

# 2023 Selection Guide



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# Executive Summary

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HydroLync is dedicated to providing customers with the best solutions in fluid flow control and fluid thermal management engineering consulting for the hydraulics industry. With a global outlook, we strengthen our sourcing network through partnerships with multinational companies, ensuring reliable supply and delivery of high-quality products. We also work closely with the largest domestic forwarding company to further enhance our global sourcing capabilities. We firmly believe that HydroLync can build a more robust company through the combined efforts of our exceptional talent and partner companies, and we prioritize innovation, diversity, and sustainability to ensure engineering excellence. To assist our customers in selecting the right products, we have created the HydroLync 2023 product selection guide. We are committed to growing and developing with our customers, and always strive to exceed their expectations.

***Engineering Excellence!***

**DISCLAIMER**

All information including but not limited to designs, drawings, images, illustrations, dimensions and specifications contained in this brochure are subject to change without prior notice and cannot form part of any offer or contract.

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## About us

HydroLync traces its roots back to Korea High Pressure Cylinder Co., Ltd., which produced the first high-pressure cylinders in Korea in 1976. After going through Hyundai Hydraulics Precision and Hyundai Olaer, HydroLync was established as a new company. In 2012, Parker Hannifin completed the acquisition of Olaer, and HydroLync was reborn under a new name in 2018. Building on the advanced technology inherited from Olaer during the Hyundai Olaer era, HydroLync continues to strive for excellent product supply and technological innovation, with key players who helped establish Olaer in the Korean market at the core of the company. HydroLync is committed to maintaining its efforts towards "Engineering Excellence!" and recognizes the technical excellence of its employees, striving to showcase their capabilities and expertise on the global stage.

### Global Sourcing

HydroLync supplies high-quality products through a global sourcing network.



### Research & Development

Research and development is one of HydroLync's critical tasks for the future industry, and we spare no time or investment in R&D to secure the core technologies of the future.



### Rocket Delivery

HydroLync's competitive advantage includes timely delivery. Quick delivery for standard products is made possible through teamwork and an efficient management system.



## Headquarter

HydroLync's headquarters is located in Siheung MTV Industrial Park, which has a geographical advantage due to its proximity to Incheon New Port and the upcoming Second Gyeongin Expressway in the metropolitan area.



## About team

Over the past 5 years, HydroLync has experienced rapid growth thanks to the executives who possess over 25 years of accumulated experience and expertise in their respective fields. Their experience in localizing accumulators and air oil coolers, which were previously imported, has become a valuable asset and competitive advantage. With these executives, HydroLync will continue to grow, innovate, and lead the market.



## Our specialists



**Lucas Kim**

Accumulator  
Specialist

**CEO**

As the Chief Executive Officer and an expert in accumulators, Lucas Kim brings 27 years of extensive experience in the hydraulic market. He has played a pioneering role in domesticating various types of accumulators in different system environments. His exceptional leadership and expertise have been instrumental in continuously driving the growth of HydroLync.

Email: [kh.kim@hydrolync.com](mailto:kh.kim@hydrolync.com)



**Randy Min**

Air Oil Cooler  
Specialist

**CTO**

As an air-cooled oil cooler specialist, Director Randy Min has played a leading role in adapting Oiltech's technology to the Korean market during his 20-year career in air-cooled oil coolers. With his extensive experience and expertise, he is currently leading the development of key technologies at HydroLync as the Chief Technology Officer to ensure the company's future growth.

Email: [jy.min@hydrolync.com](mailto:jy.min@hydrolync.com)



**Benjamin Cho**  
Accumulator  
Maintenance support  
Specialist  
**CMO**

Director Benjamin Cho excels as HydroLync's Chief Production Officer, managing all aspects of product manufacturing and providing comprehensive management, including customer service, based on his extensive on-site experience and expertise.

Email: [sm.cho@hydrolync.com](mailto:sm.cho@hydrolync.com)



**David Bak**

Water Cooler  
Specialist

**CSO**

David Bak, the chief sales manager of HydroLync, is a specialist in water-cooled oil coolers and manages the sales with excellent analytical and responsive skills.

