

CentrOx™ is an industrial particle, VOC and odour emission reduction solution for customers within industrial food processing, energy production, plastic and rubber manufacturing, painting and paint manufacturing and other industrial processes generating airborne emissions of particles, VOCs and odour.

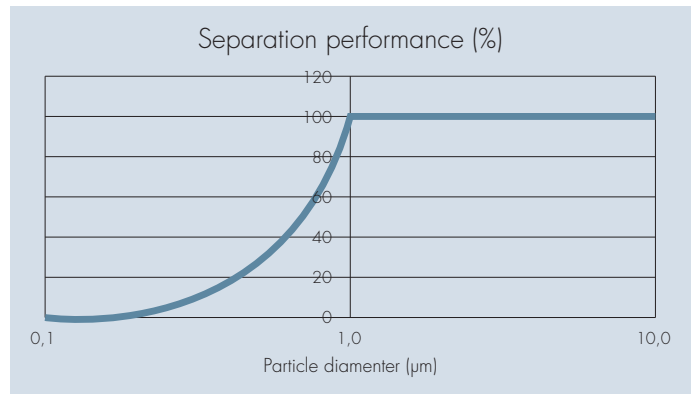
CentrOx™ combines ColdOx™ - Centriair's solution for VOC and odour removal - with efficient removal of particles through advanced centrifugal separation in the case where solid or liquid particles are present in the gas stream.

Particle separation - The centrifugal separator separates fluid particles with a disc stack rotating at up to 3000 rpm. The disc stack separates 100% of all the particles down to 1 µm and 82% of all particles down to 0.75 µm along with a percentage of the smaller particle sizes.

VOC and odour removal - The centrifugal separator is followed by the ColdOx™ reactor that oxidizes VOCs and eliminates odour through the use of high intensity UV, excess ozone, and photo chemical oxidation supported by special purpose catalysts.

Energy recovery – The CentrOx™ system typically achieves particle removal of more than 95% and odour reduction of more than 90%. This allows for heat recovery through plate heat exchangers (rather than less efficient tube and shell heat exchangers). Savings associated with recovering and reusing the heat typically translates into a pay-back time of between one to two years for the CentrOx™ system.

Low maintenance - The centrifugal separator is delivered with a "plug and play" automatic flushing device that cleans the disc stack should any material deposit on interior surfaces, ensuring virtually maintenance free operation even in high load or "sticky" applications. Centriair offers preventive maintenance with remote monitoring and on site intervention for all our installations.



Key benefits:

- 100% removal of particles > 1 µm
- High odour removal performance
- Low energy consumption
- Low water consumption
- Virtually maintenance free operation even in high load or "sticky" applications
- Low cost of operation
- Compact installation
- Modular and flexible solution

Technical data CentrOx™

Application:	Particle, VOC and odour emission reduction within food processing, energy production, plastic and rubber manufacturing, painting and paint manufacturing and other processes generating airborne emissions of particles, VOCs and odour.
Design example	The final design of each CentrOx™ unit is based on actual flow-rates, particle and VOC composition and performance requirements. In this example, the CentrOx™ unit has been fitted with a heat exchanger for energy recovery.
Example process gas flow (Nm ³ /h)	12000
Pressure drop (Pa)	3500
Dimensions, L*W*H (m)	6,9 x 5,5 x 2,5 m
Total weight	2180 kg
Material	SS AISI 304 or SS AISI 316 (Waste applications)
Installed power CentrOx™ (kW)	8,5
Installed power, fan (kW)	10
Operating power CentrOx™ (kW)	5,5
Operating power, fan (kW)	7
CIP cleaning water consumption (l/h)	60
Service interval centrifuge	Once per year
Service interval ColdOx™	Once every two years

