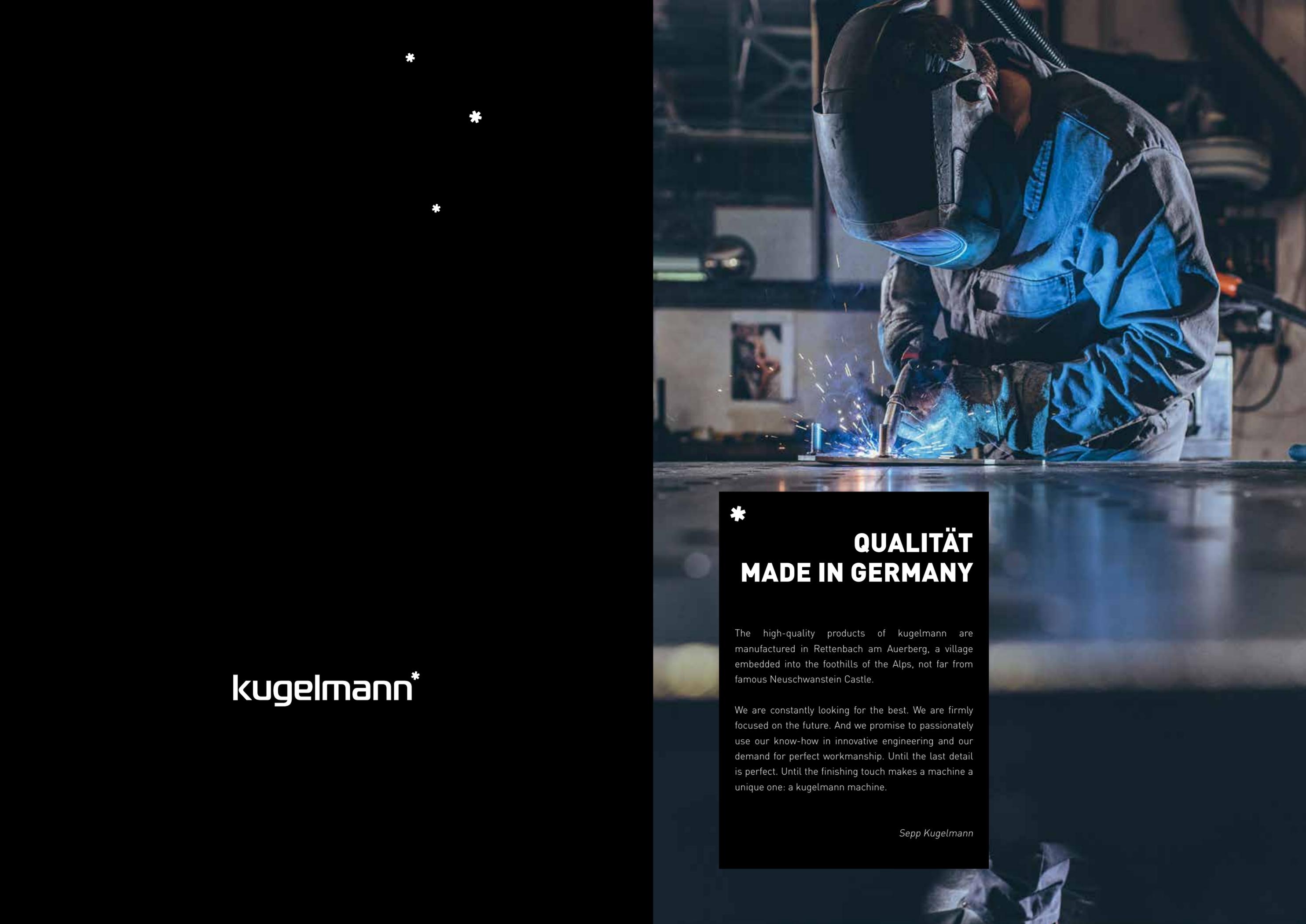


kugelmann\*



## D 352 – 2302

Two-chamber three-point spreader



kugelmann\*



## QUALITÄT MADE IN GERMANY

The high-quality products of kugelmann are manufactured in Rettenbach am Auerberg, a village embedded into the foothills of the Alps, not far from famous Neuschwanstein Castle.

We are constantly looking for the best. We are firmly focused on the future. And we promise to passionately use our know-how in innovative engineering and our demand for perfect workmanship. Until the last detail is perfect. Until the finishing touch makes a machine a unique one: a kugelmann machine.

