

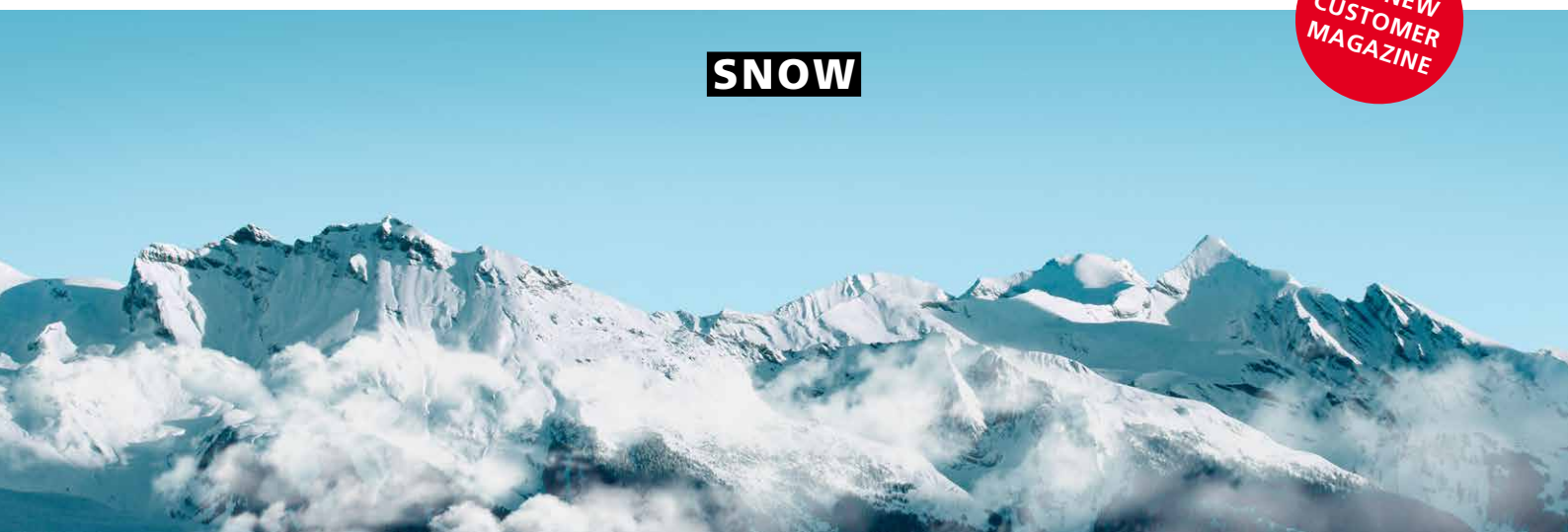


KÄSSBOHRERMAGAZINE

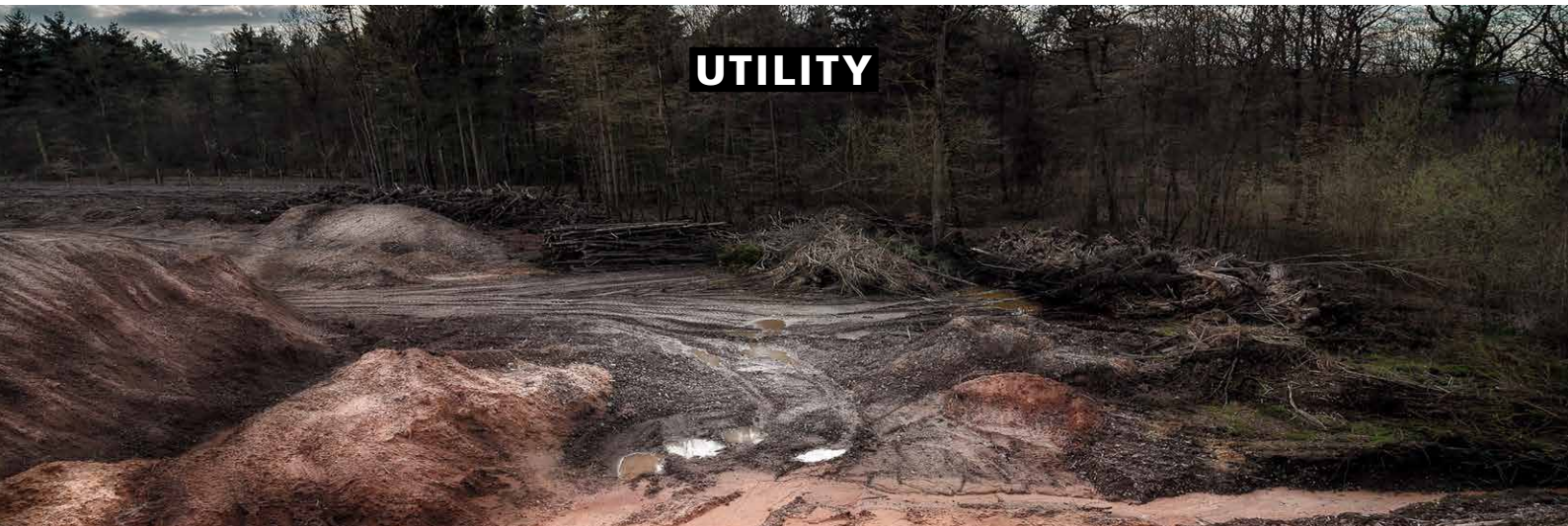
ISSUE 01 – AUTUMN 2017

THE NEW
CUSTOMER
MAGAZINE

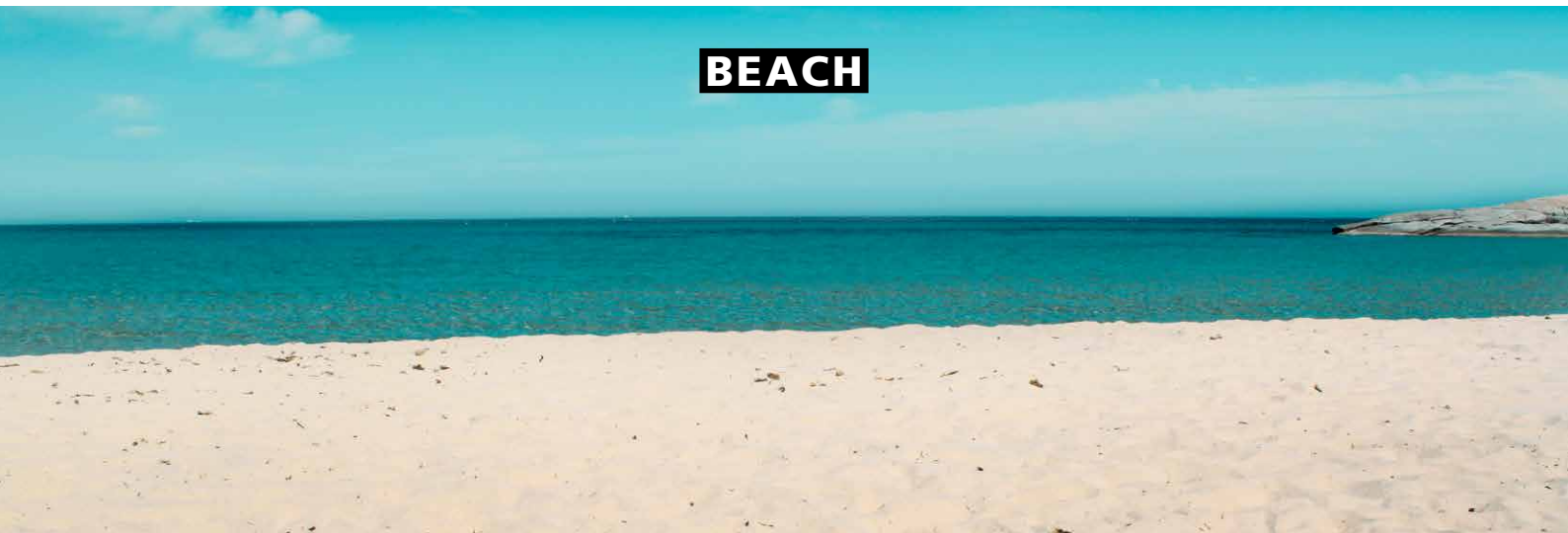
SNOW



UTILITY



BEACH



Editorial

Dear readers,

Wherever you are: we are close by. On mountains and in valleys, on beaches and in remote areas. Even in the Antarctic. With PistenBully, BeachTech and PowerBully, we can handle almost any terrain and continue to set standards in the market.

Yet Kässbohrer is more than vehicle technology. We approach things inquisitively and holistically. Look left and right, we are keen to conquer adjacent fields as well: with SNOWsat we have worked closely with our customers to develop a tool for efficient snow and fleet management. And our PRO ACADEMY is always being expanded and refined. The full potential of modern technologies can only be exploited with lots of knowledge and experience-based learning.

You can see: the Kässbohrer world has always grown in the past and become more diverse. It will continue to evolve in the future. The new Kässbohrer magazine gives our readers a comprehensive insight into.

What counts is there in the company as a whole. It is in every one of our employees: a passion for technology, engines and machines. The joy of being fully committed to engineering an even better product, and enjoying being there for our customers and developing solutions with them. And not forgetting: the firm conviction that quality always has to be the top priority. All of that is our Kässbohrer world.



*Jens Rottmair,
CEO Kässbohrer Geländefahrzeug AG*

Now I hope you enjoy reading the first issue! I also look forward to your feedback – whether positive or negative. tips and suggestions for how we can make our Kässbohrer magazine even better will also be gratefully received. Check out page 53 for all the info on the online questionnaire with prize draw.

