

# MAGAZINE

S N O W E X P E R T S

*Enjoy.*

**TECHNOALPIN®**  
snow experts



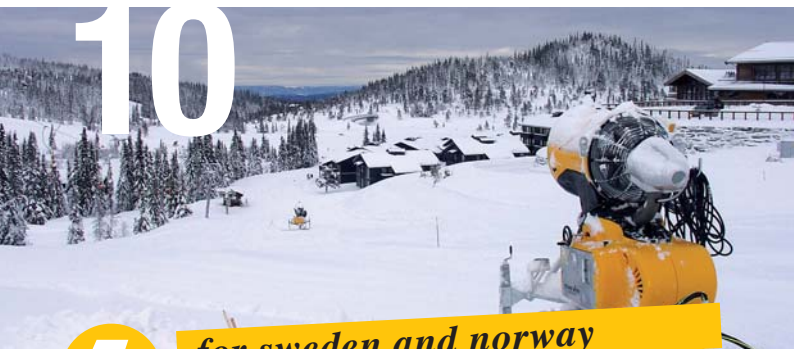
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# november 2011

## Dear readers,

We are probably all sick and tired of hearing the word 'crisis' as it seems to be the topic of every conversation. TechnoAlpin is enjoying another good year and this year's figures are entirely satisfying. Nevertheless, we too notice that times are anything but rosy. The market is changing. Our products and services are increasingly required to meet new demands. New challenges are coming to the fore. The quality and efficiency of all our products and services will be even more important in future. That's why we spent time last year refining our products but also streamlining internal operations. TechnoAlpin is fortunate to have young yet experienced staff who can respond flexibly to changes. We are convinced that we are equal to the new challenges and will continue to embrace our leadership role in technical innovation in all areas in future.

We are facing another intensive testing period this coming winter in order to develop our existing products and bring new ones to market. It is also the start of the peak season for our service team which has a worldwide remit in dealing with problems and answering questions. Having been launched in the spring, the new ATASSplus will have to pass

its first endurance test this winter. We are eagerly awaiting the results and will be presenting the feedback early next year.

Once again this magazine contains reports on interesting projects around the globe. Long-running success stories continue to be written, such as the one in Saalbach Hinterglemm. A number of ski resorts in Sweden and Norway are upgrading their systems. Automation continues to advance in the Pacifics. We have also made inroads into entirely new markets. Azerbaijan is currently building its first ski resort and TechnoAlpin is installing the snow-making system.

### Happy reading!

Walter Rieder and Erich Gummerer

**TECHNOALPIN®**  
snow experts



*walter rieder & erich gummerer*

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# 1 *ski premiere in azerbaijan*

Majestic is probably the right word to describe the mountains in the north of Azerbaijan. The Ministry of Tourism and Culture is having a new center for winter and summer tourism built amidst this magnificent scenery. **A holiday complex with 5, 4 and 3-star hotels is appearing here out of nowhere. There should be accommodation for 5,000 people when work is finished.** The new tourism resort is aptly named “Shahdag” meaning “King Mountain”. One of the main reasons for building the resort is to provide jobs in the region. Already the construction site is a major source of employment. The area is three hours’ drive north of Baku and so a village has been specially built to house up to 1,500 workers. After all, it is necessary to build the entire infrastructure complete with road network, drinking water and power supply, lifts, ski slopes and snow-making system. **The Swiss company STC is in charge of the overall project management. The Turkish DIA Holding has been hired as**

**the general building contractor. TechnoAlpin has been awarded the contract for the snow-making system.**

## **Quality snow at the ready**

The snow-making system for the whole area is being built in two stages. The project has been planned by STC and will be supplied by TechnoAlpin as a turnkey system. This is one of the largest projects in the history of TechnoAlpin. In addition to three pumping plants and several compressors, the company will install a total of 216 snow guns and around 25 kilometers of cast iron pipes. In terms of logistics the project truly is a masterly accomplishment. There are two TechnoAlpin supervisors permanently on site to coordinate the building work. The weather conditions are also challenging. Temperatures are relatively warm in the main snow





## Project *summary*

phase in the run-up to Christmas. Cooling towers are used to bring the water to an optimal snow-making temperature. The system is controlled by ATASSplus in order to guarantee a consistent quality of snow on all the slopes.

