SPREADING SYSTEMS

NOVEMBER 2024

GB

Fliegl AGRARTECHNIK

WWW.FLIEGL.COM

MEMBER OF AEF

INNOVATIVE BY TRADITION

The name Fliegl has a decades-long reputation for quality, innovative action, and practical solutions for agriculture. These are advantages which have made Fliegl the No.1 In Europe, for example in the agricultural trailers sector. Whether it's for tippers, original push-off trailers, slurry technology or harvest logistics:

FLIEGL ALWAYS HAS THE OPTIMUM TRANSPORT CONCEPT FOR YOU.


Fliegl

Spreaders for ASW

“Gigant” push-off trailer with powerful spreading gear

SPREADER “PROFI” DLG TESTED

Wide-spreading back wall

Sliding gate

Milling drums with throwing vanes

Push-off speed is adapted automatically by the automatic feed control

The milling drums break up the spreading material for uniform results.

The spreading gear is driven mechanically by a PTO through-drive shaft

»Profi V2« and »Profi V2n«

Profi V2

Wide-spreading back wall

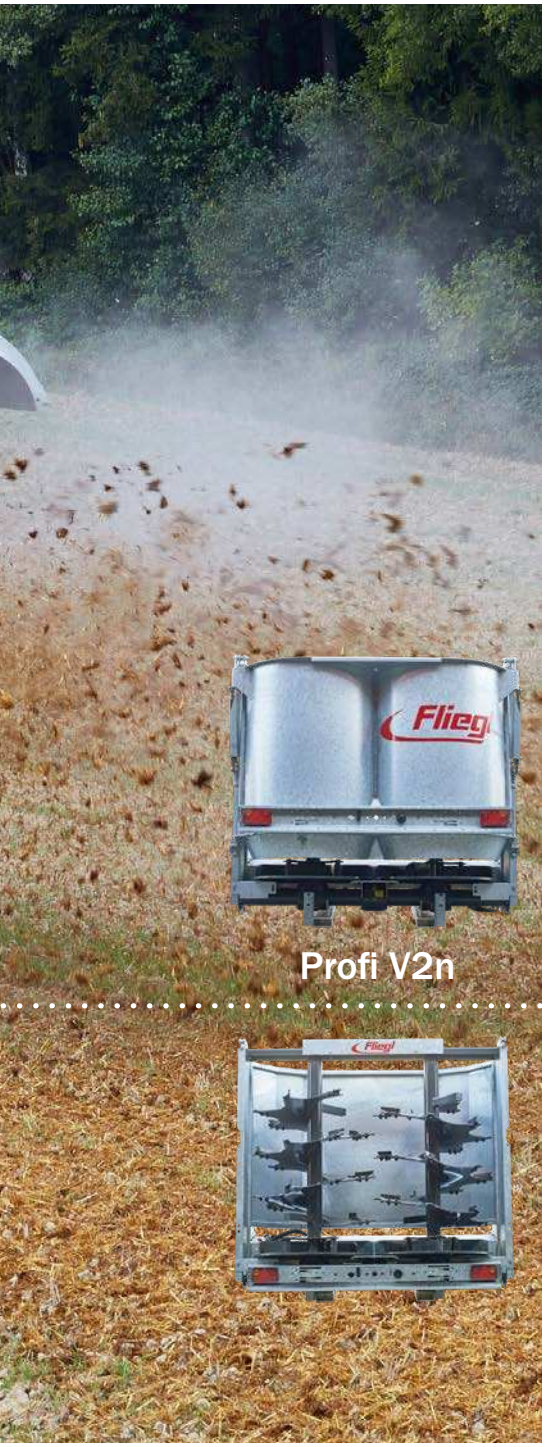
Sliding gate

Milling drums with slingers

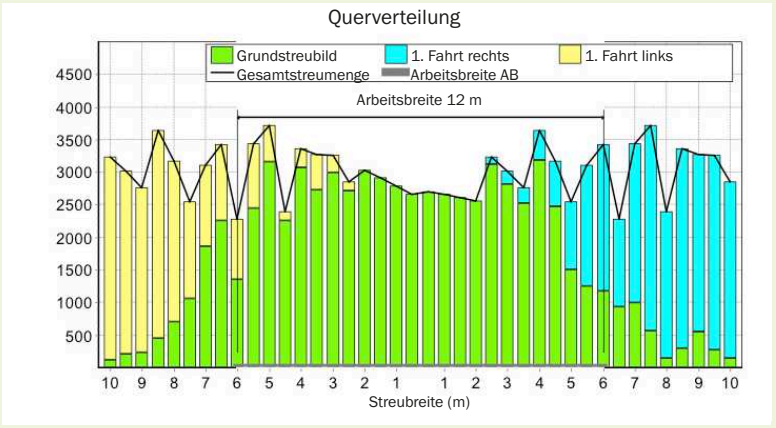
The sliding gate is fully galvanised as standard. The spreading unit bearings can be accessed through a central lubrication bar for easy maintenance.

Spreader Profi V2 with slinger:

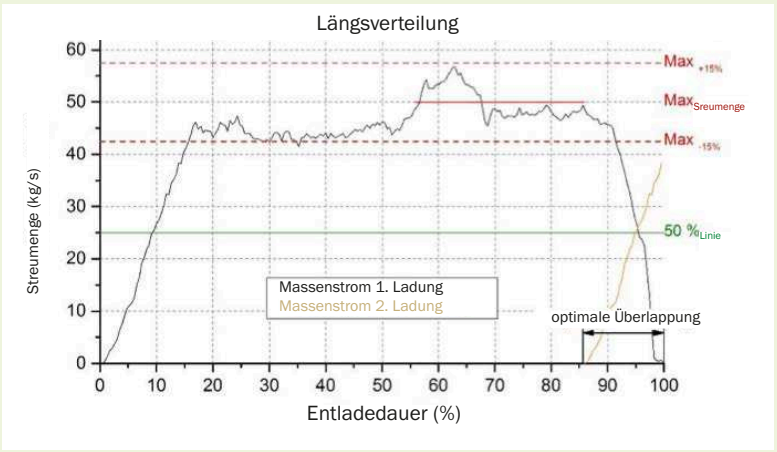
- Smooth startup
- Impervious to foreign objects
- Gentle on the gears, with low maintenance



ASW 271 WITH PROFI V2
STABLE MANURE 30 T/HA WITH REAR FLAP OPEN



Travel speed: 5,5 km/h | coefficient of variation (VK): 13,2% | ++



