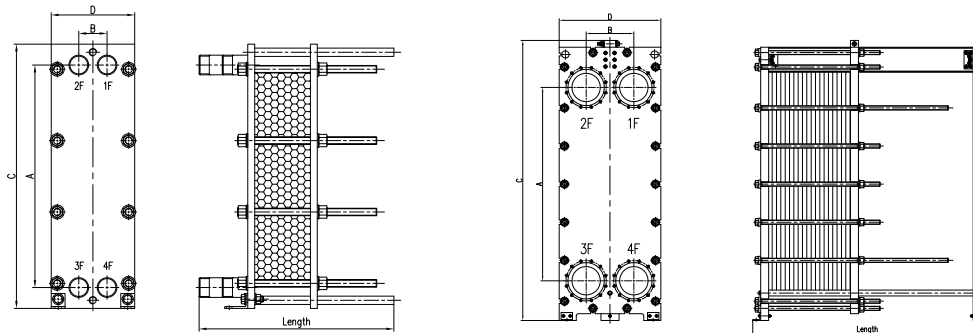


# Gasketed plate heat exchanger

Hofmann has been established since 2009, which specialises in plate heat exchanger. We are committed to offer you high quality of products and service. This manual introduces our customized PHE units we could offer to our customers.



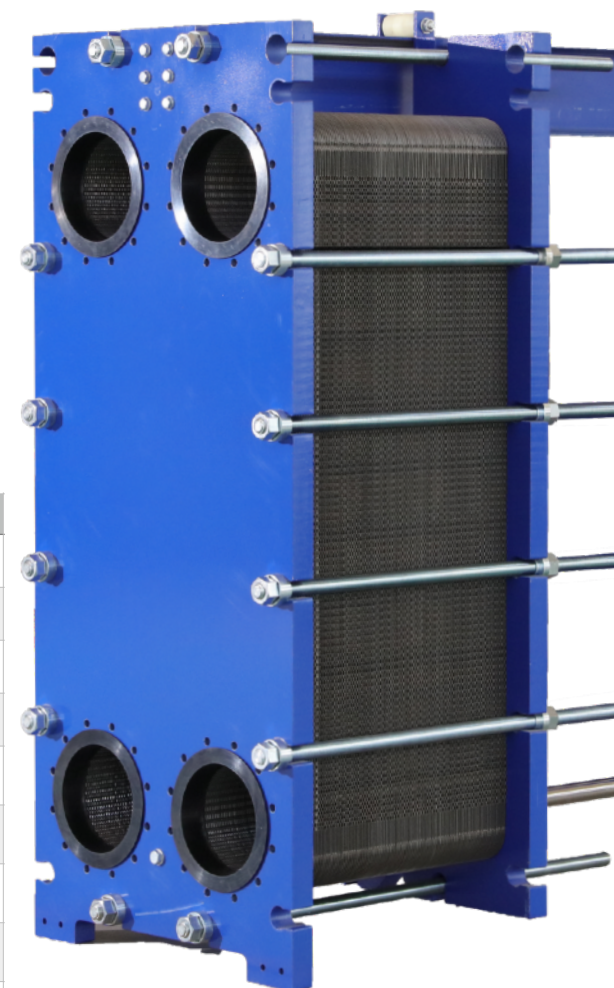
# Dimensions



These types of gasket plate heat exchangers are high efficiency with a way close temperature approach. The compact and durable design made it available for different kinds of working environment.

