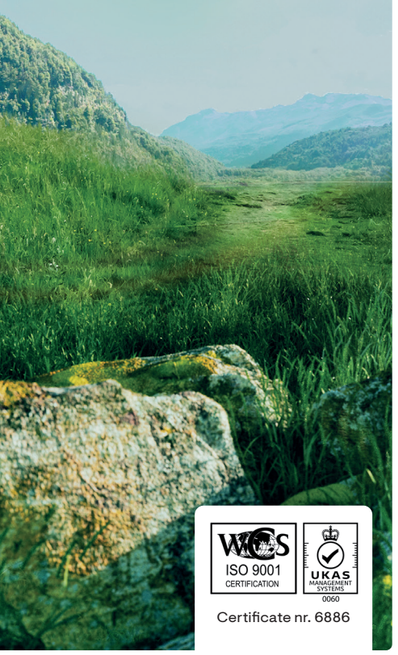
Emissions of gaseous Pollutants

Our other Product Categories:

Biogas & Bioenergy
Oil & Gas
Aluminium & Metals

Li-Ion Batteries & H_2 Fuel Cells



ISO 9001 CERTIFICATION
UKAS MANAGEMENT SYSTEMS 0060
Certificate nr. 6886

Our activity

Volatile Organic Compounds

- Thermal Oxidizers:
  - Regenerative Thermal Oxidizers
  - Recuperative Thermal Oxidizers
  - Direct Thermal Oxidizers
- VOC Rotor - Concentrators
- Gas and Liquid Incinerators
- Adsorption on Activated Carbon Plants
- Venturi Scrubbers
- Biofilters and Bio Scrubbers
- Condensation Plant
- Solvent Recovery
- NMP Recovery
- Catalytic Oxidizers
- Systems for Halogenated Compounds
- Gas Venting and Flares
- Oil Recovery from Aluminium Rolling
- Coalescent Filters

Inorganic Compounds

- Scrubbers and Washing Towers
- Venturi Scrubbers
- Biofilters and Bio Scrubbers
- Adsorption on Activated Carbon Plants
- SCR DeNOx Plant

Dust and/or Aerosols

- Scrubbers and Washing Towers
- Venturi Scrubbers
- Baghouse Filters
- Cartridge Dust Collector
- Cyclones
- Coalescent Filters

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Member of Deurotech Group

airprotech

Li-Ion Batteries

Air Protection Technology

Member of Deurotech Group

Since 1995, **Airprotech** is globally active with a wide range of solutions and products for the purification of industrial emissions, including VOC (volatile organic compounds), VIC (volatile inorganic compounds), aerosols, mists, odours and dust.

Due to the large experience in different application fields, the specific know-how and the global presence, **Airprotech** is one of the market leaders for the design, manufacturing and turnkey supply of exhaust gas purification systems and environmental technologies for air pollution control.

NMP Recovery System

The Li-Ion Battery industry is a strongly developing field with an interesting prospective for the future. In Li-ion Batteries production, we can highlight three main processes:

Electrode production → **Cells assembly** → **Cells finishing**

Plants designed and produced by airprotech are applied to the electrode production for the treatment of emissions.

A key step in this process is the anode coating and the cathode coating. During these processes the foils, that can be in either copper or aluminium, are covered by a slurry. After the coating, the active material is dried through several dryers by heat. In the anode case, being the active material water-based, gases will be collected in order to recover the heat to be reused in the drying process. In the cathode case, being the active material solvent-based (in particular NMP - Normal Methyl Pyrrolidone), gases will be collected in order to recover the heat and to enable a purification treatment intent to guarantee the compliance with the NMP related emission limits.

Being a toxic substance, NMP is regulated by specific guidelines established by the European Union.

Besides being toxic, NMP causes serious irritation to the skin, eyes and respiratory system; furthermore, it is harmful for reproduction as it can damage the foetus.

Airprotech technologies and plants guarantee the highest performances for NMP abatement and recovery, boosting the investment payback, the environmental regulation compliance and the circular economy.

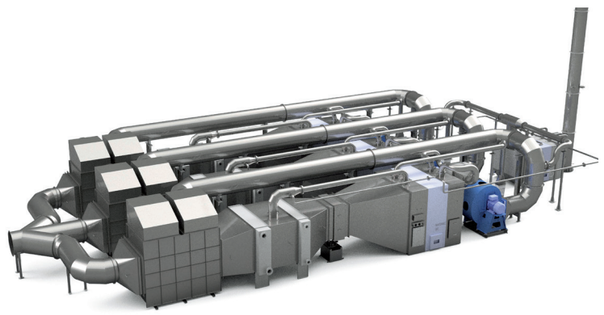
Air purification and heat recovery systems for coating emissions in the Li-Ion Battery industry:

Laboratory lines

Air treatment and heat recovery systems for laboratory lines emissions.
The technology used to comply with regulatory limits may involve the sole NMP abatement or a combination of solvent abatement and recovery. Moreover, we can implement systems that treat emissions coming from cathode and anode coating with the same system.

Pilot lines

Air treatment and heat recovery systems for pilot lines emissions.
The volumes of air treated are smaller than the ones treated by the production lines. The aim of the cathode coating emission treatment system is solvent recovery, heat recovery, and compliance with the regulatory limits. The main scope of the anode coating emission treatment system is heat recovery.



Giga-factory lines

Air treatment and heat recovery systems for giga-factory lines emissions.
These plants are completely integrated in the production processes and guarantee the highest performances. The emissions coming from the cathode coating are treated through condensation and adsorption in order to recover the solvent, the heat and comply with the regulatory limits. Anode coating enables important thermal recovery through air/air and water/water exchangers.