Coefficient of variation (VK): 9,79% | ++

DLG evaluation scale	**VK% > 20 to 25**	**=**	**0**
	VK% > 15 to ≤ 20	**=**	**+**
	VK% ≤ 15	**=**	**++**

Spreader “Profi V2n”
For push-off trailers with 1500mm body height

Spreader “Profi V2” with closed wide-spreading back wall

Perfect spreading pattern

WITH FLIEGL VARIOSENS SPREADING GEAR CONTROL
for spreader “Profi V2” and “PROFI V2n”

VARIOSENS

The ISOBUS Multi-Control is a multi-machine control system.
It allows parallel operation of a FLIEGL VARIO SENS and a FLIEGL TRAILER CONTROL, for example.
So the Multi-Control simplifies the work of the operator and also increases the efficiency of the application itself.

One operation step by step - automatically:

1. PTO speed is checked and controlled
2. Optional opening of rear flap, e.g. for solid manure
3. Sliding gate is opened
4. Sliding wall is pushed out at maximum speed
5. Sliding wall is controlled according to torque
6. Two emptying strokes to completely remove remaining material
7. Sliding wall is retracted at maximum speed
8. Rear flap is closed
9. Sliding gate is closed

CONTROL AND FEED SYSTEMS

Electric potentiometer with adjustable feed rate on control panel

Mechanical potentiometer with adjustable feed rate at the spreading unit

Automatic torque control with “VARIO-SENS” feed control

ADS push-off manure spreader

Solid manure spreading with patented push-off technology
Ideal: spreading pattern adjustable by hydr. drawbar tilt cylinder

Hydraulic drawbar suspension,
best ride comfort

Minimum wear with hydr. pushing system -
no scraper floor.

