

# i-CHILLER

**COMPLETE TEMPERATURE CONTROL SOLUTIONS  
FOR PROCESS & INDUSTRIAL APPLICATIONS**



**FULLY PACKAGED & ENERGY EFFICIENT SOLUTIONS**

-40 to 30°C /7kW to 230kW

# THE MARKET LEADING i-CHILLER



## i-CHILLER RANGE OVERVIEW

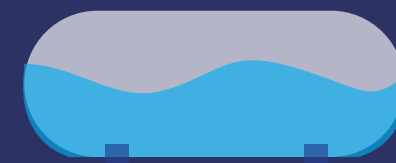
- Fully Packaged Process Chillers from 7kW to 230kW
- Specifically designed and built for process applications
- Plug and play
- Combined large buffer tank with integral unique finned coil evaporator (making it less susceptible to freezing and able to cope with variable load and process fluctuations & dirty water)
- High-pressure pumps as standard to deal with more complex pipework
- Fully enclosed in robust steel panels for added protection and durability
- Compact footprint – fully packaged with pump, tank and controller
- Compliant with Eco-Design Directive
- Fast customisation to suit your process
- Capital purchase, emergency or long term hire
- Easy to maintain due to packaged design, immediate access to UK stocked parts, 70+ service engineers

## WHY CHOOSE i-CHILLER OVER OTHER CHILLERS?

- Using a chiller designed for HVAC applications and expecting it to cool an industrial process effectively is problematic
- HVAC requirements are intermittent vs process chillers providing critical cooling, sometimes 24 hours a day
- Industrial processes require very close, reliable control and tolerances



