Off-gas from Chemical industry

Off-gas from denitrification

Storage hall for sewage sludge

Off-gas from screening-room and Pumpstation

Off-gas from sludge dryer

Working like the sun – experienced, fast, successful

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Pure Air *Healthy Climate* *Clean Environment*

NEUTRALOX®
Environmental Technology

ACTIVATED OXYGEN

Odour Treatment - Simple – Fast – Powerful

For a clean and healthy working environment

Applied inside of buildings NEUTRALOX Ionization Units purify room air and improve the indoor working conditions. Based on air-recirculation, this process minimises the demand for fresh air and consequently reduces heating (or cooling) costs significantly.

Active Oxygen Generation

Air ionisation is a natural process which sterilizes and deodorizes the atmosphere since the beginning of time. In principle, this happens through micro oxidation by means of electrically loaded oxygen. Ionic oxygen in comparison to neutral oxygen has a much higher additive property and oxidation capability.
This characteristic feature enables ionic oxygen to oxidize and neutralize air pollutants in molecular extent within seconds. Air cleaning with ionic oxygen is a natural process that does regenerate the air in our environment continuously.
NEUTRALOX Ionisation Units are based on the same principles. The generation of highly reactive ionic oxygen results in oxidation and inactivation of germs, harmful substances and molecular odours. This leads to a clean, healthy and pleasant environment. Ionisation of atmospheric oxygen has verifiably a favourable effect on the wellness of people.

NEUTRALOX Ionisation Units are available for indoor air treatment but also off-gas treatment.

Application could not be easier

NEUTRALOX Ionisation Units are pre-mounted and compact units with minimal installation, operation and maintenance demand.

The advantages:

- pre-mounted compact units with integrated fan and control panel
- for recirculation of indoor air (saves energy costs)
- for treatment of odours where they are released
- generates more healthy indoor air conditions
- no water, no chemicals, no effluent piping, no ducting required

PHOTOIONIZATION

Off – Gas Treatment - Effective – Durable – Lasting

NEUTRALOX Photoionization Units treat all odours typically related to wastewater and sludge treatment processes. Photoionization is especially favourable on highly contaminated off-gas streams. Furthermore, highly fluctuating concentrations of contaminants will be treated effectively.

The Principle

The process is based on the effective interaction of UV-light and a catalytic converter. In the UV-chamber the Photoionization process is initiated by the generation of strong oxidants like oxygen radicals and hydroxyl radicals. Simultaneously, the linkages of odour molecules are broken up. While some of the contaminants are oxidized immediately others are adsorbed to the surface of the catalyst and are degraded through the interaction of catalyst and UV-light. The result is a constantly odourless cleaned gas which meets international environmental requirements.

Effectively applied

The small footprint allows to design decentralised plants which reduce the need for air-ducting significantly.

NEUTRALOX Photoionisation Units do not require any water or chemicals for treatment, no effluent piping is required.

The advantages:

- pre-mounted compact units with integrated fan and control panel
- treats high odour concentrations and highly fluctuating loads
- high treatment efficiency according to international standards
- small footprint
- no water, no chemicals, no effluent