

2021/2022

# **INNOVATIVE COOLING SOLUTIONS**

FOR INDUSTRIAL, COMMERCIAL AND RESIDENTIAL PURPOSES

### About the Dantherm Group

Originally founded in 1954, the Dantherm Group is a European leader in portable and installed climate control solutions for a wide range of industries and uses. Based on the work of more than 500 passionate climate control experts and more than three million installations, our competence centres around Europe design and build exceptional heating, cooling, dehumidification and ventilation units that form the backbone of these climate solutions. In everything they do, they remain focused on creating healthy and comfortable climate surroundings in a sustainable, energy-efficient and cost-effective way.



Five competence centres in Denmark, Germany, Italy, Spain and UK.





**Competence centre**  
for bio-air cooling solutions: Valencia, Spain.

### **Biocool Climate Solutions**

Operating out of Valencia, Spain, for more than 20 years, Dantherm's competence centre for cooling and air purifying solutions develops reliable bio-air cooling and purifying technology renowned for its energy efficiency and minimal operating costs.



# CONTENT

Based on the extensive knowhow of our climate solution experts across the Group, we have developed an industry-leading range of products and solutions all characterised by reliability, sustainability, efficiency and ease of use.

Being able to source everything from just one supplier will help streamline your purchasing supply lines and reduce your costs for internal handling. To that end, you'll also find our local presence with an extensive network of professional dealers across Europe helpful. It means support in your time zone and language – from people who understand your local market requirements.

Enjoy the read!

Our solutions rest on these four pillars:

**Reliability** has always been at the heart of everything we do. So we still use long-lasting, solid components that have been through extensive testing.

**Sustainability** is an integral part of how we work. We aim to create solutions that are at least as good for the environment as any comparable solution.

**Efficiency** is about delivering impressive performance while generating savings in the form of reduced energy costs.

**Usability** is key to any solution. Our experts do many usability tests to make sure ours are easy to install and hassle-free to operate.

34 °C

25 °C

## WHY CHOOSE BIOCOOL AIR COOLERS?



Reduces temperature between 7°C and 20°C by external conditions



No need to close doors or windows



Low energy consumption and spends up to 80% less than an A/C



Reduces static electricity



Improves air quality by moving dust, fumes and odours



Improves productivity in industries



Allows air-conditioning of certain areas



100% renewal of fresh and filtered outside air



# OPERATION

## EVAPORATIVE COOLING IS PRESENT IN NATURE

Sometimes nature puts at our disposal resources that make our life more comfortable and respectful with the environment. The evaporative cooling is present in nature, in places close to the water as the waterfalls, lakes, seas and oceans and even on the human skin. The primitive men already applied rudimentary cooling techniques on the basis of this observation.

**Biocool reproduces the effect of a sea breeze, driving fresh air where it may be needed.**

## HOW IT WORKS?

AS THE AIR PASSES THROUGH THE COOLING PADS, SOME OF THE HEAT IS ABSORBED BY NATURAL EVAPORATION AND A FRESH BREEZE IS BLOWN OUT.

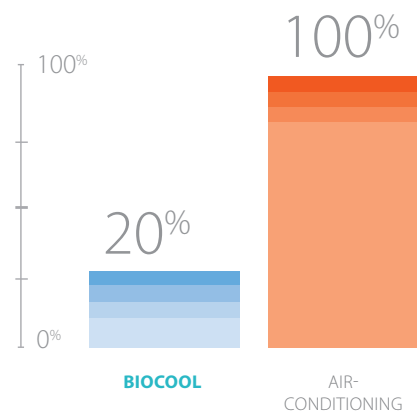
Temperature of the air emitted is between 4°C and 12°C lower than the outdoor air, at approximately 20 to 25°C.

**The machine has automatic control which minimize maintenance and allow it to be adapted to different applications controlling the optimal desired conditions.**

THIS COMBINATION MAKES LIVING SPACES MORE COMFORTABLE.

