



# Complete services solution for CAREL humidifiers

The full range of proposals for field  
and digital activities

# Complete services solution for humidifiers

CAREL offers a complete range of services for its entire range of humidifiers. The objective is to maintain the operating performance of the unit over time and increase its working life, through both activities carried out on-site and digital services for remote assistance.

## Benefits for the customer

- Guaranteed correct operation over time;
- Guaranteed performance;
- Extended product life;
- Faster reactivation of operation;
- Reduced management costs for unexpected events;
- Remote control of the unit, alarm notifications;
- Guaranteed service times;
- CAREL original spare parts.

Having your humidifiers cared for by CAREL offers the peace of mind that all operations will be performed by qualified technical personnel, with updated training by those who have complete know-how of the products, as well as the guarantee that only original spare parts will be used.

## Savings for the customer

The correct configuration ensured by the commissioning service and the guarantee of correct operation ensured by the maintenance contracts also bring reductions in energy consumption; all this, while cost management can also be improved thanks to remote control, immediate notification of alarms and consequent data diagnosis that will reduce interventions in the field.



### Reliability and savings

Field activities carried out exclusively by authorised CAREL technical personnel guarantee correct operation and performance, as well as allowing control over management and energy costs.



### CAREL warranty

The correctness of commissioning and maintenance ensure the warranty validity over time. In addition, extra ordinary maintenance and related spare parts are guaranteed for 12 months from the date of service.



### Faster service and less unit downtime

Correct operation guaranteed by the right configuration reduces unit downtime; maintenance contracts and DigitalHUM ensure the unit gets back up and running faster.

## CAREL humidification products

Over 40 years' experience in the development of air humidification technologies are the basis for customer satisfaction and the success of our products.

The CAREL humidification offering is aimed at both the residential/commercial market and the industrial market, and includes all technologies: isothermal, adiabatic, water treatment systems, sensors and protection devices, as well as connectivity and remote management solutions.

CAREL humidification solutions help ensure:

- **Indoor comfort:** indoor air quality control is a fundamental, albeit often overlooked, factor in many commercial and residential environments, as it affects the well-being, productivity and health of building occupants;
- **Industrial efficiency:** many industrial processes require specific air conditions in order to function properly and achieve the desired product quality level.



## CAREL humidification services

Supplying products that meet customer needs is no longer sufficient on its own; CAREL also aims to guarantee high-performance service continuity over time, minimising any inefficiencies.

This is why the proposal also includes services for humidification products, adaptable to different applications and needs, to support customer throughout the entire product life cycle.



Real-time fault detection

up to  
**-50%**  
reduction of service times

Lower costs to manage unexpected situations

up to  
**-80%**  
reduction of system management costs

service within  
**48 hours**  
with a maintenance contract



# Commissioning

Guaranteed correct configuration

- Guaranteed unit performance;
- Certainty that the CAREL warranty is valid.

Installation and commissioning completed precisely and expertly to ensure the highest performance of the CAREL humidifier.

To ensure correct commissioning of its humidifiers, CAREL offers various services performed by specialist technicians, selected and trained by CAREL.

Pre-installation site visits provide support to verify and validate the installation. The humidifiers commissioning ensures that the unit operates with the correct configuration.

Furthermore, commissioning performed by CAREL technical personnel not only ensures the product warranty is valid, but also allows the option of an extended warranty.

# Warranty extension

CAREL humidifiers can benefit up to a 5 years warranty from the date of production.

- Service carried out directly by specialist CAREL personnel;
- Control over unexpected costs.

The warranty covers the free repair and/or replacement of CAREL humidifier components in accordance with the "General Conditions of Sales", available on the website [www.carel.com](http://www.carel.com).

The extended warranty can be purchased either at the same time as the unit, or subsequently. Throughout the warranty period, customers can benefit

from direct support from CAREL, its Service Partners and original spare parts.

To be sure the warranty is valid and to have the added advantage of guaranteed service times, simply entrust preventive ordinary maintenance to CAREL.



## Additional services

**DigitalHUM + warranty extension:** discover the combined offer of DigitalHUM and up to 5 years warranty extension from date of production.



**EXTENDED WARRANTY**

# DigitalHUM

A Cloud portal dedicated to monitoring and maintenance of CAREL humidifiers.

DigitalHUM is the plug&play solution for remote management of CAREL humidifiers. Simply connect the humidifier to the "Cloudgate" gateway supplied by CAREL and associate the humidifier to be controlled with the corresponding template on the portal to activate immediate remote control of the unit. No connection operations are needed. Cloudgate is supplied with a SIM card that is fully managed by CAREL, and allows the humidifier to send data to the cloud.

