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Wir



In Istanbul the underground funicular from the port of Kabatas to the transport hub Taksim was officially opened on June 29



By Funitel to the Mont Parnes Casino near Athens

An installation with a host of special features p.2

Rejuvenated funicular in Mondovì

Designer Giugiaro styled the vehicles for the 120-year-old railway p.8

Detachable quad chair in Bohemia

The Czech Republic's first CEN-compliant chair lift is in the Giant Mountains p.10

RPD improves operational safety

What users say about the new rope position detection system p.17

The combination lift Sunnegga-Blauherd in Zermatt is the first installation in Switzerland with a 50-50 split of 8-seater gondolas and 6-seater chairs p. 18

 **Doppelmayr®**

Gondola ride to the casino

The Mont Parnes Casino near Athens is accessed by a ropeway: Since March, a Doppelmayr Funitel has provided this service. The installation has a host of special features: e.g. separate VIP boarding areas and VIP lounges as well as VIP gondolas for the trip to the – yet to be built – VIP casino.

Greece currently has nine gaming operations. The Mont Parnes Casino Resort in the Mt. Parnitha National Park is the fourth largest with an annual revenue of around EUR 90 million¹. The resort includes the actual casino itself, a hotel, bar/café, restaurant and meeting rooms.

The Mont Parnes resort can be reached by ropeway; the infrastructure is currently being completely refurbished. In the first stage of construction, an underground parking lot with spaces for 1,800 vehicles was completed at the bottom station along with the Funitel. In May, the old Habegger reversible aerial tram² with 30-passenger cars originally built in 1972 closed down and is scheduled to be demolished at a later date. It has now been replaced by a modern Funi-

tel from Doppelmayr, which can still be used at wind force 10 (storms of approx. 100 km/h, 60 mph). (The old tram had to stop operating at wind speeds of around 50 km/h, 30 mph).

High wind stability

Wind stability is extremely important because the mountain peak is frequently exposed to severe winds. In a further stage of construction, a new casino, VIP casino, 5-star hotel, restaurants, bar, etc. are to be built on a 5 acre site, while the existing facilities continue to operate. The refurbishment and construction work will be organized so that the casino will not have to close its doors.

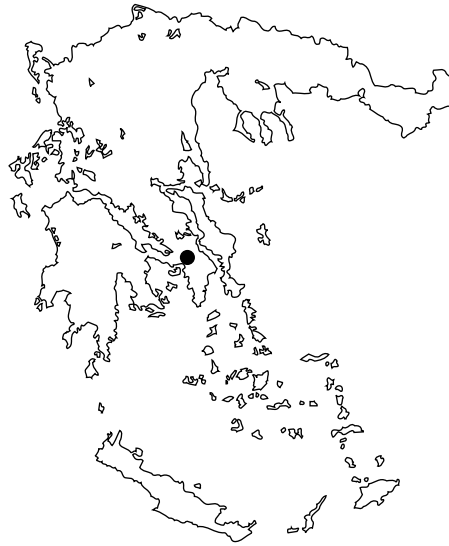


Breathtaking view of Athens. Small photo: elegant standard cabins on the Mont Parnes lift

Extras for VIPs

As a special service during normal operation of the lift, VIP customers will be able to board luxury cabins from an exclusive VIP area. A separate rail is provided to allow the VIP cabins to travel from this area onto the ropeway.

This installation is Doppelmayr's first Funitel with electric grip force testing devices. In view of the national park location, only three towers were permitted on the line. A special combined sheave assembly was used on tower 2 to ensure proper rope guidance. High availability was a major priority, as the lift operates 20 hours a day. This made it necessary to install two high-power drives. The drive capacity was designed to allow one drive to be



shut down for a week for maintenance work without affecting passenger service. Diesel-driven emergency units are also on standby.

Doppelmayr was responsible for the complete installation (with the exception of the civil engineering work).

¹ Owned by a consortium comprised of the Hyatt Regency gaming chain and the construction company Elliniki Technodomiki.

² Habegger was acquired by Von Roll, Von Roll by Doppelmayr.



20-FUN Mont Parnes

Transport capacity	2000 PPH
Trip time	4.8 min
Travel speed	6.0 m/s
Carriers	21
Interval	36 s
Inclined length	1713 m
Vertical rise	572 m
Drive	Bottom
Return	Top

**Wishing you success
for the winter season
2006/2007!!!**

This year, we have once again seen a great willingness to invest in new ropeways, and above all in the refurbishment of existing installations. The resulting technical challenges have included the "big wheel" Funitel in St. Anton am Arlberg, pioneering local transit systems such as our Cable Liner Shuttle at Toronto's international airport, and innovative bulk material and unit load handling systems from our subsidiary Doppelmayr Transport Technology.

I would like to take this opportunity to wish ski resort operators every success for the start of the winter season 2006/2007. We shall be doing our very best to help you achieve it!

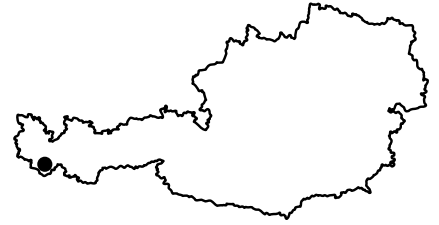
At the same time, I would like to thank our customers and partners. By placing your trust in our expertise you enable us to put every facet of our ropeway competence to the test.

