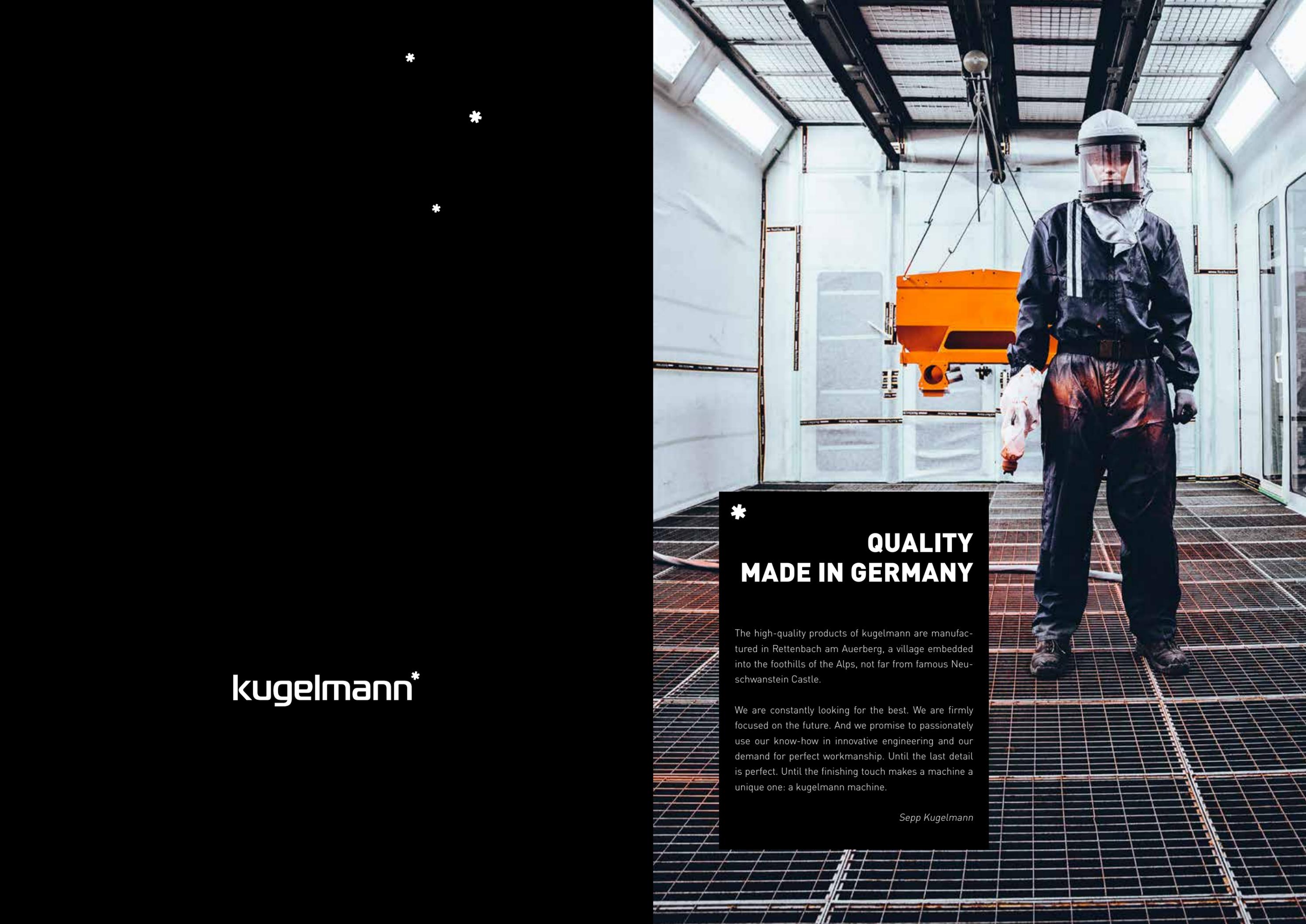


## A DUPLEX

Two-chamber truck-mounted spreader

kugelmann\*



\* **QUALITY  
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 ALLROUNDER

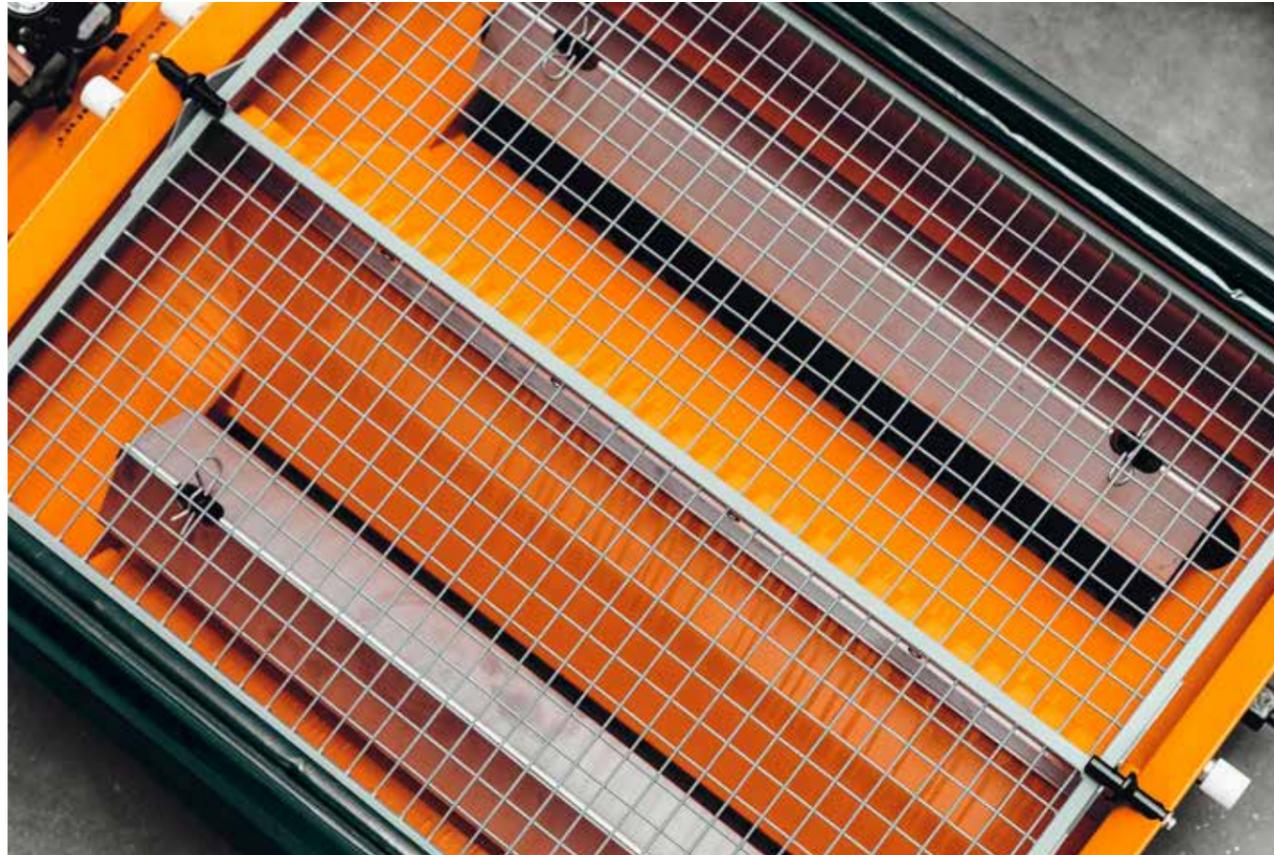
DUPLEX stands for two-chamber system - two different types of spreading agent can either be spread separately or mixed at any mixing ratio. It is even possible to separate the chambers asymmetrically for different quantities of grit or deicing agent.

The optional brine tanks leave nothing to be desired. You can spread brine, salt with brine or grit - whatever the circumstances and the weather conditions demand.

See for yourself. The following pages provide a more detailed insight on the truck-mounted spreaders A DUPLEX.

# A DUPLEX

The two-chamber truck-mounted spreader series by kugelmann



bottom left: electro-hydraulic control block by kugelmann  
 bottom center: kugelmann brine pump  
 bottom right: reversal of screw movement by kugelmann

### FLEXIBLE SIZE

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

### LOW CENTER OF GRAVITY

low machine design provides protection through all-round vision and a low center of gravity

### 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.

### STANDARD EQUIPMENT

- tarpaulin cover
- protective grid made of stainless steel
- 2 conveyor screws with 3 pitches
- two-chamber system
- stainless steel spreading system
- working headlight
- rotating beacon
- adjustable spread pattern
- 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 spread pattern
- stand legs
- full stainless steel equipment



### TARPAULIN COVER

easy and reliable handling can be stowed space-saving during filling and can be opened from floor level

### TWO-CHAMBER SYSTEM

The two-chamber system lets you choose any quantity and combination of spreading agent.

### OPTIMUM PROTECTION

All drive components and cables at the rear section are covered and thus provide optimum protection against mechanical damage.