Shahdag is the first ever ski resort to be opened in Azerbaijan.

The government is therefore taking a keen interest. Minister of Culture and Tourism Abulfaz Garayev visited the TechnoAlpin headquarters in Bolzano before the contract was awarded. The new ski resort is also of special importance to the President Ilham Aliyev. While building work was still ongoing in February he visited the area after the first slope had been completed to test it out. The first lifts were put into operation and the first slope was covered with snow especially for the occasion. The President was extremely pleased with the quality of the system and said it was a “wonderful and special day for the whole country”.

When the construction work is finished there will be a ski resort boasting state-of-the-art infrastructure three hours' drive from Baku. Doppelmayr lifts and Kässbohrer snowcats will work side by side with the snow-making system to make sure of fun on the slopes. Modern hotels and a wide range of après-ski facilities will ensure that the enjoyment continues off the slopes. ✈

### **Snow guns:**

- 163x tower-mounted T60
- 26x T60 mobile
- 20x tower-mounted T40
- 5x Piano
- 2x V3

### **Pumping and compressor plants**

- Kuzun pumping plant: 4 pumps, each with an output of 55 kW; 2 compressors, each with an output of 250 kW
- Village pumping plant: 8 pumps, each with an output of 255 kW; 2 compressors, each with an output of 250 kW; 8 cooling towers, each with an output of 15 kW; 2 compressors, each with an output of 55 kW for lake aeration
- 300 pumping plant: 2 pumps, each with an output of 315 kW
- 4 submersible pumps, each with an output of 95 kW

### **Line materials**

25 km of cast iron pipes  
21 km of PE piping  
84 km of aluminum cable

### **Control:**

New ATASSplus

[www.shahdag.az/eng/](http://www.shahdag.az/eng/)





## Project *summary*

- 14x V3 lances
- 15x T60 lift-mounted
- 11x T40 mobile
- 5x T40 lift-mounted
- 6x T40 tower-mounted
- All fan guns with blade and turbine pipe heating
- 44 PE pits
- Startgels pumping plant: 2 pumps, each with an output of 200 kW, and 1 compressor with an output of 250 kW
- Punt Gronda pumping plant with an output of 400 kW
- Alp Dado pumping plant: 2 pumps, each with an output of 400 kW; 1 pump with an output of 200 kW; 1 compressor with an output of 250 kW

# 2 *laax (sui)* *goes for* *pe-pits*

Since summer 2010 the Wasserwelten Flims undertaking has been working on optimizing the use of the resources available for the supply of drinking water to the area, for the generation of green electricity, for the optimization of the snow-making systems, and for the regulation of the Caumasee lake. All the projects are running at the same time in the interests of economic viability. The managers of the Weisse Arena Bergbahnen AG mountain railway company have found an expert partner in TechnoAlpin for the snow-making operations. With more stages in the development to come, the main focus was on the optimum use of the resources and the automation of the existing manual system. **TechnoAlpin has assumed full responsibility for the engineering.**

Work finally began on the new snow-making system in July 2010. A hybrid system has since been installed which is ideally suited to the local conditions. All the fan guns supplied in 2011 are fitted with blade heating and turbine barrel heating in order to maintain the high quality of the snow even in adverse conditions. A Hydromat WO enables infinitely variable water regulation for lances. Powerful pumping plants take the abundant water resources to the operating site. The system is controlled by the new version of

[www.laax.com](http://www.laax.com)

the ATASSplus software following the signing of an update contract.

