



## D DUPLEX

Two-chamber three-point 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 ALL-ROUNDER

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 de-icing agent.

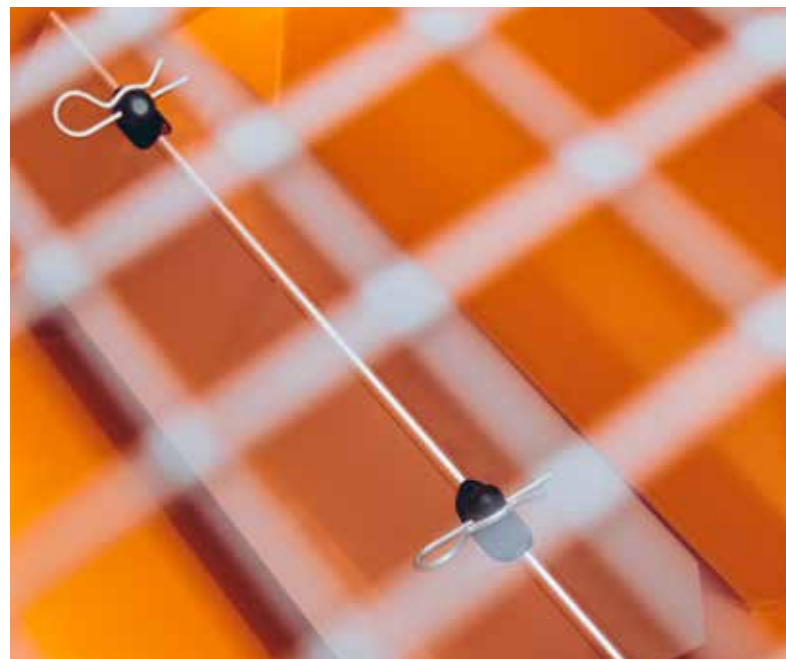
The optional brine tanks leave nothing to be desired. You can spread salt, grit, brine or salt with brine - whatever the circumstances and weather conditions demand.

See for yourself. The following pages provide more details on the three-point spreaders D DUPLEX.



# D DUPLEX

The two-chamber three-point spreader series of kugelmann



top left: kugelmann spreading disc  
top right: drive chain of conveyor screw  
bottom left: kugelmann screw barrier

**FLEXIBLE SIZE**  
configuration of length, width, height optimally compatible with carrier vehicle

**MAXIMUM PAYLOAD**  
center of gravity close to vehicle and low net weight

**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 screw can be prevented.

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

**STANDARD EQUIPMENT**

- tarpaulin cover
- protective grid made of stainless steel
- 2 screw conveyors
- two-chamber system
- stainless steel spreading system
- working headlight
- rotating beacon
- adjustable spread pattern
- splash guard
- reversal of screw movement

**ENDLESS OPTIONS**

- pre-wetted salt spreading
- control system with data recording
- infrared sensors for temperature measuring
- electric monitoring of spreading process
- electrical adjustment of spread pattern
- additional PTO hydraulic pump with hydraulic reservoir

**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

**STACKING FRAME**

By means of the stacking frame, the filling volume can be increased at a later stage.

**TARPAULIN COVER**

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

**TWO-CHAMBER SYSTEM**

separate use of chambers for two different spreading agents

**DRIVING SAFETY**

compact attachment to carrier vehicle

**SCREW CONVEYOR**

exact dosing accuracy proven design, durable construction maximum spreading capacity

**PARKING STAND**

comfortably attachable safe position

**PRE-WETTED SALT SPREADING**

The spreader is equipped with a brine tank at the rear side. 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.

**UNBEATABLE DURABILITY**

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





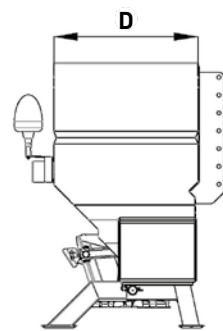
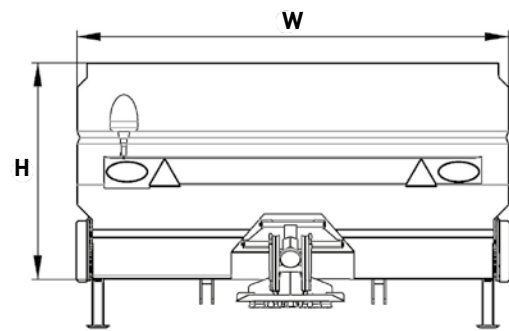


„D“ for three-point spreader

# D DUPLEX INOX

„DUPLEX“ stands for two-chamber system

„INOX“ stands for stainless steel model



## D DUPLEX

Our spreaders perfectly adjust to your carrier vehicle. By means of our modular system, we can offer about 15 different hoppers from 0.35 m³ to 1.9 m³. Of course, we can also adapt a spreader to your vehicle.

<b>W</b> Width:	108 cm to 218 cm
<b>H</b> Height:	52 cm to 73 cm
with stacking Frame:	153 cm
<b>D</b> Depth:	90 cm to 110 cm
with stacking Frame:	95 cm

### „DUPLEX - 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 or 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. If clotty spreading agent should cause a blockage of the conveyor screw, its direction of rotation can be reversed and the problem can be resolved quickly and reliably.

Sepp Kugelmann







## 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**



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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.