A handwritten signature of Jens Rottmair in black ink.

Jens Rottmair

Content

42



20



06



12



14



18



Snow

04

LEVEL RED

06

Our response to your ideas

10

My SNOWsat

12

High-tech in pro sport

14

The iTerminal

16

Unstoppable: PRO ACADEMY

18

The knowledge they need

20

Good old fellows

24

A model makes technical history

26

The children are in charge

28

What role models look like

30

The 7-belt Combi Plus Track

34

World champion

36

Big Air 2017

40

Perfect team

41

News from the PistenBully-Shop

Utility

42

The road out of the snow

44

Conquering new ground with PowerBully

Beach

48

Together we are strong

50

Turf

52

Clean affair

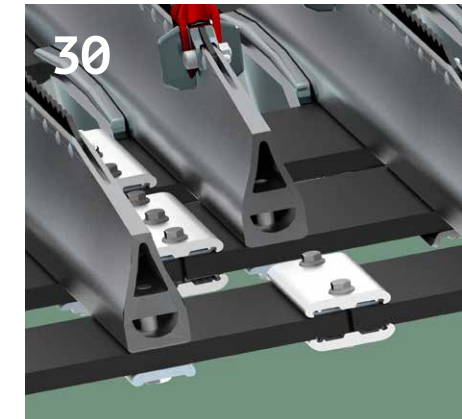
26



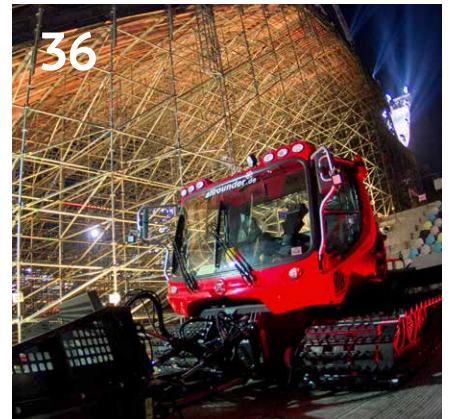
28



30



36



48



50



LEVEL RED

THE NEW GENERATION

PistenBully®
600

Clean performance

The new PistenBully 600

There are vehicles that come to the market and really make a splash. Not just with innovative technology, new features or impressive performance data. But with a strong and coherent overall concept behind them. A concept that evolves from close collaboration with the customer even during development. A concept that is based on consistent quality. And one that makes efficiency and resource conservation the top priority. Implemented by a skilled and dedicated team that works in partnership with its customers at every stage. This overall con-

cept represents snow management at the highest level: LEVEL RED. The new PistenBully 600 is the tool for the job.

It will soon be available: with less weight, more power and radically reduced emissions. In the customary fiery red. What really makes it stand out, however, are its internal values: chassis, axles, electronics, operating concept – all new.

Plus a ride that will wow every snow groomer operator. Pure driving pleasure! Curious? Then get ready for the world premiere of the new PistenBully 600: the product launch starts in a few weeks with a major roadshow through Europe and the USA.

Experience it live at a ski resort near you. Take control. Test it to the limits. Discover a new generation of snow groomers. And bring your snow management to LEVEL RED with the PistenBully 600!



The exact dates of the roadshow will be available soon at: www.level-red.com

*"We asked our customers:
what would be the perfect tool
for your daily work in the ski resort?
Our customers answered.
That's when SNOWsat was born."*

Our response to your ideas

*New features. New possibilities. Technologically advanced.
User-friendly. Efficient and economical. SNOWsat has
proven over the last few years that investing in
professional snow and fleet management pays off.
Because SNOWsat is more than just the latest technology.
It is also covered by PistenBully's promise always to keep
developing and improving this product.*

We can only make progress together

New features. New possibilities.

SNOWsat is 100 % a product of practical experience: precisely tailored to the needs and wishes of our customers. Every one of our existing customers has helped to make SNOWsat what it is today. And with every new ski resort, SNOWsat gets a little bit better. We have expanded SNOWsat's range of functions for the 2016/17 season with a wealth of new features. See for yourself!



Data exchange in real time

All important data is exchanged in real time between the vehicles (snow depth, winch cable, positions and track).



Greater availability of snow depth measurement

Thanks to parallel use of XFill, radio (UHF) and mobile radio, the availability of snow depth measurement has been improved. Crucial for large and topologically complex ski resorts.



Information available everywhere

SNOWsat Fleet and CAN may be used on all mobile end devices. Anywhere and at any time.



Support for all vehicles

SNOWsat fleet management supports all vehicles at the ski resort. From the PistenBully to the snowmobile.



Individual statistics

There are new statistical functions for snow and fleet management that can be selected individually. Including evaluation and export options.



Automatic reports via email

Reports may now be sent automatically via email to selected recipients in the ski resort. Daily, weekly or monthly.



"Every one of our existing customers has helped to make SNOWsat what it is today."

My SNOWsat

Successful ski resorts all over the world have one thing in common: they make use of all available technology and rely on SNOWsat. Here a small selection of convinced customers.



"700 snow groomers have already been fitted with SNOWsat worldwide."



Martin Hug
Board Member
Weiße Arena Bergbahnen
Laax, Switzerland

"If you're working with two or even several manufacturers, that takes more energy. With just one partner you achieve joint goals more efficiently and the dynamic in projects, which both are working to move forward, is higher. Or to put it another way – you get to the goal faster and more cost-effectively. Right now we are convinced that Kässbohrer thinks like us. And that's why the firm is the right, skilled partner for fast realisation of these ideas. Take, for example, improved communication between the machines. SNOWsat lays the foundation for that. In Laax we want to keep developing this in collaboration with PistenBully."



Michael Maier
Operations Manager Slopes
Ötztaler Gletscherbahnen
Sölden, Austria

"Since late autumn 2016, we have fitted all 25 snow groomers with SNOWsat and are absolutely convinced by the efficiency. Bergbahnen Sölden has evolved from three different firms. As snow grooming work is relatively cost-intensive, this expense is automatically allocated and calculated using SNOWsat. However, the snow depth measurement also shows drivers the exact volume and location of the natural snow and artificial snow when they're engaged in secondary snow production. This allows for highly precise and, thus, efficient and economical snow making."



Michel Frison-Roche
Ski Resort Manager
Les Saisies, France

"The winters are getting ever more difficult, which makes machine-made snow ever more important to us. SNOWsat saved us this winter at the start of the season, which saw little snow production and little natural snow."



John Burton
Director of Marketing and PR
Timberline Lodge, USA

"We can be sitting on 2 feet of snow in one spot and move just a few feet to the left and be on 20 feet of snow. Knowing where those drop offs are is vital. SNOWsat will pay dividends down the road, and I would recommend it to other resorts, especially those who run late into spring/summer or are on a glacier."

High-tech in pro sport

World Cup job for SNOWsat at Europe's highest ski resort



Val Thorens is one of the leading French ski resorts to have been equipped with SNOWsat. Denis Chapuis, Deputy Technical Manager and Head of Purchasing at lift operator SETAM, has learned to value the advantages of SNOWsat for the snow park and slopes of Val Thorens.

Competition-ready slopes

Val Thorens regularly hosts international competitions. There will be two men's Skicross World Cups and the Snowboard Cross World Cup this winter. Denis Chapuis explains: "Competitions like this need huge volumes of snow and, thus, many machine hours. Of course that is just as true for general maintenance of skicross slopes and the snow park.

We work systematically with SNOWsat, which enables us to rationalise the production and deployment of snow, machine use and slope maintenance.

We no longer have to measure snow depth on foot and always know how the snow needs to be distributed for optimum use of resources. Because the system is linked with our snow guns, snow management overall becomes more precise and saves time. SNOWsat can also create digital models of our snow park and skicross modules, which we then use as the basis for replicas across the resort."

Building and remodelling the course in record time

For the World Cup the skicross slope has to be converted to a snowboard cross slope in less than two days – a challenge in terms of widely different features. Yet Chapuis knows: "With SNOWsat we can do it". Thomas Girlando has completed special training for drivers. The FIS regularly entrusts him with building the features. So he knows what he's talking about: "Construction is difficult if temperatures are actually too high for good snow.

The machines are fitted with SNOWsat for snow depth measurement. This means we cover the entire site and locate even the smallest snow reserves, which we can reallocate. We have set ourselves the goal of creating a perfect course. But for an event like the World Cup, which needs good images for TV, it is also important that the peripheral areas, i.e. the entire ski resort, have an even snow cover of a few centimetres."

Vehicle image:
SNOWsat for parks



"Competitions like this need huge volumes of snow and, thus, many machine hours."

Self-explanatory:
With its dramatically improved presentation, the new operating concept is especially helpful in challenging driving and weather situations.

10"

Everything at a glance:
The patented terminal with touch-control 10-inch display

Clearly arranged:
Fast access to the most important vehicle functions



Fast access:
to the personal light profile

Bird's-eye view:

- ⊕ Tiller moving
- ⊕ Track setter down
- ⊕ Direction of travel forwards
- ⊕ Cruise control active
- ⊕ Yellow finisher: the tiller is actively lowered
- ⊕ Red tiller box: the tiller is moving.

A revolutionary operating concept

Simple menu design

With the new menu layout we were guided by smartphone design: the home button (PistenBully symbol) always takes you back to the start screen. And brand new: using gesture control to draw a house roof on the screen will also take you "home"! A submenu with so-called breadcrumbs, i.e. various directories, opens other options and provides a clear overview of exactly where you are in the menu.

"I see my vehicle from a bird's-eye perspective while simultaneously looking out of my cockpit."

