

FRANKE SISSONS ENVIRONMENTAL PRODUCTS AND ISSUES

WASHROOM
SYSTEMS





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Franke Sissons is committed to leading the industry in minimising the impact of its activities on the environment. We continue to develop a range of water saving products to protect one of our most precious resources. We use stainless steel made from over 70% recycled metal.

Delivering Environmental Innovation with Sustainable Products, an investment in the future and in our environment.

Facts About Water

30% of water used in the U.K is flushed down the toilet.
Using dual flush technology can save 25% of the water against a standard 6 litre cistern.

U.K toilets flush away 1.2 billion litres of water a day.
A running tap uses up to 6 litres of water per minute.
Toilets account for and up to 90% water use for offices and public conveniences.

The UK water industry collects, treats and supplies more than 16 billion litres of water a day to domestic and commercial consumers and then collects and treats more than 10 billion litres of the resulting waste waters, returning them safely to the environment.

In the U.K the average person uses 150 litres a day. New Part G planning regulations imposed in April 2010 requires much higher installed efficiency in new buildings and commercial installations with the aim of reducing water consumption to 105 litres per person per day.

Industry and commerce in the U.K Consume 1300 million M³ every Year.

One waterless urinal can save over 87,00 litres of water per year. Flushing urinals require a great deal of water, usually around 20% of a building's entire water consumption. This is not only very costly but is also an unnecessary waste of a valuable resource.

Ecological Properties of Stainless Steel

Over 70% of new stainless steel comes from old remelted stainless steel scrap. The main component of stainless steel is scrap iron, of which there is no shortage, other metallic elements alloyed with the iron are chromium and molybdenum which are plentiful within the earth's crust. Nickel, which comprises around 10% of the standard austenitic stainless steel grades, is less abundant but is not in short supply and is being recycled effectively.

More efficient process technology has allowed steelmakers to significantly reduce the amount of energy used in the production of stainless steel over the past two decades. Stainless steel's low thermal conductivity makes soldering and welding more energy efficient than with many other metals. Stainless steel is a low carbon steel, Chromium is the key ingredient which makes the metal stainless and rust resistant, it ages gracefully and is easy to use for hygienic conditions, which makes stainless steel the first choice for hospitals and food processing plants.

The longevity of stainless is the result of the alloy composition and therefore, it has a natural corrosion resistance. Nothing is applied to the surface to protect the base metal, the metal itself will last.

Stainless steel needs less maintenance and its hygienic qualities means that no harsh cleaners have to be used to get a clean surface, little or nothing is disposed through the drain that could have an environmental impact. Stainless steel washroom and sanitaryware has an extremely long life expectancy meaning that energy in manufacture are spread over a very long period at the end of its life material has a high scrap value and can be completely recycled. As a result, stainless steel can provide the most economic long term solution compared with other materials, this is especially true when maintenance costs over the lifetime of an installation are taken into account.

PRODUCTS

Waterless Urinals

The unique one way valve opens with usage to allow urine to pass through then closes to prevent odours from being emitted into the washroom. Valve systems can work very well if properly maintained, they can be retrofit to most types of standard urinal bowls. An average urinal uses 2.9 cubic metres of water per week, that's over 150,000 litres of water for every urinal every year. The UK average combined water charge at over £2.00 per cubic metre and rising means there are substantial savings to be made.

- Low maintenance costs thanks to eliminated water charges.
- No need for water supply for flushing purposes
- Low cleaning costs.
- No accumulation of urine scale (occurs only in combination with water).



Non Concussive Taps

With its piston-free low-wear and self-cleaning mode of operation, the safely embedded self-closing functional element ensures that the fitting has a long service life. Besides the self-closing function, AQUAMIX fittings have a finely toothed temperature stop-ring for limiting the water temperature; this stop-ring cannot be manipulated from the outside.

Water-conserving self-closing technology combined with style fittings that provide independent and very comprehensible user control logic.

Fitting models incorporating the innovative ABS Watersafe function provide additional advantages with respect to economy and ecology. With the ABS (anti-blocking system) feature, water flow always stops automatically after a preset water-flow time, even if the actuator of the fitting remains permanently pressed. Wilful uninterrupted water-flow is thus a thing of the past in the practical application.

Self closing taps can be set to run for a pre-determined amount of time typically 10 to 15 seconds. This is carried out at installation. This means taps are not left on by accident as well as ensuring washrooms are not flooded. Ideal for schools and high use areas such as airports.



Product Approvals

Franke Sissons products are covered in part or wholly by the following Approvals and Standards:



Reduced Flush Toilets

There are 2 types of cistern that give you significant water saving benefits of dual flush and 5 litre flush. The choice of which option to use may be determined by the usage environment. Dual flush cisterns have two settings for a short flush and for a long flush. This option would be more suitable in an office environment where users can become familiar with the system. The 4.5 litre flush would be more suitable for areas with a high throughput of many different users, e.g. an airport - where the lack of familiarity with dual flush may result in incorrect usage and therefore reduced water saving benefits. Our 5 litre WCs pass UK and European flush regulations and are ideal for busy commercial applications.

