

Maintenance Health Checks for Pharmacy Fridges

Why have calibration and maintenance health check?

1. To ensure your pharmacy fridge is operating and calibrated correctly on an annual or bi annual basis.
2. To maintain compliance with the Pharmaceutical Society of Ireland (PSI) guidelines for annual maintenance and calibration checks on pharmacy fridges
3. To maintain Cold Chain compliance
4. To increase the life span, reliability and energy efficiency of your system

What do our preventative maintenance health checks cover?

1. The correct operation of your pharmacy refrigerator and ensuring it is frost free
2. Temperature calibration and mapping fully traceable to national standards (INAB/UKAS/DKD)
3. Full clean and inspection of working parts including door gasket
4. Performance tests of alarm checks and other associated components

Common maintenance issues

1. Domestic fridges used to store medicinal products which cannot be properly calibrated or checked due to uneven temperatures ranging between 0°C and 10°C with additional fluctuations resulting from opening and closing of the door.
2. Over packing may result in the blocking of the fan which circulates the air and lead to the freezing up of pharmacy refrigerator.
3. Insufficient space for ventilation around pharmacy refrigerators which are not designed as integrated appliances unless previously specified. Poor ventilation results in elevated ambient temperature around the pharmacy refrigerator. In cases of poor ventilation circulation fans to disperse the air is a solution along with making ventilation holes which surround the cabinet
4. High ambient temperature where pharmacy refrigerator is located which combined with poor ventilation will result in damage to the fridge operation and potential loss of product. High ambient in the dispensary can be resolved by the installing of air conditioning which has been correctly sized for the location.
5. Accumulation of dust and dirty during standard operation which can affect operation of cooling system.

Temperature Monitoring

The maximum and minimum temperature of the pharmacy refrigerator should be recorded at a minimum at least once a day. The temperature recording equipment should be calibrated annually and appropriate records maintained. Monitoring and recording of temperature can be undertaken manually or automatically by WiFi. Wi-Fi monitoring automatically updates and stores temperature (wireless router required) the Wi-Fi monitoring system will also send alerts via email or text informing of deviations to temperatures or alarms.

What happens if there is a power failure or breakdown and the temperature of the pharmacy refrigerator goes above +8°C?

Air and product temperature are not the same and usual product stored between 2°C to +8°C has a core temperature of between 4°C/5°C. In tests carried out using a glass door pharmacy refrigerator, it was calculated that it takes approximately 40 minutes before medicines rise above 8°C.

It is important to note that pharmacy refrigerators are not designed to hold the product temperature once it's not refrigerating.

To accurately assess actual products temperature in these situations, a container with glycol-filled probe is used to simulate the thermal lag experienced by products stored in temperature controlled environments. This systems is include in the Wi-Fi range of products, which are all designed to improve monitoring and control for patients safety.

What are the specification required for a pharmacy fridge

1. Temperature between +2°C and +8°C
2. High and low alarm
3. Audible and visual alarm
4. Maximum and minimum recording
5. Fan assisted
6. Lockable