### Easy installation and high stability

The managers in Laax insisted on the PE pit straight away in the first stage of the development in 2010. Given the positive experience during both installation and snow-making operations, polyethylene remained the material of choice for the majority of the pits in summer 2011. **The strength and resistance to cold were the main selling points.** Designed on the "sandwich principle", the pit is made of high-quality materials like high-density R200 linear polyethylene for the outer and inner skin and a light galvanized S235JR sheet steel structure for the reinforcement. Polyurethane foam was used to fill the cavities and to reinforce the structure. This results in thin walls and keeps the total weight down to just 260 kg. As such, it is possible to transport two pits in one helicopter run. ✍






**Johann „Hansi“ Kaufmann**

## 3 *nothing gets past him...!*

Johann “Hansi” Kaufmann has been working for TechnoAlpin in Bolzano for 15 years. Although he worked in several departments at the beginning, such as Production and Service, his time is now virtually entirely devoted to the water tests for the fan guns. Each and every TechnoAlpin snow gun undergoes an electric test and a water test before leaving the factory. “The water test is the final operational check on the machine”, explained Hansi Kaufmann, “and we make sure that the pressure and flow are correct and that all the connections are properly fitted”. Various temperatures are simulated during this test by the ATASSplus control software in order to reproduce different snow conditions. A detailed inspection record is kept in order to log even the smallest variation from the specifications. **Hansi Kaufmann puts around 1.400 fan guns through the water test every year.** Neither new machines nor machines which have come in for inspection leave the building without his say-so. TechnoAlpin’s new company headquarters was designed to provide ample space for the

test bed. Three fans can be connected to the system at the same time. There is also a dedicated test bed for lances. 





© Saalbach Hinterglemm



# 4 long-running success story

## saalbach hinterglemm (aut) & technoalpin

The Skicircus Saalbach Hinterglemm Leogang is a large ski complex offering around 200 kilometers of slopes for ski enthusiasts. Ongoing investment is essential to keep operations running smoothly over such a huge area. The mountain railway companies in Saalbach Hinterglemm have invested a total of 234 million euro in the last 10 years to keep the infrastructure up to speed with the latest developments. The collaboration with TechnoAlpin goes back a long way. **Ever since the snow experts delivered the first snow guns to Saalbach Hinterglemm in 1992, all the local companies have looked to TechnoAlpin to meet their snow coverage requirements.**

### **Bernkogel slope earmarked for modernization**

There was plenty of action again this summer. The Bernkogel area was the main scene of the installation work again. 21x T60s, both lift-mounted and tower-mounted, were installed.

They were put in position by helicopter. Building work also began this summer on the "Wetterkreuz" reservoir with a view to optimizing the water supply to the system. It will be ready in time for the 2012/2013 winter season. In addition, the old three-seater chairlift will be replaced by the new eight-seater cable car "Bernkogelbahn I".

TechnoAlpin's services were also called for this summer on the other side of the Saalbach valley. 6x T40 were installed in the Schattberg area. Five of the V2 lances with the narrow angle jet will also be deployed here in future. This special version of the V2 is particularly good for ski routes. The Saalbacher Bergbahnen Ges.m.b.H. mountain railway company ordered two more T60s for the Kohlmais downhill runs.





## Project *summary*



- 35x T60 lift-mounted
- 4x T60 tower-mounted
- 2x T60 mobile
- 5x T40 lift-mounted
- 1x T40 tower-mounted
- 14x V2 lance with narrow angle jet
- 51x "Standard" reinforced concrete pit with underground electrant and distribution box
- Bluetooth interface for all fan guns
- Hydromat WO for all fan guns
- Partial upgrade from ATASS to ATASSplus

\* Summary of all the equipment supplied to the following companies: Saalbacher Bergbahnen GmbH, BBSH Bergbahnen Saalbach-Hinterglemm GmbH and Hinterglemm Bergbahnen GmbH.

[www.skicircus.at](http://www.skicircus.at)

### Snow coverage guaranteed for all the main runs

The development of the snow-making facilities did not stop at Saalbach, however, but extended into the Vorderglemm and Hinterglemm areas. 3x T60 and 9x V2 (ski route version) were installed in the Schönleiten area in Vorderglemm. The Bergbahnen Saalbach Hinterglemm GmbH mountain railway company also invested in a modern control system for the Reiterkogel and Westgipfel slopes. The ATASS software was upgraded to the latest version, ATASSplus. The Westgipfelbahn slope also saw the installation of 5x T60.