In the future, we shall continue to pull out all the stops to ensure that we meet or exceed your expectations in every area.

Michael Doppelmayr



24-Funitel Galzigbahn: Construction on schedule



The Galzigbahn in St. Anton am Arlberg is being completely refurbished. The new lift features two big wheels for loading in the bottom station¹. The construction work in both stations and the foundation work on the line are on schedule.

The local residents and a large number of regular visitors are following construction progress on the new Galzigbahn with great interest. They can't wait to see the new lift and take advantage of the more comfortable and convenient access it will provide to the Galzig sector. – After all, the Galzigbahn is seen as the "Mother of Ropeways" in St. Anton, and on the Arlberg as a whole. The construction of the new Galzigbahn is being continuously documented with webcams in the top and bottom stations and a weekly updated photo gallery (www.galzigbahn.at). The tourism association is expecting

a huge PR and marketing boost for the entire Arlberg, as the "big wheels" are a world first which has attracted the attention of the international press.

¹ See report in the June 2006 issue of WIR.



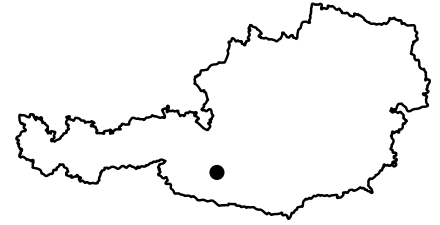
Prok. Hannes Steinlechner, Technical Director of Arlberger Bergbahnen AG (right) and Wolfgang Schwazer, Operations Manager of the Galzigbahn (left) inspecting the impressively large modules during assembly at the Kella plant in mid July. "We're proud to be realizing this project with Doppelmayr and are convinced that the investment in the 'Funitel Galzigbahn' will set another milestone for Arlberger Bergbahnen AG and for St. Anton." Center: Doppelmayr Project Engineer Stefan Durig.



In the third week of July, the four towers were erected with the help of a helicopter. Work began on installing the big wheels in the bottom station on August 3rd and was immediately followed by further installation work in the bottom station. The start of installation for the top station went ahead on August 7th.



Schartenlifts in Kleinkirchheim: Emotion and perfection



Bad Kleinkirchheim offers its guests hiking tours in the gently contoured Nockberg mountains in the summer, over 100 kilometers (60 miles) of ski trails in the winter – with snowmaking for virtually all of them – and a total of 26 surface and aerial lifts. Doppelmayr recently built the two fixed-grip quad chairs known as Schartenlifts 1 and 2.

Bad Kleinkirchheimer Bergbahnen Holding AG is an important driver for the entire tourist region. Through subsidiaries, the group runs the ski lifts, the thermal Roman baths, the mountain restaurant "Nock IN" and the local golf course.

It was not least his desire to have the best that motivated managing director Rudolf Egger, to commission Doppelmayr to build the new Scharten chair lifts. "Although we only had a window of three months from planning the lifts to delivery and completion, construction has been completed on time and with excellent results." – Needless to say, the lift company itself played a crucial role in this success through their efficient coordination of planning and project management.

The new Schartenlifts went into operation

at Christmas 2005 and replaced two surface lifts. The bottom stations are located near a common queuing area. The lift line was retained on Schartenlift 1, while Schartenlift 2 had to trace a new route, as the top station was moved slightly uphill and 200 m (600 ft.) to the side, directly on the Spitzegg peak. The top station of Schartenlift 1 was relocated 20 m (160 ft.) downhill. This made it possible to link up the St. Oswald ski region with ski runs on the Nockalm and reduced waiting times. The convenient uphill ride is particularly suited to families with children and beginner skiers. Skier visits on the Schartenlifts have risen by 45%.

Entertainment activities while you wait

"In Bad Kleinkirchheim we see skiing more as an all-round experience," explains marketing boss Eike Reutler. That is why they have "living rooms in the snow", for example, in the middle of the slope where skiers can stop and rest, and a particular style of music is played in the queuing areas at each lift: Austro-pop, classical, folk music, oldies. There is also a wide variety of games and fun activities for ski tots.

A cool breeze to beat the heat

In the summer, the Nockberg mountains are served by two ropeways up to an altitude of 2100 m (6900 ft). Visitors have a wide variety of organized activities to choose from. In 2006, that included Nordic walking, a mountain-top picture gallery, mountain lake hiking tours and "the long night on the mountain lifts" with Mozart operas beneath star-spangled skies on the candle-lit terrace of the Nock IN.



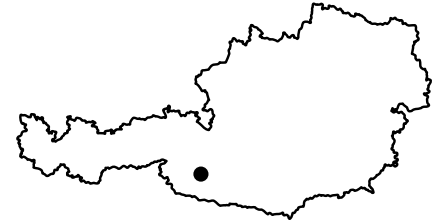
MD Rudolf Egger, Eike Reutler, Marketing: "Quality is important to us." Bad Kleinkirchheim is Austria's first certified "Alpine wellness resort".

4-CLF Schartenlift	1	2
Transport capacity	1790 PPH	1797 PPH
Trip time	5.6 min	5.9 min
Travel speed	2.6 m/s	2.6 m/s
Carriers	85	90
Interval	8.0 s	8.0 s
Inclined length	876 m	924 m
Vertical rise	320 m	260 m
Drive	Bottom	Bottom
Return	Top	Top



Schartenlift 2: Carinthia's first CEN-compliant quad chair lift

Easy Kid: Child's play and comfort for all



Lienzer Bergbahnen AG has achieved a masterstroke with its "Wartschenbrunn" fixed-grip quad chair: it has made Zettersfeld more attractive for less practiced skiers and for families with children, and at the same time created convenient access to the more demanding ski trails for expert skiers. The lift features Doppelmayr's new Easy Kid system.

