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SNOW SPECIALISTS

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SNOW WORLD

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INDEX

EDITORIAL	03
RESOURCE EFFICIENCY	04
VENTUS 4.0 BLIZZARD – E-TOWER – C150 PREMIUM	08
EOS 4.0	10
EVO 3.0 ATC / ATCK	12
SNOWMAKING ABOVE FREEZING POINT	13
PROJECTS 2021: AUSTRIA / ITALY	16
PROJECTS 2021: FRANCE / SWITZERLAND	18
PROJECTS 2021: JAPAN / CENTRAL AND EASTERN EUROPE	19
PROJECTS 2021: NORTH AMERICA	20
COLLABORATIONS	22
DIVERSIFICATION	23
OPEN DAY	24
DEMACLENKO DAYS	26





Andreas Lambacher (CEO)

EDITORIAL

Things are looking up again. The pandemic was still making things difficult economically in 2021, but **optimism** eventually began to spread again in our industry, especially at the beginning of the winter season. Ski resorts were allowed to open again in every country, albeit with some restrictions, and operations were not interrupted by lockdowns. Most operators considered the season a success, which is why confidence has been growing.

A lot has been happening at DEMACLENKO as well. By introducing new products and technologies, we have succeeded in consolidating our position as the **technology leader in the snowmaking sector**. Our main focus is on **using resources efficiently**. This is one of the things that has been driving research and development for as long as our company has been around, and recently it has been becoming even more central: partly because snowmaking is often viewed critically, partly because energy costs and the associated use of resources have been rising steeply. As manufacturers, we know we bear a heavy responsibility and we want to play our part in making snowmaking as efficient as possible going forward.

Using resources efficiently at DEMACLENKO is based on the following three pillars:

1. The **energy efficiency** of our products
2. Data-based **resource management**
3. Efficient **maintenance and handling** of machines

Continuously developing and improving our snow guns has allowed us to improve their efficiency so that they currently use up to **20% less energy** than comparable rival models. These figures have been confirmed by independent tests. There has been a remarkable increase in efficiency viewed over the years. Our latest fan guns – the Titan 4.0 and Ventus 4.0 Blizzard – are up to **100% more efficient** than models from 15 years ago or more. This means today's models produce twice as much snow using the same amount of energy – or, looked at another way, they make the same amount of snow using half the energy. And when it comes to the lances (EOS 4.0), efficiency has **increased by as much as 200%**. One simple way of reducing the cost of energy involved in making snow is therefore to replace older snow guns that consume relatively high amounts of energy with newer, more efficient models.

There's also **plenty of other news** to report. We've completed our range of products for snowmaking above freezing point, implemented numerous projects around the world, and launched international alliances. Our diversification strategy has also borne fruit, having begun successfully with the integration of WLP Systems. But don't just take our word for it. See for yourself by reading further into this new edition of Snow World.

We hope you enjoy it and we wish you every success for the coming season.

Andreas Lambacher – CEO DEMACLENKO

THE MOST RESOURCE-EFFICIENT SNOWMAKING SYSTEM ON THE MARKET

At DEMACLENKO, improving resource efficiency in technical snowmaking has been the main driver between research and development for many years. As the industry's innovation leader, we have regularly succeeded in winning over customers all over the world with our pioneering style and unique technologies. And when we talk about resource efficiency, we're not just talking theoretically. We mean daily commitment focussing on three pillars.

THE 3 PILLARS OF RE- SOURCE EFFICIENCY



1. ENERGY EFFICIENCY

The best possible relationship between power consumption and snow production (kWh/m³)

2. RESOURCE MANAGEMENT

The best possible utilization of resources through automated, data-controlled snowmaking

3. USER-FRIENDLY

Simplified maintenance and handling that saves time and money

1. ENERGY EFFICIENCY

MAXIMUM PERFORMANCE MEETS MINIMUM CONSUMPTION

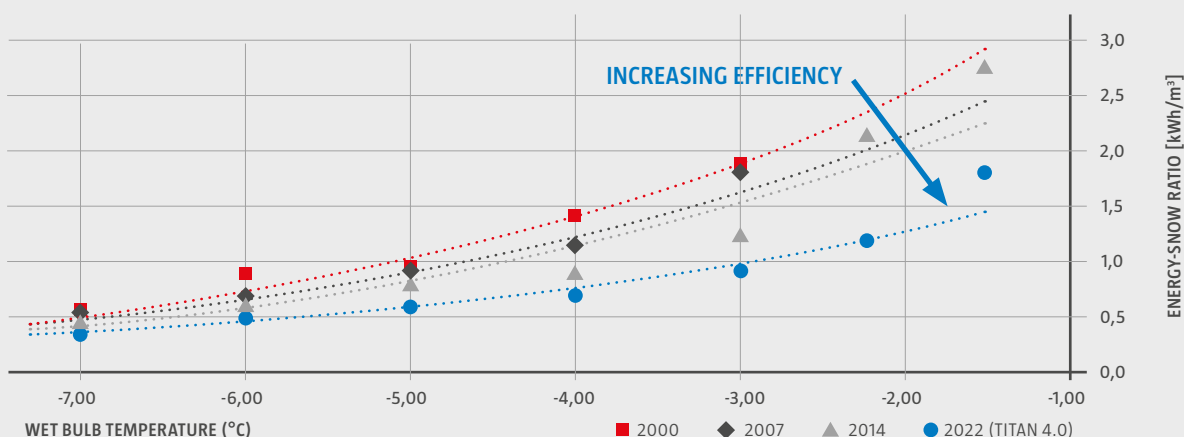
20% LESS POWER CONSUMPTION THAN RIVAL SYSTEMS

An independent study has shown that compared with similar models made by our rivals, the latest DEMACLENKO 4.0 Series models perform outstandingly by using as much as 20% less energy while delivering the same performance and throughput. It's the result of technology that has been improved and perfected over the years.