Improved perspectives with the iTerminal

The revolutionary operating concept in the new PistenBully 100 signals a new era in vehicle control systems. It is being installed as standard in all new PistenBully models, ensuring drivers know how everything works straight away regardless of the model they are working in. The new operating concept consists of an ergonomic, double-jointed joystick and is clearly arranged. It is brought to life for operators in the iTerminal period.

Everything at a glance

The basic idea of the screen display is the bird's-eye view: the start screen shows the vehicle from above in the centre (A) – surrounded by all other attachments and functions like the tiller or the direction of travel. Basic elements like the rev counter are displayed in the familiar cockpit arrangement from previous PistenBully generations. The graphic display of the various usage situations is self-explanatory. Thus, the interactive elements (e.g. the track setters) are very easy to programme. Active vehicle parts are highlighted using different colours. This so-called bird's-eye view means the driver can literally see how and where he is driving and can react and steer completely intuitively.

Example light settings

Operators can create a fully customised light profile on the screen. Then they simply press a button on the armrest to activate their personal light settings when they start the engine.

Field-tested

To date the new operating concept has been through several development stages and has undergone thorough testing in the field. It has also attracted a large fan community who have become extremely attached to it.

Unstoppable: PRO ACADEMY

The PRO ACADEMY is continuing to grow worldwide and it's full speed ahead. It was only conceived a year and a half ago, and now the PRO ACADEMY is so successful that the team under Florian Profanter has recruited another 4 top experts for driver training for the start of this season.



Florian Profanter

Florian Profanter is and remains "Head of PRO ACADEMY". He is still coordinating everything and is the visionary and designer of the PRO ACADEMY. He will continue to be available as a trainer. "We were truly overwhelmed by the demand last year. Some 50 ski resorts in 12 countries have already taken advantage of the service. Obviously I'm really pleased with the great many follow-up bookings – where I'm now helping the drivers through the season for the 5th time. Together with the team we are well-equipped for the coming season, in order to maintain the high level that we are committed to", promises Florian Profanter.



Chris Perkins

Kässbohrer All Terrain Vehicles, Inc. in Reno, Nevada, has also introduced the PRO ACADEMY. The trainer for the North American unit, Chris Perkins, has built up an impressive wealth of knowledge about the ski industry over his career. He is also extremely knowledgeable about snow grooming, snow making, ski lift construction, electronic ticketing and GPS systems. This made him the first choice for the PRO ACADEMY. "Snow grooming has always been one of my passions", explains Perkins. "By working with operators, the PRO ACADEMY enables us to get them up to speed with the latest techniques relatively quickly. Once operators have completed the training, they understand the technical subtleties of the snow groomer, as well as the demands of the actual ski slope and the language of the snow."



Pascal Chatelain

Pascal Chatelain can only agree with that. He knows what he's talking about – he has been the point of contact for all training in the French-speaking zone for many years now. "We are bundling all our knowledge under the umbrella of the PRO ACADEMY – and that benefits our customers across the board."

"Once operators have completed the training, they understand the technical subtleties of the snow groomer, as well as the demands of the actual ski slope and the language of the snow."



Christoph Hofer

There is a new addition to the team in Christoph Hofer, who will be very active in training matters in the German-speaking countries alongside Florian Profanter. His CV speaks volumes: from snow groomer operator with glacier and snow making expertise to experienced slope manager and finally technical manager responsible for snow grooming and coordinating between the resorts – he has truly done it all. So he really knows the ropes – and sees things from the customer's perspective. He knows exactly what ski resorts need and where the problems are.



Hans-Olof Olsson

Hans-Olof Olson is our PRO ACADEMY man for Scandinavia. Another "old hand": he has been working as an operator in Are in Sweden for more than 20 years and is entrusted with building the World Cup slopes. But he wanted to deepen his understanding: he learned a lot more about snow groomers and snow grooming working in Sweden and the USA. The he met Florian Profanter at the Olympic Games in Sochi, where they were both responsible for grooming the Olympic slopes – Hans-Olof for the women's competition slopes and Florian for the men's.

A great deal of knowledge is united in the PRO ACADEMY – and we're happy to pass it on too. You just have to want to learn. And book.

Ready for the professional league?



The PRO ACADEMY's making it happen: the manufacturer-independent training concept from Kässbohrer takes drivers, mechanics and snow managers to the next level.

There are 5 different modules for driver training, leading to economical and environmentally responsible snow management. We offer a variety of courses for workshop personnel, which include practical exercises using the different vehicle types. Would you like to know how your snow management could be even more efficient? Our specialists will show you in training and consultation sessions that are tailored to your ski resort.

www.pistenbully.com/proacademy

Giving them the knowledge they need

*The PRO ACADEMY:
Training in Livigno and on Eggishorn*



02 Mottolino, Module 2

Anyone grooming ski slopes and producing snow needs two things above all: theoretical knowledge and practical skills. The PRO ACADEMY under the leadership of Florian Profanter conveys both – in the drivers' working environment. We accompanied the native of South Tyrol and his pupils to Italy and Switzerland last season.

The drivers meet up again three months later for the second module: advanced training. This includes Florian Profanter showing how worn slope sections can be restored quickly and efficiently. It's clear that the initial training has paid off: almost all the drivers show a marked improvement in setting the cut angle when working with the blade.

01 Mottolino, Module 1

The Mottolino ski resort at Livigno is known as the "Fun Mountain": 27 slopes, 7 lift facilities and a gigantic snow park are spread across the mountain – shaped by 18 PistenBully. The resort's drivers came together in November 2016 for the first of two modules with the PRO ACADEMY. In the Theory block, Florian Profanter first provides the basics from the structure of the slope to the costs of snow grooming. Then it's time for the snow: one-on-one training under real working conditions facilitates precise learning and rapid success. How a vehicle's own weight and the downhill force can be exploited when steering, for example.

The theory section delivers concrete basic knowledge.



Fiesch-Eggishorn

The Aletsch Arena, which includes the Fiesch-Eggishorn ski area, covers 104 kilometres of groomed slopes at altitudes ranging from 1,845 to 2,869. Florian Profanter also conducts highly engaging one-on-one efficiency training here during the low and high season. The attendees are surprised by how much time they can save using the right system to distribute the machine-made snow and by how much this reduces the strain on the machine.

"The many tips and tricks you're shown on the course are priceless."

During the practical training in high season, a lot of time is spent on efficient settling of slopes with varying widths. The training leader makes a big impression demonstrating the importance of turning the machine within the slope and a proactive working method.

At the end, the 11 drivers are given certificates to take away with them. The knowledge they've acquired is of greater value, however. 22-year-old Markus Heeb summarises: "I recommend the course to anyone who's just starting out or wants to learn something. The many tips and tricks you are shown are invaluable."

There is nothing to add to that. Except for Florian Profanter's contact details:
Mobile 0039 331 492 6778,
proacademy@pistenbully.com.

One-on one training under real conditions: learning by doing.



"A team of pensioners are lovingly and painstakingly restoring some of the most significant models from the past to bring PistenBully's 50-year history to life."

Good old fellows



Karl Kessler

Erich Walker

Josef Wegerer

Karl Knab

Johann Werbach

Erich Plebsth

Karl Knab is thrilled with the classic project, which is very important to him and a huge amount of fun.



Our oldies

*Who knows our vintage vehicles best of all?
Our highly respected oldies of course!*

280 years of expertise united in one workshop

To ensure the vehicles are restored as faithfully as possible, Karl Knab has put together a team of like-minded individuals from diverse professions – all active retirees from Kässbohrer. They have rented a workshop very close to Laupheim. Everything is being painstakingly and lovingly restored there. All components are stripped, repaired and ultimately re-assembled here.

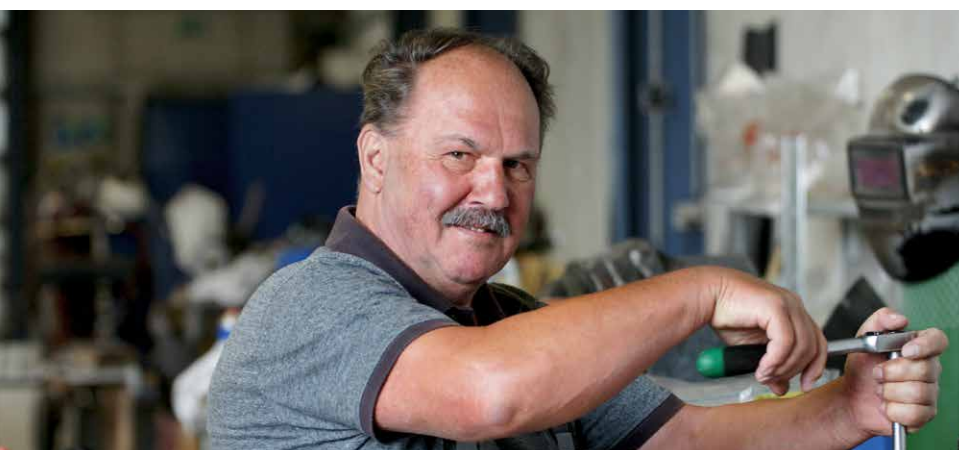
"No future without the past!"

The PistenBully Museum

The idea has long been in our minds: a PistenBully museum. With the emergence of the customer centre this has now finally become a reality: some of the most important models, namely the most influential innovations of PistenBully's almost 50-year vehicle history, will be fully restored over the next few years. Besides the latest innovations from Kässbohrer, these museum vehicles in the customer centre will excite PistenBully fans big and small.

A true expert in this regard, Karl Knab ran the service department for 33 years and was always travelling around the world for Kässbohrer. Now he's somehow at it again. He is going through all the sales information to find a suitable vehicle for every PistenBully generation. "It is astonishing how many early PistenBully you can still find everywhere – and in such good condition", says Karl Knab – himself very enthusiastic about the quality of our vehicles!

