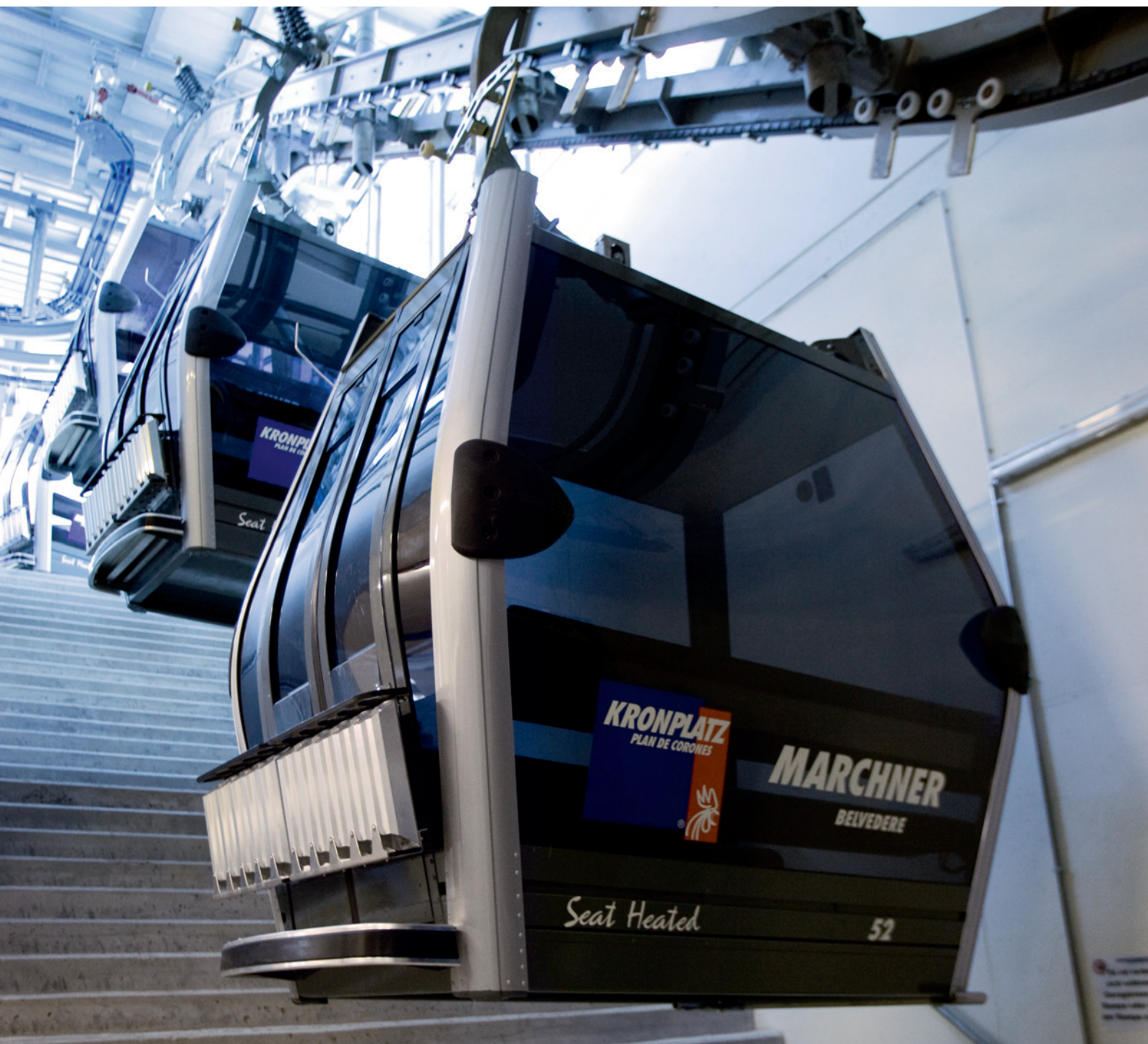


## The LEITNER Garaging Systems







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## The **LEITNER** **Garaging Systems**

Solutions to meet any challenge

The parking of vehicles of detachable mono-cable ropeways requires a high level of variability, flexibility and adaptability. LEITNER therefore provides a wide range of garaging systems, offering solutions for various space and/or financial requirements. Basically, all garaging systems can be applied to any type of installation.

The fully automatic loop-line garaging system is the premium solution for maximum comfort as well as easy operation and maintenance. In combination with an inclined conveyor, this garaging system can also be used for parking vehicles on different station levels.

If an additional parking building is requested, but space is limited, the rail-storage system offers the perfect solution as it utilises the available space in the most efficient way.

While the fully automatic version of this system offers maximum ease of operation, the manual version provides a cost-effective alternative.

With the station garaging system, vehicles are parked directly in the station turnaround. This system is therefore the best solution if the space or budget required for an additional building is not available. The parking as well as launching of the vehicles is fully automated.



