



Self-propelled fodder mixing wagons

## Verti-Mix Double SF



# Powerful and comfortable

## – The Verti-Mix Double SF



**Clean picking-up to the kilogramme**  
by means of automatic, load-sensitive lowering of cutter arm

**Fast and structure-protecting picking-up of fodder**  
by means of high-performance milling cutter

**ICS operation**  
for smart control of the entire vehicle

**Remote maintenance modem**  
for fast technical support if necessary

Self-propelled fodder mixing wagons make the labour-intensive procedure of dairy cattle feeding considerably easier and save time, money and work. Homogeneously mixed ingredients prevent the cows from selecting the fodder.

- + Higher milk yields with improved ingredients.
- + All animals are optimally fed from the physiological point of view and are less prone to diseases.
- + The result are healthy cows and a high degree of cost effectiveness.

### Verti-Mix Double SF

**Filling, mixing discharging**  
– carried out with one single vehicle.

Due to the fact that the charging vehicle is no longer required and as a result of the efficient interaction of all components, work is carried out comfortably and in diesel-saving manner. The integrated remote maintenance modem makes the Strautmann self-propelled model an intelligent and reliable overall solution.

- 14 – 22 m<sup>3</sup> of usable mixing capacity
- High-performance milling cutter
- 2 IMS mixing augers
- 2 m of milling width
- A variety of discharge options
- Various chassis options

### Contents

Pick-up milling cutter	4-5
IMS mixing auger	6
IMS equipment	7-9
Discharge options	10-11
Driver's cabin	12-13
Operation and weighing	14-15
Chassis	16-17
Equipment	18
Technical data	19

**Individual chassis options**  
depending on operating requirements



**Efficient and robust**  
– The pick-up milling cutter



**High-performance milling cutter**

- Picking-up width of 2 m
- Up to 114 knives efficiently pick up the fodder from the silo
- 60 cranked (standard) and
- 54 straight knives (optional)
- Helical arrangement of knives for maximum picking-up performance with cleanly cut surface
- Change of knives within one minute

**Conical funnel behind the milling cutter**

- Perfect material flow to the centrally positioned elevator
- Significantly less power required than on other designs available on the market
- Increased picking-up performance
- Protection of structure due to the fact that the material directly leaves the milling head

**Elevator**

- Centrally positioned behind the milling cutter for fast, structure-protecting material flow
- Smoothly running, low-maintenance elevator conveyor made of rubber
- Hydraulically powered
- Infinitely variable speed adjustment
- Reversible for exact picking-up of ingredients

Technical modifications reserved



Technical modifications reserved

**Fodder picking-up & transport**

- Neat picking-up right to the ground
- Additionally adjustable supporting rollers made of solid material to the right and left of the picking-up head for a stable and safe position
- Elevator conveyor with robust lug tread for neat fodder flow
- No connection of rubber belt and side panel due to wear resistant plastic sealing
- Optimum trajectory from elevator into mixing container
- Load-sensitive operation of automatic lowering of cutter arm for extremely structure-protecting picking-up of fodder and simultaneous maximum picking-up performance
- Suspension due to hydraulic storage of nitrogen for utmost driving comfort

**Mineral fodder feeding flap**

- Optional equipment on the elevator arm
- Activation of elevator conveyor directly from the cabin
- For comfortable addition of smaller quantities of fodder and fodder additives
- Direct distribution of the additional components in the whole container
- Fast and homogeneous mixing