Cloudgate is also available in the Ethernet version.

Thanks to the following features, remote management limits unit downtime, avoids the need for site inspections and ensures faster troubleshooting, thus reducing management costs:

- humidifier graphic interface;
- system geolocation;
- read and write variables in real time;
- alarm display and notifications;
- data logging with trends.

## Flexibility to meet customer needs

DigitalHUM ensures flexible management that adapts to different customers and their needs, thanks to the custom profiles.

For example, the same unit can be monitored and managed by the end customer, the facility manager and the service centre.

## Improved on-field services

DigitalHUM, when associated with on-field services, can also be used to improve their performance; when associated with a preventive ordinary maintenance contract, customers can remotely monitor performance, deciding whether to adjust the configuration or request an intervention by an authorised service centre; for extra ordinary maintenance interventions, the real-time alarm notifications further reduce response times, thus minimising the cost of inspection visits.

- Remote monitoring with a plug&play solution;
- Faster service times;
- Guaranteed performance;
- Lower running costs.



DigitalHUM is technology that is eligible for tax deductions relating to digitisation processes. For further details, refer to the local regulations in the country of installation.



# Preventive ordinary maintenance

Complete maintenance solution for the wide range of CAREL humidifiers. Each CAREL humidifier, whether isothermal or adiabatic, must follow a periodic maintenance plan in order to guarantee durability of the product and its performance over time.

- **Guaranteed humidifier reliability and efficiency over time;**
- **Less unexpected events and unit downtime;**
- **Guaranteed times for extra ordinary maintenance.**

The CAREL maintenance contract includes specific annual maintenance plans, based on the humidifier model, deriving from CAREL's experience as a manufacturer.

During each maintenance visit, the product is cleaned, any components subject to wear are replaced where necessary, and a general check is carried out on operating conditions and the configuration. These activities make it possible to guarantee operational performance over time.

During maintenance visits, the humidifier is also inspected, and based on the outcome, CAREL will propose extra ordinary maintenance interventions, preventives or improvements.

The preventive interventions reduce the risk of running into unexpected costs, in particular if related to the repair of an unmaintained unit, in addition to limiting the risk of unit downtime and the costs of not being able to use the product for the time needed to organise repairs.

Improvements are aimed at guaranteeing the product's performance and durability.

Other benefits of the maintenance contract are:

- complete management of maintenance intervention by CAREL, as well as the supply of any spare parts;
- intervention guaranteed within 48 hours of reporting an unexpected event.



## Additional services

**DigitalHUM + ordinary maintenance:** ordinary maintenance becomes predictive maintenance.





# Extra ordinary maintenance

Analysis of unit performance, evaluation of malfunctions and repairs.

CAREL offers extra ordinary maintenance services carried out by expert humidification technicians, so as to respond to different customer needs: from simply restoring unit operation to targeted analysis of performance, configuration and operation.

## Performance optimisation

Experts in HVAC/R systems are available to carry out analysis aimed at optimising energy performance or ensuring control stability. Depending on the operating conditions, the proposals may include changes to the system configurations or upgrading the units, and even their replacement.

## Malfunctions and repairs

The experience acquired by CAREL and its technical personnel means that analysis of any malfunctions results in a solution for restoring unit operation in the shortest possible time. CAREL offers a complete service to support customers in analysing the malfunction, organising intervention and, where necessary, supplying any spare parts.

For customers with a maintenance contract, extra ordinary maintenance will be even more efficient: the CAREL Service Partner responsible for maintenance already knows the system's status and operating conditions, making initial analysis much simpler, even over the phone. Furthermore, the maintenance contract guarantees priority service.

- Complete management of intervention by CAREL;
- Faster resumption of operation;
- Application of the best solutions and configurations by expert technicians.



## Additional services

**DigitalHUM + extra ordinary maintenance:** less site inspection visits through remote analysis.



# CAREL original spare parts

Availability of CAREL original spare parts in a dedicated warehouse, with guaranteed shipment times.

Spare parts play a fundamental role over the product life cycle, as the conditions/wear of components also determines the product's working life. Due to unexpected events, the product may require replacement of a component in order to function; the spare parts for CAREL humidifiers are available in a dedicated warehouse, with guaranteed shipment within 24 hours of placing the order for deliveries in the EU.

Customers who entrust services to CAREL, in particular those relating maintenance contracts and warranty extension, will have access to this warehouse.

