Prefect Cleverly simple **control** of energy.

irus SmartTank

Central control water heating

Take control of **Water heating**
with a system **designed specifically** for **multi-occupancy accommodation.**

Prefect Cleverly simple **control** of energy.

The provision of student accommodation presents many challenges. Safety, comfort and affordability being top of the list.

Since 1997 we have been developing products and specifically for this sector.

Our core focus is to deliver systems that help our customers provide **comfortable**, **safe** and **compliant** accommodation while maximising operational efficiency.

SmartTank has been recognised by **The Energy Saving Awards** and presented with the

Water Saving Commercial Product of the Year

THE ENERGY SAVING AWARDS
2024
WINNER
WATER SAVING COMMERCIAL PRODUCT OF THE YEAR

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Central control water heating

***irus* SMART Tank** is the only pre-wired, pre-plumbed hot water cylinder with factory fitted controls. It has been developed specifically for student accommodation and provides unrivalled, accurate monitoring and control of both energy and water consumption.

Monitoring, measuring and manageing
Monitoring the volume and temperatures within a hot water system provides data to help develop strategies for efficiency.

Irus SmartTank is the ultimate hot water cylinder that monitors volume and temperature of incoming and outgoing water, and the temperature of water within the tank around the upper and lower elements. In addition SmartTank alerts to leaks, wastage and other issues around the water system.

All information gathered is fed back to the intuitive, comprehensive central control portal. From here profiles can be adjusted, settings changed and reports can be compiled. Bespoke software tools make recommendations for even greater efficiencies, and provide an overview from estate, building, to block, floor, flat and tank cupboard.

Installation
Pipework, wiring, meters and sensors are factory fitted. Mechanical installation is simply connection to the mains water and cold/hot supply. Electrical wiring requires connection to the incoming mains supply and cylinder elements.

Factory fitting, testing, and quality control means all tanks can be installed identically ensuring consistency across the entire site.

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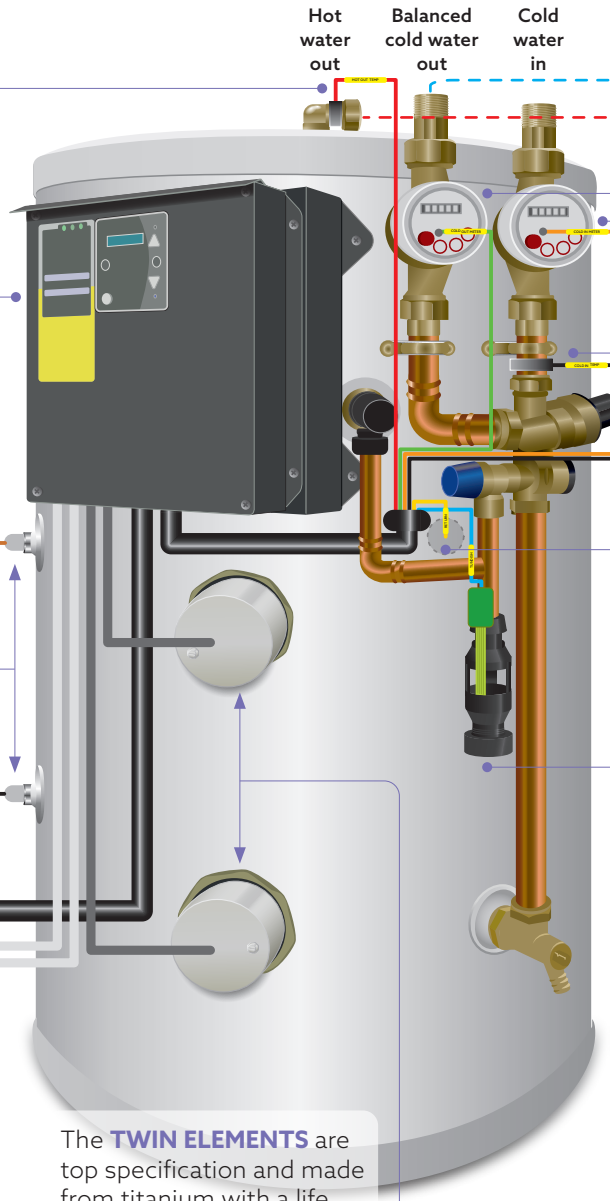
irus | SmartTank

FEATURES



The **HOT WATER TEMPERATURE** leaving the cylinder is measured by a sensor on the hot water-out pipe.

THE CONTROLLER is factory fitted and contains the Control Unit which communicates with the Irus Portal. Temperature, humidity, light, and sound pressure sensors within the Control Unit monitor the tank housing environment and report any unusual levels.

The two state-of-the-art **WATER TEMPERATURE SENSORS** are housed in purpose built pockets positioned at optimum depth and distance from the elements for accurate temperature readings.