## The allround talent

### – IMS (Intensive Mix System) mixing auger

The IMS mixing auger –

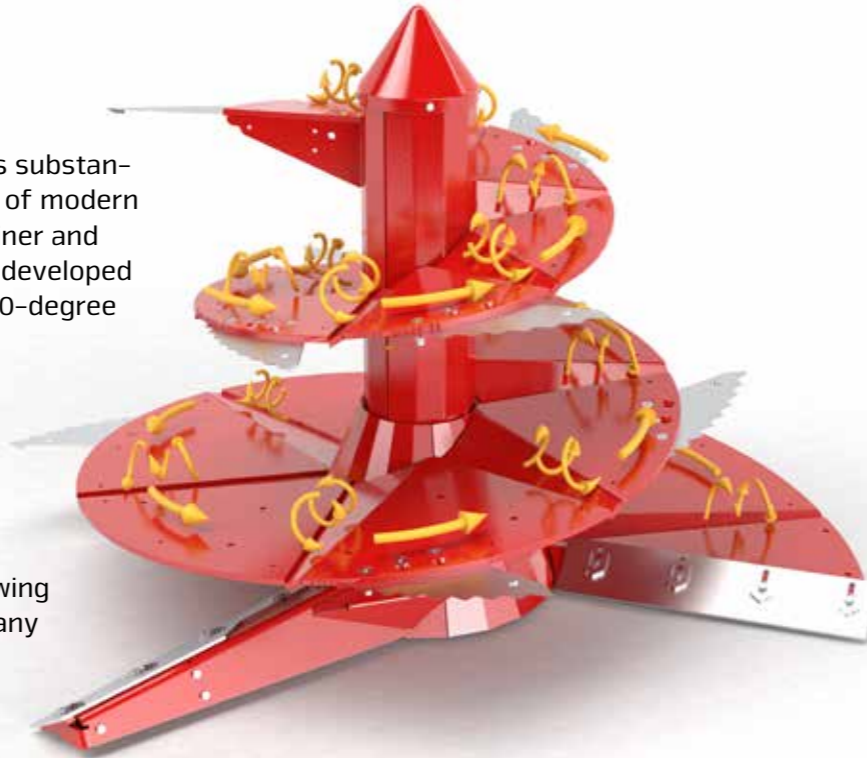
#### Variability and strength for any purpose

Due to the patented knife adjustment system, the IMS mixing auger can be perfectly adapted to your specific conditions of use. The robust and low-maintenance angular gear ensures long service life even under challenging conditions.

Strautmann Verti-Mix fodder mixing wagons substantially contribute to increase the productivity of modern dairy farms. The perfect geometry of container and IMS mixing auger is supported by the newly developed mixing auger in stepped flight design with 60-degree elements. This ensures:

- Low power requirement
- Preservation of fodder structure
- Homogeneous mixing
- Energy-saving short mixing times

Excellent mixing quality and proven easy towing guarantee absolute cost-effectiveness for any kind of application.



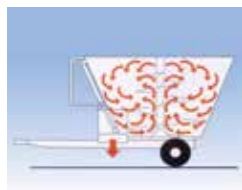
#### Adjustable front auger end/scrapper

Due to adjustable scrapper bars at the front auger end and at the scrapper, even finest components are reliably picked up from the ground and homogeneously mixed.



#### Robust heart

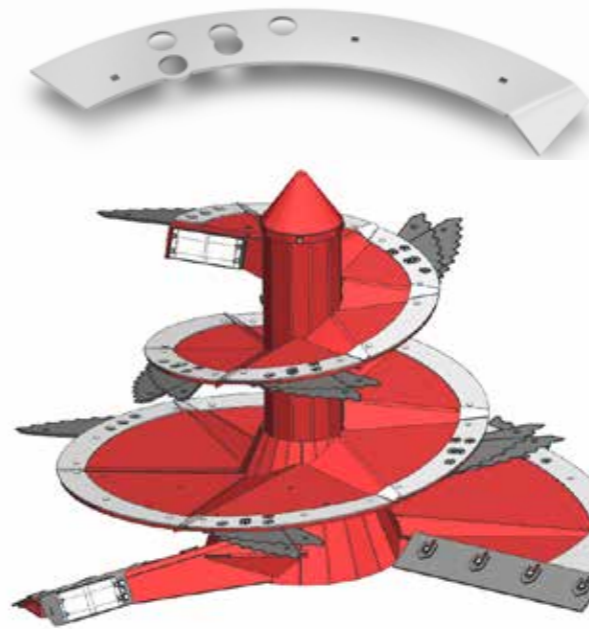
The heart of the IMS mixing auger is the very robust and durable gearbox. Stability and long maintenance intervals are achieved by means of a large-sized pair of tapered rollers, double sealing and a large grease chamber.



#### Effective mixing

The perfect harmonisation of mixing auger geometry and the distance to the container wall forms the basis for quick and homogeneous mixing.

## Extend service life – Save money!



### Innodur

Optional "INNODUR" wearing elements significantly extend the service life of the IMS mixing auger.

