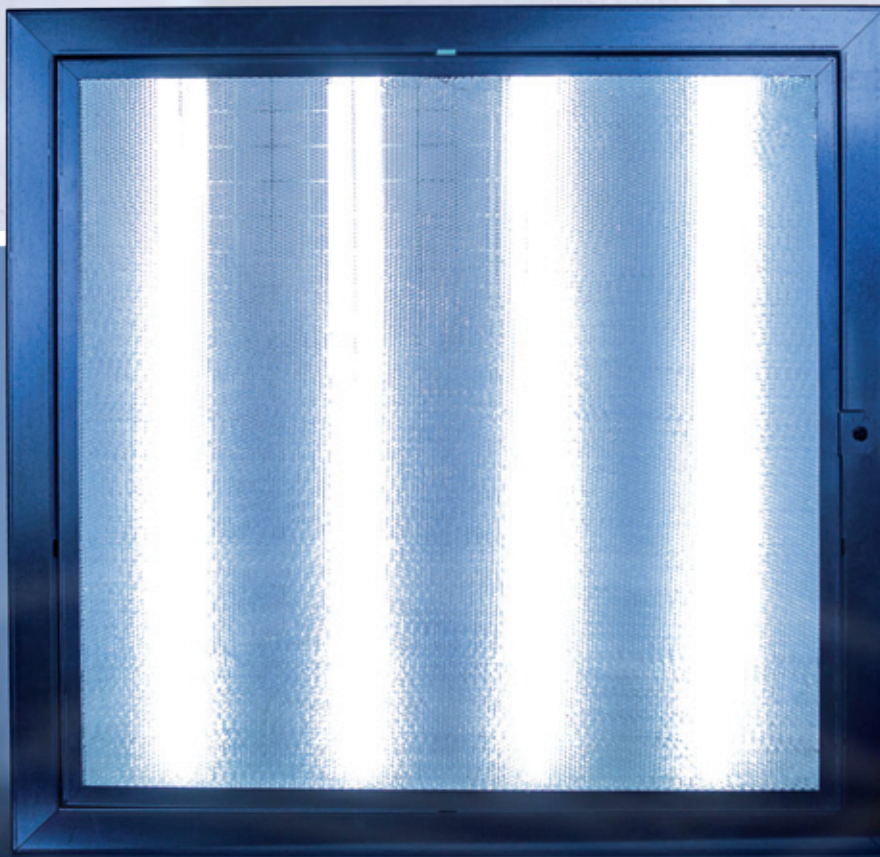




Calistair

Science for healthy air

The Calistair Reactor to purify...



and improve indoor air quality
in your buildings

The Calistair Technology

Unparalleled decontamination performance

The Calistair Technology sets a new standard for clean indoor air. When it comes to eliminating chemical pollutants, viruses and other microorganisms there is only one answer: Calistair.

	AIR DECONTAMINATION TECHNOLOGIES						
	CALISTAIR Technology	HEPA Filter	Cold Plasma	Ozone	Carbon Filter	Ionisation	Photocatalysis
Destruction of biocontaminants	++	--	++	+	--	-	++
Destruction of VOC and gases	+	--	-	--	--	--	-
Does not allow the formation of harmful by-products (ozone, formaldehyde, hydrogen peroxide)	++	+	--	--	++	--	-
Easy to produce in any size	++	++	--	+	++	-	++
Scalable	++	++	--	-	++	-	+
Capable of treating high airflow	++	+	--	-	-	-	--
Low energy	++	--	+	+	--	+	-
Eco-friendly	+	--	+	--	--	--	+
Treatment of inert particles	--	++	-	--	--	-	--
Disposal of contaminated consumables	++	--	++	++	--	++	++
Efficiency proved according to standards	++	++	-	--	++	--	--
Efficiency proved on coronavirus	++	--	--	--	--	--	--