Zettersfeld is a ski resort where both families and advanced skiers find what they are looking for. The 12 lift installations offer a transport capacity of 13,000 passengers an hour.

Until the winter of 2004/05, beginners and children's ski courses limited themselves mainly to one relatively short ski run next to the top station of the Zettersfeld lift (1812 m/5950 ft.), the 4-seater gondola which acts as a feeder from Lienz.

This area was served by two surface lifts; the "Biedner" platter and the long T-bar lift "Wartschenbrunn" with a slope of up to 60 percent. The Biedner lift is a classic teaching lift.

The Wartschenbrunn trail appeals to both intermediate and advanced skiers. However, the steep T-bar lift proved too demanding for beginners and young children. Another drawback was the fact that the bottom terminals of the two lifts were close together. The congestion which arose at peak times, was particularly annoying for intermediate and advanced skiers. Moreover, the top terminal was not far enough up the mountain for those wishing to reach the other ski slopes. This meant trudging the last several feet uphill before being able to enjoy the downhill spurt.

Consistency and attractiveness increased

In order to increase the "consistency, attractiveness and appeal" of the ski region, it was time to replace the outdated surface lift.

Dipl.-Ing. Werner Stiebellehner, Managing Director of Lienzer Bergbahnen AG with a reputation for being a man of action, decided on a fixed-grip quad chair lift.

By relocating the loading area downhill and to the east, the company was able to kill two birds with one stone. This created more space for beginner groups at the bottom terminal of the Biedner surface lift

and ample room at the bottom station of the new chair lift. The unloading area was shifted uphill and to the west. The overall planning was performed by Doppelmayr with close communication with the Zettersfeld team.

Easy Kid protects children from slipping out of the seat

The new Wartschenbrunn lift went into service on December 17, 2005. Parents of small children and ski schools are particularly appreciative of the double restraining bar with a locking feature on the chairs. With this system, an additional cross bar reduces the distance between the chair seat and the restraining bar – and consequently cuts the risk of small children slipping out of the seat.

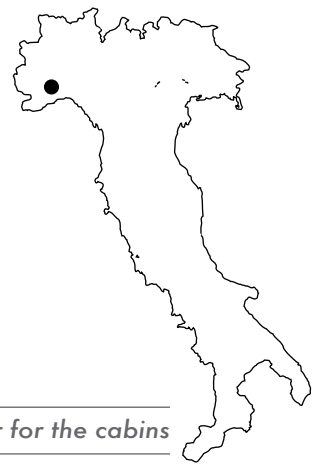
Frequency doubled

The success of the new installation shows that Stiebellehner was right, the comfortable lift has been greeted with an enthusiastic response. With up to 6200 trips a day, frequency has doubled compared to the old surface lift.

4-CLF Wartschenbrunn	
Transport capacity	1526 PPH
Trip time	6.2 min
Travel speed	2.0 m/s
Carriers	80
Interval	9.5 s
Inclined length	742 m
Vertical rise	213 m
Drive	Top
Return	Bottom

Easy Kid: Enhanced safety for children, greater comfort for adults. The restraining bar is locked in the closed position for the uphill trip and opens automatically for unloading.





Mondovì: Old funicular dons new splendor

The old funicular railway of Mondovì, dating back to 1886 in Cuneo Province, Piedmont, has taken on a new splendor since May of this year.

Following a lengthy closure, the funicular has been given a new lease on life by Doppelmayr Italia and Garaventa. The new look is young and modern, and more attractive than ever.

The funicular links Breo, the old quarter, with Piazza, the upper part of the town. The top station is not far from the hospital, the courthouse and various schools.

Tourist attraction and important means of transport

The fact that the railway is a tourist attraction is primarily due to its route. First, passengers can travel conveniently in and out of the town center with its venerable Church of San Pietro e Paolo and Church of the Misericordia, impressive squares and magnificent houses. Second, they can also enjoy a wonderful view over the town and across the wide plains as far as Monviso, a well-known Alpine ski resort.

Star designer for the cabins

Third, all this can be experienced in cabins fashioned by the famous Italian designer Giorgetto Giugiaro. Giugiaro's company Italdesign boasts the design of the VW Golf 1 and the Fiat Uno as well as stylish bodywork for Maserati and Alfa-Romeo automobiles amongst its list of achievements.

CCTV for vehicles, track and bottom station

The control center is located in the top station. The cabins have drivers. Vehicles, track and return stations are monitored by CCTV cameras. A PA system is also installed in the cabins.



New beginning after 30 years

The funicular was originally steam-driven when it was built in 1886 and had undergone various refurbishments in the meantime. Operations were closed down in 1976. The modernized system began test operation in May 2006. The date chosen for the official inauguration was October 27th: exactly 120 years after the maiden trip, which took place amid great jubilation on the part of the local population. The renovation was preceded by intense

political discussion. Mayor Luigi Vinai first contacted Doppelmayr in 1999 during the SAM show in Grenoble. The contract was awarded to the consortium Doppelmayr Italia - Impresa Generale Costruzioni Garboli SpA - Mondovì in 2003. The three-month installation work began in January 2006. Both Doppelmayr Italia (overall project management, drive and vehicle control system) and Garaventa (track, switch rails, rope guidance equipment) were involved in completing the contract.

