cormall

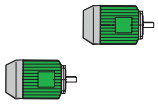
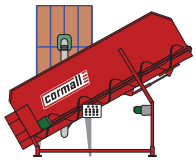
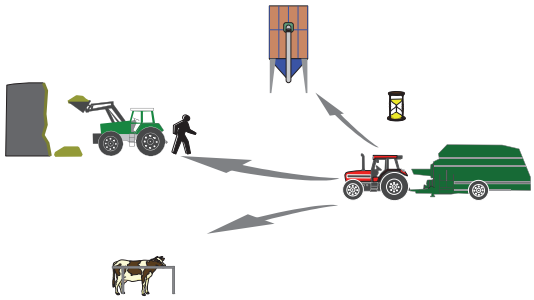
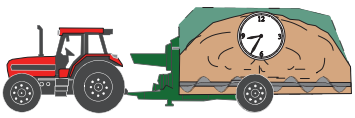
CCC

Dairy feed system

CCC (Cleanliness with Comfort and Continuity)

Your dairy cow wants it:
Cleanliness with Comfort and Continuity
In return for more and better milk.

3 years payback time from savings alone

	Stationary system	Mobile
Reduce your energy costs and save maintenance cost.		
Avoid the daily obstacle race.		
Reduce waiting time.		

For 2000 Cows

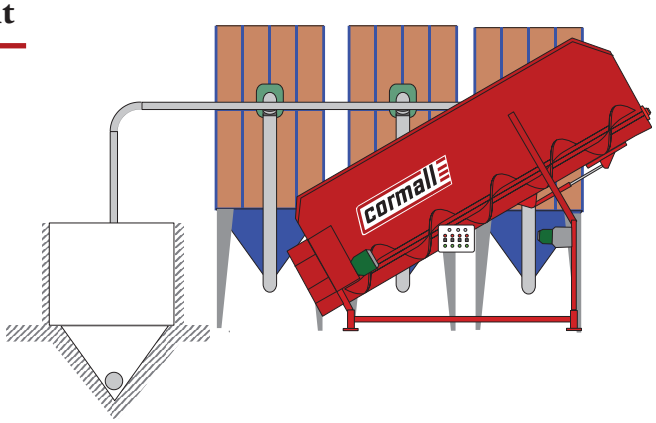
Logistic time, waiting time	Cormall CCC (min)	Mobile (min)
Emptying time filling the wagon per mix	5	0
Waiting time at feed centre per mix	0	27
Waiting time 11x / day	**55 min**	**297 min**
Wage per year 18 € / hour	**6.023 / year**	**32.522 / year**

Energy consumption		
Energy per hour	18,5 kWh +10 L/h	20 L/h
0,1 €/kW, and 1 €/L diesel, 365 day's	**19.205 /year**	**69.593 /year**
Annual savings, wage and energy	**76.887 Euro**	

Automatic filling and mixing management

The Cormall dairy feed system is provided with:

- Fully automatic re-fill system
- Feed and recipe management system
- Remote access for recipe changes
- Inventory stock management
- System surveillance
- Remote control for loading into feeder wagon with message system for wagon driver:
  1) Mix in wagon
  2) Group no. to feed
- Data logging

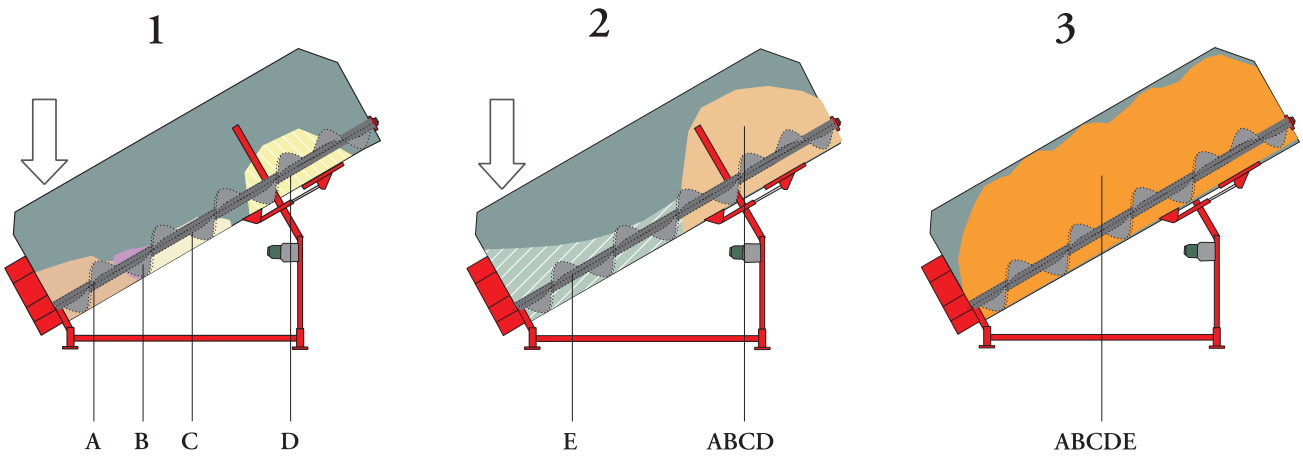


High mixing coefficient with Multimix

The feed material is charged in the top of the mixer (automatically) or at the bottom end (manually) and transported by the two screws to the top of the mixer, where the material is pushed up into a ”molehill” and naturally falls back.