### SCREW CONVEYOR

exact dosing accuracy  
 proven design, durable construction  
 maximum spreading capacity

### INNOVATION THAT MATTERS

kugelmann spreading disc: patented and proven  
 homogeneous spread pattern  
 exact lateral distribution of spreading material  
 maximum spreading capacity maximum road safety

### PRE-WETTED SALT SPREADING

With the kugelmann combi spreader, stepless spreading is possible from dry salt to any pre-wetted salt combination from FS50-FS100. The generously dimensioned piping system allows for rapid filling with limit shut-off feature and 3-way-switch. The dry-run protection prevents the brine pump from damage.

A specially designed toothed gear pump allows the pulse-free supply of the brine for even mixing with the salt at the spreading disc.

### 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 DUPLEX INOX is entirely made of stainless steel. The VA steel is absolutely alkali-resistant. The spreader is finished with a high-grade coating offering maximum corrosion protection.

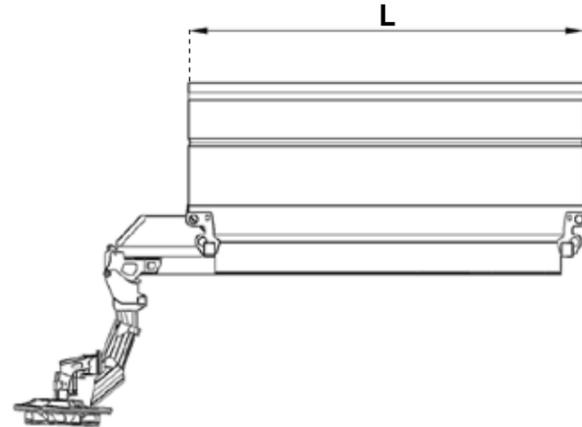
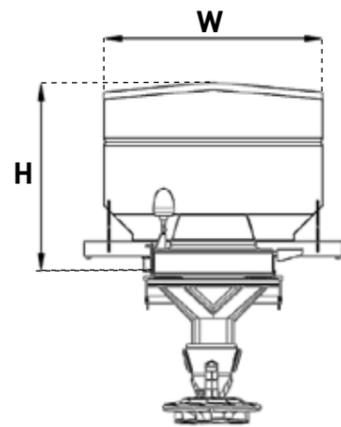


„A“ for truck-mounted spreader

# A DUPLEX INOX

„DUPLEX“ for two-chamber system

„INOX“ for stainless steel model



## A DUPLEX

Our spreaders perfectly adjust to your carrier vehicle. By means of our modular system, we can offer more than 300 different hoppers from 400 l to 7000 l. Of course, we can also make optimum use of your vehicle.

- L** Length: 95 cm to 395 cm
- W** Width: 105 cm to 180 cm  
with brine tank: 135 cm to 230 cm
- H** Height: 63 cm to 130 cm

### „A DUPLEX - consistently functional, refined in every detail“

The kugelmann conveyor screw is characterized by three different pitches. The first and second pitch allow for even emptying of the spreader. The third pitch in the outlet area loosens the spreading material. This leads to a homogeneous lateral distribution of the spreading material. The risk of clogging at the outlet can be reduced considerably.

Nevertheless, if foreign material or clotty spreading agent should cause a blockage of the conveyor screw, the direction of rotation of the screw can be reversed (reversal of screw movement) and the problem can be resolved quickly and reliably via push of a button.

Due to its special shaping, the chute is completely closed and also protected against splash water in the outlet area.

When pre-wetted salt is used, each kugelmann A DUPLEX spreader can be equipped with additional tanks at the sides or even in the center. Furthermore, the position of the tanks favors the low center of gravity of the whole vehicle. The tanks are segmented - this prevents „sloshing“ of the brine and ensures maximum driving safety.



Andreas Karl



## INNOVATION THAT MATTERS

We have been building spreaders since 1980 - 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 homogeneous spreading pattern. This means reliable spreading and thus road safety.

## K-TRONIC 2



The control system K-TRONIC 2 leaves nothing to be desired. Based on the K-BASIC 2, the K-TRONIC 2 offers several special functions as for example a data recording feature for archiving of spreading data or GPS data. These data can be imported into software systems of different manufacturers or may be processed in the kugelmann software solution K-CENTER (included in delivery scope).

This is not all, however: choose your infinitely variable spread width or adjust the spread pattern in an asymmetric way, e.g. for spreading along the kerbside and mix your spreading material in any proportion.

### 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.

Optimisation 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 DUPLEX

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.



## KS 1200 | KS 1600

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



**WE LOVE  
SNOW  
BUT NOT ON THE  
STREET**

kugelmann\*

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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.