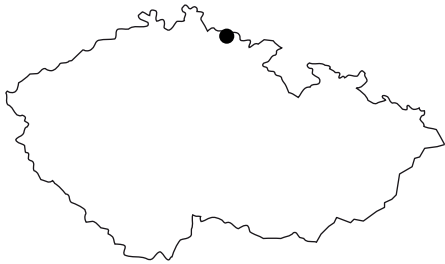
FUN Mondovì	
Transport capacity	1050 PPH
Trip time	2.4 min
Stopping time in stations	90 s
Travel speed	6.5 m/s
2 cabins, 68 passengers each	
Inclined length	545 m
Vertical rise	137 m
Drive	190 KW

Modern cabins incorporate large areas of glass and the side wall features the outline of a bull wheel half. Each cabin has three compartments, one of which is suitable for handicapped passengers, with a safety belt for wheelchair users. The cabins are equipped with a heating system which can be used for ventilation in the summer. Glass roof hatches ensure an additional supply of fresh air. All cabins are fitted with smoke detectors. A fire extinguisher is provided in the driver's compartment, while all the passenger compartments have fire blankets.



Comfortable 4-CLD in the Giant Mountains

The detachable quad chair lift "Hromovka" went into operation at Christmas 2005 in the Spindler Mühle ski region, located in the Bohemian part of the Giant Mountains. It is the first CEN-compliant detachable chair lift in the Czech Republic.



Spindler Mühle has two ski centers: Svatý Petr – Hromovka and Medvedín, with a total of 5 chair lifts and 10 surface lifts. They are owned by the same company – SKIAREAL Spindleruv Mlýn a. s. and belong to the same ticket network. The Hromovka lift not only serves two "red" trails, one of which is illuminated over its entire 1540 m (5000 ft.) length for night skiing, but also acts as a feeder to Svatý Petr. The quality of the ski area is also underlined by the fact that it hosted an FIS world cup ladies' slalom on December 20, 2005. The hotel infrastructure is well developed. The region has been a popular holiday destination for over 100 years, where prosperous industrialists had summer residences here as far back as the Wilhelminian era. Today, the annual number of visitors totals almost one million, primarily from the Czech Republic, Germany and Poland, but also from the Netherlands and Denmark. The bottom terminal, housing the drive and tension system is located in the nar-

row Valley of the River Elbe – at this stage of its journey, still a typical torrent with wide fluctuations in water levels and occasionally flooding. While some of the towers were built on the foundations of the old fixed-grip triple chair lift which the 4-CLD replaces, the new lift is 400 m (1300 ft.) longer. Doppelmayr ropeways enjoy a tradition in the Giant Mountains. In 1992, Doppelmayr built the Czech Republic's first detachable quad chair lift in Svatý Petr.

4-CLD Hromovka	
Transport capacity	2278 PPH
Trip time	5.0 min
Travel speed	5.0 m/s
Carriers	95
Interval	6.0 s
Inclined length	1409 m
Vertical rise	334 m
Drive	Bottom
Return	Top

For space reasons, the bottom terminal's loading area is at right angles to the station axis. Behind it are the control room and control system along with a covered service area.



High Tatras: 4-CLD with seat heating

In the west of the High Tatra Mountains, a two hour drive to the south of Kraków, lies the Slovakian ski and vacation resort of Oravice. In this popular summer and winter destination for Slovakian and Polish tourists alike, Doppelmayr built a detachable quad chair with heated seats.

For the customer, Meander Skipark s.r.o., the new chair lift is an added bonus to the range of tourist attractions offered by the "Meander Park", a modern thermal spa. The lift's comfortable heated seats provide the ideal complement for the resort's marketing concept, which goes under the motto of "heated services".

Investor Juraj Choma and managing director Dr. Peter Kralovensky had been on the lookout for technology offering a top-class international standard with an acceptable price-performance ratio.

The Doppelmayr ropeway was exactly what they had in mind. Right from the beginning of the project development phase, they were sure they were in good hands, "and Doppelmayr fully met our requirements in terms of quality, performance and price," explains Dr. Kralovensky.

As the terrain is not exposed to wind, it was not necessary to include bubbles or carrier parking. Nonetheless, no passenger has had to freeze, not even during

the extremely low temperatures in January and February.

The contract was awarded at the end of June 2005. The seven-week installation period proved difficult as it extended well into the depths of winter up to mid January. The technical inspection by the Slovakian ropeway authority was successfully completed at the end of January 2006.

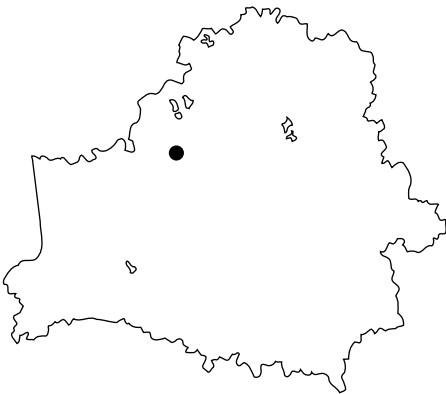
4-CLD Oravice	
Transport capacity	2400 PPH
Trip time	3.7 min
Travel speed	5.0 m/s
Carriers	74
Interval	6.0 s
Inclined length	1027 m
Vertical rise	230 m
Drive	Bottom
Return	Top



The 4-CLD in Oravice is the first detachable chair lift in Slovakia to be built in compliance with the new EU directive and the first chair lift with heated seats.