HVAC CHILLER



EXTERNAL TANK



EXTERNAL PUMP



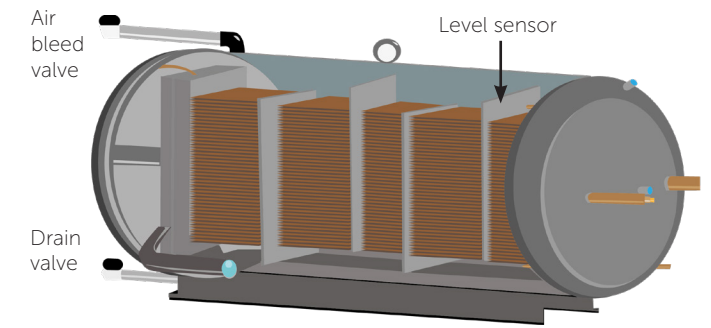
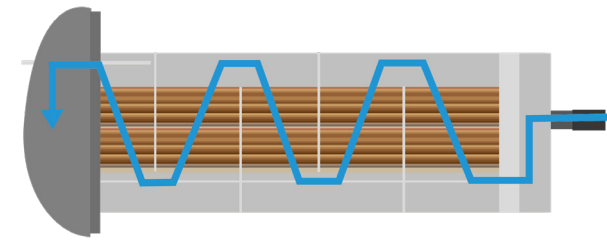
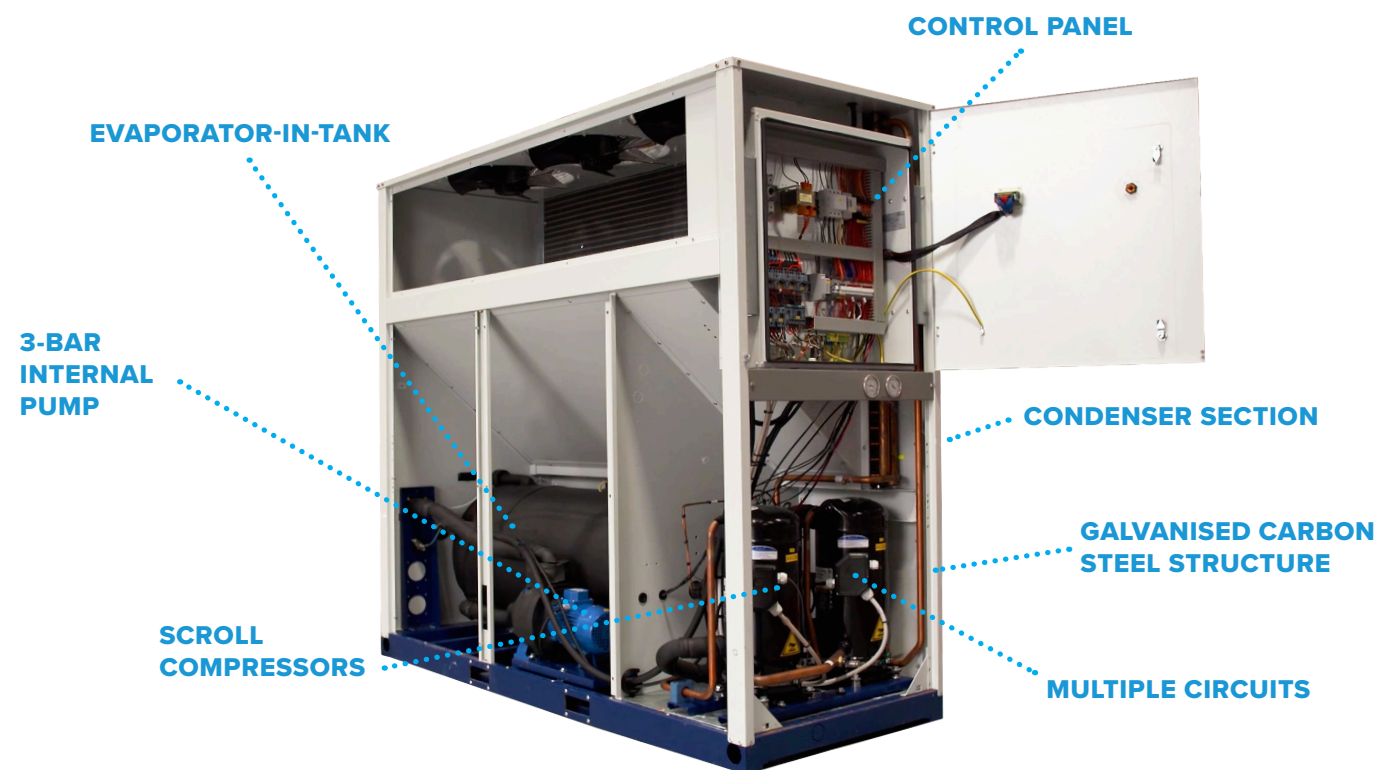


# THE ORIGINAL i-CHILLER

## i-CHILLER FEATURES



- Fully packaged (everything in one box)
- Over 30 years proven reliability
- More than 100,000 projects completed



### UNIQUE FINNED COIL IN TANK EVAPORATOR

- Highly versatile coil in tank evaporator
- Finned coil type evaporator with copper tubes and aluminium fins
- Refrigerant flows through tubes
- The water flows through the baffles in contact with the finned surface

#### Advantages:

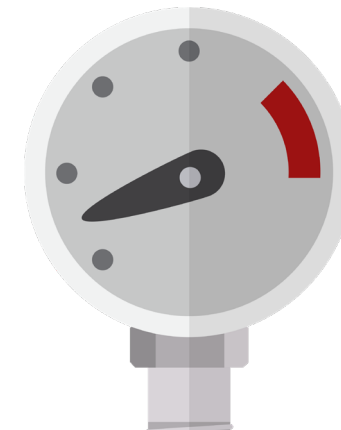
- Low pressure drop
- Large operating envelop for flow, allows for both low and high Delta T
- Less chance of blocking due to poor water quality when compared to plate heat exchanger

### INTEGRATED BUFFER TANK

- Built-in carbon steel cold storage buffer tank ranging in size from 25 to 500 litres

