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# PistenBully 400 4F

The specialist for slope and snowpark preparation



# Vehicles with added value

Anyone choosing a PistenBully is choosing quality. Every single vehicle is packed full of our knowledge, our experience and our passion. Our mission is to develop outstanding vehicles. Vehicles our customers can rely 100 % and that stand for a responsible approach to our environment. The introduction of the Tier4f exhaust standard is just one example of the many ways in which we continually refine and improve our vehicles.

The overall quality of a PistenBully only comes from investment in research and development, in training and education, in services and from a comprehensive supply of spare parts.

Jens Rottmair Chief Executive Officer





# JUMP ABOARD AND DO YOUR THING!

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# PistenBully 400 4F The specialist for slope and snowpark preparation

#### TOP The ideal mix

The PistenBully 400 4F offers a perfectly balanced combination of power, weight and size. Heavy work is no problem for the powerful Cummins engine. The All-Way Blade effortlessly moves enormous volumes of snow. And yet the PistenBully 400 4F is extremely agile. Thanks to its maneuverability, it is adept for precise grooming work in tight quarters. Its high-performance suspension gives it excellent climbing ability without compromising on ride comfort and quietness.

#### **TOP** PistenBully – a driver's friend

You have the choice: steering wheel or sticks. Either way, the PistenBully 400 4F guarantees user-friendliness. The classic left-hand seat position improves the view to the rear. The sound-proofed cab with its heating and ventilation system keeps the driver warm and dry even on stormy nights. Bright headlights, heated front wind shield wipers, windows and mirrors make the work much easier. Operators end their work shift feeling relaxed.

#### TOP AlpineFlexTiller

What counts is the finished slope. No problem with the AlpineFlexTiller. Seamless corduroy finish and perfectly groomed snow guarantee hours of skiing and snowboarding fun. Easy maneuverability, highly durable components, e.g. low-wear tiller shafts, extremely compact poly-finishers as well as a low maintenance requirement, are just a few additional plus points of the AlpineFlexTiller.

#### TOP Reliability

The PistenBully 400 4F is a solid partner – durable and reliable. It starts with the chassis which is perfectly designed to withstand hours of heavy work at high power. All components – tracks, suspension, drive, hydraulics, electronics and cab – work together as a perfectly coordinated system. Because we only use high-quality components, you never have to worry about operating and maintenance costs. Powerful, fuel-efficient, sustainable – simply a genuine PistenBully.

#### TOP Customer service

We don't just talk about top service, we deliver it. You'll find all the technical information on our Service Portal – always kept up-to-date of course. Choose from our extensive range of training options and make use of our service support stations worldwide. Order spare parts online. Take advantage of the large range of spare parts we keep in stock. Let our technical support staff help you over the phone and rely on our well-trained and highly motivated service engineers.

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# All-Way-Blade Maximum stability, maximum thrust

# • Efficient power transmission for outstanding pushing performance

The forces are evenly distributed across the whole vehicle frame during dozing work. This has a positive effect, resulting in a stable drive and outstanding pushing performance.

# • High flexibility and ideal roll behavior

The large All-Way-Blade ensures the highest flexibility. The optimized joy stick gives the operator precise control and stress-free working. The special roll crown on the blade and the extremely well-balanced vehicle geometry as a whole create the best roll characteristics in the snow. For the perfect job on the slopes.

# AlpineFlexTiller Perfect snow quality even in extreme conditions

# • Perfect snow quality

The AlpineFlexTiller impresses in the toughest conditions with its outstanding performance. The tiller shafts prepare the snow and ensure the best slope quality. The finished surface meets the highest technical standards and provides an even corduroy finish.

# • Adapt to changing snow conditions

Well-thought-out modifications to the tiller guarantee outstanding snow grooming. All setting options can be stored and recalled at any time using the memory function. This means you can react individually and as quickly as possible to changing snow conditions.



# **Track setters** Precise tracks for every scenario

• Extensive selection of track setters for every scenario: The PistenBully 400 4F holds its own against any competition. Equipped with the 4-way track setter, it is unbeatable at creating trails reliably for mass-start competitions. This makes it a powerful contender for major events.

Ski resort operators praise the high flexibility, the precision and the low maintenance requirement.