## The **LEITNER** Loop-Line Garaging System

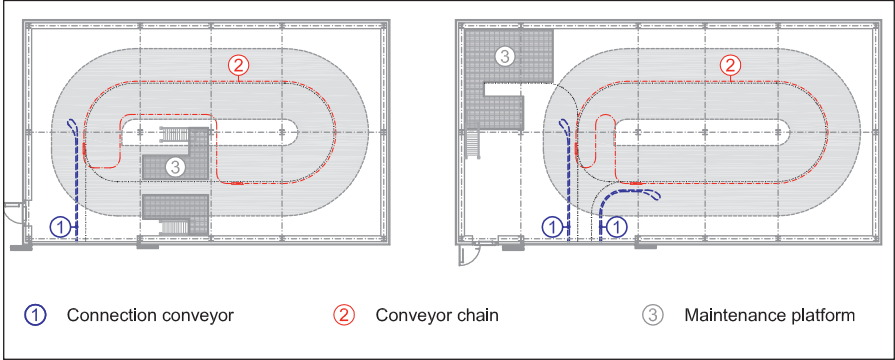
The classic for the highest demands

**Basis** The classic among the LEITNER garaging systems: whether the vehicles are moved manually or fully automatically, this system is definitely the premium solution for parking and servicing vehicles.

**Description** A connecting conveyor carries the vehicles from the station turnaround to the parking building. During this process, the connecting conveyor detects irregular distances between the vehicles and corrects them fully automatically by adjusting its speed. Consequently, the vehicles arrive at the parking building at equal distances. Moreover, the connecting conveyor also ensures equal vehicle distances during launching.

In the parking building, the vehicles are transferred fully automatically from the connecting conveyor onto a patented conveyor chain. This chain automatically increases the vehicle distance in the curves of the loop line. Thus, the vehicles are moved smoothly through the curves and can be parked on the straight section of the line with minimal distances.

The semi-automatic version of the system also has a fully automatic connecting conveyor that carries the vehicles from the station to the parking building and vice versa. In the parking building, however, the vehicles have to be moved manually.



**Benefits** If the rail switch system is set accordingly, **each vehicle** can be brought **individually to the maintenance platform**. During maintenance, all vehicles can remain in the parking building. **Inspections and maintenance** can therefore be performed **without** having **to consider** the **weather conditions**.

The loop-line garaging system can also be installed with **two exits**, i.e. two independent connecting conveyors. Garaging and launching are then carried out in the forward direction of the installation, guaranteeing **maximum ease of operation** and **quick parking** of the vehicles.

In **combination** with an **inclined conveyor**, vehicles can also be **parked below** (or above) the **boarding level**.

**Technical data**

Max. speed during garaging	Up to 5 m/s, depending on number and type of vehicles
Average space required per vehicle	GD10: approx. 11.80 m <sup>2</sup> GD8: approx. 10.85 m <sup>2</sup> CD8: 11.24 m <sup>2</sup> (with bubble) 10.90 m <sup>2</sup> (without bubble) CD6: 10.40 m <sup>2</sup> (with bubble) 10.15 m <sup>2</sup> (without bubble) CD4: 6.95 m <sup>2</sup> (with bubble) 6.56 m <sup>2</sup> (without bubble)
Operating modes	Fully automatic Semi-automatic
Maintenance platform	In the parking building





## The **LEITNER** Rail-Storage Garaging System

The solution for optimum space utilisation

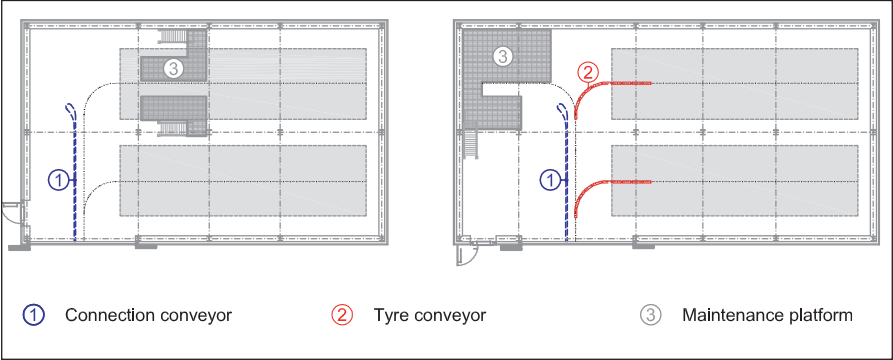
**Basis** The LEITNER rail-storage garaging system is installed if the available space has to be utilised with the highest possible efficiency. As fully automatic, semi-automatic or manual solution, the rail-storage garaging system allows the construction of parking buildings with minimal dimensions.

**Description** A connecting conveyor carries the vehicles from the station turnaround to the parking building. During this process, the connecting conveyor detects irregular distances between the vehicles and corrects them fully automatically by adjusting its speed. Consequently, the vehicles arrive at the parking building at equal distances. Moreover, the connecting conveyor also ensures equal vehicle distances during launching.

On the spur track of the system, the vehicles are moved by means of a tyre conveyor. The spur track is emptied by gravity, with the tyre conveyor controlling the speed of the vehicles.

With the semi-automatic version, the vehicles are moved manually on the spur track. Synchronisation with the installation is done via a connecting conveyor.