DOUBLING AND TRIPLING SNOW OUTPUT

DEMACLENKO has succeeded in raising the efficiency bar significantly through numerous technical innovations over the past 20 years of research and development. This is illustrated by the ESR, which stands for energy-snow ratio. It's measured in kWh/m³ and describes how much energy is used to produce one cubic metre of snow. The lower the figure, the better the efficiency.

COMPARATIVE STUDY: ENERGY EFFICIENCY OF FAN GUNS OVER A PERIOD OF 20 YEARS



MEASURABLE INCREASES

For example, a fan gun in the year 2000 achieved an ESR of 1.45 kWh/m³ at a wet bulb temperature of -4°C, whereas the Titan 4.0 operates at 0.7 kWh/m³. This means that nowadays you can produce twice as much snow with the same energy input. Energy efficiency has therefore increased by 100%. Improvements in our lances have been even more impressive: the EOS 4.0 produces three times more snow than older models from 15 years ago, which means an efficiency increase of 200%.

REDUCE AND MAKE THE MOST OF ENERGY CONSUMPTION

Here's an actual example of how DEMACLENKO's latest snow guns utilize energy innovatively and efficiently: the new Ventus 4.0 Blizzard fan gun has an integrated heat exchanger in its nozzle ring that heats the ring and cools the compressed air at the same time. And another example, this time relating to lances: most lances require a 4 kW air compressor, whereas DEMACLENKO's lances get by with a 1.5 kW one.

TOP PERFORMANCE EVEN AT MARGINAL TEMPERATURES AND LOW PRESSURE

Performance at marginal temperatures also shows clearly that DEMACLENKO snow guns always get the best out of any climatic conditions, and not only when the temperature is cold. They also achieve excellent results when water pressure is low, which saves a lot of energy at the pump station.

EFFICIENT SNOW SPREADING

The way the machines spread snow has been designed not only for long range but also so that it's spread evenly over the entire range. Combined with pivot mode, this guarantees perfect snow distribution, which makes grooming easier and reduces the amount of energy that snow groomers use.



2. RESOURCE MANAGEMENT

DIGITALIZATION FOR MORE SUSTAINABILITY

FULL AUTOMATION SAVES EVEN MORE

Although studies show that fully automated snowmaking systems consume up to 30% less energy, there are still a lot of ski resorts that produce their snow semi-automatically, manually, or using outdated technologies. DEMACLENKO develops the most innovative snow guns and system components (= the snowmaking hardware), but it also provides digital solutions that are carefully tailored right down to the details (= the snowmaking software).

DEMACLENKO'S ANSWER: SNOWVISUAL 4.0

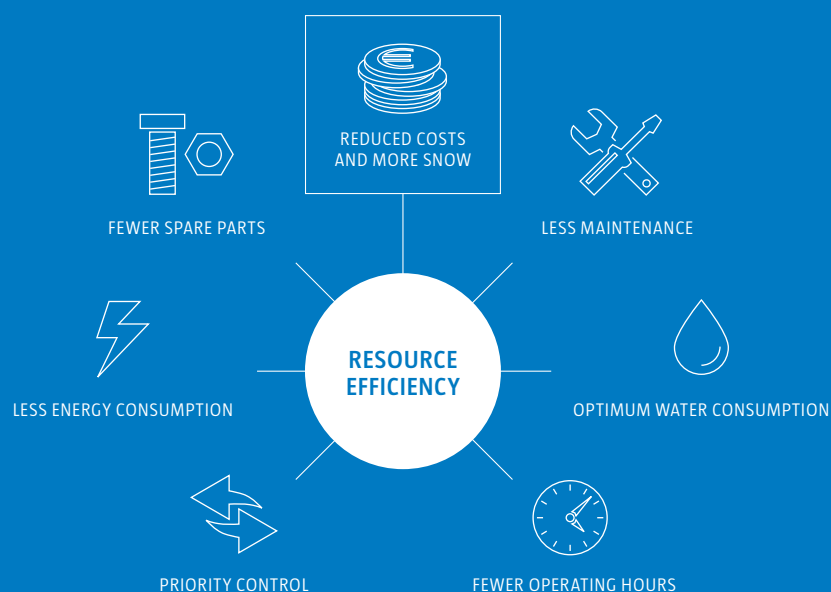
The DEMACLENKO Snowvisual 4.0 control system guarantees minimum resource consumption combined with maximum performance, without compromising on the quality or quantity of technical snow. It's the interface between man and machine and its numerous features make systems efficient to operate and monitor.

INTELLIGENT USE OF RESOURCES

Snowvisual 4.0 ensures that resources are used cost-effectively through a range of intelligent features that allow all of the components to work perfectly together. Real-time tracking and reporting of water and energy consumption allow you to regulate and monitor operation precisely, while controlling priorities, evening out power consumption, avoiding unwanted power spikes and so on.

PRODUCING SNOW ONLY AS NEEDED AND AT THE MOST CONVENIENT TIME

Because the height of the snow can be measured, it's also easy to identify parts of the piste where the snow cover is not thick enough. This means you only have to produce as much extra snow as you actually need. Weather stations on the snow guns also provide precise forecasts, allowing you to derive and plan the best snowmaking windows and make operation as efficiently as possible.