Electronic urinal controls

The new PROTRONIC infrared control system sets new standards for safety as well as water and energy saving in sanitary rooms PROTRONIC - A3000 open opto-electronically controlled urinal flushing valve, with combined control unit and solenoid valve for concealed mounting. Combined control unit with round opto-electronic sensor that is mounted from the rear. The product has second by second time adjustment for flushing duration, with facility for externally controlling the options such as fittings settings and communication via a central controller. It is simple to fit and very user friendly. For WCs a wall or panel sensor detects close proximity of the users hand. This initiates flushing using a pneumatic device.

Automatic Syphon Control

The syphon control for urinals enables maximum hygiene and an invisible electronic control. All components are mounted under the urinal or are fixed on the pre-mounting frame. The flushing is activated by an impulse which relates to the electrical characteristics of the water. The electronic control integrates a hygienic self cleaning operation every 12 hours. No special tool or a remote control is needed. An easy installation is guaranteed by the pre-mounted control in the mounting set or in the urinal itself. Electrical connection required. An easy, water saving, environment-friendly and vandal resistant solution for the future saving benefits.

Electronic Taps

Integral sensor shuts off after a pre set time from when hand is removed. Spouts with integral sensors detect hands within the sensing range and the solenoid valve is opened. The valve remains open for set time after the removal of hands and up to a maximum of 30 seconds if a hand or object is continuously detected. Spouts with remote sensors operate differently. When hands are detected within close proximity of the sensor, the solenoid valve opens and water is delivered for a maximum of 30 seconds. The solenoid valve can be closed within this period by a second activation of the sensor.

- **Innovative sensor technology:**

- fast and therefore convenient user detection
- automatic setting of sensor range to prevent uncontrolled water flow

- **Additional sensor functions:**

- easy shut-off for cleaning
- continuous water flow for filling

- **Modern hygiene concept:**

- water conducting parts made of hygienic plastic
- hygienic flushing can be set to conditions on site

- **Reliable safety features:**

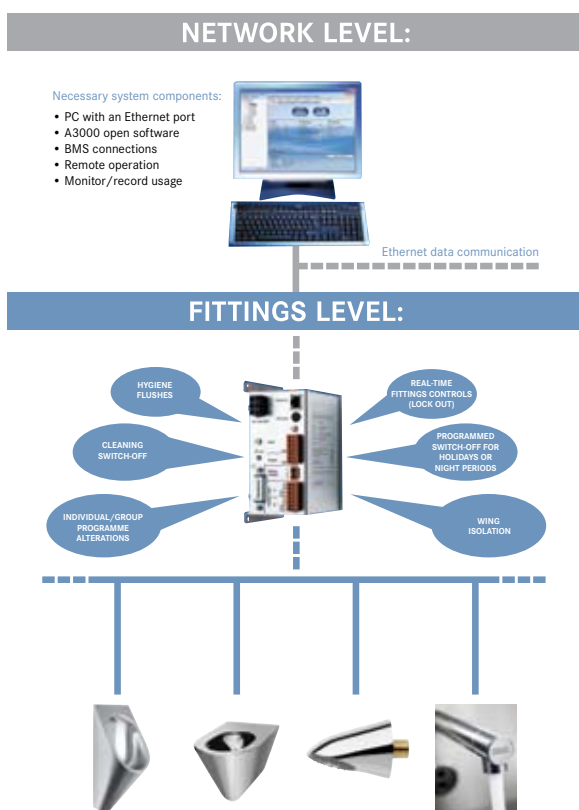
- safety switch-off if voltage is too low compared with conventional taps, the innovative PROTRONIC-S electronic tap reduces the consumption of water and energy by up to 50 %.

Thanks to the fully automatic mode of operation, water flows only when it is actually needed. To ensure optimum drinking-water hygiene, an optional remote control can be used to set up an automatic hygiene flushing routine that prevents long periods of water stagnation that could cause contamination.



AQUA 3000 OPEN WATER MANAGEMENT SYSTEM

The AQUA 3000 open water management system is based on a new and innovative platform of electronics. Due to its state of the art architecture, installers and operators will find that the system is now considerably easier, operationally more reliable, more functional, hygienic, economical and even easier to incorporate into host networks than previous generations of water management systems. An intelligent electronic module provides a wide range of control functions such as time-scheduled hygiene flushing, thermal disinfection, peak-load optimisation and saving of system settings. The new AQUA 3000 open water management system provides a wide range of automatic water control options even at the fittings level – such as thermal disinfection and peak-load optimisation thus offering optimum hygiene and economy.



In cell sanitation unit with touch free water controls in Dublin Courts Building.



