



DairyFeed J Automated Calf Feeders

Healthy feeding of calves
with less labor



Now you can spend your time managing instead of feeding

Decide in the first few weeks.

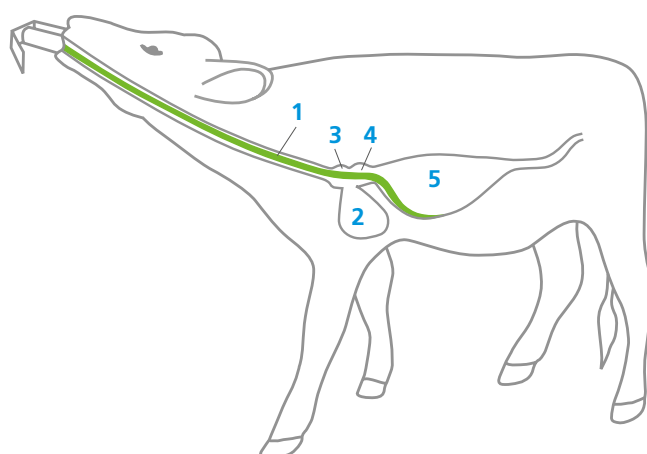
Healthy calf raising forms the basis for performance orientated and profitable dairy farming. The optimum foundation for successful calf raising is provided by GEA automated calf feeders. They supply your calves according to their needs and reduce your routine work in calf raising to a minimum.

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 sudden 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.



- 1 Oesophagus
- 2 Rumen
- 3 Reticulum
- 4 Omasum
- 5 Abomasum



The *smart* automated calf feeder generation

And your calves grow.

As soon as a calf enters the feeding station and makes known its desire to feed, the exactly determined feed is quickly, hygienically and reliably prepared. Age-dependent and individually – also with fresh milk. To provide your calves with an ideal basis for healthy growth, the calf feeder automatically takes over preparation and enrichment of the feed. The new generation of feeders has been designed around well-proven functions and these are present in the new *smart* version that has additional and improved features:

Clear view

The transparent powder hopper extension makes it quick and easy to check the filling level. You can see at a glance just how much powder is left in the feeder.

Optional: Hopper in stainless steel; filling sensor



Click and lock

The additional dosing unit can be easily fitted on or removed from the fly screen thanks to the handle and the new, flexible locking system. This also means that the additives can be provided easier and quicker.



Can't be more precise!

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



C600smart





Operating made easy

The automated feeders are equipped with the easily operated hand terminal. The new user friendly interface with extra keys and a large display makes it comfortable to read. The brightness and contrast can be easily reset via the software. Numbers can be entered quickly and directly via the numerical keypad, e.g. for the animal search and for setting up the feeding plans. Short-cut keys enable fast access to a group of calves or a specific animal.



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. Interval feeding then allocates the feed in an appropriate way throughout the day.



- 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 or PC
- DMS 21 integration via the DP Calf-Feeder module
- Easy monitoring with the management tool "CalfCloud" wherever you are

C400smart

CalfCloud - The new generation of automated calf feeding



The CalfCloud is a reliable management tool for you, as a modern farmer, with which the calves and calf feeders can be quickly and easily monitored from the computer. It is the perfect complement to the “smart” calf feeder generation, which can be connected as a standard via Ethernet directly to a wireless network or the Internet.



Modern network capabilities

- Powerful processor card with ethernet interface
- Simple network structure — gateway no longer required
- Network-capable as standard
- Software communication module for connecting to the feeding computer included as standard
- Remote control of the automatic feeder via the “NetTerminal” program (via PC)

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.