Easy transport thanks to docking devices for snow groomers

3. USER-FRIENDLINESS

EFFICIENCY THROUGH EASY MAINTENANCE AND OPERATION

SIMPLER PROCESSES

DEMACLENKO's focus is also on making the work processes around its machines and system components as efficient and time-saving as possible. This means simple operation, easy maintenance and machines whose design has been carefully considered.

EASY MAINTENANCE

DEMACLENKO's focus is also on making the work processes around its machines and system components as efficient and time-saving as possible. This means simple operation, easy maintenance and machines whose design has been carefully considered.

REMOTE DIAGNOSIS AND TROUBLESHOOTING

Remote diagnosis and troubleshooting are also made easy by a SIM card connection. Because you can connect remotely with any snow gun, problems can be solved quickly and easily and software updates can be downloaded without a technician needing to visit in person.

INTELLIGENT MACHINE DESIGN

Efficiency also means an optimized snow gun design and parts that are positioned intelligently and some of which can even be swapped between different models, thanks to DEMACLENKO's platform concept. Compact pre-assembled modules, quick couplings, mounting bolts and so on make for quick installation and easy operation.

LOW WEIGHT IS THE KEY

The focus is also on a streamlined product design to keep weight as low as possible. A prime example of efficient design is the new EOS 4.0 lance. It's built in such a way that it can be put together and taken apart using nothing more than a wrench. The main components are relatively light (maximum 60 kg per assembly) which makes assembly and disassembly, as well as transport, much easier.

EASY TO TRANSPORT

DEMACLENKO's fan guns are also easy to operate and are relatively light. DEMACLENKO was the first supplier to permanently equip its guns with intelligent docking devices for snow groomers, helicopters, etc. This makes transporting the machines safer, even on very steep terrain.

INNOVATION

Innovation isn't just something we talk about. Looking for and finding ever more efficient, user-friendly and ground-breaking solutions for technical snowmaking has always been a golden thread running through DEMACLENKO's research and development work. We dare to make real progress, which means we can offer our customers benefits that are verifiable and tangible. That's why we're proud to present our latest product highlights:

WATCH
THE VIDEO



VENTUS_{4.0} BLIZZARD

- > An unbeatable relationship between performance and consumption: 90 m³/h at less than 20 kW
- > Optimized snow output thanks to a newly developed water module
- > Fifteen switching steps for maximum energy efficiency, especially at marginal temperatures
- > Innovative nozzle ring made of cast aluminium with integrated heat exchanger that heats the ring and cools the compressed air at the same time
- > Simple maintenance, user-friendly operation
- > Completely new control unit, highly efficient cabling
- > Improved fan shape that spreads snow further and improves snow distribution across the piste

E-TOWER

- > Solves the problem of machines fixed to towers being hard to access, because the tower can be lowered easily
- > Maintenance is safe and easy, because the machine is accessible from all sides and remains 100% functional even when retracted
- > Very easy operation: start mechanism using a cable drill or cordless screwdriver
- > Enables snow gun to be removed quickly and easily using a snow groomer or similar
- > Easy assembly/disassembly thanks to quick coupling system
- > Very compact when retracted; hardly visible on the surface

C150 PREMIUM

- > DEMACLENKO's tried and tested concrete pit with extra-large access hatch (80x80 cm) makes work safer
- > Pre-positioned modules, installation openings and connections make installation quick and easy
- > Optimum shape with more spacious interior makes the pit comfortable to work in
- > Reinforcement comes as standard, making it very rugged and durable, despite being relatively light
- > Suitable for all types of fan guns as well as towers and inclined lifts that are up to 6 m high
- > Pit can be equipped flexibly according to requirements

STARTS HERE



YANNICK MINNIG

BETTMERALP / ALETSCHE ARENA (CH)

"We tested DEMACLENKO'S new Ventus 4.0 Blizzard at our ski resort last season. Conditions were not always ideal and we tested the snow gun in the most adverse weather, but it ran extremely reliably and to our complete satisfaction. It operated for over 300 hours without any issues whatsoever. We were especially impressed by how easy it was to service, with all of the important components very easily accessible. The Ventus 4.0 Blizzard combines new features with the familiar technologies of the Ventus 4.0 and the high-performance Titan 4.0."



EOS_{4.0}

LANCE TECHNOLOGY REDEFINED

When we revised the DEMACLENKO EOS lance, which has seen many years of reliable service, we merged its tried-and-tested technology with a whole series of new developments. Unbeatable energy efficiency and resource-saving snow production make it essential to sustainable snowmaking.

LOW WEIGHT

The EOS 4.0 is remarkably easy to assemble and disassemble and it's remarkably light. Because it consists of compact, preassembled modules, the lance can be set up and taken down quickly and easily by two people. And because the mounting elements such as bolts and quick-closures are well thought out, only a wrench is needed – no special tools. The lance's highly functional modules have been pared down to the essentials and require very little maintenance, which saves money.

NEWLY DESIGNED LANCE HEAD

The EOS 4.0's lance head has been completely redesigned and comprehensively improved. Intensive testing with different numbers of nucleators and water nozzles revealed an arrangement in three vertical rows (previously four) to be the ideal solution. This has produced a significant improvement in performance in the marginal temperature range and in the quality of the snow produced.

ENERGY-EFFICIENT, FLEXIBLE TO CONFIGURE

Numerous configuration options can be adapted to meet specific requirements and customer needs, guaranteeing the greatest possible flexibility. For example, you can choose between manual and automatic operation, one- to eight-stage control, and the type of compressed air supply. The product can also be equipped with additional components such as lifting cylinders, a touch display and LED floodlights.