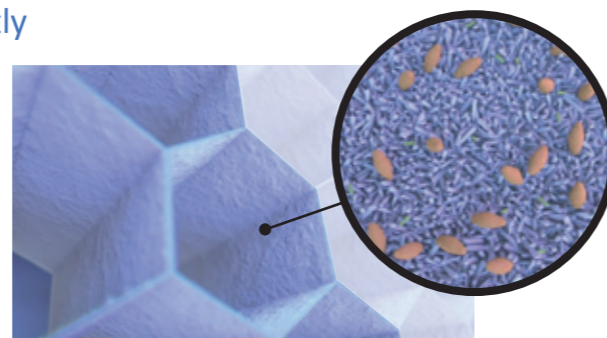
The «secret» of Calistair: The Non-Thermal Catalysis

The Calistair Technology destroys gases, volatile organic compounds and micro-organisms without generating any toxic products nor by-products like **ozone, hydrogen peroxide** etc.

In addition, it withstands **high airflows and velocities** of up to 5 m/sec. This feature, together with **low pressure drops, low energy consumption** and **long catalyst lifespan** are strong arguments which back up the use of the Calistair Technology and its integration into your industrial products, systems and air handling solutions.

Eliminate all types of contaminants fast and efficiently

- Viruses
- Bacteria
- Spores
- Fungi
- Acetic acid
- Isopropanol
- Formaldehyde
- Benzene



Coronavirus: A Formality for the Calistair Technology

Without research, there is no progress. We are working with leading experts from renowned institutes to demonstrate that air disinfection with the Calistair Technology can eliminate more than 99.63% of the Coronavirus, type HCoV-229E* in less than 2 minutes.



Impressive results in a single air pass

Further tests with a scaled-down prototype consisting of UV lamps and catalytic honeycombs have demonstrated the elimination of 94.9% of *Staphylococcus Aureus* in 15 minutes.

In addition, a test without HEPA filter showed a destruction rate of 96.32% of Gram positive bacteria that are the white staphylococci (reference of the strain ATCC 14 990) in a single pass at 1 000 m³/h. Another test with a fungus - *Aspergillus Brasiliensis* (ATCC strain reference 16 404) - showed 93.59% removal in a single pass at 1,400 m³/h without any filter.

Tests on gases and VOCs (volatile organic compounds) were performed by TERA Environment experts. The following average efficiency values were obtained with an airflow of 1,000 m³/h in a single pass and without any HEPA filter.

- Formaldehyde: 74%
- Acetone: 94%
- Heptane: 99%
- Toluene: 99%
- Acetic acid: 99%