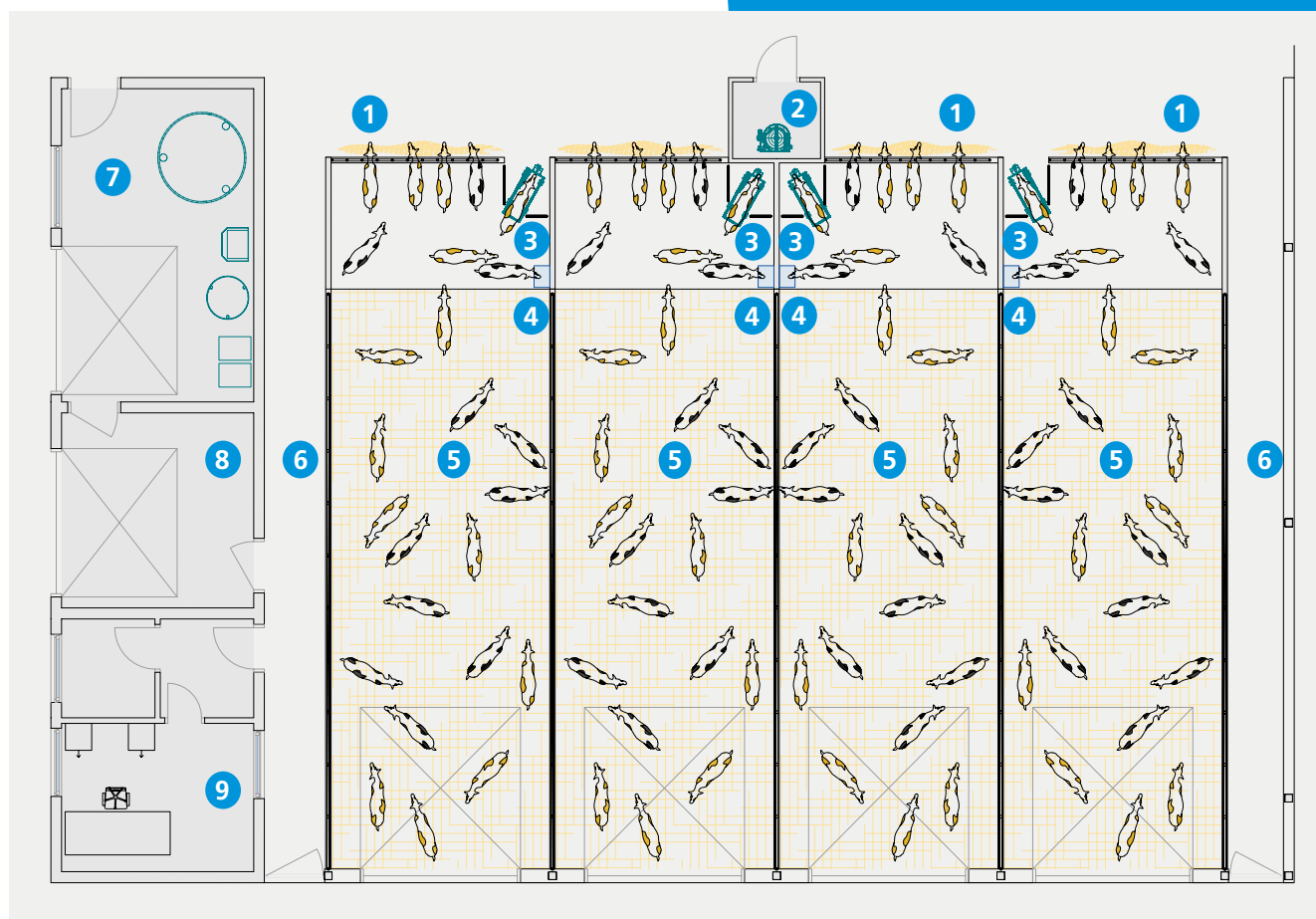
Automated data storage and remote access

- 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



- 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
- Improved standard fittings for a higher standard of quality
- Accurate individual animal data
- Remote maintenance by the service technician

Sample floor plan of automated calf feeding



- 1 Additional feeding (concentrate, etc.)
- 2 V640smart Feeder
- 3 Feeding station (one/group)
- 4 Water trough
- 5 Group pen (25 sq. ft./calf)
- 6 Walkway aisle
- 7 Milk room (UV Pure*, cooling tank, etc.)
- 8 Storage
- 9 Office

** Fresh milk can be purified with the UV Pure ultraviolet calf milk purifier to kill bacteria while retaining important nutrients. Available only from GEA.*



CR100 Rail System – Automated individual Feeding

Flexible usability with full control.