- 5 mm thick and 100 mm wide stainless steel elements
- Screwed to the auger windings with an overlap
- Quick and easy subsequent mounting also possible
- No labour-intensive welding required

### For high demands – Heavy-duty design

When the mixing auger is replaced with a residual thickness of 5 mm:

Standard mixing auger 15 mm

- Wear material 10 mm

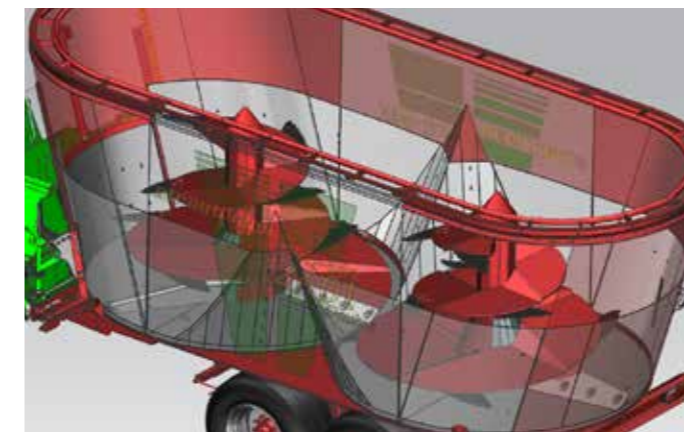
Heavy-duty mixing auger 20 mm

- Wear material 15 mm

→ 50% longer service life = 50 % less wear costs

### Stainless steel lining



Fodder rations with a high maize percentage (>75 % of the dry substance content of the total ration), in particular have an increased percentage of aggressive lactic acid. The acid attacks the container material and promotes the formation of rust films. A stainless steel lining for the container effectively prevents this.



- Stainless steel elements
- 1.5 mm thick and 90 cm high side panel elements
- 3 mm thick bottom plate
- Also subsequently available with 3 mm thick side panel elements

## Individually equipped for your needs

Special equipment options help you to adapt your IMS mixing auger even better to your individual needs:

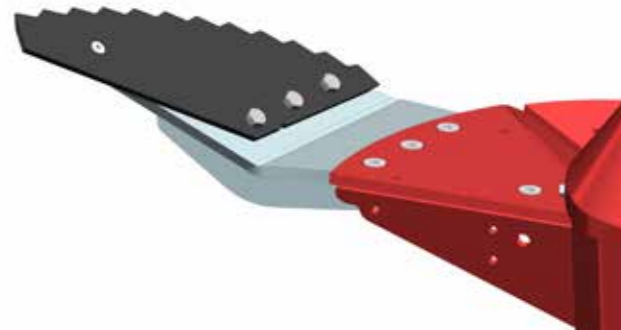
-  • Standard short knives
-  • Optional long knives, ideal for loosening straw and baled silage



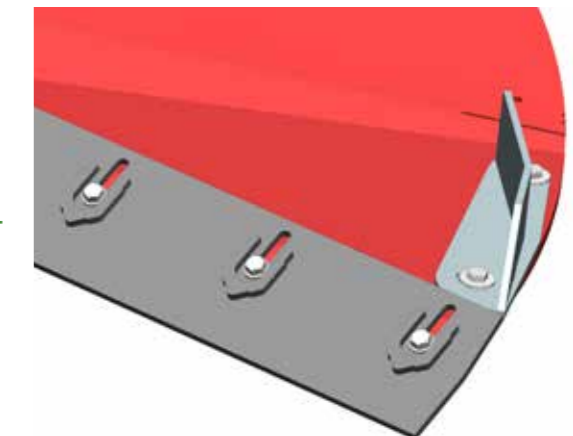
## More safety for your animals!

