

Working towards a greener, more environmentally responsible future



Reducing our environmental impact
Increasing environmental awareness



Design Excellence : Cool Technology

Greenlogic

Our commitment to sustainable refrigeration

Greenlogic symbols

Throughout the use of our Greenlogic materials you will note the use of key symbols, used to highlight the benefit of a particular process or product on the environment.



**Saving
Energy**



**Increasing
Recycling**



**Reducing
Waste**



**Reducing
Emissions**



Greenlogic

Because we're all responsible for the environment

Greenlogic is Williams' commitment to supplying the most energy efficient and sustainable commercial refrigeration in today's market.

It's not limited to product design: Greenlogic covers our plant, manufacturing and management processes too, and our Greenlogic Customer Support helps you make the right decisions for your business and the environment.

As well as helping identify the most energy efficient and sustainable products, Greenlogic Customer Support

offers practical advice on how to save energy, time, resources and money, while creating a better working environment.

When it comes to Corporate Social Responsibility (CSR), it's one thing to talk about it and another to put it into action.

Tim Smith
Managing Director

"I'm proud of Williams' achievements over the years and how we've worked towards providing the greenest refrigeration in today's market.

We've done so through developing clean, sustainable and energy efficient manufacturing and using Best Available Technology throughout our global operations.

All three manufacturing plants (UK, Australia and China) are committed to, and certified with, the prestigious ISO14001

Environmental Management Standard.

Greenlogic forms an important part of Williams Corporate Social Responsibility. It can be part of yours too."





Product

Williams products are manufactured using energy efficient and environment friendly components



Selecting the right components is key to delivering our Greenlogic objectives

Williams' commitment to green refrigeration stretches back decades. In the 1980s we were the first manufacturer to develop CFC-free insulation. In the 1990s we developed the first catering refrigeration to use an environment-friendly refrigerant (glycol) with an Ozone Depletion Potential (ODP) of zero. We've pioneered a raft of greener technologies, ranging from energy-saving Smart Controllers to systems using eco-friendly refrigerants such as hydrocarbon and CO₂.

Our products are 98% recyclable with the remaining 2% treatable for heat recovery.

But to ensure our products are the most sustainable in today's market means considering each and every component. Not just the contribution they make to the product's overall energy efficiency but the impact they have on the environment, and ensuring they have been produced in a sustainable and ethical manner.

Our CoolSmart Controllers minimise the cabinet's energy consumption through processes such as fan and heater pulsing, intelligent defrost and independent management of evaporator and condenser fans.

Our insulation delivers structural strength and superior thermal properties while minimising environmental impact, through low GWP (Global Warming Potential) and zero ODP (Ozone Depletion Potential).

Recent innovations include low energy fans and bumper bars made from recycled materials, which resist corrosion to maximise service life. All coils are now electro deposition dipped - the most advanced cathodic coating technology available. The process has a lower environmental impact due to a reduction in the amount of solvents used.

A comprehensive choice of other energy saving features and options are available including self-closing doors, heavy duty gaskets, half doors and drawer packs.

Williams follow the AFE Group Ethical Trading Code and ensure compliance with it by our suppliers as well as every supplier being assessed and graded on the environmental management of their product and plant.

Williams has also been focused on reducing our supplier base - as such we have reduced this by 66% since 2002, significantly reducing the product's carbon footprint in the process.



Product

Williams leads the way in developing the use of greener refrigerants



Greenlogic Refrigerants

Williams continue to pioneer and promote the use of alternative, environment friendly refrigerants.

To receive further details of how the use of green refrigerants can benefit you (and your carbon footprint) request a copy of the Greenlogic Refrigerants Guide from Williams.

A copy of this can be viewed at www.greenlogic.info



Glycol

The award winning glycol system links independently controlled refrigeration equipment on a 'ring main' with glycol being pumped round the system's pipes, thereby cooling all equipment.

Why Glycol

Because it reduces running costs... up to 25% less to run than other systems

Because it saves energy... and helps reduce your carbon footprint

Because it's quiet... reducing noise levels in the kitchen

Because it's reliable

Because it's totally safe, for you and the environment...no health risks and very low environmental impact

Because it's more effective... providing seemingly instant temperature pull down



Hydrocarbons

Hydrocarbon refrigerant reduces energy consumption by up to 15% due to it's excellent thermodynamic properties.

It also almost eliminates the environmental impact due to its low GWP and zero ODP.

Our low energy compressors, specifically designed for use in hydrocarbon units are all VDE approved as they fall below the 150g threshold for hydrocarbon equipment - significantly meaning that Williams products can be installed in any location irrespective of room size.