The goal is to return vehicles to full working order, in the original condition and with 100 % original spare parts. They've got their sights set on another goal, a model in the original "patina condition". It has been a long road, as the biggest challenge is often getting hold of the spare parts. "That also makes it great fun though", says Knab. "On the one hand, we still have an incredible number of the old original parts in the delivery range. But we are also getting a lot of support from our suppliers. They are really enthusiastic about this and are finding the best parts for us!"



Johann Werbach takes care of the mechanics. He and Karl Kessler are the experts in everything concerning engines, gears and hydraulics.



Erich Walker is the man for the electronics.



Hydrostatic drive
(absolutely jerk-free movement
over terrain thanks to continuously
variable gear shifting)

Diesel engine
(high torque with low
fuel consumption)

Rear compactor with
central roller
(for compacting visual
slope appearance)

Superimposed steering system
(for turns without
interrupting tensile force)

8-Way Front Blade
optimum levelling of slopes
(no illustration)

A model makes technical history

1973 1981 2011 2013

Revolutionary in every aspect

One is finished already: a PistenBully 145 D from 1973. This model won a huge victory in all contests at an international snow groomer competition in Flaine in France back in 1971. The international breakthrough came one year later at the Olympics in

Sapporo in Japan. The first diesel engine combined with the hydrostatic drive was revolutionary at the time and superior to all predecessors (a great deal of power with low consumption).

Delivery to Trondheim for grooming works in the Skistuna Gransen ski resort. Maintenance of the 40-km-long cross-country track network and of 3 small ski jumping hills.

Sale to the Stardal ski centre at Aresund (now "Arena Overloye")

Part exchange by our Norwegian agency Antra in the sale of 2 new PistenBully 600

Return to Laupheim for restoration as the first museum vehicle



In summer too almost 1,000 primary school children at the PistenBully Cup

Almost 1,000 children took part in 10 events. The final alone of this year's PistenBully Cup saw over 100 primary school children come to the PistenBully Biathlon Centre in Ulm. They had to show coordination, endurance, dexterity and of course – as you'd expect in biathlon – accuracy.

Children and adults alike had a fantastic time at the event.



www.pistenbully.com/en/youtube-channel
PistenBully YouTube channel
"PistenBully Primary School Cup 2017"

According to a survey in 2017, children make the decisions when it comes to holiday destinations. Around the same number are apparently asked by their parents where they should go on their next holiday. So crucially they are the "deciders"! And that's why it's so important that we turn children into ski fans when they're young. Last winter, PistenBully enthusiastically brought well over 2,000 primary school children aged 7 to 9 "into the snow". The PistenBully Cup continued over the summer.

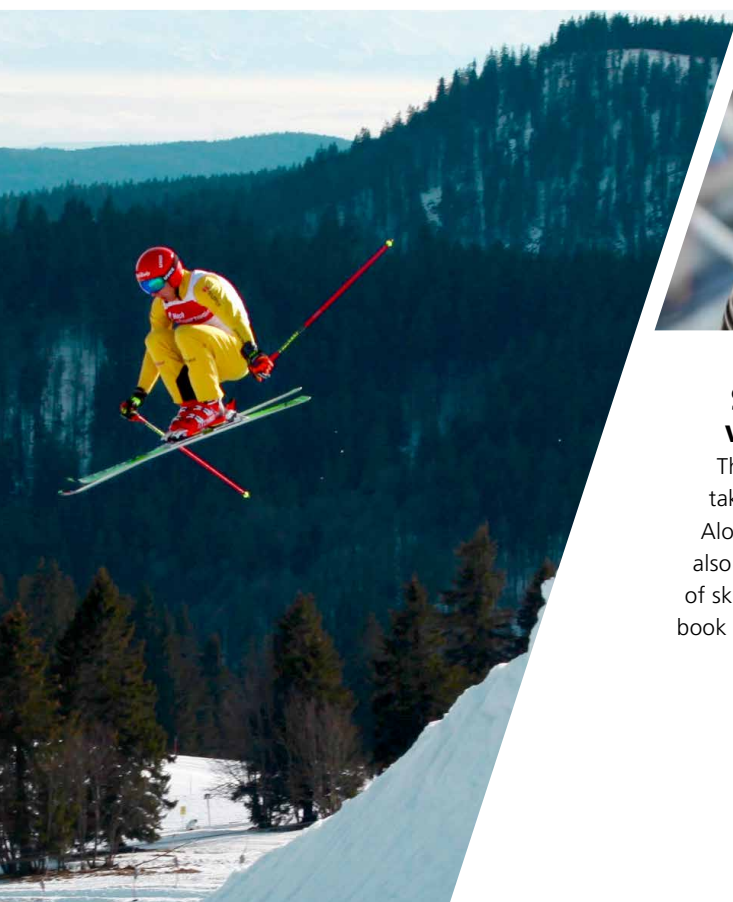
"It's important to us to get children enthusiastic about skiing in the early years."

The children are in charge

... at least when it comes to holiday planning.



What role models look like



Ski Cross Camp for Kids with Daniel Bohnacker

The “Daniel Bohnacker Ski Cross Camp” is taking place for the third time this winter. Alongside Daniel, experienced DSV trainers are also introducing kids to the individual elements of ski cross. Check out our website and Facebook for more details.



Young world champion Madlen Guggenmos

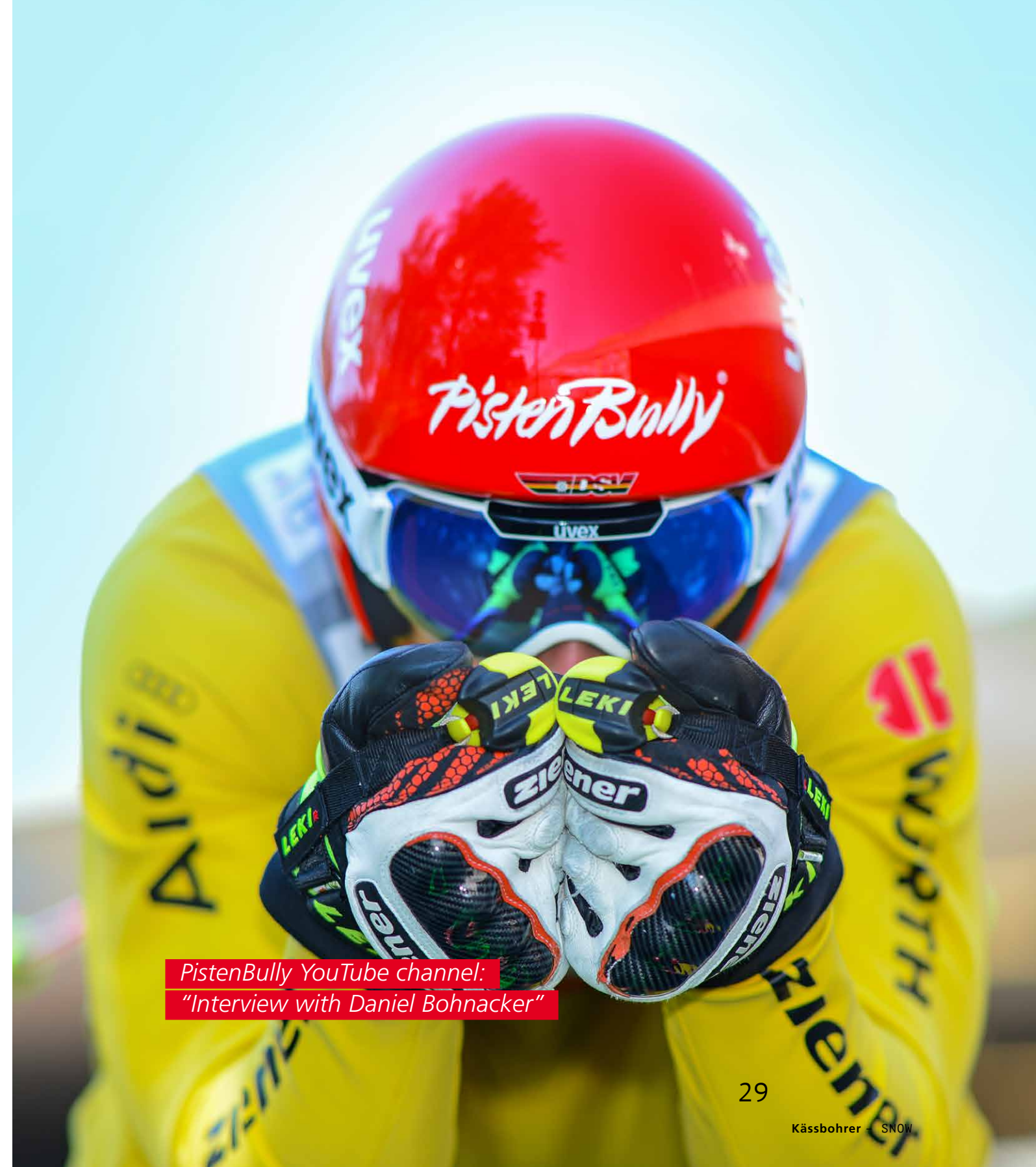
16-year-old Madlen Guggenmos started small once too: she has now been training for some time at the PistenBully Biathlon Centre, in June, made history as the first Target Sprint double world champion: in the Junior Single and the Women’s competitions. Target sprint is a really fast discipline that has emerged from the biathlon. Instead of skis, competitors run the three 400-metre races. In-between there is shooting, just like in a biathlon. Congratulations on the fantastic success!