The mixing of the different materials is made in the molehill and the fallback inside the mixer. When filling the mixer, one first fills the small quantities (concentrates), and hereafter the large more volumes forage material. This ensures that minerals and vitamins are evenly distributed throughout the mixture.

This mixing principle has over the years proven itself in test trials and has the best mixing results.

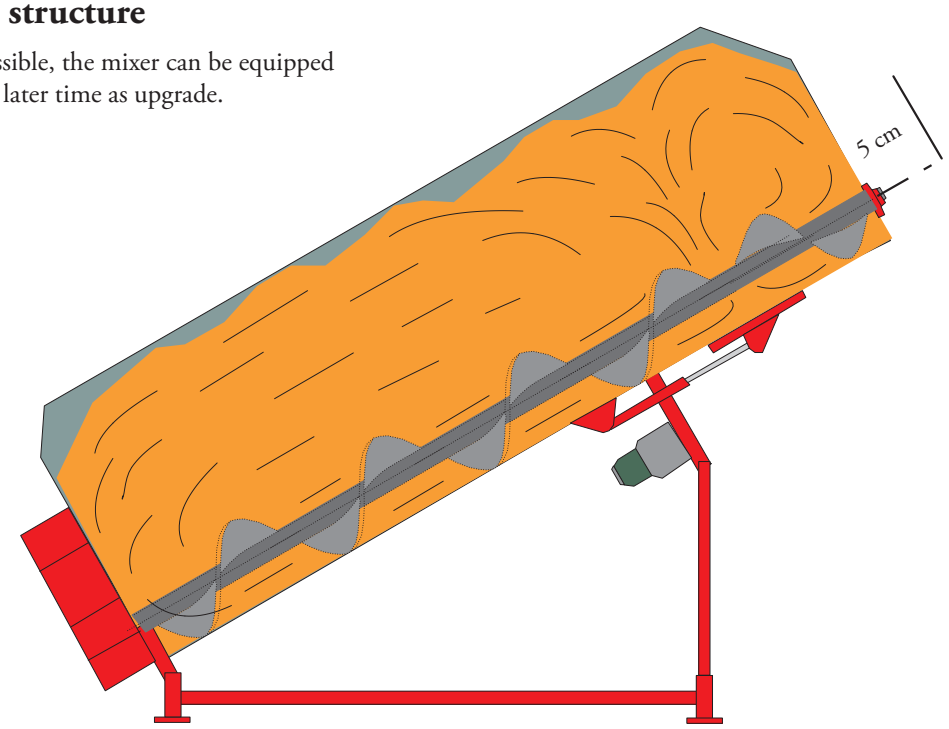


Optimal feed structure

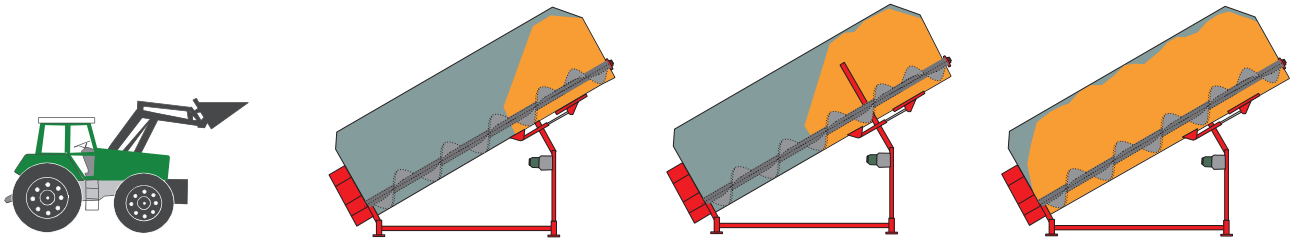
The diagonal mixing angle ensures a low energy cost but also a gentle handling of the materials, this principle ensures that there is no musing of the material.
There is no proven knowledge of how gentle processing of the food must be, but there is likely a connection between energy consumption and musing rate of the feed. Overall it is a problem for all mixers if you mix for a too long period.

