

Cryo-Condap[®] technology



For Cryogenic Recovery and Abatement of Volatile Organic Compounds (VOC)



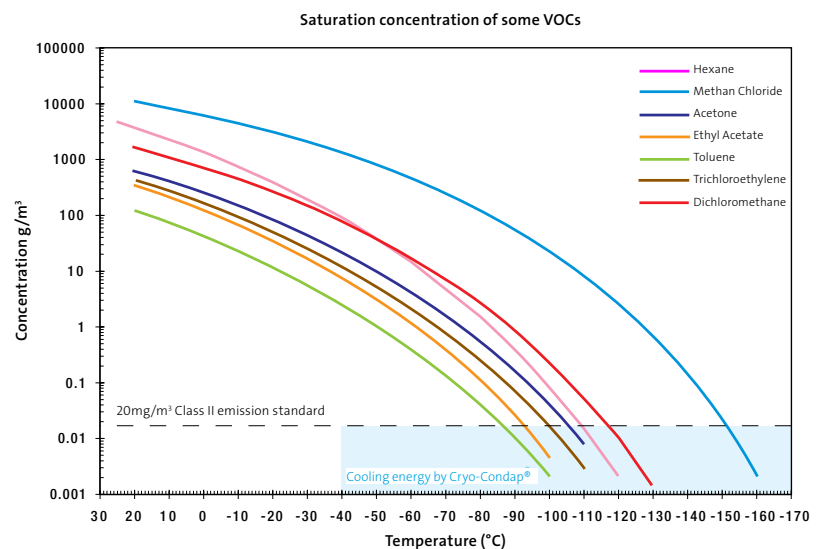
Key benefits:

- **Meet your emissions target**
Cryo-Condap systems enable you to meet the toughest environmental legislation on VOC emissions by reducing them down to acceptable levels.
- **Recover solvents**
Cryo-Condap systems can recover virtually 100% of most types of solvents, enabling their re-use back into your process.
- **Minimise your operating costs**
The Cryo-Condap process works by vapourising liquid nitrogen, producing a clean nitrogen gas that can be used for purging or blanketing operations elsewhere on site and is therefore effectively “free”.
- **Handle multi-solvent streams**
Cryo-Condap systems can treat multiple solvents present in a single gas stream, ensuring that emission levels are met, both for the individual solvents and the total stream.
- **Offer expert technical support**
Air Products' world class cryogenics and engineering teams provide expert support and consultation.

At Air Products we understand the impact that environmental regulations can have on your business. That is why our cryogenic Cryo-Condap condensation technology has been developed, not only to meet the toughest government legislation worldwide, but also to improve your process efficiency.

How does it work?

Cryo-Condap is Air Products' proprietary technology for recovering solvents. The system uses liquid nitrogen in a heat exchanger to cool down the process gas. As the temperature drops, so does the capacity of the gas to carry the VOCs as vapour. The VOCs condense and freeze into particles. The process gas then conforms to environmental legislation and can be discharged into the atmosphere. The solvents can be recovered for re-use where appropriate. The clean nitrogen gas is available for re-use in blanketing and purging operations on site. In some cases, the recovered costs can exceed the costs of control.



Custom solutions to meet your needs

Cryo-Condap application is designed to meet your specific needs and to match the properties and requirements of your process. All our systems are designed and built to comply with recognised national standards. Our cryogenic specialists can help identify and implement unique, turnkey systems that will optimise your productivity and quality. Exact utility requirements are determined for a specific system and depend on the utilities available on site.

Tab. 1 Materials and standards of construction

Installations	In accordance with hazardous area guidelines 94/9/EG, EN 60079-xx and EN 13463-1
Heat exchangers	Built to PED 97/23, ASME and U-stamped
Electrical equipment	In accordance with EN 600 204-1
Operator interface (HMI)	Supplied as standard, PC to be located in a safe area
Control equipment with PLC	To be mounted in a safe area, Siemens S7 with TIA portal or Allen Bradley available as standard



Benefit from our expertise

Whatever your requirements are for VOC abatement or recovery, Air Products has 30 years' experience of evaluating, designing and installing individual solutions for a broad range of industries:

- Chemical
- Pharmaceutical
- Refrigerator recycling
- Coating lines
- and many others

tell me more

To speak with a specialist regarding customised system to match your requirements, please contact us at:

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