Daniel Bohnacker continues to ski for PistenBully

Our sponsorship agreement with Daniel Bohnacker was extended this summer. Daniel is thrilled to be skiing for PistenBully again in the 2018 Olympics. His preparations for the Olympic season

are extensive: “The Olympic Games are always a big deal. What I think is so cool is that you really notice, especially here in the region, just how many people actually work on them behind the scenes. That’s what really impressed me in 2014 and also gave me a great feeling.” Working with the next generation of skiers is also

extremely important to him. This will be the third season of the Daniel Bohnacker Skicross Camp: “It’s always really fantastic to see how quickly the kids learn and particularly the enormous enthusiasm they bring to camp.”

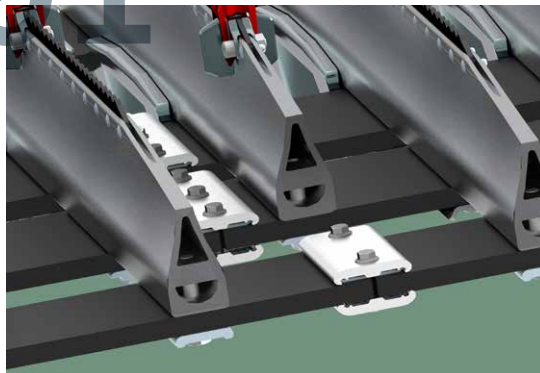


PistenBully YouTube channel:
“Interview with Daniel Bohnacker”

"One of the most advanced facilities in the world: our track production. This is where we make tracks of the highest quality and endurance. Such as the 7-belt Combi Plus Track. Its trademarks: best traction, climbing and pushing on the market."

The 7-belt Combi Plus Track

01



The track screws are guided through the bottom shoe and threaded into the center web of the cleat creating strong upright stability.

02



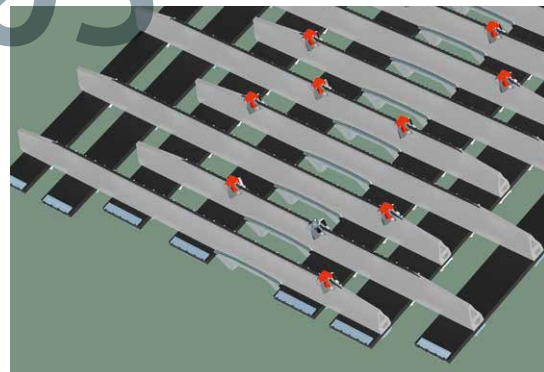
High performance tire guide with honeycomb structure

With grips for more grip

The 7-belt Combi Plus Track – a track with 5 patents – makes the perfect foundation for PistenBully 600 SCR, 600 SCR W and 600 E+. Top marks on the slopes thanks to extreme wear-resistance and optimum power transmission.

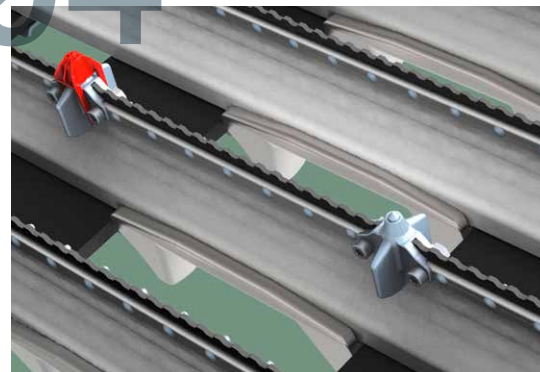


03



135 mm cleat spacing: low weight, high traction, impressive climbing

04



Stable, patented, precision fit climbing grips. The ice spike and sidehillers are one piece.

All-round talent

That's what the combined tracks were originally designed for: universal use, from "normal" terrain to steep slopes. Increasing volumes of machine-made snow have also had an impact on the demands placed on the tracks, however. These all-round tracks still deliver the perfect combination of materials with lightweight aluminium cleats and high-performance cutting edge. There's a reason why they are the best-selling track type worldwide. These powerful and extremely wear-resistant grousers are a synonym for high stability and optimum power transfer.

45 mm, the cleat are really wide. The well-designed cross section ensures the highest stability at reduced weight. This increases resistance moment, as plates this wide also withstand the highest loads. And that's why our grousers last a really long time (Fig. 05).

Central cutting edge

The cutting edge sits embedded in the center of the grouser. Thus, the tracks on the right and left are identical and free of the running direction. What's more, the spikes and sidehillers are combined in one unit (Fig. 04). These track elements are also positioned centrally on the cleat, secured compactly over the grouser and cutting edge. This increases stability and creates optimum handling and slope performance on any type of snow and ice. The track can be tailored to individual preference, because additional drill holes on the wear strips facilitate extra mounting options that are simple to retrofit.

Fewer parts to stock

Notable improvement has also been achieved in relation to parts handling. Symmetrical tracks and component simplification overall make it much easier for you to order, stock and install replacement parts.

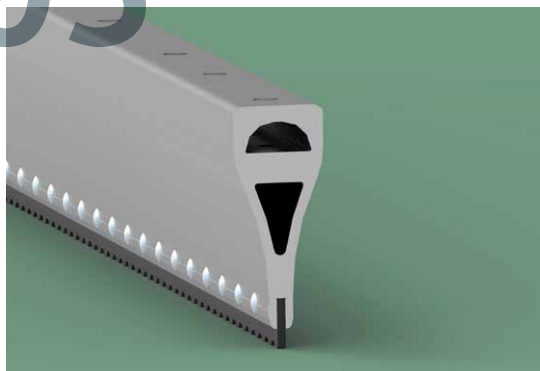
Optimum track width

And don't worry – one thing that hasn't changed is track width. Your PistenBully will still fit in the garage in the future!

Less pressure

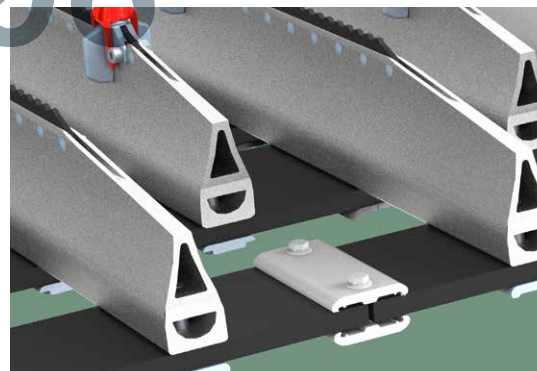
The design with 7 belts distributes forces more evenly and relieves pressure on the studs and rubber belts (Fig. 03). A new type of connection concept increases stability where the ends of the rubber belts are joined together. This is because the risk of elongation has been eliminated. This prevents pitch errors in the connector area and ensures consistent power transmission and very high tensile force (Fig. 06).

05



Grouser with extremely high resistance moment.

06



The compact track belt connection joint guarantees constant power transmission and very high tensile force.



223,912
CHF Less expenditures

368,500
kWh Less electricity

249 Tons
Less CO₂

02 Tons
Less NOx

16 M. Liters
Less water

113 Tons
Less particulate matter

95,290
Liters Less diesel

"The Swiss are pros at handling money. PistenBully is the pro for the slopes. By using SNOWsat and the PRO ACADEMY St. Moritz has saved 224,000 francs at the Alpine Ski World Championships."

World champion

Sustainability at the World Championships in St. Moritz

Engadin St. Moritz Mountains AG set itself the goal of making the FIS Alpine Ski World Championships 2017 the "most sustainable world championships in snow management". This has now been achieved to impressive effect. Numerous, sustainable savings have been achieved in the course of the World Championships thanks to optimised use of the vehicles.

Adrian Jordan, Head of Technology COO at Engadin St. Moritz Mountains AG, now quantifies the savings very specifically: "By using less energy and working the vehicles for fewer hours, we are taking about a saving of almost 224,000 francs for the World Championships alone."



PistenBully YouTube channel:
"PistenBully Alpine Ski World Championship 2017 St. Moritz"



Big Air

PistenBully

The road to Olympia leads through Mönchengladbach and Milan

First Milan, then Mönchengladbach – the elite of the snowboard and freestyle ski world has impressed fans of this very special winter sports spectacular once again with incredible acrobatic performances. Powerful support has been provided by PistenBully.

1,000 cubic metres of snow with a weight of over 400 tonnes on a ramp almost

50 metres high and 120 metres long. Those are top values for top athletes. And that is precisely who came to Mönchengladbach for this top event. The reason being that they could get their ticket for Pyeongchang right there in the centre of western Germany. August Pollen from event organiser allrounder was sure that “we will get to see the next Olympic champions at the start of December in Mönchengladbach”.

Highly professional work with an extraordinary level of commitment have been in evidence at this very special sporting event. PistenBully and Schneestern are also playing a crucial role in its success

this year with their “snow-how”. The enormous ramp – itself a unique feature – has being built and snow groomed in just under four weeks. Everything had to work smoothly to ensure over 120 freestylers can compete in optimum conditions. Lisa Zimmermann, one of the best women in the world at the Big Air, has been fully motivated for this event: “For me the Big Air is not just a simple world cup, but is an event that I’m already really looking forward to. The concept behind it, combining sport and music is simply cool.”

Public interest in the event is as big as the ramp. 20,000 enthusiastic freestyle fans and well over 100 media representa-

tives from all over the world came to the premiere last year. Well over 200 million people watched this unique sporting event – almost Olympic in itself.

PistenBully YouTube channel:
“PistenBully at ARAG BIG AIR 2016”



Mönchen- gladbach



01. – 02.12.2017
Big Air Mönchengladbach



Bigger, higher, further...the world of the Big Air

PistenBully

The underlying technology

Big Air events are winter sport spectacles of a very special kind.