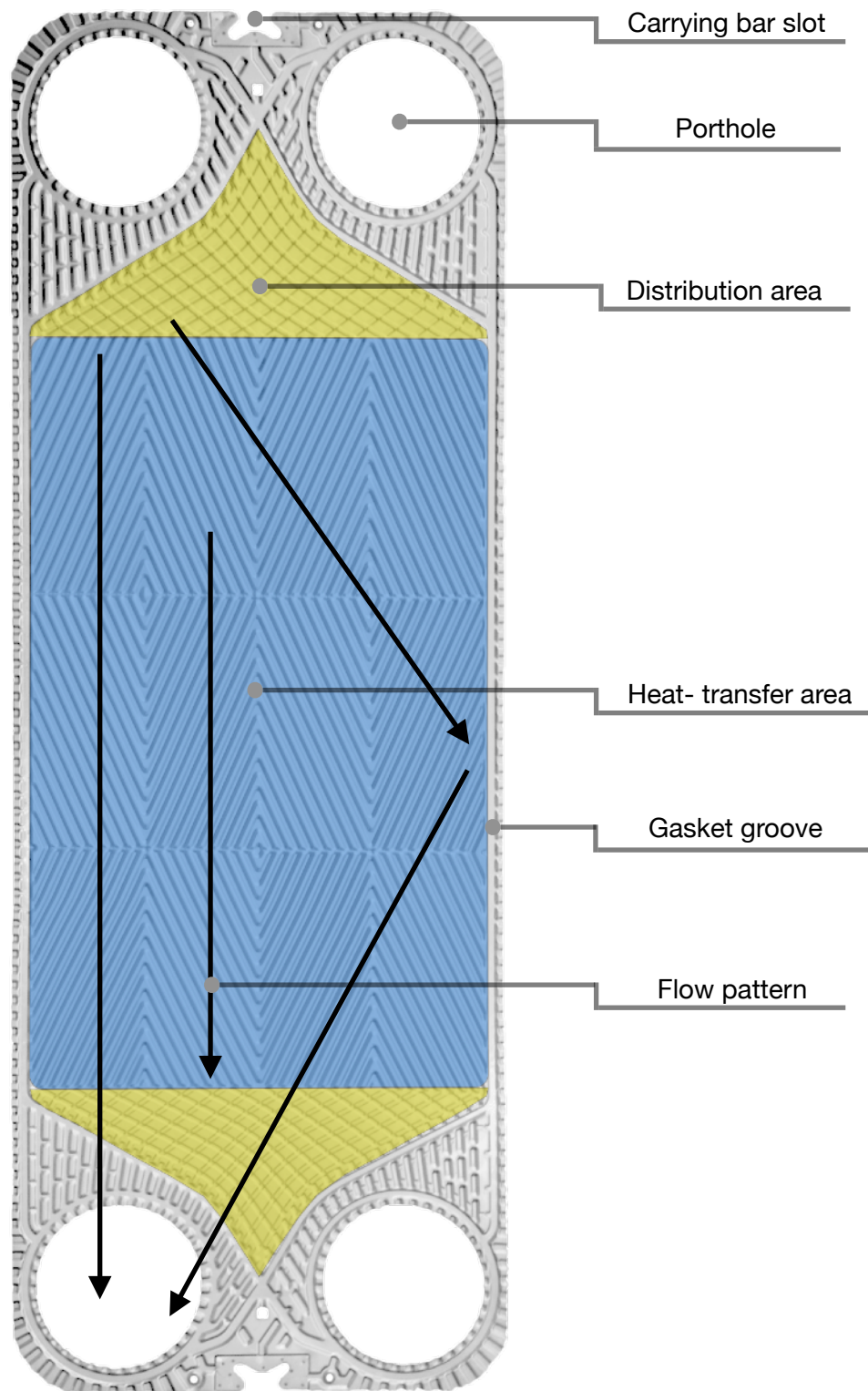
Model	HG0113A	HG0115A	HG0115B	HG0116A	HG0116B	HG0122A	HG0122B	HG0122C	HG0124A	HG0124B	HG0133A	HG0133B	HG0133C	HG0133D	HG0134A	HG0145A
A/mm	357	640	640	380	1036	719	719	1338	1294	1294	1478	1478	1478	698	1939	1842
B/mm	60	140	140	203	140	223	223	218	298	298	353	353	353	363	439	596
C/mm	480	920	920	704	1264	1084	1084	1947	1923	1923	2148	2148	2148	1419	2865.5	2852
D/mm	180	320	320	400	320	470	470	480	610	610	780	780	780	740	920	1150
Length(min.~max.)	636	1715	1715	1690	1715	2645	2645	3193	3256	3256	3316	3316	3316	2613	5133	5153
Connection diameter/DN	32	50	50	65	65	100	100	100	150	150	200	200	200	200	250	350
Max. volume flow m³/h	15	50	50	65	65	160	160	160	350	350	650	650	650	650	850	1800
Max. Heat transfer surface/m²	3.6	52.5	40.5	13.2	82.5	103.2	76.8	320	372	260.4	569.5	425	331.5	87	1380	1260
Max. Quantity of plate	120	350	270	165	330	430	320	640	600	420	670	500	390	300	920	700