We expect to see the continued upward trend of supplying hydrocarbon equipment and have taken measures to ensure our manufacturing process is fast, efficient and safe, having recently invested in three new automatic charging and evacuation stations for hydrocarbon refrigerants.



Product in focus

A comprehensive choice of energy-saving features and options include self-closing doors, heavy duty gaskets, half doors and drawer packs.

Feature

Hydrocarbon refrigerant

Benefit

Has a low GWP / zero ODP and energy consumption is reduced by 15% due to its excellent thermodynamic properties

Feature

CoolSmart controller

Benefits

Energy reductions of up to 15% by detecting changing situations, instigating economy mode when use is low – keeping energy use to a minimum, while ensuring total food safety at all times

Intelligent defrost function ensures the evaporator works more efficiently

Compressor starts can be limited, reducing wear and tear and prolonging compressor life

Feature

Electro-deposition dipped coils

Benefit

Reduces corrosion leading to longer shelf life

Lowers environmental impact due to reduced solvents and streamlined application process

Feature

Fan cutout switch

Benefit

Maintains constant temperature when the door is open

Feature

Precision injected, high density 75mm polyurethane insulation

Benefit

Superior thermal properties

Low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP)

Feature

Air ducted to provide even air distribution

Benefit

Maintains constant temperature, reducing energy consumption

Feature

Designed to operate efficiently in high ambient kitchens - up to 43°C

Benefit

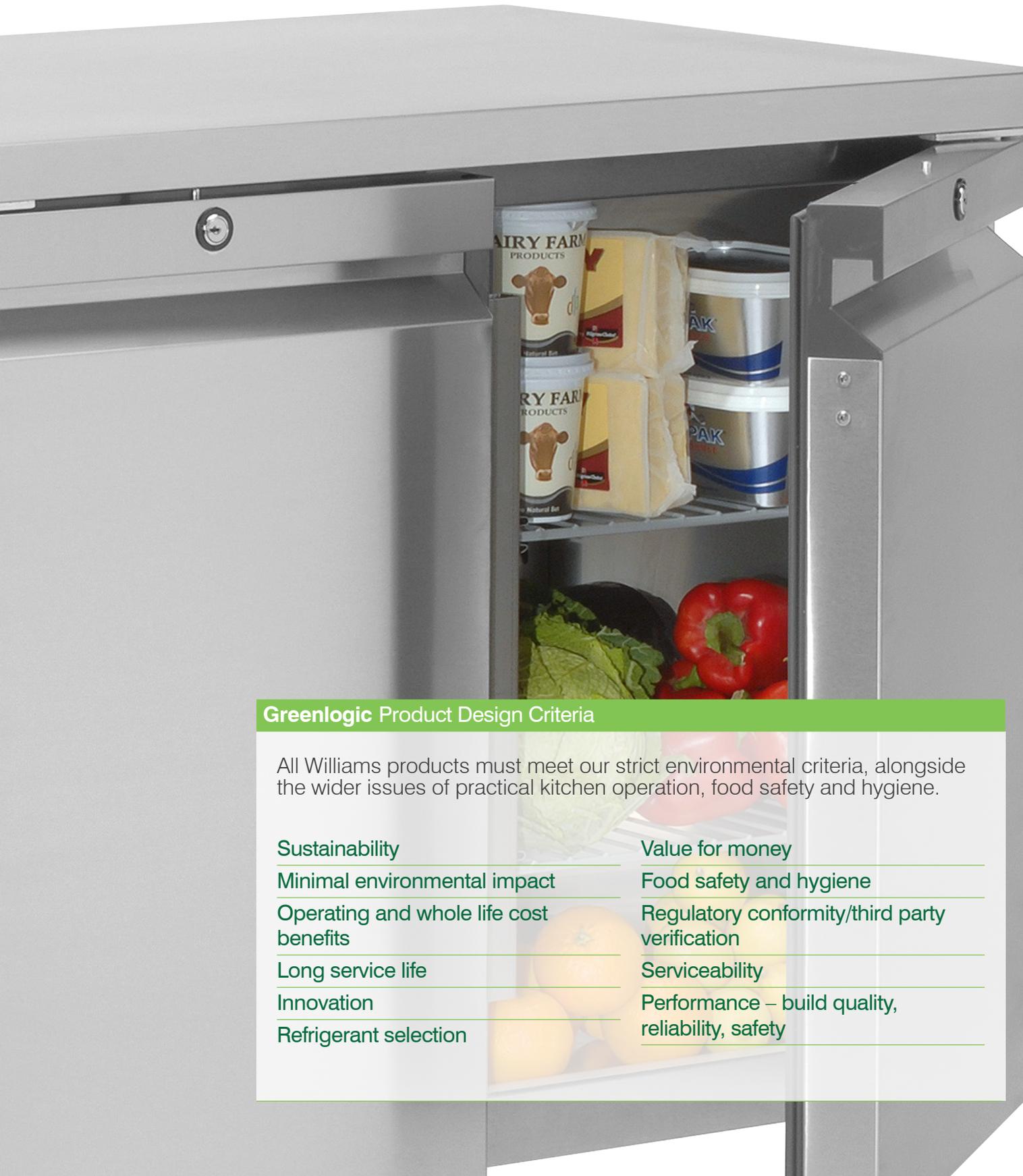
Reducing energy consumption

Feature

High performance helium leak tested

Benefit

Guarantees system efficiency, reducing energy consumption



Greenlogic Product Design Criteria

All Williams products must meet our strict environmental criteria, alongside the wider issues of practical kitchen operation, food safety and hygiene.

Sustainability

Minimal environmental impact

Operating and whole life cost benefits

Long service life

Innovation

Refrigerant selection

Value for money

Food safety and hygiene

Regulatory conformity/third party verification

Serviceability

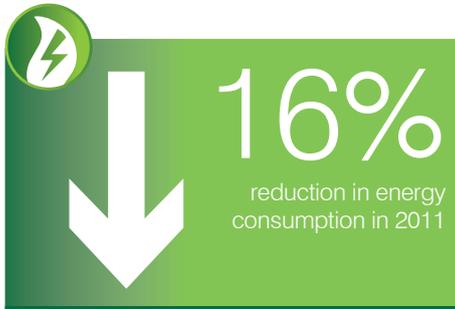
Performance – build quality, reliability, safety



Manufacturing

98% of every product we manufacture is recyclable

Williams holds the Environmental Management certification ISO 14001 for the design, manufacture, installation and servicing of refrigeration products.

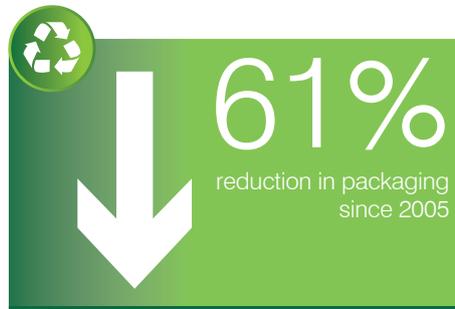