Protective cover between mixing auger and coaxial gearbox

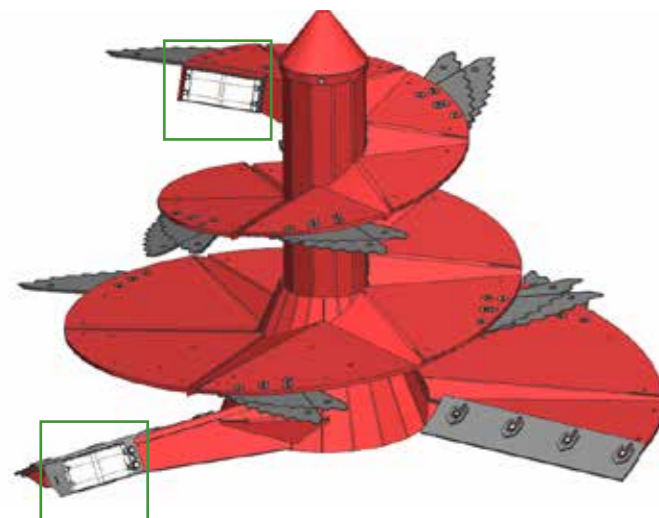
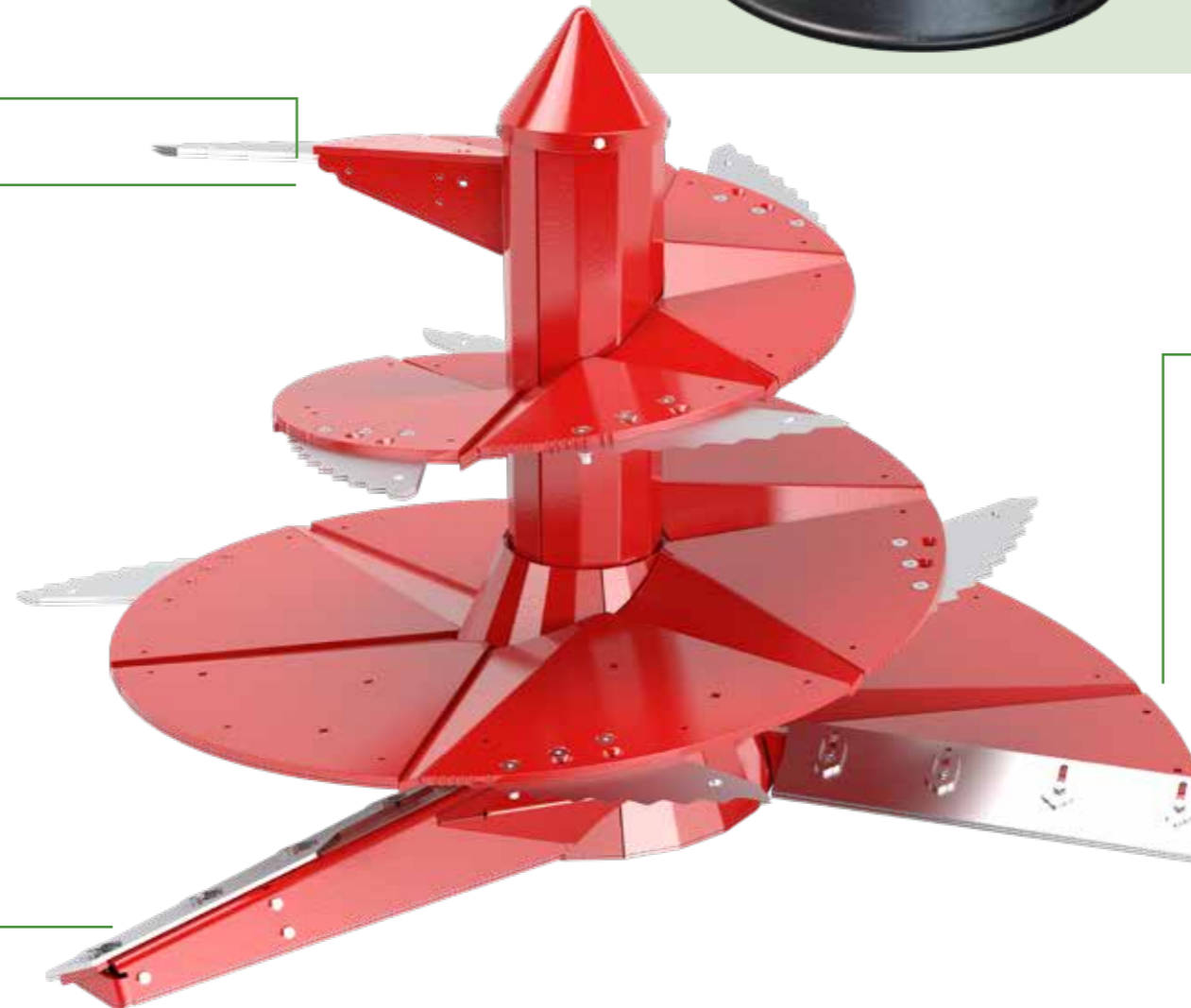
- Made of robust plastic
- Recommended for compact mixtures (compact TMR) or for addition of larger quantities of water
- Reliable protection against fodder deposits between mixing auger and gearbox



**Bale knife**  
The bale knife is perfectly suitable for undoing round bales.



**Scraper**  
"Scrapers" especially developed for very poorly structured feed rations (compact TMR) ensure an additional mixing effect and an improved fodder movement.