## A SUSTAINABLE SYSTEM

The Bio-air conditioning is a natural way of cooling, in addition is economic, healthy and ecological. This system allows the constant renewal of air, improving its quality as introduces clean and filtered air inside the space, evacuating bad odours, smoke and gases to the outside, allowing to maintain optimal ambient healthiness.



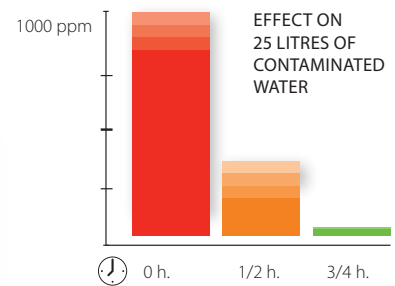
MAXIMUM ENERGY SAVING



## ANTIMICROBIAL OZONE TECHNOLOGY

KEEPING YOUR UNIT CLEAN HAS NEVER BEEN SO EASY

THE INTEGRATED OZONE SYSTEM reduces the quantity of microbes in the water during the first hour of operation and removes them completely after three to four hours of operating. This has been demonstrated by research.



## COMPONENTS INNOVATION



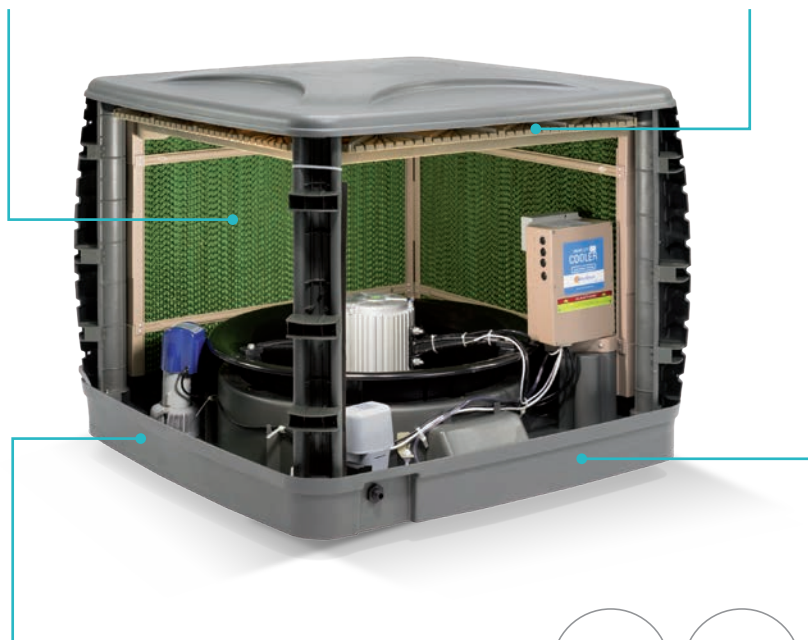
### PRE-FILTERS

Side pre-filters (optional) ensure maintenance of the filters when units operate in environments with dirty or stale air (mosquitoes, pine needles, etc).



### NON-CLOGGING WATER DISTRIBUTION MAINTAINS

- Maximum cooling efficiency
- Fully balanced and continuous water distribution to all cooling pads
- Pad saturation at the correct level, maximising the effectiveness of cooling



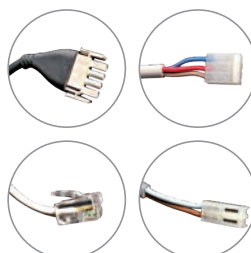
### AUTOMATIC DUCT LOCK SYSTEM

- Is activated when the cooler is not activated
- Prevents dust and dirt accumulating during the winter.
- Stops the 'chimney effect', so preventing hot air from escaping and outdoor air coming in



### EXTERNAL DISCONNECT

External power switch with integrated fuse to protect the unit and maintenance works with security.



### RAPID CONNECTORS

BIOCOOL rapid connectors are of high quality and compatible with the main international manufacturers; this makes maintenance tasks and component replacement easier.