Optional compact feed structure

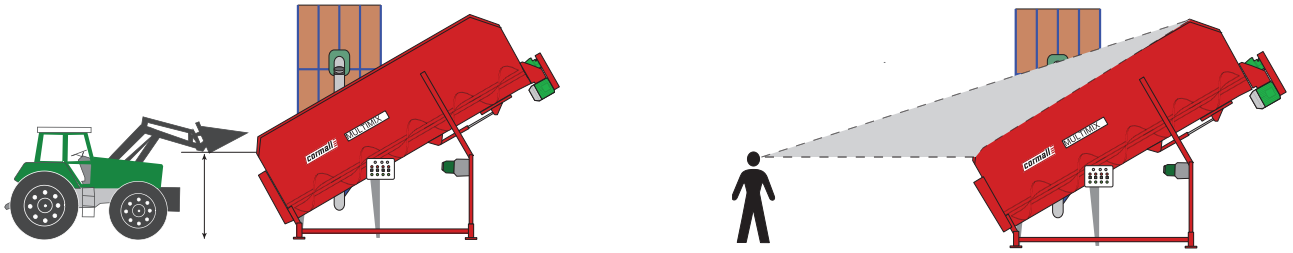
Compact feed structure is also possible, the mixer can be equipped for this purpose at delivery or at a later time as upgrade.



Manual filling of forage material



The filling of a Cormall mixer is particularly advantageous. You can always fill it from the same place where the material is moving up in the mixer until the mixer has been filled completely

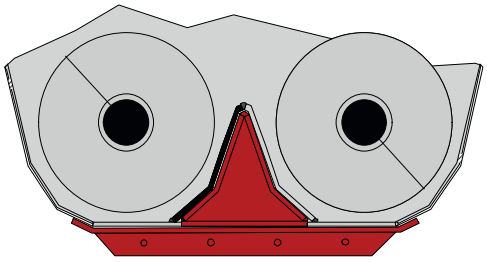


Low filling *Good view*

Most mixers require a filling height, which makes it impossible to observe the mixture without having to climb up on the machine. The higher filling level also means that the choice of filing equipment is limited. On the stationary inclined mixer is the filling level low and the position allows a good view from ground level.

Effective mixing design

All the material must be in motion during the mixing process. To ensure this we have shaped our shutter opening and adapted it so that it follows the inside shape of the tub, thus preventing vital products such as vitamins, salt etc. to find rest and not being mixed.

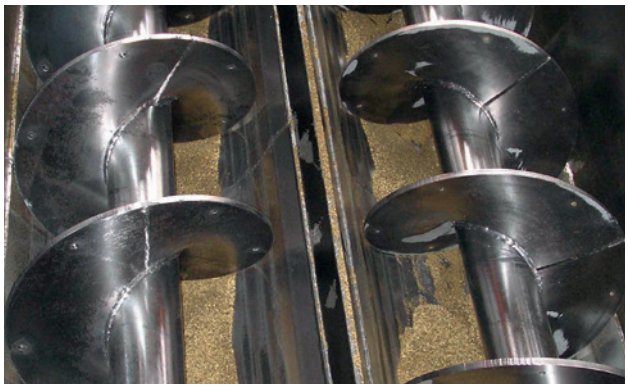


Easy cleaning

All MTX mixers are equipped with cleaning plugs as standard for leading out the water when cleaning the mixer. The plugs are placed at the lower end of the mixer with a Ø 100 mm hole in both sides one for each auger.

PPM *(Parts Per Million)*

When making several mixtures a day for different groups, it is important that there's as little leftovers from the previous mixture as possible before you fill the next mix. Nothing can be made 100% clean from previous mix, unless the machine is cleaned in between every mixture.

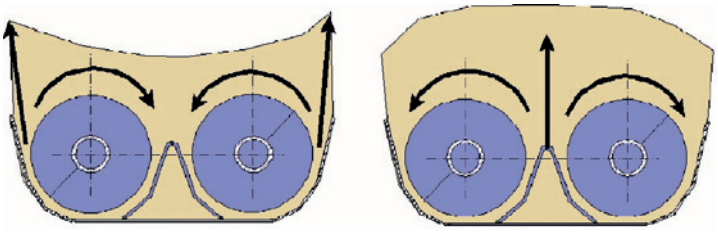


The Cormall MTX mixer can be delivered with extra tight and small distance between the auger and the mixer bottom, thus leaving as little leftover from previous mix as possible.

Not all mixers are suitable to accommodate the need for minimising PPM leftover between the mixing batches, the above solution will need cleaning in between.