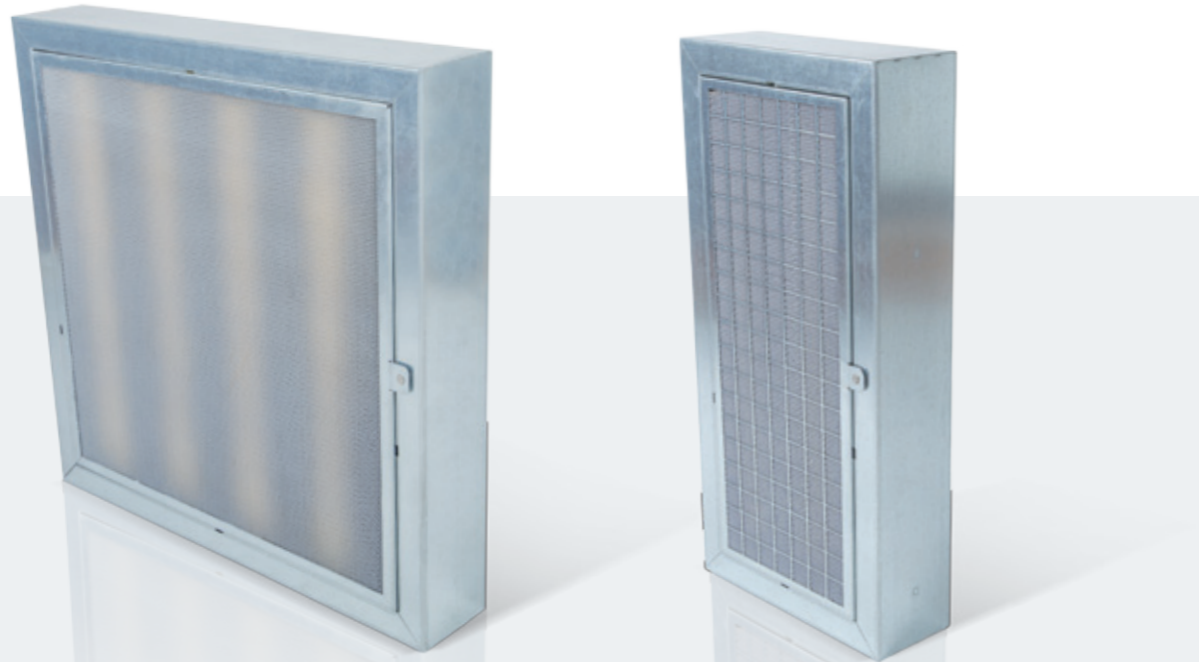
Adaptable to all sectors



*The testing institute certifies that the Calistair Technology eliminates more than 99.63% of airborne human coronavirus type HCoV-229E in 2 minutes. The tests were performed with a miniaturized 30 cm x 30 cm prototype reactor that was used in a microbiological safety station with a volume of 0.54 m³. No other tools, such as filters, were used - only Calistair Technology. The HCoV-229E coronavirus is a coronavirus of the same family as SARS-CoV-2, the virus that causes COVID-19.

The Calistair Reactor: modularity and efficiency

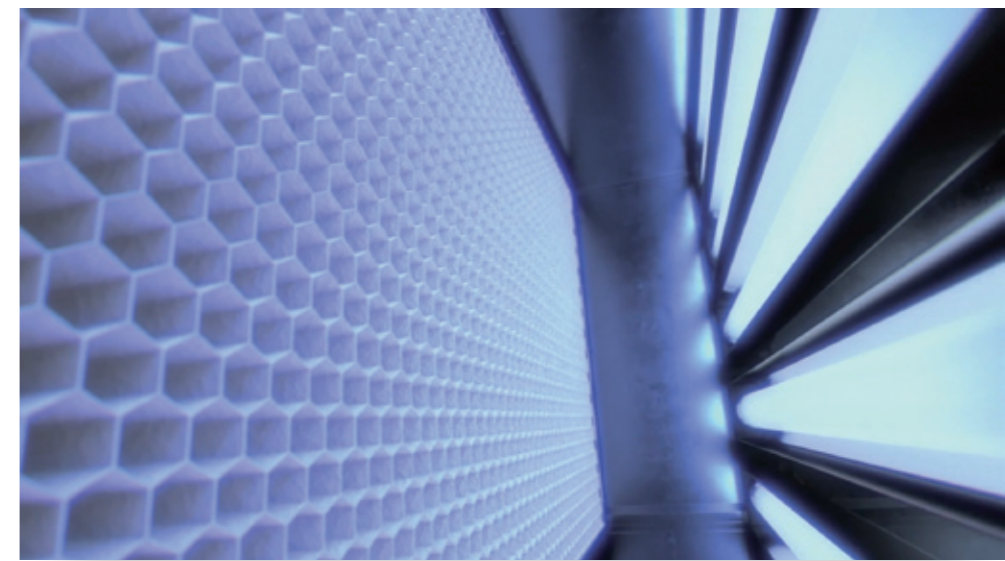
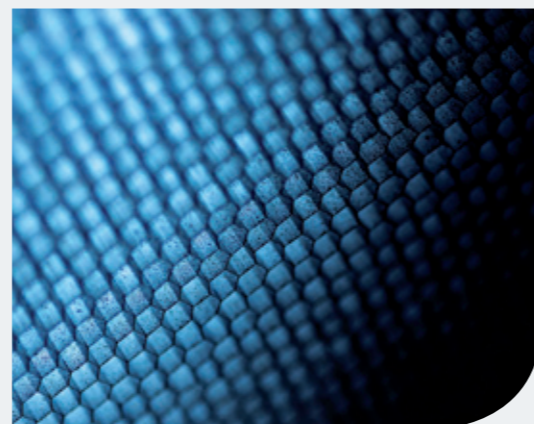
Retrofitting an AHU with the Calistair Reactor: it's quick and easy. From a technical point of view decontamination is ensured by two honeycomb structures which are impregnated with catalysts and associated with compact UV-C lamps integrated in the interstices. It is the activation of the catalysts by the UV-C that ensures the destruction of the contaminants.



