



GEA AUTOMATED CALF FEEDERS DAIRYFEED F4600

Healthy feeding of calves with less labor.



NOW YOU CAN SPEND YOUR TIME MANAGING INSTEAD OF FEEDING.

Decide in the first few weeks

Healthy calf raising forms the basis for performance orientated and profitable dairy farming. The optimum foundation for successful calf raising is provided by GEA automated calf feeders. They supply your calves according to their needs and reduce your routine work in calf raising to a minimum.

The ideal curve for healthy growth

Each calf develops differently – therefore individual feeding is the key to success. The automated calf feeders can be programmed to meet animal requirements: whether for raising, feeding or fattening. Each calf receives what it needs for healthy growth.

Healthy nutrition through constant monitoring

A change in the feeding behaviour is an indicator of poor health in your calves. Therefore, the feeding systems record the feeding and drinking habits of the calves and immediately report any deviation. This simplifies calf monitoring and reduces vet costs. Healthy and quick calf growth is therefore guaranteed.

ANIMAL-FRIENDLY AND SUCCESSFUL



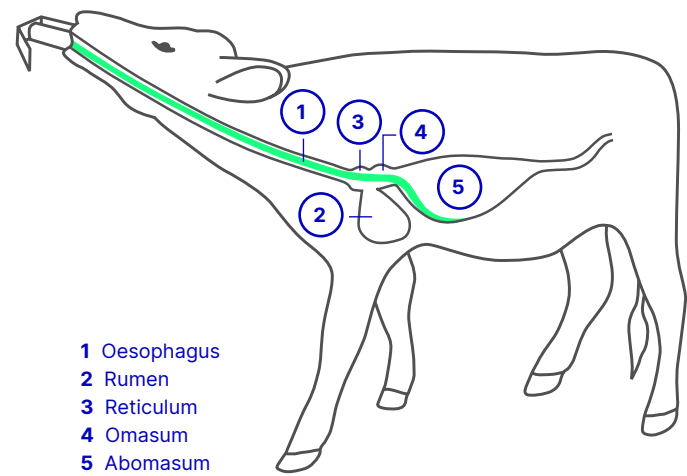
Feeding that meets calves’ needs with minimal workload

Automated feeding on demand

Today the calves decide themselves: Controlled milk distribution several times a day, as well as concentrate on demand promises a growth of up to 1000 g/day (35 oz./ day) in the first weeks of life. This special feeding technique is successful and, therefore, becoming more popular. However, efficiency and time-savings can only be achieved with the use of automatic calf liquid feed and concentrated feed systems. GEA offers you all the peripherals with which you can automatically manage controlled feeding and which you can seamlessly integrate into you herd management. Every young animal receives exactly the amount of liquid and concentrated feed it needs for healthy growth up to the optimal time for weaning.

The theory of weaning

The quicker the rumen is fully functionally developed, the quicker the time for weaning approaches, thus leading to a reduction in rearing costs. Weaning too early, however, leads to under-provision – the calf’s growth is put back by weeks. The development of the rumen can be ideally controlled using liquid feed and concentrated feed systems from the GEA Calf Feeders and it can be monitored until the optimal time for weaning. And you can literally remain a spectator while this is happening: GEA CalfCloud displays the development profile of every calf individually on the monitor.



Position of the calf during feeding

MOBILE CALF FEEDER



GEA DairyFeed F4650 - Mobile Calf Feeder

GEA DairyFeed F4650

The GEA DairyFeed F4650 considerably eases the workload by simply bringing the trough to where it is needed at any time. The agile and mobile dosage vehicle has a precise filling system with which the individual mix for every group of animals can be exactly dosed.

The mixer and heating function ensure that there is a perfect consistency and an ideal temperature. Dispensing can take place quickly using the powerful pump.

The mobile calf feeder from GEA sets healthy feed supply to the calves in motion!

The F4650 is available with a capacity of 120 and 200 liters. In addition, other options can be selected, such as push or pull drive mode, integrated pasteurization unit or cooling system for use with Automated Milking Systems.