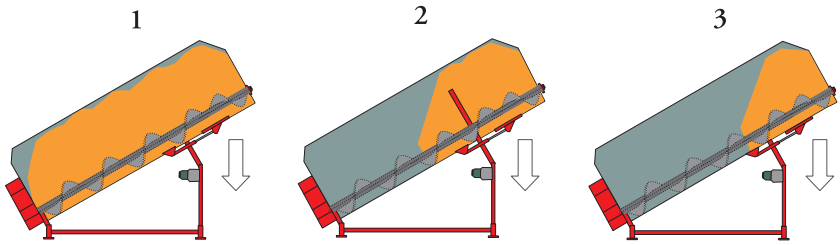
Correct work design

It matters how the augers are turning! The left side sketch will result in bridging of material inside the mixer, material will be pushed op the sides and stick to the walls. We have turned our augers like in the right-side sketch to prevent this and also make it possible to have a bigger filling degree in the mixer.



Constant and even material flow

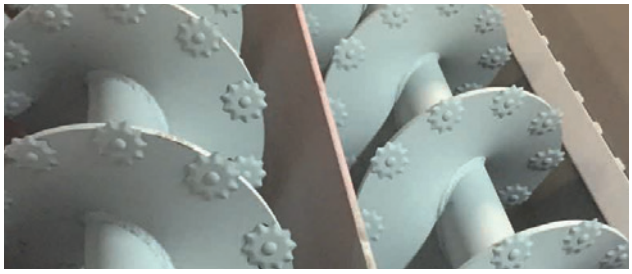
The mixer empties itself bottom up, thus ensuring that there always is the same amount of material above the shutter opening and ensuring the even flow of material coming out of the mixer.



Multiple equipment choices available

The auger and outlet of the mixer can be supplied with many different solutions, thus making it possible to run the machine with any type of material, we have references with:

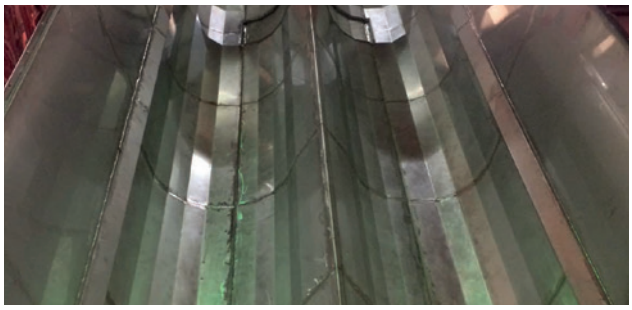
- Any type of TMR mixtures
- Long dry hay
- Deep bedding straw for biogas
- Recycle plastics and many other, … let us know your need?



Durable and sustainable constructions

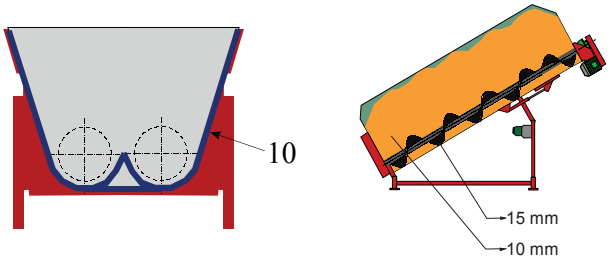
Stain and acid free steel AISI 316L

For long and durable use of the machine we deliver with full coating inside the machine and with augers made of stain and acid free steel.



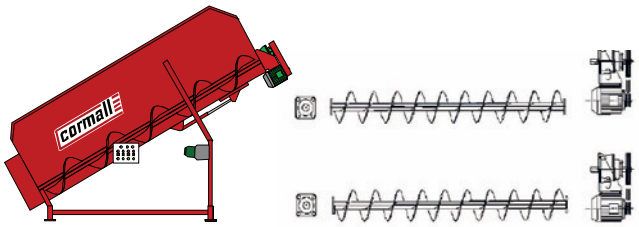
Strong and thick material

The mixer is standard made with 10 mm plating and 15 mm auger blades.



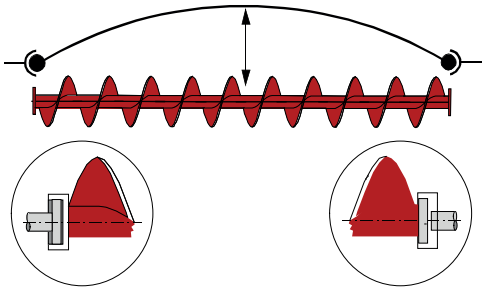
Less wearing parts

We have removed tines and sprockets to make the machine as simple and durable as possible.