The guarantee of snow will also be improved for the Zwölferkogel and Hochalmspitze descents. An additional 4x T60 will provide snow on the Zwölferkogel slope in future while a further 5x T60 have been added to the north descent of the Zwölferkogel. 1x T60 was installed in the Hochalm area in the summer.

All the main runs at the Skicircus will have snow-making systems in place once this installation work is complete. All the different generations of fan guns and lances are working side by side in Saalbach Hinterglemm - from the Baby to the new T40, and from the H3 right through to the special version of the V2. There are around 500 TechnoAlpin snow guns in total taking the best possible care of the slope conditions. ✍

# 5 *guaranteed snow for sweden and norway!*



People have been skiing in Scandinavia since the 18th century. Winter sports of all kinds have always been one of the most popular leisure pursuits. Yet even in northern Europe nature cannot be relied upon to provide the required snow. That's why many ski resorts upgraded their snow-making systems this summer.

Two members of the Skistar Group, Lindvallen (SWE) and Hemsedal (NOR), invested in snow-making equipment. 25x V3 and 8x H3 lances were installed on two new slopes in Hemsedal. The lances are supplied by 5.4 km of Alpinal pipelines and 47 pits. 1,500 m of Alpinal pipeline and 17x V3 lances were delivered to Lindvallen in the summer. The ski resort near the Norwegian border will also get a new extraction pump station and a pressure booster station with two pumps and an output of 120 l/s. When complete, the system will have five pumps and an output of 600 l/s. The water will be pumped to the ski resort from the town of Sälen along about 5.5 km of DN500 pipeline. The number of snow guns in Norefjell in Norway has almost doubled. 11x T60 were delivered. So, in future, the snow on one of the loftiest mountains in the south of Norway will be made by 21 of the most powerful TechnoAlpin snow guns.

## Maritime climate sets endurance test

Frequent warm spells make life difficult in winter for the ski resort of Isaberg (SWE). The windows of opportunity for snow generation are narrow. The resort in the south of Sweden has therefore been using TechnoAlpin snow guns for over 10 years and relying on their strength in borderline temperatures. "We usually make snow at temperatures between -4°C and -6° C at 90 to 95% atmospheric humidity." Thanks to the fully automatic TechnoAlpin system, our snow guns run 24/7 in the first snow-making phase - and do so without requiring a great deal of manpower. The high quality of the snow also reduces the amount of slope basher work required and the people appreciate the optimum slope quality", said Kjell-Ake Gustarsson, recounting his experiences. This year two further V3 lances and six connection points were installed.

In Röldal (NOR) the proximity to the sea also has a major impact on the climate. Around 500 m of Alpinal pipeline were added to the snow-making system in a bid to defy the extremely arduous conditions. Four new connection points and one T40 Mobile were also delivered.







Alebacken (SWE) is not far from Gothenburg and is therefore also near the sea. The ski resort is a new TechnoAlpin customer and is installing 5x V3 lances for now. The existing pumping plant is also being automated. The ATASSplus control software will be in operation from this winter onwards, ensuring that snow quality is consistently maintained at optimum levels in the difficult local conditions.

Unlike Alebacken, the ski resort of Idrefjäll (SWE) has been a TechnoAlpin customer for years. It also entrusted the company with the extension of the east side of the ski resort which was completed this summer. 450 m of Alpinal pipeline were laid and 3x V3 installed. In future two additional automatic water lines will also run from the "East" pumping plant to the slopes.

### Snow for future world champions

When Shaun White and his fellow contenders fight for the world championship medals in 2012 they will battle it out on TechnoAlpin snow. The World Snowboarding Championships will be held in the Wyller Multiarena in the ski resort of Tryvann (NOR) next year. **The managers of the mountain resort on Oslo's doorstep embarked upon the largest extension of the snow-making system to date in preparation for the event.** A new high-pressure pumping plant with intake station and an

output of 210 l/s was built along with a new compressor plant outputting 42 m<sup>3</sup>/min. Optimum conditions will be provided for the contests by 7x T60, 4x T40 and 48x V3 lances.