All-terrain, precise and hygienic

The F4650 is equipped with electric drive and effortlessly follows you wherever you go. The horizontal milk tank and four wheels even ensure optimal stability when driving on uneven ground. The reliable way to bring mobile feed to your calves! Feed is easily dispensed at the touch of a button. Up to five portion sizes can be stored and easily selected using the practical function keys on the drawbar. The mobile calf feeder dispenses the exact desired quantity and supplies your calves with precise feed quantities, at the optimal feed temperature!

The rotating cleaning nozzle ensures optimal hygiene. This makes for convenient milk tank cleaning at the touch of a button.

Benefits at a glance

- Save work time with rapid feed preparation
- Gentle feed warming with the heated water bath – guaranteed not to burn on!
- Easy on your back; forget about carrying buckets around
- Electric drive and optimal stability while driving on any terrain
- Convenient and precise dispensing at the push of a button
- Always the right feed temperature
- Perfect hygiene with minimal workload thanks to the rotating cleaning nozzle

HEALTHY GROWTH

For the new generation

As soon as a calf enters the feeding station and makes known its desire to feed, its ration with fresh milk is quickly, hygienically, and reliably prepared. The exact feed is determined per calf based upon age and specific needs. The calf feeders have been designed around well-proven functions and present additional and improved features:

Feeding made easy

Transparent or stainless-steel hopper, with capacity from 35kg to 50kg, with optional filling sensor.



Click and ready

The dosage container can be attached or removed in a simple way with a handle. This makes supplementing additives an even faster and easier activity.

- Liquid or powder milk
- Individual dosing



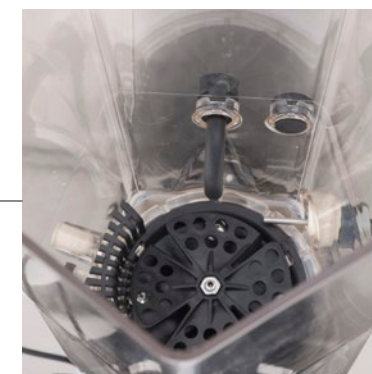
Can't be more precise!

The optional automated calibration system ensures that the weighing cell controls and adjusts all dosing weights. As this process runs automatically, it saves a lot of time. You can be sure that its calibration is exact and ideally suited for supplying the feeder.



Operating made easy

Whether you choose manual or digital, we have a solution for you! Via the intuitive CalfCloud, you have all data about the feeder and your calves, all centralized in one place. You can also opt for an integrated handheld terminal as standard: The user-friendly interfaces allow you to read – and of course operate – comfortably. The goal of both systems is the same: optimal health of your calves. Have quick access to individual calves, feeding times, and individual health parameters.



Optimum temperature control, tasty formula

Regardless of the season, weather and storage conditions, thanks to an IQ heating control, the feed is always prepared at the correct temperature, and distributed in an appropriate way throughout the day.

Benefits at a glance

- Individually, precisely and freshly prepared feed
- Exact feeding temperature through use of IQ heating control
- Small quantity dispenser for powder or liquid type additives (accurate to the gram; for medicine)
- Simple automatic cleaning thanks to various rinsing programs
- Easy operation using hand terminal, PC, smartphone or tablet
- Easy monitoring with the management tool "CalfCloud" wherever you are

AUTOMATED CALF FEEDERS

It's your choice

Depending on the reason for rearing, the number of calves and size of your farm, GEA has the appropriate machine for every need. Each automated feeder offers individual devices:

Easy entry level

It doesn't matter whether it is fresh milk or powdered milk that is provided; the DairyFeed standard portfolio can easily feed 50 calves using a maximum of 2 sucking stations. The powerful processor enables extensive function applications.

It is now possible to attach other peripheral equipment to the standard options. It allows concentrated dependent weaning with concentrate feeders and additive dosing with the use of additives and electrolytes. An enhanced medicinal program is available for maintaining healthy calves.