UNBEATABLY EFFICIENT

But all of the models have one thing in common: they promise an unbeatable relationship between power consumption and production volume, because with a water flow rate of up to 7 l/s and an output of 70 m³/h, the EOS is one of the market's top players. At the same time, power consumption is only 0 to 2 kW, depending on the model. The optional compressor operates oil-free and, at just 1.5 kW, is one of the most efficient and highest-quality solutions on the market. The EOS 4.0 double head lance even achieves a water flow rate of 8 l/s, producing an unbeatable 80 m³/h of snow.



WALTER VIEHHAUSER

HEAD OF PISTE & SNOWMAKING DEPARTMENT
SHUTTLEBERG FLACHAUWINKL - KLEINARL

"We had an older DEMACLENKO lance model several years ago and it's amazing how much progress there has been since then. We were very pleasantly surprised by a whole series of advantages in DEMACLENKO's new EOS 4.0. As well as the high quality of the snow it makes and the way it performs at marginal temperatures, we were particularly impressed by its range. At our ski resort, we use lances on the narrower ski trails, which is where precision snowmaking is needed at particular points. The EOS 4.0 can do that even in adverse wind conditions, thanks to its optimized spread pattern and stable jet. The mound of snow it creates can then be moved very easily with the snow groomer, which makes our work much simpler."



ULTIMATE TECHNOLOGY STANDARDS

DEMACLENKO's EOS 4.0 sets new standards for snow lances and features advanced nozzle technology and an innovative nozzle head design. Its predecessor has been thoroughly revised and its vertical nozzle rows have been upgraded and reduced from four to three. This has numerous advantages:

- + Even better snow quality thanks to improved nozzles and nucleators, especially at marginal temperatures
- + A new discharge angle makes for a longer droplet fall time, which also has a positive impact on snow quality
- + Increased flow
- + Less susceptibility to dirt
- + Minimal susceptibility to wind





EVO^{3.0}
ATC/ATCK

THE **PERFORMANCE** OF A FAN GUN COMBINED WITH THE **SIMPLICITY** OF A LANCE

The EVO 3.0 ATC/ATCK can easily be integrated into lance-only systems if the advantages of fan gun technology outweigh the drawbacks at certain key points, allowing the system to be used more efficiently – such as on wind-prone or wider sections of slope. The snow gun is available with or without a compressor. ***Our customers are convinced:***



Luz Ardiden (FR):

"The Evo 3.0 ATC/ATCK is also suitable for narrower slopes, where its long range and narrow jet are a major advantage. When we installed it, we were very surprised by how easy it was to handle and integrate into our existing system. This snow gun combines the simplicity of a lance with a fan gun's perfect snow distribution, and I think that makes it unique."



Piau Engaly (FR):

"Simplicity, adaptability, power – those are the things that stood out for us. One of the great strengths of this machine, and DEMACLENKO's product range in general, is the amount of snow it can produce. It allows you to use fan technology on narrower slopes and get the best out of it. That in turn improves and speeds up the snowmaking process and means fewer losses. We're delighted to have this snow gun to strengthen our snowmaking network."



SNOW4EVER



SNOWPRO

MAKING SNOW ABOVE FREEZING POINT: THE MOST PROFESSIONAL COMPLETE RANGE

DEMACLENKO offers the widest range of powerful, energy-efficient snow guns for conventional snowmaking, and the same also applies to snowmaking above freezing point. Our product range includes a wide variety of technologies, so we can always find the right solution for each customer's needs and wishes.

SNOW4EVER

In 2021, DEMACLENKO, in collaboration with 3CON, presented an innovative solution for making large amounts of real snow efficiently above freezing point: the Snow4Ever 200. With a daily output of 200 m³, the Snow4Ever 200 is the most powerful temperature-independent snow gun on the market, whose snow doesn't differ in quality and texture from snow made by conventional snowmaking systems. On top of that, you can instruct the system to produce different snow qualities.

SNOWPRO

DEMACLENKO has also been an official sales partner of KTI Plersch Kältetechnik GmbH since 2022. This gives DEMACLENKO international distribution rights to the long-established SNOWPRO system, which can be used to make snow all year round regardless of

temperature and weather, and which was previously marketed by a competitor under the name SnowFactory. KTI invented the first containerized, turnkey refrigeration systems that employ flake ice technology. This technology has also been used to produce snow above freezing point since 2013. Over the years, continuous development and optimization have given KTI extensive expertise that has made them the sector's global market leader. This has enabled them to adapt the even more efficient plate ice technology to snowmaking, alongside flake ice technology.

TURNKEY SOLUTIONS

The systems are permanently installed in containers and are available in various sizes and different maximum daily outputs ranging from 70 m³ to 100, 200, 210, 260 and 360k m³. They can be run using different refrigerants and are delivered ready to use, which makes them easy to set up and quick to commission – true plug & play systems. The products also fulfil all the highest quality standards and are the only products of their kind that are manufactured entirely in Europe. Comprehensive customer service and fast spare part delivery complete the package.



WE GOT IT ALL!

REAL SNOW - FLAKE ICE - PLATE ICE

> SNOW ALL YEAR ROUND

Regardless of climatic conditions

> NUMEROUS AREAS OF USE

Ski resorts, winter sports centres, events, indoor venues and much more

> DIFFERENT TYPES OF SNOW

From dry powder snow, to wet spring snow, to plate and flake ice

> NO ADDITIVES NEEDED

Only water, air and energy are required

> USER-FRIENDLY

Simple operation

> MADE IN EUROPE

Highest quality standards, reliable service



KTI. Das Original

PLATE ICE

Refrigerant R717, 2 x 40'-container + cond.