We are committed to reducing our environmental footprint - monitored by trained staff to ensure we maximise 're-use and recycling' to minimise waste. We've committed to becoming a zero to landfill business, and have reduced waste to landfill by 20% to date.

We have achieved these results through a combination of hard work, vigilance and innovative procedures. For many years we have recycled scrap metal and plastic waste. All the wood we use is sourced from FCS suppliers, pallets are re-used and waste wood is recycled.

Our packaging is 100% recyclable, although the bulk of the packaging is reused. We re-use shredded office paper for spare parts packaging; all waste and by products are colour coded to allow easy identification for despatch to specialist waste processors. Suppliers must also adhere to strict criteria to minimise their packaging. With a continued increase in production output since 2005 we have reduced our packaging tonnage by over 61% to date .

We apply the same rigorous standards to liquid waste. We only use chemicals



that are strictly required by our processes – and alternatives are actively sought for any considered harmful. All staff are fully trained with Spillage Procedures.

Regular inspections ensure nothing can contaminate the local drain system. Residues are collected, separated and sent to specialist waste handlers for treatment.

Williams have adopted a zero tolerance refrigerant leak strategy. All coils are pre-tested and again when the refrigeration system has been assembled using industry-best helium sensors - capable of detection to just 0.5g per annum.

Systems are purged during brazing with Oxygen Free Nitrogen (OFN) to reduce carbon build up, thus extending component, and in turn, product life.

We've also invested in a comprehensive range of energy-saving technologies, from low energy lighting to speed-shut doors that conserve heat in the production area. Our energy-saving procedures range from minimising heating by sharing office space to function-testing cabinets overnight using off-peak electricity.



In 2011 we achieved a 16% reduction in energy use through our '20 point power management plan'. Gas usage has also decreased by over 40% in the same period.

Staff are encouraged to think about sustainability at all times – to switch off equipment that's not being used, to avoid unnecessary use of resources such as paper, to order products made from recycled materials, and so on.

In terms of logistics, we minimise our transport's carbon footprint with planned deliveries and full loads. We've also invested in green transport technologies, such as transponders, GPS trackers, catalytic reduction and opticruise boxes.



