



**merlin**<sup>®</sup>  
SUPERIOR HUMIDIFICATION **TECHNOLOGIES**

High-pressure atomisation  
in AHU systems  
with ORBIT WING<sup>®</sup> EasyClick



HUMIDIFICATION



COOLING



# Give your system wings – O



## OUR SERVICES

Concept & planning support.  
Quick & comprehensive customer care.  
All components from a single source.



## YOUR APPLICATIONS

Flexible use in all building types.  
Can be integrated into any BMS  
or used as a stand-alone device.



## ORBIT WING® EasyClick

Pre-assembled system for extra-quick installation.  
Patented flow technology ensures  
dry walls in ventilation ducts.



## HIGH OPERATIONAL SAFETY

PWIS-, silicone- & oil-free.  
Food-approved & hygienically tested  
components.



## PIONEERING TECHNOLOGY

Ultra-precise, infinitely variable control.  
Intuitive touch control pad.  
Minimum maintenance effort.



# Our smart solution for your AHU project.

## Welcome to the world of optimised indoor climate

Find out more about our pioneering technology and discover how ORBIT WING® EasyClick can help you to create a healthy and comfortable working environment. merlin® high-pressure atomisation is extraordinarily energy-efficient, flexible and suitable for almost any company and industry. Dive into a new dimension of modern humidification and cooling made in Austria!



Application example: Ventilation duct

*The merlin® system works extremely efficiently and the flexibility is impressive when it comes to choosing an installation site. Professional support from merlin® throughout the entire project ensures a smooth process.*

Dipl.-Ing. (FH) Thomas Vorstandlechner  
Project Leader Technology OOE at Bacon Linz

# Carefree – from water treatment through to high pressure nozzles

## merlin® – one-stop shop for all components

Our core competencies are the areas of high-pressure atomisation and water treatment.  
Our reliable systems are not only from a single sources down to the smallest detail, they also offer ideal conditions to ensure the highest possible degree of hygienic safety and functionality.  
Take advantage of our expertise and optimise your processes!

## Custom planning & engineering

With merlin® you can be sure to get the perfect system to meet your needs. We analyse your requirements and wishes to create a successful project, drawing on our expertise and experience gained since 1995.



Frost-resistant down to  
-20°C



ORBIT WING® in AHU system #3

Operation at  
a distance of  
up to 200 m

ORBIT WING®  
in AHU system #2

ORBIT WING® in AHU system #1

Technology room

Building-wide use  
with centralised control



Patented  
ORBIT WING® technology

# Central high-pressure & control unit



Variable atomisation performance of 0.3 – 11 g/kg



Decentralised position at a distance of up to 200 m can be achieved



Also possible as a PWIS-free, i. e. silicone- & oil-free system



Low maintenance

## Technical data

	Unit	ORBIT	CORBIT®
Atomisation performance	l/h	1.8 – 1,350	1.8 – 480
Lubricant		Water   PWIS- & maintenance-free	Oil   low maintenance (1 x per year)
Flow pressure min. / max.	bar	2 – 4	2 – 4
Connected electrical load (max.)	kW	2.2 – 4.0	1.5 – 3
Voltage	V   Hz	400 – 480   50/60	220 – 240   50/60
Dimensions (w x d x h)	mm	660 x 480 x 1,570	1,130 x 560 x 1,300
Weight	kg	approx. 110	approx. 95

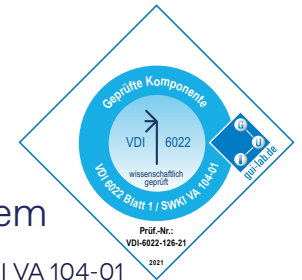


## Full throttle – a powerful central unit

The high-pressure units in our systems are also home to the control logic, making them a central component of the ORBIT WING® system. The two available ORBIT and CORBIT® product lines allow for solutions at any scale. The smart control system gives you full control and provides for precise regulation even in the most sensitive areas of use.