Another chair lift for Silichi

The new ski resort of Silichi, within easy reach of the Belarusian capital of Minsk, has been a great success since it opened on January 29, 2005. The Doppelmayr 4-CLF has also proven to be a hit, and less than a year later the next Doppelmayr lift went into operation, this time a 2-CLF.



Over the past two years, three sports projects have been completed in the district of Logoisk: the National Ski Center of Silichi, the biathlon center "Zayachya Polyana" and a recreation and leisure center for sportsmen and women.

Visitors swarm to new resort

The ski resort lies 30 km (18 miles) to the north-east of Minsk, and possesses a generous hotel and tourist infrastructure. The prices are also reasonable. Therefore, it is hardly surprising that visitor numbers have been huge and exceeded even the highest predictions.

For this reason, the operators decided to extend their facilities. The order for a new chair lift was placed with Doppelmayr in

May and Silichi 2 went into operation in December. It serves a new, demanding ski trail on the other side of the hill. This trail is particularly popular among snowboarders, but is also used by skiers as well.

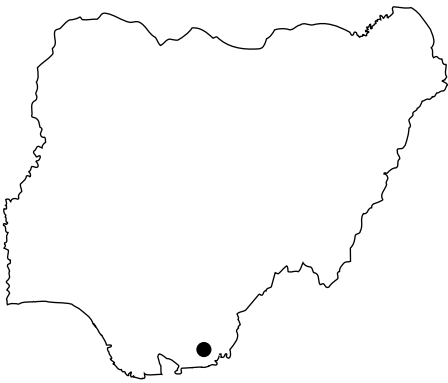
2-CLF Silichi 2	
Transport capacity	851 PPH
Trip time	2.1 min
Travel speed	2.3 m/s
Carriers	31
Interval	8.5 s
Inclined length	291 m
Vertical rise	62 m
Drive	Bottom
Return	Top

In response to the huge number of visitors attracted to the ski resort of Silichi near Minsk which only opened in January 2005, an additional double chair lift was opened in time for Christmas 2005. The infrastructure of trails, hotels and restaurants were also extended.



Gondola lift for vacationers in Nigeria

Nigeria's president Olesugun Obasanjo took a great personal interest in following the completion of the 8-seater gondola lift at Obudu on the border with Cameroon in mid June. It ranks amongst Africa's longest ropeways.



Plans to establish attractive tourist facilities in Obudu were complete. What was also needed to entice visitors was something unusual which people would not expect to find in the depths of Africa. This was where the governor of Cross River State, Donald Duke, had a trailblazing idea, he wanted a ropeway. Initial contacts with Doppelmayr came about in November 2003. Following in-depth consultation meetings, an 8-seater gondola lift proved to be the ideal solution. A survey team set off for Eastern Nigeria in October 2004. Installation began in January 2005 and in June President Obasanjo was cheered on by the local population as he made the 15-minute maiden trip, to see for himself that the governor made the right decision. The lift provides an excellent fit with the concept of an adventure resort. Visitors glide over several vegetation zones, from the densely wooded valley with its canopy, which blocks out the sunlight, to the open heights above the clouds with their awesome views of the mountains on the distant horizon. The ropeway has two rope spans, each with a length of 1000 m

(3280 ft.), and a ground clearance of up to 200 m (656 ft.), which all adds up to a sensational ride experience.

Logistical feat

The remoteness of the construction site in far-away Nigeria made logistical precision an absolute must. Realizing that any missing components or equipment would be difficult and time-consuming to replace, Doppelmayr provided a fully equipped installation and service container as well as a satellite telephone for the installation personnel.

8-MGD Obudu	
Transport capacity	480 PPH
Trip time	15.0 min
Travel speed	5.0 m/s
Carriers	30
Interval	60 s
Inclined length	4022 m
Vertical rise	870 m
Drive	Bottom
Return	Top



The Obudu gondola lift provides access to the Protea Hotel Ranch Resort, situated on the idyllic Oshie Ridge Plateau. The ropeway has a fixed tension system. Two of the three towers have a rescue winch. The installation was constructed and approved in accordance with OITAF guidelines.

Ropeway to the Pagoda of Avalokitasvara

The difficulty of ascending thousands of stone steps to reach Huong Pagoda in North Vietnam has recently been resolved. A 6-seater gondola lift now takes pilgrims from the Yen River to the temple high up on the mountain.



The pagoda is an ancient temple shrine of Buddha's disciple Avalokitasvara, built over a cave richly decorated with frescoes. It lies 75 kilometers (45 miles) south-west of Hanoi in the Huong Tich Mountains. Three million pilgrims stream to this area during the three-month-long Chua Huong festival, which begins on the 6th day of the lunar New Year when the apricot forests are in blossom.

During this period the new ropeway operates 18 hours a day at full capacity, with trips costing 70,000 dong (3.5 euros) a time. Between 15,000 and 18,000 passengers or more are carried on a daily basis.

