

## Complete diet mixers



Complete diet mixers VM –  
vertical auger mixers  
with 1, 2 or 3 augers

# High-tech production of complete diet mixers



## Kongskilde is one of Europe's leading specialists in the manufacture of complete diet mixers

The range of complete diet mixers is specially developed for the challenges that future milk producers are facing. The machines are designed and developed in Denmark and tested on farms right across Europe and produced in our modern production facilities.

Through the whole manufacturing process large tools are used to fix the parts during welding in order to ensure con-

sistency and high quality. The choice of high-strength steel results in a feeder which is exceptionally hard-wearing. This ensures highest quality and makes the JF Feeders the best diet mixers on the market.

The range of diet feeders consists of 21 „basic families“. The complete Feeder VM range can be seen in the table below.

## The complete Kongskilde complete diet mixers VM range

Volume	Number of dairy cows per load (8000 kg ECM/cow/year)	1 auger					2 augers			
		VM-1 S	VM-1	VM-1 B	VM-1 B X	VM-1 B M	VM-2 S	VM-2 SB	VM-2 SB X	VM-2 SB M
6,5 m3	35-45	VM 6.5-1 S								
8 m3	45-55	VM-8-1 S								
10 m3	55-70	VM 10-1 S	VM 10-1	VM 10-1 B	VM 10-1 B X	VM 10-1 B M				
12 m3	67-85		VM 12-1	VM 12-1 B	VM 12-1 B X	VM 12-1 B M	VM 12-2 S			
14 m3	80-100		VM 14-1	VM 14-1 B	VM 14-1 B X	VM 14-1 B M	VM 14-2 S	VM 14-2 SB	VM 14-2 SB X	VM 14-2 SB M
16 m3	93-120						VM 16-2 S	VM 16-2 SB	VM 16-2 SB X	VM 16-2 SB M
18 m3	105-135						VM 18-2 S	VM 18-2 SB	VM 18-2 SB X	VM 18-2 SB M
20 m3 / 21 m3	115-150						VM 20-2 S	VM 20-2 SB	VM 20-2 SB X	VM 20-2 SB M
22 m3	125-165									
24 m3	135-185									
26 m3 / 27 m3	155-195									
28 m3	160-210									
29 m3 / 30 m3	175-220									
32 m3	190-240									
38 m3	220-280									
45 m3	260-350									

**S:** Compact / narrow  
**B:** Cross conveyor

**M:** Multi (Cross conveyor combined with straw bedding equipment)  
**X:** The X-range - the flexible 4-in-one cross conveyor belt solution (flat – side shift – elevator right and left)

# The Kongskilde complete diet mixers VM product lines and their discharge options



The standard range with discharge doors – VM and VM-S.



The B range for professional discharge with cross conveyor at front – VM-SB and VM-B, and one side elevator option.



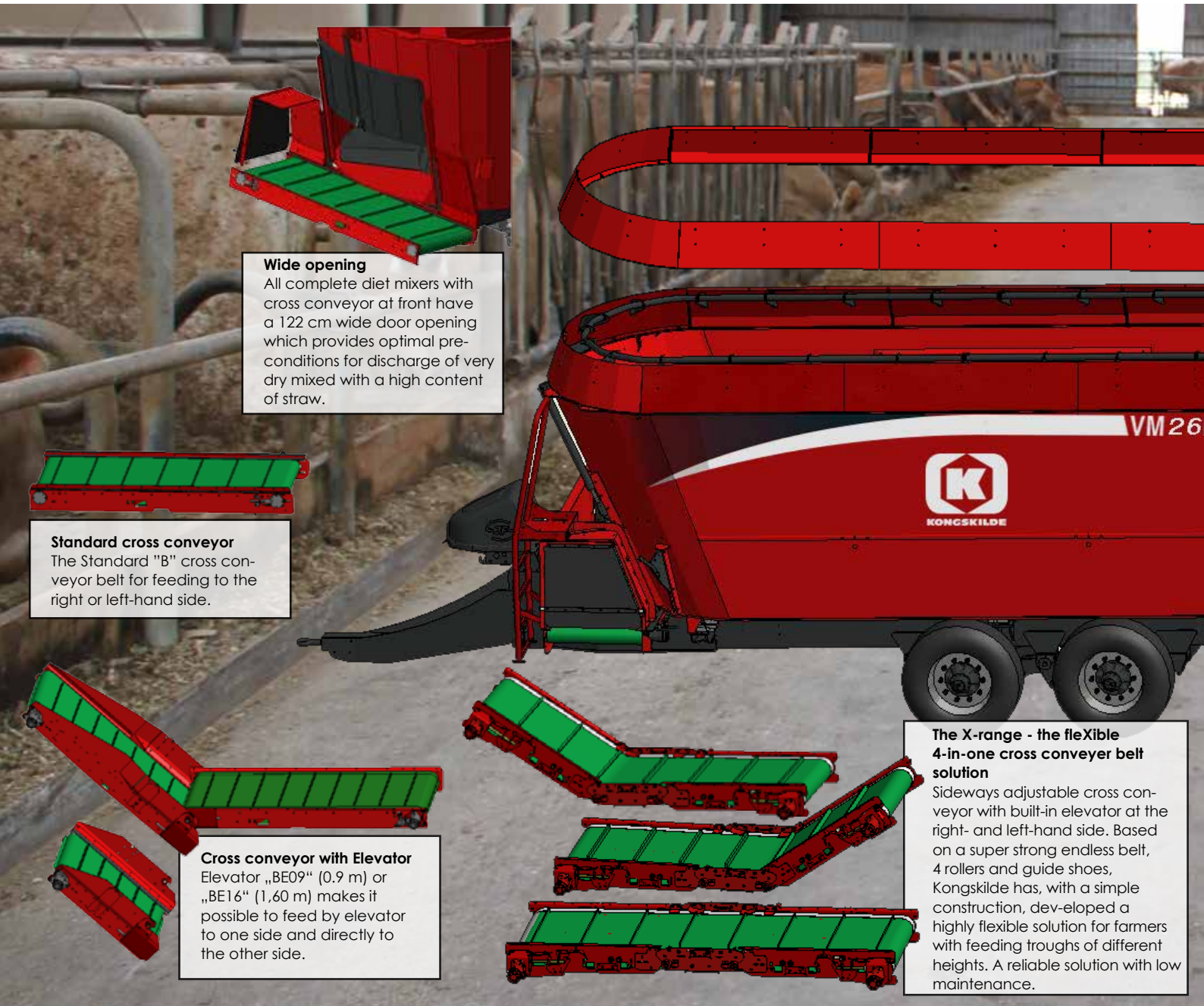
The M range (Multi) for straw bedding and professional feeding - VM-SB M and VM-B M.



The X-range - the flexible 4-in-one cross conveyor belt solution (flat – side shift – elevator right and left) – VM-SB X and VM-B X.

2 augers				3 augers							
VM-2	VM-2 B	VM-2 B X	VM-2 B M	VM-3 S	VM-3 SB	VM-3 SB X	VM-3 SB M	VM-3	VM-3 B	VM-3 B X	VM-3 B M
VM 20-2	VM 20-2 B	VM 20-2 B X	VM 20-2 B M	VM 21-3 S	VM 21-3 SB	VM 21-3 SB X	VM 21-3 SB M				
VM 22-2	VM 22-2 B	VM 22-2 B X	VM 22-2 B M								
				VM 24-3 S	VM 24-3 SB	VM 24-3 SB X	VM 24-3 SB M				
VM 27-2	VM 27-2 B	VM 27-2 B X	VM 27-2 B M	VM 26-3 S	VM 26-3 SB	VM 26-3 SB X	VM 26-3 SB M				
				VM 28-3 S	VM 28-3 SB	VM 28-3 SB X	VM 28-3 SB M				
VM 30-2	VM 30-2 B	VM 30-2 B X	VM 30-2 B M					VM 29-3	VM 29-3 B	VM 29-3 B X	VM 29-3 B M
								VM 32-3	VM 32-3 B	VM 32-3 B X	VM 32-3 B M
								VM 38-3	VM 38-3 B	VM 38-3 B X	VM 38-3 B M
								VM 45-3	VM 45-3 B	VM 45-3 B X	VM 45-3 B M

# Discharge options



**Wide opening**  
All complete diet mixers with cross conveyor at front have a 122 cm wide door opening which provides optimal pre-conditions for discharge of very dry mixed with a high content of straw.

**Standard cross conveyor**  
The Standard "B" cross conveyor belt for feeding to the right or left-hand side.

**Cross conveyor with Elevator**  
Elevator „BE09“ (0,9 m) or „BE16“ (1,60 m) makes it possible to feed by elevator to one side and directly to the other side.

**The X-range - the flexible 4-in-one cross conveyor belt solution**  
Sideways adjustable cross conveyor with built-in elevator at the right- and left-hand side. Based on a super strong endless belt, 4 rollers and guide shoes, Kongskilde has, with a simple construction, developed a highly flexible solution for farmers with feeding troughs of different heights. A reliable solution with low maintenance.

## Feeding with cross conveyor - Effective discharge of dry mixes with a high content of straw

**Discharge options**  
The VM complete diet mixer with cross conveyor are constructed by a modular system which enables you to choose between different conveyor belt solutions. The cross conveyor solutions are especially suitable for mixes with a high

content of straw. Of course, all other mixes are handled just as easily.  
  
For heavy mixes Kongskilde offers diet feeders with side doors or corner doors.

All Kongskilde complete diet mixers can also be equipped with extra doors and different types of elevator.

# The modular concept



## The modular concept means great flexibility

### Great flexibility

The Kongskilde complete diet mixer is constructed by means of a modular system which enables you to choose exactly the solution that suits your needs. If your need change after you have purchased a Kongskilde Feeder, due to a new barn, more livestock etc.,

the mixer can subsequently be modified.

### Great advantages

Flexibility is decisive because the structural development within beef and dairy farming is accelerating. Flexibility ensures the future of the Kongskilde

complete diet mixer. Thanks to the great flexibility a Kongskilde complete diet mixer is easy to sell. There are many potential buyers because they can modify the Kongskilde complete diet mixer to suit their needs.

# Complete diet mixers VM Multi (M-series)



## Unique concept combining feeding and straw bedding without compromise

### Professional feeding and straw bedding with one machine

With the new patented Kongskilde complete diet mixer VM Multi series which included 19 models in sizes from 10 m<sup>3</sup> to 45 m<sup>3</sup>, Kongskilde has the biggest range of Multi machines handling both feeding and straw bedding.

The Multi series shreds all types of bales and blows out the straw as deep bedding, in bedding boxes and for making a floating cover on manure tanks in order to minimise the nitrogen evaporation.

A blowing capacity of up to 25 m, depending on straw quality, meets almost all demands. The well-known, proven conveyor belt feeding concept is integrated in the Multi series which guarantees unique performance.