360 m³/d

16 kWh/m³

A

A

B

C

D

E

F

G



BCON
TECHNOLOGIES

REAL SNOW

Refrigerant R717 or R449A, 2 x 40'-container + cond. + separate refrigeration module

200 m³/d

24 kWh/m³

B

A

B

C

D

E

F

G



KTI. Das Original

FLAKE ICE

Refrigerant R717, 1 x 40'-container

100 m³/d

21 kWh/m³

B

A

B

C

D

E

F

G



KTI. Das Original

PLATE ICE

Refrigerant R717, 2 x 40'-container + cond.

260 m³/d

17 kWh/m³

A

A

B

C

D

E

F

G



KTI. Das Original

FLAKE ICE

Refrigerant R717, 2 x 40'-container + cond.

210 m³/d

21 kWh/m³

B

A

B

C

D

E

F

G



KTI. Das Original

FLAKE ICE

Refrigerant R449A, 1 x 40'-container

100 m³/d

33 kWh/m³

C

A

B

C

D

E

F

G



KTI. Das Original

FLAKE ICE

Refrigerant R449A, 1 x 20'-container

70 m³/d

30 kWh/m³

C

A

B

C

D

E

F

G

AUSTRIA

MILESTONE PROJECT IN DACHSTEIN WEST

DEMACLENKO completed one of its largest projects in the Dachstein West ski area in 2021. Dachstein West lies between the Austrian provinces of Salzburg and Upper Austria and connects the three holiday destinations of Gosau, Rußbach and Annaberg. Thanks to this network, the ski area can offer its visitors perfectly groomed pistes featuring every level of difficulty – and the new snowmaking system means they're sure to be covered in snow.

Dachstein West has invested extensively in upgrading its snowmaking setup, enabling it to compensate for any lack of natural snowfall and guarantee snow cover, especially at the beginning of winter. At the heart of the project was a new reservoir and a new pump station, including a water cooling system. The new station is situated 50 metres below the lake and can be equipped with six main pumps (4 x 630 kW, 2 x 200 kW) and four 132 kW booster pumps, which will pump water at a rate of 330 litres per second. DEMACLENKO was responsible for the hydraulics and electrical engineering and also supplied 43 new snow guns (Ventus 4.0, Evo 3.0, EOS) to reinforce the piste network. This has greatly

increased the system's power, which reduces the time needed for basic snowmaking and enables the continuous production of snow from Rußbach to Annaberg.

The project was also very much about sustainability and energy efficiency. The new reservoir, for example, has replaced the old "Horn" storage facility, which is now being dismantled and converted into an amphibian biotope. An additional zone is also being set aside as a biotope at the new reservoir. Furthermore, a cooling system was installed in addition to the pump station, making snowmaking even more efficient. It means that the water can be cooled down as much as possible before being sent to the snow guns via the pump station. Integrating the system into DEMACLENKO's Snowvisual 4.0 software also enables it to be run fully automatically. This ensures that resources are allocated intelligently and used as efficiently as possible.

The new pump station and cooling tower system from the inside and outside





RUPERT SCHIEFER
DACHSTEIN WEST EXECUTIVE BOARD

How would you sum up last season?

"We were able to start running our new system right in time for the start of the season, which meant we could offer excellent snow cover even in the pre-season period. And, going forward, the system will allow us to state more reliably when the season will begin and to hold to our opening times. Because it now takes so much less time for us to produce snow, we will be able to utilize all of our pistes fully during peak season."

How would you rate the quality and performance of DEMACLENKO products – especially their snow guns?

"The new snow guns now allow us to cover our network of slopes in snow really quickly and open it to visitors. This was not always possible in the past, because we needed large amounts of natural snow to establish the connection. DEMACLENKO's

new technologies allow us to make snow efficiently, especially at marginal temperatures. The new snowmaking system makes everything work so well, because its components are perfectly tailored to each other."

What did your snow team say about the new pump station and snow guns?

"All in all, it's an amazing system. The snow guns are easy to operate, they produce a lot of snow and their availability levels are great. DEMACLENKO's Snowvisual 4.0 software has a clear interface and it's very user-friendly. Another good thing is how easy it makes it to select the system's various components."

What struck you most about working with DEMACLENKO?

"Despite the global raw materials market being so difficult, their flexible approach to the work meant it all got finished on time. Regular coordination meetings helped that to happen, and we also really appreciated the personal presence of DEMACLENKO project staff. Coordination with the other teams involved worked very well too."

ITALY

SCIOVIE ORTISEI: PISTE REACTIVATED

The Pilat ski slope in Val Gardena's Sciovie Ortisei resort was reactivated for the 2021/22 season after 25 years of disuse. It was equipped with a new snowmaking system to guarantee snow covering. The system was tailor-made and built from scratch by DEMACLENKO. A pump station was built near the cable car's bottom station; it can pump 30 litres of water per second into an underground reservoir 740 metres higher up the mountain. But the pump station isn't just used to fill the reservoir. It also directly supplies snowmaking equipment in the lower reaches of the ski area. Another pump station and a cooling tower were built near the reservoir on the mountain. A total of 56 pits and 49 EOS lances were delivered and installed along the route. The Titan 4.0 Silent was chosen for the lower-lying sections of the piste in the valley. This model produces very little noise and is therefore ideal for use near inhabited areas. The entire snowmaking system is controlled using DEMACLENKO's Snowvisual 4.0 software.