Hydraulic sliding gate

Robust spreading unit with working width about 12 m

High stability - low centre of gravity

With proven push-off technology

No sensitive wear parts compared with a scraper floor

Protective grating as standard

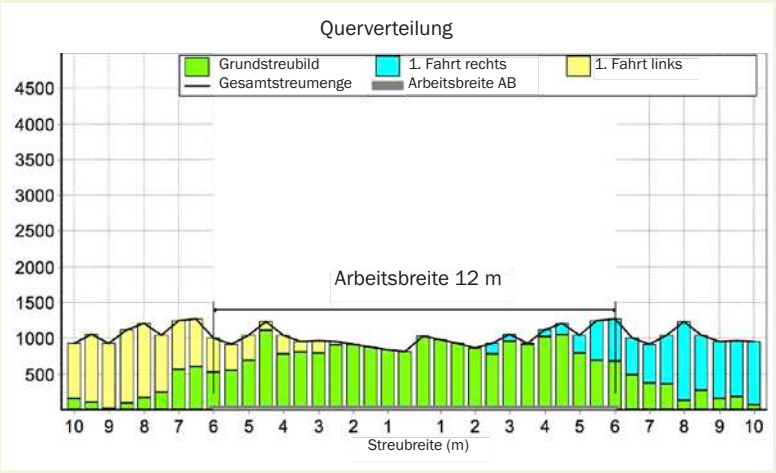
Slinger

ADS 200 with 19m³ volume

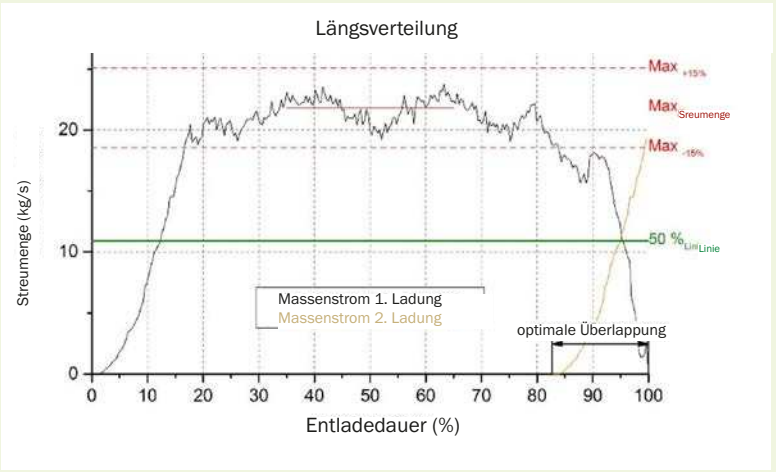
ADS 120 with spreading unit

With the proven Fliegl push-off technology, the material is fed evenly to the spreading unit. When the spreading is over, the loading area is virtually clear and the underfloor remains clean, unlike with conventional scraper floors.

ADS 120 WITH PROFI V2 SPREADING UNIT
STABLE MANURE 10 T/HA WITH REAR FLAP OPEN



Travel speed: 7.5 km/h | coefficient of variation (VK): 12.7% | ++



Coefficient of variation (VK): 8,03% | ++

DLG evaluation scale	**VK% > 20 to 25**	**=**	**0**
	VK% > 15 to ≤ 20	**=**	**+**
	VK% ≤ 15	**=**	**++**

Spreading unit Profi V2 with slinger:
- **Impervious to foreign objects**
- **Gentle on the gears, with low maintenance**

The sliding gate is fully galvanised as standard. The spreading unit bearings can be accessed through a central lubrication bar for easy maintenance.