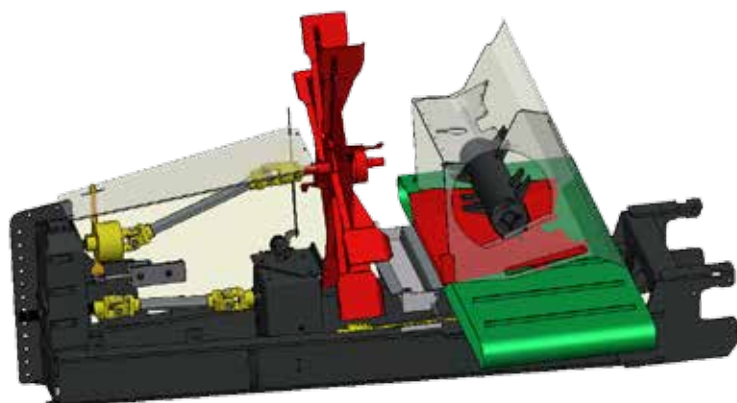
The Kongskilde complete diet mixer VM Multi makes it possible to reduce the number of machines needed on the farm. This results in less maintenance and less time which gives big potential for saving costs.



Position for feeding



Position for straw bedding



### The concept

Change over between straw bedding and feeding is done in 4 seconds by lifting/lowering the rotor and guard unit. When the unit is lifted the gap to the turbine is closed.

### Solid drive line

The drive line is based on PTO shafts and an on/off gearbox. Connection and disconnection of the blower wheel takes place hydraulically from the tractor cab. This also applies to the 2-speed gearbox, if fitted.

# The functional and reliable solution...



## The feed rotor is decisive

The hydraulically operated feed rotor ensures an even flow of straw to the turbine. If you need to pass an obstacle the rotor is interrupted and the straw flow stops.



## Wide opening

The 122 cm wide opening ensures a high unloading capacity of dry feed. The conveyor belt is "pulling" the dry feed out of the big opening.



## Stone trap ensures high protection of surroundings and machine

The complete diet mixer is fitted with a stone trap to protect the surroundings. The stone trap is cleaned out from the side of the wagon without any tools.



## Perfect view

During feeding and straw bedding you have a perfect view from the tractor seat.



## Unique control and monitoring

Kongskilde has developed a remote control system for operating all functions. There is a joystick for operating the chute functions. An indicator shows whether the straw feeding rotor is running. Electronic adjustment of belt speed can be integrated in the remote control.

## Advantages of front conveyor belt in combination with wide opening:

- ✓ Huge unloading capacity
- ✓ Effective unloading of dry feed
- ✓ Very good view to the cross conveyor during feeding
- ✓ The feed is thrown away from the complete diet mixer so the wheels do not drive on the feed and you can unload big amounts of feed on a shorter distance

## Advantages of the front mounted straw bedder on the complete diet mixer:

- ✓ The rotor ensures an even flow of straw
- ✓ A blowing capacity of up to 25 m depending on straw quality
- ✓ The big turbine ensures high inertia and therefore a strong continuous flow
- ✓ Perfect view to the adjustable chute makes an exact placement of the material possible and reduces the risk of damaging the foldable chute

# Wireless weighing system – maximum overview

## All VM complete diet mixers are as standard equipped with the wireless weighing system Feed Manager

With Feed Manager the weighing display is not fixed on the complete diet mixer but can be placed where it is most suitable for the farmer, typically in the loader and the tractor in front of the complete diet mixer.

Feed Manager (Basic) consists of the following:

### Main terminal

With the main terminal placed in the loader tractor, the weight, time and date can be read in the display at any time. Unload plans can be programmed, used and/or sent to the hand terminal.

### Hand terminal

The hand terminal is typically placed in the tractor in front of the complete diet mixer. If it is equipped with a battery it can be brought along anywhere. More hand terminals can be bought and connected to the same complete diet mixer.



#### Optional equipment:

- Mounting arm with sucking disc and two ball-and-socket joints for optimal placing in the cab.
- Battery charger for hand terminal (excl. battery).
- 110/230 V converter for 12 Volt.



Main terminal



Hand terminal

## Perfect weighing system

### ■ Time-saving

- The complete diet mixer can be loaded from all sides. It can therefore with advantage be placed between two feed stocks and can be loaded from both sides which is time-saving.
- During the takeout in the silo the weight information is right at hand. Hereby it is possible to follow up on what is missing in the complete diet mixer and the necessary remaining amount can be taken out.

### ■ Optimal comfort

- It is not necessary to leave the tractor to turn the weighing display.
- All functions can be operated directly on the terminals in the tractor cabin

### ■ Minimum loss of feed

- Less loss of feed because transport with the loader between feed stock and complete diet mixer is minimised.

### ■ Feed Manager helps with the feeding out

Feed Manager assists with unloading as well. Besides following the remaining amount, it is possible to divide the amount of feed into partial amounts.

- Feed mixture divided into intervals:  
Divide into intervals of for example 500 kg.
- Divided into percentage:  
Divide into for example 25%-intervals whereby the mixture is divided into 4 equal portions.
- Divided into groups:  
Divided into up to 5 portions of various sizes.

Unloading of each portion can be followed on the display and separated with an acoustic signal.

### ■ Upgrading is always possible

It is always possible to upgrade Feed Manager Basic to Basic+ or ProFeed+.





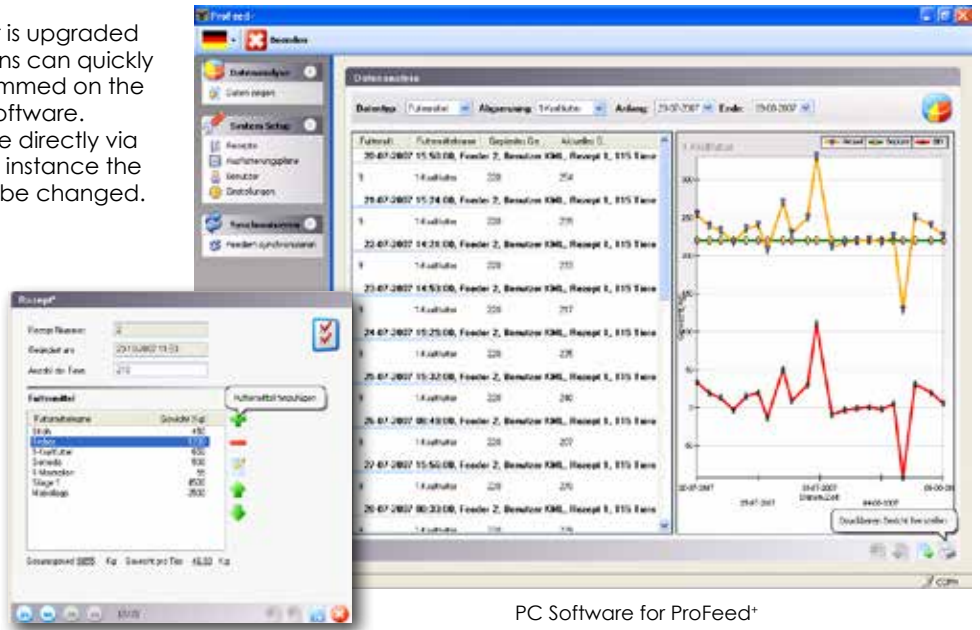
Wireless transmission of feeddata between main terminal and PC, takes place via radio transmitter with USB-plug in PC.

# Optimize the feeding with ProFeed+

When Feed Manager is upgraded to ProFeed+, load plans can quickly and easily be programmed on the PC via the supplied software. This can also be made directly via the main terminal, for instance the number of cows can be changed.

ProFeed+ gives you a unique overview of the ingredients to be loaded according to a predetermined feed plan and then compares what has actually been fed. Operation of the terminals and the enclosed PC programme is so user-friendly that registration of ingredients will be a natural part of the feeding.

This easy access to feed data gives you the possibility of better control, analysis and advising. This is the precondition for optimising the production and obtaining a better result.



PC Software for ProFeed+

## Feed Manager - Main functions

	Basic (Standard)*	Basic+ (Option)	ProFeed+ (Option)
Display of weight	✓	✓	✓
Wireless displays	✓	✓	✓
Remote control, e.g. the "tara"-function from all displays	✓	✓	✓
Discharge guide – visual and acoustic	✓	✓	✓
Load guide (99 feed plans) - visual and acoustic		✓	✓
Data registration (approx. 7500 mixtures)			✓
Software for processing data etc. on the PC			✓
Wireless data synchronisation between main terminal and PC			✓
Comparison of feed plans/consumption on the PC			✓
Creation and up-date of feed plans from the PC			✓

## Basic+ means easy handling of feedstuff

With Basic+ you can type in one or more load plans on the main terminal which can guide the person who loads the Feeder. An acoustic signal is sent out from the terminal just before Basic+ automatically shifts to the next ingredient to be loaded. In addition to the signal the loading can also be followed on the displays. The unique overview that is created during loading of feedstuff reduces loading errors.

\* The Basic weighing system can subsequently be upgraded to Basic+ or ProFeed+.

## Feeding control and registration

### Exact registration

- The following data is registered:
  - Date
  - Loading time
  - Feeder no.
  - Employee
  - Load plan
  - Number of animals
  - Feedstuff (name / no.)
  - Planned amount
  - Loaded amount
- Makes it possible to control the feeding and thereby optimise in relation to the milk yield, e.g. how much is used of the individual feedstuffs? Who did the loading?

### Handling of load plans

- User friendly software for handling of load plans.
- Load plans can be made on the PC and afterwards quickly be adjusted in the loader, for instance if the size of the herd is changed.
- Feed data and load plans can be transmitted electronically to an external advisor, for instance via e-mail, internet or remote control of the PC at the farm.

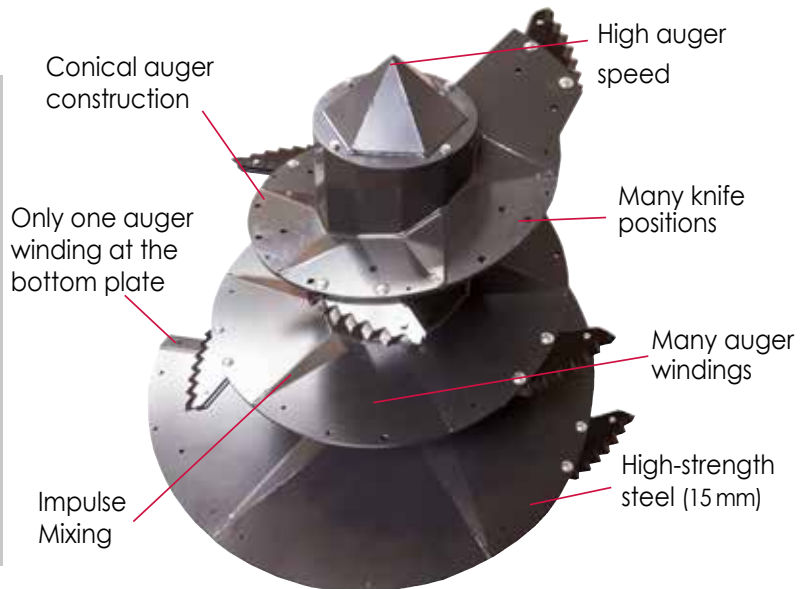
# Unique mixing auger



**Short knives** are standard.



**Long knives** with tungsten are available for shredding of large amounts of straw (option).



## Why the Kongskilde mixing auger is unique

### ■ Quick mixing and regular feeding

- Because of the high auger speed.  
Complete diet mixer < 20 m<sup>3</sup> = 33 l/min  
Complete diet mixer > 20 m<sup>3</sup> = 26 l/min

### ■ Gentle mixing

- Because the auger has many windings providing an effective upward flow.

### ■ Effective shredding

- Because the auger can be fitted with many knives.