The logistics of transporting construction materials to the site were difficult, as everything had to be brought in via the Yen River. The Yen meanders slowly between the mountains when the water level is low, which is typical, except for the summer monsoon period when the hefty rain-falls cause it to swell to a raging torrent. At low water levels, the river is shallow, which means that large ships cannot be used. For example, when it came time to transport the 20-ton rope drum, several boats had to be tied together to form a pontoon.

With no practicable roads on this bank of the river, the construction site was supplied via a material ropeway.

The three-month installation period also proved strenuous to our installers. New Zealander Trevor Barnes (mechanics, hydraulics), Australian Shane Child and Frank Moses (New Zealand, electrics) were fortunate of having three rooms in the only walled building in the area, the newly built police station. These "rooms" were in fact planned as prison cells! Everything else, however, was "very basic" and the work had to be carried out at 100 percent humidity and temperatures of up to 40 degrees Celsius (140 degrees Fahrenheit).

The steelwork was supplied by a local company contracted by Doppelmayr.

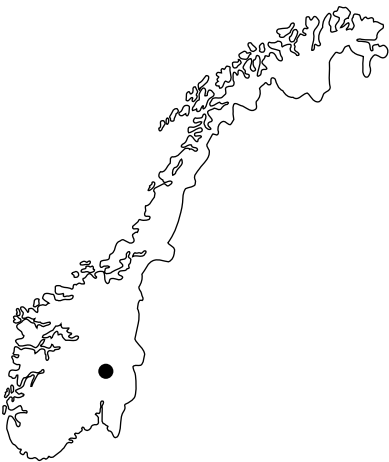
The residents were very impressed by the smooth handling of the ropeway installation. This is important for the lift business in North Vietnam where tourism is yet to be developed. It is likely to encourage the building of further ropeways and provides impressive proof of the high performance and trouble-free operation of such installations in hot and humid climates.

6-MGD Huong Pagoda Cable Car	
Transport capacity	1090 PPH
Trip time	4.0 min
Travel speed	5.0 m/s
Carriers	33
Interval	19.8 s
Inclined length	1185 m
Vertical rise	175 m
Drive	Bottom
Return	Top



Björli lifts: Economic station concept

The Norwegian ski resort of Björli has expanded its transport capacity through the addition of a 6-CLD from Doppelmayr.



Björli is a very popular ski region as it is assured of good snow. It lies between 600 m (2000 ft.) and 1300 m (4300 ft.), has nine alpine trails with a total length of 20 kilometers (12 miles) as well as six lifts. The once sufficient and important T-bar lift was slowly proving to be inadequate for their transportation needs. The Björli ski center ASN¹ decided to build the region's first chair lift, a comfortable 6-CLD, the Björli Express, alongside it.

In order to optimize traffic flows, the surface lift was shortened slightly so that the unloading areas could be clearly segregated. At the bottom end, on the other hand, one building is sufficient to operate both lifts.

The installation work was far from easy, as winter arrived earlier than usual. A convoy of four trucks crashed on black ice when delivering the towers. Part of the load (and all of the trucks) were destroyed in the crash. Luckily there were no significant injuries and the new towers

were delivered in less than three weeks. This was an amazing accomplishment, as the customer pointed out with satisfaction. The lift went into operation in time for Christmas 2005.

¹A company belonging to Om SkiNorway with 5 ski areas.

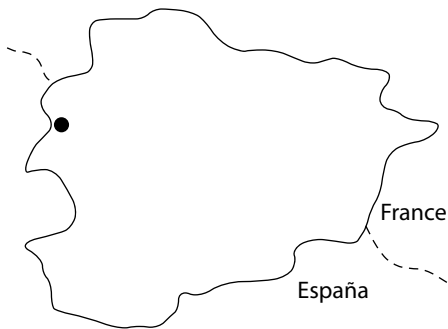
6-CLD Björli Express	
Transport capacity	3000 PPH
Trip time	6.4 min
Travel speed	5.0 m/s
Sesseln	106
Interval	7.2 s
Inclined length	1809 m
Vertical rise	460 m
Drive	Bottom
Return	Top

6-CLD Björli-Express in the ski resort of Björli, a four-hour car ride to the north of Lillehammer.



Les Fonts, Andorra: Station façades in wood

Les Fonts, which is part of the Vallnord Mountain Park ski resort in Andorra, boasts a brand new high-performance lift: A 6-seater detachable chair from Doppelmayr with a stunning curved station design.



The "Les Fonts" installation, built to replace an old fixed-grip quad chair, is particularly popular with novice skiers for its convenience, its high transport capacity and its central location. The lift took 6 months from order placement to completion, with 4 months for the installation work.

The Les Fonts chair lift is the fourth in a succession of orders placed by the operating company EMAP and the commune of La Massana. Following the 4-CLD "Seturia" (1999), the reversible

aerial tram link Pal-Arinsal (2001) with its 50-passenger cabins and the bicable detachable gondola lift La Massana (2004), the ski resort and the local authorities have once again placed their confidence in our expertise with Les Fonts in 2005 and le Cubil envisaged for 2007.

6-CLD Les Fonts	
Transport capacity	3000 PPH
Trip time	6 min
Travel speed	5.0 m/s
Carriers	100
Interval	7.2 s
Inclined length	1681 m
Vertical rise	392 m
Drive	Bottom
Return	Top



The attractive, wood-covered bottom station of Les Fonts, particular precision and extensive know-how were required to perfect its aesthetically curved lines. The photograph above shows fitters Joachim Lamiel (left) and Jean-François Ginquaud on a training course at the Doppelmayr Kella plant in July (Wolfurt, Austria).