Email: [ch.bak@hydrolync.com](mailto:ch.bak@hydrolync.com)

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## Water Oil Coolers

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HPC/HGPC Series - Plate Coolers

HSC Series - Shell & Tube Coolers

HLDA Series - Chiller



## What is a water-cooled cooler?

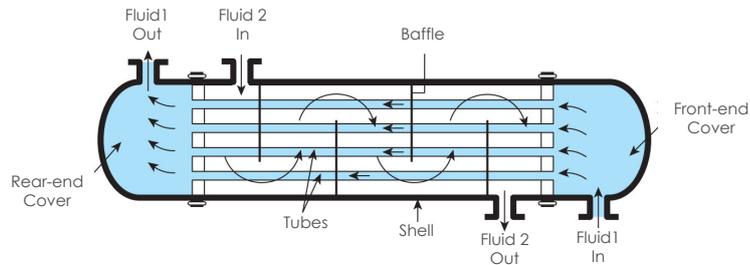
Just as the purpose of air-cooled coolers, the purpose of a water-cooled cooler is to optimize the heat management of oil and maintain the performance and lifespan of hydraulic systems. However, unlike air-cooled coolers, water-cooled coolers use water as a cooling medium, and in places where water resources are abundant, water-cooled coolers are widely used.

Water-cooled coolers can be classified according to their structure, and are generally divided into 1) tubular coolers, 2) plate coolers, and 3) chillers.

### Tubular cooler

Tubular coolers are divided into double pipe, shell and tube, and coiled tube types, and Hydrolinc supplies shell and tube products.

In the process industry, shell and tube heat exchangers are used much more frequently than other types. More than 90% of tubular coolers used in the industry are of the shell and tube type. Shell and tube heat exchangers used in various industries have the most well-established standards for design and manufacturing using various materials, and are therefore produced in the widest range of sizes and types. Our products include the **HSC Series**.



General structure of shell and tube



Copper-Aluminum Finned Tube



Cross section

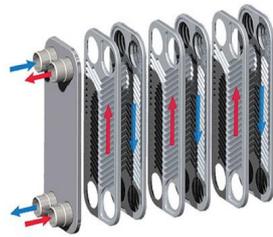
Our **HSC Series** shell and tube product uses an extrusion fin-tube type, which minimizes the thermal resistance coefficient between the copper tube and aluminum fin to maximize heat performance. The finned tube generates turbulence in the fluid flow, allowing efficient transfer of heat from the fluid to the tube, thus maximizing heat exchange performance.

### Plate coolers

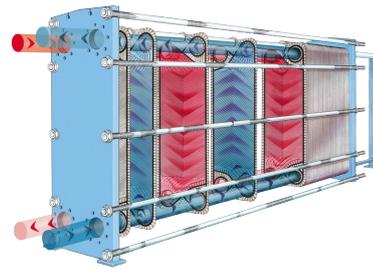
Plate-type coolers offer several important advantages but are less commonly used than shell-and-tube heat exchangers. Plate-type coolers can be classified into three types:

1. Brazed plate coolers, gasketed plate coolers: used in liquid-liquid heat exchange applications at low and medium pressures and are an alternative to shell-and-tube coolers.
2. Spiral plate coolers: used for fluids containing sludge or viscous impurities and are an alternative to shell-and-tube coolers in locations where little maintenance is required.
3. Panel coil coolers: made by forming a double pipe or coil of liquid combined with fins using angled plates.

Our Brazed Plate Cooler and Gasketed Plate Cooler are the main types of plate heat exchangers. The biggest advantage of a plate heat exchanger is its high heat transfer performance compared to its compact size. This is because the fluid flowing along the angled shape of the plate generates high turbulence, leading to high heat transfer performance. Depending on the method of joining plates with different angled shapes, plate heat exchangers can be divided into two types: brazed plate heat exchangers, where welding material is melted in a high-temperature chamber to join the plates, and gasketed plate heat exchangers, where a gasket is inserted between the plates and compressed by front and back covers. Our company's Brazed Plate Cooler is the **HPC Series**, and the Gasketed Plate Cooler is the **HGPC Series**.