The entire reactivated Pilat slope was fitted out with lances

FRANCE

PROJECT COMPLETED IN VALMOREL

One of the biggest French projects of the last two years was in Valmorel. This ski area enjoys very reliable snow-fall, but it still depends on technical snowmaking to offer guests the best possible conditions, especially at the start of the season. In 2020, its operators decided to make new investments, primarily to guarantee snow on the routes connecting Valmorel to Doucy. The project was scheduled over two years and DEMACLENKO was chosen to equip a total of three kilometres of pistes on the Tête Montolivet and Chantemerle runs with high-performance snowmaking technology. The job was successfully completed in 2021. A total of 29 fan guns (Evo 3.0 and Titan X 3.0) were delivered and installed on four-metre-high inclined lifts in 29 concrete pits. The system is operated smoothly using Snowvisual 4.0, DEMACLENKO's visualization software. The new system was officially inaugurated in April 2022.



Official inauguration in Valmorel

Titan 4.0 on a swivel arm at the Flumserberg ski resort



SWITZERLAND

STRONG, LONGSTANDING PARTNERSHIPS

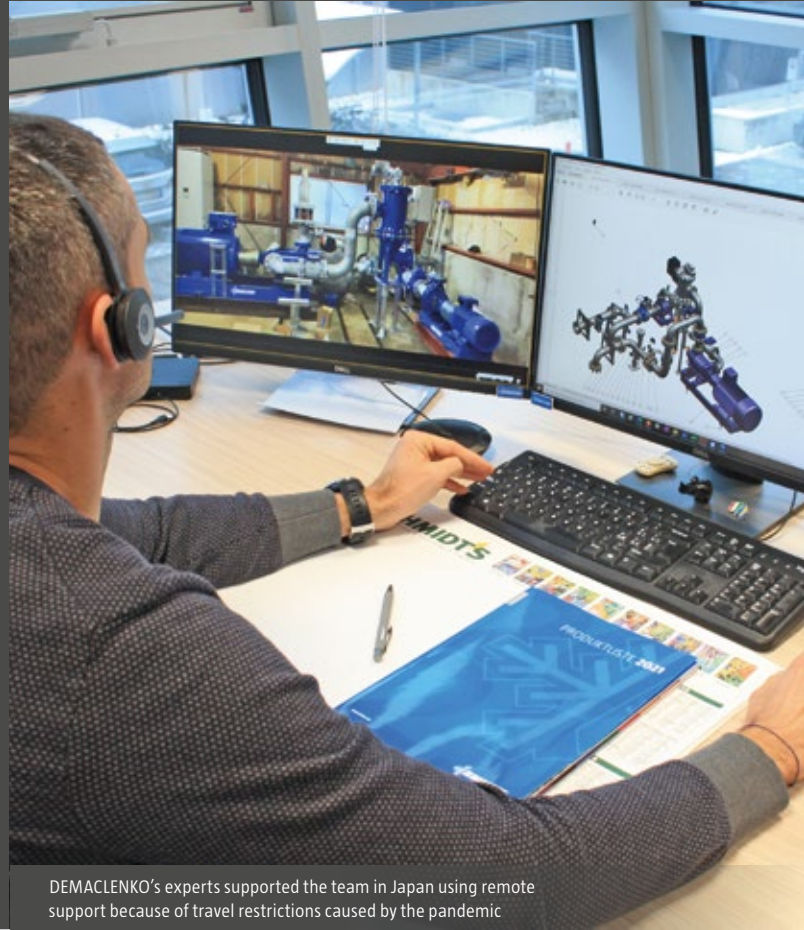
The DEMACLENKO Switzerland team achieved important successes in 2021, despite the crisis. Two of its biggest projects were completed at the Flumserberg ski area and the Aletsch Arena, both of which have been working with DEMACLENKO for a long time and expanding their snowmaking systems every year. Flumserberg's piste network was expanded with one Titan 4.0 on a swivel arm and several Ventus 4.0s. The acquisition of four more new fan guns has already been confirmed for 2022. The system is visualized using Snowvisual 4.0, which is also integrated into the Skadii resort management platform via a cloud application. The Aletsch Arena's ski areas also invested in new machines in 2021. A total of 20 new snow guns were purchased for Bettmeralp, Riederalp and Fiescheralp, including 14 fan guns and six lances. Bettmeralp hosted the Swiss Ski Instructors Championships – also known as the Swiss Snow Happening – for which DEMACLENKO was the main sponsor.

JAPAN

MAJOR PROJECT IN JIGATAKE

Despite all the complications caused by the global pandemic, DEMACLENKO succeeded in setting up a new snowmaking system in the Jigatake ski resort in Japan's Nagano Prefecture last year. The pump station was fully modernized and equipped with the latest snowmaking technology. Thirty above-ground hydrants including lines were also delivered and installed to supply 13 new Titan 4.0 fan guns. The entire snowmaking system was integrated into DEMACLENKO's Snowvisual 4.0 control software.

One notable challenge was that the rigorous travel restrictions meant installing parts of the power station via remote support. The time difference presented an added difficulty, and DEMACLENKO's experts took turns working night shifts to explain the working steps to the team in Japan. The installation process was easy to follow using helmet cameras, allowing support to be given and the new system to be put in operation punctually, so that Jigatake's slopes could be white in time for the first skiers.



