

PRISM[®] Oxygen T-Series VSA Systems

Air Products modular VSA systems have been designed to supply customers with cost effective oxygen for a wide range of requirements.



Proven Solutions

Air Products supplies Oxygen VSA plants for capacities of up to 300 tonnes per day of oxygen. Building on its experience with state-of-the-art VSA (Vacuum Swing Adsorption) technology, Air Products has added a compact VSA system, the T-Series, to its portfolio for requirements of up to 50 tonnes per day of oxygen.

Due to the modular design, multiple units can be supplied to customer to provide the required capacity. Staged installation is possible and can increase flexibility. Together with liquid oxygen for back-up, T-Series VSAs provide a reliable supply of oxygen for many applications.

Benefits and features

Low capital costs

- Outdoor installation on a flat concrete plinth
- Highly skidded and modular design

High reliability

- Fully automatic controls
- Liquid Oxygen back-up available
- Flow meter and oxygen analyser as standard

Low operating costs and flexibility

- Power efficient oxygen supply with turndown possibility
- Designed for unmanned operation
- Staged installation of multiple units

Applications

Air Products Prism VSAs are available to meet the needs of a variety of industries and applications, including:

- Environmental and wastewater treatment
- Glass
- Ferrous and non-ferrous metals production
- Cement and lime production
- Pulp and paper

Technical support from our industry application experts is available.

“T-Series VSAs provide an onsite source of low-cost oxygen for applications able to utilise purities up to 93%. Our systems utilise the latest process developments to provide a reliable and economic long term oxygen supply.”

Martin Wallis
Product supply team manager



PRISM® T-Series VSA – Technical Overview

Air Products offers a range of modular T-Series VSA plants to supply different flow rates. Contact us to discuss your requirements and best supply solution!

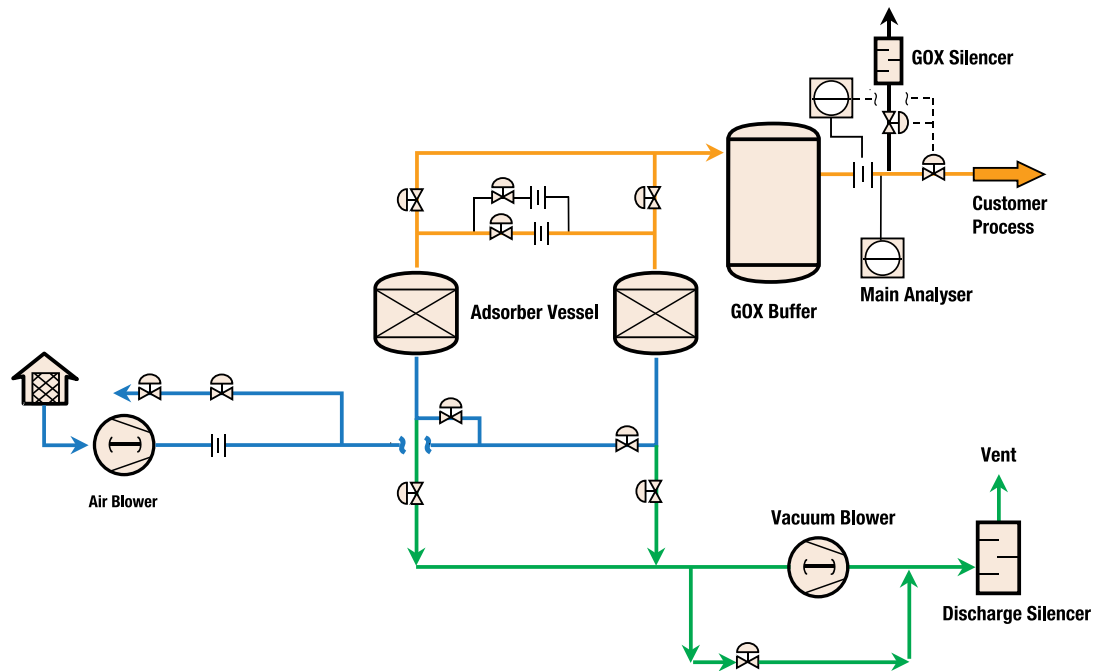
Flow Rate (tonnes/day)	Up to 50 tonnes per day of oxygen
Purity	Up to 93% oxygen purity
Pressure	Pressures available as required by the customer
Power consumption	Depending on customer requirements
Electrical power	Single 3ph 400 VAC power supply
Turndown	As required. Power will turn down with capacity

Process description

The Oxygen VSA (VSA = Vacuum Swing Adsorption) process utilised by these plants is a method of separating air into its two principal components – nitrogen and oxygen – using adsorption technology. The oxygen at 90-93% purity is provided to the customer as product, and the impure nitrogen combined with any water and carbon dioxide is vented.

PRISM® Oxygen VSA systems use a patented high efficiency molecular sieve to selectively recover oxygen from air. This high performance sieve significantly reduces the energy required to generate oxygen. Oxygen VSAs operate in a batch process. During a cycle, the adsorber vessel(s) are alternately pressurised with air to produce

oxygen, then evacuated to regenerate the adsorbent and remove nitrogen. Oxygen for customer use needed during the portion of the cycle during which oxygen is not being produced, is supplied from the product buffer tank, maintaining an uninterrupted, consistent oxygen flow.



Contacts

With local expertise around the world, Air Products is focused on delivering reliable, cost-effective gas supply solutions based on understanding your needs. Contact your local representative to see how we can help you.

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