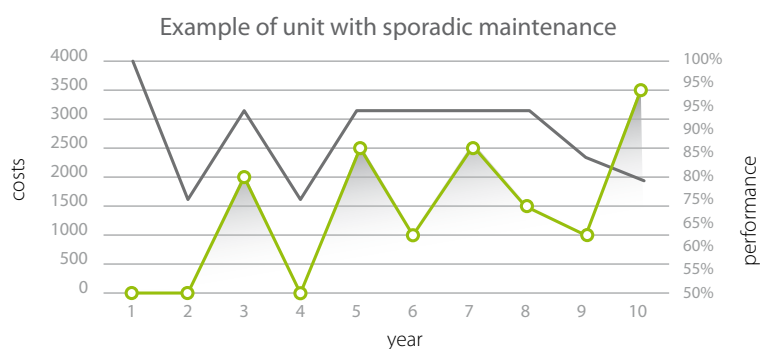
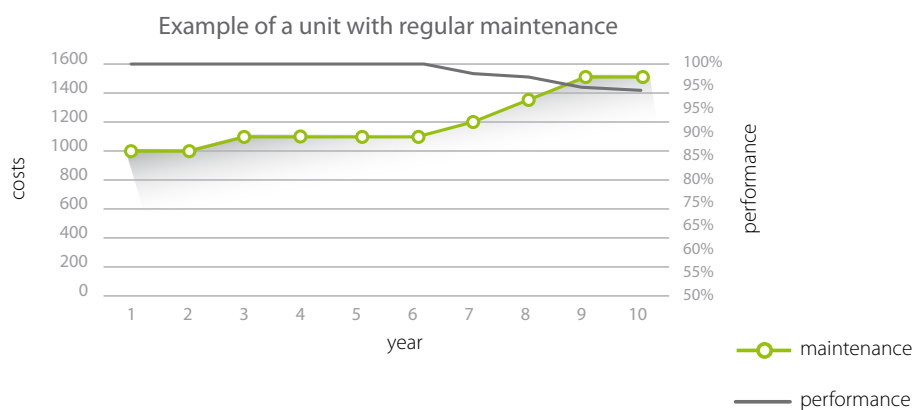


# The benefits of CAREL humidifier services

The importance of preserving product efficiency throughout its life cycle, guaranteeing indoor air quality and safeguarding the investment.

All of the services that CAREL offers for its humidifiers can be considered complementary to each other, and are designed to guarantee optimal operating conditions throughout the product's life cycle. In this way, unit performance remains constant over time, and any unexpected costs, both direct and indirect, are limited and managed wherever possible.

Indeed, life cycle analyses show that correct commissioning, combined with regular maintenance, in the medium-term are advantageous compared to the costs resulting from suboptimal performance, prolonged downtime, occasional repairs or, in the worst case scenario, the need to replace the product with a new one much earlier.



## Why is it important to guarantee humidity in certain places?

Humidity control plays a fundamental role in a number of places, including wellness centres and hospitals, or production facilities where the process requires precise control of the ambient conditions.

Depending on the activity carried out, keeping the humidifiers in conditions that ensure optimal performance means benefitting from an environment that guarantees productivity.

Some examples of benefits that can be obtained from CAREL's services for humidification are:

- protect electronic equipment against damage caused by electrostatic discharges;
- guarantee the well-being of occupants, such as patients, medical

- staff and visitors to hospitals, avoiding the proliferation of bacteria;
- ensure the successful outcome of product quality control in manufacturing processes such as paints, chemicals or greenhouses;

- guarantee service continuity by avoiding sudden shutdowns and a disservice for customers.







Benefits of CAREL services	Commissioning	Warranty extension	Extra ordinary maintenance interventions	DigitalHUM	Maintenance contract
Interventions performed by qualified personnel					
CAREL original spare parts					
Guaranteed performance					
Guaranteed correct operation over time and extended product life					
Faster resumption of operation					
Lower management costs for unexpected events					
Remote control of the unit, alarm notifications;					
Guaranteed service times					

See the General Conditions of Sales at [www.carel.com](http://www.carel.com), and check in the Service Catalogue whether each service is available in the country where the unit is installed and for the specific model.

# Business cases

The humidification services proposal is based on analysis of real-life cases that, highlighting the need to manage products throughout their life cycle, starting from installation, have brought real benefits for users. Some possible scenarios are described below.



## Scenario 1 - Purchase a humidifier

The customer purchases a new CAREL adiabatic humidifier served by a water treatment system (reverse osmosis). CAREL is responsible for commissioning the system, but no maintenance is performed.