*Sepp Kugelmann*



\* **THE PROVEN  
ALL-ROUNDER  
PERFECTED EVEN  
FURTHER**

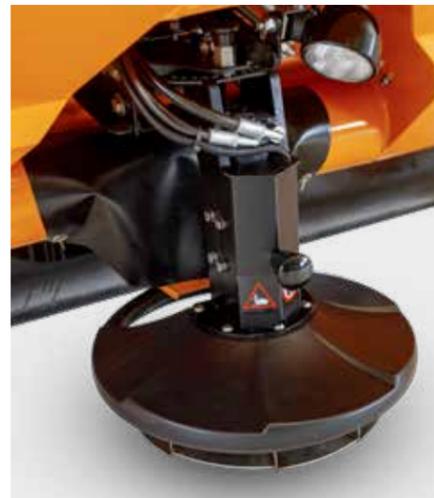
The DUPLEX three-point spreader, a real classic of kugelmann, becomes the D xx2 (D 352- D 2302). The proven spreader developed over decades has now further been perfected and optimized. Also the clear new design language of kugelmann has been transmitted on the D xx2 series.

The solid two-chamber system can either spread two different spreading agents separately or mix them at any mixing ratio. It is even possible to separate the chambers asymmetrically for different quantities of grit or de-icing agent.

The optional brine tanks leave nothing to be desired. You can spread grit, salt, salt with brine or pure brine - whatever the circumstances and the weather conditions demand. See for yourself. The following pages provide more details on the three-point spreaders D xx2.

# D 352 – D 2302

The new two-chamber three-point spreader series of kugelmann



### FLEXIBLE SIZE

Configuration of length, width, height optimally compatible with carrier vehicle

### STACKING FRAME

The stacking frame (optional) increases the number of possible pan shapes and also the filling volume can be increased at a later stage.

### MAXIMUM PAYLOAD

Center of gravity close to vehicle through very compact attachment low net weight

### LED LIGHTING

In accordance with national road traffic regulations, seamlessly integrated incl. reflectors and flash lamps

### HIGH TORQUE

Chain drive guarantees high torque when the screw starts up

### REVERSAL OF SCREW MOVEMENT

The opposite rotation of the screw conveyor provides for bulking of the spreading agent. A blockage of the conveyor screw can thus be prevented.

### INNOVATION THAT MATTERS

kugelmann spreading disc: patented, proven and continually optimized homogeneous spreading pattern, exact lateral distribution of spreading material maximum spreading capacity, maximum road safety modular design: grit, salt, brine can be spread variably Basic variant (grit/salt) expandable with brine up to FS100 Manual or electrical adjustment of spreading pattern incl. automated spreading pattern correction (can be retrofitted optionally)

### OBLIQUE COVER

Easy and reliable handling can be locked intuitively and securely Can be stowed space-saving during filling and opened from floor level optimum water drain-off thanks to inclination

### TWO-CHAMBER SYSTEM

Separate use of chambers for two different spreading agents

### BRINE EQUIPMENT (optional)

Compact and maintenance-friendly design

### SCREW CONVEYOR

Exact dosing accuracy proven design, durable construction Screw bearings can be relubricated maximum spreading reliability

### PARKING STAND

Interchangeable stainless steel base with secure standing

### AGITATOR SHAFT

Loosens wet, clotty spreading agent by means of kugelmann pilger drive

### STANDARD EQUIPMENT

- tarpaulin cover
- protective grid made of stainless steel
- 2 screw conveyors
- two-chamber system
- stainless steel spreading system
- marking winter maintenance
- spreading pattern adjustment
- reversal of screw movement

### ENDLESS OPTIONS

- pre-wetted salt spreading
- control system with data recording
- infrared sensors for temperature measuring
- electrical monitoring of spreading process
- electrical adjustment of spreading pattern
- additional PTO hydraulic pump with hydraulic reservoir
- agitator shaft
- rotating beacon
- flasher
- splash guard
- working headlight

### COST-EFFECTIVENESS

Exact dosing accuracy, thus environmentally conscious handling of spreading material low oil consumption and low pressure and power requirement through highly efficient hydraulic block.

### UNBEATABLE DURABILITY

The D xx2 is entirely made of stainless steel. The VA quality is absolutely alkali-resistant. In addition, the spreader is finished with a high-quality special coating offering maximum corrosion protection.



## INNOVATION THAT MATTERS

We have been building spreaders since 1989 - with the highest quality requirements from the beginning. Over the past decades, the kugelmann spreading technology has been continuously improved and perfected.