**Magnetic system**  
Each silage and any kind of purchased fodder might contain metallic foreign objects which might harm your dairy cattle. The Strautmann magnetic system (optional) mounted directly at the mixing auger protects your valuable livestock against internal injuries, thus ensuring herd health.

The industrial magnets are mounted such that they have direct and immediate contact with the mixed fodder and thus very effectively filter out metallic foreign objects without them being carried away again from the magnet by the following fodder.



Result after 14 days of using our magnets (wedding ring as reference in the bottom right of the photo)



# The expert for any stable

## – The discharge options



### The Strautmann crossover conveyor

The crossover conveyor drive is equipped with a standard floating oil motor, such that the conveyor is particularly smoothly running and there is no risk of bearing distortions.

The proven lattice bar roller ensures high tractions of the driving roller and slip-free power transmission. It prevents material from piling up on the roller and increases the service life of the conveyor thanks to the gentle return of the conveyor.



### Front crossover conveyor

- Completely within the machine dimensions for optimum anti-collision protection
- Discharge of a loose and homogeneous fodder swathe
- Infinitely variable speed adjustment as standard
- 



### Crossover conveyor with displacement to the side

- For better filling of troughs
- Discharge of fodder further away from the machine possible
- Better overview from the cabin



### Rear crossover conveyor

- Ideal for dead-end feeding passages
- Also available in combination with front crossover conveyor



### Front crossover conveyor with conveyor extension

- Hydraulically folding discharge conveyor
- Folded up in transport position
- Infinitely variable adjustment for filling dosing devices and elevated troughs



### Rear left-hand/right-hand discharge gate

- Discharge behind the wheels
- Simultaneous discharge on both sides possible
- Particularly suitable for narrow feeding tables



### Discharge at the rear centre with protective device

- For central fodder discharge on the feeding table
- Ideal for dosing fodder mixtures in silo units
- For fast discharge of premixtures