**Brazed Plate Cooler**

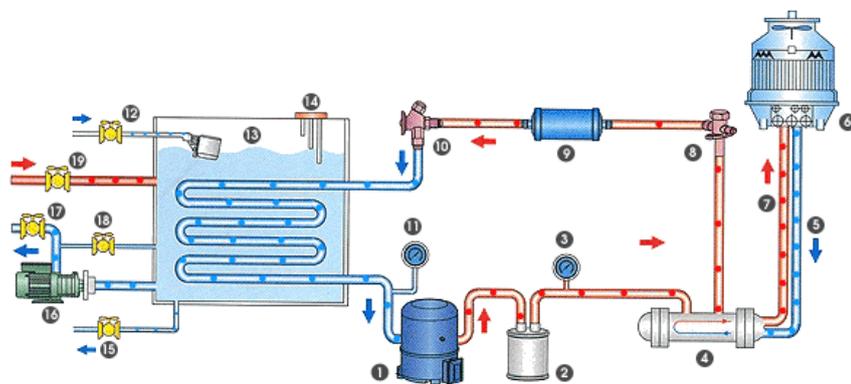


**Gasketed Plate Cooler**

### Chiller

A chiller is a mechanical refrigeration device that cools water, air, or other liquids, using a compressor, evaporator, condenser, refrigerant, and other components. The core technology of a chiller typically lies in its control system, which manages and optimizes the performance of the chiller, including temperature control, flow control, and pressure control.

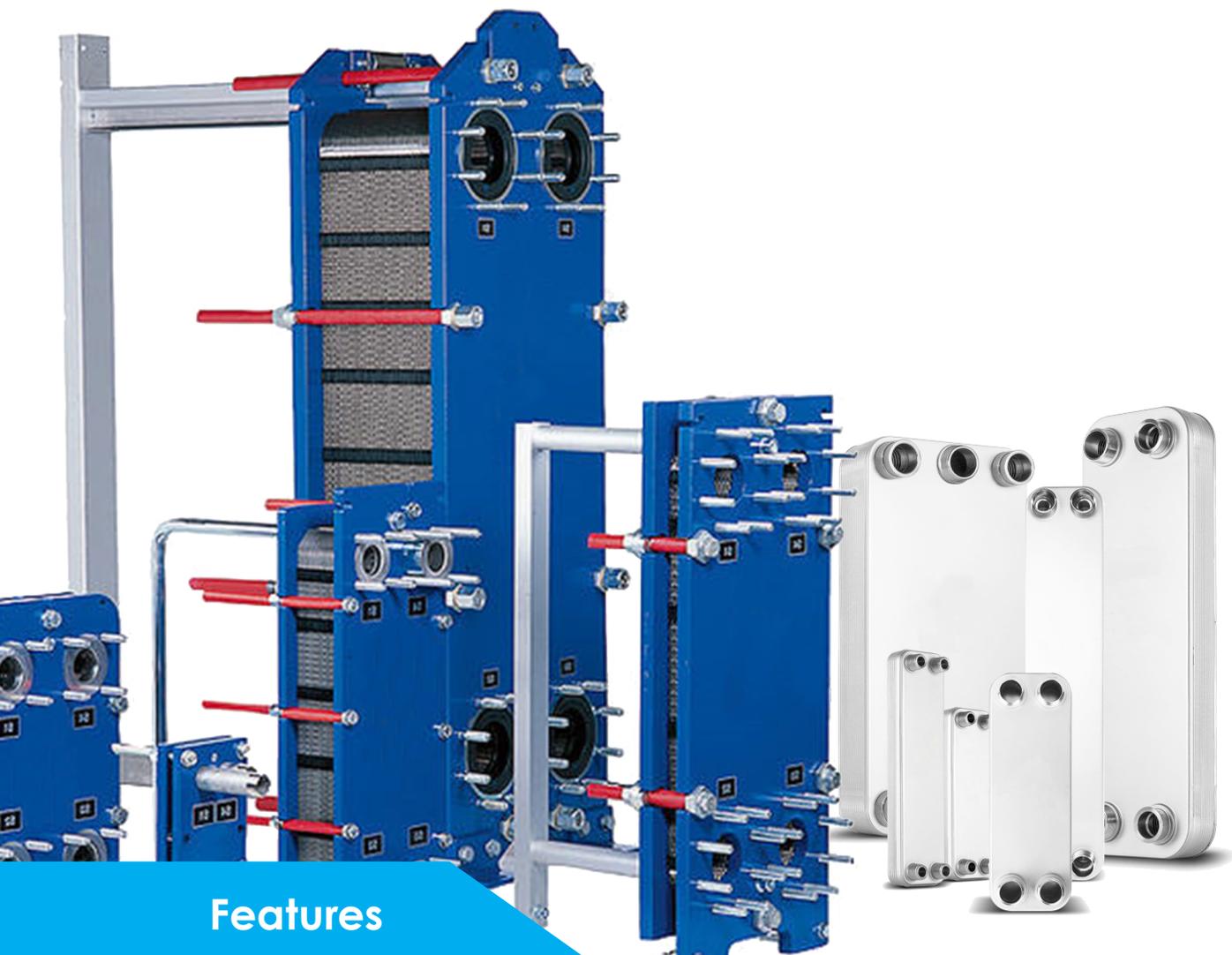
Many modern chillers are equipped with advanced energy-saving technologies, such as variable speed drives and high-efficiency compressors, to reduce energy consumption and operating costs. They are also designed to withstand harsh industrial environments with durable structures, corrosion-resistant materials, and stable performance and lifespan. Therefore, despite being more expensive than other heat exchangers, there is an increasing demand for chillers that guarantee robust structure, corrosion-resistant materials, and stable performance and lifespan. Our chiller products include the **HLDA series**.