The most simple manual version also allows the garaging system to be installed without a parking building, e.g. for chairlifts without bubbles which are only parked in the off-season.



**Benefits**    **Very close parking of vehicles** allows for the construction of an external parking building with minimal dimensions.

**Maintenance** can be performed in the parking building – **protected from the weather**.

In **combination** with an **inclined conveyor**, vehicles can also be **parked below** (or above) the **boarding level**.

**Technical data**

Max. speed during garaging	Up to 5 m/s, depending on number and type of vehicles
Average space required per vehicle	GD10: approx. 9.10 m <sup>2</sup> GD8: approx. 7.82 m <sup>2</sup> CD8: 7.66 m <sup>2</sup> (with bubble) 6.71 m <sup>2</sup> (without bubble) CD6: 7.39 m <sup>2</sup> (with bubble) 6.56 m <sup>2</sup> (without bubble) CD4: 5.77 m <sup>2</sup> (with bubble) 5.14 m <sup>2</sup> (without bubble)
Operating modes	Fully automatic Semi-automatic Manual
Maintenance platform	In the parking building Open or integrated maintenance platform for rail-storage garaging without parking building



## The **LEITNER** Station Garaging System

A garaging system that saves space and costs

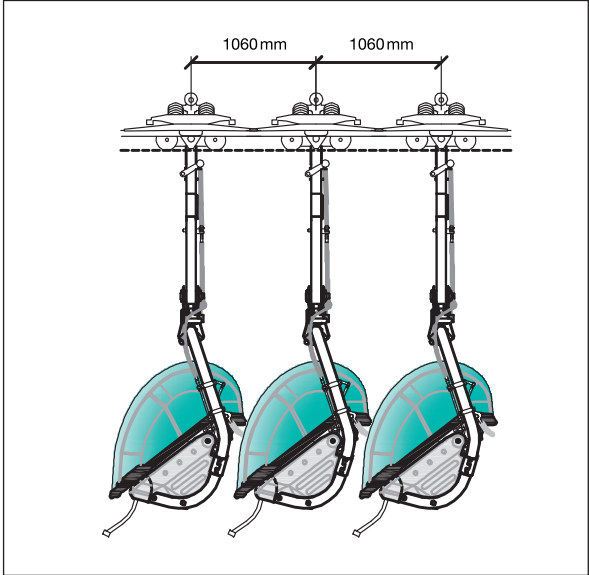
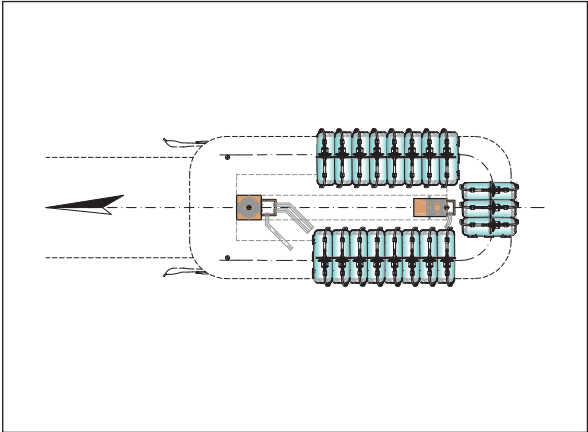
**Basis** The LEITNER station garaging system is the space and cost-saving alternative to the classic garaging system. In combination with an integrated maintenance platform, this solution even allows for weather-protected grip inspection.

**Description** With the station garaging system, the vehicles are parked directly on the station turnaround. This is done by detaching the individual tyres of the tyre conveyor from the synchroniser train by means of pneumatic clutches or brake-clutch systems. Each clutch can be controlled individually to allow for a fully automated garaging and launching process.

The first vehicle is stopped at the station exit close to the front end of the coupling rail. Proximity switches detect the position of the vehicle and activate the respective clutch. Afterwards, all other vehicles are parked fully automatically on the station turnaround. The last vehicle is stopped at the station entrance close to the back end of the coupling rail. When the system is shut down, all clutches are deactivated, thus fixing the vehicles on the station turnaround to protect them against wind.

Launching of the vehicles is also fully automated. It is possible to park vehicles in both stations at the same time. If the station does not provide enough space for all vehicles, the system can be combined with an additional spur track.





**Benefits** The system **eliminates** the need for an **additional parking building**, which results in considerable **cost** and **space savings**.

If vehicles are **only parked in the off-season** (chairlifts without bubble), the system is also available with **manually operated clutches**, which is a particularly **cost-effective solution**.

The **integrated maintenance platform** allows for **weather-protected grip inspection**.

**Technical data**

Max. speed during garaging	Chairlifts: approx. 1 m/s Gondola lifts: approx. 1–4 m/s (depending on parking position on the station turnaround)
Maximum number of vehicles on the station turnaround (standard station)	GD10: 15 gondolas GD8: 16 gondolas CD8: 36 chairs without bubble 31 chairs with bubble CD6: 27 chairs without bubble 23 chairs with bubble CD4: 27 chairs without bubble 23 chairs with bubble
Operating modes	Fully automatic Manual
Maintenance platform	Integrated maintenance platform on the station turnaround Additional maintenance platform at spur track