V600smart / V640smart for everything

The CR100 rail system is controlled and supplied with milk replacer feed or fresh milk by the V600smart/ V640smart calf feeder. 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 in individual pens and are then housed in groups. No problem for the V600smart/ V640smart, 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 CalfManager software.

How it works

Up to eight times per day the automated CR100 rail system moves along a sliding rail to every Calf pen to dispense feed animal-specifically and in a controlled way. A servo-driven hose pump moves the feed down into the teat, ensuring comfortable feed consumption for even young calves.



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. The result there are no dirty corners or waiting containers in which the milk may become stale. An intelligent heating is integrated in the hose to achieve a pleasant drinking temperature even in winter.

Flexible usability

One CR100 unit can supply up to 32 individually penned calves. The automatic feeder is able to control up to four CR100 units, thus in total 128 calves can be fed using one single calf feeder. Combined individual and group pen raising is possible as well.

Now it's turning!

The new CR100 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 CR100 housing makes after-dark animal control easier. An acoustic signal reinforces calf conditioning to commence feeding.

Benefits

Healthy growth	Less work / optimum hygiene
<ul style="list-style-type: none"> Accelerated weightgains through up to eight feedings/day Healthy calves with freshly prepared, age-appropriate portions at optimum feed temperature 	<ul style="list-style-type: none"> Hard physical labor of lugging buckets eliminated Tedious routine manual tasks (bucket cleaning, etc.) eliminated Automatic cleaning before and after every feeding cycle Optional teat cleaning
Time savings	Effective in use
<ul style="list-style-type: none"> The automatic feeder handles feed preparation, pumping and feeding itself Flexible scheduling of day-time control tasks Faster training through mutual observation 	<ul style="list-style-type: none"> Individual and group pen housing in combination Controlled feeding through animal-specific consumption A single automatic feeder can serve 128 calves

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.



Clean up to the top



Easy & comfortable calf training



Much, often, always fresh!

C400smart

Easy entry level.

It doesn't matter whether it is fresh milk or powdered milk that is provided; the C400smart can easily feed 50 calves using a maximum of 2 sucking stations. The powerful 32-bit 'H' processor enables extensive function applications: It is now possible to attach other peripheral equipment to the C400smart. It allows concentrate dependent weaning with DairyFeed J 1100 and additive dosing with the use of electrolyte. An enhanced medicinal program is available for maintaining healthy calves.



A view of the inner workings



- 1 Water valve opens the supply line to the special boiler
- 2 Precise temperaturecontrolled water portions (0.25 l) are metered
- 3 into the mixer.
- 4 In parallel to the water metering, milk powder is added from the powder reservoir into the mixer.
- 5 Feed supply via suction hose and teat – without any waiting.

Additional for the combined automated feeder

- 6 Heat exchanger warming of the fresh milk, gently and quickly.



SD-card for data back-up

Everything at a glance

Calf monitoring is an important element of herd management, particularly during calf raising. Using the DairyPlan DPCalfFeeder module allows you to integrate all of the DairyFeed J stand-alone calf feeders in DMS 21. You can easily monitor the calf lists from the screen in your office according to the feeding plan. Querying of all important peripheral devices and animal data can be carried out at any time thanks to networking with your office PC.



V600smart

Advanced level made easy.

The V600smart automated calf feeder 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 60 calves using 2 sucking stations. Modern calf management for healthy growth every day, individually and reliably matched to each calf.

A greater range of functions

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 V600smart an unbeatable management system with nearly unlimited capabilities. Meeting the highest claims as regards labour savings, calf health and animal growth.