DEMACLENKO's experts supported the team in Japan using remote support because of travel restrictions caused by the pandemic

The Skalite ski jump at Szczyrk was fitted with DEMACLENKO lances



CENTRAL AND EASTERN EUROPE

MARKET CONSOLIDATED FURTHER

DEMACLENKO has been making major inroads into Central and Eastern Europe since 2018. Its experienced, well-rehearsed team has been able to assert itself rapidly on the market and has already completed numerous projects. The company's site in Bielsko Biala, Poland, was chosen strategically: conveniently located near the Czech and Slovak borders, it's the ideal starting point for expansion throughout the whole of Eastern Europe. Its two largest orders in 2021 were in Poland. Lances and fan guns for making snow on the Skalite ski jump were delivered to Szczyrk sports center, one of whose functions is for athletes to prepare for international competitions. The operators are delighted by the efficiency and quality of the products and the snow they produce. The Laworta ski area also invested in expanding its snowmaking in 2021 and purchased four new Titan 4.0s. Its existing pump station was upgraded too.



NORTH AMERICA, HERE WE COME!

DEMACLENKO also managed to consolidate its activities on the North American market in 2021 and complete some important projects across the continent. A number of projects were completed in the USA in particular, which led to a crop of new, satisfied customers and partnerships. People especially appreciated the performance, quality and user-friendly nature of DEMACLENKO's fan guns.



Some of the projects completed in 2021:



1 SNOWSHOE MOUNTAIN WEST VIRGINIA (USA)

- > INTEGRATING AN EXISTING SYSTEM INTO SNOWVISUAL 4.0, INCLUDING A PUMP STATION AND AROUND 900 PITS
- > 78 X TITAN 2.0 ON TOWERS

The foundation of a promising alliance in the USA was laid back in 2018. The management of Snowshoe Mountain Resort, a member of the Alterra Mountain Company, bolstered its snowmaking network with 78 DEMACLENKO fan guns, and also automated its pump station.

The work went so well that the next order was soon placed, in 2019: around 900 pits and another pump station and a compressor station were integrated into the Snowvisual software to guarantee even more efficient snowmaking. This also meant the start of verifiable water management, because water consumption at each tap is now precisely recorded and calculated as part of total consumption. The next batch will follow in 2022: the acquisition of 18 new Titan 4.0 fan guns has already been confirmed for the new season. Thus begins a new chapter in this successful alliance.

2 MOUNT SOUTHTON CONNECTICUT (USA)

- > 2 X TITAN 4.0 ON INCLINED LIFTS
- > 1 X MOBILE TITAN 3.0
- > 1 X MOBILE VENTUS 4.0
- > 2 X MOBILE EVO 3.0



Three questions for Jay Dougherty, Managing Director at Mount Southington:

Are you happy with the way the new DEMACLENKO snow guns performed last season?

"We recently purchased the Titan 4.0 on towers and the mobile Evo 3.0, and the way they performed last season was way beyond what we expected. The efficiency and reliability of these machines enabled us to open our ski resort despite December being warmer than average, and we covered it with high-quality snow quickly and evenly."

What was the feedback from your snow team?

"Our team was amazed at how easy the DEMACLENKO machines are to operate. The way the Titan 4.0 goes up and down the inclined lift, the way you can change the quality of the snow and other operating parameters – how these snow guns work and how they're built put them right at the forefront of the market."

What do you like most about working with DEMACLENKO?

"The DEMACLENKO team was always bent on finding the best solution for us. They worked not only with us, but also with our existing snowmaking partners, so that we could integrate all of the components into our existing software without any hitches. From management, to sales, to service, DEMACLENKO listens to its customers, responds to what they want and offers real solutions, regardless of how big or small a project is."

3 ALTA SKI AREA UTAH (USA)

- > 4 X TITAN 4.0 ON INCLINED LIFT + 1 X MOBILE TITAN 4.0



4 SKI SANTA FE NEW MEXICO (USA)

- > 4 X MOBILE VENTUS 4.0



5 WOLF CREEK COLORADO (USA)

- > 2 X VENTUS 4.0 INCL. PUMP + 1 X EVO 3.0
- NEW ORDER FOR FURTHER EXPANSION ALREADY CONFIRMED FOR 2022



6 SKI CAPE SMOKEY NOVA SCOTIA (CA)

- > 4 X MOBILE TITAN 4.0
- MAJOR PROJECT ALREADY CONFIRMED FOR 2022





The team of Reiteralm with the new Titan 4.0



Contract signing in Innsbruck (AT)

DEMACLENKO IS AN OFFICIAL PARTNER OF THE ÖSV

The foundation of a very promising alliance was laid in Innsbruck to kick off the year: DEMACLENKO will now be supporting the Austrian Ski Association (ÖSV) as a snowmaking partner.

As part of this collaboration, DEMACLENKO will provide its powerful snow guns, so as to guarantee optimum snow conditions at selected World Cup events. In the 2021/22 season, for example, machines were in use on the Bergisel ski jump in Innsbruck and on Reiteralm in Schladming.

The Austrian Ski Association (ÖSV) is pleased about the collaboration: "We always aim to work with top-level partners in every area. Technical snowmaking is a major part of providing athletes with perfect conditions at our events," says ÖSV President Roswitha Stadlober.

STRONG PRESENCE IN KITZBÜHEL

Bergbahn AG Kitzbühel has been relying on DEMACLENKO's quality and expertise since the snowmaking specialist was founded in 2011. Custom solutions have been developed and there has been continuous investments in upgrading systems over the years. As a result, DEMACLENKO has supplied well over 300 snow guns and was closely involved in building three pumping stations. DEMACLENKO has also been an official supplier to the Hahnenkamm Races, probably the world's most famous ski event, since 2021. The company's close ties with Kitzbühel were crowned when a snow gun carrying the KitzSki branding was handed over; it now stands proudly on the finishing slope of the Streif. It is a Titan 4.0 fan gun, the most powerful snow gun on the market. A major new order has already been confirmed for 2022, signalling the start of the next chapter in this successful partnership. This will bring the number of DEMACLENKO snow guns in use at KitzSki towards the 400 mark.