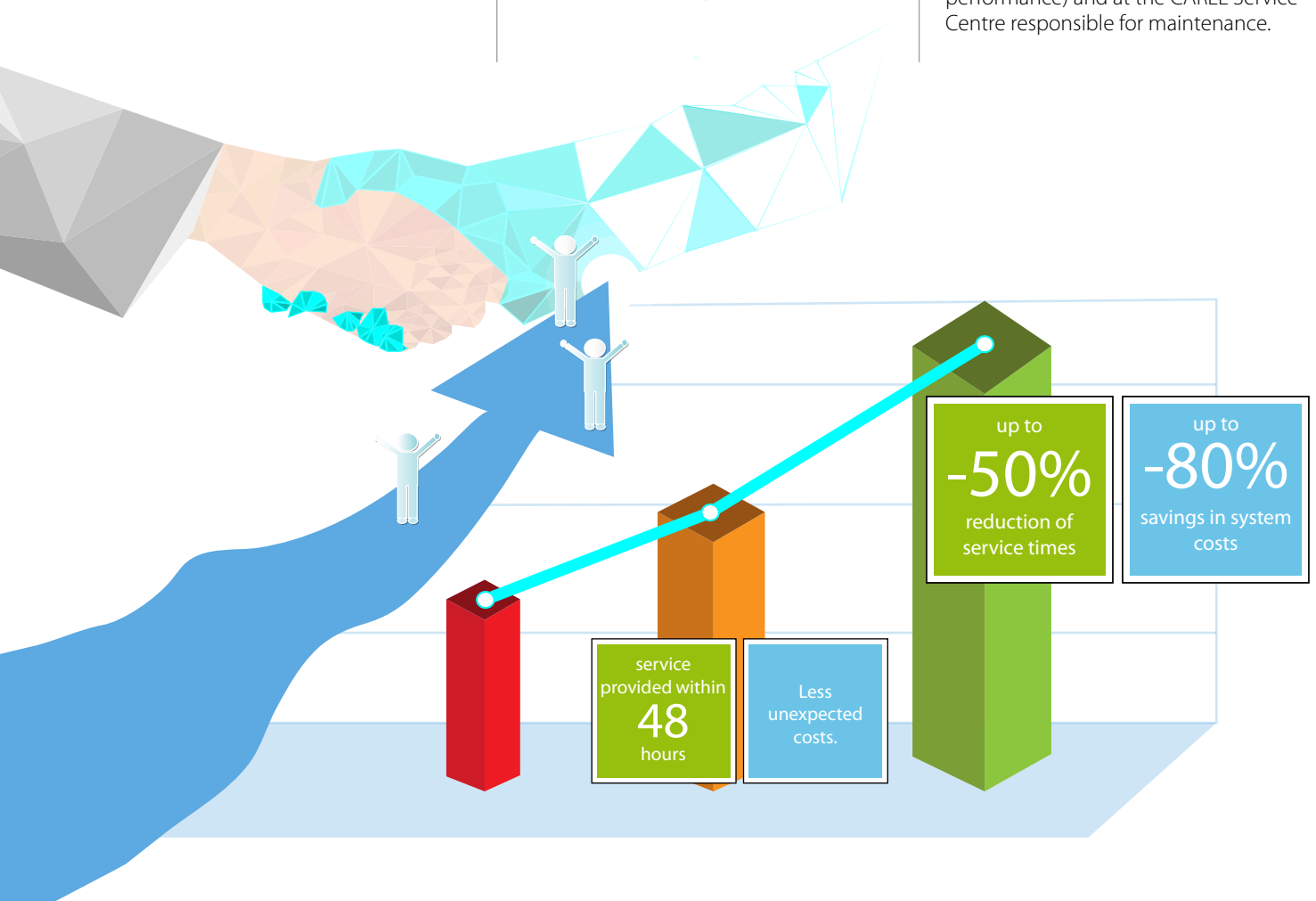
## Scenario 2 - Purchase a product with a maintenance contract

The customer purchases a new CAREL adiabatic humidifier served by a water treatment system (reverse osmosis). CAREL is responsible for commissioning the system, as well as performing preventive ordinary maintenance twice a year.



## Scenario 3 - Purchase a product with maintenance contract, DigitalHUM and extended warranty

The customer purchases a new CAREL adiabatic humidifier served by a water treatment system (reverse osmosis). CAREL is responsible for commissioning the system, as well as performing preventive ordinary maintenance twice a year; a contract is stipulated for remote connection of the system, combined with a 5 years extended warranty. DigitalHUM users are activated both at the customer (to verify system performance) and at the CAREL Service Centre responsible for maintenance.