40%

reduction in gas usage
since 2005



Greenlogic Management targets

- Energy: reduce electricity and gas consumption by 5% year on year
- Process waste: reduce waste to landfill year on year
- Solvent-VOC: phase out by 2013
- Packaging: reduce requirement, minimise materials by 2013
- Foam gas: abatement of emissions by 2015
- Refrigerants: promote use of green alternatives
- Recycling: reduce consumables (stationery etc.)
recycle materials



Customer Support

Supporting you throughout the life of the equipment

The Greenlogic commitment to customer support isn't just about helping you make the right refrigeration buying decision. It's also about supporting you throughout the life of the equipment.

Through Greenlogic Customer Support we'll not only provide you with handy tips and advice - such as how to keep your refrigeration working as efficiently as possible, but also give you the lowdown on how new legislation may affect your business.

To keep abreast of all the latest developments, register now to receive our regular Greenlogic News ebulletins at www.greenlogic.info

Greenlogic FAQs

Here are some of the areas customers ask about most often:

F Gas

The F Gas regulations became UK law in July 2007 - the aim being to reduce environmental damage caused by the leakage of fluorinated gases used in air conditioning and refrigeration systems. The regulations make end users responsible for maintaining equipment, identifying refrigerant leaks and their subsequent repairs. There are tough penalties for non-compliance of the regulations, so it is in the operator's interests to use competent, specialist contractors, installers and service providers to maintain the equipment.

The regulations affect equipment that is charged with 3kg of refrigerant (or 6kg if hermetically sealed). However, Williams reach-in cabinets and counters contain less than the 3kg limit, as do many of our walk-in coldrooms and modular products, which are also hermetically sealed. In addition, Williams products are designed with containment in mind from the outset - from design, through manufacture to installation, commissioning, service and maintenance.

ETL/ECA

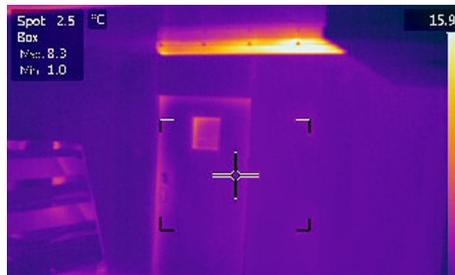
The Carbon Trust's Enhanced Capital Allowance scheme (ECA) means businesses can claim 100% first year tax relief by buying energy-efficient products from the Energy Technology List (ETL).

So if your business pays corporation tax at 28%, every £1,000 spent on qualifying equipment would reduce its tax bill in the year of purchase by £280. In contrast, for every £1,000 spent, the generally available capital allowance for spending on plant and machinery* would reduce your business' tax bill in the year of purchase by £56. In other words, an ECA can provide a cash flow boost of £224 for every £1,000 spent in the year of purchase.

Our Customer Support can help you select the right product for your application and explain how the scheme works.



Authorised User No. xxxxx



WEEE Directive

In accordance with the WEEE Directive (Waste Electrical and Electronic Equipment), Williams offers a comprehensive scheme for the decommissioning and removal of products bought since January 2nd 2007 (for more about WEEE, see Greenlogic Customer Support). Because all our products are 98% recyclable, you can be sure that the refrigeration you buy today won't be landfill in thirty years time.



BREEAM

Provides recognition for low environmental impact buildings. It gives assurance that best environmental practice is incorporated into a building. The Building Research Establishment Environmental Assessment Method (BREEAM) is the leading and most widely used environmental assessment method for buildings, setting the standard for best practice in sustainable design.

Williams works closely with foodservice consultants on many major projects helping them to gain valuable BREEAM points for the end-user. For example, we offer internal thermal imaging of our coldrooms within our handover documentation, proving that the client is receiving a box that has a tight thermal seal for all panel joints - compliant with The Institute of Refrigeration's Code of Practice.

Carbon Reduction Commitment (CRC)

This mandatory scheme is aimed at improving energy efficiency and cutting emissions in large public and private sector organisations, who are collectively responsible for around 10% of the UK's emissions.

It features a range of reputational, behavioural and financial drivers which aim to encourage organisations to develop energy management strategies that promote a better understanding of energy usage.

Organisations are eligible for CRC if they (and their subsidiaries) have at least one half-hourly electricity meter (HHM) settled on the half-hourly market. Organisations that consumed more than 6k megawatt-hours (MWh) per year of half hourly metered electricity during 2008 qualify for full participation and register with the Environment Agency, who is the administrator for the scheme .

Williams work with consultants and managers on CRC projects, recommending energy-saving equipment and advice on best practices.

Working towards a greener, more environmentally responsible future



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Williams reserve the right to modify materials and technical content in accordance with its policy of continuous development



Guaranteed Chlorine Free