

Volatile Organic Compounds Recovery

Your benefits:

- Less emissions
- Expertise & Flexibility
- Solvents recovery
- Safety



The Industry Challenge

Manufacturing industries are committed to respect international and local legislations about pollutant emissions such as Volatile Organic Compounds (VOCs). When VOCs emissions cannot be avoided, solvent recovery methods are the most suitable available techniques.

Nitrogen is a part of the VOCs recovery processes, ensuring either energy required to recover the solvents or recover adsorbents. Nitrogen is able to:

- Condense VOCs vapors in **cryogenic condensation**.
- Regenerate adsorbents in **activated carbon adsorption**.

The Air Liquide Solution

Air Liquide's experts are at your service from the analysis of your emissions, to technology selection and installation of the state-of-the-art recovery unit. We offer proficiency through a complete package, including:

- Prefeasibility and feasibility studies (analysis, technology selection, economics).
- Customized technology selection.
- Equipment design and installation through partnerships with specialized engineering companies.
- Nitrogen supply and distribution piping network.

Air Liquide has been provided VOCs Recovery solutions for over three decades.

Your advantages:

- **Less emissions**

Air Liquide handles feasibility studies and guides you through your VOCs recovery projects. Recovery methods are more environmentally-friendly and will ensure the safety of your employees. VOCs reduction techniques supported by Air Liquide solutions do not emit additional emissions such as dioxins. **The abatement efficiency is up to > 99%.**

- **Expertise & Flexibility**

Air Liquide provides support at every step. With an emissions analysis, our experts are able to give you the best technology available for your needs at affordable price, in a limited time. The solution is customized along with your requirements. Our solutions have been applied in different activities and can be adapted to specific demands.

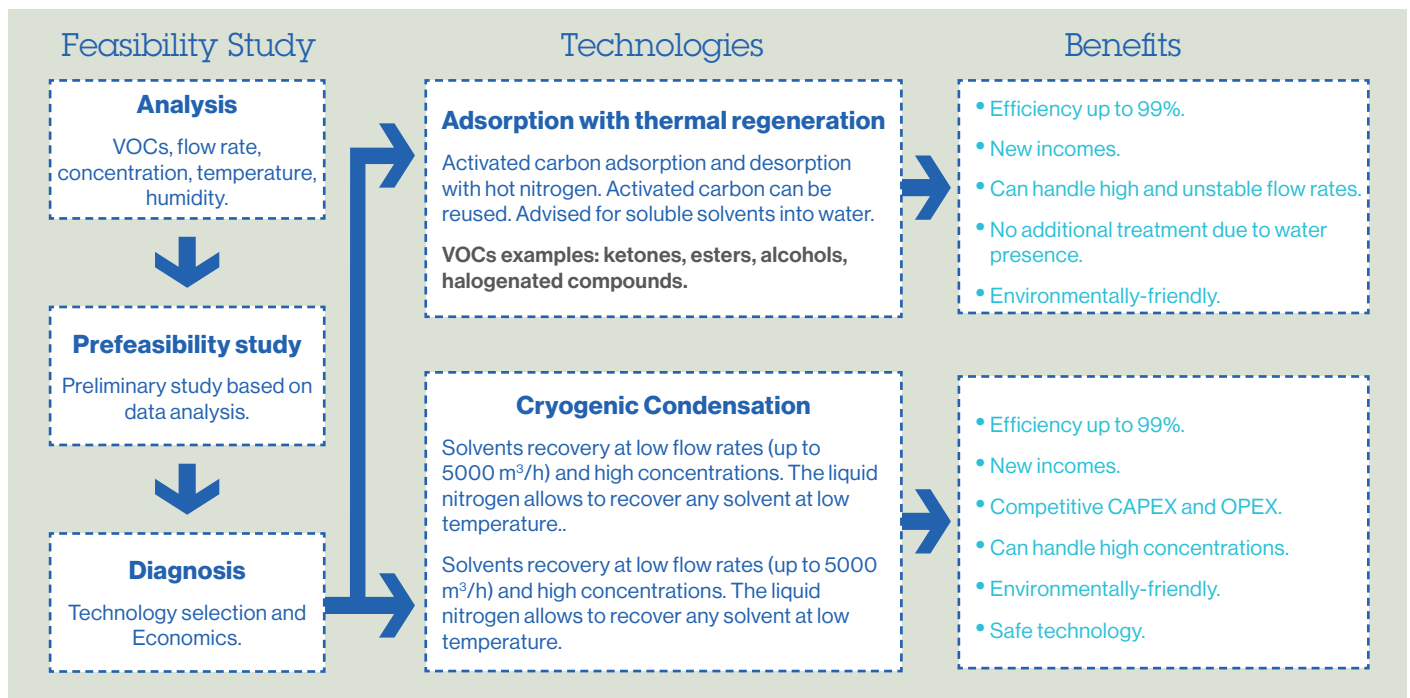
- **Solvent Recovery**

Solvents recovery is a solution to reduce your production costs. An accurate diagnosis and equipment dimensioning optimize the amount of recovered solvents thus increase your return on investment. Solvents are recovered at high purity rates and can be reused directly into the process. According to the technology, gaseous nitrogen can be recycled into the process as well.

- **Safety**

Use of nitrogen is an intrinsic safe solution, suitable for any solvent and have already been applied in different industry profiles and activities.

Feasibility Studies



Regulatory compliance

Best Available Techniques

In compliance with the Industrial Emissions Directive, adsorption with thermal regeneration and cryogenic condensation are both advised for most of the industries. With efficiencies up to 99%, our solutions will allow you to be in conformity with legislations without any additional emission.

Safety first

Air Liquide provides solutions to improve your employees environment and safety. Through an analysis, Air Liquide is able to identify harmful VOCs for your employees and give you the best solution to remove odorous and harmful solvents which are emitted during the production processes.

Reactivity

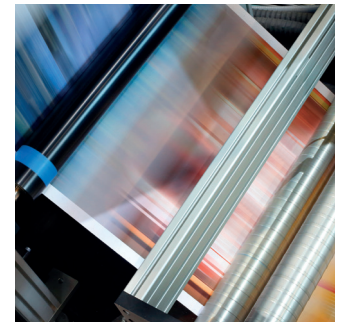
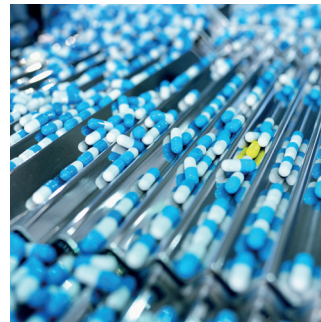
Would you like to know whether solvent recovery should be applied in your plant? Air Liquide's engineers are able to give you a diagnosis and economics in a little time.

Our Offer

Air Liquide, leader in gases, technologies and services, offers:

- Feasibility studies including analysis.
- Technology selection and equipments requiring nitrogen through partnerships with engineering companies.
- Liquid nitrogen according to the diagnosis.
- Personalized nitrogen distribution piping network and nitrogen storage.

Applications



- Pharmacy
- Fine chemistry
- Refinery and Terminals
- Packaging
- Petrochemicals
- Solvent Recycling
- Many other industries