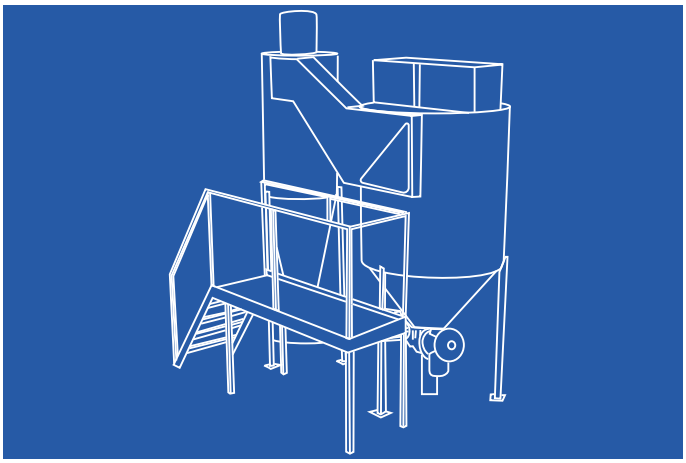
Air Liquide
creative oxygen

FOOD PROCESSING
PHARMACEUTICALS INDUSTRIES

CRYO CRYSTALLIZER-P

- Gain in production capacity
- Improve the properties of your ingredients
- Optimize your investment



The Concept

The **CRYO CRYSTALLIZER-P** transforms liquid fats and other high melting point liquids into free flowing powders. The process uses liquid nitrogen as an expendable refrigerant with particularly good efficiency. The unit is programmed to start production with a push button selection of a recipe, and manages the process to match production with packaging capacities. Production can continue indefinitely, limited only by the need to keep batches of products separate.

The **CRYO CRYSTALLIZER-P** is constructed to the highest hygiene standards, and being easy to clean, the time to separate batches or to change products can be very short, making the system ideal for customers with large and small batch sizes to process. It has a typical powder production capacity of around 1,000 kg/hour.

The small size and high production capacity can enable processors to fit powder production into a small factory area.

Industries

The **CRYO CRYSTALLIZER-P** is ideal for processing high melting point lipids, such as fats, emulsifiers and waxes, into free flowing powders, which can be used in many applications and processes among the following sectors:

- Speciality Fat Products
- Emulsifiers
- Bakery Additives
- Nutritional Supplements
- Pharmaceutical Ingredients
- Animal Feed

Features

The **CRYO CRYSTALLIZER-P** is constructed with stainless steel, and features curved surfaces and a large access door, which eliminate corners and crevices where powdered product can lodge, and has only one moving part.

The product outlet is through a rotary valve, which swings to an open position providing full access for cleaning.

These features result in a device that is particularly easy to clean. Cleaning between batches can typically be performed within thirty minutes, with almost no product loss.

Particular attention has been paid to making the equipment easy to setup and use. The PLC control system has pre-set recipes with the key process parameters being monitored to adapt the settings to give consistent product. This includes the effective management of production fluctuations. The average product particle size, ranging from 60. to 300 µm., is one of the parameters that can be adjusted by using different recipes. The **CRYO CRYSTALLIZER-P** delivers excellent performance with respect to product quality, efficiency and productivity.

Benefits

- High efficiency production of powder from high melting point liquids
- High production capacity in a small floor space
- Minimal maintenance required
- Hygienic construction providing fast, effective, low loss cleaning
- Limited capital investment

Model Range

The **CRYO CRYSTALLIZER-P** is available in one standard size, with a nominal capacity of 1 ton per hour. Multiple units may be required for higher production capacities.

The CRYO CRYSTALLIZER-P meets the required standards & regulations for the following locations:

- Europe
- North America
- Central America
- South America
- Asia
- Pacific

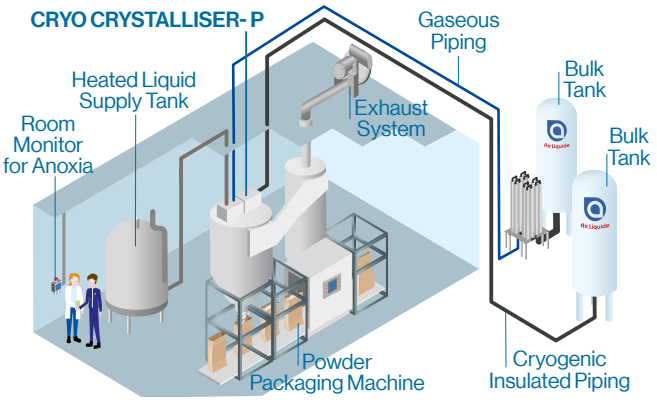
Technical Data

CRYO CRYSTALLIZER-P		
Overall Length	122 inches	310 cm
Overall Width	79 inches	200 cm
Overall Height	122 inches	310 cm
Power Supply	480V, 3 phase, 60 Hz	
Shipping Weight	4400 lbs	2000 kg

Options

- **ALIGAL™** 1 (Liquid nitrogen)
- Different electrical voltages & frequencies
- Spare parts kit

Installation Layout



Related Offer

The **CRYO CRYSTALLIZER-P** is a part of the **Nexelia for Ingredients Processing** offer which has been specifically designed for those processors that need to achieve a competitive processing cost for their powder products. The **Nexelia** solution includes the best of Air Liquide's **ALIGAL™** food grade gases, state-of-the-art application equipment, and technical support services along with a customized cryogen consumption optimization program.

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