# **PistenBully 400 4F** Also at home indoor

The PistenBully 400 4F is the ideal vehicle for use in snow domes: The engine is quiet and also low-emission thanks to its integrated emission control. As an indoor specialist it impresses due to its agility in elongated snow domes and the greatest possible sensitivity in the snow. 7



# **Cockpit** Get in and feel good

The PistenBully 400 4F impresses at the first glance. And still does so at the hundreth. High quality standards and years of experience go hand-in-hand here creating a workstation that is simply first class. For a good impression that lasts.

#### Details that speak for themselves

Generously sized and built using Kässbohrer's proven hybrid design, the cab is extremely stable and is ROPS-certified in accordance with EN 15059. The huge windows provide perfect panoramic visibility. Extensive sound-proofing measures in the undercarriage, the cab's roof and the exterior panelling create a quiet and pleasant working environment. There are two separate heat exchangers with fans to provide heat in the foot area and on the side windows in icy temperatures.

# • Improved ergonomics

- Air-sprung, ergonomic driver's seat
- Ergonomic joystick for all PistenBully 400 4F
- Clearly arranged display of all information
- Higher resolution and brighter display
- Safety
- ROPS-certified cab (15-ton roof load)
- Shatter proof windshield

#### • More information

On-board diagnosis

#### • More comfort, more function

- Heated cab with optimised ventilation system for a pleasant working environment
- Large, heated windows for the best all-round visibility
- Up to 6 dB lower noise level
- Self-explanatory color coding of functions

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- Non-slip and breathable seat covers
- Additional emergency-/childseat



Precise control of left and right track through sticks control. This is advantageous for grooming in tight quarters. Fast, positive direction change from forward to reverse when doing dozing projects.



The PistenBully 400 4F is also available with semicircular steeling wheel. It is continuously adjustable horizontally and sits perfectly in the hand. Drivers can steer the PistenBully effortlessly and have all the most important functions at their fingertips.



Everything at a glance: the PistenBully 400 4F's dashboard is clearly arranged and extremely intuitive to use. The clear display provides all important information and facilitates a fast on-board diagnosis.



Simple operation: all important functions are integrated into the ergonomically designed joystick, putting them within easy reach.

# **400 4F engine** A high-performance engine for cost-effective peak performance with low emissions

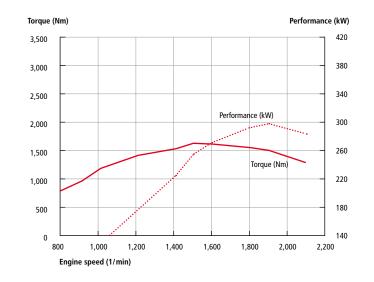
#### • Power and high torque coupled with excellent fuel economy

The powerful, 6-cylinder in-line diesel engine with common rail fuel injection offers low fuel consumption along with low noise and exhaust emissions. It complies with the Tier 4 final standard thanks to an exhaust gas after-treatment system.

The 400-hp Cummins engine brings pure power to the slopes with a maximum torque of 1,627 Nm at 1,500 rpm. Thanks to the VTG turbocharger, the engine also achieves high torque at low revs and responds much better. The patented Fleetguard filter with nanotechnology ensures optimised fuel filtering. Direct-flow air filters reduce the filter change intervals.

Туре	Cummins QSL9 Tier4f
Cylinders	6
Cubic capacity	8.9 l / 8,900 ccm
Power output (ECE)	298 kW / 400 hp
Max. torque	1,627 Nm (1,120 ft lbs) at 1,500 rpm
Fuel consumption	from 19 l/h / from 5 gal
Tank capacity	260 l / 69 gal
Emission standard	EPA Tier4f / EU Stage IV







# 

# **4.0 ton winch** Extra hold and increased safety on the mountain

Whether in use on steep slopes or moving large volumes of snow: the 4.0 ton winch is the perfect complement to the PistenBully 400 4F for big challenges on the mountain.

The tailor-made winch attachment system with five mounting points facilitates quick and easy installation and removal.

● The technology of the PistenBully 4.0 ton winch has inherent advantages Four tons of pulling force (4.4 ton US), 1,050 meters of rope, and an extremely robust gearbox. The PistenBully winch maintains a constant pulling force that does not vary between first wrap and last. The "action" radius between the two multigroove capstan pulleys is constant regardless of how much rope is on the drum. The entire winch assembly is mounted on a turret that rotates 360°. This eliminates the need to monitor or compensate for rope twist on turnarounds. The operator never has to worry about sequencing his turnarounds to the left and right.