Ground conditions in Norway for the elite in Alpine skiing are also traditionally supplied by TechnoAlpin. The World Cup venue of Kvitfjell has upgraded its A9 lances to V3 lances in a bid to use the available resources even more efficiently. The new V3 head has more nozzles and can be run with the same rate of air flow as the A9. It also installed 1,800 m of Alpinal pipeline with 15 pits and 15 new V3 lances. The existing pumping plant in the area has been automated in time for the start of the season.

Installations have also gone ahead at the venue used for the Alpine disciplines in the 1994 Winter Olympics. Snow coverage will be even more certain in future due to 15 additional fan guns in Hafjell. In addition, 12 A-series lances have been upgraded to the V3 specification. This brings the number of TechnoAlpin snow guns in use in Hafjell to more than 100.

### Lance system for cross-country skiing center

The professional expertise of TechnoAlpin extends beyond Alpine slopes and is equally applicable to Nordic centers. **From the 2011/2012 winter season the ski runs in the Filipstad cross-country skiing centre (SWE) will also be covered with snow by V3 lances.** 23 lances and 35 connection points have been installed. A new pumping and compressor plant has also been built. The system will be controlled using ATASSplus. ✍







# 6 *grande neige* for la grande nation

Around 20% of the slopes in France now have snow-making systems. TechnoAlpin pulled out all the stops in France in the summer in a bid to increase this percentage. A whole range of projects took place - here are just a few from the list.

## Sixt-Fer-à-Cheval opts for V3

Sixt-Fer-à-Cheval is in the of Haute-Savoie on the eastern border of France. The little village has around 800 inhabitants and is listed as one of the “most beautiful villages in France”. The local ski area is one of five ski resorts in the Grand Massif network. The snow for the 32 kilometers of slope have been supplied up to now by four snow guns. This summer an entirely new fully automatic system was built, complete with 26x V3 lances, pumping and compressor plant. The system is controlled by the latest version of the ATASSplus software. TechnoAlpin acted as general supplier to this new customer. ✈

## Project *summary*

- 26x V3 with central air
- 26x pits
- 2x T40 mobile
- 2,500 m of cast iron pipes
- 2,600 m of electrical cables
- Pumping plant, output of 130 m<sup>3</sup>/h / 315 kW
- Extraction pump station, output of 18.5 kW
- Compressor with an output of 110 kW
- New ATASSplus

[www.sixtferacheval.com](http://www.sixtferacheval.com)



## Project *summary*

- 1x T40 tower-mounted
- 11x V2 with central air
- 11x V3 with central air
- 22x pits
- 2,300 m of cast iron pipes
- 2,450 m of PE piping
- 2,800 m of electrical cables
- Pumping plant, output of 100 m<sup>3</sup>/h / 200 kW
- Compressor with an output of 132 kW
- New ATASSplus

[www.montclar.com](http://www.montclar.com)

### Saint Jean Montclar now with TechnoAlpin snow

The 50 kilometers of slopes belonging to the ski resort of Saint Jean Montclar are situated in the southern French Alps. Just 200 kilometers north of the famous seaside resorts on the Côte d'Azur, it is a supreme location for fun-packed ski holidays. With 32 slopes from beginner to advanced there is something to suit everyone. TechnoAlpin's expertise was called on this year to guarantee snow coverage on these slopes in even greater quantities. 23 snow guns, one pumping plant and one compressor plant have been added to the existing snow-making system for the time being. 🚧



### Hybrid system for Champ du Feu

Champ du Feu tested a wide range of snow guns last winter. And in the end the ski resort in the Vosges chose to do business with TechnoAlpin. A hybrid system was installed with 23 lances and three fan guns with blade heating. New pumping and compressor plants were also built. Champ du Feu is about 70 kilometers south of Strasbourg and has both Alpine downhill runs and a Nordic center. 🚧

