

CARE
for your investment



Chiller maintenance

Why Care?

Because YOU care.

To protect your initial investment, it is crucial to take care of your chiller. In other words, it is important to maintain your installation. By doing so, you ensure its proper operation throughout its lifetime. Nevertheless, this is not the only reason why you should take care of your chiller. Caring about your unit also provides you the following benefits:



Legal compliance

Since 2015 the F-gas check applies to all HVAC-R equipment containing fluorinated greenhouse gases (if >5 tons of equivalent CO₂). Depending on the F-gas charge, the installation must have a maintenance operator check the equipment a certain number of times a year. In addition to the F-gas check, your chiller should be regularly checked as a result of the EBPD (directive 2010/31/EU).



Your chiller is endlessly subjected to F-gas checks & regular inspections.

**12% to
18%**

Percentage of savings achieved by doing preventive maintenance compared to no maintenance

Cost savings

Only 30% of buyers who chose a reactive maintenance method listed their system as "cost-effective overall", in comparison to 50% who chose a regular maintenance method¹. This definitely rebuts the myth of saving money by avoiding maintenance costs. The reason why you end up spending more is due to the breakdowns & energy inefficiencies a reactive maintenance owner faces. By performing predictive maintenance, energy inefficiencies can be resolved through routine maintenance activities. In general, 12 to 18% savings can be achieved by making the step from reactive (i.e. not doing maintenance) to preventive maintenance².

Reliability

Maintaining your chiller reduces the probability of unexpected breakdowns, because it allows you to undertake pre-emptive actions before failures occur. This can extend your chiller lifetime by 50%³.

50%

Increase of chiller lifetime by performing maintenance

**6% to
9%**

Decrease in employees' productivity due to a poor air quality

Comfort & air quality

Having a well maintained chiller provides your customers or employees improved comfort and air quality. This is important as these two factors can have a significant impact on a person's behavior. For example, poor air quality inside office buildings can influence the employees' productivity by 6 to 9%⁴.

Why Care?

Because DAIKIN cares.

Not only you, but also Daikin cares about your chiller. Our goal is to guarantee that your chiller operates at optimal performance throughout its lifespan. For this reason, we offer you our expertise and knowledge through three service agreements. In this way, Daikin can gear its role in your maintenance activities to suit your needs.

Because Daikin aims to provide every chiller owner with optimal performance, the maintenance packages are open to non-Daikin branded systems as well.

	1 = Care	2 = Preventive Care	3 = Extended Care
Maintenance activities			
Inspection	✓	✓	✓
Control tuning		✓	✓
Routine maintenance		✓	✓
Advanced cleaning		✓	✓
Seasonal start-up		✓	✓
Oil analysis		✓	✓
Thermographic inspection of electrical cabinet		✓	✓
Eddy Current Test		✓	✓
Connected Services		✓	✓
Certification & reporting			
F-gas certificate	✓	✓	✓
Visit report	✓	✓	✓
Optimization report		✓	✓
Scope of agreement			
Emergency support and call out		✓	✓
Repair parts		Discounts	✓
Repair labour hours			✓

✓ Included ✓ Optional

These three plans were created to meet different market needs. To ensure you opt for the right maintenance plan, let us indicate what the potential target groups are for each plan:

- 1 = Care:** Owners with the necessary skills or who already have a contract with a facility management company
- 2 = Preventive Care:** Owners seeking support to perform proper maintenance or aiming for maximum efficiency & minimum repairs
- 3 = Extended Care:** Owners looking for financial protection against repairs or wanting to minimize breakdown risks due to business activities

Because at Daikin we know all customers have their own needs, we provide you the ability to complement your plan with different options (such as oil analysis).



Every activity leads to higher performance

Inspection

This service allows Daikin and its certified partners to perform a general check on the installation to ensure it is operating properly.

Control tuning

Configuring your chiller correctly from day one can be a challenge. We therefore strongly recommend a Control Tuning visit a few months after commissioning. During this visit, Daikin and its partners can adjust the initial configuration to suit your actual needs.