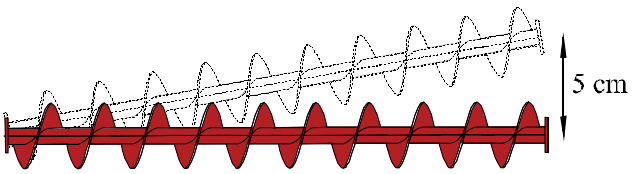
Unique auger suspension system

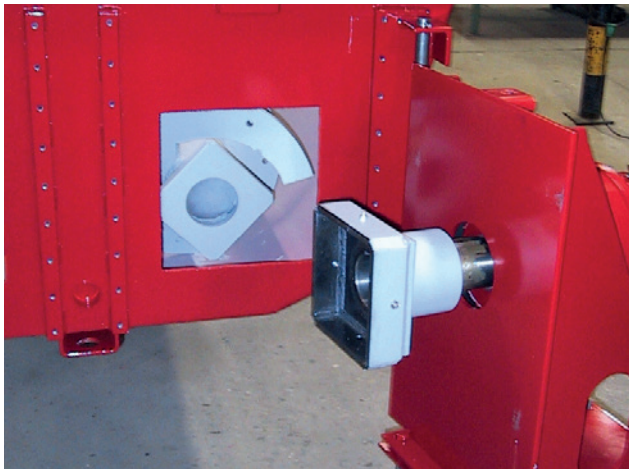
The auger is placed between two specially developed heavy duty square housings that allows torque & bend in the auger without passing this to bearings and gear.

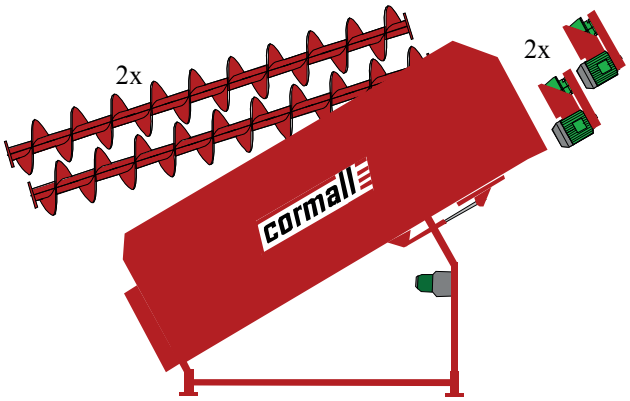


Unique blocking release

The top of the auger with the weight load from gear and el. motor can lift itself 5 cm, this allows stones to get in between the mixer bottom and the auger, without blocking the machine or breaking the stones.
The system also allows for quick auger change.





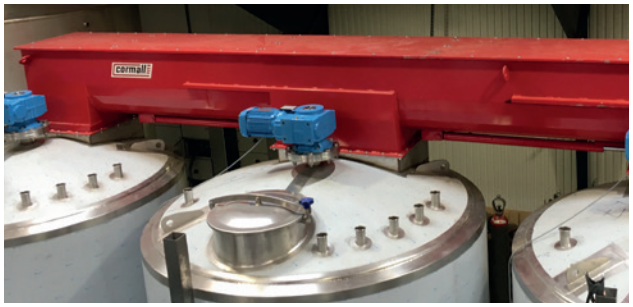


Double mixer backup

The mixer is in principle 2 mixers in one and can empty up to 80% of the material inside the mixer with one auger only, this gives the extra edge on durability and comfort for daily operation, also in weekends when service is not nearby.

Equipment and filling devices

A large range of machinery is available for feeding and filling automatically into the mixers, all interlinked with the central control unit that provides the logging of data and overall plant control. You can choose any base material for mixing and feeding to your dairy farm and we will ensure the right equipment to prepare it so you get maximum feed value from your ingredients.



Proper mixer size

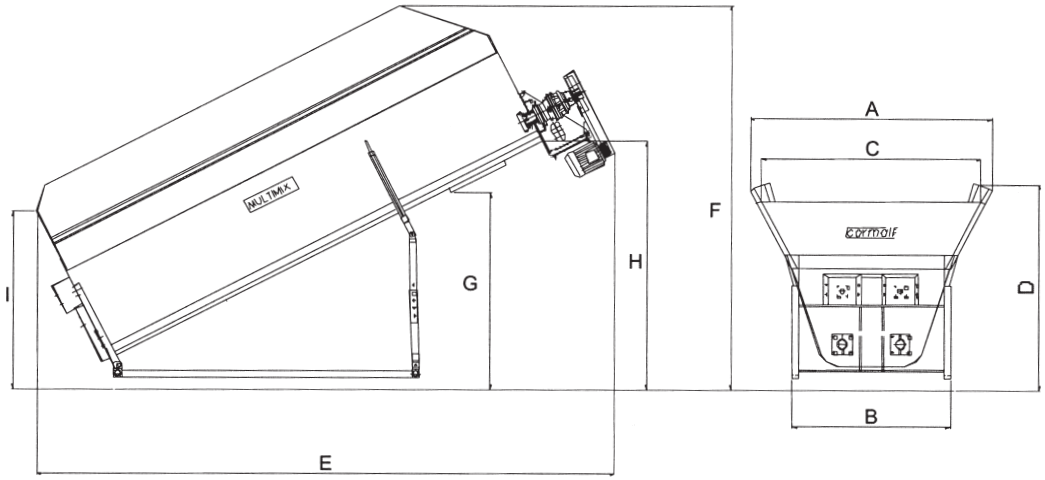
For proper choice of mixer size, it is important to consider what you want to mix. In the table below you can find how many animals a mixer can feed with a single mixture, depending on how many cows you fed per cubic meter.:

