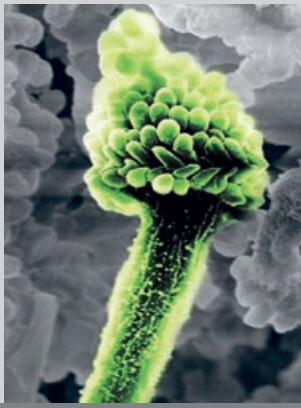


Better air hygiene  
in closed rooms



## AIR DISINFECTION UNIT AIRCOM O2





## Guaranteed air hygiene with the UV-C disinfection unit AirCom O2

The quality of air plays a decisive role for well-being. The risk of infections caused by air contaminated with microbes is particularly high in closed rooms – for example offices, doctors' waiting rooms, outpatient operations, laboratories, old people's homes and nursing wards. Bacteria, viruses and mould spores spread rapidly via the air and can pose a threat to health – from feelings of unwellness to serious illnesses.

### **UV-C air disinfection – the most natural form of disinfection**

UV-C radiation is a natural component of sunlight. The anti-bacterial effect of this radiation has been known for a long time. A wavelength of 253.7 nm triggers changes in the genetic material of the microorganisms, causing them to die. Unlike other systems, no thermal or chemical treatment of the air is necessary.

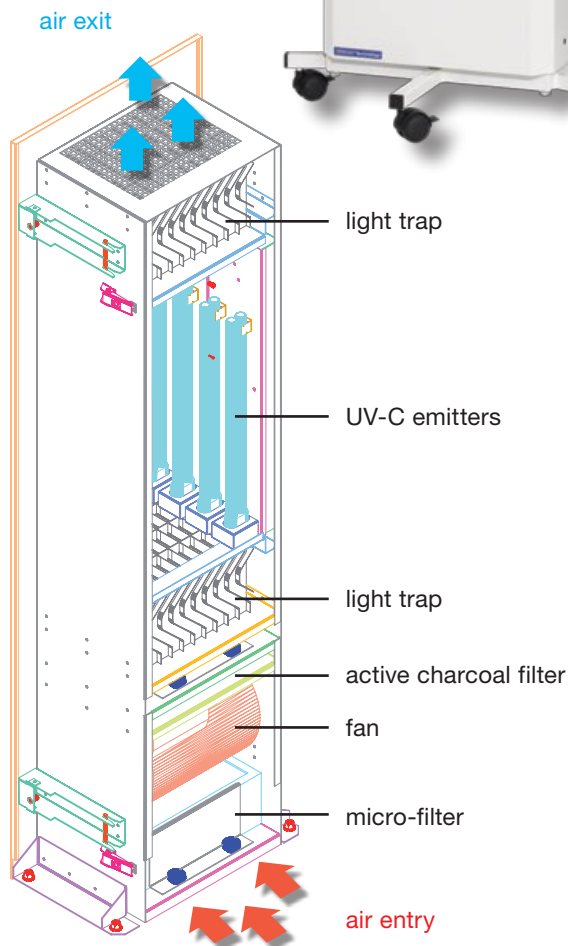
### **Insufficient air hygiene leads to ill health**

Many people frequently complain about inexplicable problems and symptoms. Poor air hygiene can be a cause of this. Germs can also pose a risk to healthy people, especially in areas where there is a particularly high concentration of microorganisms in the air. Risk situations include crowded doctors' waiting rooms and air conditioning systems that transport viruses and bacteria combined with windows that cannot be opened in offices, unventilated nursing wards and insufficient air hygiene conditions in laboratories. Patients with immune deficiencies or people who already suffer from allergies, asthma or cardiovascular complaints are particularly at risk.

### **BÄRO AirCom O2: Efficient, UV-C based air disinfection**

AirCom O2 is an attractively designed, space-saving air disinfection system that can be easily integrated into all kinds of premises as a mobile stand-alone or a wall-mounted system. The air contaminated with microorganisms is drawn into the unit by a fan, pre-filtered by a micro-filter and an active charcoal filter and then passed through UV-C emitters. This efficiently disinfects the air, frees it from smells and releases it again. Up to 99.9% of microorganisms are destroyed, greatly improving the quality of the air in the room. As the system is fully encapsulated, no radiation escapes outside. In a representative study\*, scientists from the University of Montreal (Canada) proved that the disinfection of air in air conditioning systems leads to a 40% reduction of respiratory problems, a 30% reduction of mucous membrane problems and a 50% reduction of muscular aches.

\* "The Lancet", volume 362, pp. 1785 - 1791, 29. 11. 2003 –  
We would be pleased to provide excerpts from this study on request.



