DAIKIN

DAIKIN 360
INTEGRATED SERVICE SOLUTIONS

Modernise

System upgrades & retrofits

Daikin360 Modernise

Your equipment can be **upgraded and modernised throughout its lifecycle**, giving you the opportunity to extend its overall life span. By choosing Daikin360 modernisation services, you can **trim energy use** to **save money** and **improve the comfort and health of your building**.

We specialise in providing upgrades and retrofits to help **give you the most efficient and technologically advanced system**s.
All services are performed by **factory-trained technicians**.

Our approach

Our approach is simple. We'll work with your team to **understand your needs** and **offer recommendations** to transform the performance of your equipment. Once the work is complete, we'll be there to **provide aftercare support** to ensure satisfaction. We also carry **an extensive parts inventory** backed by **centralised distribution** for expedited delivery. And, if your project requires that systems be shut down, we have temporary **rental solutions** to **keep your building operational** during the upgrade process.

Upgrades' benefits

Latest technology
We offer upgrade and retrofit services to update your equipment and systems with the latest Daikin technology. Our technicians will help you extend the life of your HVAC equipment and our retrofitting services offer considerable savings compared to full equipment replacements.

Enhanced occupant comfort
Our retrofitting services result in improved thermal comfort and a quieter environment. We prioritise IAQ, resulting in a more comfortable and healthier environment for you and your building's occupants while lowering maintenance costs.

Energy efficiency improvements
Daikin services help increase energy efficiency, resulting in reduced utility costs and a smaller carbon footprint. We can evaluate and measure the impact of improvements, and you may also be eligible for utility rebates and incentives* by upgrading to more energy-efficient systems.

Factory startup & re-commissioning
Daikin factory-trained technicians help educate owners on the proper operation and care of their system during the start-up process. Our skilled technicians work onsite to perform system start-up or re-commissioning, using protocols that include measurement and verification checks after the equipment is running.

* please contact your local Daikin representative for more information

Heat recovery retrofit:
HR2

Energy and environmental savings

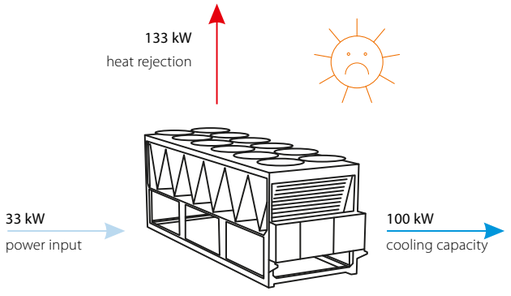
The energy used to produce cooling for comfort air-conditioning or for process cooling is mostly lost into the atmosphere. We could **use this wasted energy to provide the heating required in the same plant at the same time**. In many cases, we could recover this energy by installing a heat recovery system in an existing chiller system, and there are now two choices: **a traditional system** and **the Daikin HR2 solution**!

A traditional heat recovery system uses a water-cooled condenser in parallel with the air-cooled condenser with the system switching into heat recovery mode using a 4 way valve. This uses the water-cooled condenser water to recover the heat and transfer it to the heating system. This would obviously provide cost and energy savings together with a reduction in environmental impact and CO_2 emissions.
However, to add such a traditional heat recovery system to an existing unit, already integrated in the building, could be quite difficult and expensive.

The Daikin HR2 solution gives you the **opportunity to retrofit the existing chiller**, with similar benefits to the traditional heat recovery, but with an **easier, faster** and **lower cost installation**. It uses a plate to plate heat exchanger in series with condenser. It also **incorporates a control system that optimises the heating output**, while **maintaining priority for the cooling side**

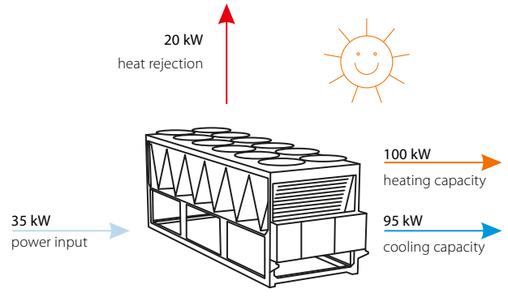
Thanks to the advanced control logic, **units are always able to respond to building climate control requirements**. The unit can produce cooling and heating simultaneously, reducing the boiler usage.