### ■ Effective mixing

- The concept with the stepped augers generates a vertical impulse movement in the mixture - Impulse Mixing. This prevents the mixture from building bridges in the tub and en-sures that the auger is in contact with the feed all the time.

### ■ Good hygiene

- Because the high auger speed allows complete emptying of the augers.
- Because there are no edges, bolts or corners on the auger or at the door where the feed can accumulate.

### ■ Low power consumption\*)

- Because of the conical construction of the tub.
- Because the auger construction ensures that only one auger winding is drawn through the feed above the bottom plate.

### ■ High wear resistance = long life

- Because all auger windings are made of 15 mm high strength steel S500.

\*) See Profi-Test April/May 2008 and Top Agrar November 2012 - can be downloaded at [www.kongskilde.com](http://www.kongskilde.com)

## Mix+ Kongskilde's concept for wearing plates for the mixing auger

A solid edge on the complete diet mixers auger flights is of great importance for the mixing capability - if the edge is round or worn, the mixing capability is considerably compromised.

Mix+ consists of a set of interchangeable wearing plates manufactured from extremely hard-wearing stainless steel Aisi 304 (A2). This enables an update of the edges on the auger, and in this way a solid edge on the auger flights is maintained.

### Advantages with the new Mix+

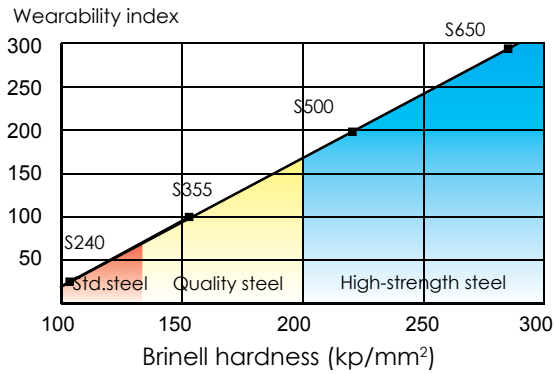
- Maintaining a continuous high mixing capability ensures a better utilization of the feed and thereby higher milk yield.
- Lower operating costs - replacement of wearing parts is cheaper than replacing the complete auger.
- Less time consumption with shorter mixing time, fewer hours on the tractor and reduced fuel consumption compared with worn augers.
- Replacement of wearing parts can take place direct on the farm - no expensive workshop hours.



# High-strength steel

The Kongskilde complete diet mixers VM is the only complete diet mixer on the market made of high-strength steel (S650). The steel which is used for complete diet mixers is divided into 3 groups:

- 1) Standard steel (st.37/S240) ■
- 2) Quality steel (st.52/S355) ■
- 3) High-strength steel (S650) ■



Kongskilde is the first producer of complete diet mixers who has taken the step and introduced high strength steel S500/650 in the production of diet mixers. The use of high strength steel is especially important in connection with the auger windings and the first 50 cm of the tub walls, which are the parts that are exposed to the hardest wear.

## Built to work harder and last longer

### Test of high-strength steel

To document the strength of high strength steel a comprehensive test program has been carried out. Below is the result of two test items, steel quality S355 (ST 52) and S650, respectively, which were exposed to the exact same test course.

Steel quality	Weight before test	Weight after 10 hours	Weight loss after 10 hours
S355, 6 mm Quality steel	388 gram	323 gram	65 gram
S650, 6 mm High-strength steel	375 gram	353 gram	22 gram

*The measurements stated are an average of all the test items from the series of tests.*

### Test result

A weight loss which is 3 times higher gives a factor 1:3. This means that 6 mm S650 = 17 mm S355. In order to obtain the same wear resistance as the Kongskilde complete diet mixer has with 6 mm steel quality S650, it is necessary to use a 17 mm plate for the tub walls when using steel quality S355 (ST 52).



Steel before the test



Quality steel (S355) after the test



High-strength steel (S650) after the test

### Conclusion

Kongskilde uses a steel quality which is nearly three times more hardwearing than steel S335 (st. 52) at the same thickness. All auger windings are made of 15 mm high strength steel. High-strength steel is used in the production of all mixing tubs.

### The advantage of high-strength steel S500/650

- Significantly less wear on tub and auger
- Less own weight allows for increased net weight
- Less power requirement for pulling of complete diet mixers (decisive when the silage is transported from the clamp silo)
- Less wear on tyres and surface

# Complete diet mixers with 1 auger

## – Discharge doors



VM-1 S / VM-1



VM-1 S L



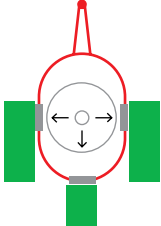
VM-1 S C

**VM-1 S** **35-70 Cows**

**Narrow versions with 1 auger**  
 Available sizes:  
 6,5 m<sup>3</sup>, 8 m<sup>3</sup> and 10 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear doors (1-3 doors)
- Side elevator E08 (75 cm)
- Elevator E16 rear (160 cm)

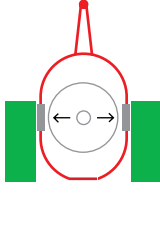


**VM-1 S L** **35-70 Cows**

**Narrow and low versions with 1 auger**  
 Available sizes:  
 6,5 m<sup>3</sup>, 8 m<sup>3</sup> and 10 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear doors (1-2 doors)
- Side elevator E08 (75 cm)



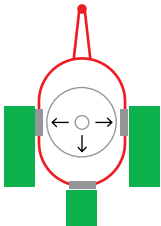
The axle height can be changed by +5/-5 cm.  
 Only available with wheel 30x11.5-14.5.

**VM-1** **55-100 Cows**

**Versions with 1 auger**  
 Available sizes:  
 10 m<sup>3</sup>, 12 m<sup>3</sup> and 14 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear door (1-3 doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Elevator E22, rear (220 cm)
- Elevator E16, rear (160 cm)
- Cross conveyor, rear (220 cm)

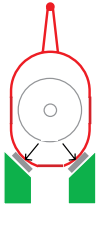


**VM-1 S C** **45-70 Cows**

**Narrow versions with 1 auger and corner doors**  
 Available sizes:  
 8 m<sup>3</sup> and 10 m<sup>3</sup>.

Can be equipped with:

- Corner doors (1-2 doors)

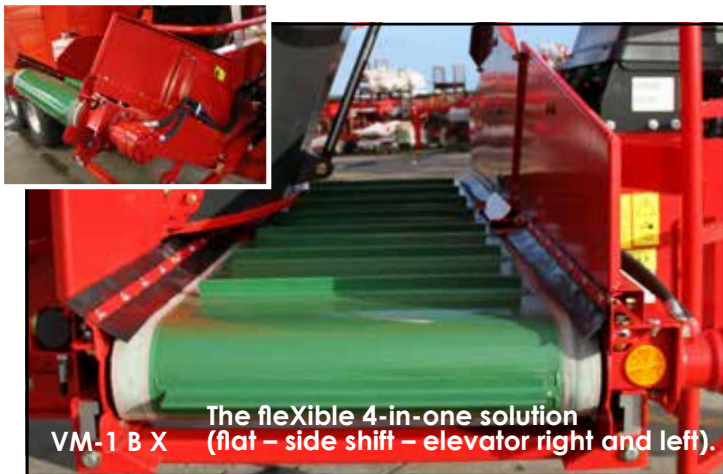


The feed is discharged behind the wheels.  
 Only available with wheel 30x11.5-14.5.

# Complete diet mixers with 1 auger – Cross conveyor



VM-1 B Multi



VM-1 B X The flexible 4-in-one solution (flat – side shift – elevator right and left).



VM-1 B

## VM-1 B / B X

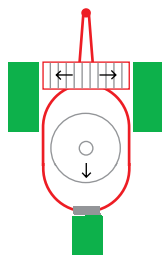
55-100 Cows

### Cross conveyor with 1 auger

Available sizes: 10 m<sup>3</sup>, 12 m<sup>3</sup> and 14 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Cross conveyor "X" the flexible 4-in-one solution (245 cm)
- Door, rear
- Elevator E22, rear (220 cm)
- Elevator E16, rear (160 cm)



## VM-1 B Multi

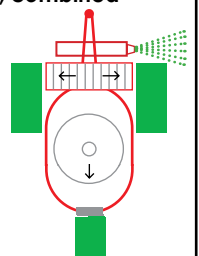
55-100 Cows

### Cross conveyor and straw bedding equipment, combined

Available sizes: 10 m<sup>3</sup>, 12 m<sup>3</sup> and 14 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Door, rear
- Elevator E22, rear (220 cm)
- Elevator E16, rear (160 cm)



# Complete diet mixers with 2 augers

## – Discharge doors



VM-2 S



Rear-mounted conveyor belt



VM-2 S L



VM-2 S C

### VM-2 S / S L

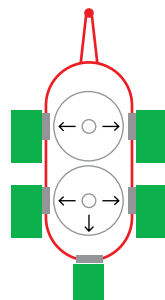
67-150 Cows

**Narrow, low complete diet mixer with 2 augers**

Available sizes:  
12m<sup>3</sup>, 14 m<sup>3</sup>, 16 m<sup>3</sup>, 18 m<sup>3</sup> and 20 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear doors (1-5 doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Side elevator E22 (220 cm)
- Elevator E16, rear (160 cm)
- Elevator E22, rear (220 cm)
- Cross conveyor, rear (224 cm)



### VM-2 S C

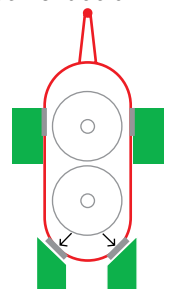
67-150 Cows

**Narrow complete diet mixer with 2 augers and corner doors**

Available sizes:  
12 m<sup>3</sup>, 14 m<sup>3</sup>, 16 m<sup>3</sup>, 18 m<sup>3</sup> and 20 m<sup>3</sup>.

Can be equipped with:

- Side doors (1-2 front doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Corner doors, rear (1-2 doors)



# Complete diet mixers with 2 augers – Cross conveyor



VM-2 SB

VM-2 S / SB / SB M can be fitted with tandem axle, hydraulic or air brakes.



The flexible 4-in-one solution  
VM-2 SB X (flat – side shift – elevator right and left).



VM-2 SB Multi

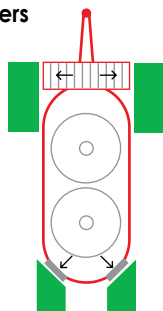
## VM-2 SB / SB L / SB X 80-150 Cows

**Narrow and low complete diet mixer with 2 augers and cross conveyor**

Available sizes:  
14 m<sup>3</sup>, 16 m<sup>3</sup>, 18 m<sup>3</sup> and 20 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Cross conveyor "X" the flexible 4-in-one solution (245 cm)
- Cross conveyor with corner doors rear



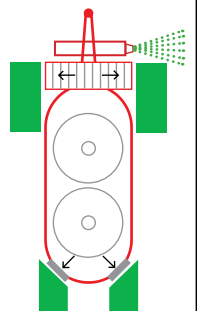
## VM-2 SB Multi 80-150 Cows

**Cross conveyor and straw bedding equipment, combined**

Available sizes:  
14 m<sup>3</sup>, 16 m<sup>3</sup>, 18 m<sup>3</sup> and 20 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Cross conveyor with rear corner doors



# Complete diet mixers with 2 augers

## – Discharge doors



VM-2 with hydraulic, adjustable drawbar (option)

### Grease bank for axle system (VM-2 and VM-3)

Through this grease bank all grease spots on the axle system, excl. wheel bearings, are greased. The benefits are minimum time consumption, all grease spots are remembered and easy maintenance.