Technical description	AirCom O2
Product no.	895495
Height (stand-alone unit with castors)	1,640 mm (1,730 mm)
Width (stand-alone unit with castors)	430 mm (580 mm)
Depth (stand-alone unit with castors)	265 mm (570 mm)
Supply voltage	230 V ~ 50 Hz
Power consumption	530 Watt
1st filter stage	F 9 micro-filter
2nd filter stage	active charcoal filter
Air flow rate – noise development	
stage 1	130 m <sup>3</sup> /h – 40 dB (A)
stage 2	190 m <sup>3</sup> /h – 41 dB (A)
stage 3	220 m <sup>3</sup> /h – 46 dB (A)
UV-C emitters	4 x 95 Watt
Emitter service life	8,000 h
Safety class	I
Protection class	IP 20
Radiation chamber material	aluminium
Housing material	sheet steel, powder-coated RAL 9010
Weight (with castors)	45 kg (48 kg)

Table:  
microorganisms and their disinfection with  
UV-C radiation, UV-253.7 nm radiation  
dosage for 90% and 99.9% inactivation  
of various microorganisms –  
medical/pharmaceutical sector



## Fields of application for AirCom O2

The air disinfection unit AirCom O2 can be effectively deployed in many different areas – wherever people work closely together or where pathogens are found.

The risk of infection from germs is particularly great in offices and doctors' waiting rooms, especially when colds are going around. AirCom O2 helps to greatly reduce the number of microorganisms and considerably improves air hygiene.

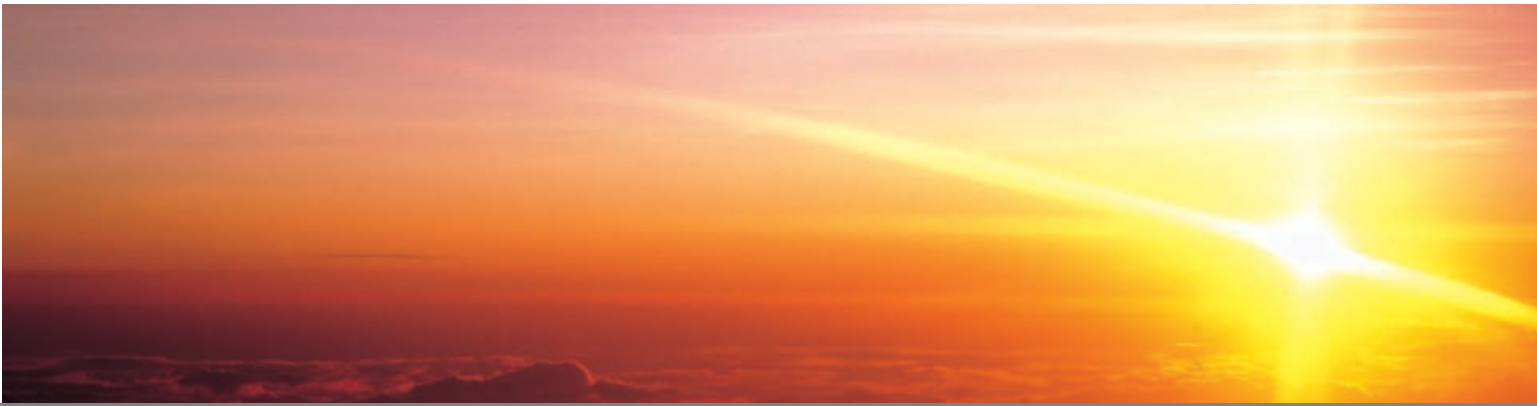
In laboratories and testing facilities where people work with microorganisms and their genes, but also with animals and plants, the air in the room must be kept as free from germs as possible – for the health of the staff and also in order to carry out experiments.

AirCom O2 specifically helps to avoid infections and prevents the falsification of experiment results.

For outpatient operations and also in dental surgeries it is important to keep the air as germ-free as possible as microorganisms can enter open wounds, causing serious complications. AirCom O2 specifically helps to prevent this and furthermore eliminates unwanted smells by producing air with a low germ count.

In old people's homes, nursing homes and hospital wards old and sick people with weakened immune systems react particularly sensitively to contaminated air. AirCom O2 offers effective protection for these groups of people.

Microorganisms	Responsible for	90% disinfection mWs/cm <sup>2</sup>	99,9% disinfection mWs/cm <sup>2</sup>
<b>Bacteria</b>			
<i>Bacillus anthracis</i>	Anthrax	4.5	13.7
<i>Salmonella enteritidis</i>	Intestinal tract infections	4.0	12.0
<i>Corynebacterium diphtheriae</i>	Diphtheria	3.4	10.0
<i>Legionella pneumophila</i>	Pneumonia	0.92	2.76
<i>Pseudomonas aeruginosa</i>	Wound infections	5.5	16.5
<i>Salmonella typhimurium</i>	Typhoid fever	8.0	24.0
<i>Staphylococcus aureus</i>	Wound infections	2.2 – 4.9	6.6 – 14.8
<i>Streptococcus haemolyticus</i>	Scarlet fever	2.2	6.6
<b>Viruses</b>			
<i>Poliovirus</i>	Polio	3.2	9.6
<i>Influenza viruses</i>	Influenza	3.4	10.2
<i>Hepatitis viruses</i>	Hepatitis	5.8	17.4
<b>Fungi</b>			
<i>Aspergillus niger</i>	Allergies/respiratory infections	132.0	396.0
<i>Penicillium spec. digitatum/expansum/chrysogenum</i>	Allergies	50.0	150.0



## Research and development

As a specialist with many years of experience in air, water and surface disinfection, BÄRO has its own research and development centre. Here, microbiologists, food technicians and HVAC engineers continuously work on improvements and innovations – naturally in constant consultation with customers and suppliers.

