# Edible Oil

The Application Of Plate Heat Exchanger



The various of edible oils have always been the irresistible source of all delicious foods. Beside whetting us appetite, they provide vital and irreplaceable nutrition, keep your heart rhythm beating normally, they also make you gain weight which is not a wonderful experience for most of the people in modern society, however you definitely need them when you are growing up.

As dietary fats and oils are essential and consuming products like all the other crops, Food applications account for the major share (about three-fourths) of the worldwide consumption of fats and oils.

So extracting edible oil from oil crops and animal fat more efficiently, economically and environmentally friendly is always what we care about.





## Edible oil producing process

Dietary oil producing could be roughly divided into three steps, mechanical treatment, extraction and refining.

### -Mechanical treatment

Based on the types of the raw material, we could choose different methods as long as the main oil portions could be exposed and convenient for extraction.

### -Extraction

The extraction processes are generally mechanical (boiling for fruits, pressing for seed sand nuts) or involve the use of solvent such as hexane. After boiling, the liquid oil is skimmed; after pressing, the oil is filtered; and after solvent extraction, the crude oil is separated and the sol-vent is evaporated and recovered. Residues are conditioned (for example, dried) and are reprocessed to yield by-products such as animal feed.

### -Refining

Crude oil refining includes degumming, neutralization, bleaching, deodorization, and further refining.



### Animal fat

It can be derived from every animal and it's full of saturated fat.

## Olive

It is very high in monounsaturated fats and contains a modest amount of vitamins E and K.

## Palm

It's less saturated than butter and contains no trans fat

## Rapeseed

Rapeseed oil is pure oil, so it contains no protein or carbohydrates. However, it's a good source of healthy fats and fat-soluble vitamins.



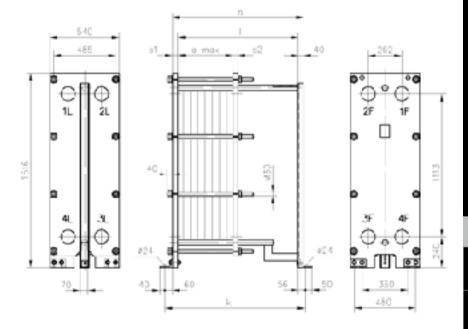






## PHE Standard Range General Specifications

	Gasket plate heat exchanger
Max connection diameter/DN	350
Max. volume flow m <sup>3</sup> /h	1800
Max. Heat transfer surface/m²	1380
Designed Pressure rate MPa	2.5
Temperature °C	-40-180
Plate material	304 SS, 316 SS, Titanium
Frame material	Carbon Steel, 304 SS, 316 SS



This gasket plate heat exchanger is used to reclaim the heat of deodorized vegetable oil, and be used on the previous process.



Gasket	Temperature/ *C	Media
EPDM Ethylene propylene diene monomer	-25-150	Water, aqueous solution, lean acid and base
NBR Nitrile rubber	-25-130	Water, aqueous solution, fat, vegetable oil and mineral oil, ethanol and glycol
FPM/Viton Fluoro rubber	-20-180	High concentration inorganic acid (oxidizing acid), hot water and steam, high temperature mineral oil
CR Chloroprene rubber	-40-125	Ammonia and various fluorine-containing refrigerants



## Hofmann concerns customers' concerns

HFM has rich experience in Edible oil industry. 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

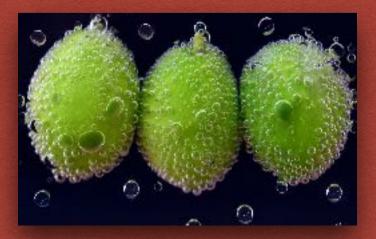
In order to ensuring delivery effectiveness, based on the acknowledge of PHE market and supply chain management, HFM has distributed the warehouses around the world.

### 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.

## www.hofmann-heatexchanger.com







