

Installation of Bulk Tanks

REGULATIONS (EC) NOS. 852/2004 AND 853/2004 (AS AMENDED)

Bulk tank selection is dependent on a number of factors that need careful consideration. The bulk tank is a vital piece of equipment. It is in use constantly and must be cleaned and sterilised after each milk collection. Due to the size of the investment involved, the dairy farmer should thoroughly research all relevant aspects before deciding exactly what size and type of tank would best suit the business.

Points that need to be considered include:

- **Size of Tank**
The tank capacity chosen will depend on herd size, calving pattern, frequency of milk collection and future plans for development.
- **Type of Tank**
Producers have a choice of conventional ice bank tank, direct expansion tank (DX) or bulk tank with separate ice builder.

Choosing a Bulk Tank

Milk Cooling Time

Under-specification of bulk milk tanks can result in extended milk cooling times. The cooling of milk in a bulk tank to less than 6°C should be completed within two hours from the commencement of milking. To ensure that this is achieved, the tank must be specified to do this at 100% of its rated volume.

Milk Silos

Milk Silos (10,000 litres and upward) are an option for the very large producer. These are designed so the silos are installed outside with all controls and the milk outlet pipe situated in a clean, enclosed area. This area is maintained at the same standard as a conventional dairy. Any external hatches/valves on the silos should be securely sealed to prevent unauthorised access.

Running Costs

Substantial reductions in running cost can be made when an ice builder is used in conjunction with off-peak electricity. Pre-cooling milk using a plate or tube cooler can also substantially reduce costs. More rapid cooling should reduce microbial growth hence improving milk quality.

Electricity Supply

Before installing any tank, a milk producer should ensure that the farm electricity supply is capable of servicing the electrical demands of the tank. Three phase electricity is necessary for some types of tank.

Bulk Tank Cleaning

Automatic bulk tank washers are available and are normally activated by the tanker driver after each collection. Here cold wash detergents require supplementary manual washing of the tanks.

Most of the enclosed tanks now on the market use an automatic wash system.

The Milk Tank Room (Dairy)

When building a new milk tank room/dairy or extending an existing one, consider the following:

Position

- Is the Dairy easily accessible by large bulk collection tankers
- Is the Dairy positioned so the tanker approaches can be kept clean and free from cow traffic at all times.

Size

The installation of a larger bulk tank may require the building of a new dairy or the extension of an existing one. The following requirements should be taken into account:

- Is the dairy large enough for the proposed tank and ancillary equipment, such as ice builder, tank washer, plate/tube cooler etc.? If not, can the existing one be extended or is a new dairy required?
- There should be an unimpeded space of 600 mm (2ft) around the tank.
- There should also be an adequate space between the top of the tank and the dairy ceiling so the tank interior can be accessed if necessary.

Dairy store

Bulk tank condenser units should not be fitted in the dairy. They should be installed externally or in an adjacent, suitable and well ventilated dairy store. Installation should ensure that the units draw in and discharge adequate quantities of air for efficient operation.

The condenser should not be installed in the dairy for the following reasons, it:

- reduces the amount of heat in the dairy
- prevents dust being drawn into the dairy
- avoids attracting vermin to the warmth of the condenser unit

For further information contact your local DAERA Milk Inspector:

www.daera-ni.gov.uk/articles/complying-hygiene-regulations-dairy-farms

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