Mixer size	6 cows/m³ Organic farming	7 /m³	8 /m³	9 /m³
10 m³	60	70	80	90
12 m³	72	84	96	108
15 m³	90	105	120	135
18 m³	108	126	144	162
22 m³	132	154	176	198
30 m³	180	210	240	270
42 m³	252	294	336	378
50 m³	300	350	400	450

Your project?

Let us know what your project is and we will prepare a budget quote and design a foot print layout for you.

Dimentions



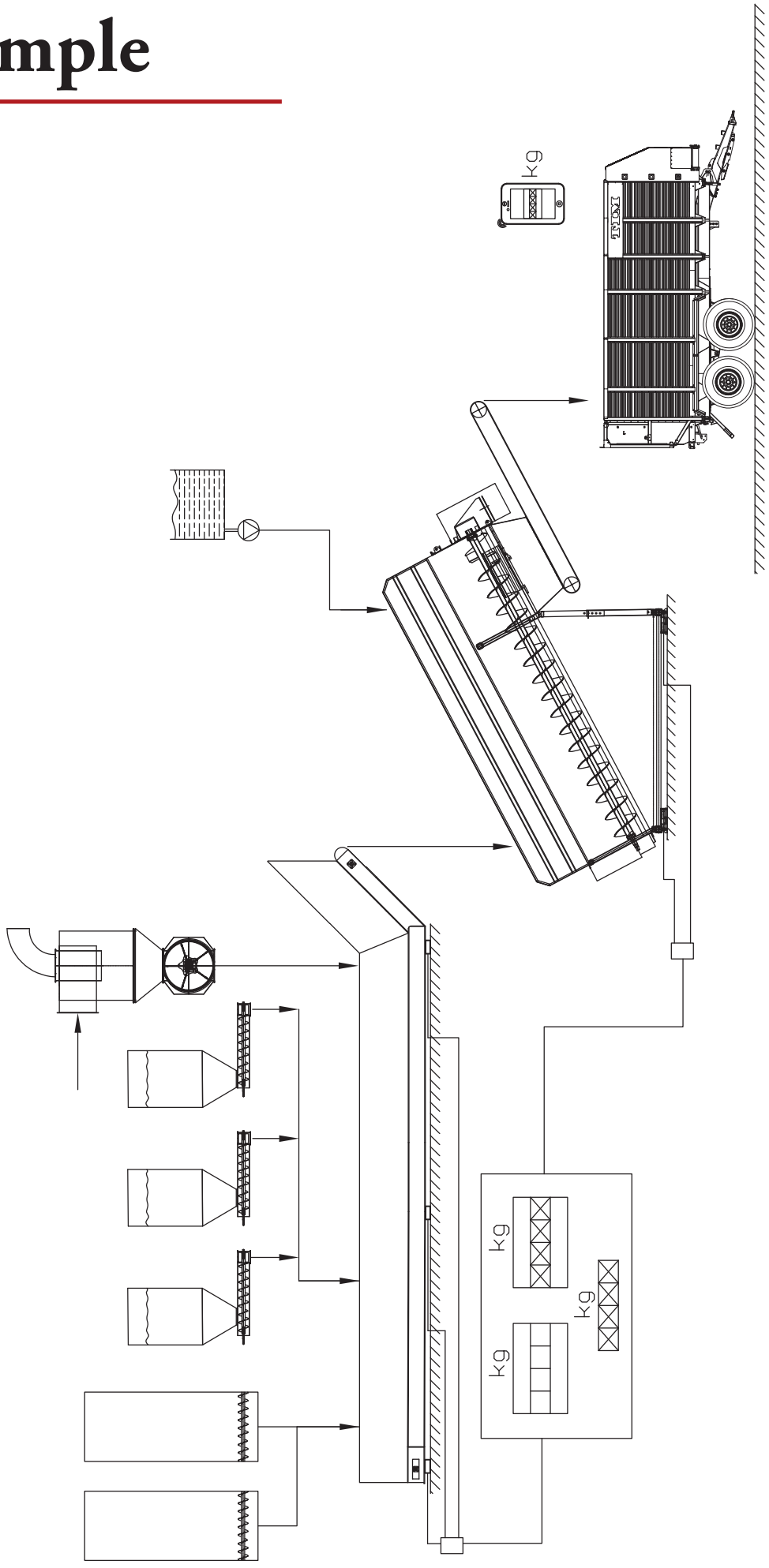
Mixer	10 m³	12 m³	15 m³	18 m³	22 m³	30 m³	42 m³	50 m³
A	2700	2700	2700	2900	2900	3100	3800	3800
B#	1850	1850	1850	2400	2400	2600	3190	3190
C	2080	2080	2080	2450	2450	2640	3380	3380
D	2250	2250	2250	2550	2550	3040	3290	3290
E	4900	6000	6900	6000	6900	7800	8000	8500
F	3600	4200	4700	4550	5100	5650	5990	6200
G	1800	2050	2300	2050	2300	3030	3030	3500
H	2100	2550	3000	2550	3000	3640	3640	4150
I	1750	1750	1750	2050	2050	2150	2150	2150
Weight kg	3600	4400	5000	5800	6900	7900	10200	13100
Cows/Mix	70-79	84-108	105-135	126-162	154-198	210-270	240-360	300-450
Plating mm	6	10	10	10	10	10	10	10