Technical data ADS

		ADS 60	ADS 80
Total permitted weight	kg	6.000	8.000
Drawbar		Top hitch	Top hitch
Dimensions L x W x H	ca. mm	3.500 x 1300 /2.100 x 900	4.500 x 1.300 /2.100 x 1.350
Volume	ca. m^3	6	9
Standard tyres		15/70-18 16 PR	385/65/22,5 RE

		ADS 160	ADS 160 Tandem
Total permitted weight	kg	14.000	16.000
Drawbar		Bottom hitch	Bottom hitch
Dimensions L x W x H	ca. mm	5.500 x 1.300 /2.100 x 1.600	5.500 x 1.300 /2.100 x 1.350
Volume	ca. m^3	18	14
Standard tyres		750/60 R 30.5	560/60 R 22.5

Optional: spreading roller protection and sliding gate for ADS 60

ADS 60 with 4 vertical rollers.

Optional:
40km/h version with mudguards with ADS 80 / ADS100 / ADS120

ADS 100	ADS 120
10.000	12.000
Bottom hitch	Bottom hitch
4.500 x 1.300 /2.100 x 1.300	5.000 x 1.300 /2.100 x 1.600
9	14
23.1/26	28 L 26

ADS 200 Tandem
20.000
Bottom hitch
5.500 x 1.300 /2.100 x 1.600
18
560/60 R 22,5

Mechanical feed control through mechanical potentiometer

Optional: feed control by electric potentiometer

As an option, the ADS can be retrofitted with an 800mm large-area back wall for use as a transport trailer

Chain spreader »KDS«

- Capacity of 12 to 17 m³
- Single-axle or tandem
- Conical shape ensures deep design and low centre of gravity
- Low loading height
- Different control options
- Spreading width depending on spreader:
  from 11 m (Junior), 14 m (Junior XL) to 24 m (MuckControl)

Hydraulically sprung drawbar for bottom attachment.

Spreading technology KDS

KDS »junior«
Universal spreader

Comprises two vertical rollers with a usable height of 1800 mm and passage width of 1500 mm. The spreading width is approx. 11 m.
Roller diameter: 755 mm