The world of the freestyle discipline "Big Air" is shaped by superlatives. Free skiers and snowboarders tackle enormous features at speeds of up to 100 km/h, demonstrating that spins and flips have long been things of the past. The technology behind a Big Air is just as complex as the tricks. Each Big Air event is a technical challenge, which is just daily work routine for our partner Schneestern.

The basic principle of Big Air is to give the athletes as much time in the air as possible, and no two events are ever the same. Events like the FIS Big Air World Cup Mönchengladbach count as so-called City Big Air Events. In

this category of events the mountain is brought to the city. The requirements are pretty clear: in simple terms you need a ramp and a whole lot of snow. The details, however, represent an immense logistical and technical effort. Using its own software, Schneestern has to calculate the dimensions for the ramp based on the contest in question. For official competitions like the one in Mönchengladbach, this means reconciling FIS guidelines, local conditions and the technical requirements, such as starting speed. An expert then uses these specifications to construct the scaffolding to "recreate" the mountain. Once the scaffolding is in place, the ramp "just" needs to be covered with snow. An undertaking that is harder than you might think. As anyone who has ever tried to distribute 250 tonnes of snow on a ramp like this could tell you. It takes the right technology from Schneestern, with the patented use of nets to prevent the snow from slipping working together with the right tool. In Schneestern's case it's a powerful PistenBully that throws the snow onto the ramp using a snow blower. As soon as the snow is on the ramp it needs

to be distributed. Schneestern would have no ace up its sleeve at all without the muscle power of the "shaper", due to the scaffolding's payload. This ace is a PB 070 from 1986, which not only bears the beautiful name "Emily", but is also light enough for almost any ramp. Just like her big brothers on the mountain, Emily grooms the start and landing of the City Big Airs.

Then there are the Mountain Big Air events, which require the full power of the big machines. A challenging task for people and machines alike, which often have to work day and night to prepare for a Big Air. In February 2017, for example, four PistenBully in special park and winch designs were needed to create the Big Air and Slopestyle contests for the X-Games Norway. Thus, it's clear that the right know-how and the corresponding mechanical power are essential for a successful event, regardless of the type of Big Air you're creating.

SCHNEESTERN

Milano

The Big Air Milano has been held at the EXPO 2015 from the 10th to the 19th of November 2017. More than 25,000 fans came to the event last year under the "Albero della vita", the striking tree of life and symbol of the expo. Along with 150,000 TV viewers, they went wild when the elite freeriders jumped from a mega ramp on snowboards and skis, showcasing the most challenging tricks. A PistenBully 100 has created the perfect landing for the second time. The organisers are expecting even more interest this year. The Snow-

board and Free Ski World Cups have been taking place on the two weekends. And some got their ticket for Pyeongchang here too. The BigAir in Milan is being organised by Valmalenco, the local ski resort for the Milanese, first and foremost Avv. Franco Vismara, who has brought the event to Milan. "After lengthy deliberations I have found the right partner to be able to put on such an event", says Franco Vismara. Now he can look back with pride on the first time in 2016. "We had 20 days to set everything up. Assembling the

steel structure took 6 days alone: the ramp was 40 metres high and 130 metres long. And when a crucial snow gun broke the day before the competition, the PistenBully 100 we had brought from Valmalenco distributed the snow to perfection in record time, saving the event."



The Parco EXPerience has played host to an array of unusual events, but the BigAir is something very special.



10.-19.11.2017
Big Air Milano

Perfect Teamwork

Chris Gunnarson from Snow Park Technologies
on the partnership with PistenBully

Our main focus at Snow Park Technologies is park building: we work for ski resorts all over the world, swapping ideas with them and building snow obstacle

"The committed team has fully supported us right from the start."

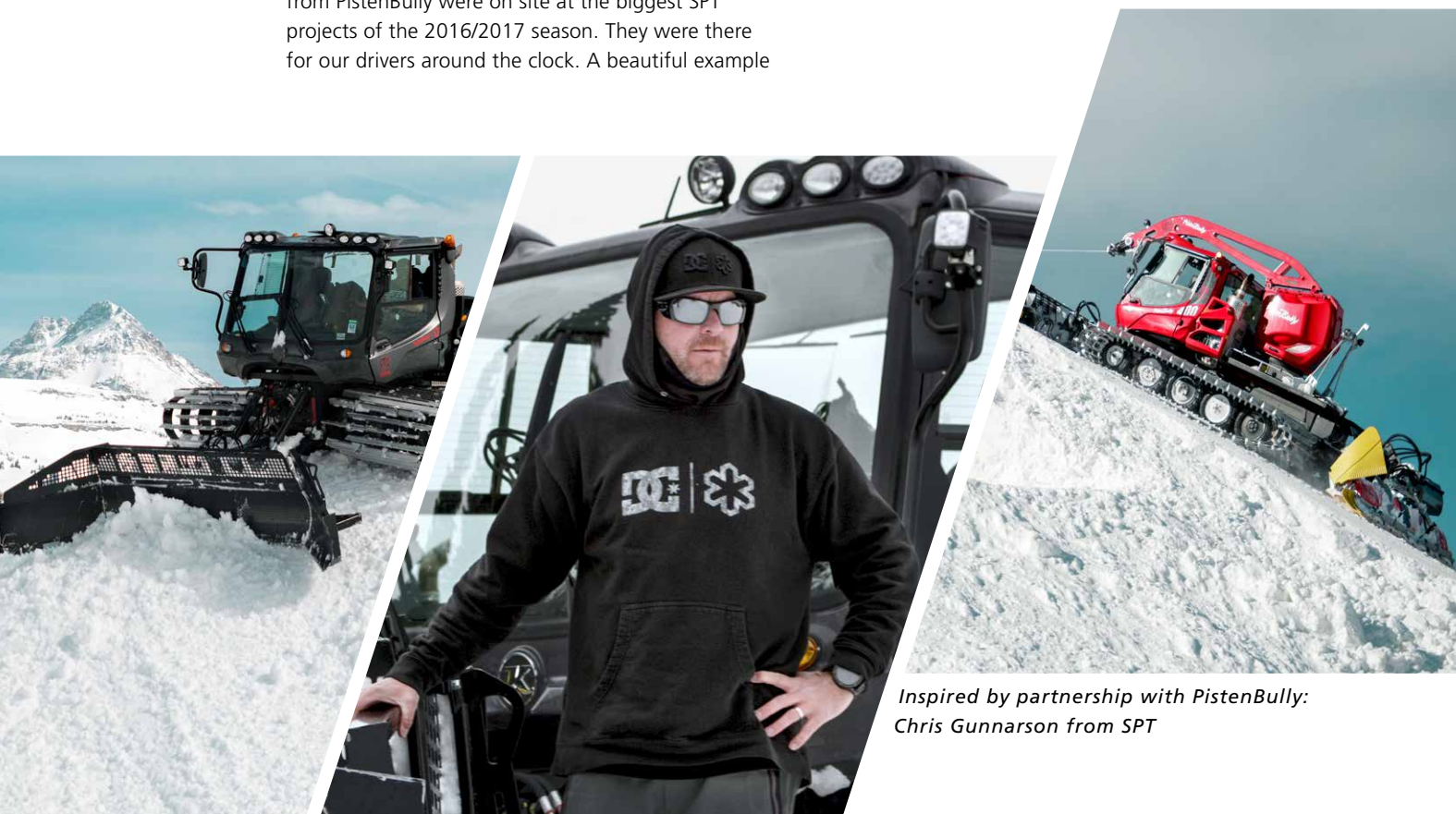
courses and funslopes for them. That's why we believe it is so important to find partners who identify with our work, who share our progressive corporate

philosophy and have a positive influence on our industry. Our partnership with PistenBully meets this need: collaborating with people who do exactly that.

Now, after just a year of partnership, it is clear how much PistenBully inspires and enriches us. The committed team has fully supported us right from the start: members of the regional teams and engineers from PistenBully were on site at the biggest SPT projects of the 2016/2017 season. They were there for our drivers around the clock. A beautiful example

of close partnership and collaboration, not only with us but with all PistenBully customers. I value the high level of interest PistenBully brings to our company – and the intelligent strategic improvements from the research and development team. We need to look at what has worked for us this season and what has not, what we are really pleased with and what possibilities the future holds – this is all an enormous motivation.

The way our team works sometimes differs substantially from the daily routine of the crews in the ski resort. The manner, for example, in which we use and balance the groomers when moving snow – often with the tiller switched off. And how we drive the machines to realise our designs. PistenBully invites us to discover together everything we can achieve in the future.



Inspired by partnership with PistenBully:
Chris Gunnarson from SPT

PistenBully-Shop



HAT
22,90 €*

Casual knitted hat with
sewed up fleece insert



LONGSLEEVE SHIRT
25,90 €/St.

Longsleeve shirt. "PistenBully Legends"



**RC PISTENBULLY 400 W
MODELL**
159,90 €*

Remote-controlled PistenBully 400 W.
Scale: 1:32.
With many different functions.



FURRY TEDDY BEAR
15,90 €*

Plush bear with red PistenBully t-shirt.

www.shop.pistenbully.com

*Prices incl. VAT plus shipping costs

The road out of the snow

*"Where do Kässbohrer's true strengths lie?
In technology of course.
We know all there is to know about chassis and
tracks. We've been developing powerful snow
grooming technology for almost 50 years.
We are the clear leaders in the field.
What really makes us stand out though is
our close relationship with customers,
plus something very important:
our CURIOSITY."*

Credit: gettyimages/Chris Biffi/Getty

Conquering new ground with PowerBully

For some time now people in the ski industry have been looking for alternatives and seeking diversity in other markets. With this sense of curiosity and eagerness to explore new markets, we did what came naturally. We developed a new vehicle for a different purpose. We went from snow to sand when we got into the beach cleaning market with BeachTech. The Flexmobil, which transports things to remote areas far off the beaten path is another good example of our curiosity for market diversification. Suddenly you've left the snow behind and are repairing power lines in some hard-to-reach spot. With the PowerBully, the new utility vehicle from Kässbohrer Geländefahrzeug AG.