## Certified air humidification system

According to VDI 6022 sheet 1 / SWKI VA 104-01



# Caverion

*We set extremely high standards for humidification systems for our customers who use cleanroom technology. Being able to precisely regulate the merlin® system between 0.3 and 11 g/kg ensures consistent climatic conditions.*

ppa. Dipl.-Ing. Florian Haslinger  
Head of Technology at Caverion Österreich GmbH

# EasyClick – simple installation with ORBIT WING®



Extra-short installation  
time thanks to pre-assembled  
click system



“Driest” possible humidification  
thanks to patented<sup>1</sup>  
ORBIT WING® technology



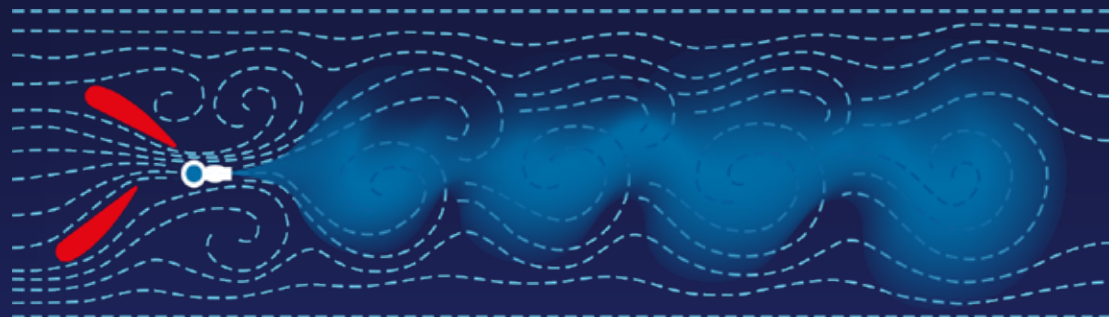
Only three basic components  
for modular & flexible design



Temperature-resistant  
up to 85 °C

## Patented ORBIT WING® technology: Shortened evaporation distance & dry duct walls

The distinctive wing elements of ORBIT WING® EasyClick create ideal flow dynamics with defined vortexes that keep the water aerosols away from the walls of the ventilation duct. In addition, the longer circular route shortens the effective evaporation distance, allowing for compact installation and maximised efficiency and hygiene.



Dry walls in standard operation

<sup>1</sup> Patented (AT, PCT)





### Nozzle holder

Tools are hardly needed for installation, as the sophisticated wing holders guarantee that the wings are automatically positioned correctly.



### Nozzle pipe

EasyClick installation: The high-pressure nozzles can be installed on the nozzle pipes in advance, which can then be simply clicked into the wing holders.



### ORBIT WING® wings

The EasyClick system also allows for the wings, to be simply clicked in, and installation is complete: It's as easy as one, two, three.



**Dipl. Ing. Lukas Mahr**

Gebäudetechnik Service & Consulting GmbH

*The ready-to-install ORBIT WING® EasyClick system is self-explanatory, and my technicians needed hardly any tools to install it. The short installation time allowed for greater efficiency, saving us time and resources.*

Dipl. Ing. Lukas Mahr  
Managing Partner

# All-round easy & hygienic – the droplet separator



Easy installation  
thanks to modular design  
of the droplet separator



Made entirely from durable &  
wear-free stainless steel



Maximum hygiene,  
water drainage guaranteed



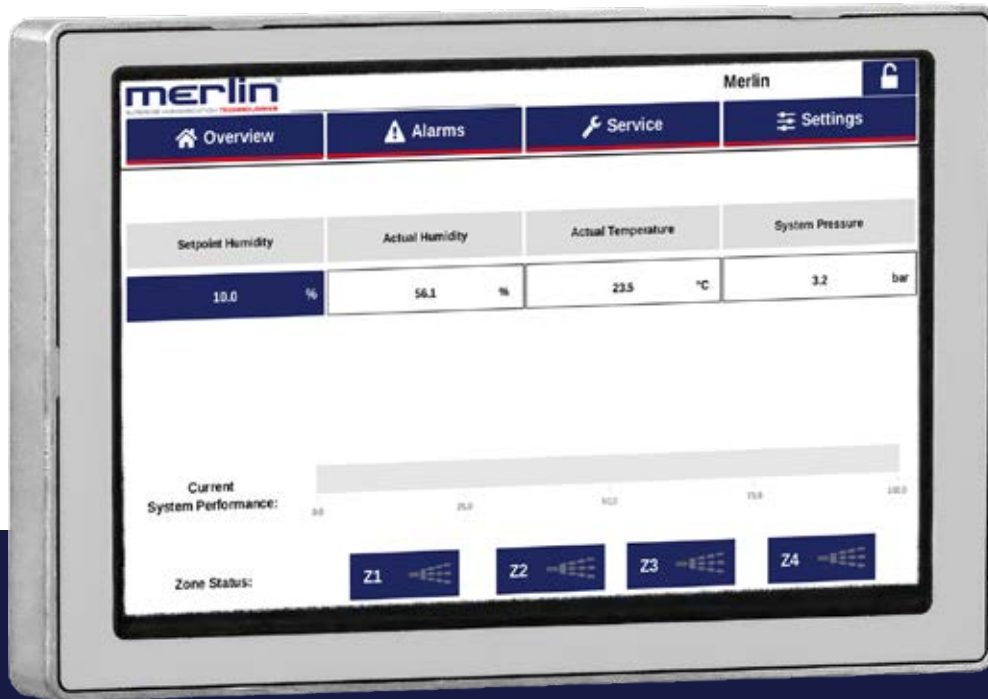
Effective capture of aerosols  
thanks to optimised  
fine-mesh separator