- |                            |                        |                      |                       |
|----------------------------|------------------------|----------------------|-----------------------|
| ① Compressor               | ⑥ Cooling Tower        | ⑪ Low-Pressure Gauge | ⑱ Circulation Pump    |
| ② Oil Separator            | ⑦ Cooling Water Return | ⑫ City Water Supply  | ⑲ Cooled Water Supply |
| ③ High-Pressure Gauge      | ⑧ Shut Off Valve       | ⑬ Evaporator & Tank  | ⑳ Cooled Water Return |
| ④ Condenser (Shell & Tube) | ⑨ Filter Dryer         | ⑭ Level Sensor       | ㉑ By-Pass Valve       |
| ⑤ Cooling Water Supply     | ⑩ Expansion Valve      | ⑮ Drain Valve        |                       |

# HPC/HGPC Series

Plate Coolers



Water Oil Coolers

## Features



- Compact, easy installation and cost-effective
- High thermal transfer efficiency
- Proven and reliable quality
- Reduce life cycle cost

## Quick Overview

HydroLync provides two types of plate heat exchangers. HPC uses a brazing method, while HGPC is a gasket type.

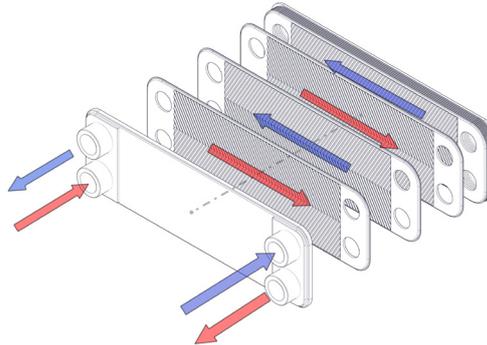
HPC is one of the products with excellent heat transfer performance. It consists of a corrugated channel plate package between the front and back cover plate packages. The cover plate package is composed of a sealing plate, a blind ring, and a cover plate. The connection is mounted on the cover plate and can be custom-made according to user requests for specific markets and applications designed for high-pressure hydraulic systems.