## Project *summary*

- 24x V3
- 3x T40
- 1,950 m of cast iron pipes
- 3,300 m of PE piping
- 2,300 m of electrical cables
- Pumping plant, output of 320 m<sup>3</sup>/h / 320 kW
- Extraction pump station, output of 2x 37 kW
- Compressor plant, output of 2x 55 kW

[www.lechampdufeu.com](http://www.lechampdufeu.com)





7

..from around the world

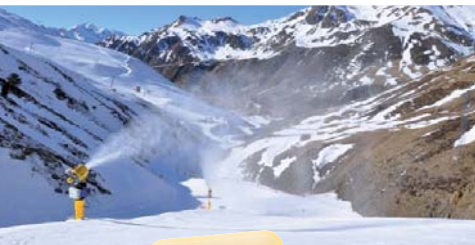
## Project summary

- 11x T40 tower-mounted
- 6x T60 tower-mounted
- 11x V3 with central air
- 29 pits
- Pumping plant, output of 180m<sup>3</sup>/h / 250 kW
- Compressor plant, output of 160 kW
- ATASSplus

[www.astun.com](http://www.astun.com)

### Astún (ESP)

The ski resort of Astún is surrounded by the high peaks of the western Pyrenees in the region of Aragón. After years of inactivity, steps were taken in 2008 to begin a full modernization process which is already giving Astún a new lease of life. Investments are being made in snow-making equipment and lifts as well as in tourist infrastructure. Plans are on the table for modern accommodation facilities and a new car park. New lift systems are already taking the ski enthusiasts from the town to a total of 46 slopes. The snow-making system has been improved and modernized little by little in order to achieve an optimum and consistent quality of snow on all the downhill runs. The building work progressed this summer. A new pumping and compressor plant was built and 17 fan guns and 11 lances were delivered in the summer of 2011 alone. A total of 56 fan guns and 52 lances supplied by TechnoAlpin will therefore be in place from next season onwards to guarantee snow on the slopes of Astún. ✈



### Sinaia (ROU)

Extending south from the Romanian city of Braşov is the Prahova valley with all its ski resorts. The resort of Sinaia has great potential due to its proximity to the city. Sinaia is popular in both summer and winter due to its modern infrastructure. A TechnoAlpin snow-making system has now been ordered with a view to remaining competitive in the winter. The new Pârția nouă slope will be built this year and the snow will come from a fully automatic lance system. When building work is complete, ski enthusiasts will have the use of a new two-kilometer slope. Further expansion is planned for the next few years in a bid to become one of the largest ski resorts in Romania. ✈

## Project summary

- 21x V3
- 1 pumping plant, output of 25 l/s / 250 kW
- 1 compressor, output of 90 kW
- Submersible pump, output of 25 l/s / 45 kW
- 2 km of cast iron pipes
- New ATASSplus







### Changbaishan (CHN)

Jilin Province on the North Korean border will soon be home to an entirely new tourism destination. It is called the “Changbaishan International Tourism Resort” and is being funded by a private investment consortium. Hotel complexes are being built along with leisure amenities like golf courses, bathing facilities and a ski resort boasting approximately 25 kilometers of slopes. Changbaishan means “ever white” in English. In order to live up to the name, the decision was taken to do business with TechnoAlpin in respect of snow-making systems. A total of 340 pits will be installed, 110 of them integrated in the ATASSplus control system. All the others will be operated manually for the time being. A reservoir with a capacity of 700,000 m<sup>3</sup> is being built to guarantee snow-making operations despite the poor natural water supply. This project is also quite special in terms of logistics. Eight containers in total had to be packed and sent out at the same time. TechnoAlpin is supplying the entire technical system and acting in a consultancy role to the construction site managers. ✈



## Project summary

- 3x T60 on 4.5m lifts
- 5x T60 mobile
- 4x T40 mobile
- 2x 30 l/s booster pump
- 2x 30 l/s high-pressure pump
- ATASSplus

[www.pkl.pl](http://www.pkl.pl)