# INNOVATIVE COOLING SOLUTIONS

## SMART CITY COOLER CONTROL



- Programming according to humidity (3 programmable pre-set modes)
- Pre-cooling system before start-up prevent hot air entering
- Filter drying before stopping maximises hygiene
- Daily operation can be programmed for the next eight weeks
- External sensor reads temperature and humidity
- Drainage timed is adjustable
- Operation parameters can be recovered in the event of a power outage
- Individual or group operation of units by remote control
- Identification of faults and their origin
- Allows to limit the humidity provided that influence the environmental conditions

Group control up to 10 units. Admits humidity and ambient temperature sensor to local management.

### The most advanced cooler control system on the market



At your desk or on the way



From pc, tablet or smartphone



Platform that allows to group multiple locations

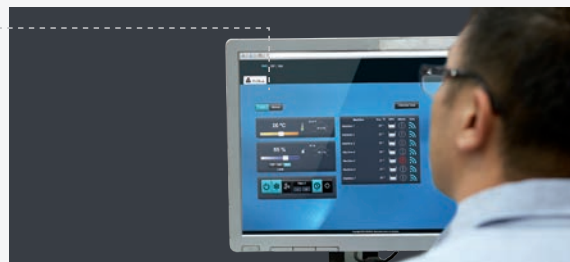


Historical data registration

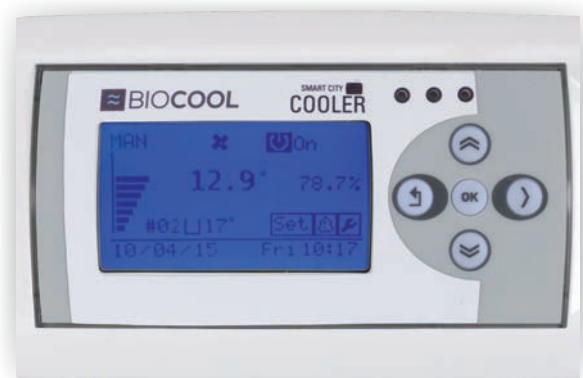


# INNOVATIVE COOLING SOLUTIONS

## SMART CITY COOLER CONTROL



- Highly parameterizable – operating in manual mode or auto, weekly timer, cleaning, etc.
- Reports the efficiency, mechanical or functioning faults of each unit
- Connectable to the local network to see from PC, tablet or mobile on the website
- Accessible from the outside for maximum control
- Integrable with other systems of control of the market by can bus and modbus
- Allows optimisation of “freecooling” with sensor of external conditions – T°C and HR%
- Protected control by access key
- Allows to disconnect units of the group area
- Records historical data from sensors and hours of operation, downloadable from PC to PC



Advanced control system up to 10 units that allows its connection to local network to access the internal webserver in addition to allow connection with humidity and temperature sensors both ambient as exterior.



INTEGRATED WITH:

SIEMENS

Schneider  
Electric

Johnson  
Controls

# BIO 18AIV-30AV-18CV DC



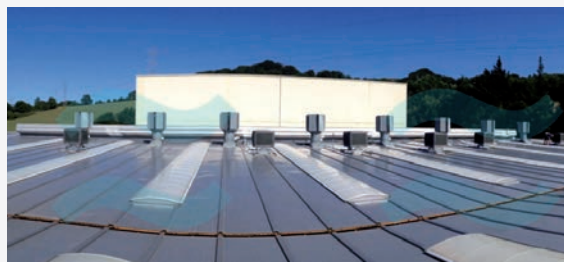
**BIO 18AIV**  
30% LOWER  
ENERGY CONSUMPTION