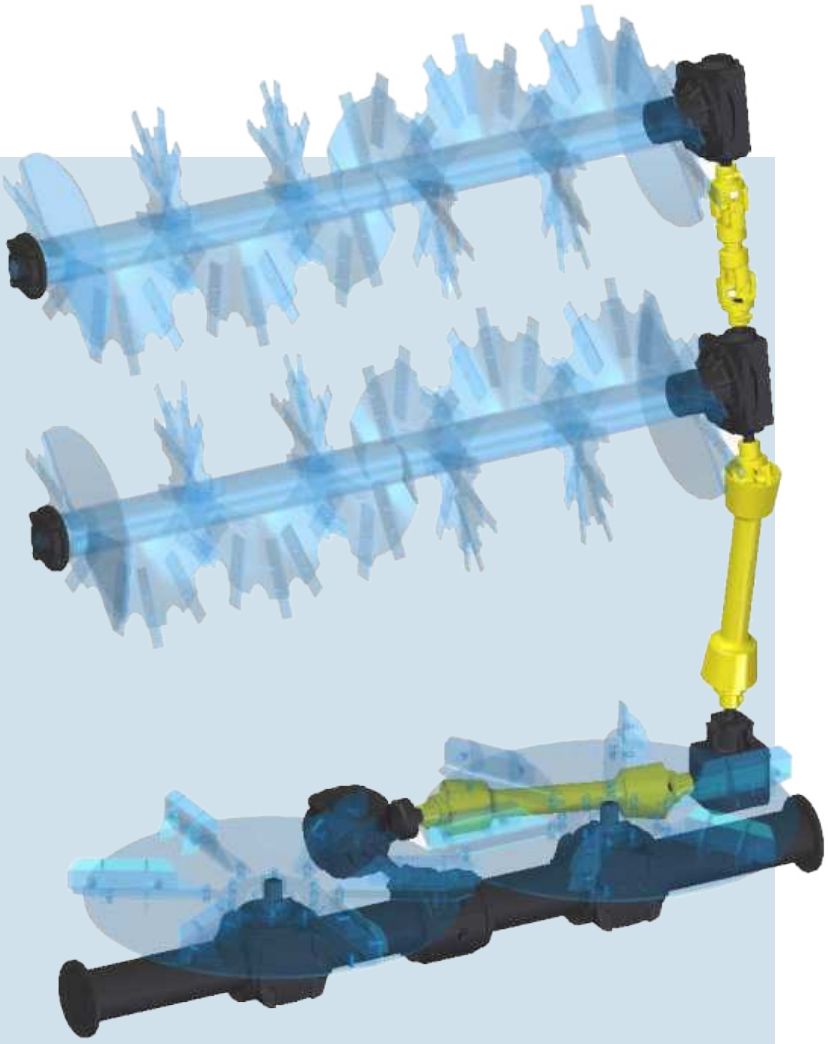
KDS »junior«
Universal spreader XL

Comprises two vertical rollers with a usable height of 1800 mm and passage width of 2000 mm. The spreading width is approx. 14 m.
Roller diameter: 1045 mm

KDS »muck control«

varioSPLASH

Drive train of the horizontal rollers. Overload protection via ratchet clutch in drive shaft to tractor.



Throwing Blade Adjustment

The *varioSPLASH* disc spreader features two large spreading discs, each measuring 1100 mm in diameter and equipped with 6 spreader vanes adjustable perpendicularly to the spreading angle. They feature replaceable plates made from HB 400 steel and safety bolts for individual sensitivity adjustment.

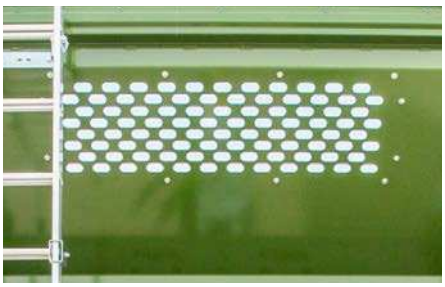
Equipment KDS

Not all equipment options shown are available for all models.

Hydraulically sprung drawbar for bottom attachment. The coupling height can be easily adjusted.

Supporting stand
Adjustable, centrally rearward-folding for maximum stability

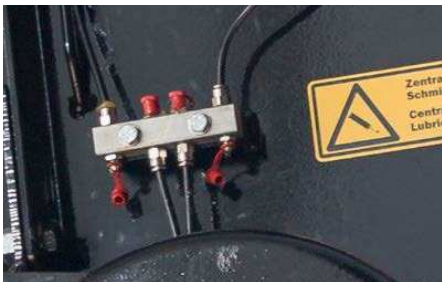
Stone guard



Front inspection grille

The **sliding gate opening scale** on the front shows the opening position of the sliding gate.

Easily **accessible chain wheels** which can be lubricated through the shaft on either side



Central lubrication point

On KDS tandem and tridem: **chassis guard** (manure protection)

Milling Drum Drive via Cardan Shaft

Milling Drum Connection via Chain (KDS 255)

Ladder

Folding body attachment

Hydraulic chain tensioning

Edge spreading device
Available as single attachment for left or right, or for both sides.

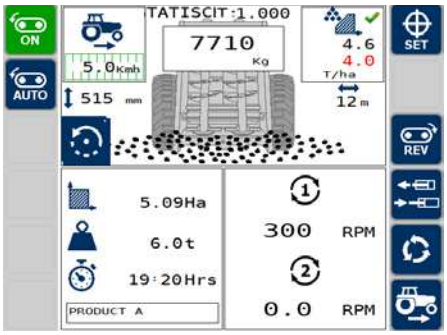
„Dynamic“ full-LED rear light
with dynamic indicator
made from impact-resistant material

KDS 260: **body made from fine-grain steel**

Control Technology

Spreading systems Junior, Junior XL, and MuckControl

Spreader Control ISOBUS Control System
Control of all machine functions via the terminal in the tractor. Regulation of the conveyor floor speed based on the entered parameters to achieve a uniform spreading pattern. Integrated counters for operational data collection. Pre-equipped for site-specific application (steering system and additional activations are required).



