



MAINTENANCE SOLUTIONS FOR YOUR AIR CONDITIONING EQUIPMENT

While relatively young in company terms – Core Air Conditioning was established in 1996 – the combined knowledge and experience of company personnel represents about 120 years in the air conditioning industry. As the sole distributor of Carrier and Liebert-Hiross equipment in Ireland, Core has unlimited access to the resources and technical knowledge of these three multinational companies.

Equipment performance begins with the proper installation and commissioning. Having already achieved this with Core, why not continue this start throughout the life of your equipment with the range of services available from Core. Our service agreements are highly flexible and we'll help you put together the right combination of options for your facility. Our service professionals have superb skills in maintenance, diagnostic and proactive recommendations for improvement.

Core Air Conditioning offers the best support for your vital building systems available anywhere. In addition to sophisticated testing, we're your expert source for any repair or maintenance service. We also have the unique ability to upgrade older Carrier chiller installations to new technologies.

Since we have long established ourselves as a provider of maintenance solutions, we now work in conjunction with other air conditioning manufacturers to provide maintenance for all brands. This gives you the confidence of using Core to solve all of your air conditioning requirements.

All our services are backed by a depth of air conditioning knowledge you won't find anywhere else. It is reflected in our engineers who are Carrier, Liebert-Hiross and Mitsubishi trained and it includes a record of accomplishment servicing every kind of system.

SERVICE SELECTION

Preventive Maintenance

Preventive Maintenance service is a series of planned tasks (including those recommended by equipment manufacturers) designed to minimize wear-related failures. Frequency of tasks can be adjusted based on routine operating inspections, annual and multi-year maintenance, wear analysis, Core's experience, and any change in your operating needs. In addition, you can select many options, including oil analysis.

Benefits of customized Preventive Maintenance service include reduced operating and energy costs, sustained levels of peak productivity, increased equipment reliability, fewer repairs, and peace of mind.

Predictive Maintenance

Core's Predictive Maintenance service monitors the condition of critical equipment components in order to identify and correct operating irregularities before they lead to more complex and expensive repairs. To achieve optimum reliability, this service utilizes the latest diagnostic technology and Core's experience in accordance with manufacturers' recommendations, operating parameters, operating costs, and your unique requirements.

A written customer report outlines current status or trends of equipment components and offers recommendations for proactive solutions and improvements.

Benefits of Predictive Maintenance service include increased unit reliability and integrity and minimized equipment failures.

Repair Services

Core offers a full, flexible range of repair services to keep unforeseen costs from undermining your carefully planned budget. Services are for all Air Conditioning equipment and Controls. This service can include replacement of expendable parts, refrigerant leak repairs, major repairs, tube repairs, and repairs resulting from unexpected failures.

Benefits of Repair Services include guaranteed Labour and Material, and the knowledge that repairs are performed by trained mechanics who know the equipment.

Customized Services

Working with you, we use our experience to provide such consistent, high-quality services as coil cleaning, filter changes, oil analysis, water strainer cleaning, glycol/inhibitor analysis, and more.

As a benefit to you, these Custom Services minimize system interruptions resulting in reduced costs, increased reliability, and convenience.

Technology Enhancements

Core can provide many enhancements that may not have been available when your existing equipment was manufactured. These equipment modifications, add-ons, or replacements utilize the latest technologies and include retrofits and upgrades, equipment replacement, add-on technology, and refrigerant containment.

Benefits of Technology Enhancements include cost savings associated with increased dependability and efficiency, as well as compliance with the Clean Air Act.

Service Options

You can obtain maximum flexibility choosing from the wide variety of Service Options offered by Core. Options range from routine operating inspections to complete repair responsibility, including Monitoring, system analysis, and Software upgrading on Carrier Chillers.

The benefit of this flexibility is selecting only the services you need to provide the most cost-effective way to maintain your chiller/air-conditioning system.



SERVICE PACKAGE

Core offers an infinite selection of services for your Carrier/Liebert system

From monitoring to planned maintenance, the descriptions here show the many services that Core can offer you to match your system needs. Your selection leads to a partnership with Core and a Service Agreement that clearly defines the services you will receive.

MONITORING SERVICE

With Chillers, a problem is not always present when an engineer is on site. At Core we offer a unique service on our Carrier equipment. This is called a PC Data Collection Tool (PCDCT). With PCDCT, the Carrier Chiller is monitored for 24-hours or more and all parameters are recorded at 2 second intervals. Technicians at Core and Carrier then study this and recommend any changes to improve the operating efficiency of the system. It can also indicate problems that may arise before they lead to catastrophic failure. The customer is then left with a blueprint of the operation of their machine.

Repair Services

Repair Service may consist of a service order to repair or replace a component. Repair Service can include equipment overhaul, rebuilding, non-destructive testing or analysis of fluids and tubes. Various Repair Services can be stand-alone or combined with any of Core's other services.