### Axle system as required

Spring-loaded bogie axle system with 2 firm axles or spring-loaded tandem axle with turnable rear axle. One or two braking axles, hydraulic brake or air brake.

### Hydraulic, adjustable drawbar (VM-2 and VM-3/S)

- Horizontal adjustment of mixing tub
- Hydraulic cushioning via pressurized accumulators improves the driving comfort considerably and furthermore reduces the load on tractor and chassis
- Weight transfer to tractor drive improves the tractor's road grip
- Safe passage on steep ramps into/out of cattle houses



Grease bank for axle system

## VM-2

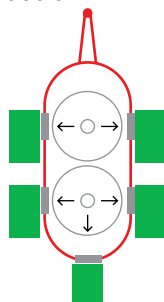
115-220 Cows

### Big 2-auger complete diet mixer with discharge doors

Available sizes:  
20 m<sup>3</sup>, 22 m<sup>3</sup>, 27 m<sup>3</sup> and 30 m<sup>3</sup>.

Can be equipped with:

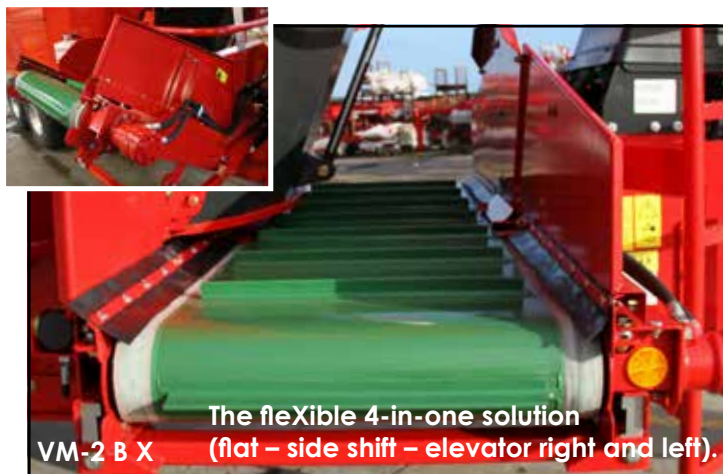
- Side doors and rear doors (1-5 doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Side elevator E22 (220 cm)
- Elevator E16, rear (160 cm)
- Elevator E22, rear (220 cm)
- Cross conveyor, rear (224 cm)



VM 30-2



# Complete diet mixers with 2 augers – Cross conveyor



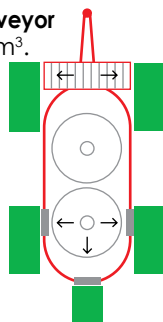
## VM-2 B / B X

115-220 Cows

**Big 2-auger complete diet mixer with cross conveyor**  
Available sizes: 20 m<sup>3</sup>, 22 m<sup>3</sup>, 27 m<sup>3</sup> and 30 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Cross conveyor "X" the flexible 4-in-one solution (245 cm)
- Door rear
- 1 or 2 side doors rear
- Elevator E16 rear (160 cm)
- Elevator E22 rear (220 cm)



## VM-2 B Multi

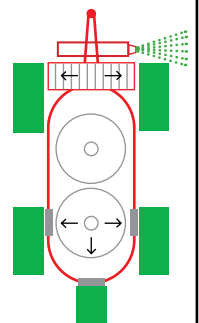
115-220 Cows

**Cross conveyor and straw bedding equipment, combined**

Available sizes:  
20 m<sup>3</sup>, 22 m<sup>3</sup>, 27 m<sup>3</sup> and 30 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Door rear
- 1 or 2 side doors rear
- Elevator E16 rear (160 cm)
- Elevator E22 rear (220 cm)



# Complete diet mixers with 3 augers

## – Discharge doors



VM-3 S

### 3 mixing augers = 2 process areas

3 mixing augers means 2 process areas, where the knives from two different augers meet. This makes the shredding of long straws, straw bales and big bales extraordinarily efficient.

With 12 different knife positions on each auger the process can be adjusted to individual farm requirements, both dry mixes with a high content of straw and on farms with TMR Dairy rations.



VM-3 S C

### VM-3 S

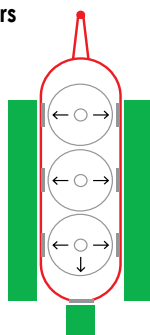
120-210 Cows

#### Narrow and low complete diet mixer with 3 augers

Available sizes:  
21 m<sup>3</sup>, 24 m<sup>3</sup>, 26 m<sup>3</sup> and 28 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear door (1-7 doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Side elevator E22 (220 cm)
- Elevator E16, rear (160 cm)
- Elevator E22, rear (220 cm)
- Cross conveyor, rear (224 cm)



### VM-3 S C

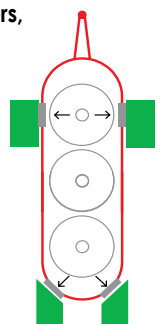
120-210 Cows

#### Narrow and low complete diet mixer with 3 augers, corner doors

Available sizes:  
21 m<sup>3</sup>, 24 m<sup>3</sup>, 26 m<sup>3</sup> and 28 m<sup>3</sup>.

Can be equipped with:

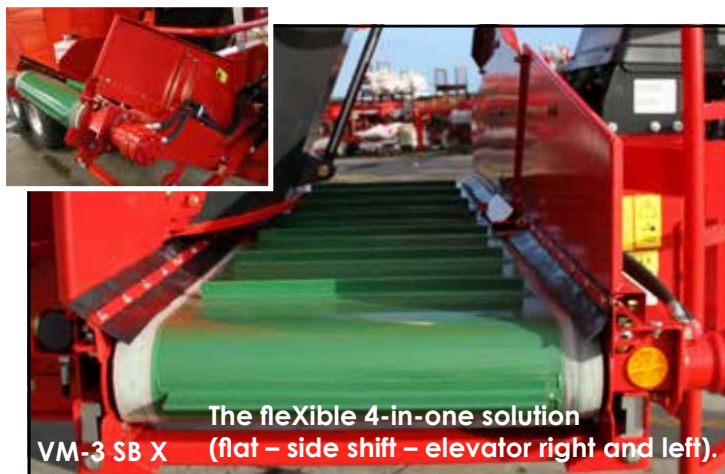
- Side doors (1-2 doors front)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Side elevator E22 (220 cm)
- Corner doors, rear (1-2 doors)



# Complete diet mixers with 3 augers – Cross conveyor



VM-3 SB



VM-3 SB / SB X	120-210 Cows
<p><b>Compact complete diet mixer</b> Available sizes: 21m<sup>3</sup>, 24 m<sup>3</sup>, 26 m<sup>3</sup> and 28 m<sup>3</sup>.</p>	
<p>Can be equipped with:</p> <ul style="list-style-type: none"> <li>■ Cross conveyor, standard (224 cm)</li> <li>■ Cross conveyor, BE09 Elevator (90 cm)</li> <li>■ Cross conveyor, BE16 Elevator (160 cm)</li> <li>■ Cross conveyor "X" the fleXible 4-in-one solution (245 cm)</li> <li>■ Cross conveyor with corner doors rear</li> </ul>	

VM-3 SB Multi	120-210 Cows
<p><b>Cross conveyor and straw bedding equipment, combined</b> Available sizes: 21m<sup>3</sup>, 24 m<sup>3</sup>, 26 m<sup>3</sup> and 28 m<sup>3</sup>.</p>	
<p>Can be equipped with:</p> <ul style="list-style-type: none"> <li>■ Cross conveyor, standard (224 cm)</li> <li>■ Cross conveyor, BE09 Elevator (90 cm)</li> <li>■ Cross conveyor, BE16 Elevator (160 cm)</li> <li>■ Cross conveyor with corner doors rear</li> </ul>	

# Complete diet mixers with 3 augers

## – Discharge doors



VM-3

### Effectiveness

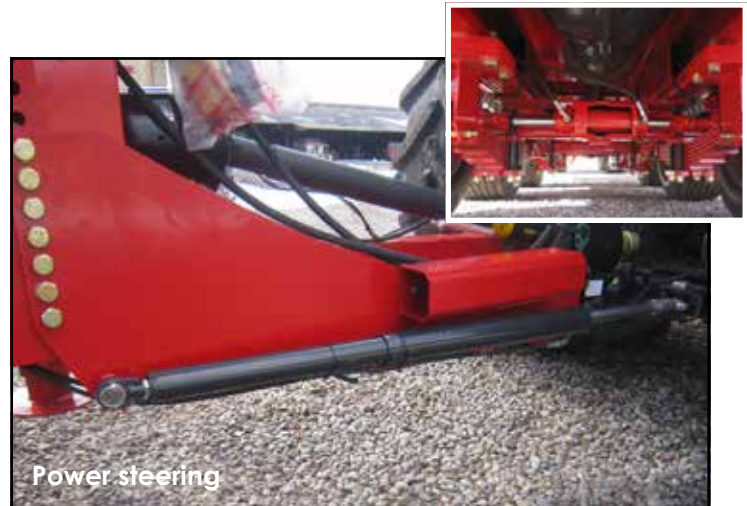
The feed for up to 350 cows can be mixed and discharged within 45 minutes with one large mix. Among the advantages are minimum time consumption (only one filling per feedstuff and minimum transport), minimum wear (very long life), and minimum service.

### Power steering

Active steering of axles are available for VM-3 and VM-3 B with brakes on all axles. With actively steered axles the ground and the tyres are spared and the load on the chassis is reduced in connection with reversing.

### Auger extension

For heavy mixes Kongskilde offers an extension set. With this set the auger is extended from 130 cm to 165 cm total height. Two additional knives can be fitted on the auger extension.



Power steering

## VM-3

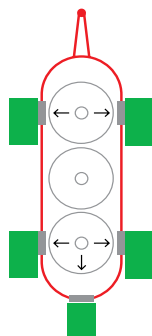
175-350 Cows

### 3-auger complete diet mixer with huge capacity

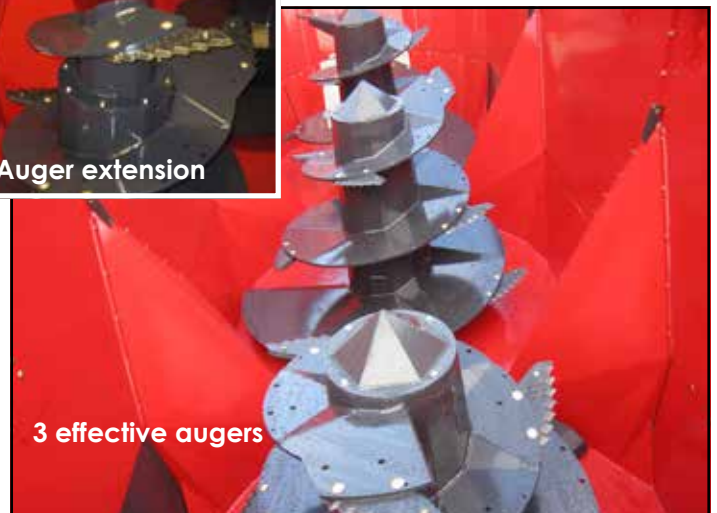
Available sizes:  
29 m<sup>3</sup>, 32 m<sup>3</sup>, 38 m<sup>3</sup> and 45 m<sup>3</sup>.