Mechanical potentiometer
with feed rate adjustment
at front of spreader body

Electric Potentiometer:
Infinitely variable adjustment of the conveyor floor speed via a control unit in the tractor cabin. The control range and resolution can be redefined by the customer or a workshop.

Electric Potentiometer with Dual Changeover Valve:
Control of hydraulic functions for support leg/drawbar, pressure flap, and rear wall via a double-acting control unit. Infinitely variable regulation of the conveyor floor speed. The control range and resolution can be redefined by the customer or a workshop.

Control Block with Electric Potentiometer and Control Panel:
Operation of hydraulic functions such as the conveyor floor drive, pressure flap, and rear wall. Infinitely variable speed regulation of the conveyor floor via a rotary knob in the tractor cabin. The control range and resolution can be redefined by the customer or a workshop.

Weighing System:
Precise determination of payload. In conjunction with the ISOBUS control system Spreader Control, the controller can regulate the conveyor floor speed based on weight changes.

Chain spreader »muck control«

Optional: electronic speed monitoring
Monitors the speed of the mixing rollers and automatically deactivates the material chain conveyor when necessary to protect the system against damage due to foreign objects.

2 Milling Drums with Rotating Tines
Made of wear-resistant steel, they ensure optimal material breakdown. Welded-in rods act as anti-wrapping protection to facilitate cleaning of the milling drums. The milling drums are cardan-driven and protected against overload.

2 Spreading Discs with 6 Throwing Blades Each
Ensure uniform distribution of spreading materials. The throwing blades are equipped with carbide plates.

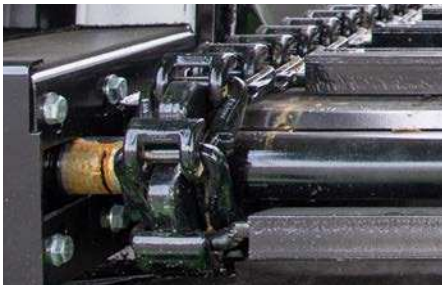
Adjustable Rear Wall Tilt:
The inclination and thus the optimal point of the spreading material on the spreading discs can be adjusted using the two spindles on the left and right for the lower part of the rear wall.

Hydraulic tailgate

Conveyor Floor Drive:
Spur gear and hydraulic motor located on the left side in the direction of travel.

Mechanical chain tensioning
Consistent and Even Chain Tension: This is a fundamental requirement for reliable material transport. The tensioning elements are located at the front of the trough.

2 External Chain Strands:
Made of V2 chain links with a breaking load of 50 tons.



Star-Shaped Sprockets:
Designed for low susceptibility to contamination.

Precision Farming

The combination of the ISOBUS control system Spreader Control, the fully integrated weighing system, and the guidance system enables site-specific, demand-based fertilization.
This saves fertilizer and prevents over-fertilization.

Requirements

- Field record system with a file for the field section.
- Application map with site-specific application rates.
- Tractor with ISOBUS terminal, task controller, and GPS receiver.

Operation

- The guidance system determines the spreader‘s position in the field.
- The control system compares the application rate assigned to the position with the current application rate.
- If the target (set) and actual amounts do not match, the spreading quantity is automatically adjusted.

- A fully integrated weighing system allows for precise fertilization even with non-homogeneous spreading materials.
- Fully integrated into the ISOBUS control system, the conveyor floor speed is adjusted to the desired application rate based on weight changes.

Result

- Thus, fertilizer is applied exactly as needed, avoiding over-fertilization.