LEAK DETECTION SENSORS identify water escape and inform the portal of the location and intensity of a leak.

The **TWIN ELEMENTS** are top specification and made from titanium with a life expectancy of 10 years.

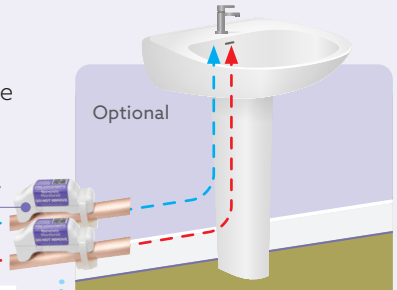
Two **WATER METERS** measure the flow of water into the tank. One from the cold supply - the other, the balanced cold-out to the water system. Irus calculates the differential and this is the volume of hot water produced by the cylinder.

The **TEMPERATURE OF COLD WATER** entering the system from the mains is measured by a sensor on the cold water-in pipe.

If Secondary Circulation is in operation, the temperature of return water is measured by a sensor on the **RETURN WATER** pipe.

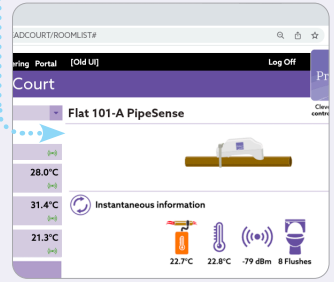
Should pressure in the tank become so great that water is expelled, the **TUNDISH SENSOR** monitors any flow of water to waste.

PipeSense has two sensors, one for pipe temperature, the other, room temperature. A differential between the two readings signifies water flow.



WATER TEMPERATURE at point of use is measured. Readings are fed back to the portal.*

* PipeSense sends data to the portal via the Irus room ControlSensor using Bluetooth.



NOTE: PipeSense is not a standard SmartTank component.

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THE PORTAL

Controller presents all the information gathered from each SmartTank in one easy to understand dashboard.

From here, you can view each cylinder's current temperature. Profiles can be adjusted, and a timeline graph shows the day's performance of the cylinder and environmental conditions within the space.

Alerts are sent from the portal regarding maintenance issues or unusual consumption.

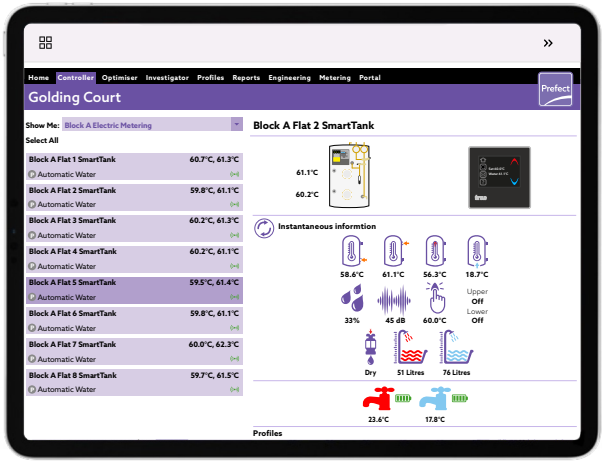
A sophisticated reporting tool helps to make sens e of the mass of data. **Reporter** provides easy access to data from the Irus system. Four useful categories helps you grasp and handle the information you need in only a couple of clicks.

Spreadsheet Report gives you the opportunity to choose datapoints, timeframes, and whether you want to view a single site or compare multiple sites. Compare your own sites, or benchmark across the entire Irus UK estate.

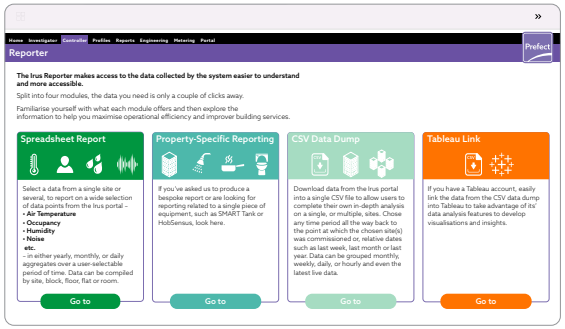
Property-Specific reporting is where you can generate bespoke reports you have requested us to build.

If you are proficient in compiling masses of data into meaningful reports, use the **CSV Dump** to access raw data.

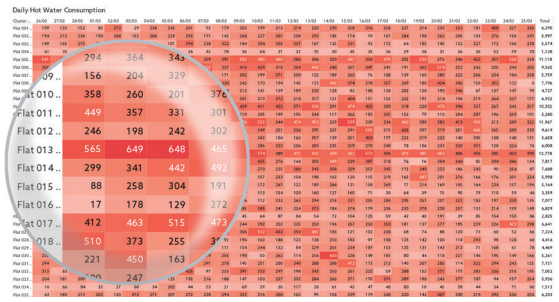
Finally create comprehensible visual displays of data by linking to the **Tableau** platform.



