

- Dissolution Unit ➤
- Crystallization Unit ➤
- Drying Unit ➤
- Packaging Unit ➤



Recrystallized Salt Iodized

PVD (Pure Vacuum Dried)

This process produces iodized purified salt with high purity through the processes of dissolution, impurity removal, and crystallization.

Central office

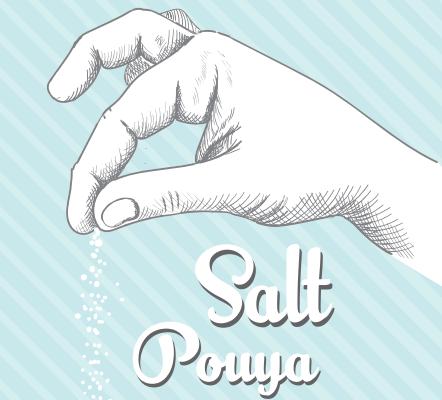
 Tel: 021 - 22567471 - 2
 Email: info@shahabbolurin.com
 Address: Unit 701 - 7th Floor- Borje-Sefid - Building - Pasdaran Ave - Tehran-Iran

Factory

Tel: 023 - 34574154 - 7
Address: No.1177 - Eastern Shaghayegh Blvd - Janat Abad Industrial Town - Eyvanekey - Garmser



Introduction
Shahab Bolourin Pouya



Shahab Bolourin Pouya Company, with a production capacity of 60,000 tons per year of PVD (Pure Vacuum Dried) salt using the Multi-Stage method under vacuum, commenced operations in 1401 (2022). The technology, technical knowledge, and machinery of this factory have been provided by a reputable company (IDEKO) in collaboration with the German company EGGER consortium.

This production line, using the PVD method, produces purified salt with a purity of 99.8% and a particle size ranging from 450 to 250 microns.



Dissolution Unit

Rock salt with a purity of 95% to 96% is fed into the crushing unit, and after being crushed, it is transferred to the dissolution tank. In the dissolution tank, water is entered from below to dissolve the salt in the water as much as possible. The overflow from the dissolution tank enters the reaction tank, where the necessary amount of carbonate is added to remove its impurities.

Then, the output solution from this tank is fed into the overflow and flocculant is added to it to precipitate insoluble substances and remove them from the bottom of the thickener. The thickener overflow is transferred to an intermediate tank and then to a sand filter.

In the sand filter, fine insoluble materials are separated, and the solution becomes completely clear and pure before being transferred to the storage tank.



Crystallization Unit

The solution from the storage tank is first heated using a preheater and then passes through a deaerator to raise its temperature and remove air. The solution enters the storage tank and is pumped into crystallizers. All three crystallizers operate under vacuum. In Crystallizer #1, the temperature of the solution is increased to 110 degrees Celsius using direct steam from the steam boiler. The steam from Crystallizer #1 is used as the input steam in Converter #2, and the steam from Crystallizer #2 is used as the input steam in Converter #3. The steam from Crystallizer #3 goes to the condensate tank and four cooling towers to be reused as steam. This method is called PVD (Pure Vacuum Dried) using the Multi-Stage method, and it has been installed in Iran for the first time.

The saturated crystal is transferred to a separator, and a portion of its water is separated. Then, the crystals from the separator enter the centrifuge, where the moisture content of the crystals is reduced to less than 3%, and they are sent to the dryer. In the centrifuge, a certain amount of anti-caking and potassium iodate substances are added to the salt.



Drying Unit

In the dryer, the moisture content is reduced to less than one-tenth of a percent, and the purified salt is then sent to the silos for packaging.



Packaging Unit

After storage in the silos, packaging is done in one-kilogram polyethylene bags, 25-kilogram bags, and one-ton jumbo bags.