**BIO 30AV**



**BIO 18CV DC**  
CENTRIFUGAL FAN



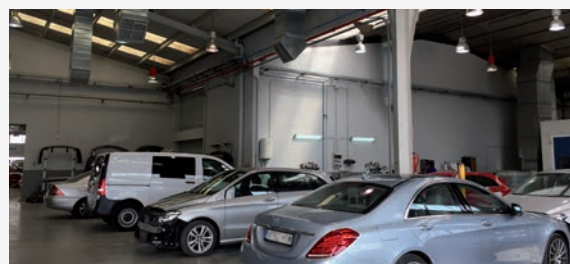
- Simple installation
- Powerful fan
- Non-clogging water distribution allowing maximum cooling efficiency
- Possibility to cool selected zones
- Automatic cleaning
- Ozone eliminates 100% of bacteria that can survive in water
- Fast and quick maintenance
- External power swift disconnecter fuse protects the unit and allows maintenance works with security
- Ducts automatic opening to avoid during winter the cold air entering from the outside and preventing hot air escaping from the inside
- Pre-filters prevent polluting particles being brought into the cooling pads

Specifications	Units	BIO 18AIV	BIO 30AV	BIO 18CV DC
Air flow	m <sup>3</sup> /h	18,000	30,000	18,000
Cooling capacity	W	19,652	28,800	18,290
Fan type		Axial-Inverter	Axial	Centrifugal
Max. energy consumption	W	1,200	3,000	1,500
Max. current	A	8	7,1	9
Fan diameter	mm	610	710	650
Max. fan speed	rpm	1,390	1,490	-
Power supply	V/Hz	220/1ph/50-60	380/3ph/50-60	220/1ph/50-60
Filter pad size	mm	825 x 620 x 100	890 x 970 x 100	2 x (825 x 620 x 100) + 2 x (625 x 820 x 75)
Air exit		Top, side down	Top, side, down	Down
Water tank capacity	l	25	45	30
Remote control		Optional	Optional	Optional
Max sound level	dB(A)	<70	<80	<69
Product dimensions (l x w x h)	mm	1110 x 1110 x 950	1290 x 1290 x 1310	1150 x 1150 x 950
Shipping dimensions (l x w x h)	mm	1110 x 1110 x 1020	1290 x 1290 x 1470	1110 x 1110 x 1100
Net/gross weight	kg	67/92	120/165	77/102

# EXTRACTOR BIO EXH



**BIO EXH**



- Extraction unit only – complementary to Biocool cooling system
- Simple installation
- Energy-saving and eco-friendly
- Low noise
- Fast and quick maintenance
- External power swift disconnecter fuse protects the unit and allows maintenance works with security
- Pre-filters prevent polluting particles being brought into the cooling pads

Specifications	Units	BIO EXH
Air flow	m <sup>3</sup> /h	18,000
Max. energy consumption	W	1,200
Min. energy consumption	W	360
Max. current	A	5.6
Fan type		Axial
Fan diameter	mm	600
Max. fan speed	rpm	1390
Engine power	W	1100/60 to 200-264V
Engine power supply	V/Hz	220/1ph/50
Engine variable speed range	rpm	170-1390
Max sound level	dB(A)	<70
Remote control		Yes
Product dimensions (l x w x h)	mm	1150 x 1150 x 950
Shipping dimensions (l x w x h)	mm	1150 x 1150 x 1050
Net/gross weight	kg	60/70

# PORTABLE AIR COOLERS

## WIND FORCE 4-7



**WIND FORCE 4**



**WIND FORCE 7**



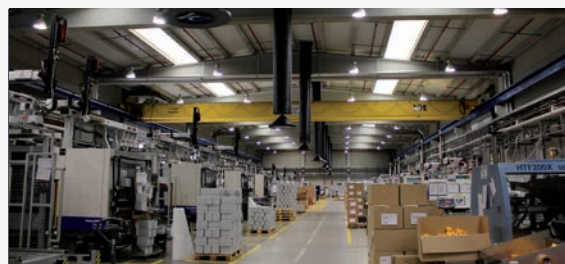
- Efficient and durable spot cooler for industrial applications
- Quiet running even with large air-flow
- Automatic swing function as standard
- Large water tank for longer operating hours
- Large, durable wheels with brakes allow easy movement
- Connect water hose or refill tank manually to offer comfort to your employees
- Corrosion-resistant plastic casing
- Air filter included to enable easy maintenance
- Remote control to easily adjust speed
- UV lamp, disinfecting the water

