

## ColdOx<sup>®</sup>

### Effective odour treatment by photooxidation

ColdOx<sup>®</sup> is a well-proven technology for reducing VOC and odour emissions. Applications where ColdOx<sup>®</sup> is considered the **best available technology** include **wastewater treatment plants, food processing, waste, biogas and slaughterhouses.**

Higher removal and stable operation together with lower investment cost, operating cost and climate impact make ColdOx<sup>®</sup> the natural choice for odour treatment.

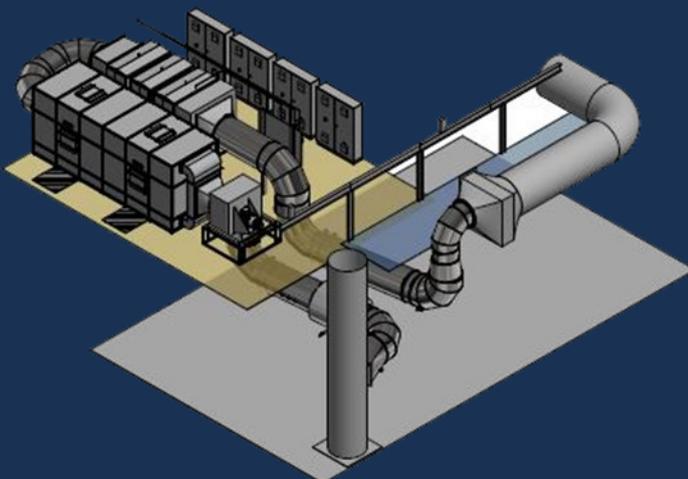
Using photolysis, the UV reactor breaks down particles, creates ozone and converts ozone into free oxygen radicals.

ColdOx<sup>®</sup> oxidizes VOCs and eliminates odour through the use of **high intensity UV**, excess ozone, and photo chemical **oxidation supported by special purpose catalysts.** The UV reactor achieves **odour reduction of up to 90% on its own.**

The ColdOx<sup>®</sup> reactor can be supplied as a stand-alone unit, but is usually combined with a stacked carbon filter (Dualbed) with low pressure drop. The combination of high efficiency UV reactor and activated carbon achieves **>98% reduction**

The units are designed to be placed both indoors and outdoors. Separate pre-separation stages for Ammonia and H<sub>2</sub>S are a common addition in more demanding applications with high incoming levels.

The ColdOx<sup>®</sup> system is supplied as a "plug and play" solution where control cabinets are supplied with prefabricated cables to reduce on-site installation work. The system has dual safety systems to ensure safe operation without ozone leakage. Centriair offers preventive maintenance with intelligent monitored control systems and the option of service contracts.



# ColdOx<sup>®</sup> - functionality



## Catalysis and adsorption

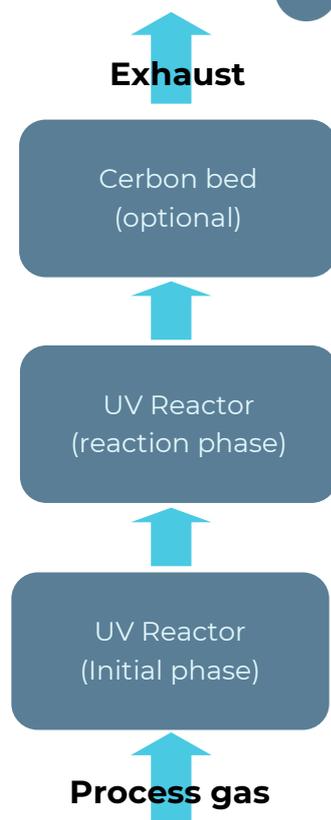
residual ozone destruction, regeneration and polishing.

## Photo-oxidation

of pollutants through synergy of UV, O<sub>3</sub> and radicals.

## Photolysis, ozonolysis

UV rays weaken and break the odor and pollutant molecules and generates ozone and radicals.



## Benefits

5-6 TIMES SMALLER FOOTPRINT THAN A BIOFILTER

2-4 TIMES LONGER LIFETIME COMPARED TO CARBON FILTER

95% LESS CO<sub>2</sub> EMISSIONS COMPARED TO INCINERATORS

>98% ODOUR REDUCTION RATE

< 2,5 YEAR RETURN ON INVESTMENT WHEN REPLACING INCINERATORS

30% SAVINGS IN OPEX COMPARED TO BIOFILTER AND ACTIVE CARBON

## Technical data ColdOx<sup>®</sup> UV Reactor

Performance	98-99 % odour removal
Process gas flow	300-> 200 000 m <sup>3</sup> /h
Electrical connection	380-400 V/3-ph+Neutral/50 Hz or 480 V/3-ph+Neutral/60 Hz
Material	Stainless steel AISI 304 or 316
Wash water	~10 liter per day
Lamps running hours	16 000 h