The active boom winch control that comes standard also ensures the optimum steering capability of the machine in difficult snow conditions. Selected steering parameters can be modified to accommodate the snow and slope conditions. The low-wear winch system and the high durability of the gear wheels and shaft bearings ensure long and safe usage with a low maintenance requirement.

#### • High safety guaranteed

- Sophisticated control system for optimum steering behavior
- High capacity pump for winch drive
- Continuously variable rope pull control of 0 4.0 ton
- Individual pulling force setting
- Automatic levelwind control, malfunction alerts
- Automatic rope monitoring for early detection of wire and strand breakages
- Emergency stop on the steering column
- Alarm signal when winch boom tilted
- Permanent display of remaining rope length



Well-equipped for every situation in Nordic sport – from fresh snow to the hardest packed ice. Thanks to the well designed tiller system, the machine produces cross-country ski trails that meet FIS requirements in just a single run.

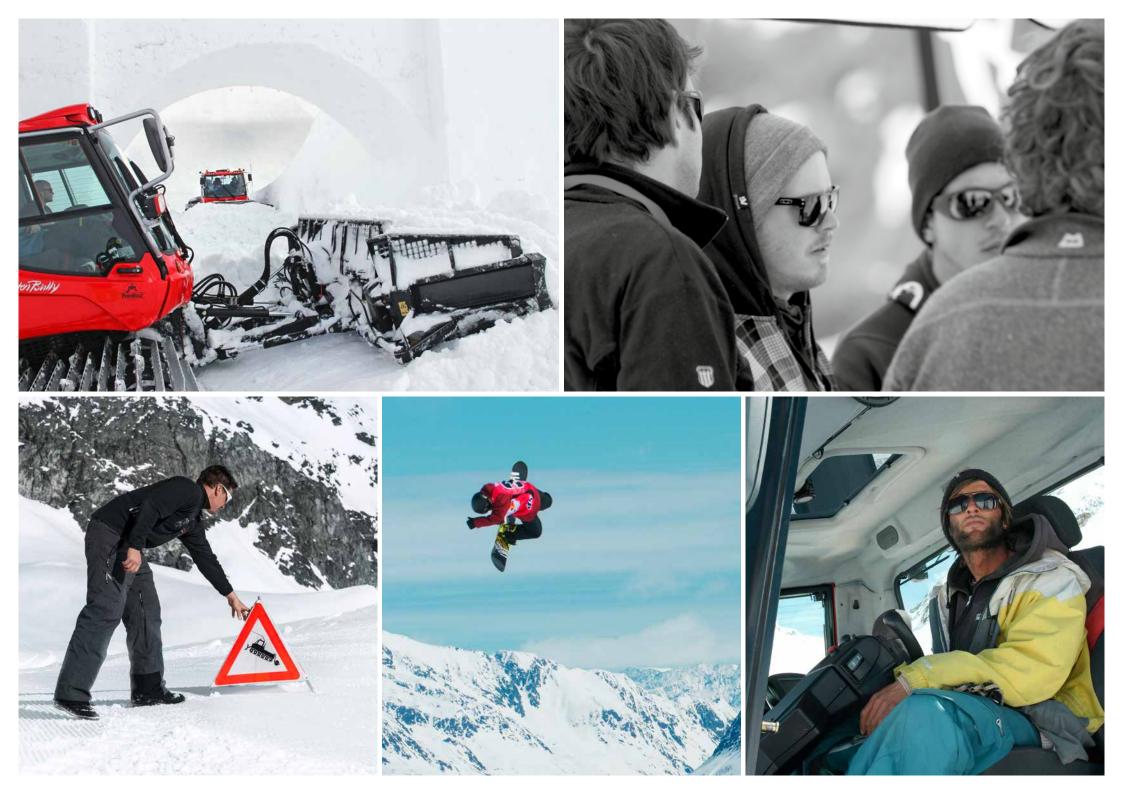






Our PistenBully 400 4F is a true workhorse and feels at home in diverse environments. On the slopes, indoors, on cross-country tracks and in the park – the PistenBully 400 4F cuts a perfect figure wherever it goes. We present a full-blooded all-rounder.

