



Adoxpol

Solid separation & oxidation

Dissolved Ozone / Air Flotation



Co-funded by the Eco-innovation Initiative of the European Union



NORMEX

Ozone and Water Technologies



Ozonesystem and float material at Adoxpol system installed at Marine Harvest Fish feed Factory in Norway

The **ADOXPOL** solid separation & oxidation system has been developed and funded through the Eco-innovation scheme as an initiative of the EU's Entrepreneurship and Innovation Program (EIP).

The Adoxpol flotation process continually separates particles and oxidizes organic compounds from all types of flowing liquids. Its unique hydraulic design and patented dispersion system produces a maximum flotation effect. It results in a hydraulic action that influences the velocity and direction of the liquid. Particle matter will be separated at the surface. It is designed to handle a large flow of liquid in a small footprint, it can separate particle matter at a surface overflow rate of up to 20 m/h, resulting in a product that is compact, efficient and very cost efficient.

By taking advantage of the oxidation as well as micro-flocculation effect of ozone and the improved density of the "white water" through the patented dispersion system we have achieved an impressive improvement of the conventional flotation process. The ozone oxidation results in removal of recalcitrant substances and the developed flotation chamber enhances the optimal diffusion of micro-bubbles, coalescence of colloidal materials and efficient removal of agglomeration of coagulating froth/adsorbed pollutants.



- Eliminates compressor, pressure tank and attendant piping.
- Small bubble size, 10-30 μm .
- Higher micro-bubble density due to the use of ozone.
- Oxidation. & Disinfection.
- Surface overflow rate up to 20 m/h.
- Small footprint.
- Integrated sludge tank and sludge pump.
- Available both in PE and SS 316L and 304.
- Automatic system designed for maximum operational efficiency.
- Integrated control system, automatic with PLC.

Advantages



The particle separation process is dependent on the effect of the dispersion system that creates micro-bubbles by introducing ozone/air saturated dispersion water into the process. Normex has developed a unique dispersion system, the system is patented and needs no tank or compressor creating micro-bubbles in the range of 10-30 μm . The micro-bubbles attach themselves to particles and lift them to the surface for separation. The use of ozone in the process increases the flotation effect, resulting in a higher separation effect, hence cleaner water.

Separation Process



- Excellent performance in removing fat, SS, COD, color, microbial agents in wastewater.
- Excellent removal performance of THMFP, algae, color, taste and odor in drinking water.
- High removal rate of non-biodegradable organic matter in tanning, textile and livestock wastewater as well as lechate from landfill.
- Improves wastewater biodegradability.
- 92 - 100% ozone utilization.
- Pathogen removal.
- Off-gas from the system may be utilized in removing odor produced in the system process.

Treatment advantages

ADOXPOL KEY APPLICATIONS

Food Preparation
Slaughter Houses
Meat and Poultry Processing
Seafood Processing
Feed Producers
Milk and Dairy
Petrochemical
Sewage water treatment
Algae Removal
Water with high Color and TOC

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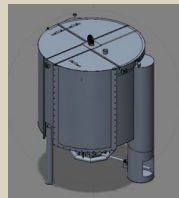
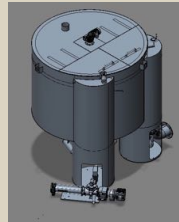
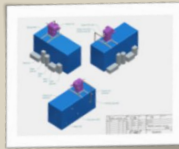
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Benefits: Reduced water pollution, reduced chemical use.



The **ADOXPOL** system can be delivered in five standard sizes:

Adoxpol container
Up to 5 m³/h (dual PE construction).

Adoxpol 20
Up to 20 m³/h,
PE construction

Adoxpol 30
Up to 30 m³/h
SS construction

Adoxpol 60
Up to 50 m³/h
SS construction

Adoxpol 100
Up to 100 m³/h
SS construction

INFORMATION

For further information about the Adoxpol system visit www.adoxpol.com. You can also contact Normex or any other of the project partners.



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