The road out of the snow

We've been negotiating new roads since the 1980s, transferring our know-how to completely different ground and markets. That's not just a thrill, but also the secret behind our consistent success. Because everyone benefits from this curiosity: the employees who work for an innovative, reliable company. And our customers around the world, who get the best possible service with a global network of dealers and engineers, and our consistent expertise when it comes to spare parts and customer service.

Antarctica

The road out of the snow began in the eternal ice. That's where the first PistenBully was used in the early 1980s as a transport vehicle on a German Antarctic expedition – specially equipped for extreme conditions. The wealth of natural resources meant interest in the Antarctic continued to grow. Since then, around 150 PistenBully have been deployed by the nations represented in the Arctic and Antarctic.

Flexmobil

The Flexmobil likewise emerged in the early 1980s. After a short detour into the military sector, the decision was quickly made to market it as an all-round track and transport vehicle for difficult terrain. The engineers had truly looked outside the box here: equipped with rubber tracks and an extreme all-terrain chassis, the Flexmobil quickly made a name for itself in lots of new areas: in construction and forestry, in fire service rescue work, as before in the Antarctic, but also a wide range of uses in agricultural contracting. The Flexmobil later became the PistenBully 100 Utility. A brilliant idea: our developers – simply put – combined the PistenBully with the frame and chassis of the Flexmobil.

"Extremely diverse attachments allow for very flexible use where needed."



Based on the QuikMount chassis, the PowerBully 15T has a payload up to 16 tonnes for a wide range of uses. Attachments like drills and articulated jib cranes or work platforms are fast and easy to fit thanks to this quick-change system.



PowerBully

Brand new to the team and really exciting for us: the PowerBully. We've fitted it with tracks too. It is also an ideal tool in hard-to-reach areas. Even bigger this time for even more demanding applications. The powerful, all-terrain vehicles with low ground pressure and high payload can even be used in the most extreme conditions. After hurricanes, for example, as happened recently in the USA. Power lines are regularly brought down in such conditions. This leaves hundreds of thousands suddenly without power. It is necessary that reconstruction and repair takes place very quickly in times like these. If there happens to be a flood or mudslide, wheeled vehicles struggle to make it through. Our new PowerBully 15T does not struggle with these kind of adverse conditions. PowerBully are track-driven off-road and carrier vehicles with minimal impact on the environment. Extremely low ground pressure, high payload, stable tracks and robust suspension are the key characteristics. With the powerful, reinforced basic frame of high-strength steel and a platform that can take a wide range of attachments, the PowerBully 15T is also the first choice for heavy industrial work: such as construction and maintenance of power and telephone lines, gas and oil pipelines. It is perfect for accessing remote areas with no infrastructure.

PistenBully 100 AllSeason

Now we have the grandchild of the Flex-mobil – at home anywhere as the PistenBully 100 All Season. In the winter, the PistenBully 100 can be found in small terrain parks or setting cross-country ski tracks. The 100 is also well equipped with features for warm weather use, such as an additional radiator for changing air, water and hydraulic oil. It's also right at home wherever wheeled vehicles have reached their limits, for example, mulching ski slopes in the summer.

PistenBully 300 GreenTech

Our used vehicles also find a second life away from the snow. This is often very special. This is where our experts show how creative they really are. Because the special tools and attachments for turf excavation, biogas work or waste management demand a lot of imagination and skill. The machines get put to work at very specialized jobs such as reclaiming marsh land in harbour areas. Working with silage. Salt extraction in an enormous saltworks in Namibia. Or very exotic work in fish and shrimp farms: shifting and levelling drained pools, applying lime for disinfecting, digging drainage trenches and preparing the soil. PistenBully 300 GreenTech are also suitable for constructing oyster beds at low tide. A long way indeed from the snow!



The transport whiz for all occasions: PowerBully Scout



As a carrier vehicle for enormous water tanks, PowerBully fights forest fires, for example.



PowerBully servicing power lines in extreme terrain.

PowerBully Scout

The PowerBully Scout comes across as unpretentious and modest. What makes it special: it is just simple. Very simply built and very simple to operate. We have stuck with a tracked vehicle here too, but so small that it can even be loaded on a pickup truck for transport to where it's needed. The Scout comes with different cab structures. It's great for transporting people and materials in sludge, marshland, snow or ice.

BeachTech

A small but excellent range of products, which is very close to our hearts, celebrated its 25th birthday last year: BeachTech. Our beach cleaners are the obvious diversification from snow and winter: sand and summer! BeachTech is the only vehicle in our portfolio that isn't track-driven. Originally we tried – as curious as ever – to get into sand with a tracked vehicle and ultimately came back without tracks. Just like for the PistenBully, hydraulics plays a major role here. Transferring experience once again!

Together we are strong



The self-propelled designs: BeachTech Marina, Cherrington 5500 and 3000 with working widths from 0.92 to 1.53 m.



The towed BeachTech models BeachTech 3000, 2800 and 2000 are joined by the Cherrington 440 XL with working widths from 1.22 to 2.50 m.

Our beach cleaner product range now includes the Cherrington models: we've got the ideal vehicle to meet every need. Together BeachTech and Cherrington offer a very broad product range.

Two greats come together

Last spring Kässbohrer Geländefahrzeug AG took over the number 2 in the American beach cleaning market, Cherrington Inc. World market leader BeachTech continues to expand its portfolio. The product range now includes three Cherrington models: we've got the ideal vehicle to meet every need.

Know-how times two

We have long been familiar with Cherrington beach cleaners – we have seen and encountered them again and again on beaches all over the world... Now we're bundling our know-how so as to meet our customers differing needs more individually.

With their typical screen-cleaning concept and additional model sizes, the American

vehicles meet the other requirements of beaches and customers.

We are now able to offer a total of three self-propelled models with differing working widths. The range of towed vehicles is also being expanded. Customers will be able to choose from several sizes and different screening technology in future, acquiring the perfect device for their needs.

"We bundle our know-how so as to provide a more customised service."

Turf

Barely a stone left in the ground: Ground preparation for turf production

Special solution

Turf is the alternative to the laborious sowing and watering of grass seed. Ready-to-use lawns in no time – that’s the ticket! A familiar practice at the sports grounds of the bigger clubs, turf is becoming increasingly popular in private gardens too. Careful cultivation is critical for turf quality. Stefan Kirschke deploys a used BeachTech 3000 at his Bienenbüttel production site to ensure perfect ground preparation.

The soil is first loosened and then usually prepared further. The very recent special addition to Stefan Kirschke’s preparations: he refines the ground before planting using a BeachTech 3000. This also removes stones from the soil and makes the surface smoother – which ultimately leads to an extremely even, virtually stone-free block of turf. He then loosens the ground slightly, e.g. using a rotary harrow, before sowing the seeds and going over the soil with a light roller – to protect against the wind and hungry birds. This is his “special formula” – and it can be adapted flexibly to conditions.