Can be equipped with:

- Side doors and rear door (1-5 doors)
- Side elevator E08 (75 cm)
- Side elevator E16 (160 cm)
- Side elevator E22 (220 cm)
- Elevator E16, rear (160 cm)
- Elevator E22, rear (220 cm)
- Cross conveyor, rear (224 cm)

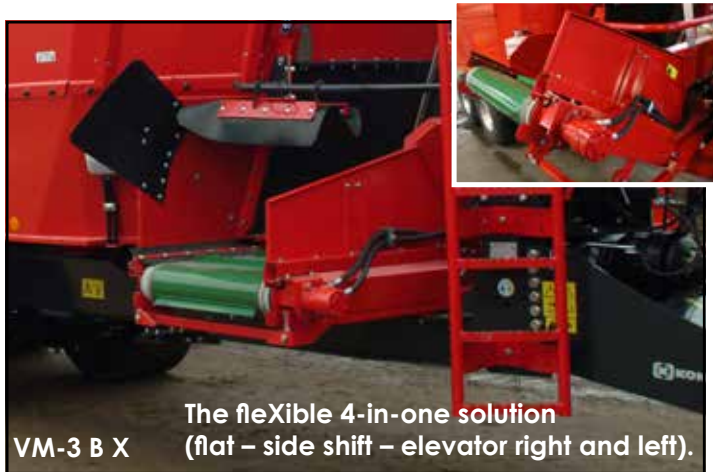


Auger extension



3 effective augers

# Complete diet mixers with 3 augers – Cross conveyor



**VM-3 B / B X** **175-350 Cows**

**3-auger complete diet mixer with cross conveyor**  
Available sizes:  
29 m<sup>3</sup>, 32 m<sup>3</sup>, 38 m<sup>3</sup> and 45 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Cross conveyor "X" the flexible 4-in-one solution (245 cm)
- Rear door
- 1 or 2 side doors rear
- Elevator E16 rear (160 cm)
- Elevator E22 rear (220 cm)

**VM-3 B Multi** **175-350 Cows**

**Cross conveyor and straw bedding equipment, combined**  
Available sizes:  
29 m<sup>3</sup>, 32 m<sup>3</sup>, 38 m<sup>3</sup> and 45 m<sup>3</sup>.

Can be equipped with:

- Cross conveyor, standard (224 cm)
- Cross conveyor, BE09 Elevator (90 cm)
- Cross conveyor, BE16 Elevator (160 cm)
- Rear doors
- 1 or 2 side doors rear
- Elevator E16 rear (160 cm)
- Elevator E22 rear (220 cm)

# Features that convince...

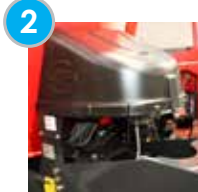


1

## Turnable axles

Axles with articulation (turnable) are available for the big 2-auger and all 3-auger complete diet mixer

- Less wear on tyres and surface.
- Reduces the load on the chassis.



2

## Closed technical compartment for electronic and hydraulic components

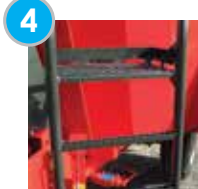
- Prevents damage to components
- Trouble shooting is easier
- Protection against feed remains, dirt from tractor wheels, wind and weather etc.



3

## Easy access to technical compartment

- Minimum time is used for inspection, troubleshooting and maintenance of battery.



4

## Strong ladder and platform

- Possibility of inspection of the mixture and high safety.
- Easy access



5

## Separate chassis

The drawing power goes through the drawbar and the chassis frame to the rear axle. The tub stands on the chassis via the weighing cells.

- No twisting or horizontal draw in the weighing cells
- The weighing system can work when the tractor is disconnected and the feeder stands on the support.



6

## Oversteering of valve block

- In case of electronic failure, the hydraulic valve block can be oversteered manually directly on the valve.



7

## Straight drive lines

Drive lines without deviation of the PTO shafts.

- Long greasing intervals
- Minimum maintenance.

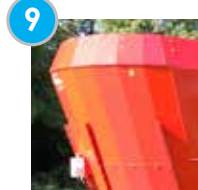


8

## Strong auger gears

Strong auger bearing consisting of 2 large conical roller bearings. When it is cold, the oil level falls. Therefore the upper bearing is greased for life and the lower bearing runs in oil bath..

- Maximum support
- Minimum friction and maintenance.

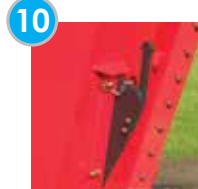


9

## Tapered tub sides

The tapered tub sides hold the feed firmly.

- Prevents the feed from rotating with the auger.
- Instead the auger mixes the feed quickly and effectively.



10

## Adjustable shearbars

The 2 adjustable shearbars are very effective and optimise the shredding of bales of hay and straw.

- Quick shredding of bales
- Shorter operation time means less wear and less power consumption.



11

## One shear bolt

One shear bolt for all augers. All augers are stopped when the shear bolt releases.

- The other auger gears are not overloaded by the additional forces.
- The augers remain synchronous.



12

## Spring-loaded axles

All complete diet mixer with 2 or 3 axles have spring suspended axles. Less wear on tyres, rim and chassis because the individual wheel is not exposed to the entire load, contrary to fixed axles.

# Outline of wheels



Tyre designation	30x11.5-14.5	400/60x 15.5	425/40B17	205/65R17.5	235/75R17.5	305/55R22.5	435/50R19.5
Width (mm)	300	405	425	*494	*505	300	438
Diameter (mm)	711	875	798	711	797	930	931
Carrying (at 25 km/h)	4000	3 700	4000	*4460	*6900	4800	6100
Max. air pressure (bar)	8	4,7	9	8,5	8,5	7	9
Remoulded tyres						X	
<b>VM 6.5-1 S L</b> (Axle in middle position)	<b>R</b> 209 cm						
<b>VM 8-1 S L</b> (Axle in middle position)	<b>R</b> 226 cm						
<b>VM 10-1 S L</b> (Axle in middle position)	<b>R</b> 261 cm						
<b>VM 6.5-1 S</b>	<b>R</b> 231 cm	<b>O</b> +14 cm		<b>O</b> +/- 0 cm	<b>O</b> + 6 cm		
<b>VM 8-1 S</b>	<b>R</b> 248 cm	<b>O</b> +14 cm		<b>O</b> +/- 0 cm	<b>O</b> + 6 cm		
<b>VM 10-1 S</b>	<b>R</b> 283 cm	<b>O</b> +14 cm		<b>O</b> +/- 0 cm	<b>O</b> + 6 cm		
<b>VM 10-1 /B /M</b>	<b>R</b> 256 cm	<b>O</b> +13 cm		<b>O</b> +/- 0 cm	<b>O</b> + 5 cm		<b>O</b> +19 cm
<b>VM 12-1 /B /M</b>	<b>R</b> 284 cm	<b>O</b> +13 cm		<b>O</b> +/- 0 cm	<b>O</b> + 5 cm		<b>O</b> +19 cm
<b>VM 14-1 /B /M</b>				<b>R</b> 316 cm	<b>O</b> +4 cm		<b>O</b> +19 cm
<b>VM 12-2 S</b>	<b>O</b> -4 cm		<b>R</b> 238 cm				
<b>VM 14-2 S /SB /M</b>	<b>O</b> (Bogie) +8 cm	<b>O</b> (Bogie) +14 cm	<b>O</b> (single) +/- 0 cm <b>O</b> (bogie) + 12 cm	<b>O</b> -4 cm	<b>R</b> 257 cm		<b>O</b> +11 cm
<b>VM 16-2 S /SB /M</b>	<b>O</b> (Bogie) +8 cm	<b>O</b> (Bogie) +14 cm	<b>O</b> (single) +/- 0 cm <b>O</b> (bogie) + 12 cm	<b>O</b> -4 cm	<b>R</b> 275 cm		<b>O</b> +11 cm
<b>VM 18-2 S /SB /M</b>	<b>O</b> (Bogie) +8 cm	<b>O</b> (Bogie) +14 cm	<b>O</b> (single) +/- 0 cm <b>O</b> (bogie) + 12 cm	<b>O</b> -4 cm	<b>R</b> 292 cm		<b>O</b> +11 cm
<b>VM 20-2 S / SB /M</b>	<b>R</b> (Bogie) 315 cm	<b>O</b> (Bogie) +6 cm	<b>O</b> (bogie) +4 cm	<b>O</b> -11 cm	<b>O</b> -9 cm		<b>O</b> +3 cm
<b>VM 20-2 L</b>					<b>R</b> 267 cm		
<b>VM 20-2 /B /M</b>					<b>R</b> 275 cm		<b>O</b> +6 cm
<b>VM 22-2 /B /M</b>					<b>R</b> 290 cm		<b>O</b> +6 cm
<b>(Bogie for VM 20/22-2 /B)</b>							<b>O</b> (Bogie) +16 cm
<b>VM 27-2 /B /M</b>							<b>R</b> (Bogie) 341 cm
<b>VM 30-2 /B /M</b>							<b>R</b> (Bogie) 361 cm
<b>VM 21-3 S /SB /M</b>					<b>O</b> -9 cm	<b>O</b> (tandem) +4 cm	<b>R</b> (single) 268 cm <b>O</b> (tandem) +/- 0 cm
<b>VM 24-3 S /SB /M</b>						<b>R</b> (tandem) 289 cm	<b>O</b> (tandem) +/- 0
<b>VM 26-3 S /SB /M</b>						<b>R</b> (tandem) 305 cm	<b>O</b> (tandem) +/- 0
<b>VM 28-3 S /SB /M</b>						<b>R</b> (tandem) 320 cm	<b>O</b> (tandem) +/- 0
<b>VM 29-3 /B /M</b>							<b>R</b> (tandem) 292 cm
<b>VM 32-3 /B /M</b>							<b>R</b> (tandem) 308 cm
<b>VM 38-3 /B /M</b>							<b>R</b> (triple) 343 cm
<b>VM 45-3 /B /M</b>							<b>R</b> (triple) 363 cm

\*For one set of twin wheels (two wheels)

**R** = Reference tyre (with indication of total height)  
**O** = Option (med angivelse af højdeændring)

All heights can vary +/- 3 cm due to tyre pressure etc.  
The tyre pattern of each tyre can vary.