### Mosorny Gron (POL)

The Polish ski resort of Mosorny Gron in Zawoja is a member of the Polskie Koleje Linowe S.A. group of companies (PKL S.A. for short), one of the leading tourism concerns in Poland. “Good slope quality is particularly important to us and it must be consistent throughout the year”, said Mieczysław Saltarski of PKL S.A. “Therefore a snow-making system is fundamental”. When they bought the ski resort of Mosorny Gron, the managers realized that the existing snow-making system was not up to the job and could not meet the high standards demanded. “The facilities were not efficient enough”, added Saltarski, explaining why the system was changed. They decided to take their business to TechnoAlpin East Europe. “It was already late summer by the time we decided to buy the system so we needed to get started with the installation work immediately. TechnoAlpin did a great job. The system was ready in just 2 ½ months thanks to TechnoAlpin’s excellent organization”, said Saltarski. The pumping plants were converted and new pipelines were laid on site. New snow guns were also installed. Today Mosorny Gron has a modern and fully automatic snow-making system which is controlled by the ATASSplus software. This is the guarantee of consistent snow quality. ✈

## Project summary

- 337 pits for T40 mobile
- Feed pump station with 5+1 submersible pumps, each with a throughput of 40 l/s / 27 kW
- Main pump station with 5+1 high-pressure pumps, each with a throughput of 40 l/s / 355 kW
- 2 air compressors, each with an output of 90 kW
- Automatic flushing filter system
- 11 valve pit sections
- 12 kilometers of data cable
- 5 kilometers of fiber optic cables
- New ATASSplus





# 8 automation gaining ground

This spring TechnoAlpin launched the latest version of the ATASSplus control software. Customers in Australia and New Zealand have already had a chance to try out the software's new features. The feedback was extremely positive. The T40 fan gun and the V3 snow lance were also used for the first time in the southern hemisphere.

A decision was made in Ohau (NEZ) to convert the A-series lances to V3 models. In hindsight this proved to be an excellent

move and a real stroke of luck. Winter was somewhat delayed this year in New Zealand. There was hardly any natural snow and temperatures were extremely mild, making life difficult for the ski resorts. "2011 was a really challenging season for us in terms of snow-making", said Craig Ovenden, operations manager in Ohau Snow Fields. "We were really glad we had installed the new V3 lances. We were able to use all the snow guns at the same time because of the reduced air

[www.perisher.com.au](http://www.perisher.com.au)







[www.nzski.com](http://www.nzski.com)

consumption - and with just one compressor. With conditions as they were and little opportunity for snow-making, this was absolutely invaluable. The service provided by TechnoAlpin in New Zealand was also truly outstanding.” For the first time in its history Ohau was only able to open thanks to snow-making technology.

The ski resort of Perisher in the south-east of Australia took a major step towards fully automated snow-making technology in 2011. 16x V3 and 5x T60 were installed in Blue Cow this summer, an area which until then had been primarily reliant on manual snow guns. A T40 with blade heating and turbine pipe heating were taken to Perisher for testing. It is a tour de force in the eyes of snow operations manager John Palmer.



[www.ohau.co.nz](http://www.ohau.co.nz)

“We think the T40 is an outstanding product. It also works brilliantly in borderline temperatures. We were impressed at the quantity of snow and the high quality of the snow it produced. We were also especially taken with the new backlit control panel which makes things much easier in the dark.” The new ATASSplus was also tested.

The New Zealand ski resort of Mt. Hutt had also been primarily reliant on manual methods of snow-making. Only the pumping plant had been automated from the outset. Therefore there was great excitement when the new V3 lances with central air were put into operation. 16 of them were installed in PE pits using the light-weight mode of construction. The new ATASSplus was also tested at the same time. “The test run with ATASSplus was our first experience of an automatic snow-making system. It was really easy for me and my snow operations managers to use and understand the new system. It is much easier to start and stop the pumping plant, and the lance control system was a breeze. The real-time fault messages and alerts and also the logging system provided lots of information and helped us to figure out what was wrong and remedy the faults quickly”, said Blair James, summarizing his positive experience. ✍