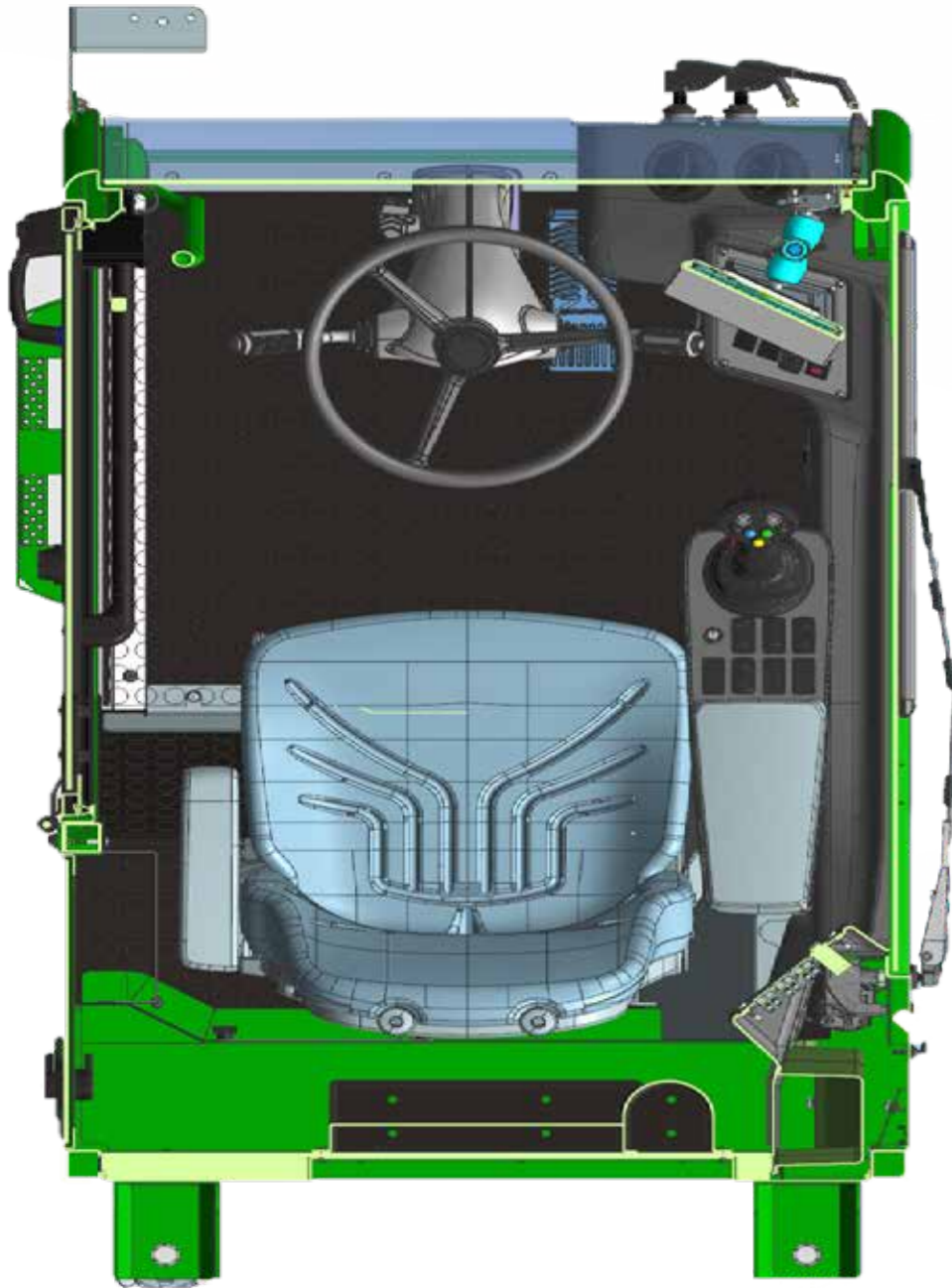


### Side discharge

- Via discharge chutes or
- via a PVC discharge conveyor for filling dosing devices and elevated troughs



## Comfortable and spacious – The driver's cabin



### Cabin

- Safety glazing on 3 sides with bended front screen for optimum view
- Comfortable seating capacity with leg space
- Low-noise working in the cabin

### Optimum view

- Continuous window to the top
- Optimum view even in case of great picking-up heights
- Double windscreen wiper
- Heated outside mirrors

### Access door

- Wide access over almost the entire cabin length
- Comfortable entry and exit



### Armrest

- Synchronously moving for maximum comfort
- Space for all operating elements
- **Multi-function joystick**
- All important functions under control at any time
- Intuitive operation in any state of the feeding process
- 3 freely assignable multi-function keys



## Working in the comfort zone

### Radio & air-conditioning

- Radio and air-conditioning system integrated on the side behind the driver seat
- DAB+ radio with hands-free set as standard

### Driver seat

- Air-suspended
- Sufficient leg space
- Setting functions for driver seat and armrest for individual workplace adjustment

### Steering column

- Ergonomically adjustable
- Integrated reverse circuit



# Everything under control - Operation

- ICS control**
- Space-saving & clearly organised
  - 3 displays in 1
  - Free assignment of the individual functions
  - 10.4" touch screen, extremely scratch-proof and reliable
  - Optimum control by means of cross communication between camera, CAN bus and weighing device



- Picking-up mode**
- Weighing device
  - Camera (rear-view and container camera)
  - Milling pressure
    - Pick-up arm lowering, manual & automatic
  - Elevator conveyor, sense of rotation
  - Mixing auger speed



- Travelling mode**
- Weighing device
  - Camera (rear-view and container camera)
  - Speed
  - Engine speed
  - Service hours
  - Diesel gauge
  - Mixing auger speed



- Discharge mode**
- Weighing device
  - Camera (rear-view and container camera)
  - Gate display
  - Crossover conveyor display
  - Crossover conveyor sense of rotation
  - Crossover conveyor speed
  - Mixer speed

- Mixer drive**
- Hydrostatic with 2 speed levels
  - Each level proportionally adjustable

- Weighing device**
- Programmable weighing device as standard
  - Data transfer via USB stick (optional software required)

- Traction drive**
- Hydrostatic with infinitely variable speed adjustment
  - Automatic travelling mode: 0-25 or 0-40 km/h
  - Milling mode: 0-7 km/h
  - Distribution mode: 0-15 km/h

# Accurate feeding - Other weighing options

The weighing device is an integral component of the fodder mixing wagon. Only an exact quantity determination of the individual ingredients ensures full use of the profitability of the fodder mixing wagon. Apart from the standard programmable weighing device in combination with the ICS control, there are other options for your business-specific needs.