Specifications	Units	WIND FORCE 4	WIND FORCE 7
Cooling pad	dm <sup>3</sup>	120	180
Air flow	m <sup>3</sup> /h	12,000	22,000
Maximum area	m <sup>2</sup>	150	250
Power consumption	W	450	750
Power supply	V/Hz	220-240/1ph/50	220-240/1ph/50
Rated current	A	2.7	4.5
Water consumption	l/h	8-10	10-15
Tank capacity	l	80	120
Direct water connection	inch	½	½
Tank level control		Yes	Yes
Product size (l x w x h)	mm	1050 x 600 x 1460	1230 x 640 x 1730
Box size (l x w x h)	mm	1120 x 680 x 1640	1300 x 720 x 1920
Net/gross weight	kg	50/55	65/70
Pallet	pcs	1	1

# PORTABLE AIR COOLERS WIND FORCE 10



**WIND FORCE 10**



- Powerful air volume 30,000 m<sup>3</sup>/h to cool large working areas
- No installation, no duct work required
- Low running costs
- Easy to maintain
- Evaporative filter pads, blocking dirt
- UV lamp, disinfecting the water
- Low energy consumption – 1.3kW
- Applications: Workshops and warehouses, plastic, glass, assembly and painting plants, agriculture, greenhouses and aircraft hangars



**Control panel**

Specifications	Units	WIND FORCE 10
Cooling pad	dm <sup>3</sup>	340
Air flow	m <sup>3</sup> /h	30,000
Maximum area	m <sup>2</sup>	400
Power consumption	W	1,300
Power supply	V/Hz	220-240/1ph/50
Rated current	A	4.5
Water consumption	l/h	15-20
Tank capacity	l	200
Direct water connection	inch	½
Tank level control		Yes
Product size (l x w x h)	mm	1690 x 920 x 1910
Pallet size (l x w x h)	mm	1000 x 1800 x 2100
Net/gross weight	kg	130
Pallet	pcs	1

COOLING SOLUTIONS FOR:

- TEXTILES
- FOUNDRIES
- RESIDENCES
- SPORT CENTERS AND COMMERCIAL BUILDINGS
- FOOD INDUSTRY
- TECHNICAL ROOMS/ DATA CENTERS



INDUSTRY&PRODUCTION



WORKSHOPS



PUBLIC SPACES



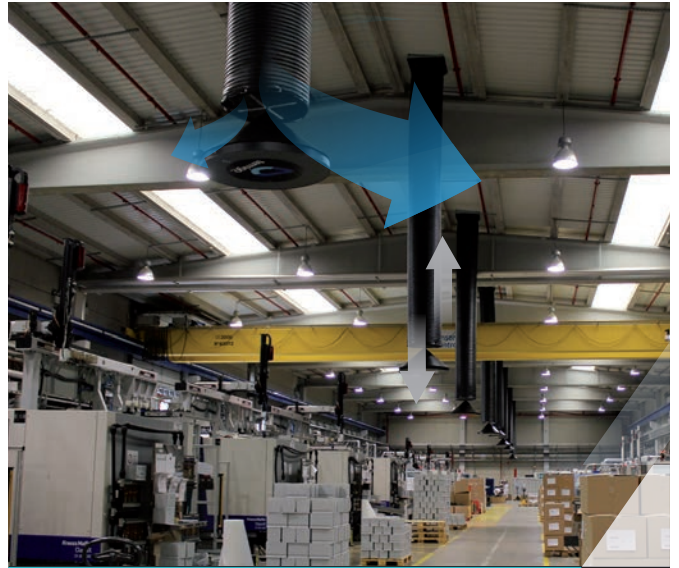
WAREHOUSES



SPORT CENTERS

COOLING SOLUTIONS FOR:

- CERAMICS
- SCHOOLS
- LAUNDRIES
- GREENHOUSES
- PHARMACEUTICAL WAREHOUSES
- CAR DEALERSHIP/ GARAGES
- PLASTICS



WAREHOUSES



PRODUCTION LINES



GREENHOUSES



LAUNDRIES



GARAGES

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