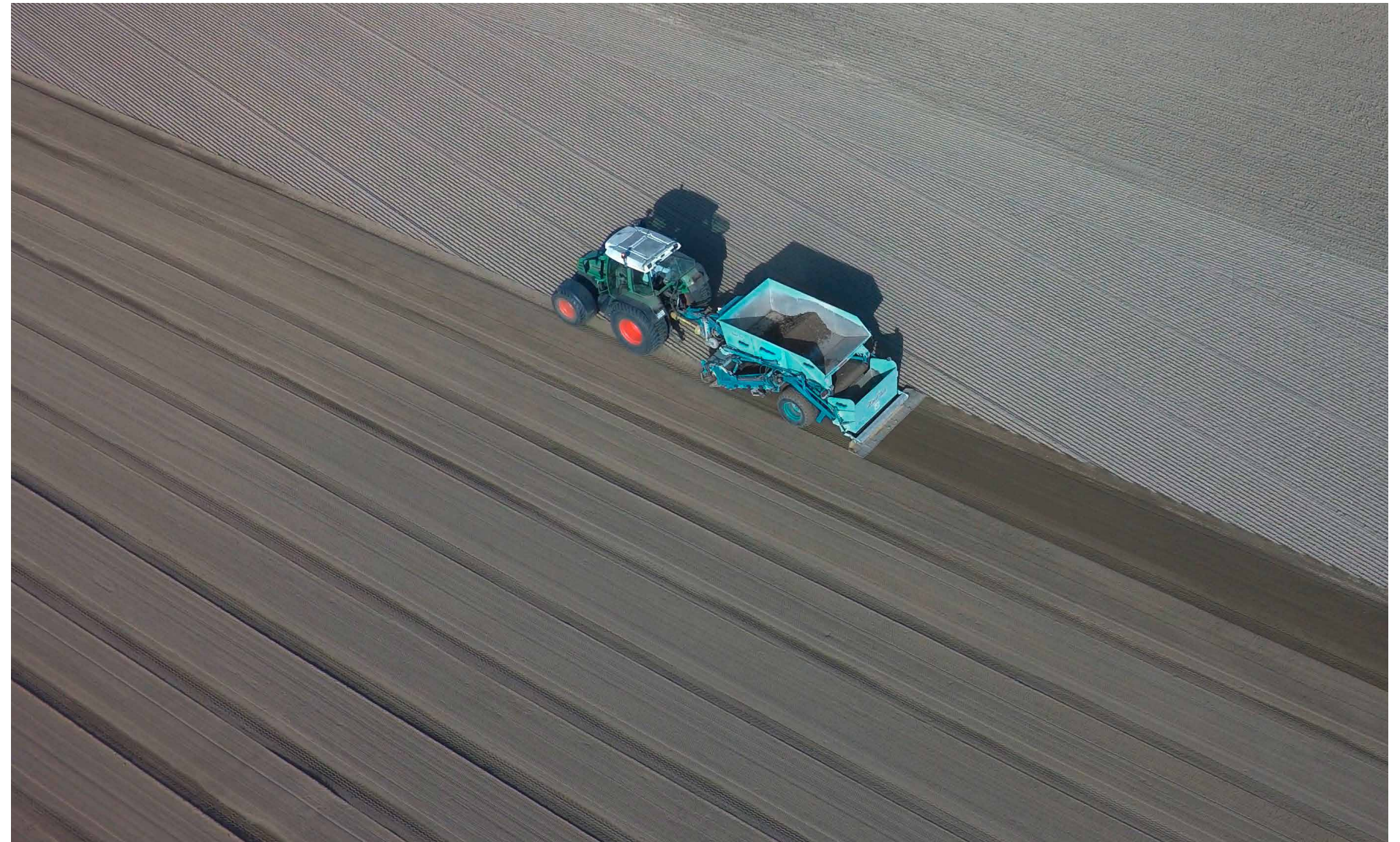
Professional stone removal

He wouldn’t want to go without de-stoning by BeachTech any longer: “The first tries were really positive and successful. The machine has a great coverage – especially in dry conditions. Of course it is location-specific, but I knew that beforehand. Then there’s the much lower wear on the blades of the harvesting machinery, because there are fewer stones, and we’re harvesting at higher speeds. That saves money and is great for my nerves!” The final result will only be apparent at the harvest in spring. “I am certain that it will be good!”

His BeachTech 3000 has found a third life with this special use: after 6 years on the

“Its excellent coverage makes the BeachTech 3000 extremely economical.”

beaches of The Hague and another 6 years cleaning the beach at Geltinger Bucht, here it’s sure to prove what “durability from Kässbohrer” really means longevity.



Perfect ground preparation...



for better harvests.



The Flens-StrandGut campaign using the BeachTech Marina to help local tourism organisations with their hands-on activities, here the Beach Clean-Up in Glücksburg-Holnis.

Clean affair

Flensburger Brauerei and its beach cleaning campaign

The Flensburger Brauerei has made a real commitment to conservation with its extraordinary StrandGut beach cleaning campaign: a square metre of beach cleaned for every bottle of beer sold. Helped by a BeachTech Marina, naturally. An idea that begs to be copied!

Once again this year, over seven million tourists are spending their well-earned holidays on Schleswig-Holstein's beautiful coast. Many locals depend directly or at least second-hand on this tourism. What most holidaymakers may not realise, however: a beautiful tidy beach is anything but coincidental and needs to be cleaned

regularly. A genuine challenge, given that the Schleswig-Holstein coastline alone amounts to over 1,125 kilometres.

Stemming from a love of its native region, the firm has decreed that every bottle leaving the brewery this summer will bear the following message: "A square metre of beach will be cleaned for every Flens sold." Along with TA.SH (Schleswig-Holstein tourism agency), the brewery is helping local tourism organisations to clean their beaches. The firm has even bought its own BeachTech Marina, which is now supporting the Flens-StrandGut campaign on the beaches of Schleswig-Holstein for the whole summer. Flensburger has also been hosting a range of events as part of the campaign, and there are more to

come, such as the Flens beach trophy in Beach Soccer and the Supersail Tour on Sylt. The BeachTech Marina is sure to be kept busy in Schleswig-Holstein for years to come. The goal of the Flens-StrandGut campaign is a phenomenal 33,500,000 square metres of cleaner beach.

We think this idea is simply brilliant – perfect marketing for all involved and a rock-solid commitment to the environment – just copy it!

YouTube channel: "Flens beach cleaning campaign in Glücksburg-Holnis – Flensburger Brauerei"

Credit: Flensburger Brauerei

Your opinion is important to us

At Kässbohrer we believe in the power of good collaboration. That starts with the development of our products and services and ends with the birth of a magazine for business partners, operators and fans. Accordingly, we'd also like to know what you like about the new Kässbohrer magazine. Have we thought of everything? Or is something missing? Let us know what you like and what we could improve.

www.pistenbully.com/en/newsletter

Competition Participate and win vouchers of the PistenBully shop!

All you have to do is answer five questions at:

www.kaessbohrerag.com/survey

by 31.12.2017. You will of course be rewarded for taking part: we're giving away great prizes to the entrants. As usual there is no legal recourse.

Our Online Newsletter

Subscribe now and keep informed!

Imprint

Customer Magazine of
Kässbohrer Geländefahrzeug AG
Published twice a year

Publisher

Kässbohrer Geländefahrzeug AG
Kässbohrerstraße 11
88471 Laupheim, Germany

www.kaessbohrerag.com



BeachTech
21. – 23.11.2017
SMCL: Salon des Maires
et des collectivités locales
Paris, France

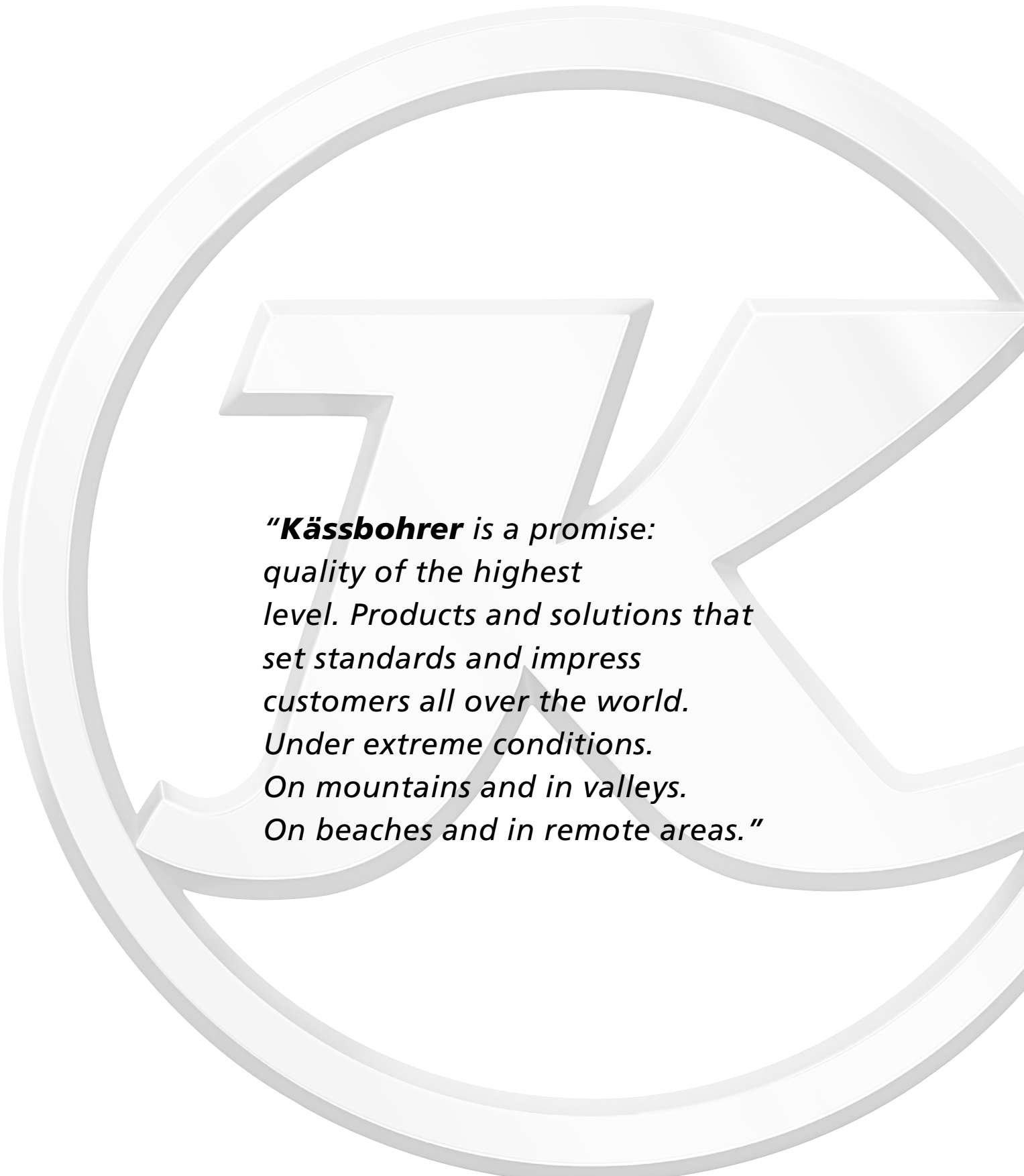


PistenBully
18. – 20.04.2018
Mountain Planet,
Grenoble, France



PistenBully
24. – 27.01.2018
Alpitec
Peking, China





***"Kässbohrer** is a promise:
quality of the highest
level. Products and solutions that
set standards and impress
customers all over the world.
Under extreme conditions.
On mountains and in valleys.
On beaches and in remote areas."*

PistenBully®

Registered trademarks of Kässbohrer Geländefahrzeug AG

PowerBully®

BeachTech®

sn^owsat®



BLUEIQ

A responsible future
Our corporate philosophy