

Fertilizer Manufacturing

Plate heat exchanger application

Growing demand on food supply causes intensive farming, which depletes the soil of various nutrients. Fertilizers are produced to help crops growing by adding needed nutrition into the earth, the most common and widely used are NPK fertilizer.

Modern chemical fertilizer plants and scientists have achieved remarkable work on optimizing elements extraction process through manufacture process.

Hofmann has been dedicated to helping various chemical plants to maximizing their efficiency on producing and energy saving.





At present, "Reverse Flotation and Cold Crystallization" is a common way to produce KCl, to extract potassium chloride from potassium-containing brine, we have to make carnallite($\text{KMgCl}_3 \cdot 6(\text{H}_2\text{O})$) first, and then it will be processed to prepare potassium chloride.

Our products for fertilizer manufacturing

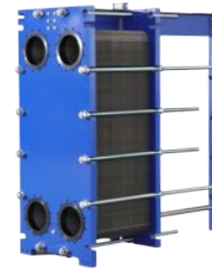
We know better on cooling solution



	Gasket plate heat exchanger	All-welded plate heat exchangers	semi-welded plate heat exchangers
Max connection diameter/DN	500	500	200
Max. volume flow m³/h	4000	4000	650
Max. Heat transfer surface/m²	1520	500	320
Designed Pressure rate MPa	2.5	3.5	2.5
Temperature °C	-40-180	-40-350	-40~180
Plate material	316 SS, Avesta 254 SMO, Titanium		
Frame material	Carbon Steel, 304 SS, 316 SS	Carbon Steel	Carbon Steel

In the production of potassium chloride, due to the pulp and carnallite contain a large amount of magnesium chloride, potassium chloride, sodium chloride, and the concentration of chloride ions, we recommended to choose titanium plate as the material of the plate, and the material of the gasket should be varies from media and temperature.

For example, in the brine evaporation system, the hot side water vapor is at 156-70°C, and in the cold side brine is at 65-110°C, fluorine gasket would be a wise choice.



The Gasket plate heat exchanger is expandable and easy servicing. It is used in low-temperature and low-pressure conditions, such as closed cooling water circuits.



The all-welded plate heat exchanger's inside structure is similar with traditional plate heat exchanger only without gasket, the plates are laser-welded alternately. And its frame is easy to dismantle for cleaning and maintenance.



The Semi-Welded Plate Heat Exchanger, one side is sealed by laser welding, and the other side is sealed by gaskets. This increases maintainability, but allows the use of aggressive medium and higher pressure than the completely inflated model.



Our **service** is better than you expected

HFM offers rich experience in Fertilizer manufacturing. We have multiple global warehouses and service teams around the world, the delivery time and freight are reduced to the largest extent, and spare parts can be delivered at the fastest speed. Manufacturing is merely one part of our business, knowing our customers requirements and acknowledge various kinds of working conditions is our daily life.

1, Inventory management

In order to ensuring delivery effectiveness, based on the acknowledge of PHE market and supply chain management, HFM has distributed the warehouses around the world.

2, Spares replacement

HFM has the full range of plate heat exchanger spares, our service engineers could either travel to the scene or remote guid your team to replace.

3, Cleaning service

HFM can provide both CIP(cleaning in place) and disassembling cleaning services depending on your circumstances.





Professional design solution:

Our technical department dealt with various application year after year, the accumulative experience forged a special team with exploring spirit and critical spirit. The gasket plate heat exchanger is our core business, thousands of units have been in services for many years in different fields.

Service is our cornerstone:

We consider customer as our priority, understanding customers' real needs and rapid feedback are the basics.

We and customers are bound to each other for learning and developing, sharing knowledge keeps us growing, which makes accomplishing projects easier and faster.

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