INSPECTION MAINTENANCE [MINOR]

Inspection, logging, and adjustments of your equipment are part of Core's basic Minor Maintenance service. This service may require minimal disassembly such as oil and filter changes and includes a report complete with service recommendations.

On Carrier equipment this includes any Software upgrades recommended by the manufacture.

FULL PREVENTIVE MAINTENANCE [MAJOR]

This includes all the Inspection Maintenance services, plus pre-scheduled recurring annual tasks which may require disassembly for preventive maintenance, are part of Core's Major Maintenance service. Minor repairs, motor testing and leak testing are also carried out.

PLANNED MAINTENANCE

Core's Planned Maintenance service is the ultimate in long-range preventive maintenance. It includes the necessary multi-year preventive maintenance items that are performed at intervals greater than one year (those items that are in addition to the annual recurring items — such as every 3, 5, or 10 years). Major disassembly to repair or replace internal parts and rotating assemblies as a result of normal wear is included.

PREDICTIVE MAINTENANCE

This is Non-Destructive testing services such as oil analysis, water system analysis, alignment checks, and calibrations that may be combine with the Minor or Major maintenance.

This can help prevent catastrophic chiller failure and help eliminate equipment downtime. Because oil analysis can identify the wear-and-tear of a chiller, conducted on a scheduled basis, you're provided a more reliable chiller performance for years to come.

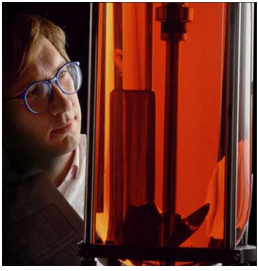
EMERGENCY SERVICE

Because our Carrier and Liebert units serve critical systems where downtime is an inconvenience and expense, Core offers a 24-hour Emergency Service on all of its Maintenance Contracts. Our engineers have a response time from receiving the call of under 2 hours for the Dublin / Cork areas and under 4 hours nationwide. They also have 24-hour access to parts. Repairs are completed whenever necessary, day or night, to return your equipment to normal operating condition as quickly as possible.



PREDICTIVE MAINTENANCE TESTS

Chiller Oil and Water Chemical Analysis



Just as you need physical exams to catch any developing health problems, the working fluids and internal components of your chiller need an occasional “physical” for the same reason. Improper lubricant viscosity can cause premature bearing wear. In addition, moisture can infiltrate the system, reducing lubricant performance and forming corrosive acids when mixing with refrigerants. These acids can attack tubes, motor windings and other internal components.



We'll professionally take oil and water samples with no chance of contamination from precise locations on the machine that will give a true and accurate picture of the health of your chiller. Our laboratory can then carry out a metallurgical analysis that will spot and identify any metal deterioration. It will then carry out a chemical analysis that will determine the condition of all fluids in the chiller: refrigerant, oil, and water.

These test results can pinpoint a wide range of specific problems. Your detailed report will include any appropriate service, repair, and cost-saving recommendations.

A primary use of oil analysis

Motor Insulation Testing

Motor failures and resulting downtime are usually caused by motor winding breakdown. Regular motor insulation testing identifies insulation deterioration before failure occurs, permitting budgeted, scheduled repair. We use meg-ohm testing to evaluate the condition of electric motors in your systems without labour-intensive disassembly. Our testing will reveal any weak spots in motor windings or the presence of potentially damaging moisture. Both indicate winding insulation deterioration. We'll also evaluate the condition of the compressor contactors.

Again, you will receive a complete written evaluation, with problem-solving recommendations.



An Invaluable Database on Your Chiller



Just as a doctor keeps a comprehensive record of a patient's health history and care, we maintain a complete database of all tests and results performed on your systems. This record is an essential tool to help optimize operation and identify any developing problems. This is a key component of predictive maintenance.

DESCRIPTION	STATUS	POINT
Int PID Gain MaxFan/40	1.00	hd_ig
Int4 PID Gain MaxFan/40	1.00	hd_ig
Cir A Superheat Setpoint	11.1 °C	sh_sp_a
Cir B Superheat Setpoint	11.1 °C	sh_sp_b
Cir A Cooler Finch Setpt	1.0 °C	pic_sp_a
Cir B Cooler Finch Setpt	1.0 °C	pic_sp_b
Maximum Condensing Temp	68.0 °C	mct_sp
Max Condensing Temp Diff	5.0 °C	mct_diff
Maximum Current Setpoint	80.0 %	curr_max
Maximum Current Diff	14.0 %	curr_diff
Close Capacity Ctrl Sel	Disable	clc_ctrl
Auto Z Multiplier Set	6	ca
Maximum Z Multiplier Set	6.0	hc_lim
Entering Fluid Control	No	ent_opt