

Electronic Sow Feeder (part 2)

WEDNESDAY, 12 JULY 2017 BY GILBERT VANDENHEUVEL



Call-Inn^{pro} & CallMatic^{pro}
Electronic feeding systems for sows in group housing



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Big Dutchman Electronic Sow Feeder (part 2)

Our previous blog went over the history of feeding pigs all the way back to the start of domesticated pig farming.

Here we will go over the two types of Electronic Sow Feeders (ESF) available through Big Dutchman.

Our next blog will look at various group housing sow layouts / floor plans.

Call-In pro – the more economical option and the Call Matic pro – the professional option.

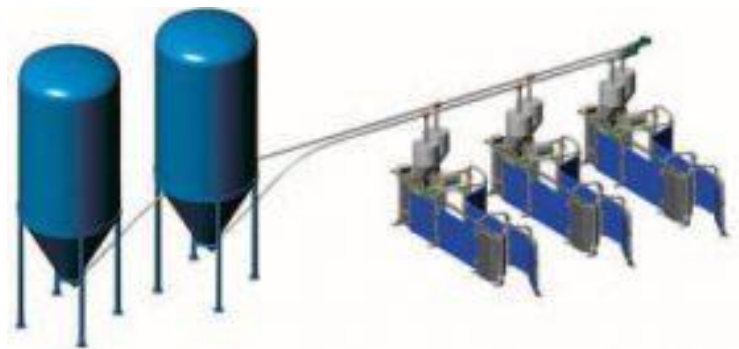
Both have the latest technology based on 30 years of ESF experience. Listening to and serving customers over those 30 years has made Big Dutchman one of the pioneers in the development of ESF systems.



Call-Inn

The Call-Inn pro ESF station is ideally suited for the needs of stable, large groups of up to 65 sows. Feeding is possible with one type of dry feed and automatically adjusted to the sows' eating speed. Thanks to an electro-pneumatically driven dispensing mechanism, the metering precision is very high. If the sow is entitled to receive feed, approx. 60 grams are dispensed into the trough. This process is repeated until the sow is no longer entitled to receive feed or until the sow leaves the station.

A pneumatic trough flap controls access to the feed trough so sows who have had their daily allotment, can not find left-over feed. This discourages them to repeatedly enter the ESF.



Each feeding station is equipped with a feed hopper supplied by the feed bin. A sensor in one of the hoppers supplying a group of stations registers when the feed level drops below a set minimum value. All feed hoppers are then immediately filled again.



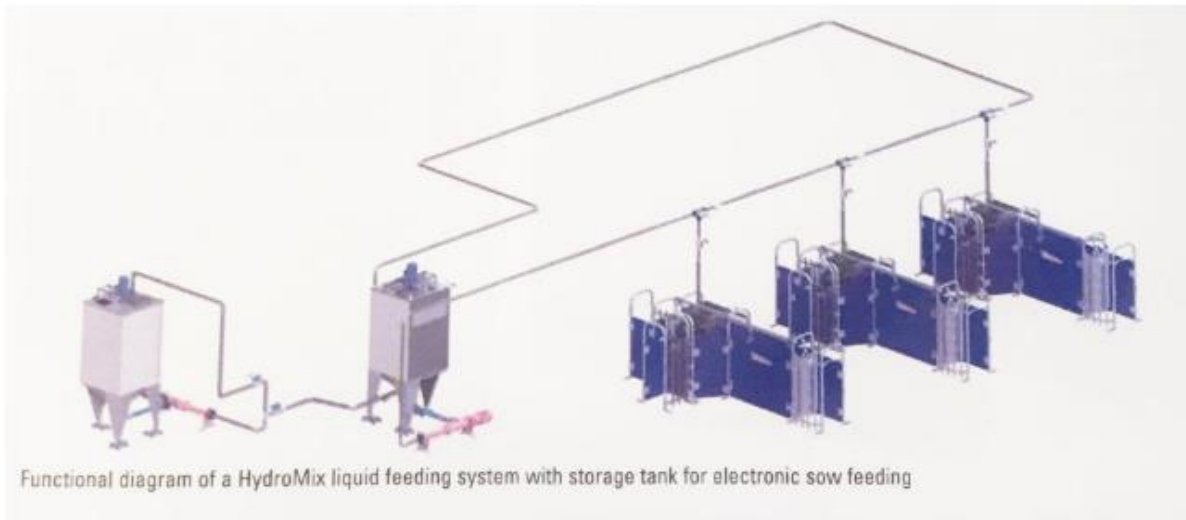
The Call-Matic pro ESF station is ideally suited for use with large groups of up to 60 sows, both dynamic and stable. The sows can be fed either with two types of dry feed, automatically adjusted to the sows' eating speed, or with liquid feed. Thanks to the modular design of the station, it is very easy to adapt it to any space requirement.

