



F|TEC



Frigrite Technology and Environment Centre



Frigrite. Australia's leading refrigeration technology company.

F|TEC A centre of excellence.



WHAT IS FTEC?

Frigrite's Technology and Environment Centre (FTEC) is a state of the art facility that plays a crucial role in keeping Frigrite products at the forefront of their field.

It is home to Frigrite product innovation and ongoing product development as well as being the test bed for proving and refining Frigrite products in simulated real world applications.

Frigrite has invested heavily to equip FTEC with the technology required to conduct product testing and certification exceeding AS1731 and has integrated that with advanced engineering facilities to provide the necessary tools for driving research and development capability into new areas of refrigeration and air-conditioning design.

Quite simply, FTEC is what sets Frigrite apart from its competitors. No other company in the Southern hemisphere has invested so heavily in this type of facility or has such an extensive range of advanced testing facilities.

THE FACILITY

FTEC is a purpose built facility that has seven separately managed controlled environments that can be operated from class 1 up to class 6.

The seven independent test laboratories have individual climate control allowing variable environments in each. Two of the laboratories can be combined to allow testing of large case types, typically greater than 2m wide and 4m long.

Each laboratory can measure more than 150 points simultaneously allowing for as many as twenty different measurements on a single shelf of the test case.

TESTING AND CERTIFICATION

The specific testing and certification carried out includes:

- New and existing product performance operational development
- Air flow performance evaluation
- Power consumption monitoring
- Automatic door opening testing
- Fast track new product development
- Hot gas defrost research
- Cool gas defrost research
- Lighting evaluation
- Secondary fluid operational testing
- Alternative refrigerant evaluation
- Components and material tests and evaluation
- Hot case testing
- System design and performance evaluation

ACCURACY IS EVERYTHING

Frigrite utilises the most accurate temperature, air pressure and velocity probes available.

Measurements can be made simultaneously for air temperature, core temperature of a simulant, absolute air pressure, relative pressures and air velocities to provide the most accurate data.

Ongoing calibration checks ensures the highest levels of accuracy are maintained, a performance standard further verified by regular independent checking of Frigrite's in-house calibration capability and results.

All data is collected in real time in single minute increments and automatically stored on computer for ongoing review and analysis. The data can be presented as required, including graphical and tabular.

ENVIRONMENTAL CONSIDERATIONS

The controllable environments of the Centre's laboratories are created completely from the waste heat produced by the primary refrigeration plant that services the facility. Hot water heat reclaim and chilled water is generated and stored for use at the plant. The

conditioned water is mixed at the test laboratory to produce the controlled environmental condition meeting the required test standard.

The primary refrigeration plant is the latest parallel design including compressor capacity control and variable speed drive that automatically optimises the plant operational performance, producing a stable and reliable output.

The primary refrigeration plant operates with refrigerant HFC R507 and has a contained gas charge of 200 kg. The primary plant has the ability to service and maintain conditions of -10°C in six of the test cells while also maintaining conditions of -30°C in four of the cells. This enables testing versatility.

The primary plant also maintains the operating conditions of the CO_2 cascade which contains 100 kg of CO_2 liquid at -10°C . The CO_2 plant can maintain two cells at -30°C as well as four cells at -10°C .

To further maximise energy savings, the primary plant also provides air-conditioning for the portable mechanical centre that contains plant, switchboards, control system and air-conditioning equipment that services FTEC.

AN ABSOLUTE COMMITMENT

Frigrite is justifiably proud of the Technology and Environment Centre and the role it plays in providing its customers with the most innovative, cost effective and environmentally responsible refrigeration and air conditioning solutions.

Self-evidently, that role is of fundamental importance to Frigrite's ability to meet its customers' needs; its commitment to maintaining and developing the FTEC's resources and capabilities is absolute.



Phone: 1300 789 004 | www.frigrite.com.au



HEAD OFFICE

C1 / 27 Grange Road
Cheltenham Victoria 3192
Telephone: 1300 789 004
Telephone: (03) 9584 4901
Fax: (03) 9584 0509
Email: enquiries@frigrite.com.au