Through the exact and consistent lateral distribution of spreading material, we reach a homogenous spreading pattern. This means reliable spreading and thus road safety.



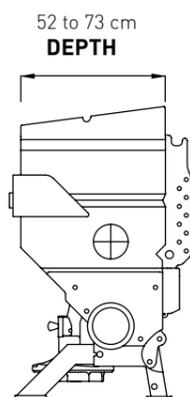
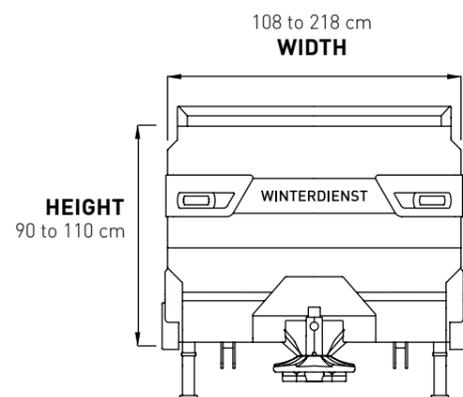


“D” for three-point spreader

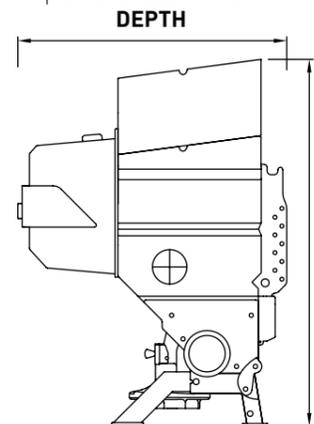
# D 1202

1200 litres

Two-chamber spreader



with pre-wetted salt: 110 to 144 cm



## D 352 – 2302

Our spreaders perfectly adjust to your carrier vehicle. By means of our modular system, we can offer about 17 different hoppers from 0.35 m<sup>3</sup> to 2.3 m<sup>3</sup>. Of course, we can also adapt a spreader to your vehicle.

The new spreading disc unit has a modular design. Thus, all three spreading agents (grit, salt, brine) can be spread variably at any time. The basic version (grit and salt) can be expanded with brine (up to FS100). This makes it a valuable investment for the future.

## „D xx2 – the all-rounder“

Our twin-screw system allows for distribution and continuous mixing of two types of spreading agents. With additional brine tanks, you can also use pre-wetted salt. The Duplex construction allows a short attachment and thus ensures low relief of the front axle.

Especially when mounted on a tractor, this spreader is an economical solution for contractors and municipalities. It is easy to operate and you will quickly feel familiar with the equipment. All drive components and cables at the rear section are covered and thus provide protection against mechanical damage and splash water.

The attachment close to the tractor provides the optimum center of gravity and a high load-carrying capacity. The chain drive guarantees a high torque when starting the conveyor screw. By means of the vibrant reversing, problems through clotty spreading agent can be resolved quickly and reliably.



Sepp Kugelmann

## CONTROL SYSTEMS

kugelmann has managed to launch a control system reduced to the most essential. As an interface between operator and machine, the control systems combine intuitive operation and precise spreading technology. Despite the high-tech solution with intelligent feedback and control function, they are easily understandable and their use quickly becomes routine. You have everything under control without compromising on your work.

The control systems work entirely path-dependent. This means an economical and efficient use of spreading material.

A unique feature of our spreaders is the infinite adjustment of spreading width and spreading pattern.



**K-TRONIC 2**



**MCSS 5**

### „The art of simplicity“

„Usability“ is the main topic when it comes to the development of a new interface between operator and machine. Only if this interface offers simple and intuitive operation and becomes a matter of course, an optimal use of the spreader is possible.

Basically, the focus is on simplicity. But this simplicity that should solve this complex task challenged our team of developers.

Spreading precision and easiest handling were

the prime goals during the development of the new kugelmann control units. Above all, the precise but easy use of the spreader in critical operation situations is an important issue for us.

Optimization of winter maintenance services - I can assure you today that we have reached this goal.



Harald Meckelburg

# MACHINES THAT IMPRESS

With passion, we manufacture reliable and pioneering machines - we love what we do.



## D 301 | D 601

The new generation of one-chamber three-point spreaders by kugelmann: a real milestone.



## L 411 - L 1551

Three-point spreader series with self-loading function: revolutionary thanks to the pivoting hopper



## D 352 - 2302

Two-chamber three-point spreader: the absolute multi-talent



## A 201 - A 1501

The new one-chamber truck-mounted spreader by kugelmann: revolutionary and trend-setting - a real innovation on the market.