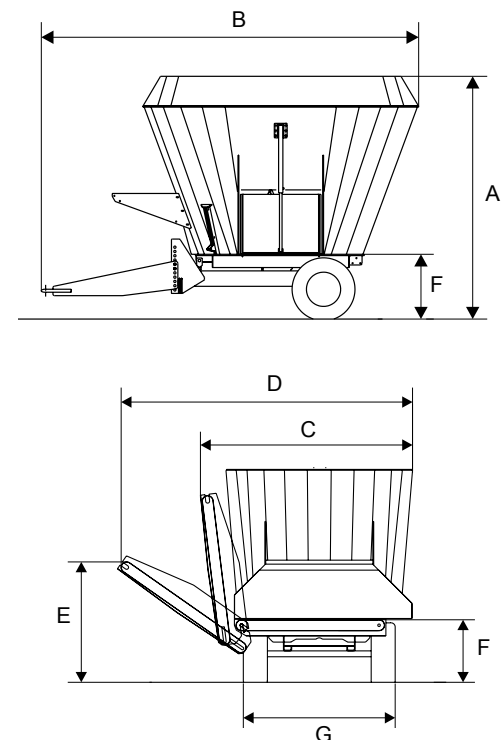
# Complete diet mixers with discharge doors

## Complete diet mixers VM with 1 vertical auger

	VM 6.5-1 S	VM 8-1 S/C	VM 10-1 S/C	VM 6.5-1 S L	VM 8-1 S L	VM 10-1 S L
Volume (m <sup>3</sup> )	6.5	8	10	6.5	8	10
Own weight (kg)	2500	2650	2800	2500	2650	2800
Effective load (kg)	2600	3200	4000	2600	3200	4000
Number of weigh cells	3	3	3	3	3	3
Track width, outside (m) (G)	1.78	1.78	1.78	1.78	1.78	1.78
Length (m) (B)	4.34	4.40	4.40	4.38	4.38	4.38
Dimensions are based on wheels	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5
Total height (m)* (A)	2.31	2.48	2.83	2.09**	2.26**	2.61**
Transport width (m)	Door, 1 side/2 sides (C)	2.29/2.36	2.29/2.36	2.29/2.36	2.29/2.36	2.29/2.36
	Elevator E08	2.50	2.50	2.50	2.50	2.50
	Elevator E16	Only rear	Only rear	Only rear	-	-
	Corner doors (not E08/16)	-	2.24	2.24	-	-
Discharge height (m)*	Door (F)	0.75	0.75	0.75	0.53**	0.53**
	Height/Width at 35° Elevator E08 (E/D)	1.02/3.02	1.02/3.02	1.02/3.02	0.80/3.02	0.80/3.02
	Height/Width at 35° Elevator E16 (E/D)	1.52	1.52	1.52	-	-
Number of knives mounted/maximum	5/12	5/12	5/12	5/12	5/12	5/12
Speed, mixing auger (rpm at 540, 1:1)	32	32	32	32	32	32
Number of auger windings/Steel quality/mm	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15
Tractor, Minimum (kW/HP)	35 / 48	40 / 54	40 / 54	35 / 48	40 / 54	40 / 54
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	35 - 45 dairy cows	44 - 55 dairy cows	55 - 70 dairy cows	35 - 45 dairy cows	44 - 55 dairy cows	55 - 70 dairy cows

\* The heights may deviate +/- 3 cm due to tyre pressure etc. \*\*Height with axle in middle position. Axle is adjustable +/- 5 cm.

	VM 10-1	VM 12-1	VM 14-1
Volume (m <sup>3</sup> )	10	12	14
Own weight (kg)	3300	3500	3650
Effective load (kg)	4000	4800	5600
Number of weigh cells	3	3	3
Track width, outside (m) (G)	1.88	1.88	2.11
Length (m) (B)	4.66	4.66	4.66
Dimensions are based on wheels	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5
Total height (m)* (A)	2.56	2.84	3.14
Transport width (m)	Door, 1 side/2 sides (C)	2.52/2.55	2.52/2.55
	Elevator E08 (C)	2.84	2.84
	Elevator E16 (C)	2.85	2.85
	Cross conveyor, rear (C)	2.47	2.47
Discharge height (m)*	Door (F)	0.75	0.75
	Height/width at 35° Elevator E08 (E/D)	1.02/3.32	1.02/3.32
	Height/width at 35° Elevator E16 (E/D)	1.52/4.01	1.52/4.01
	Only rear mount. at 35° Elevator E22 (E/D)	2.10	2.10
Number of knives mounted/maximum	7/16	7/16	7/16
Speed, mixing auger (rpm at 540, 1:1)	33	33	33
Number of auger windings/Steel quality/mm	2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)	55 / 70	67 / 85	80 / 100
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	55-70 dairy cows	60-84 dairy cows	82-103 dairy cows



\* The heights may deviate +/- 3 cm due to tyre pressure etc.



## Complete diet mixers VM with 2 vertical augers – Discharge doors

		VM 12-2 S/C/L	VM 14-2 S/C/L	VM 16-2 S/C/L	VM 18-2 S/C/L	VM 20-2 S/C/L
Volume (m <sup>3</sup> )		12	14	16	18	20
Own weight (kg)		4300	4450	4630	4720	4810
Effective load (kg)		4800	5600	6400	7200	7200**
Number of weigh cells		3	4	4	4	4
Track width, outside (m) (G)		1.75	1.94	1.94	1.94	1.94
Length (m) (B)		6.25	6.31	6.31	6.31	6.50
Dimensions are based on wheels		Single axle 425/40B17	Single axle 235/75R17.5	Single axle 235/75R17.5	Single axle 235/75R17.5	Single axle 235/75R17.5
Total height (m)* (A)		2.38	2.57	2.75	2.92	3.06
Transport width (m)	Door, 1 side/2 sides (C)	2.29/2.36	2.29/2.36	2.29/2.36	2.29/2.36	2.36 (top)
	Corner doors	2.24	2.24	2.24	2.24	2.36 (top)
	Elevator E08	2.50	2.50	2.50	2.50	2.69 (top+)
	Elevator E16	2.62	2.62	2.62	2.62	2.75 (top+)
	Cross conveyor, rear	2.24	2.24	2.24	2.24	2.36 (top)
Discharge height (m)*	Door (F)	0.84	0.84	0.84	0.84	0.84
	Height/width at 35° Elevator E08 (E/D)	1.11/3.02	1.11/3.02	1.11/3.02	1.11/3.02	1.11/3.16
	Height/width at 35° Elevator E16 (E/D)	1.61/3.71	1.61/3.71	1.61/3.71	1.61/3.71	1.61/3.85
	Height/width at 35° Elevator E22 (E/D)***	2.12/4.20	2.12/4.20	2.12/4.20	2.12/4.20	2.12/4.34
Number of knives mounted/maximum		10/24	10/24	10/24	10/24	10/24
Speed, mixing auger (rpm at 540, 1:1)		34	34	34	34	34
Number of auger windings/Steel quality/mm		2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15
Tractor, Minimum (kW/HP)		56 / 75	60 / 82	65 / 88	70 / 95	74 / 100
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of		67-85 dairy cows	80-100 dairy cows	93-120 dairy cows	105-135 dairy cows	105-135 dairy cows

\* The heights may deviate +/- 3 cm due to tyre pressure etc. \*\* Please note the loading capacity.

\*\*\* Side mounting not possible with bogie axle system. VM-2 S L (low.) Models with wheels 205/65R17.5 are 10 cm lower (all heights).

		VM 20-2 L	VM 20-2	VM 22-2	VM 27-2	VM 30-2
Volume (m <sup>3</sup> )		20	20	22	27	30
Own weight (kg)		6600	6600	6800-7500	7750	7900
Effective load (kg)		8000	8000	8800	10800	12000
Number of weigh cells		6	6	6	6	6
Track width, outside (m) (G)		2.25	2.25	2.25	2.20	2.20
Length (m) (B)		7.20	7.20	7.20	7.20	7.31
Dimensions are based on wheels		Single axle 235/75 R17.5	Single axle 235/75 R17.5	Single axle 235/75 R17.5	**Bogie axle 435/50 R19.5	**Bogie axle 435/50 R19.5
Total height (m)* (A)		2.67	2.75	2.87	3.41	3.61
Transport width (m)	Door, 1 side/2 sides (C)	2.52/2.55	2.52/2.55	2.52/2.55	2.52/2.55	2.76 (top)
	Elevator E08	2.77	2.77	2.77	2.77	2.91
	Elevator E16	2.88	2.88	2.88	2.88	3.01
	Cross conveyor, rear	2.49	2.49	2.49	2.49	2.76 (top)
Discharge height (m)*	Door (A)	0.81	0.89	0.89	1.05	1.05
	Height/width at 35° Elevator E08 (E/D)	1.08/3.31	1.13/3.31	1.13/3.31	1.32/3.31	1.32/3.45
	Height/width at 35° Elevator E16 (E/D)	1.58/4.00	1.63/4.00	1.82/4.00	1.82/4.00	1.82/4.14
	Height/width at 35° Elevator E22 (E/D)***	2.09/4.49	2.14/4.49	2.33/4.49	2.33/4.49	2.33/4.63
Number of knives mounted/maximum		14 / 32	14 / 32	14 / 32	14 / 32	14 / 32
Speed, mixing auger (rpm at 540, 1:1)		26	26	26	26	26
Number of auger windings/Steel quality/mm		2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)		80/108	80/108	85/115	95/130	100/136
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of		115-150 dairy cows	115-150 dairy cows	125-165 dairy cows	156-195 dairy cows	175-220 dairy cows

\* The heights may deviate +/- 3 cm due to tyre pressure etc.

\*\* Tandem wheel system increases all heights by +2 cm

\*\*\* Side mounting not possible with Tandem axle system.

# Complete diet mixers VM with 3 vertical augers – Discharge doors

	VM 21-3 S/C	VM 24-3 S/C	VM 26-3 S/C	VM 28-3 S/C	VM 29-3	VM 32-3	VM 38-3	VM 45-3	
Volume (m <sup>3</sup> )	21	24	26	28	29	32	38	45	
Own weight (kg)	7000	8000	8100	8200	10700	11000	12500	12900	
Effective load (kg)	8400	9600	10400	11200	11600	12800	15200	18000	
Number of weigh cells	6	6	6	6	8	8	8	8	
Track width, outside (m) (G)	2.05	1.91	1.91	1.91	2.20	2.20	2.20	2.20	
Length (m) (B)	8.61	8.61	8.61	8.83	9.34	9.34	9.34	9.45	
Dimensions are based on wheels	Single axle 435/50 R19.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 435/50R R19.5	Tandem 435/50R R19.5	Tridem 435/50R R19.5	Tridem 435/50R R19.5	
Total height (m)* (A)	2.68	2.89	3.05	3.20	2.92	3.08	3.43	3.63	
Transport width (m)	Door, 1 side/2 sides (C)	2.29/2.36	2.29/2.36	2.29/2.36	2.35 (top)	2.52/2.55	2.52/2.55	2.52/2.55	2.76
	Corner doors	2.24	2.24	2.24	2.35 (top)	-	-	-	-
	Elevator E08	2.50	2.50	2.50	2.69 (top)	2.86	2.86	2.86	3.00
	Elevator E16	2.62	2.62	2.62	2.74 (top)	2.88	2.88	2.88	3.07
	Cross conveyor, rear	2.24	2.24	2.24	2.35 (top)	2.50	2.50	2.50	2.76
Discharge height (m)*	Door (F)	0.92	0.96	0.96	0.96	1.05	1.05	1.05	1.05
	Height/Width at 35° Elevator E08 (E/D)	1.13/3.02	1.23/3.02	1.23/3.02	1.23/3.16	1.32/3.31	1.32/3.31	1.32/3.31	1.32/3.45
	Height/Width at 35° Elevator E16 (E/D)	1.63/3.71	1.73/3.71	1.73/3.71	1.73/3.85	1.82/4.00	1.82/4.00	1.82/4.00	1.82/4.14
	Height/Width at 35° Elevator E22 (E/D)**	2.14/4.20	2.24/4.20	2.24/4.20	2.24/4.34	2.33/4.49	2.33/4.49	2.33/4.49	2.33/4.63
Number of knives mounted/maximum	15/36	15/36	15/36	15/36	21/48	21/48	21/48	21/48	
Speed, mixing auger (rpm at 540, 1:1)	34	34	34	34	26	26	26	26	
Number of auger windings/Steel quality/mm	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	
Tractor, Minimum (kW/HP)	85/115	90/122	100/136	105/143	95/130	100/135	110/150	120/162	
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	120-155 dairy cows	135-185 dairy cows	155-195 dairy cows	160-210 dairy cows	170-215 dairy cows	190-240 dairy cows	220-280 dairy cows	260-350 dairy cows	

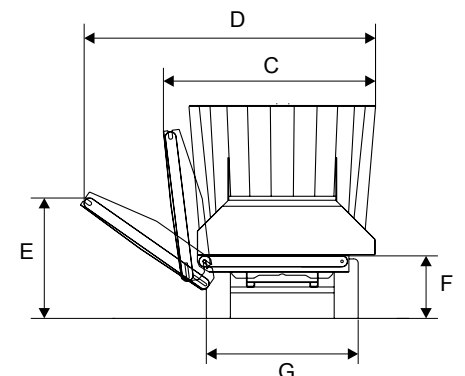
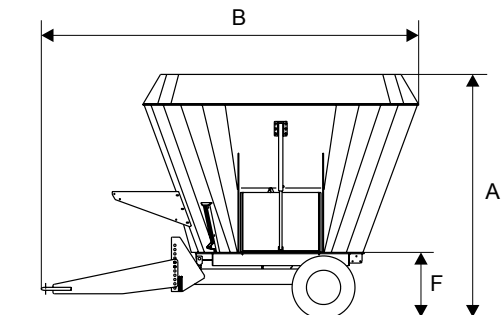
\* The heights may deviate +/- 3 cm due to tyre pressure etc.