DairyFeed F4610		
Specification/Devices		
Model and version	Standard Powder Calf Feeder	Standard Combi Calf Feeder
Stainless steel chassis (optional)	○	○
Serial equipment		
Heat exchanger with separate heating circuits	—	●
Minimum operating temperature	●	●
Electronic heating control (IQ-heating)	●	●
Electrode in the mixer jar	● (1 electrode)	● (1 electrode)
Push-button in the ER identifier standard	●	●
Detergent dosing pump (Alcalic)	○	●
Detergent dosing pump (Acid)	○	○
Automatic cleaning of the valve unit	—	—
Automatic water flow measuring	○	○
Ethernet connection (network)	●	●
Performance Features		
Milk powder capacity (kg)/with top section 400 mm	35	35
Filling level sensor milk powder	○	○
Vapour screen for powder outlet	○	○
Heating capacity boiler/ heat exchanger (kW)	2.5	2.5
Stainless steel milk pump	—	120 W
Priority control	●	●
Parallel feeding “SynchroFeed”	—	—
Portion size (liter)	0.25	0.25
Operating maximum number of feeding stations	2	2
Dispense for powder additives	○ 1	○ 1
Dosing pump for liquid additives	○ 1	○ 1
Animal control (at the calf feeder)		
Feed entitlement /day	●	●
Feed consumption and drinking speed	●	●
Number of visits/number of break-offs	●	●
Consumed quantities per animal and all animals	●	●
Alarm animals/expire messages	●	●
Animal control (via App and CalfCloud)		
Status overview calf feeder(s)	●	●
Status overview calves	●	●
Detailed overview calves	●	●
Detailed overview calf feeder(s)	●	●
Calves history	●	●
Alarm animals/expire messages	●	●

1 Powder dispenser OR liquid dosing pump ○ optional ● included

Advanced level made easy

The DairyFeed advanced portfolio stands for the latest technology which offers you increased performance, more flexibility and greater ease of use. Individually configured it meets your wishes for up to 120 calves using 4 sucking stations. Modern calf management for healthy growth every day, individually and reliably matched to each calf.

The extension up to 4 sucking stations offers feed for a maximum of 120 raising calves. The additional calibration scales and the attaching of peripheral equipment make the

advanced options an unbeatable management system with nearly unlimited capabilities. Meeting the highest claims as regards labour savings, calf health and animal growth.

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HYGIENEBOX, FOR NATURAL FEEDING BEHAVIOR

GEA DairyFeed F4630

The HygieneBox expands your calf feeder system to include fully automatic circulation cleaning of the suction hose and all milk-carrying parts up to four times per day, optionally with one or two detergents – or optimal hygiene from automatic feeder to teat! Due to the external flushing the teat is also cleaned automatically with clear water after each calf.

GEA DairyFeed F4630 enables your calves to engage in their natural teat nudging behavior. Activity while feeding is an important indicator for the wellbeing of your calves – which you can exploit for your benefit! HygieneBox is equipped with

an activity sensor that supports early illness detection by your automatic feed system. This allows you to take action quickly and prevent disease.

Due to the automatic training function of GEA DairyFeed F4630 you save valuable working time. If a new calf is registered in the feeding station, the HygieneBox automatically dispenses a small amount of feed. The calf quickly learns to use the feeding station independently, even when you are not in the barn.



Benefits at a glance

- Fully automatic circulation cleaning of the suction hose and all milk-carrying parts several times per day, optionally with one or two detergents (alkaline, acidic)
- Thanks to the change-over valve in the HygieneBox the return line is used solely for cleaning purposes. The milk is not permanently pumped around in a circle
- Teat rinsing from the outside after each calf
- Teat rinsing from the inside up to the tip during the fully automatic cleaning of the calf feeder to the suction hose
- Milk and saliva residues are drained outside the calf area via the draining bowl located below the HygieneBox



CALFCLOUD – ALL DATA IN ONE PLACE

The CalfCloud can be easily monitored on a PC or on any mobile device. The collection of all relevant data at one point is the central advantage: You receive all data on feeding behaviour, the health status of your calves and recommendations for action in a clear overview.