Enhanced operational safety, thanks to RPD system

The Doppelmayr rope position detection (RPD) system detects a deviation of the rope from the sheave groove, deropement and/or a severely worn rope sheave. In such cases, the RPD automatically slows down or stops the lift, as necessary.

Following on from the description of the RPD system in the last issue of WIR Magazine, we are now printing comments from experts and satisfied users:

"With RPD, response times and misinterpretations on the part of operating personnel are eliminated."

Prof. Dr. Dr. h.c. Gabor Oplatka, professor emeritus of ropeway engineering, ETH Zurich

"RPD gives managers greater security. With RPD, we are getting vital information delivered directly from the line to the control room for the first time."

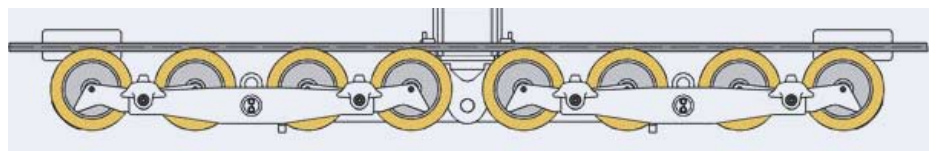
Lift manager Hans-Peter Schwaiger, 8-MGD Pengelstein, Bergbahnen AG Kitzbühel

"RPD is very good as an early warning system!"

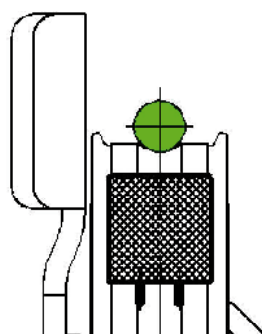
Lift manager Ing. Georg Zangerl, Funitel Silvrettabahn, Ischgl

"Without RPD there would have been a lot of days when we couldn't operate because of the high winds." **Lift manager Frank Huber, Deutsche Zugspitzbahn**

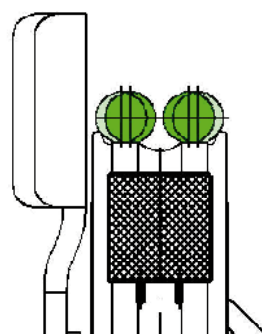
"A fallen tree moved the rope on the 6-MGD Harschbichlbahn St. Johann/Tyrol (a feeder lift) over the sheave assembly towards the center of the yoke. It was not possible to identify the incident prior to start-up. One carrier collided with the tower yoke, a second caused the yoke to twist. Damage caused: approx. 700,000 euros (7 days' service lost, 1 wrecked cabin, strand splice, yoke repairs, repair costs). We then took the decision to equip our next installation – the 8-MGD Oberndorf – with RPD."
MD Dr. Ingo Karl, St. Johanner Bergbahnen



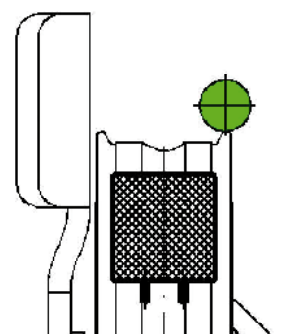
RPD has done for the ropeway what ABS and ESP did for the automobile! As soon as the rope starts to move out of the sheave groove, rope speed is reduced. If the deviation increases, the ropeway is automatically shut down.



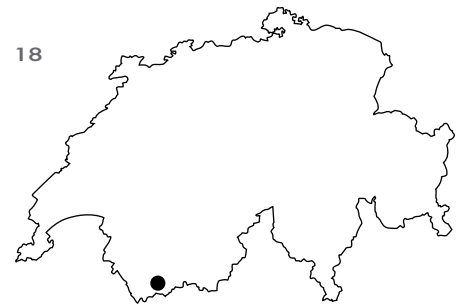
Rope in normal position
 $v = 6 \text{ m/sec}$



Rope begins to deviate;
deceleration to 1 m/sec



Imminent deropement;
automatic stop



The man with success guarantee

Christen Baumann, CEO of Zermatt Bergbahnen AG, has an eventful track record and a golden touch. All three lift operating companies he has managed have achieved economic success beyond all previous expectations.

Christen Baumann hails from Berner Oberland (Bernese Highlands) in Switzerland. He studied Mechanical Engineering in Burgdorf, worked on large industrial projects both at home and abroad, and finally switched to the tourism sector – out of a love for the mountains of his homeland.

He steered Bergbahnen Grindelwald first out of the red. Five years later he took over the then ailing Bergbahnen Motta Naluns in Scuol and, once again, achieved a turnaround. In summer 2002, he became CEO of Zermatt Bergbahnen AG. For the first six months, he continued to head Bergbahnen Scuol in order to ensure an orderly transition. This was dif-

with the Zermatt Tourism Association. All these tasks he accomplished with flying colors. Christen Baumann, nonetheless, takes a modest attitude to his record. The 4478 m (14692 ft.) high Matterhorn ranks amongst the world's most famous mountains. As he sees it, the high level of awareness made it much easier to market the region. When it came to exploiting the mountains, they were also able to take advantage of the region's topographical assets and existing infrastructure.