## Scenario 1



### Performance

No checks are carried out.



### Inspection visit to check event occurred

After the first 24 months of unit operation, after the warranty period has expired, due to a lack of maintenance on the water treatment system, a fault occurs that prevents the system from functioning. The inspection carried out by a CAREL Service Partner highlights that the malfunction is due to a lack of maintenance on the water treatment system.



### Final intervention to resume unit operation

The material is then ordered, and the intervention is planned for when the spare parts will be delivered. Ordinary maintenance is also performed to restore unit performance to the original conditions following commissioning.



### Unexpected costs

The additional costs incurred by the customer are due to a stop in production, as well as possible additional costs from using the product in conditions that could not guarantee optimal performance.

## Scenario 2



### Performance

Thanks to preventive ordinary maintenance, during the first years of operation no faults occur and the product operates with optimal performance. Preventive ordinary maintenance is performed based on a schedule agreed on with the customer, based on their production requirements.



### Inspection visit to check event occurred

Due to an unforeseeable event, a fault occurs that prevents the system from functioning. The CAREL Service Partner visits the site the next day, temporarily restoring unit operation.



### Final intervention to resume unit operation

For the unit to return to normal operation, a component needs to be replaced; this is ordered immediately and delivered in 48 hours, and the next site visit is scheduled. It took a total of 72 hours to resolve the problem, with limited disruption for the customer by temporarily resuming operation and the 48 hours service time guaranteed by the maintenance contract.



### Control of operating and production costs

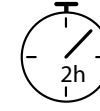
The customer does not incur unexpected costs due to product inefficiencies, such as repair costs or prematurely worn components from a lack of maintenance, additional costs for suboptimal performance or costs relating to production delays.

## Scenario 3



### Performance

Optimal performance thanks to preventive ordinary maintenance. The preventive ordinary maintenance schedule is agreed on with the customer according to their production requirements.



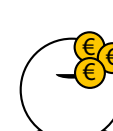
### Inspection visit to check event occurred

A fault is present, the customer requests remote control of the system, which is done almost immediately and without the need for an inspection visit, as on DigitalHUM the alarm notifications are also sent to the CAREL Service Partner and the system data over the critical period can be analysed on the portal.



### Final intervention to resume unit operation

The verification shows the need to replace a component, which is immediately ordered for free, with delivery in 48 hours and the site visit scheduled for when the spare part arrives. The problem is solved in 48 hours, with no additional expenses.



### Optimisation of operating and production costs

Minimal system disruptions, with full control over management costs, and no additional expenses.



## On-field services

### System commissioning

9SCB100Q1*	Hum. commissioning BASIC
9SCS100Q1*	Hum. commissioning STANDARD
9SCW100Q1*	Hum. commissioning WTS Large
9SCM100Q1*	Hum. commissioning MAJOR
9SCS200Q1*	Hum. commissioning STANDARD 2nd unit
9SCM200Q1*	Hum. commissioning MAJOR 2nd unit

### Humidifier scheduled maintenance

9SMS100Q1*	1 STANDARD hum maintenance visit
9SMM100Q1*	1 MAJOR hum maintenance visit
9SMS200Q1*	1 STANDARD 2nd hum maintenance visit
9SMM200Q1*	1 MAJOR 2nd hum maintenance visit

### One-off service and repairs

9SXVS00H1*	Technical assistance hourly rate
9SXVE00H1*	EXPERT technical assistance hourly rate
9SXVS00D1*	Technical assistance daily rate
9SXVE00D1*	EXPERT technical assistance daily rate

### Warranty extension

9SWHU00000	1 year humidifier warranty extension
9WSY00Y20	2 years humidifier warranty extension
9WSY00Y30	3 years humidifier warranty extension

\* insert A for countries covered by zone A, B for countries covered by zone B.

## Digital services

### Cloud portals

-00SRHS011	DigitalHUM 1 year Wireless mobile area 1
-00SRHS012	DigitalHUM 1 year Wireless mobile area 2
-00SRHS013	DigitalHUM 1 year Wireless mobile area 3
-00SRHS010	DigitalHUM 1 year Ethernet
-00SRHW031	DigitalHUM warranty 3 - mobile 3 years + 1 year warranty ext.
-00SRHW051	DigitalHUM warranty 5 - mobile 5 years + 3 years warranty ext.
-00SRHW011	DigitalHUM warranty 1 - mobile 1 year + 1 year warranty ext.

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