Anton Bodner and Christian Wörister, KitzSki Executive Team:
"DEMACLENKO's Titan 4.0 snow gun is ideal for the sustainable management of our multiple award-winning slopes. This development in the field of technical snowmaking offers outstanding energy efficiency, reliability and functionality."



SIGHTS SET FIRMLY ON NEW MARKETS WITH WLP SYSTEMS

DEMACLENKO launched a new diversification strategy in 2020 by taking over WLP Systems. Strong products and a professional distribution network have helped us expand market shares and open up new sectors.

For many years now, WLP Systems has been an international benchmark brand for dust suppression systems that guarantee a significant improvement in air quality in unusual working environments such as building sites, mines, tunnels, coal yards and landfills. The company has been part of DEMACLENKO since 2020 and has expanded the HTI Group's range to include new, innovative products which, like

snow guns, are based on water atomization expertise. The extended product range also includes disinfection and firefighting solutions. The firefighting industry looks like an especially promising market for the company. A new generator, aptly named Poseidon, was quickly developed on the basis of the HTI Group's own technology; it uses water spray to combat fire and for cooling. It has already attracted a lot of interest on the market due to its unique features and simple, user-friendly operation. With a spraying distance of up to 70 m and a range of spray settings, this all-in-one system can be used in many areas such as general industry, waste processing and the storage of materials such as oil, gas and wood products.



DEMACLENKO INVITES VISITORS TO ITS **OPEN DAY**

WATCH
THE VIDEO



On September 17, 2021, DEMACLENKO invited visitors to an Open Day at its new headquarters in Sterzing. There were exciting insights into everyday operations and the world of technical snowmaking, and a very special surprise awaited visitors: snow in September.

DEMACLENKO moved its headquarters from Klausen to Sterzing in September 2019. Since then, snowmaking systems have been in production right next to HTI co-members LEITNER (ropeways) and PRINOTH (snow groomers), at one joint location. "This has allowed us to consolidate our leading position as the world's only complete provider of winter sports technologies at a single location, and focus the Group's abilities, such as its innovative spirit, in

order to meet demands even faster and more effectively," says HTI Chairman Anton Seeber.

The Open Day on 17 September 2021 was the perfect opportunity to celebrate this major move officially, albeit belatedly, while giving the public a glimpse behind the factory scenes. The event was attended by numerous ski resort delegations representing the global winter sports industry. Safety and hygiene measures were carefully observed. This made the event a perfect platform for professional discussions and making new contacts. "We were delighted by the level of interest among customers and the international response. It has given us confidence in our strategy of continuing to grow as a company. Our unique snowmaking product range and the integration of WLP into DEMACLENKO have created the



Left to right: Roland Demetz (DEMACLENKO CTO), Philipp Oberhuber (DEMACLENKO COO), Anton Seeber (HTI Board Chairman), Martin Leitner (DEMACLENKO President and HTI Board Member) and Andreas Lambacher (DEMACLENKO CEO)

ideal conditions for this to happen,” says Martin Leitner, DEMACLENKO Chairman and HTI Board Member.

The Open Day also gave visitors an opportunity to take a close look at DEMACLENKO’s various areas of expertise and the procedures involved in planning and designing turnkey snowmaking systems. Information points were set up around the production plant to provide interactive presentations of the various departments such as project management, the quality center, automation and development, and services. Visitors were also allowed to watch skilled workers building snow guns, welding high-performance pipes for pumping stations and testing machinery. “As well as presenting our new plant, we wanted to showcase the company as a whole. A major aspect of that are the faces behind the DEMACLENKO brand. The Open Day provided the perfect opportunity to gain an insight into our procedures and talk to our team,” explains Andreas Lambacher, CEO of DEMACLENKO.

WLP Systems, which has been part of DEMACLENKO since 2020, one of the youngest members of the HTI family to present itself to the public at the Open Day. Specializing in water vapour technology for disinfection and for combating dust, odors and fire – technology which is based on a similar principle to technical snowmaking – WLP systems has added a set of innovative and forward-looking products to the Group’s portfolio.

In the outdoor area, visitors were treated to a surprise by the Snow4Ever 200, which produces real snow above freezing point. This is revolutionary technology, and there is no other similar product at present that can produce real snow of the same quality, with the same efficiency and in the same quantity at temperatures above freezing.





DEMACLENKO CUSTOMER DAYS

A RESOUNDING SUCCESS

The ever-popular DEMACLENKO DAYS finally took place again in 2022 following a two-year break. A total of almost 500 people came together to chat with colleagues in the business and spend a day enjoying themselves at five different venues – Snow Space Salzburg (Austria), Gargellen (Austria), Silvretta Montafon (Austria), Gitschberg (Italy) and Orcières (France). A delegation of more than 20 representatives of different ski areas even came from Poland. Visitors were shown the latest products and the advantages of automating and digitalising snowmaking using DEMACLENKO's Snowvisual 4.0 software were explained. The focus was also on turnkey plant construction, one of DEMACLENKO's key fields. People were shown around the pump stations that have been built by DEMACLENKO at the different ski resorts, and the company's various areas of expertise were showcased.





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INTERALPIN 2023
19 –21 APRIL, Innsbruck, Austria