## Planning and consultation

The BÄRO application specialists advise you and help you to plan your system in order to find the right solution. BÄRO experts are always at your side, starting with measurements on site, through laboratory tests and feasibility studies and right up to installation. As well as standard units such as AirCom O2, BÄRO offers customised disinfection solutions such as the integration of disinfection modules in existing or planned air conditioning systems.

## Hygiene Check

The Hygiene Check is a special BÄRO service. This check clearly shows which areas of your premises are contaminated by microorganisms or what the cause of this is. The analysis will result in specific recommendations to solve the problem. You can request a Hygiene Check as a full analysis or for individual areas.

## Safety – the utmost priority

All systems, units and components comply with the highest safety standards. Thorough checks, clear instructions and commissioning by our staff are a matter of course whenever customised solutions are installed.

## Service

Our aim is to ensure that your investment pays off. This is why we look for further opportunities to reduce your costs and optimise processes – even after installation of the equipment. In the case of malfunctions, the BÄRO service team will be there to assist you as quickly as possible.

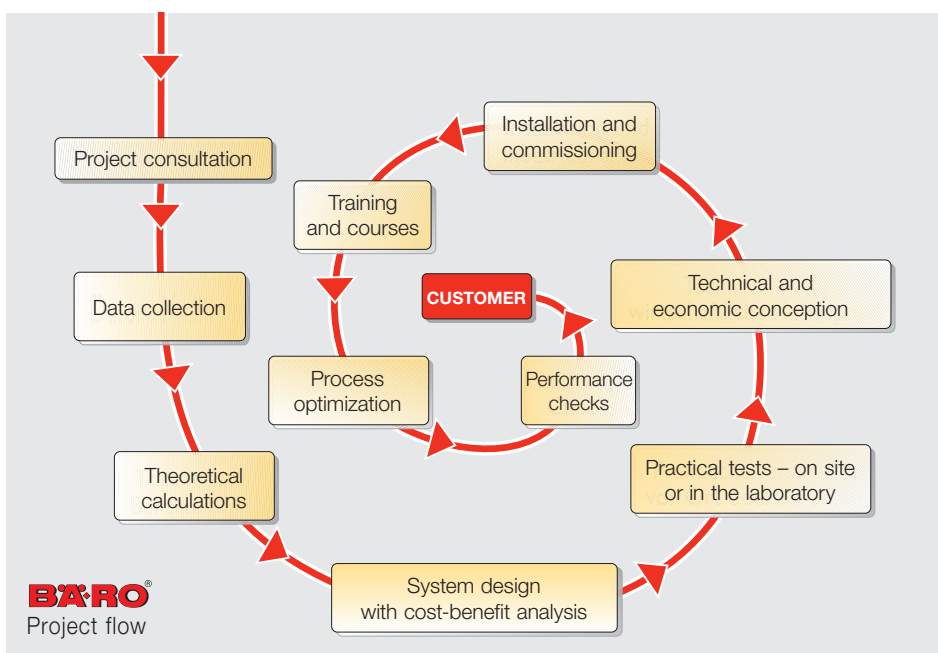


Diagram:  
BÄRO project flow for customised disinfection solutions

Fax +49 (0) 21 74 799 - 799

## We are interested in ...

### ... the AirCom O2 UV-C based air disinfection unit

We would like to be contacted by a BÄRO consultant who can give us detailed information on the use of the disinfection units and systems.

Please send us detailed information on BÄRO disinfection technology.

We are not currently interested in disinfection technology on the basis of UV-C, but we would like further information concerning innovations in this field.

### ... customised disinfection solutions

Please call us regarding this.

### ... the BÄRO Hygiene Check®

We are interested in a consultation to analyse the situation at our company. Please call us regarding this.

Sender

\_\_\_\_\_  
Surname, first name

\_\_\_\_\_  
Company

\_\_\_\_\_  
House number, street

\_\_\_\_\_  
Postcode, town

\_\_\_\_\_  
Telephone, fax

\_\_\_\_\_  
E-mail

\_\_\_\_\_  
Place, date

\_\_\_\_\_  
Company stamp, signature

**BÄRO**  
Air hygiene

Wolfstall 54-56  
D-42799 Leichlingen  
Telephone +49(0)21 74/799 -505  
Fax +49(0)21 74/799 -799  
baero-technology@baero.de  
www.baero.de