Complete visibility and remote control of every cylinder



Reporter makes sense of the data from SmartTank

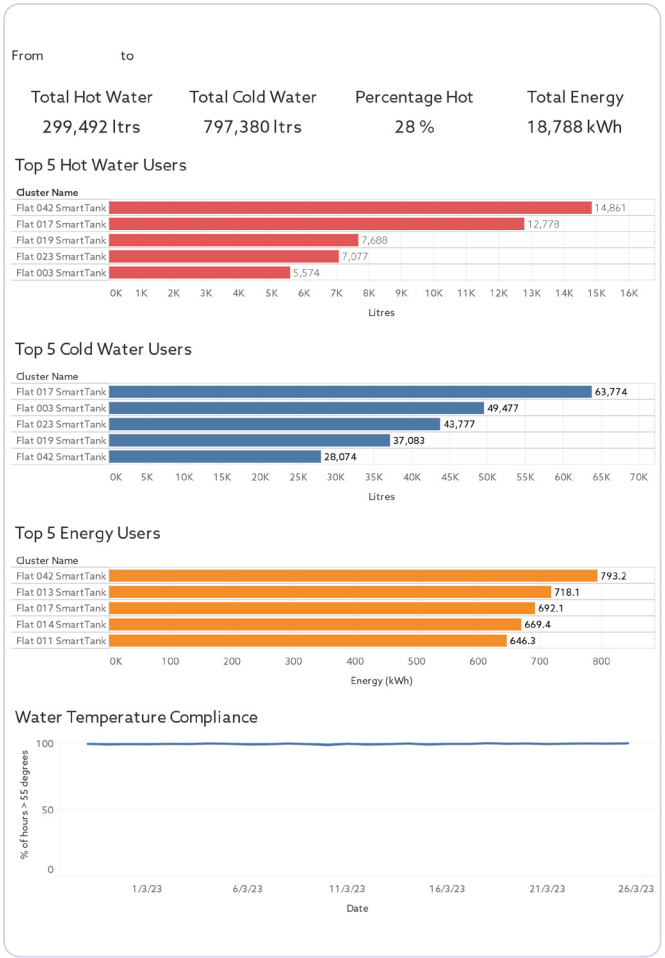


Colour maps help to find outliers

Water Safety Compliance

Information is easily exported from the Irus Portal and is used to produce many and varied reports/displays of real-time data regarding consumption of both water and energy.

All temperatures are recorded. This compiles a log to help manage compliance with water safety plans to guard against the risk of Legionella.



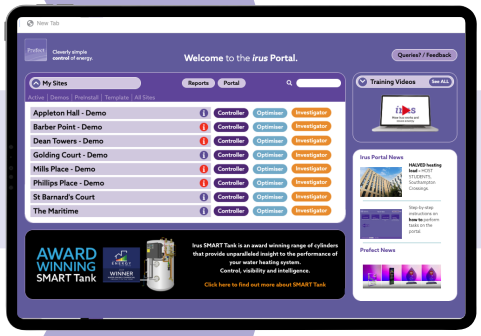
The *irus* ecosystem

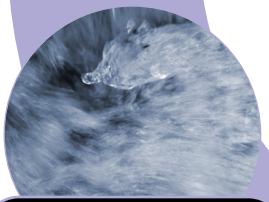
Hardware - Control and Monitoring

SpaceHeat

HobSensus

SmartTank



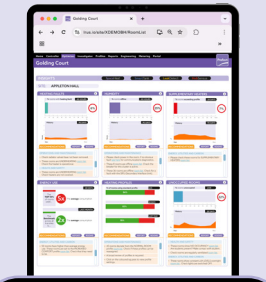


LeakDetect

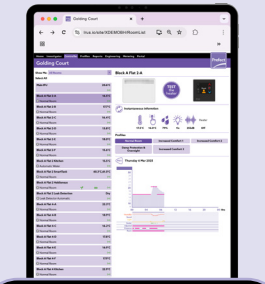
UtilityMeter

WaterSense

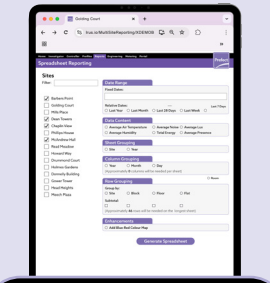
Software - Control and Analytical tools



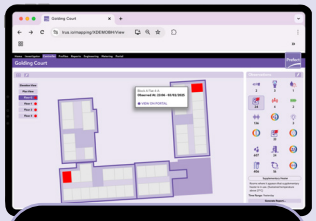
Optimiser



Controller



Reporter



Investigator

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