- PTM AV 75  
Radio remote control**
- Radio remote control for weighing device PTM Advance and ICS
  - Up to 50 m of range



- PTM AV 20**
- Additional display
  - Only weight display
  - In combination with ICS or PTM Advance Super USB

## Wireless transfer - WLAN compatible weighing devices (software separately available)



- PTM Advance Super USB programmable weighing device**
- A complete feeding control including time recording is of fundamental importance for cost optimisation on dairy farms.
- 150 recipes
  - From 99 ingredients, 30 can be used per recipe
  - Multi-Link compatible - several devices can be connected
  - Optional: Wireless communication with farm PC via WLAN antenna

- CowConnect Box incl. weighing rods and holder**
- Easy to operate via app on own smartphone
  - Own WLAN network
  - Incl. 12 months CowConnect Lite software
  - After expiration of 12 months usable free of charge as adding scales



- CowConnect terminal**
- Mini terminal or comfortable 8" display
  - For operation of weighing device
  - Convenient working from the charging vehicle
  - Ideal for mobile use

**Alternative: Use your own smartphone with WLAN as terminal!**



## For road and farm - The chassis



- Welded frame made of high-grade steel with front axle oscillating support for maximum stability
- Maximum driving comfort due to parabolic suspension of the entire vehicle
- Oil-hydraulic drum brake, 4-wheel braking for maximum safety



### Traction drive

- Standard automotive travelling mode and engine speed reduction when maximum speed is reached for reduced fuel consumption
- Optional 4-wheel drive for difficult terrain and increased climbing ability even under load



### Leaf suspension

- Mechanical leaf suspension as standard
- Low-maintenance and robust



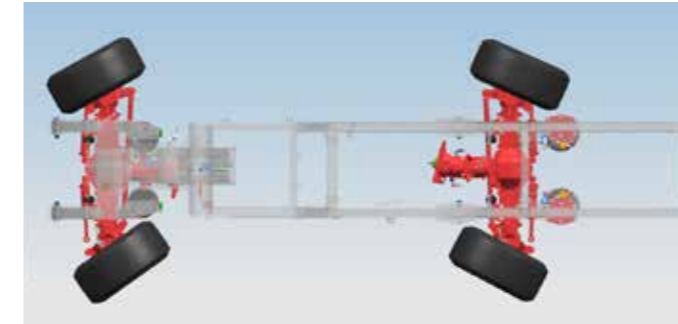
### Air suspension

- Optional for more comfort
- Chassis can be lowered
- Increased driving comfort, especially in inter-farm use or difficult farmyard conditions



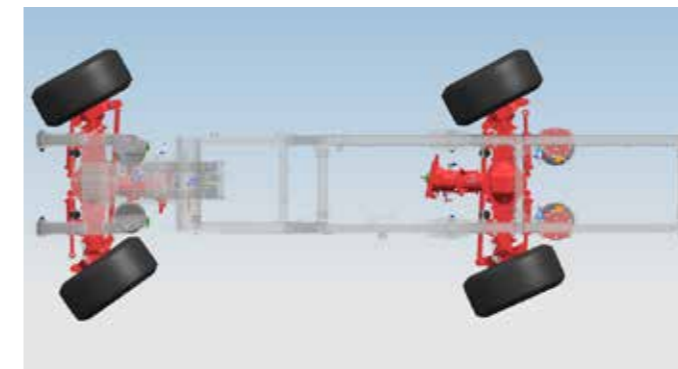
### Smart steering control

- Terminal for monitoring and control of the different steering modes
- Manual mode enables direct activation of rear axle via touch of a button



### 4-wheel steering

- Compact and manoeuvrable machine even for narrow stable conditions
- A comfortable solution on the farm to minimise the turning radius
- In combination with the tail swing suppression -> Overview even in narrow lanes and stables