\*\* Side mounting not possible with Tridem axle system.

# Complete diet mixers with cross conveyor

## Complete diet mixers VM with 1 vertical auger

	VM 10-1 B/X	VM 12-1 B/X	VM 14-1 B/X	
Volume (m <sup>3</sup> )	10	12	14	
Own weight (kg)	3580	3750	3850	
Effective load (kg)	4000	4800	5600	
Number of weigh cells	3	3	3	
Track width, outside (m) (G)	1.88	1.88	2.11	
Length (m) (B)	5.43	5.43	5.43	
Dimensions are based on wheels	Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	4 x 205/65 R17.5	
Total height (m)* (A)	2.56	2.84	3.14	
<b>VM-B models:</b> Cross conveyor B (standard)	2.47	2.47	2.47	
Transport width (m)	Elevator BE09	2.52	2.52	
	Elevator BE16	2.58	2.58	
<b>VM-B models:</b> Cross conveyor B (F)	0.70	0.70	0.71	
Discharge height and width (m)* at 35°	Elevator BE09 (E/D)	0.96/3.05	0.96/3.05	0.97/3.05
	Elevator BE16 (E/D)	1.37/3.71	1.37/3.71	1.38/3.71
	Elevator E16, rear (E)	1.52	1.52	1.53
	Elevator E22, rear (E)	2.03	2.03	2.04
<b>VM-X models**:</b> Transport width/unload height (m) (C/F)	2.47/0.70	2.47/0.70	2.47/0.70	
Max. discharge height (m) (E/D)	1.20/2.87	1.20/2.87	1.20/2.87	
Number of knives mounted/maximum	7/16	7/16	7/16	
Speed, mixing auger (rpm at 540, 1:1)	33	33	33	
Number of auger windings/Steel quality/mm	2.75/S500/15	2.75/S500/15	2.75/S500/15	
Tractor, Minimum (kW/HP)	50/68	55/75	60/82	
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	55-70 dairy cows	67-85 dairy cows	80-100 dairy cows	



\* The heights may deviate +/- 3 cm. due to tyre pressure etc. \*\* Lateral movement of "X" elevator +/- 31 cm.

## Complete diet mixers VM with 2 vertical augers – Cross conveyor

	VM 14-2 SB/L/X	VM 16-2 SB/L/X	VM 18-2 SB/L/X	VM 20-2 SB/L/X	VM 20-2 B/X	VM 22-2 B/X	VM 27-2 B/X	VM 30-2 B/X	
Volume (m³)	14	16	18	20	20	22	27	30	
Own weight (kg)	4700	4880	4970	5060	6900	7100-7800	8050	8200	
Effective load (kg)	5600	6400	7200	7200**	8000	8800	10800	12000	
Number of weigh cells	4	4	4	4	6	6	6	6	
Track width, outside (m) (G)	1.94	1.94	1.94	1.94	2.30	2.30	2.20	2.20	
Length (m)(B)	6.98	6.98	6.98	7.18	7.88	7.88	7.88	8.08	
Dimensions are based on wheels	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Single axle 4 x 235/ 75 R17.5	Bogie axle 435/50 R19.5	Bogie axle 435/50 R19.5
Total height (m)* (A)	2.57	2.75	2.92	3.06	2.75	2.87	3.41	3.61	
<b>VM-SB/B models:</b> Transport width (m)	Cross conveyor B (standard)	2.24	2.24	2.24	2.35 (Top)	2.49	2.49	2.76 (top)	
	Elevator BE09	2.45	2.45	2.45	2.59	2.53	2.53	2.76 (top)	
	Elevator BE16	2.54	2.54	2.54	2.68	2.58	2.58	2.76 (top)	
<b>VM-SB/B models:</b> Discharge height and width (m)* at 35°	Cross conveyor B (F)	0.77	0.77	0.77	0.77	0.93	1.03	1.03	
	Elevator BE09 (E/D)	1.04/2.93	1.04/2.93	1.04/2.93	1.04/3.07	1.13/3.05	1.13/3.05	1.24/3.05	
	Elevator BE16 (E/D)	1.45/3.62	1.45/3.62	1.45/3.62	1.45/3.76	1.55/3.72	1.55/3.72	1.65/3.72	
	Elevator E16, rear (E)	-	-	-	-	1.63	1.63	1.82	
	Elevator E22, rear (E)	-	-	-	-	2.14	2.14	2.33	
<b>VM-X models***:</b>	Transport width/Load height (m) (C/F)	2.45/0.72	2.45/0.72	2.45/0.72	2.45/0.72	2.49/0.91	2.49/0.91	2.76/1.01	
	Max. discharge height (m) (E/D)	1.24/2.60	1.24/2.60	1.24/2.60	1.24/2.67	1.40/2.87	1.40/2.87	1.50/2.87	
Number of knives mounted/maximum	10/24	10/24	10/24	10/24	14/32	14/32	14/32	14/32	
Speed, mixing auger (rpm at 540, 1:1)	34	34	34	34	26	26	26	26	
Number of auger windings/Steel quality/mm	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	
Tractor, Minimum (kW/HP)	60/82	65/88	70/95	74/100	80/108	85/115	95/130	100/136	
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	80-100 dairy cows	93-120 dairy cows	105-135 dairy cows	115-135 dairy cows	115-150 dairy cows	125-165 dairy cows	150-195 dairy cows	175-220 dairy cows	

VM-2 SB L (low) models with wheels 205/65R17.5 are 10 cm lower (all heights). \* On complete diet mixer with cross conveyor belt the height is increased by 2 cm. \* The heights may deviate +/- 3 cm due to tyre pressure etc. \*\* Please note the loading capacity. \*\*\* Lateral movement of "X" elevator +/- 31 cm.

## Complete diet mixers VM with 3 vertical augers – Cross conveyor

	VM 21-3 SB/X	VM 24-3 SB/X	VM 26-3 SB/X	VM 28-3 SB/X	VM 29-3 B/X	VM 32-3 B/X	VM 38-3 B/X	VM 45-3 B/X
Volume (m³)	21	24	26	28	29	32	38	45
Own weight (kg)	7300	8300	8400	8500	11050	11350	12830	13250
Effective load (kg)	8400	9600	10400	11200	11600	12800	15200	18000
Number of weigh cells	6	6	6	6	8	8	8	8
Track width, outside (m) (G)	2.05	1.91	1.91	1.91	2.20	2.20	2.20	2.20
Length (m)(B)	9.09	9.09	9.09	9.29	9.96	9.96	9.96	10.15
Dimensions are based on wheels	Single axle 435/50 R19.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 435/50 R19.5	Tandem 435/50 R19.5	Tridem 435/50 R19.5	Tridem 435/50 R19.5
Total height (m)* (A)	2.68	2.89	3.05	3.20	2.92	3.08	3.43	3.63
<b>VM-SB/B models:</b> Transport width (m)	Cross conveyor B (standard)	2.24	2.24	2.24	2.35 (Top)	2.49	2.49	2.76
	Elevator BE09	2.45	2.45	2.45	2.59	2.53	2.53	2.76
	Elevator BE16	2.54	2.54	2.54	2.68	2.58	2.58	2.76
<b>VM-SB/B models:</b> Discharge height and width (m)* at 35°	Cross conveyor B (F)	0.87	0.91	0.91	0.91	1.05	1.05	1.05
	Elevator BE09 (E/D)	1.12/2.93	1.16/2.93	1.16/2.93	1.16/3.07	1.24/3.05	1.24/3.05	1.24/3.20
	Elevator BE16 (E/D)	1.53/3.62	1.57/3.62	1.57/3.62	1.57/3.76	1.65/3.72	1.65/3.72	1.65/3.72
	Elevator E16, rear (E)	-	-	-	-	1.82	1.82	1.82
	Elevator E22, rear (E)	-	-	-	-	2.33	2.33	2.33
<b>VM-X models**:</b>	Transport width/Load height (m) (C/F)	2.45/0.73	2.45/0.86	2.45/0.86	2.45/0.86	2.49/1.02	2.49/1.02	2.76/1.02
	Max. discharge height (m) (E/D)	1.25/2.60	1.38/2.60	1.38/2.60	1.38/2.67	1.51/2.87	1.51/2.87	1.51/2.87
Number of knives mounted/maximum	15/36	15/36	15/36	15/36	21/48	21/48	21/48	21/48
Speed, mixing auger (rpm at 540, 1:1)	34	34	34	34	26	26	26	26
Number of auger windings/Steel quality/mm	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)	85 / 115	90 / 122	100 / 136	105 / 143	95/130	100/135	110/150	120/162
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of	120-135 dairy cows	135-185 dairy cows	155-195 dairy cows	160-210 dairy cows	170-215 dairy cows	190-240 dairy cows	220-280 dairy cows	260-350 dairy cows

\* The heights may deviate +/- 3 cm. due to tyre pressure etc. On complete diet mixer with cross conveyor belt the height is increased by 2 cm.

\*\* Lateral movement of "X" elevator +/- 31 cm.

# Complete diet mixers with cross conveyor and straw bedder

## Complete diet mixers VM with 1 vertical auger

		VM 10-1 B M	VM 12-1 B M	VM 14-1 B M
Volume (m <sup>3</sup> )		10	12	14
Own weight (kg)		4380	4550	4650
Effective load (kg)		4000	4800	5600
Number of weigh cells		3	3	3
Track width, outside (m) (G)		1.88	1.88	2.11
Length (m) (B)		6.05	6.05	6.05
Dimensions are based on wheels		Single axle 30x11.5-14.5	Single axle 30x11.5-14.5	4 x 205/65 R17.5
Total height (m)* (A)		2.56	2.84	3.14
Transport width (m)	Cross conveyor B (standard)	2.47	2.47	2.47
	Elevator BE09	2.52	2.52	2.52
	Elevator BE16	2.58	2.58	2.58
Discharge height and width (m)* at 35°	Cross conveyor B (F)	0.70	0.70	0.71
	Elevator BE09 (E/D)	0.96/3.05	0.96/3.05	0.97/3.05
	Elevator BE16 (E/D)	1.37/3.71	1.37/3.71	1.38/3.71
	Elevator E16, rear (E)	1.52	1.52	1.53
	Elevator E22, rear (E)	2.03	2.03	2.04
Number of knives mounted/maximum		8/16	8/16	8/16
Speed, mixing auger (rpm at 540, 1:1)		33	33	33
Number of auger windings/Steel quality/mm		2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)		50/68	55/75	60/82
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of		55-70 dairy cows	67-85 dairy cows	80-100 dairy cows

\* The heights may deviate +/- 3 cm due to tyre pressure etc.