The Reactor chassis is composed of a metal frame. The frame is made of steel coated with an alloy composed of zinc, aluminum and magnesium (304 L or 316 L stainless steel versions available as an option).

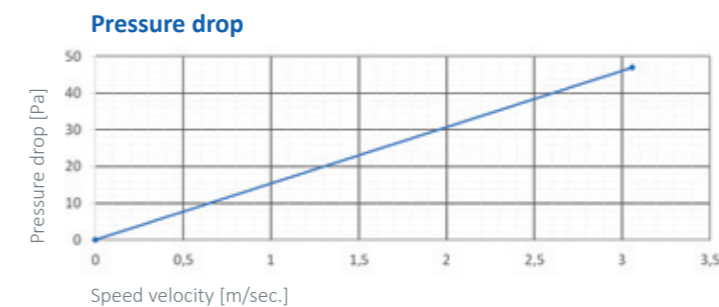
It is quick and easy to install. For the safety of technicians and service staff, it is possible to mount two UV filters at the inlet and outlet of the reactor.

The reactor is available in different standard filter sizes. On request, we can also produce sizes and formats according to your specifications. Several reactors can also be assembled and positioned side by side or on top of each other.



Filtration equivalent	G2 – G3* / Coarse dust 40 – 50%**
Recommended final pressure drop	100 Pa
Maximum final pressure drop	250 Pa
Maximum operating temperature	70°C
Maximum operating humidity	100%
Media	–

* According to EN 779/2012 - ** According to ISO 16890



Standard dimensions [mm]			Nominal Q air volume			Init. ΔP Without / with UV blocker	Electrical power supply
L	H	W	[m³/h]	[l/s]	[ft³/min]	[Pa]	[W]
592	287	105	1600	444	941	15 / 100	110
592	592	105	3200	888	1882	15 / 100	220
610	305	105	1700	472	1000	15 / 100	110
610	610	105	3400	944	2000	15 / 100	220

Calistair

A French leader in the field of air decontamination

Founded in 2014, our company first focused on the design of its Technology and on its first product, the R4000, an ultra-efficient mobile air purifier designed for hospitals, laboratories and cleanrooms. One year later, this innovative solution was already in use in hospitals. Today, more than 80 hospitals, clean rooms and laboratories use our purifiers in sensitive areas of risk class 3/4 where the air quality must correspond to ISO particle cleanliness classes 7 to 5. In 2017, the Näder family, the majority shareholder of the Ottobock Group, also entered the capital of the Calistair company. In 2019 we signed contracts with the first large customers and distributors located outside the European Union and in the Middle East.



In 2020 Calistair was selected as one of the top 5 influential start-ups in the fight against a pandemic and launched a compact air purifier with its technology, the C300.

Today, Calistair employs specialists and researchers who are fully dedicated to finding solutions to air contamination problems and optimizing the Calistair Technology.

Supported by partners, Calistair invests a large part of its budget in R&D activities and in the technical know-how of its research teams. Renowned institutes validate our solutions and attest to their high quality.

Hundreds of customers in Europe now trust the safety, decontamination standard and compliance with all norms of the Calistair solutions.





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