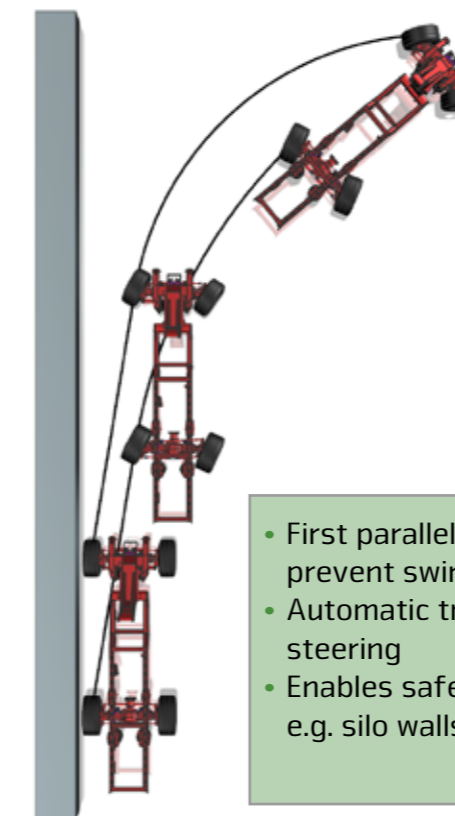


### Crab steering

- Comfort function for safely approaching the silo wall
- Full concentration on fodder picking-up at the silo stack possible
- Furthermore, the axles can be also steered manually by means of the terminal to enable safe manoeuvring out of corners

## More safety due to tail swing suppression

With tail swing suppression



Without tail swing suppression

Risk of collision!



- First parallel activation of axles to prevent swinging out
- Automatic transition to 4-wheel steering
- Enables safe moving away from e.g. silo walls



## Practical and reliable – The equipment



### Lighting

- Lighting for road traffic according to StVZO (note of transl.: German Road Traffic Licensing Code)
- LED headlights
- LED work lights
- Various lighting packages available



### Mineral feed funnel

- For comfortable addition of smaller quantities of fodder and fodder additives
- Optional mechanical or hydraulic version on the container
- When equipped with hydraulic funnel, fitted with pressure switch as standard to start the auger conveyor that transports the additional ingredients into the filled mixing wagon



### Counter-cutters

- To be operated manually (or hydraulically – from the driver seat – available as optional extra)
- Improve chopping of entire bales and accelerate mixing



### 6-cylinder engine

- Engine position at the right-hand front
- Powerful and economical emission standard V engine
- Turbo-diesel engine with water cooling
- Easy maintenance and care of engine and hydraulic power train due to good accessibility from all sides
- 129 kW/175 HP at
- 1,900 rpm
- 714 Nm at 1,500 rpm

## Technical data

	Verti-Mix 140 Double SF	Verti-Mix 170 Double SF	Verti-Mix 200 Double SF
<b>Dimensions</b>			
Width with crossover conveyor [m]	2.36	2.36	2.36
Front outside wheel width [m]	2.32	2.32	2.32
Length with front crossover conveyor [m]	8.97	9.03	9.34
Length with rear crossover conveyor [m]	9.18	9.18	9.46
Elevator width [m]	0.58	0.58	0.58
Milling cutter diameter [m]	0.61	0.61	0.61
Picking-up width [m]	2.00	2.00	2.00
Max. picking-up height [m]	5.00	5.10	5.10
<b>Dead weight</b>			
Basic machine from [kg]	12,800	13,100	13,400
<b>Loading capacity</b>			
Usable mixing capacity [m <sup>3</sup> ]	14.0	17.0	20.0
Usable mixing capacity with extension [m <sup>3</sup> ]	16,0	19,0	22,0
<b>Axle</b>			
Wheelbase [mm]	3.76	3.76	3.94
<b>Vehicle height depending on tyres</b>			
435/50 R 19.5 [m]	2.79	2.93	-
455/45 R 22.5 [m]	2.83	2.98	3.06
235/75 R 17.5 double (without smart steering control) [m]	2.74	2.87	2.99





[www.strautmann.com](http://www.strautmann.com)

B. Strautmann & Söhne GmbH u. Co. KG



Bielefelder Straße 53  
D-49196 Bad Laer  
Phone: +49(0)5424/802-0  
Fax: +49(0)5424/802-76  
[info@strautmann.com](mailto:info@strautmann.com)  
[www.strautmann.com](http://www.strautmann.com)