The droplet separator is a key component of high-pressure atomisation in AHU systems. It efficiently removes water aerosols from the air flow, thus improving air quality and allowing for a longer service life of the components.

## Ideal figures – some impressive key figures:

- ✓ Minimised pressure loss (approx. 40 Pa at 2 m/s)<sup>1</sup>
- ✓ High degree of separation of “large” aerosols:  
Virtually 100 % of aerosols with a size of >10 µm
- ✓ Density: 145 kg/m<sup>3</sup> for drop formation

# Everything under control



## ✓ Connection & integration

Can be integrated into any BMS or used as a stand-alone device

## ✓ Interfaces

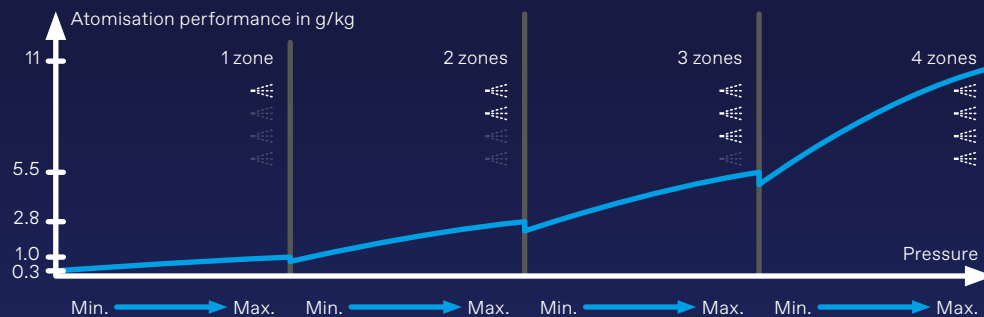
Can be connected to smart interfaces

## ✓ Control

Fast-response touch control pad with intuitive user surface, digital monitoring is possible

## Pioneering & smart: Technical advantages of merlin®

### Ultra-precise merlin® control



Combination of level & pressure regulation, infinitely variable system control without fluctuations



Optimised PID regulation virtually eliminates excessive or insufficient humidification





Development in cooperation with



Campus  
Wels

Campus  
Steyr

Professional association memberships



FGK



Be on the safe side with us

Our company and our products are certified according to all relevant standards. Cooperation with acclaimed universities and laboratories and membership in relevant industry associations combined with our comprehensive expertise enable us to draw up the best indoor climate concept for you:

- ✓ Company-run competence centre
- ✓ Customised maintenance concepts
- ✓ Ensuring impeccable hygiene for your systems
- ✓ VDI-trained technicians

# Tested, certified, confirmed – highest level of safety & quality

Our certifications



VDI 6022

acc. to sheet 1 / SWKI VA 104-01  
Indoor air technology / quality  
Product certification



ISO 9001

Quality  
management  
Company certification



ISO 14001

Environmental  
management  
Company certification



ISO 22000

Food  
safety  
Company certification



ISO 13485

Medical  
products  
Company certification



ÖNORM H 6020

Ventilation & air conditioning  
plants for locations for medical use  
Company certification

## HygieneForce®

The merlin® HygieneForce ensures a perfectly hygienic indoor climate!