Call-Matic pro offers the option to select sows automatically. A sensor at the exit gate to the selection area registers the number of the selected pigs and prevents overstocking of the selection pen.

Liquid feeding with the ESF

The installation of the Call-Matic pro with liquid feed is particularly cost effective if other pigs are already supplied with liquid feed. When a Big Dutchman feeding system is used, the ESF system is able to communicate with the liquid feeding system control. This means the ESF system can request feed from the liquid feeding system which in turn prepares the requested feed ration and pumps it into the storage tank of the ESF system. The liquid feed circulates through a pipeline system installed above the ESF stations. If a sow that is entitled to receive feed is identified, the pneumatic low-maintenance three-way ball valve opens. Feed is dispensed into the trough over a time interval set by the farm

manager. This process is repeated until the sow has received her pre-set feed allotment.



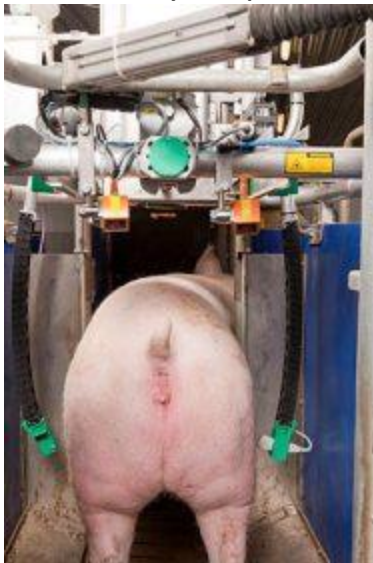
The exact amount of dispensed feed is determined by weighing the feed in the mix tank. If the stored feed mix drops below a certain minimum, the liquid feeding system receives a new request for feed. Moreover, the tank of the electronic sow feeding system returns feed which has not been consumed to the main system's mixing tank. This ensures that the feed remains fresh and increases hygiene.

Through this method, the feeding system is constantly calibrated, thus achieving a very high metering precision during the entire feeding process.

With this liquid option, reduced feeding costs can be achieved with co-products or the use of high moisture corn as part of the sow's ration.

Colour markers can be added to both ESF stations as an option. If the station indicates that the entering sow must be marked, the spray can is automatically activated.

An optional unit for heat detection makes identifying sows which are returning to service very simple. These can then also be marked by colour.



The station can also easily be opened in case of an emergency – thanks to the swing-type side walls.

The guiding post, fixed or pivoting, helps the sows to find the entrance of the feeding station. This makes it much easier to train gilts that are in the selection aisle to use the feeding station. The installed door can also be used by the farm manager to access the animal area for tasks such as station inspection.



The station computer has a clearly arranged display and shows important information such as the status of the sow, the daily ration, the remaining feed quantity or the number of sows which have already eaten. It operates independently from the central PC for a high functional reliability. Sows that require special attention are identified by the control system and automatically selected. The farm manager is the one to define when and why a sow needs special attention.

Another advantage is that the station computer does not have to be installed at the ESF station but can also be installed in the aisle. This makes for better accessibility (an animal-free area) so adjustments can easily be made.

In addition to the station computer it is possible to connect a separate PC which can, for example, be located in the farm office or the farm manager's home. Both computers communicate in real time.

Summary:



At first glance, group housing seems much less efficient in terms of space per sow than a standard stall system but with proper management, a group housing system can become a very efficient system.

- sow condition / weight can be kept closer to ideal with the ESF feeding the proper amount every day of the week. The sows are fed precisely no matter who is staffing the barn.
- with automated pregnancy testing integrated into the system, your open sow days can be reduced saving costly feed dollars and gets sows back to the breeding barn quickly.
- the optional colour marking allows easy identification of specific sows for reasons such as reduced feed intake or negative pregnancy test.
- When a sorting door is used, sows ready to enter the farrowing room can easily be sorted out of the group. (as shown on right)
- The sow manager can easily view any information, in summary or for individual sows, to improve productivity of the sow operation.

As the sow industry continues its journey towards group housing, automated feeding will always be in the mix.

Big Dutchman's ESF is a proven tool with 30 years of experience.

Feel free to call us for more information.