## Project *summary*

### Snow guns for Patascoss 2011

- 1x M12 mobile
- 1x M12 tower-mounted
- 2x T40 tower-mounted
- 9x T40 lift-mounted
- 2x T60 lift-mounted
- 1x T60 arm-mounted
- 3x Piano tower-mounted
- 8x V3 central air
- Pumping plant, output of 2x 30 l/s / 2x 90 kW
- Compressor plant, output of 132 kW
- 2x 2 cooling towers
- 6.5 km of pipelines
- ATASSplus
- 5x T40 tower-mounted for Grostè section

Madonna di Campiglio (ITA) has around 1,800 inhabitants and is situated some 30 kilometers from Trento. The ski resort of the same name stretches out above the town, rising from 1,550 m to 2,504 m above sea level. **The Scuderia Ferrari team meets here every year for the Ferrari ski days.** Stars like Michael Schumacher, Kimi Räikkönen and Felipe Massa have shown what they can do here. In future they will be skiing here more often on TechnoAlpin snow. A small section of the ski resort had, until now, been covered in TechnoAlpin snow but from next winter the snow experts will be guaranteeing snow coverage on a much larger number of slopes.

[www.funiviecampiglio.it](http://www.funiviecampiglio.it)

plant was also installed this summer above the slope. The new snow-making system has a central air supply. The low-noise Piano model is the preferred choice in the lower slope sections near the village. Lances and T40 and T60 fan guns will be deployed in the upper section. The system will be controlled using ATASSplus.

# 9 *ferrari drives on ta-snow...*

The "Patascoss" section is the main area to have been upgraded this summer. One of the routes in this section is the "3 Tre" which was the venue for an FIS World Cup slalom every year until 2005. **In a bid to win back a slice of the action and host these prestigious races, the snow-making system on the slope is being brought into line with the latest standards and a new stadium is being built.** A new pumping and compressor

The Madonna di Campiglio and the Pinzolo ski resorts are being linked up from the 2011/2012 winter season onwards in a bid to make the whole area more appealing. The new cable car will join the sections into one interconnected ski area stretching from Pinzolo to Folgarida-Marilleva. The new ski resort will boast a total 150 km of slopes, 59 lift systems and three snowparks. ✈





around TechnoAlpin!

# Did you know,...

**1 that** TechnoAlpin lances have other uses besides just making snow? Occasionally they are used for other purposes like cooling off on hot days. The latest example was installed at Nassfeld in Carinthia (AUT). The lance is switched on by a pushbutton at ground level and generates a refreshing mist for a few minutes. A cool idea for hot days!

**2 that** the first T40 in Australia went on an epic voyage before it arrived at its final destination? It was taken by truck from the TechnoAlpin headquarters in Bolzano (ITA) to the port of Genoa. Then it went by ship to the other side of the world. When it arrived there it was taken along the Great Alpine Road by the local TechnoAlpin team to the ski resort of Mount Hotham. They had to travel 450 kilometers, 250 of them on winding mountain roads. Then at long last the snow came.

**3 that** Azerbaijan is the 42nd country to use Techno-Alpin snow guns? In past years TechnoAlpin has also built snow-making systems in Mongolia, Iran, Turkey and Kyrgyzstan.

**4 that** the pro air solutions arm of TechnoAlpin has been a company in its own right since this summer? The enterprise had been doing business under the name of EMI Controls since August. The fields in which it works have not changed. The company is still making dust-laying sprayers and machines to combat pollution which resemble snow guns in many respects.

**5 that** the wet bulb calculator is now available as an app? Simply search for the “wet bulb” app, download it and off you go. To calculate the wet bulb temperature, rotate the temperature display dial to the current temperature. This, in conjunction with the current humidity level, then gives the wet bulb temperature. Naturally the calculator is free of charge.

**6 that** Inauen-Schätti AG in Switzerland has relocated to new headquarters? The company of Arno Inauen makes cable cars and is a partner of Doppelmayr in the business. Inauen-Schätti AG also develops inclined lifts, avalanche warning systems and other custom solutions. The new building in Schanden was inaugurated this summer.