Parks have rules all of their own. Other capabilities beyond coverage play a central role here. The snow cat has to be agile to move safely in the tightest spaces. Precision is essential for creating features. And at the start of park construction, the PistenBully must have enough power to move the snow effectively and quickly. Don't forget: in the park work doesn't feel like work. It's all about fun here – and that starts from the very beginning during construction. O'NEILL MAR ONEIL





# **PistenBully 400 Park 4F** Limitless possibilities

Every season the bar is raised for creativity in the park. Powerful and extremely agile snow groomers are needed. Bring in the PistenBully 400 Park 4F. Specially designed for building terrain parks, park builders and shapers quickly become masters at their tasks. Thanks to the good visibility from the cockpit's panoramic windows, the highly versatile ParkBlade can be controlled easily and precisely with the multifunction joystick. The driver's seat swivels 20° ensuring a good rear view over the narrow deck as well.

#### • Flexible and agile

The PistenBully 400 Park 4F has extreme motion of the front and rear attachments. Range of motion is 134° at the front blade and a massive 180° at the tiller – perfect for building takeoffs, kickers, landings and pipes. The power curl function on the joystick allows the operator to lift and curl the ParkBlade simultaneously. Carry and place snow to build large features quickly and efficiently.

#### • For creative head shapers

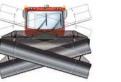
The rear lift frame and PSX control make the ParkFlex tiller's range of motion even greater. The ParkBully reaches high up and deep below with its tiller -creating precise radii and laying down a perfectly finished surface. And in addition to the many creative possibilities in the park, the 400 Park 4F is ideal for grooming the slopes.

#### • Perfect for competitions

The park design must continually be altered to ensure the lasting fascination of events. With the ParkBlade from PistenBully, moving rails and fun boxes or transporting other objects becomes a one-man job. You'll find this and the other attachments for the ParkBully on page 20.



Extreme agility of the front and rear attachments for perfect shaping and reshaping.





The maximum flexibility of the All-Way-Blade facilitates precise shaping of particular designs.



Standard equipment: With the ParkBlade, transporting rails, fun boxes or other park accessories becomes a one-man job.





# **Standard equipment** PistenBully 400 4F

# **On-board diagnosis**

The most important data at a glance immediately and effortlessly



Drivers can access the on-board diagnosis directly from the touchscreen. All functions can be centrally controlled with the fast PSX main computer. Thus, drivers can quickly and effectively access, monitor and evaluate figures on performance and energy management, the engine, the hydraulics and the drive and tiller pumps.

The 10.4" touchscreen offers an improved overview, higher resolution and a bright, illuminated display, which provides optimum contrast day or night.

# **Optional equipment** PistenBully 400 4F

Magnum sprocket Premium drive wheel

# Solid tires For greater durability



num The solid tires offers an alternat

The Magnum sprocket facilitates optimum power transfer to the tracks. It is extremely high-quality, robust and low-wear over a much longer operating time. The solid tires offers an alternative choice tot he standard pneumatic tires. Choose it when high use and heavy duty grooming cycles are anticipated.

# LED lights

Optimum Illumination of the working areas



The PistenBully lighting concept is perfectly tailored to the working conditions: an extensive LED lighting package with powerful working lights, as well as on the mirror mounts, and tree line lights, all ensure optimum lighting of the working areas to the front and rear, the tracks and the side sections of slope.

# Narrow platform Perfect visibility of the work



The narrow platform means you always have a full view of the AlpineFlexTiller at any time. This enables even more precise work with the tiller in terms of speed, tiller height and the volume of snow you're working with. The narrow platform is also a must in the park for many shapers. That's because the unrestricted view means the driver can see when the tiller needs to be lowered to leave the perfect finish on the feature. SNOWsat is an integrated system for guidance, monitoring and coordination of the PistenBully fleet based on GPS and inertial technology. Numerous functions support the central control room and the drivers thanks to efficient snow management. SNOWsat supplies valuable data on snow depth, enabling targeted production of man made snow and snow grooming and, thus, saves on working time, water and energy.

**SNOWsat** 

Professional fleet and

snow management

**snowsat**<sup>®</sup>

# Technical package

High-pressure connection for hydraulic front attachments



The PistenBully can be supplemented with other hydraulically operated attachments, such as the front snow blower or PipeMagician, using an additional high-pressure connection on the front of the vehicle.

# Original attachments 100 percent PistenBully quality

PistenBully original attachments don't have an outstanding reputation for nothing. You can rely on the fact that you're getting Made in Germany quality and the usual customer-oriented service.

Naturally, we have combined the attachments and vehicle components in the best possible way so that everything works perfectly. And last but not least: we know the business and our products and are happy to support and advise you.

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# **Front attachments**



# PipeMagician

The ideal tool for preparation of half and quarter pipes for competitions. The advantage: they can also be prepared without a winch. With the PipeMagician you can work going uphill and downhill. It can also be stored in a garage once the work is done.



