



Food Manufacture

Building, Equipment Design and Maintenance

Lesson 6

Gain knowledge and understanding of the importance of building, equipment, design and maintenance in a food factory and its effects on food safety and staff safety.





**The fabrication of
a food factory
site, buildings
and facilities will
be suitable for its
intended purpose**



Internal walls are kept in a good condition and must be easy to clean.

They will have a smooth impervious finish with sealed surfaces so prevent any rotting and any harbouring of bacteria.

They will be in good condition with no flaking paint which could contaminate the product.





**Floors are hard-wearing
and made of an
impervious material
which can be cleaned
easily.**

**The floor will be in good
condition and be able
to withstand any
cleaning procedures.**





Drainage within the factory is designed and maintained to minimise any risk of contaminating the product.

The allocation of machinery and piping is arranged so that if possible, process wastewater goes directly into the drain.





Ceilings are designed and maintained to prevent the risk of product contamination.

They are easy to clean and where there are mezzanine floors and walkways over production areas there are safeguarding measures to ensure safety of the personnel and the product.



Roof voids are accessible to the relevant staff for pest control and maintenance reasons.





Any ventilation windows are adequately screened to prevent any access to pests.



Doors are in good condition and as a minimum:

- External doors will be closed fitting and adequately proofed
- External doors to open product areas will not be opened during production periods except for emergencies
- External doors to closed product areas can be opened but there must be enough pest control measures present e.g. strip curtains



**There is
adequate
lighting in a
factory to
ensure four
main functions
can be
performed.**

1. Staff to be able to monitor quality and any defects
2. The operational process to be carried out correctly
3. Clean effectively
4. Create a safe working environment



There is adequate ventilation and extraction to storage and processing areas to stop any condensation or dust.

In high-risk areas there is sufficient changes of filtered air and a positive air flow system.





Water which is used as a raw material in the processing operation, hand washing, or equipment cleaning is supplied in the sufficient amount and will be of no risk of contamination.





The chemical and microbiological quality of the water is analysed at least once a year.

Where there is a greater risk to the water quality tests are completed more frequently.

A schematic diagram of the water distribution on site is used to determine the water sampling process.





Air and gases which are used as a ingredient or in contact with the product are monitored to ensure no contamination risk occurs.

Any compressed air which comes into direct contact with the product will be filtered



Revision Activity 6

Why should ventilation windows in a food factory be adequately screened?