

i-CHILLER

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



FULLY PACKAGED & ENERGY EFFICIENT SOLUTIONS

-30°C to 30°C /1.7kW to 1.3MW

THE MARKET LEADING i-CHILLER



i-CHILLER PROCESS 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 PROCESS 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



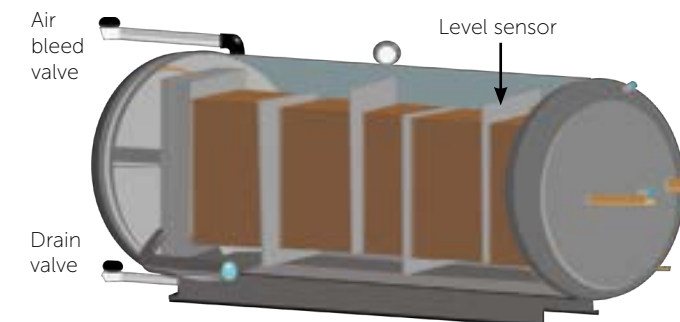
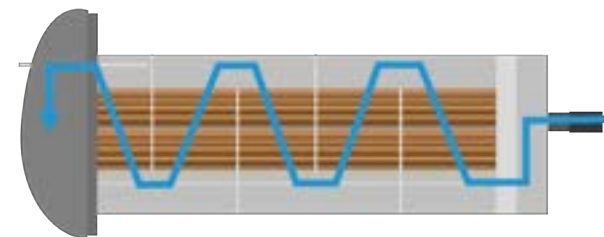
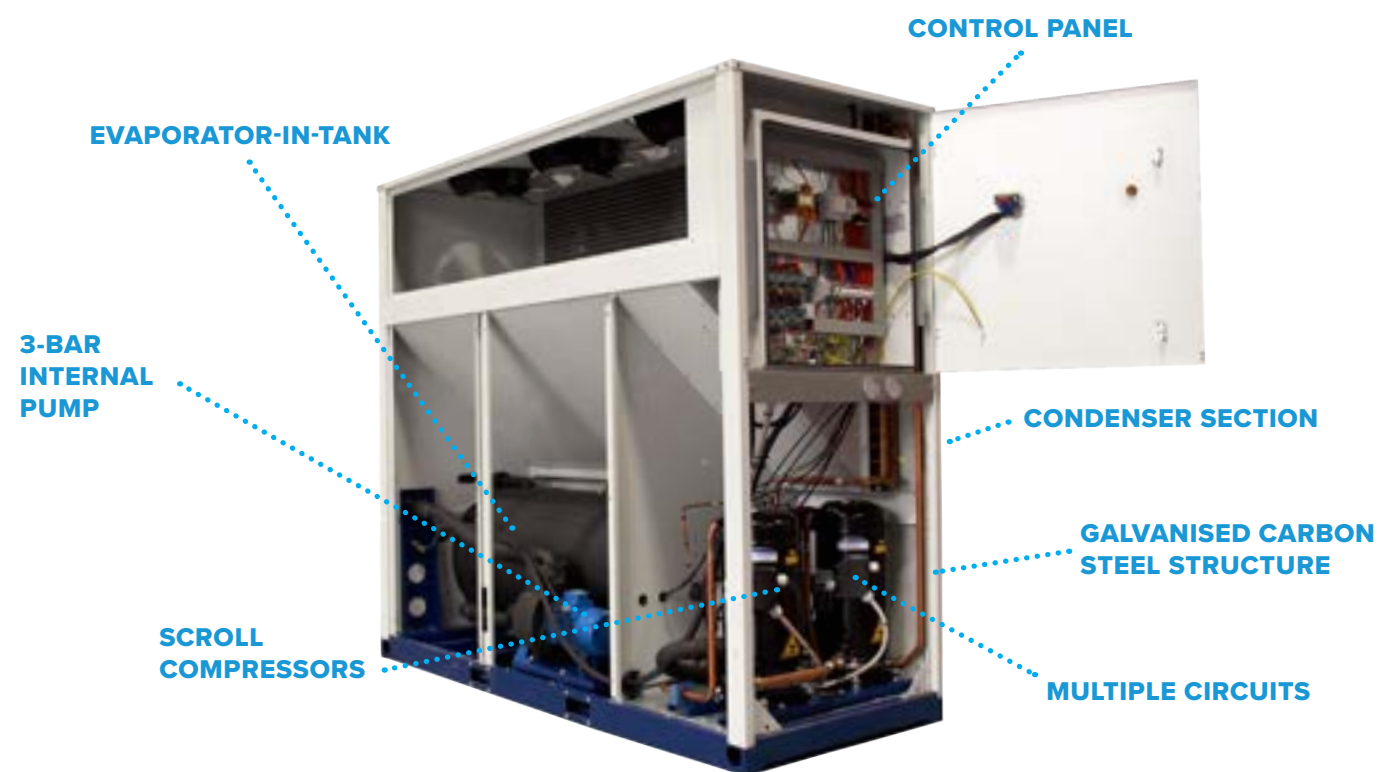
EXTERNAL PUMP

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-Chiller Process and Compact models commissioned by ICS Cool Energy and purchased with a PPM plan, effective from 1st June 2022.

i-CHILLER RANGE

i-CHILLER COMPACT | COMPACTn

From 1.7 to 4.4 kW – providing process fluid temperatures from 0°C to 30°C.

R410A R290



i-CHILLER PROCESS | PROCESSE

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

R410A R454B



i-CHILLER PROCESS MAX | PROCESS MAXe | PROCESS MAXn

From 228 to 1334 kW – providing process fluid temperatures from -10°C to 20°C.

R410A R454B R290



i-CHILLER PROCESS LT

From 4.5 - 52.5 kW - providing low temperature cooling solutions down to -24°C

R449A



i-CHILLER PROCESS LTn

128 to 383kW - providing deep freezing solutions from -12°C down to -30°C

R717



i-FC FREE COOLER

18 to 184 kW



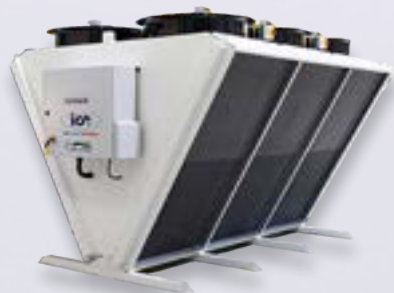
i-FC FREE COOLER MAX

265 to 406 kW



i-FC FREE COOLER XL

469 to 1 MW



For more information on the i-Chiller range call:

+44 (0)800 774 7426
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) refrigerants, 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/
PORTABLES/ AHU/ IDF/ COLD
STORES/ HEAT PUMPS/ HEAT
EXCHANGERS/ TCU

OVER **100,000**
PROJECTS COMPLETED

PART OF
TRANE TECHNOLOGIES

A GLOBAL
CLIMATE
INNOVATOR

FREE COOLING

UP TO
80%
SAVINGS

FREE HEATING &
THERMAL MANAGEMENT

UP TO
700%
EFFICIENCY



LOW GWP
REFRIGERANTS

UP TO
SAME DAY
DELIVERY



TECHNICALLY
TRAINED ENGINEERS



ALTERNATIVE TO
CAPITAL PURCHASE

Mission
Critical

KEEPING
INDUSTRY RUNNING

ENERGY SAVING RECOMMENDATIONS

CONTINGENCY EQUIPMENT AND PLANNING



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

ICSLINK
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.