## TechForce

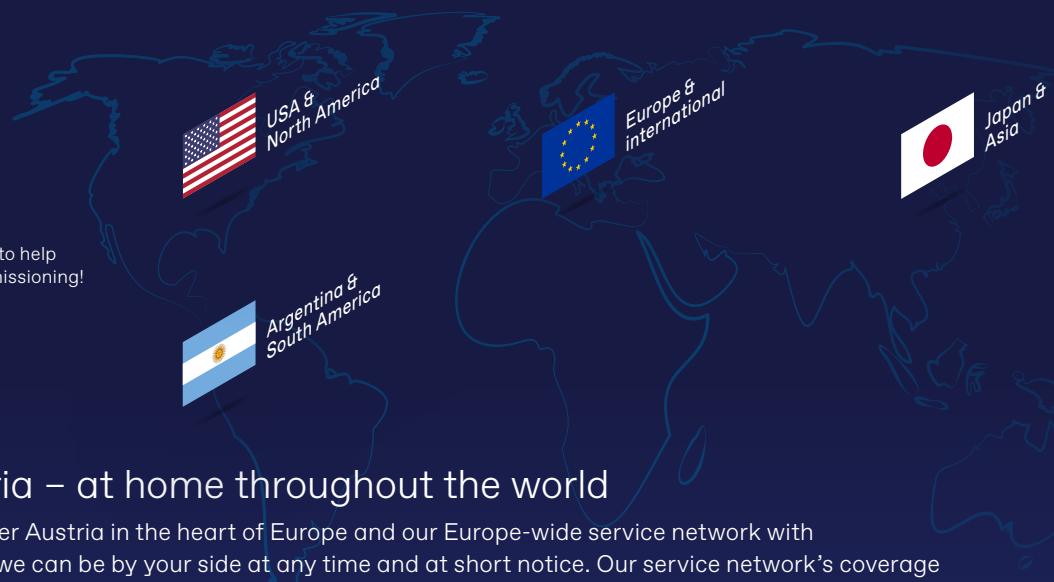
Highly qualified technical staff creates the foundation for superior high-pressure atomisation!

# Superior Service – customer-focussed

Headquarters in Austria

## SalesForce

The merlin® SalesForce is here to help from planning through to commissioning!



## Rooted in Austria – at home throughout the world

Our headquarters in Upper Austria in the heart of Europe and our Europe-wide service network with over 40 partners means we can be by your side at any time and at short notice. Our service network's coverage is particularly extensive in the DACH region. You can be sure that your nearest technician is no more than 300 km away. Our branch in Chicago in the US allows us to offer comprehensive services internationally as well.

- ✓ Customer support  
remote, multi-lingual
- ✓ Delivery of replacement parts  
within 48 hours in Europe
- ✓ Service hotline  
+43 7752 71966 - 34  
[service@merlin-technology.com](mailto:service@merlin-technology.com)
- ✓ Service hours  
MON – FRI: 7:30 am – 8 pm CET  
SAT & public holidays: 9 am – 3 pm CET

# Best climate for human, material & environment



[office@merlin-technology.com](mailto:office@merlin-technology.com)



HUMAN



HONEST



REVOLUTIONARY



EMOTIONAL



INNOVATIVE



SUSTAINABLE

## From people for people

Since 1995, the owner-run family company Merlin Technology GmbH based in Upper Austria has been offering top conditions for a productive and innovative corporate culture.

Customers from around the world benefit from this. Our humidification and cooling solutions made in Austria are used by over 7,000 customers in 81 countries. "Superior service and 100 % customer satisfaction" is our motto – and we are fully committed to it!

Directed by Johannes Part (CFO), Dominik Reisinger (CTO) and Johann Reisinger (CEO), merlin® is a place where innovative, sustainable product solutions are born.



# All merlin® solutions

As a specialist in the fields of indoor climate and humidification, merlin® has a comprehensive product range that offers solutions for any problem.  
Let's talk about your merlin® success story!



**merlin®**  
**High-pressure atomisation in rooms**  
Humidification | Cooling | Dust binding



**merlin®**  
**High-pressure atomisation in AHU systems**  
Humidification | Cooling



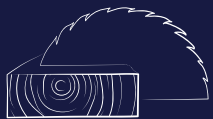
**merlin®**  
**Ultrasonic & rotation lamellae systems**  
Humidification | Cooling



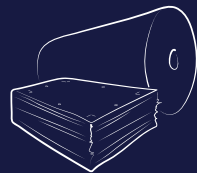
**merlin®**  
**Water treatment**  
for the entire industrial sector

## Industries

The merlin® SalesForce includes experts for any industry.



**WOOD PROCESSING**



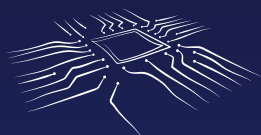
**PAPER & PRINTING**



**BUILDING TECHNOLOGY & OFFICES**



**AUTOMOTIVE & AVIATION**



**ELECTRONICS**



**PLASTIC**



**FOOD**

Other  
industries?

**CUSTOM SOLUTIONS**



VISIT US

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