Model	HG0213A	HG0215A	HG0218A	HG0218B	HG0222A	HG0222B	HG0222C	HG0223A	HG0223B	HG0224A	HG0234A	HG0245A	HG0266A	HF0223A	HF0233A
A/mm	480	691	868	868	707	1113	1519	1227	1227	1092	1406	1692	1900	1227	1530
B/mm	61	118	212	212	262	262	262	257	257	314	420	559	663	257	404
C/mm	570	920	1178	1178	1100	1515	2013	1585	1585	1666	2170	2617	3317	1585	2310
D/mm	180	290	425	425	540	540	540	535	535	640	895	1136	1415	535	760
Length(min.~max.)	620	973	1645	1645	2275	3185	3185	2833	2833	2898	3216	4955	5798	2833	5644
Connection diameter/DN	32	50	80	80	100	100	100	125	125	150	250	350	500	125	200
Max. volume flow m³/h	15	50	95	95	160	160	160	200	200	350	970	1900	4000	200	650
Max. Heat transfer surface/m²	4	16	46.8	39	85	198	296.1	188.6	147.2	158.4	396	840	1520	137.25	325.6
Max. Quantity of plate	100	160	180	150	340	450	470	410	320	330	450	700	800	305	370

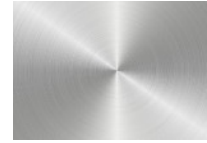


\*According to your working situation, the working temperature varies from gasket you choose. And the design pressure is based on the frame dimension.





## Common plate material



### 304& 316 Alloy - common and economic

They are the most frequent used in PHE, with good performance on ductility, elongation and corrosion resistance.



### Titanium - a light metal but as strong as steel

It is normally used in the corrosive environment of seawater, It can form passivation protective film naturally and has good resistance to  $\text{Cl}^-$  corrosion.



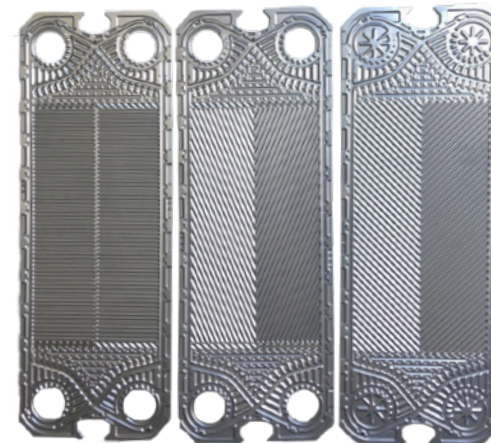
### Hastelloy/ C-276 - Ultra low carbon Ni alloy

It is widely used in organic acid, HF acid at high temperature and hydrochloric acid (< 40%), phosphoric acid (< 50%), chloride and fluoride, etc.



### Nickel - more and more expensive over time due to less productive

It is a heat-resistant alloy, and usually used in concentration (50% - 70%) caustic solution, such as NaOH, KOH and etc.



### Why so many pattern?

The corrugation we build on purpose increases the heat transfer area, and make turbulence more frequent, which greatly improve the heat exchanger efficiency.

Different kinds of pattern are designed to support various of fluid or gas under levels of pressure rate.

Such as low-viscosity media should use shallow and dense ripple pattern, on the opposite, we use deep and wide gap.

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



### Four types of gaskets



Glue



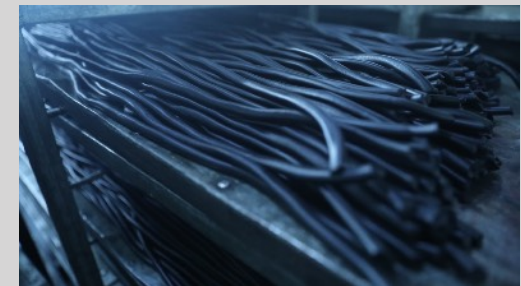
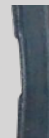
Clip-on