#### Advantages:

- Improves temperature stability of the chilled water to process
- Helps reduce overall plant footprint
- Reduces compressor starts



### HIGH POWER PUMP

- Overcomes larger process pressure drops
- Typical system process pressure drop: **2-3 bar**
- HVAC Chiller System: **1-1.5 bar**

- ✓ ECODSIGN COMPLIANT
- ✓ STOCK AVAILABLE IMMEDIATELY
- ✓ FAST CUSTOMISATION OF STANDARD MODELS
- ✓ INDIVIDUALLY FACTORY TESTED
- ✓ 5-YEAR WARRANTY\*
- ✓ 3-BAR PUMP AS STANDARD

i-CHILLER

\* The 5 year warranty covers both parts and labour and applies to all new i-Chillers commissioned by ICS Cool Energy and purchased with a PPM plan, effective from 1st June 2022.



# i-CHILLER RANGE

## i-CHILLER COMPACT | COMPACTe

From 2 to 4kW – providing process fluid temperatures from 0°C to 30°C.



## i-CHILLER PROCESS

From 7 to 259kW – providing process fluid temperatures from -10°C to 30°C.



## i-CHILLER PROCESS MAX

From 230 to 343kW – providing process fluid temperatures from -10°C to 20°C.



## i-CHILLER XL

From 452 to 640kW – providing process fluid temperatures from -10°C to 20°C.



## i-CHILLER PROCESS LT

Low temperature cooling solutions down to -24°C



## i-CHILLER PROCESS VLT

Very low temperature cooling solutions down to -40°C



## i-FC FREE COOLER

18 to 184 kW



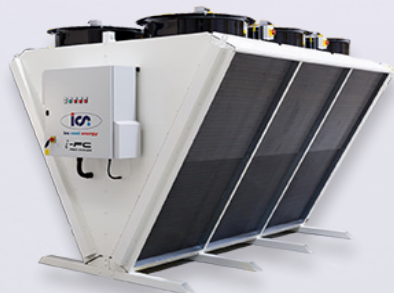
## i-FC FREE COOLER MAX

265 to 406 kW



## i-FC FREE COOLER XL

469 to 700 kW



For more information on the i-Chiller range call:

+44 (0)800 774 7427

[www.icscoolenergy.com](http://www.icscoolenergy.com)



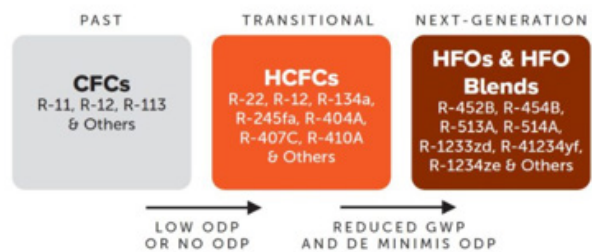


# PACKAGED EQUIPMENT MODIFICATIONS

- Fully customisable to your exact process and project requirements
- All work done in house at our depots

Modifications include:

- Pump (no pump, 3 bar, 5 bar, 3 bar run/standby, 5 bar run/standby)
- Manual fill and vent tank
- Manual / Pressure relief bypass
- Anti-flood back kit (solenoid and non-return valve)
- Frame colour to suit your facilities



# REFRIGERANTS

We offer a wide range of next generation low GWP (global warming potential) or No ODP (ozone depletion) refrigerant blends, specifically manufactured to lower your carbon footprint and with sustainability and the environment at the forefront.

# HIRE SERVICE

- Hiring temperature control solutions brings the best of all worlds.
- Our fleet is on average just 1.4 years old and is carefully maintained and tested thoroughly before it is passed as ready for hire.
- Over £50 million/500MW fleet.
- Our experienced and dedicated hire team with 30 years' experience from over 30,000 completed hire projects, delivers solutions that are specifically designed to meet the needs of your business.
- Whether in case of an emergency, during maintenance work or for long term hire projects – we're here to support you.