Modern network capabilities

- Powerful processor card with ethernet interface
- Simple network structure – gateway no longer required
- Network-capable as standard
- Remote control of the automatic feeder via the CalfCloud

Web-enabled standard

You can easily connect your calf feeder to the Internet via Ethernet or Wi-Fi and automatically save the device and animal data in the CalfCloud. From there, all data can be flexibly retrieved, checked and, if needed, changed. The CalfApp can be used with any web-enabled device. The App is simple and intuitive. This makes it a useful monitoring tool in everyday operation.

Automated data storage and remote access

- Automated data storage and backup function
- Can be controlled over the Internet (options for remote management, support and updates)
- A CalfApp is available for tablets, smartphones and PCs for convenient animal management
- Optimal animal control with calf feeder access via smartphone or tablet – no matter your location



Benefits at a glance

- All calf and calf feeder data at a glance
- Saves time and effort as calves can be monitored rapid and easily from whatever location
- Automated data storage and backups increase security
- Accurate individual animal data
- Remote maintenance by the service technician



FEEDING FOR INDIVIDUAL HOUSING

GEA DairyFeed F4660

The GEA DairyFeed F4660 supplies the calves with freshly prepared feed, from the calf feeders, up to eight times a day at the optimum feed temperature. This eliminates the need for feed preparation, transportation and feed dispensing. Also, the manual cleaning of buckets and equipment is no longer necessary. The animal control and care is no longer tied to fixed times.

The calf feeder delivers the information required for optimum calf management, e.g. feed consumption and drinking speed, at the push of a button. Often the calves are kept only for the first 14 days (this period may change according to each country regulation) in individual pens and are then housed in groups. No problem for the calf feeder, which also provides the group calves with feed via feeding stations with animal identification.

Extensive control functions support the operational management and make it possible to monitor the development of the calves during the entire rearing period. The data from the individually penned calves are of course taken over to group housing and are also available on your smartphone, tablet and PC via the CalfCloud and Calf AppGO!

How it works

Up to eight times per day, the F4660 moves along a sliding rail to every calf pen to dispense feed specific to each animal and in a controlled way. A hose pump moves the feed down into the teat, ensuring comfortable feed consumption for even young calves.

Flexible usability

One F4660 unit can supply up to 50 individually penned calves. The automatic feeder is able to control up to two F4660 units, thus in total 100 calves can be fed using one single calf feeder. Combined individual and group pen raising is possible as well.

Now it's turning!

The F4660 is equipped with a curve-enabled drive for a more versatile and flexible use, including easy integration into older existing barns. In addition, the design was streamlined and the dispensing arm now has an integrated training button as well as an LED for entitlement.

Convenience for farmer and calf

An LED light strip attached to the F4660 housing makes after-dark animal control easier. An acoustic signal reinforces calf conditioning to commence feeding.

Optimal hygiene

Automatic cleaning before and after every feeding cycle reduces work considerably and ensures optimum hygiene. Outside of feeding times there is no milk in the system, leaving no environment for microbes to grow. An optional teat cleaning feature can be employed to spray off the teat externally with liquid after every calf feeding.

Benefits

Healthy growth Less work / optimum hygiene

- Accelerated weight gains through up to eight feedings/day
- Healthy calves with freshly prepared, ageappropriate portions at optimum feed temperature

Time savings

- The automatic feeder handles feed preparation, pumping and feeding itself
- Flexible scheduling of daytime control tasks
- Faster training through mutual observation

Less work / optimum hygiene

- Hard physical labor of lugging buckets eliminated
- Tedious routine manual tasks (bucket cleaning, etc.) eliminated
- Automatic cleaning after every feeding cycle
- Optional teat cleaning

Effective in use

- Individual and group pen housing in combination
- Controlled feeding through animal-specific consumption
- With one feeder for individual housing you can feed up to 50 calves and per calf feeder you can operate up to two F4660. Therefore you can feed up to 100 calves with one calf feeder and two F4660.