Intensive mixer: The ability to mix flexible portion sizes between 250 and 500 ml, enables ideal calf growth.



The feeder unit with recognition system for neck and ear responders.



V600smart and V640smart

Calf raising on a grand scale.

GEA also has the right solution for calf raising on large farms: Simply upgrade the V600smart to a V640smart: even better performance, even easier to use. The fully automated heat exchanger cleaning using a rinsing agent dispensing pump, ensures that all milk carrying parts are cleaned quickly and reliably. Furthermore, the optimised feeding pump allows improved hygiene, as the intensive circulation cleans the suction hoses and ensures ideal cleanliness.



Power saving made easy

The innovative low-power circulation pump that is used with the V640smart can save up to 30 % of the previous power consumption!

4 times a winner!

The Quattro module supplies 4 calves per feeder simultaneously. The servo-controlled pump installed at each station feeds the calves age-dependent, so that all calves are fed according to their needs. This ensures optimum growth! The Quattro module can easily be installed with V600smart and V640smart and allows feeding for up to 120 calves from a single automated feeder.



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 accessories – so your precise.

Specification/Devices	Automated Calf Feeders	
	C400smart	V600/640smart
Model and version		
Powder / water	●	●
Combi (powder and fresh milk)	●	●
Fresh milk	–	●
Stainless steel hopper (optional)	●	●
Serial equipment		
Heat exchanger with separate heating circuits	● ¹	● ²
Minimum operating temperature	●	●
Electronic heating control (IQ-heating)	●	●
Electrode in the mixer jar	● (1 electrode)	● (2 electrodes)
1st stop valve for feeding station	●	●
Push-button for training pump in feeding station	●	●
Fully automatic HE-cleaning with detergent pump	● ²	● ^{2/3}
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	35/50
Heating capacity boiler/ heat exchanger (kW)	2.5	5
Engine power milk pump V4a	120 W ¹	250 W ²
Priority control	●	●
Parallel feeding "SynchroFeed"	–	● ²
Portion size (liter)	0.25 or 0.5	0.25 or 0.5
Maximum number of feeding stations with priority control	2	4
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 + Cloud)		
Status overview calf feeder(s)	● ⁴	● ⁴
Status overview calves	● ⁴	● ⁴
NetTerminal	● ⁴	● ⁴
Calendar	● ⁴	● ⁴
Detailed overview calves – tabularly + graphically	● ⁴	● ⁴
Detailed overview calf feeder(s) – graphically	● ⁴	● ⁴
Calves history (App + CalfCloud)	● ⁴	● ⁴



C400smart



V600smart



V640smart

- Series
- Optional / Accessories
- Not available
- 1) Combi only
- 2) Combi and fresh milk
- 3) With detergent empty alarm
- 4) This program function can only be used if the corresponding equipment is installed

Accessories for automated calf feeders



Fresh milk vessel with agitator

- Stainless steel vessel and lid
- 120 litre capacity
- VA agitator mechanism with interval control
- No weld seams
- With deep drawn outlet for complete emptying and easy cleaning



Small quantity 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 small quantity dispenser and/or dispensing pump
- Easy to clean



Feed station expansion CalfProtect

- Marked reduction in two-calf sucking
- 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



Pulsed compressed air cleaning

- Fully automated cleaning of suction hose and teat right up to the tip of the teat
- Fully automated dry blowing in the pauses between drinking; therefore no freezing on drink residues in the suction hose and suction teat

DairyFeed J 1100

Early use of concentrate feed speeds growth of the young calves and replaces milk sooner, which is the most expensive feed. The concentrate feeding system DairyFeed J 1100 is thus the ideal expansion to GEA calf feeders. It ensures, in conjunction with the DairyManagement-System 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 light sensor controls and regulates the food quantity and ensures that refilling only takes place after complete emptying of the stainless steel 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.

*The Concentrate Feeding System
DairyFeed J 1100 in use.*



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

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