

Consistently close up refrigeration and freezer units at night

Refrigeration units should be consistently “closed up” outside of opening hours. Night blinds, covers or glass doors are suitable for this purpose. The cold then stays inside the units and you avoid unwanted temperature fluctuations.

Action

Make sure that all refrigeration and freezer units such as display cabinets, shelves, free-standing and promotional showcases are closed off from the room outside of opening hours (at night and at weekends).

Requirement

You have freezer or refrigeration cabinets that are open to the room at night.

When refrigeration units are closed up, they consume up to 30 percent less energy.

What to do

1. Analyse the situation

- Check which refrigeration units do not have night covers, sliding glass covers, night blinds or glass doors.
- Check whether existing covers and roller blinds are in working order. Have faulty components repaired, or replace them.

2. Check out retrofitting

- Ask your supplier for an offer to retrofit the refrigeration units with covers, (automatic) roller blinds or glass doors.
- Procure the appropriate covers.

3. Employee training

- Train your employees. Show them how to operate covers and roller blinds. Define who is responsible for closing them up and where the covers are stored during the day.
- Monitor daily implementation of these measures. If there are problems, clarify the causes (technical, logistical, time related) and attempt to eliminate them.



Costs – effort

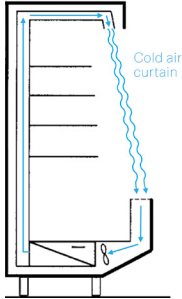
- Your own labour: approx. ½ to 1 day to inspect all covers and doors, including obtaining an offer (one time only)
- Night blinds for “plus” cooling cabinets cost approx. CHF 300 to 500 per metre.
- Covers for refrigerated counters cost approx. CHF 150 per metre.
- Additional labour for covering with manual roller blinds and covers: depending on the size of the shop, 5 to 10 minutes per day

Please note!

- It always pays off to cover freezer units consistently.
- On freezer units, specifically check that the glass doors close tightly, and replace the seals if necessary.
- Glass doors always pay off when installing new refrigerated shelving units, or when replacing such units.

Additional explanations

Maintain the cold air curtain



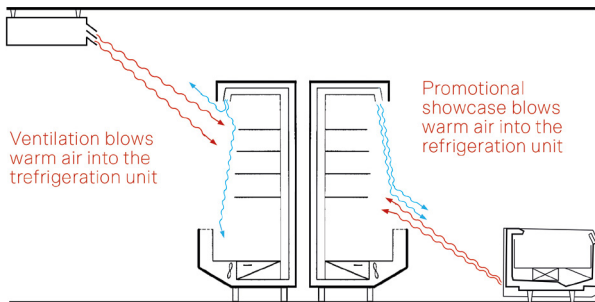
Source: RAVEL

If the cold air curtain of refrigeration units is disrupted, the temperature can no longer be guaranteed. This can negatively impact product quality and operating costs. It is therefore essential to keep ventilation slits free of goods and price signage. Also, the maximum stacking height in the unit must not be exceeded. It is best to apply marks showing how high products can be stacked.

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Avoid deviations from the required temperatures

Position mobile refrigeration units so that the warm air they give out is not blown into other refrigeration units. Also, units should not be placed in draughts, near air outlets of the ventilation system or in direct sunlight.



Source: RAVEL

Switch off refrigeration units

After the shop closes, clear out and switch off all refrigeration units where you store products supplied on a daily basis. Ideally, refrigeration units of this sort should be equipped with a time switch. Programme the timer so that the units are switched on two hours before your business starts operating. Then, when you start work, you can immediately place the day's fresh new products in the units.

Correct storage temperatures for products

Make sure that the products for sorting into the units are already cooled. Refrigeration units (special refrigerated display cases) are not suitable for cooling products down to the desired temperature. If a product is warm when it is placed in the refrigerated shelving unit, the temperature in the unit can no longer be guaranteed. Product quality may suffer as a result. Energy consumption and costs are also increased unnecessarily. For some products such as raw milk, pasteurised milk, cream cheese, cream, butter, meat and fish, the Federal Ordinance on Foodstuffs and Utility Articles stipulates maximum temperatures for storage and sale.

The following temperatures may be taken as guidance values:

Open fresh products (in staffed refrigerated counters)

- Meat, sale: max. 5 °C
- Meat, storage: max. 2 °C
- Fish and similar items: max. 2 °C (storage and sale)

Packaged products (self-service)

- The maximum storage temperature is usually printed on the product package by the manufacturer.

Deep-frozen products

- Max. -18 °C (storage and sale)

Retrofitting glass doors on refrigeration units

Retrofitting glass doors on existing refrigeration units (for milk, meat, fish, cheese, etc.) reduces their energy consumption by up to 30 percent. This corresponds to annual savings on energy costs of CHF 200 to 300 per metre. The costs of retrofitting are CHF 700 to 1500 per continuous metre of refrigerated shelving.

Additional information

- [Refrigeration and freezer units – 7 energy-saving tips for employees](#)
- [Successfully retrofitting glass doors on “plus” cooling cabinets](#)
- [Federal Ordinance on Foodstuffs and Utility Articles \(SR 817.02\)](#)