Garaventa is reliable

The fact that everything runs like clockwork is accredited to Christen Baumann's



"The dynamic alignment of infrastructure quality with visitor requirements" is a guiding principle of Christen Baumann, CEO of Bergbahnen Zermatt. The lift operating company is the biggest local employer with 190 permanent employees plus 70 seasonal workers.

ficult since Scuol and Zermatt are separated by several high mountain passes and a good five hours' drive.

In Zermatt, Baumann's challenges were joint management of the four lift operating companies¹ recently merged to form Zermatt Bergbahnen AG, the strategic planning and the modernization of lift installations and ski trails, plus the establishment of professional destination management

perfectionism. He was quick to realize the importance of snowmaking. Two-thirds of the 180 kilometers (112 miles) of ski trails benefit from this facility. That not only saved the 2005/06 season, which saw plenty of sunny days but not enough snow, but also helped to achieve record results. No wonder Baumann expects on-time delivery and fast service from ropeway suppliers as well as maximum



The combination lift Sunnegga-Blauherd, has doubled frequency compared to its predecessor lift. Zermatt has 33 ropeways. Six lifts operate in the summer, seven if the snow conditions are good in the "Matterhorn glacier paradise, the highest summer skiing area in the Alps". On peak days, visitor numbers in the Matterhorn ski paradise average 25,000 in the winter, while over 6000 uphill trips are sold in the summer.



Photo Walter Sironi

Zermatt: altitude 1600 m (5250 ft.); 5500 inhabitants, over 16,000 beds; car-free; can normally only be reached by railway.

has been a partner to Zermatt's ropeway operators for 60 years.

Combination lift Sunnegga-Blauherd: Well-organized traffic flows

An interesting traffic flow solution was found for the combined 8-seater gondola/6-seater chair lift Sunnegga-Blauherd³ started up in winter 2005, which acts as the link between the underground funicular and the reversible aerial tram to the Rothorn. To simplify the connection from the Metro, the wall in the middle of the platform in its top station was cut through to make way for an escalator. Passengers unload at the top station of the combination lift at ground level. Skiers get straight onto the slope. Foot passengers have a choice of two lifts for access to the Rothorn tram. It couldn't be more convenient.

Garaventa is currently building the 8-MGD Furi-Schweigmatten, a completely new installation. It will facilitate access from Cervinia⁴ to the Gornergrat and Rothorn trails further to the east.

This is yet another milestone in Christen Baumann's long-term marketing plan. Since his appointment as CEO he has already invested 140 million francs (90

6/8-CGD Sunnegga-Blauherd	
Transport capacity	2200 PPH
Trip time	5.1 min
Travel speed	5.0 m/s
Carriers	27+27
Interval	11.5 s
Inclined length	1225 m
Vertical rise	278 m
Drive	Bottom
Return	Top

million euros). A fifth of that amount has gone into snowmaking installations. His goal is to achieve "a balance between visitor expectations and economic success".

availability from their lifts. "If I have to shut down the lift for a quarter of an hour to replace a gondola, that may well mean that I carry 500 fewer passengers up the mountain." The outcome would be stress and customer dissatisfaction.

Garaventa provides reliability, therefore, 30 of the 33 lift installations come from companies belonging to the Doppelmayr/Garaventa Group². The Group

¹ Merger between Matterhornbahnen AG, Zermatt Rothornbahn AG, Zermatt-Sunnegga AG funicular railway, Sport Area of the Gornergrat lift company; plus acquisition of the Riffelberg ski instructor lift and the Findeln chair lift. Gornergrat Zahnradbahn AG (cog railway) is integrated into the ticket network.

² Funicular railway, all nine reversible aerial trams and four gondola lifts, as well as all ski lifts

³ Replaces a gondola lift built in 1967, modernized in 1980

⁴ Since 1995 there has been a combined ski pass for Zermatt and Cervinia

Toronto Pearson International Airport: Airport LINK in operation.

Since July 6, 2006, CABLE Liner Shuttles link Terminals 1 and 3 and Viscount Station, the GTAA long-term parking. The shuttles run 24 hours a day, 365 days a year. The trip time from Viscount Station to Terminal 1 is approx. 3 ½ minutes. The system consists of two trains with six cars each. Each train can hold 150 passengers. DCC Doppelmayr Cable Car guarantees 99.5 percent availability. DCC has taken on responsibility for operations over the next eight years through a subsidiary. The Airport LINK was officially opened by Rob Ford – Toronto City Councilor, Warren Hurren – Chairman of the GTAA Board of Directors, Harinder Takhar – Minister of Small Business and Entrepreneurship, Gurbax Singh Malhi – Member of Parliament for the Bramalea-Gore-Malton electoral district, Michael Chong – Minister of Intergovernmental Affairs, John Kaldeway – President and CEO of the Greater Toronto Airports Authority, Michael Doppelmayr and Norman Loberg – GTAA Board of Directors (from left to right in the photograph).



Romania's first ropeway symposium

(May 16 and 17, 2006 in Poiana Brasov).

– The conference was organized by S.C. ANA TELEFERIC S.A. Brasov, since the last winter season owners of the modern 8-seater gondola lift "Postavarul Express" from Doppelmayr. Participants included Romanian ropeway professionals as well as Austrian and Swiss technology suppliers. For company president George Copos, the objective was to create an international platform to drive Romanian ropeway projects ahead. The agenda included interesting presentations by technical experts and experienced suppliers as well as individual discussions in small groups.