Snap-on

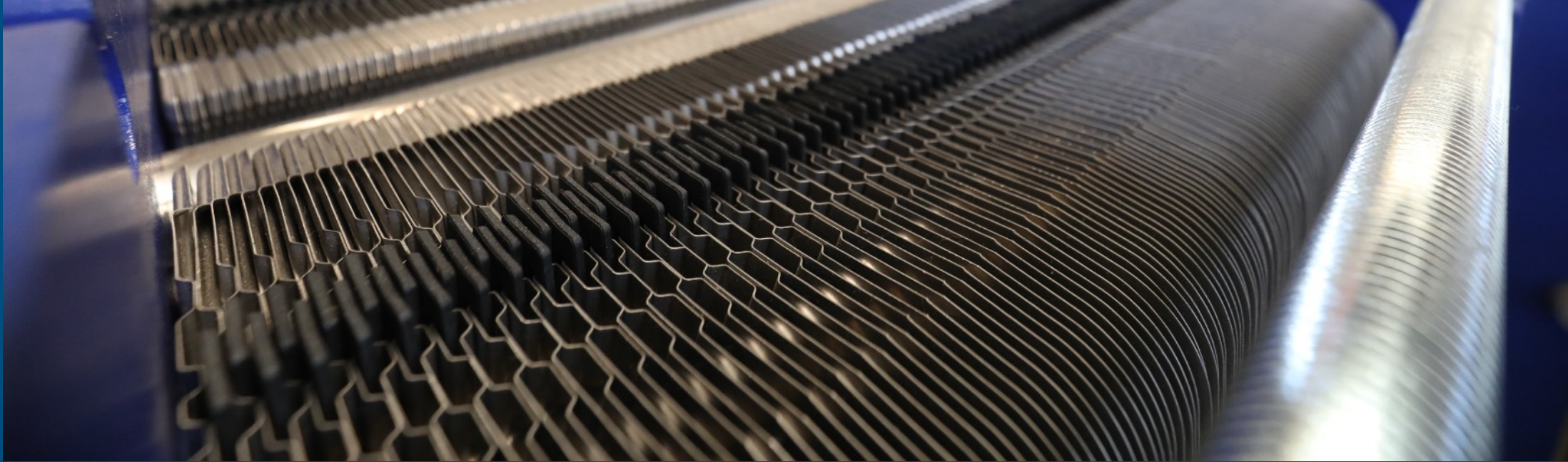


lock-in



Check the following video for more knowledge about gasket  
<https://youtu.be/ocoMAVeSbfE>





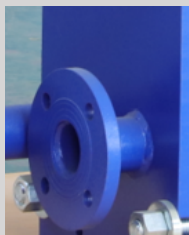
**Frame plate material:**  
Carbon steel and stainless steel

**Construction standard:**  
ASME, PED

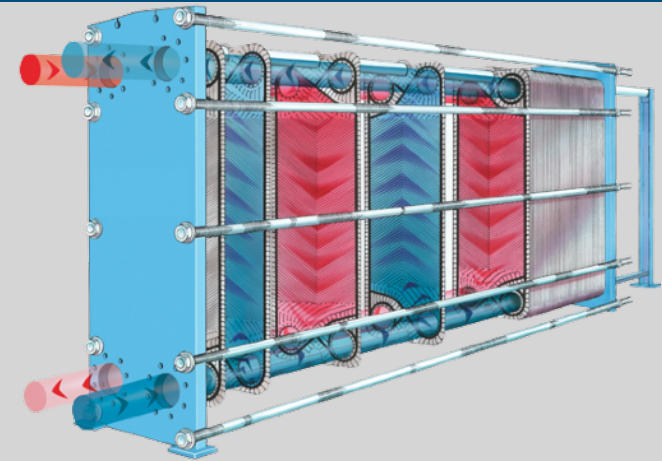
**Design pressure:**  
The standard of design pressure could roughly divided into 3 levels,  
1.0 MPa, 1.6 MPa/162 Psi and 2.5 Mpa/ 351 psi.

According to the number and size of the plates, we could choose different thickness of the frame plate for the levels of pressure.

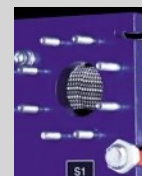
**Connections:**  
Under the size of DN65, we use three types of nozzles, threaded joints, nozzle flange and clamps.



## Frame standards



When the connection size is above DN65, we use this kind of structure with or without sleeves.



No sleeve



Rubber sleeve  
synchronize with the  
gasket material



Metal sleeve  
synchronize with the  
plate material





### 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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