HGPC is a multi-purpose gasket plate heat exchanger. The heat transfer area of the gasket plate heat exchanger is composed of a series of corrugated plates assembled between the frame and pressure plate to maintain pressure. The gasket plays a sealing role between the plates. Fluid typically flows through the heat exchanger in a counter-current manner. This provides the most efficient heat transfer performance and allows for a very close temperature approach, i.e., the temperature difference between the outlet cooled fluid and the inlet cooling fluid.

## HPC Materials

Parts	Standard Materials
Cover Plates	Stainless steel - 304
Connections	Stainless steel - 304
Plates	Stainless steel - 304 / 306L
Brazing filler	Copper

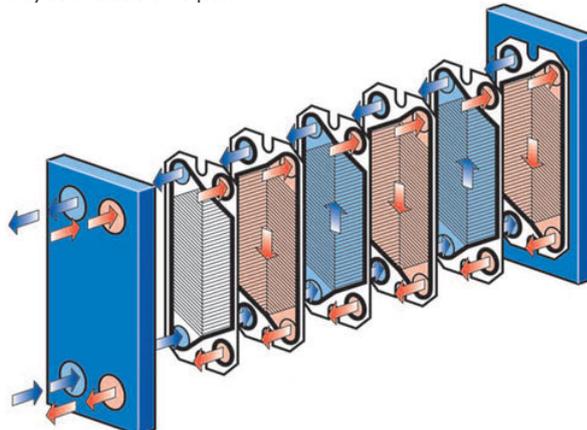
\*Other materials may be available on request



## HGPC Materials

Parts	Standard Materials
Field gaskets	NBR, EPDM
Heat transfer plates	Stainless steel - 304 / 306L
Flange connections	Stainless steel - 304 / 306L, Alloy 254, titanium
Frame and pressure plate	Carbon steel, epoxy painted

\*Other materials may be available on request



HPC Ordering code

Example: HPC K - 205 - 60 - M  
1   2   3   4

1 Series	
K	K Series
BL	BL Series

2 Plate size			
Series	Model	Size	L
K	030	80 x 194 x L	9 + 2.20xN
	070	124 x 304 x L	10 + 2.38xN
	105	124 x 504 x L	11 + 2.38xN
	205	246 x 528 x L	14 + 2.40xN
BL	30	111 x 310 x L	13 + 2.30xN
	120	246 x 528 x L	13 + 2.38xN

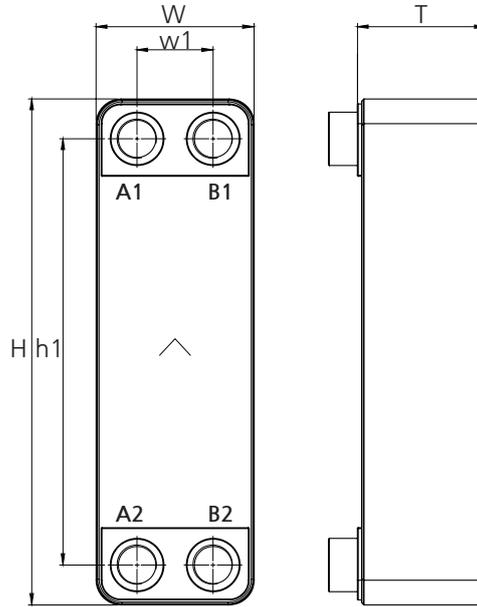
3 Number of plates						
Number	K Series				BL Series	
	030	070	105	205	30	120
10	●					
20	●	●	●	●	●	●
30	●	●	●	●	●	●
40	●	●	●	●	●	●
50	●	●	●	●	●	●
60		●	●	●	●	●
70		●	●	●	●	●
80				●		●
100				●		●

4 Port	
Type	
M	PT Male only (Standard)
F	PF Female only

\* Please consult with the sales department for other types of port.