Routine maintenance

Performing routine maintenance guarantees the optimal performance of your chiller. It also allows you to prevent breakdowns and limit energy wastage. To carry out this task properly, you can rely on Daikin and its partners because they have the skills and know-how.

Advance cleaning

This service is highly recommended because pollutants (such as dust) considerably affect chiller performance and hence your energy consumption. For example, a 0.6 mm layer of fouling on condenser coils can increase your energy consumption by 20%⁵.

Seasonal start-up

After an extended shutdown, it is important to inspect the chiller to ensure smooth operation. For this reason, we offer you our Seasonal start-up service. During this visit, the main components of your installation will be inspected.

Oil analysis

Taking an oil analysis is like doing a blood test. It is a general health check of the whole chiller circuit. For example, an oil analysis can give you information about metal wear. It can also identify the majority of unexpected issues before they occur⁶. This service is always combined with a report detailing the condition of the oil and recommending potential further action.

Thermographic inspection

A thermographic inspection enables you to identify overheating spots in your chiller electrical circuits that are not visible to the naked eye. It is highly recommended because it prevents energy wastage as well as short circuits.

Eddy Current test

By performing an Eddy Current test, the condition of the chiller tubes can be assessed. This is crucial because tube leakages can cause compressor issues, leading to a complete breakdown of your chiller.

Connected Services

Daikin on Site is a cloud-based remote monitoring and control system for chiller plants and air-handling units. Using enhanced control, monitoring and measuring equipment, Daikin on Site provides near real-time data and support from Daikin experts to help you identify cost-saving opportunities. It also increases the lifetime of your unit and reduces the risk of unexpected issues. Available as a web-based application, users can log in to their account to see operational data and receive immediate insight from Daikin experts.

As you can see in the table, Daikin offers a range of packages. Depending on your maintenance plan (1, 2 or 3), you can select your Daikin on Site package.



	Alerts and web access	Daikin active monitoring	Connected maintenance
Every package offers 24/7 web access to Daikin on Site <ul style="list-style-type: none"> User-friendly dashboards Remote monitoring and control Access to data points View data trends Online scheduling Track energy usage (only available with energy meter) Master-slave configuration (when applicable) 	✓	✓	✓
Alarm notifications sent to customer	✓	✓	✓
Reports	✓	✓	✓
Remote support by Daikin experts during office hours		✓	✓
Pre-diagnosis and proposed solution(s) by Daikin experts		✓	✓
Expert analysis and advice to customer in evaluation report			✓





Stay informed through high-quality reports

Not only you, but also Daikin cares about your chiller. Our goal is to guarantee that your chiller operates at optimal performance throughout its lifespan and that you are aware of it. For this reason, we offer you our expertise and knowledge through three main report types. In this way, Daikin can gear its role in your maintenance activities and provide you with useful information that suits your needs. Because we aim to provide every chiller owner with optimal performance, the main report types are:

Visit report

This report provides you with a summary of the visit, giving details of the maintenance activities that have been performed on your installation.

Optimization report

If your chiller is monitored through Daikin on Site, you will receive an optimization report based on the monitoring data. This report includes recommendations for reducing your energy consumption and increasing your chiller efficiency.

F-gas certificate

When a refrigerant leak test is performed, a certificate will be issued to confirm your chiller is leak-proof. This document certifies you have carried out the F-gas check in accordance with EU regulations (EU NO 517/2014).



Contact us

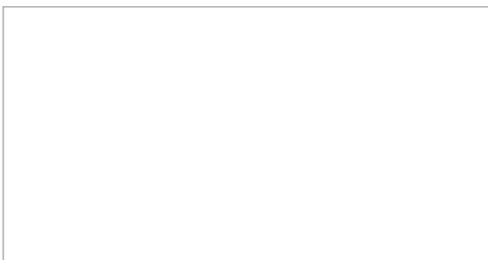
If you have any questions about Daikin's maintenance packages or you would like to subscribe to one of them, you can reach us by email or phone

For more information, visit www.daikin.eu

Literature overview:

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ECPEN19-553

11/18



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Printed on non-chlorinated paper.
Prepared by La Movida, Belgium