## Complete diet mixers VM with 2 vertical augers – Cross conveyor and straw bedder

		VM 14-2 SB M	VM 16-2 SB M	VM 18-2 SB M	VM 20-2 SB M	VM 20-2 B M	VM 22-2 B M	VM 27-2 B M	VM 30-2 B M
Volume (m <sup>3</sup> )		14	16	18	20	20	22	27	30
Own weight (kg)		5500	5650	5770	5890	7700	7800-8750	9000	9200
Effective load (kg)		5600	6400	7200	7200**	8000	8800	10800	12000
Number of weigh cells		4	4	4	4	6	6	6	6
Track width, outside (m) (G)		1.94	1.94	1.94	1.94	2.30	2.30	2.20	2.20
Length (m) (B)		7.60	7.60	7.60	7.80	8.45	8.50	8.50	8.70
Dimensions are based on wheels		Single axle 4 x 235/75 R17.5	Single axle 4 x 235/75 R17.5	Single axle 4 x 235/75 R17.5	Single axle 4 x 235/75 R17.5	Single axle 4 x 235/75 R17.5	Single axle 4 x 235/75 R17.5	Bogie axle 435/50 R19.5	Bogie axle 435/50 R19.5
Total height (m)* (A)		2.57	2.75	2.92	3.06	2.75	2.87	3.41	3.61
Transport width (m)	Cross conveyor B (standard)	2.24	2.24	2.24	2.35 (Top)	2.49	2.49	2.49	2.76 (top)
	Elevator BE09	2.45	2.45	2.45	2.59	2.53	2.53	2.53	2.76 (top)
	Elevator BE16	2.54	2.54	2.54	2.69	2.58	2.58	2.58	2.76 (top)
Discharge height and width (m)* at 35°	Cross conveyor B (F)	0.77	0.77	0.77	0.77	0.93	0.93	1.03	1.03
	Elevator BE09 (E/D)	1.04/2.93	1.04/2.93	1.04/2.93	1.04/3.07	1.13/3.05	1.13/3.05	1.24/3.05	1.24/3.05
	Elevator BE16 (E/D)	1.45/3.62	1.45/3.62	1.45/3.62	1.45/3.76	1.55/3.72	1.55/3.72	1.65/3.72	1.65/3.87
	Elevator E16, rear (E)	-	-	-	-	1.63	1.63	1.82	1.82
	Elevator E22, rear (E)	-	-	-	-	2.14	2.14	2.33	2.33
Number of knives mounted/maximum		11/24	11/24	11/24	11/24	15/32	15/32	15/32	15/32
Speed, mixing auger (rpm at 540, 1:1)		34	34	34	34	26	26	26	26
Number of auger windings/Steel quality/mm		2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)		60/82	65/88	70/95	74/100	80/108	85/115	95/130	100/136
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of		80-100 dairy cows	93-120 dairy cows	105-135 dairy cows	115-135 dairy cows	115-150 dairy cows	125-165 dairy cows	150-195 dairy cows	175-220 dairy cows

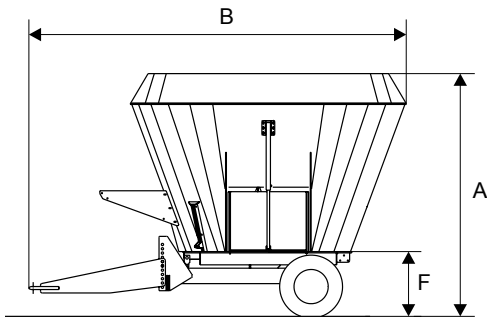
\* The heights may deviate +/- 3 cm due to tyre pressure etc.

\*\* Please note the loading capacity.

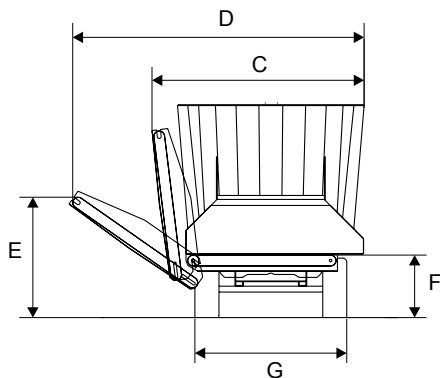
## Complete diet mixers VM with 3 vertical augers – Cross conveyor and straw bedder

		VM 21-3 SB M	VM 24-3 SB M	VM 26-3 SB M	VM 28-3 SB M	VM 29-3 B M	VM 32-3 B M	VM 38-3 B M	VM 45-3 B M
Volume (m <sup>3</sup> )		21	24	26	28	29	32	38	45
Own weight (kg)		7900	8900	9000	9100	11900	12200	13700	14100
Effective load (kg)		8400	9600	10400	11200	11600	12800	15200	18000
Number of weigh cells		6	6	6	6	8	8	8	8
Track width, outside (m) (G)		2.05	1.91	1.91	1.91	2.20	2.20	2.20	2.20
Length (m) (B)		9.71	9.71	9.71	9.91	10.58	10.58	10.58	10.77
Dimensions are based on wheels		Single axle 435/50 R19.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 305/55 R22.5	Tandem 435/50 R19.5	Tandem 435/50 R19.5	Tridem 435/50 R19.5	Tridem 435/50 R19.5
Total height (m)* (A)		2.68	2.89	3.05	3.20	2.92	3.08	3.43	3.63
Transport width (m)	Cross conveyor B (standard)	2.24	2.24	2.24	2.35 (Top)	2.49	2.49	2.49	2.76
	Elevator BE09	2.45	2.45	2.45	2.59	2.53	2.53	2.53	2.76
	Elevator BE16	2.54	2.54	2.54	2.68	2.58	2.58	2.58	2.76
Discharge height and width (m)* at 35°	Cross conveyor B (F)	0.87	0.91	0.91	0.91	1.05	1.05	1.05	1.05
	Elevator BE09 (E/D)	1.12/2.93	1.16/2.93	1.16/2.93	1.16/3.07	1.24/3.05	1.24/3.05	1.24/3.05	1.24/3.20
	Elevator BE16 (E/D)	1.53/3.62	1.57/3.62	1.57/3.62	1.57/3.76	1.65/3.72	1.65/3.72	1.65/3.72	1.65/3.72
	Elevator E16, rear (E)	-	-	-	-	1.82	1.82	1.82	1.82
	Elevator E22, rear (E)	-	-	-	-	2.33	2.33	2.33	2.33
Number of knives mounted/maximum		16/36	16/36	16/36	16/36	22/48	22/48	22/48	22/48
Speed, mixing auger (rpm at 540, 1:1)		34	34	34	34	26	26	26	26
Number of auger windings/Steel quality/mm		2.25/S500/15	2.25/S500/15	2.25/S500/15	2.25/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15	2.75/S500/15
Tractor, Minimum (kW/HP)		85/115	90/122	100/136	105/143	95/130	100/135	110/150	120/162
1 load of feed corresponds to the daily need (8000 kg ECM/cow/year) of		120-135 dairy cows	135-185 dairy cows	155-195 dairy cows	160-210 dairy cows	170-215 dairy cows	190-240 dairy cows	220-280 dairy cows	260-350 dairy cows

\* The heights may deviate +/- 3 cm due to tyre pressure etc.



Indicated power consumption is indicative.  
Power consumption depends on transmission gearing and density of the feedstuff.  
The technical data refer to driving at 8 km/h at the farm area only. When registering for driving on the road the technical data are different.



# Operating equipment and other accessories



## Manual valve block

If the complete diet mixer is equipped with more functions, the valve block for 2, 3 or 4 functions is available.



## Bale retaining ring

A bale retaining ring is recommended when much of the mixture consists of straw or hay, in loose form or as bales.



## Long knives

Long knives make shredding of especially round bales more effective. Often 2 knives per mixing auger is enough as supplement. Long knives can be placed in 2 positions.



## Neodymium magnets

Kongskilde offers an extraordinarily strong magnet of the type "neodymium". Neodymium magnets are 8-10 times stronger than the "ferric" type which is the normal standard in the business. The strong magnet is placed in the lower part of the tub where the feed is passing continuously when mixing and feeding out. The magnet can be serviced from the outside which gives best possible safety.



## Foot for Hitch

The foot for hitch is typically used when the same tractor is loading and pulling the complete diet mixer. Thereby the complete diet mixer can quickly be connected and disconnected, e.g. when it is transported between the feedstuffs. There is also a cable set for internal battery (power supply for weighing system).



## Hydraulic operation of shearbars

Hydraulic operation of shearbars with indicator showing whether the shearbars are on or off. With hydraulic operation the adjustment can be made from the tractor seat. Can also be extended with handheld remote control (Kongskilde Link).



## 2-speed gearbox

The 2-speed gearbox makes it possible to gear down the auger rotations, which reduces the power consumption so that a smaller tractor can be used.



## Hydro Step

The 2-speed gearbox makes it possible to gear down the auger rotations, which reduces the power consumption so that a smaller tractor can be used.



## Second hydraulic motor for cross conveyor

Second hydraulic motor for cross conveyor can be necessary under extreme conditions where very heavy feed must be unloaded (cannot be combined with Elevator BE09/16).



### Kongskilde Link

Wireless electric control from the tractor cabin and possibly loader. If the Feeder is equipped with hydraulic operation of shearbars, these can be adjusted from the loader. Kongskilde Link is offered with up to 4 hydraulic functions.



### Electric control

Electric control from the tractor cabin to VM complete diet mixer based on an electric wire between tractor and complete diet mixer. (Available from 2-7 double-acting functions). Electric adjustment of belt speed can be integrated in the remote control.



### Electronic door indicator

Display for monitoring the position of the discharge doors. Standard equipment on complete diet mixer with 2 and 3 augers equipped with side doors or corner doors. Monitoring of maximum 4 doors.



### Grease bank for the axle system (VM-2/VM-3)

Through this grease bank all grease spots on the axle system, excl. wheel bearings, are greased. The benefits are: Minimum time consumption for greasing the axle system, you guarantees that all grease spots are remembered and easy maintenance.

## Tests have proven the advantages of the Kongskilde Mixers

On [www.kongskilde.com](http://www.kongskilde.com) you can download the following test reports as PDF file.

- **Profi Practical test - Weighing system for mixer feeders**
  - On the scales
  - There is nothing like a Dane...
- **Top Agrar Test - comparison: "Angemischt und aufgetischt"**
  - Comparison of 5 brands - mixing accuracy and power consumption





300006669 EXP/CB/Feeder VM/BRO/1016

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Some photos may show products with additional equipment. See price list for current standard and additional equipment. We reserve the right to change the construction and specification details without notice. Printer's errors excepted.

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