Technical data Single-axle/tandem/tridem chain manure spreader

		KDS 120 Tiefbett	KDS 140 Tiefbett	KDS 165 Tiefbett
Perm. total weight	kg	13.000	13.000	14.000
Number of axles		1	1	1
Drawbar load	kg	3.000	3.000	4.000
Net weight	approx. kg	4.900	5.300	6.100
Body length	mm	4.500	5.500	6.500
Body width	mm	1.350 – 1.800	1.350 – 1.800	1.350 – 1.800
Loading sill height	mm	2580	2580	2580
Lateral body height	mm	1.450	1.450	1.450
Volume	approx. m^3	10	12	15
Volume, heaped	approx. m^3	12	14	17

SPREADING MATERIAL

Parameters for distribution quality of stable manure, compost, chicken dung and digestate

	STABLE MANURE		COMPOST		CHICKEN DUNG		DIGESTATE	
Working width [m]	18	18	10	14	12	22	15	20
Target discharge rate [t/ha]	18	18	10	14	12	22	15	20
Travel speed [km/h]	7,1	3,7	10,3	5,6	12,1	12,1	5,6	3,2
Transverse distribution								
Coefficient of variation (CV) [%]*	14,5 (+)	14,7 (*)	13,9 (+)	14,4 (+)	8,9 (++)	19,3 (o)	7,9 (++)	14,7 (+)
Longitudinal distribution								
Coefficient of variation (CV) [%]**	11,9 (+)	16,7 (o)	8,3 (++)	10,8 (+)	8,4 (++)	8,4 (++)	13,3 (+)	14,1 (+)
Dilation within tolerance zone [%]***	75,9 (++)	62,5 (+)	92,4 (++)	87,4 (++)	91,2 (++)	91,2 (++)	83,2 (++)	69,7 (+)

KDS 270 »muck control« | tandem

- **25 m³ load wall**
- **Side walls and floor made from fine-grain steel**
- **Chassis made from robust hollow section frame**
- **Hydraulically sprung drawbar**
- **Swivelling traction bar**

KDS 265 Tiefbett	KDS 255 Muck	KDS 260 Muck	KDS 270 Muck	KDS 390 Muck
20.000	18.000	20.000	20.000	29.000
2	2	2	2	3
2.000	2.000	2.000	2.000	2.000
7.800	8.000	8.400	9.500	11.500
6.500	5.500	6.000	7.000	9.000
1.350 – 1.800	2.000	2.150	2.150	2.150
2.600	2.700	3.000	3.100	3.100
1.450	1.200	1.400	1.400	1.400
15	13	20	23	30
17	15	22	25	32

Selecting the Right Spreading System:

The three different spreading systems offer various crushing and spreading characteristics. Depending on the spreading area, the breakdown of the spreading material is an important factor for selecting the appropriate spreading system.

Available spreaders/type

	Spreader Junior	Spreader Junior XL	Wider spreader Vario Splash
KDS 120 Tiefbett	✓	○	○
KDS 140 Tiefbett	✓	○	○
KDS 165 Tiefbett	✓	○	○
KDS 265 Tiefbett	✓	○	○
KDS 255 Muck			✓
KDS 260 Muck			✓
KDS 270 Muck			✓
KDS390 Muck			✓

✓ Standard equipment ○ Optional

Suitability by Spreading Material

Spreading Material	Spreader Junior	Spreader Junior XL	Spreader Muck
Frischer Mist	++	++	+
Verfaulter Mist	+++	+++	++
Hühnermist	++	++	+++
Kompost/Torf	++	++	+++
Kalk	+	+	+++
Schlamm	+	+	++

− Not Recommended + Permissible ++ Good +++ Very Good

Fliegl Agrartechnik GmbH
Bürgermeister-Boch-Str. 1 | D-84453 Mühldorf a. Inn
Tel.: +49 (0) 86 31 307-0 | Fax: +49 (0) 86 31 307-550 | e-Mail: info@fliegl.com

Dimensions, weights, and technical data are subject to modification.
Some illustrations show special equipment.
Spreading systems 11-2024

WWW.FLIEGL.COM