# SALES CASE STUDY EXAMPLES

- We helped provide 30,000 school meals a day including soups, sauces and stocks thanks to a specially designed cook-chill system developed by DC Norris, with precision cooling from ICS Cool Energy.
- The process takes kettle cooked foods and pumps them directly into tough, pliable casings at near pasteurisation temperatures. The casings are then placed in a tumble chiller that quickly reduces the temperature from 95°C to below 5°C in 90 minutes or less.
- An i-Chiller circulates water around the jacket of the cooling kettle, allowing effective and variable control of the application's temperature according to the food type being processed. A second i-Chiller links to the tumble chiller, circulating water at around 1°C.



- A company specialising in advanced spray technology, needed cooling for a thermal spray process which creates temperatures in excess of 1200°C.
- ICS Cool Energy delivered a high performance solution for the perfect end result and optimum performance.
- ICS Cool Energy's engineering team recommended a number of units, the largest of which being a powerful 96kW iC-535 i-Chiller, featuring process pumps capable of providing variable pressures up to 10 barG, with the capacity to keep their process temperature where it needs to be.
- The new i-Chiller unit was able to provide a long-term reliable solution which integrated fully with the end client's equipment.

- A leading yoghurt producer has a highly efficient ammonia-based cooling system for its large warehouse that sees the dispatch of more than 40 million pots of yoghurt every week in a 24/7 operation. But it still requires maintenance for optimum performance which is a carefully planned operation.
- Planned shutdown lasts around 36 hours but with millions of pounds-worth of stock to protect, the company takes a 'belt and braces' approach to maintaining the correct levels of warehouse cooling. ICS Cool Energy was asked to supply and install extra cooling and all the equipment which has to be thoroughly tested prior to shutdown.
- ICS's Rental Team supplied 5 x i-Chiller, 14 x Fan Coil 25 LT, 2 x Fan Coil 50 LT, 500m of hose and 6000 litres of pre-mixed water glycol. Our solution ensured their precious £1Mm dairy asset was protected at all times.



- An established producer of fine Somerset cider wanted an affordable and flexible cooling solution to meet its increasing production demands, preferring to avoid pressures on cash flow and large capital expenditure on equipment. It's why an ICS Cool Energy long term hire solution has been in place for five years and for the foreseeable future.

ICS have supplied on hire:

- Three i-Chillers for energy-efficient process cooling
- Full servicing and maintenance
- Flexible and renewable contracts for a fixed monthly fee



SPECIALIST FOR OVER  
**35 YEARS**



MARKET LEADING  
ENERGY EFFICIENT  
PRODUCTS

CHILLERS/ BOILERS/ PORTABLE  
AC/ PORTABLE HEATERS/ AHU/  
IDF/ COLD STORES/  
HEAT EXCHANGERS/ TCU

OVER **100,000**  
PROJECTS COMPLETED

**250+**  
EMPLOYEES  
**9** COUNTRIES  
AND **21** SITES

FREE COOLING  
UP TO  
**80%**  
SAVINGS

BOILERS  
UP TO  
**2MW**  
FOR HIRE



LOW GWP  
REFRIGERANTS

UP TO  
SAME DAY  
DELIVERY



TECHNICALLY  
TRAINED ENGINEERS



ALTERNATIVE TO  
CAPITAL PURCHASE



ENERGY SAVING RECOMMENDATIONS

CONTINGENCY EQUIPMENT AND PLANNING



DESIGN,  
MANUFACTURE,  
DELIVER, INSTALL,  
COMMISSION  
HIRE, SERVICE & SALES

ICS LINK  
REMOTE  
MONITORING



24/7 TECHNICAL  
SUPPORT

**i-CHILLER**

To book your consultation or find out more, call us on

**0800 840 4210**

ICSCOOLENERGY.COM

PROCESS TEMPERATURE CONTROL SPECIALISTS.  
SALES. HIRE. SERVICE.

i-chiller 2022 Brochure | July 2022