# SnowCutter

The SnowCutter is a special tool for breaking up particularly icy sections of snow. This drastically improves the finished quality in conjunction with the AlpineFlexTiller.



# Snow bucket

Ideal for shifting snow to the edges of the slopes or from snow depots to remote slope areas. So you can turn poor areas back into perfect slopes. The snow bucket can also be used to transport materials.



# Snow gun bracket The snow gun bracket is a specially developed fixing on the blade for simple and safe transport of snow guns during the season or for removal and storage in summer.



Front snow blower Front snow blower specially developed for the PistenBully for clearing car parks, roads and open areas. Also suitable for moving snow on the slopes.



Blade Loader Attachment for snow transportation on the slopes or around lifts. Can also be used to replenish remote areas or for shifting and clearing work.



**Transport box** The XXL box for transporting materials in the ski resort. It holds up to three Euro pallets and can be stacked for practical storage.

# **Personnel cabins**





Cab 5 person/700 kg Cab for moving up to 5 people with foldaway bench.

Cab 10 person/750 kg Cab for moving up to 10 people with 2 foldaway benches.

Cab 15 to 20 person/ 1,600 kg Cab for moving up to 20 people with 2 foldaway benches and 2 fixed benches.

Each cabin features side entry door from the driver's side with a fold away stair/platform assembly for safe and easy entry over the tracks. Other features include lap belts, lighting, self contained heater, folding side window, hinged sun roof, telephone connection to the driver's cab, rear camera and ROPS-certification.

# **Rear attachments**



**4-way track setter** Professional track setter for preparation of 4 cross-country tracks at a time, such as are required for mass-start competitions.



Aluminium ski box Ideal for secure transport of up to 20 pairs of skis or snowboards. Alternatively, you could also store a rescue sledge here. Very easy to fit to the PistenBully.

# Technical data PistenBully 400 4F / 400 W 4F

Engine	400 4F	400 W 4F
Туре	Cummins QSL9 Tier4f	
No. of cylinders	6	
Displacement	8.91/	2.4 gal
	8,900 ccm	/ 543 cu.in
Power output (ECE)	298 kW / 400 hp	
Exhaust emissions standard	EPA Tier4f / EU Stage IV	
Max. torque	1,627 Nm/	1,120 ft lbs
	at 1,50	00 rpm
Tank capacity	260 l / 69 gal	
Tank capacity	capacity from 19 l/h / 5 gal	
Drive pump	140 ccm / 8.5 cu.in	

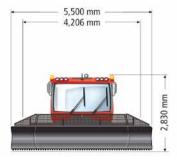
Driving characteristics	400 4F	400 W 4F
Speed	0 – 21 km/h /	0 – 19 km/h /
	0-13 mph	0-12 mph
	continuously	continuously
	variable	variable
Speed with winch in action		0 – 17 km/h /
		0 – 11 mph
Gradeability	up to 100 %	
Turning radius	on-the-spot	

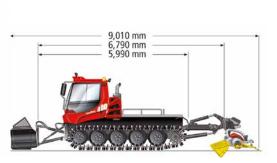
Electrics	400 4F 400 W 4F	
Low-voltage system	24 V	
Alternator	24 V/140 A	
Batteries	2 x 12 V / 135 Ah	
Cold start rating	900 A	

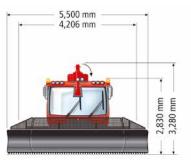
Lightning	400 4F 400 W 4F		
Front	2 H7 front-headlights and 2 H11 working headlight		
Rear	2 H11 rear-headlights		
Lateral	Side Finder		
Tree line lights	optional		
Search headlight	Twin searchlights		
Additional headlight	<ul> <li>2 x LED</li> <li>2,200 lm on</li> <li>winch boom</li> </ul>		

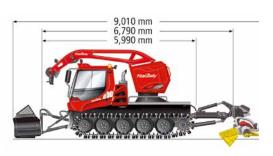
Cabin	400 4F 400 W 4F	
ROPS certificat	yes	
Driver's seat	adjustable	
Operating elements	display with touchscreen	
Glazing	Front, rear and side windows heated	
Rear mirrors	heated	
Wipers	cooling-water heated	