Chiller with no heat recovery



$$\text{System efficiency} = \frac{\text{cooling capacity}}{\text{power input}} = 3$$

Chiller retrofitted with HR2



$$\text{System efficiency} = \frac{\text{cooling + heating capacity}}{\text{power input}} = 5{,}9$$

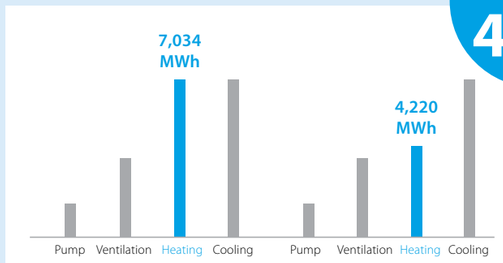
*And then include the image, which is the most attractive part.

Case study

The HR2-controller adjusts the condensing temperature to meet the hot water set point and assures that priority is always given to the cooling side.

Heat recovery Retrofitting projects like this one benefit companies by reducing their carbon footprint, reducing net operating costs, and providing an economical way to heat water.

Save up to 40%



Heat recovery - before vs 1 year after retrofitting - Italian TV station - 40% energy saving

Inverter retrofit:
Energy saving solution for chillers

Inverter retrofit, the solution to adapt your chiller to your needs

Many fixed speed chillers out in the market are not operating at optimal conditions as their compressor is constantly running at full speed. However, this can be fixed by installing an inverter to your chiller.

With **Daikin Inverter Retrofit kit**, the compressor speed of your chiller can be easily adapted to your needs. This results in **energy savings**, **better comfort** and **reliability**. You can thus enjoy the benefits of inverter technology, **even if it is added after the installation of your chiller.**

Why should an inverter retrofit be your next investment?

Benefit from significant energy savings …

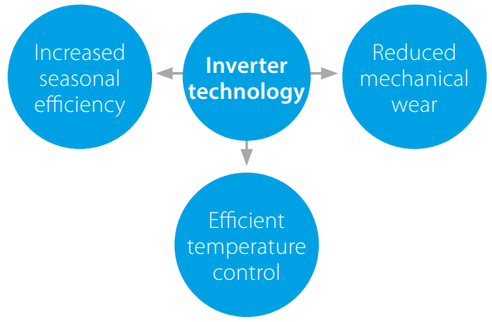
Generally, the heating or cooling system of a building is designed based on it maximum needed capacity, or peak load.. However, such load level is not frequently reached, resulting in energy waste. With Daikin's inverter retrofit solution, the chiller follows the seasonal heating and cooling load. It thus always operates at optimal condition. This can lead to energy savings up to 30%. Moreover, such savings help you to easily offset your initial investment. The payback period can even be further reduced with local energy saving incentives (if available).

… and improve comfort & reliability

Deviations from your requested temperature are minimised, because the compressor speed is continuously adapting to your needs, resulting in an efficient temperature control. Furthermore, the desired temperature is reached faster.

Longer chiller lifetime

The variable speed drive ensures smooth starting and stopping of the compressors. By reducing mechanical and electrical stress on the equipment, the chiller lifetime is maximised.



Daikin360 Upgrades services

- **Applicable for all screw chillers**
- **New parts & components:**
  - Heat recovery retrofit: HR2
  - Inverter retrofit
  - Controller retrofit
  - Compressors upgrades
  - Economisers
  - Fans
- **Building automation & controls**
- **System upgrades** (including boilers & cooling towers)
- **IAQ Solutions**
- **Energy-efficiency upgrades**
- **Refrigerants conversions/retrofits**

Additional support services

- Energy engineering
- Engineering services
- System design & equipment selection
- Asset management planning
- Project management & operator training
- Temporary heating & cooling solutions
- Control systems / bms systems integration
- Equipment & refrigerants removal & disposal

Daikin360

Integrated Service Solutions

We understand that your building is one of your company's most significant investments, and a cornerstone of growth and success. Our expertise in HVAC systems, delivered through **Daikin360 Integrated Service Solutions**, can help by creating an **ideal environment** and **quality air** that propels your people and customers forward. Plus, our **advanced energy-saving solutions** and **protective maintenance plans** can help you control your maintenance and operational costs. You can count on Daikin for **advanced technology**, **agility** and **reliability**.

Scan the QR code

to learn more about the Daikin360 service offerings

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