Port sizes by model			
Series	Model	Port size	
		Oil	Water
K	030	3/4"	3/4"
	070	1"	1"
	105	1"	1"
	205	1 1/2"	1 1/2"1
BL	30	1"	1"
	120	1 1/2"	1 1/2"1

## HPC Specifications



Brazing materials	Copper	Copper *Extra Strength	Nickel
	A1, A2 / B1, B2		
Max. Working pressure (bar)	30/30	45/30	10/10
Reinforced max. Pressure (bar)	43/43	65/43	15/15
Max. Working temperature (°C)	200 °C		

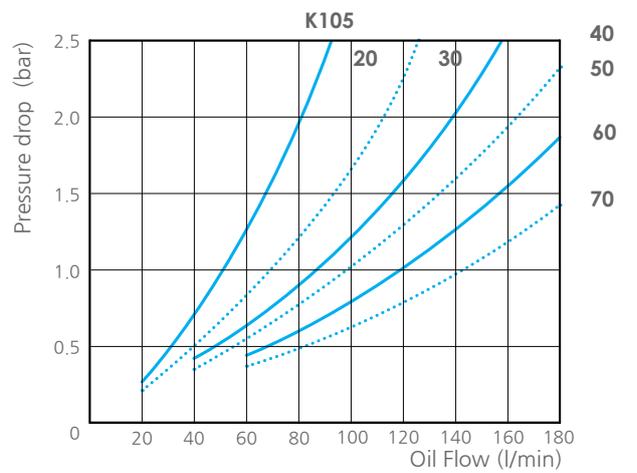
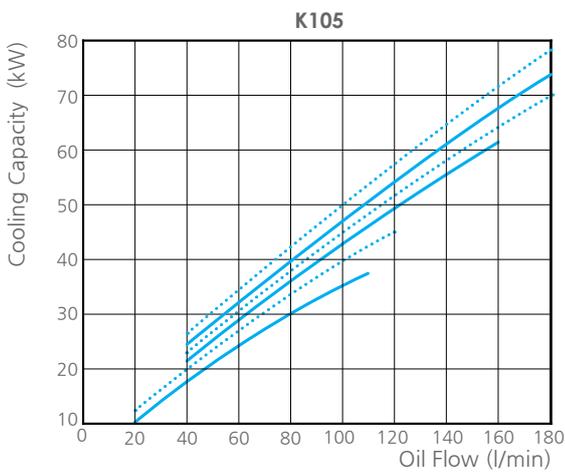
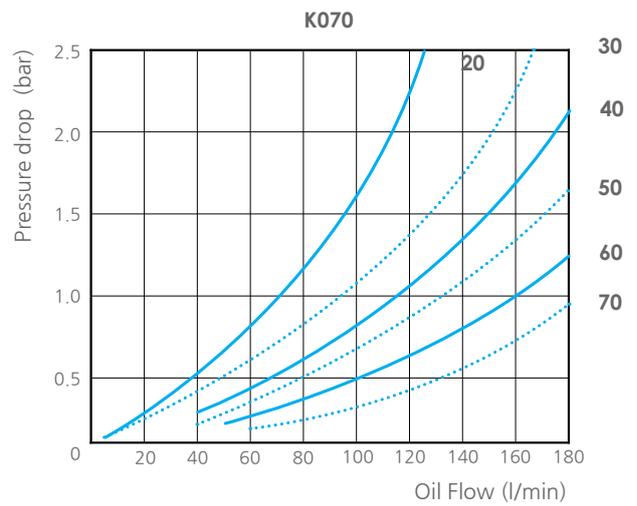
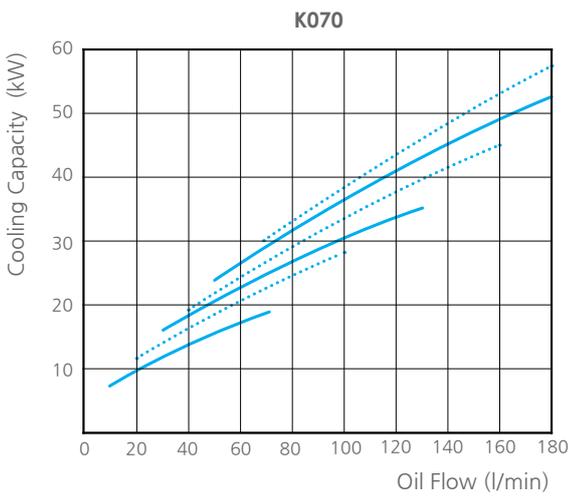
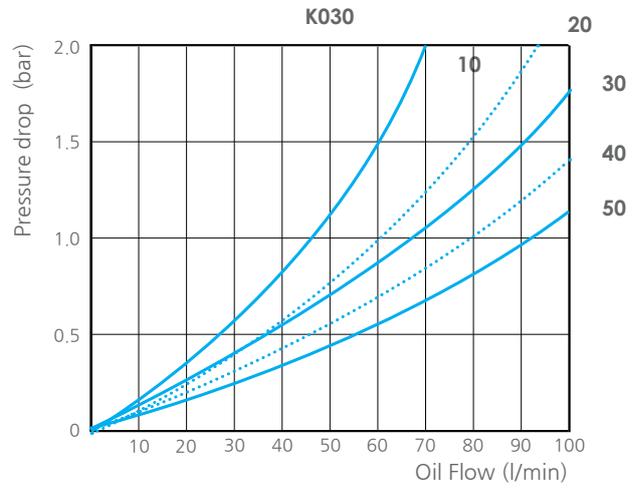
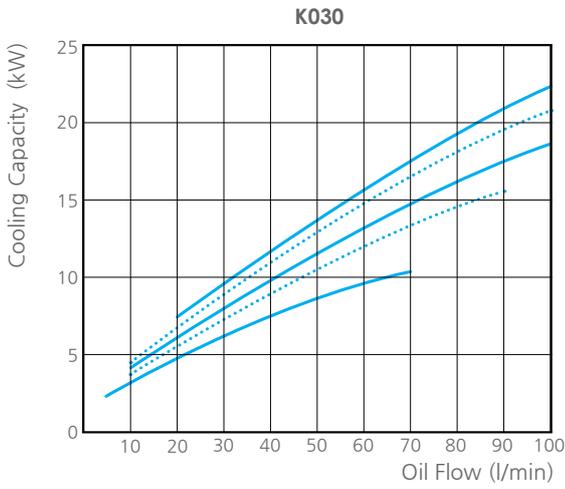
### Dimensions