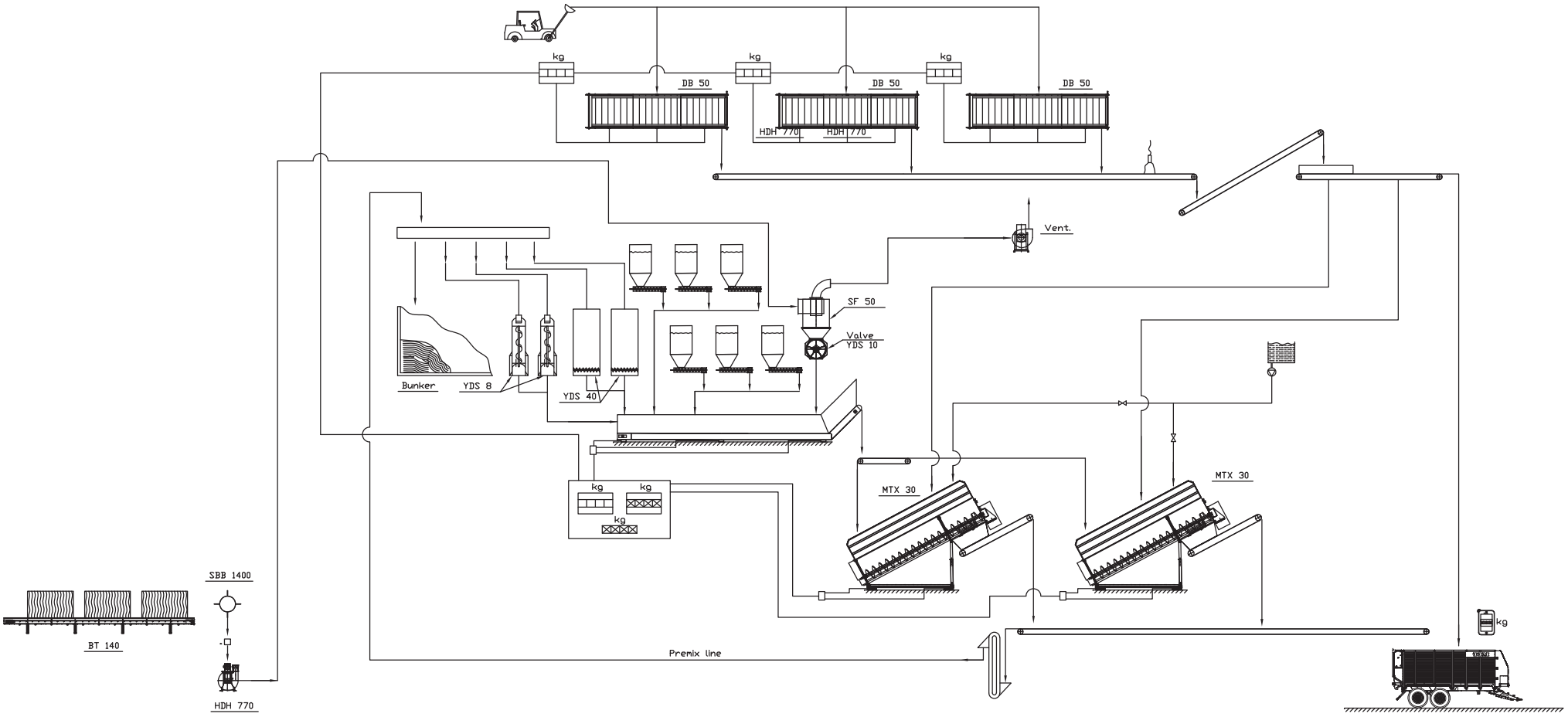
Auger								
Mm	10	15	15	15	15	15	15	15
Ø	400	400	400	600	600	600	800	800
Pipe mm.	139,7/10	139,7/10	139,7/14,2	159/14,2	159/20	159/20	300/14,2	300/14,2
RPM	17,5	17,5	17,5	10	10	10	8	8