Just one mobile feeding station

In the spirit of the GEA Feeding Philosophy there is only one direct hose from the mixing station to the teat. There are no dirty corners or waiting containers in which the milk may become stale. An intelligent heating system is integrated in the hose to achieve a pleasant drinking temperature even in winter.

FRESH MILK MANAGEMENT SYSTEM

Fully automatic process from cow to calf

The concept of Fresh Milk Management is based on the idea of providing high quality milk to the calf directly from the udder.

GEA offers a solution for simple fresh milk feeding, consisting of a milk collector, a pasteurizer (optional), a smart tank and a calf feeder. These components can be individually combined and can even incorporate already existing components on the farm!

The milk collector collects and transports the milk over 100 meters in real time with the help of a pump. As the first component of the system, the milk collector is located close to the milking robot or milking parlor. There, the milk collector collects the fresh milk and conveys it to the tank in real time. This cools even the smallest amounts of milk directly and can be used by the calf feeder for the preparation of fresh portions.

Benefits at a glance

- Easy fresh milk feeding
- No more buckets to carry
- More flexible work processes and time savings
- Optimized calf health through excellent hygiene
- High milk quality
- Easy integration into any farm

Automated Milking



Milk Collector



Milk Storage



Calf Feeder



CONCENTRATE FEEDER

GEA Dairy Feed F4720

The concentrate feeding system DairyFeed F4720 is thus the ideal expansion to GEA calf feeders. It ensures, in conjunction with the DairyManagementSystem 21, an exact, individual allocation of concentrate and optimized dosing.

Food allocation from the 110 litre capacity concentrate feed vessel is via an exact volume doser. A sensor controls and regulates the food quantity and ensures that refilling only takes place after complete emptying of the pan. Irregularities in food intake are quickly recognized, thus ensuring that the likelihood of infection within the herd is lowered. In this way, concentrate feed intake can also be used to control liquid feed supply.



ACCESSORIES



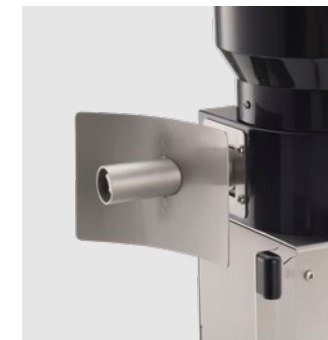
Smart tank with automatic cleaning function

- Available 100 and 300 liters
- Efficient cooling of fresh milk, even in very small quantities
- Maintaining high milk quality
- Reduced work effort due to automatic cleaning via the calf feeder
- Closed system from the udder to the calf feeder in combination with the milk collector



Precision dispenser for powder-type additives

- Gram-accurate enrichment of highly concentrated additives
- Large capacity (up to 4 kg) for additives, which are to be dosed in large quantities, e.g. electrolytes and diet additives



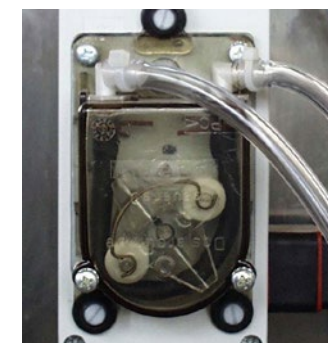
Vapour screen

- Reduced condensation formation and thus reduced caking of milk powder or additives



Heating cable

- Reliable frost protection for cold environments
- Temperature controlled



Dosing pump

- Automated addition of liquid additives or rinse agents
- Exact and reliable metering through reliable geared motor



Fly protection

- Reliably fly-proof
- Large area sieve plate allows steam to escape immediately
- Can be used with precision dispenser
- Easy to clean



Feed station expansion CalfProtect

- Marked reduction in crosssucking
- Reduces workload in training calves
- Less competition pressure in large mixed age calf groups
- Simple upgrading possible



Servo control

- For distant or higher positioned suction points
- Makes it easier to feed