## A DUPLEX

kugelmann two-chamber truck-mounted spreaders: established and proven reliable for decades.



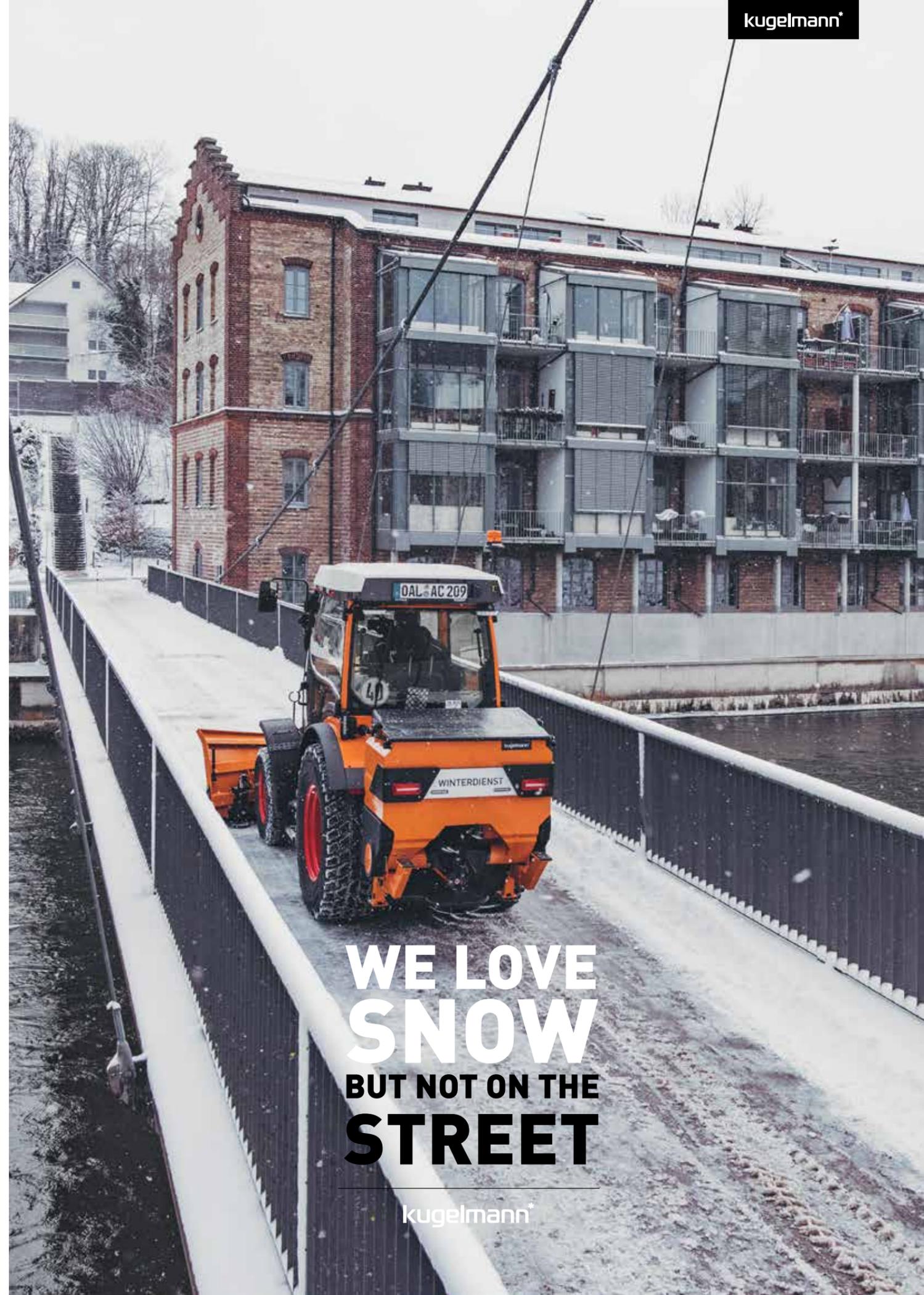
## SNOW PLOUGHS

Smooth snow clearing: kugelmann snow ploughs stand for clean snow removal without damaging roads and tracks.



## E 800 | E 1200 | E 1500

The kugelmann sweeping suction combination: reliable, simple and extremely effective.



WE LOVE  
SNOW  
BUT NOT ON THE  
STREET

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kugelmann Maschinenbau is a family-run Allgäu business with its main emphasis and tradition in municipal technology. With passion, we manufacture reliable and pioneering machines - we love what we do.