Motor								
V-belt	3/355/140	3/355/140	3/355/140	4/400/140	4/400/140	4/400/140	5/400/160	5/400/160
kW	2x 5,5	2x 7,5	2x 11	2x 11	2x 15	2x 18,5	2x18,5	2x 22
kW	0,75	0,75	0,75	0,75	0,75	0,75	0,75	0,75
Amp	25	32	50	50	63	80	80	100

#) incl. Load cells

Example




kg
kg
kg
DB 50
DB 50
DB 50
HDH 770
HDH 770
Vent.
SF 50
Valve
YDS 10
Bunker
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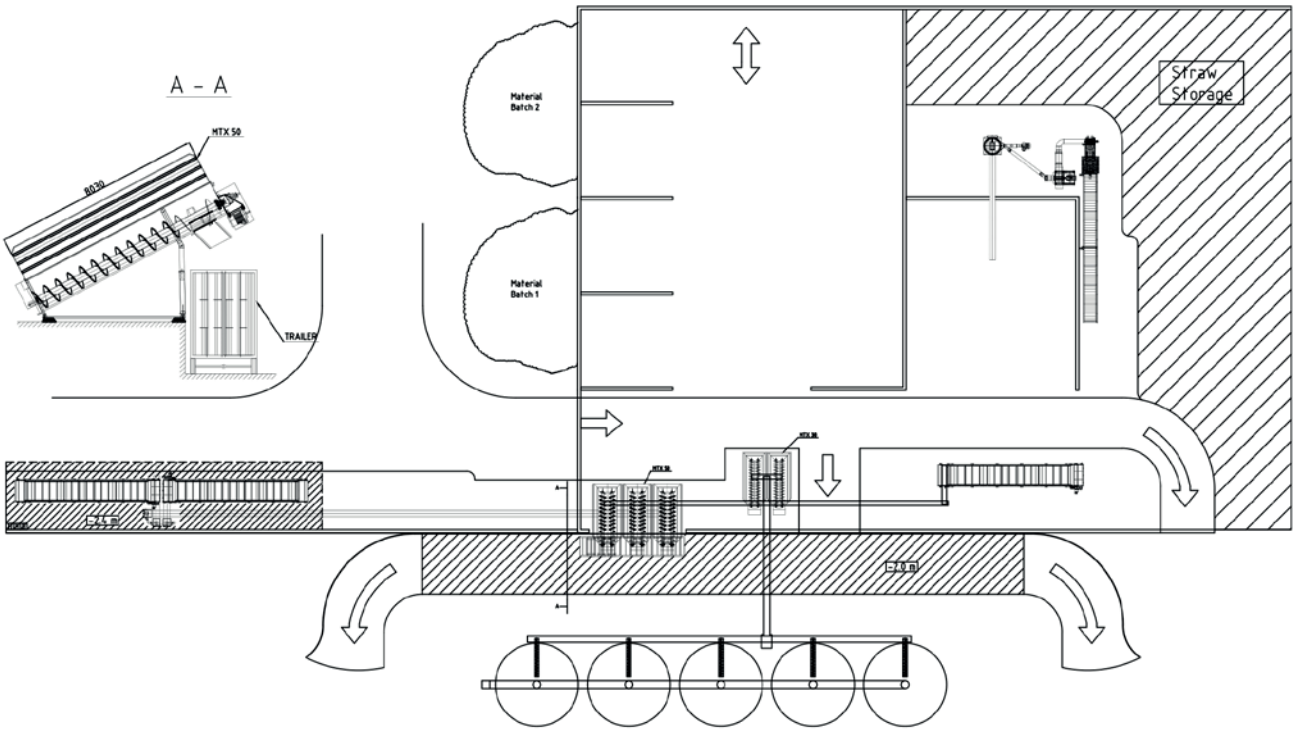
kg
MTX 30
MTX 30
SBB 1400
BT 140
HDH 770
Premix line
kg



CCC – Dairy feed system

EXACT
- Dead on accurate
- No human error
- Always the same mix
- Continuity

FRESH
- No sorting of feed
- Stimulates the cow
- OUTCOME: Higher dry matter intake
- No dried out / wasted feed

FOOTPRINT
- Everything close and compact

TIME
- Full automatic filling, mixing and feeding
- Have more time for animal care and inspection
- OUTCOME: Frequent fresh feeding with less time

STRESS
- Higher feeding frequency
- Equal feeding opportunities for dormant and timid cows
- OUTCOME: Optimizing milk production

Tornholm 3 · DK-6400 Sønderborg
Tel. + 45 74486111 · info@cormall.dk · www.cormall.dk

Langenberg Grafisk . 74 42 45 06