Central ECC control units for the AQUA3000 Open Water Management System

DUBLIN COURTS CASE STUDY USING THE AQUA3000 OPEN SYSTEM

Dublin's New Criminal Courts

Key features of the sanitary facilities that were developed included security of design (in stainless steel and not ceramic) no visible joints, a complete installation with no separate parts, no pipe work either visible or accessible and to include washing facilities. In addition to the sanitary facilities the project included the supply of a shower room and a disabled washroom facility. The major part of the contract for Franke Sissons was the linking of all the washing and toilet facilities with the central AQUA3000 Open Water Management System which link all the infrared water controls in the cells and related

rooms via a system cable. This in turn was linked into the building management system. Each of the new cell's WCs and washbasins are operated by touch free, vandal resistant infrared controls, directly linked and managed from a central monitoring facility. This enables constant full control of all the washroom facilities including the supply of water. The integral cell WC and wash combination unit is a proven Franke Sissons product and is installed extensively in over 150 prisons worldwide.



WHAT IS BREEAM?

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's leading and most widely used environmental assessment method for buildings.

It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance. Credits are awarded in nine categories according to performance. These credits are then added together to produce a single overall score on a scale of Pass, Good, Very Good, Excellent and Outstanding. The operation of BREEAM is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders.

Aims of BREEAM:

- To mitigate the impacts of buildings on the environment
- To enable buildings to be recognised according to their environmental benefits
- To provide a credible, environmental label for buildings
- To stimulate demand for sustainable buildings

Objectives of BREEAM:

- To provide market recognition to low environmental impact buildings
- To ensure best environmental practice is incorporated in buildings
- To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings
- To raise the awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment
- To allow organisations to demonstrate progress towards corporate environmental objectives

breeam

HOW WE CAN HELP?

Franke Sissons manufacture, distribute, commission and service a comprehensive range of water efficient washroom products. Providing low flush, ultra low flush, reduced flush and waterless products through to Multi fitting networked water management schemes. These help to significantly reduce the amount of water used in washrooms and can assist specifiers in achieving BREEAM points for specific projects.

The following are two extracts from the BREEAM Assessors Manual - Management Section and Water Section with advice below on how Franke Sissons products and services can help to gain points:



Management Section

Man 1 - Commissioning
Credits

1

Where evidence provided demonstrates that an appropriate project team member has been appointed to monitor commissioning on behalf of the client to ensure commissioning will be carried out in line with current best practice.

2

Where, in addition to the above, evidence provided demonstrates that seasonal commissioning will be carried out during the first year of occupation, post construction (or post fit out).



Water Section

Wat 1 - Water Consumption
Credits

4

Where evidence provided demonstrates that the specification includes taps, urinals, WCs and showers that consume less potable water in use than standardspecifications for the same type of fittings.

1

Where evidence provided demonstrates the specification of systems that collect,store and, where necessary treat, rainwater or greywater for WC and urinal flushing purposes.



Advice

1st Credit

Franke WC's have an effective flush volume of 5 litres or less (6/4ltr Dual flush) when used with appropriate Cisterns. Cisterns are supplied with appropriate guidance/symbol instructions on usage.

2nd Credit

Franke WC's have an effective flush volume of 3 litres (4/2.7ltr Dual flush) when used with appropriate Cisterns. Cisterns are supplied with appropriate guidance/symbol instructions on usage.

3rd Credit

Franke Aqua and Protronic taps have a maximum flow rate of 6 litres per minute for a water pressure of 0.3 MPa (3 bar) and are timed automatic shut off taps (Aqua) or Electronic sensor taps (Protronic).

Aqua Shower heads and panels have a measured flow rate that does not exceed 9 litres per minute for a water pressure of 0.3MPa (3 bar) assuming a delivered water temperature of 37°C.6 litres per minute. Flow rate shower heads and panels are also available.

Additional Credit

Franke WC's, Urinals and Flush mechanisms can be supplied to suit Rainwater, Greywater, Desalinated water and Seawater water systems. Please call to discuss requirements.

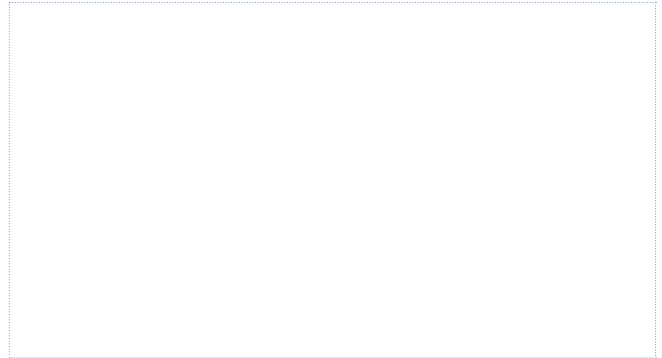
All documentation to support the above can be downloaded from our website www.franke-sissons.co.uk

SUMMARY STATEMENT

At Franke Sissons we are determined to continue to develop products that make good environmental sense, actively promote the most water efficient products and have as minimal impact on the environment as possible. We also look to increase customer's and client's knowledge on how our water saving products can have a positive effect on the environment to help them save our valuable natural resources.

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