



30 TPD* Liquid Air Separation Plant

For production of high purity Oxygen, Nitrogen and Argon



LOX
LIN
LAR

Fully cryogenic plant for high purity gas applications

Do you want to produce your own complete range of high purity gases?

CRYOTEC Anlagenbau GmbH has developed a fully cryogenic air separation plant which is one of the most compact and reliable of its kind. Not only liquid oxygen and liquid nitrogen, but also high purity liquid argon are produced with an optimized OPEX. Our plants are „Made in Germany“ and designed for a lifecycle of over 25 years, offering a unique trouble-free operability around the clock.

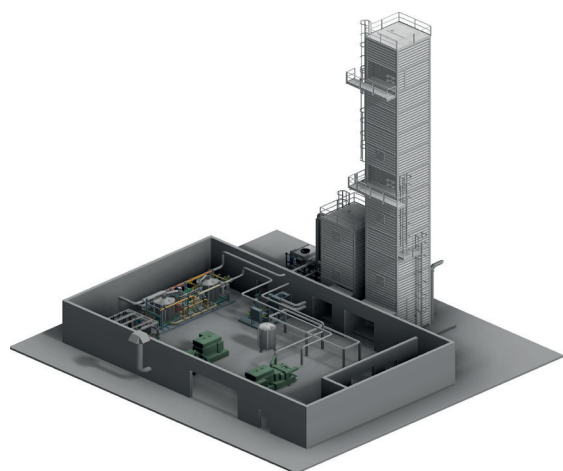
Specific plant features

- High purity products:
 1. Oxygen purity > 99,7 % by vol.
 2. Nitrogen purity > 99,999 % by vol.
 3. Argon purity > 99,999 % by vol.
- The plant is designed to operate fully automatically with a modern control system, equipped for remote monitoring.
- Water cooled design – air cooled optional
- Defrosting required only every 8500 hours
- All components designed for operation 24/7 exclusively from high quality manufacturers – countries of origin: Europe, USA, Japan, South Korea

Plant design

The process is fully cryogenic and based on the compression of ambient air at low pressure, cooling and purification of this process air, boosting to medium pressure and expansion through a turbine unit in order to bring the temperature down to the liquefaction point. Subsequently the air is separated in a series of rectification columns in order to obtain the required high purity products. A stream of waste gas is generated that is used partially to regenerate the air purification system. The plant does not generate any toxic wastes and is environmentally friendly.

The plant is of a modular design with all main components skid mounted or containerized. All instruments and valves are installed on the skids so as to have a simplified intermediate piping and cabling, easy to be installed by a local contractor.



Special features can be provided upon request.

PRODUCTION CAPACITY

	Product	Product Output
LOX Production	LOX	approx. 1.000 Nm³/h (1.440 kg/h)
	LAR	approx. 25 Nm³/h (45 kg/h)
LIN Production	LIN	approx. 1.000 Nm³/h (1.250 kg/h)
	LAR	approx. 15 Nm³/h (30 kg/h)

CRYOTEC Anlagenbau GmbH support its customers during the whole plant installation, commissioning and startup with a technical assistance by its qualified experts. Site services and training as well as plant documentation can be provided in German, English and Russian language. Spare parts and after sales and maintenance services can be provided upon request.

GENERAL DATA

Electrical power consumption:	approx. 1.2 MW
Voltage requirements:	6 kV and 400 V \pm 10%, 50 or 60 Hz (other voltages possible upon request)
Cooling water requirement:	approx. 150 m³/h
Space requirement:	approx. 500 m²
Delivery time:	14-16 months, FCA Wurzen, Germany
Codes and standards:	DIN and European Pressure Directive Optional ASME, EAC or others

Status: January 2022



CONTACT

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