



Refrigeration Developments  
and Testing Ltd

# Retail display cabinet testing to EN ISO 23953

## Testing of:

- Multi-deck cabinets.
- Full/half glass door cabinets.
- Well cabinets.
- Delicatessen cabinets.
- Bottle coolers.
- Special/bespoke cabinets.
- Integral or remote cabinets.
- Chilled or frozen cabinets.
- Testing for ECA accreditation.

## We can also:

- Witness test at manufacturers' test facilities.
- Optimise performance of refrigeration systems (TEV or capillary).
- Carry out bespoke testing using real food or 'non standard' loadings.
- Help design and optimise cabinets.
- Redesign and rebuild cabinets using a combination of practical skills.
- Apply air flow design knowledge and use of mathematical models.
- Troubleshoot problems in installed cabinets.
- Provide training courses to design, develop and test cabinets.
- Manufacture test packs used for cabinet testing.

## Standard EN23953 testing service

The basic standard service assumes that the cabinet supplied is ready for test and requires minimal modifications. However, if changes to the cabinet controller are required customers can select from a range of additional services (see below).

The standard service includes:

1. Set the cabinet controller as defined by manufacturer.
2. Set evaporating temperature on remote cabinets as defined by manufacturer.
3. Set TEV/EEV on remote cabinets to provide recommended superheat (aim to achieve 3-5°C).
4. Run a 24 hour test as per the EN23953 test standard.
5. Provide a test report giving methods of test, results and analysis of the cabinet performance.

## In addition we can:

1. Alter the cabinet set point with the aim to achieve the required temperature classification and low energy consumption.
2. Adjust the evaporating pressure to optimise temperatures and energy consumption of the cabinet (remotes only).
3. Adjust the defrost settings (interval between defrosts, termination time and temperature) to optimise temperatures and energy consumption of the cabinet.
4. Adjust the temperature differential to change the cycling operational time of the cabinet.

## Further optimisation

If a cabinet requires further improvements to performance we can carry out additional optimisation work. Such work varies but often includes:

1. Adjustments to the back panel.
2. Adjustments to discharge and return air grilles.
3. Changing evaporator fans.
4. Adding risers/weir plates.
5. Insulating base plates.
6. Changing the evaporator design.
7. Adjusting capillary dimensions and refrigerant charge in integral cabinets.



Refrigeration Developments and Testing, Churchill Building,  
Langford, Bristol, BS40 5DU

Tel: +44(0)117 928 9239 Fax: +44(0)117 928 9314

Email: [rdandt@rdandt.co.uk](mailto:rdandt@rdandt.co.uk)

[www.rdandt.co.uk](http://www.rdandt.co.uk)