400 W 4	
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Winch superstructure		400 W 4F
Rope pull	continuously variable	40 kN / 4,080 kp
Rope diameter		11 mm / 0.4"
Rope length		1,050 m / 1,148 yd
Usable rope length	1	1,000 m / 1,094 yd
Rope breaking stra	iin	130 kN / 13,256 kp
Drive rating	at 40 kN pull	110 kW / 150 PS
Weight (winch, rope and superstructure)		1,900 kg / 4,189 lbs

Weights		400 4F	400 W 4F
Tare weight*	with combined tracks, from	8,045 kg / 17,736 lbs	10,040 kg / 22,134 lbs
	with steel tracks, from	8,645 kg / 19,059 lbs	10,670 kg / 23,523 lbs
Gross weight	limit	11,800 kg / 26,015 lbs	12,200 kg / 26,896 lbs
Payload on pl	atform	1,500 kg / 3,307 lbs	2,500 kg / 5,512 lbs

\*In acc. with ISO 1176/M6, net weights may vary depending on equipment.

Dimensions		400 4F / 400 W 4F
Width	without tracks	2,500 mm / 98.4"
	over combined tracks / steel tracks	4,206 mm / 165.6"
	over tiller with intermediate flaps	5,500 mm / 216.5"
	over tiller and foldable sideflaps	6,400 mm / 252"
Blade	width open	5,260 mm / 207"
	width wide	4,420 mm / 174"
	Height	1,000 mm / 39.4"
Height	above everything	2,830 mm / 111.4"
	400 W 4F above winch ready	3,280 mm / 129.1"
	for operation	
	when driver's cabin tilted	3,250 mm / 128"
Ground clear	ance	350 mm / 13.8"
Length	with blade and tiller	9,010 mm / 354.7"
	with blade, tiller and track-setters	10,310 mm / 405.9"
Load area	Length	2,120 mm / 83.5"
	Width	1,920 mm / 75.6"
Suggested	Length	11,000 mm / 433"
garage	Width	6,000 mm / 236"
dimensions	Height	3,500 mm / 138"



# **PistenBully Service** 365 days a year, 24 hours a day: our global network is always there for you.

### Local service

We know what the breakdown of a snow groomer means to a ski resort. That's why Kässbohrer Geländefahrzeug AG has been investing for decades in a sophisticated, fast-response and globally available service network, which guarantees the availability of service engineers and original spare parts within 24 hours. We now have over 130 service stations and agencies around the world. Because smooth, cost-effective operations are the top priority.

### Advice and training

PistenBully is your partner when it comes to economical use of materials and resources for your fleet. We offer a comprehensive concept of advice and training that will help you to produce the perfect slopes. Technician training ensures your independence and also enables you to perform repairs quickly right in the ski resort.

# **Exchange experiences**

We share your passion. And we continually exchange experiences with ski resort operators, slope managers and drivers to make sure we're aware of your needs and wishes and to incorporate these in the development of our PistenBully.

You'll find more information on our service concept at: www.pistenbully.com/service



# **PistenBully. For the snow of tomorrow.** Quality, reliability and innovation for over 40 years.

You only get better than "good" with genuine passion and a strong team. A passion for engines, machines and technology is inextricably linked to the Kässbohrer business. Our success is essentially based on these foundations: good ideas that lead to new solutions and a skilled and dedicated team. Our corporate culture encourages a positive innovative climate and enables us to expand our market leadership with fascinating products of the highest quality and reliability.

# KÄSSBOHRER GELÄNDEFAHRZEUG AG

### **Obligation of quality**

Second St.

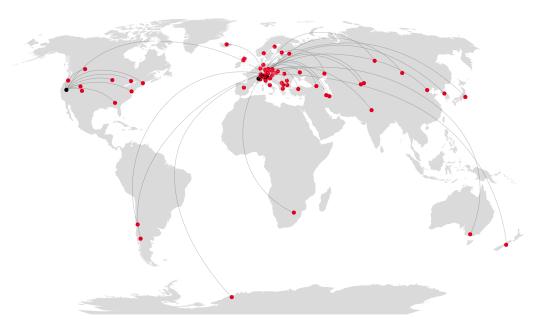
We know the tough conditions in which our vehicles work and the challenges our customers face to work economically. We are convinced that the reliability and quality of our vehicles is the most important added value we can offer our customers.

# Responsibility for people and the environment

We see ourselves as a company that takes a responsible approach to its resources, its environment and its relationships with customers, staff and suppliers. Appreciation of people and nature is a valuable asset to us, and this guides our business.







# The global PistenBully network

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Tisten Bully Kässbohrer Geländefahrzeug AG

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