Model	W	w1	H	h1	T	Weight
	mm	mm	mm	mm	mm	Kg
K030	80	40	194	154	9+2.20n	0.5+0.047n
K070	124	70	304	250	10+2.38n	1.38+0.134n
K105	124	64	504	444	11+2.38n	3.23+0.230n
K205	246	174	528	456	14+2.40n	7.30+0.480n
BL30	124	70	304	250	13+2.3n	2.20+0.160n
BL120	246	174	528	456	13+2.36n	7.20+0.520n

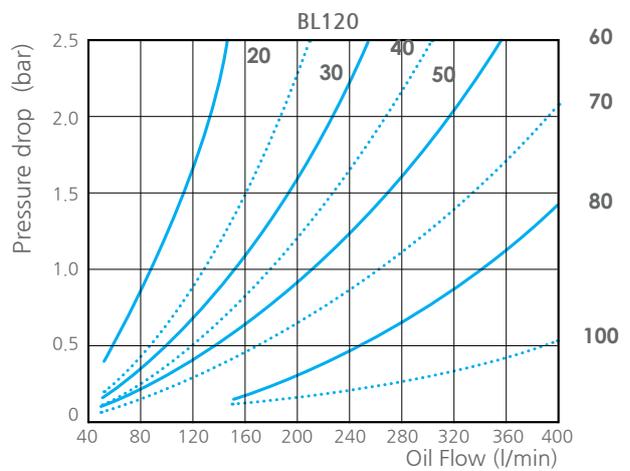
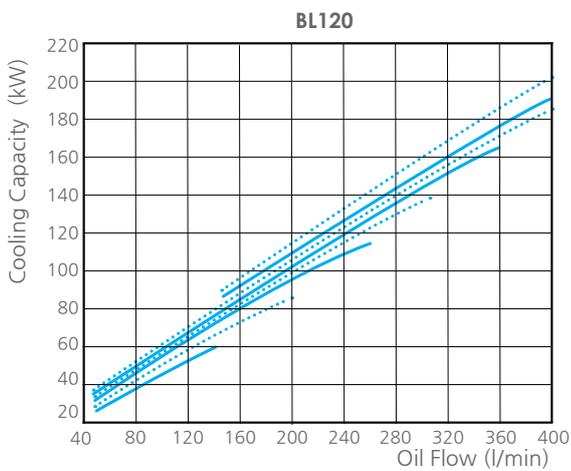
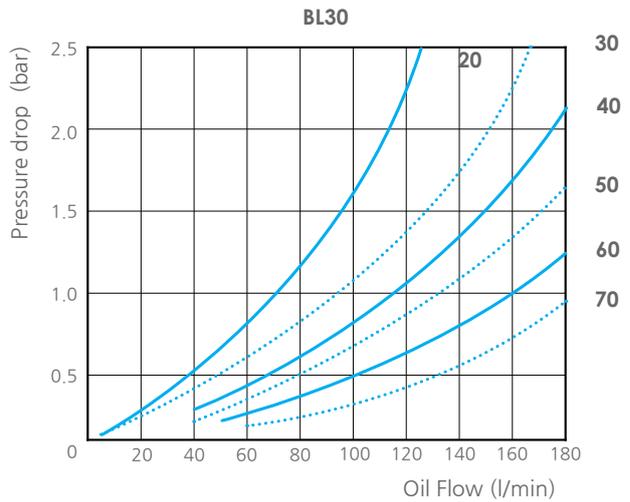
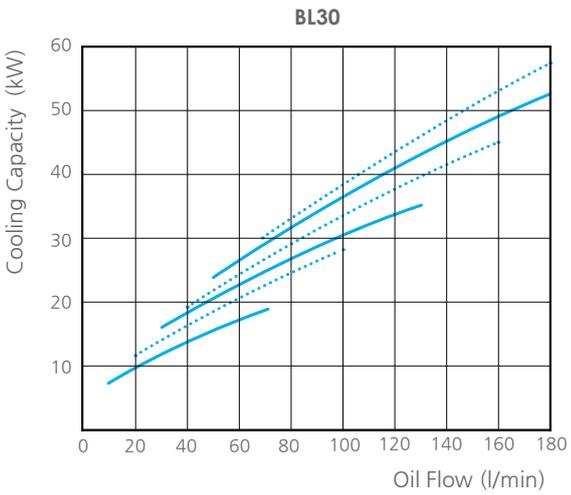
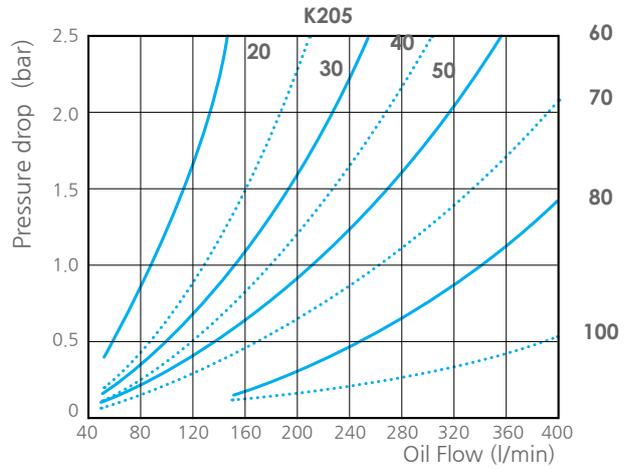
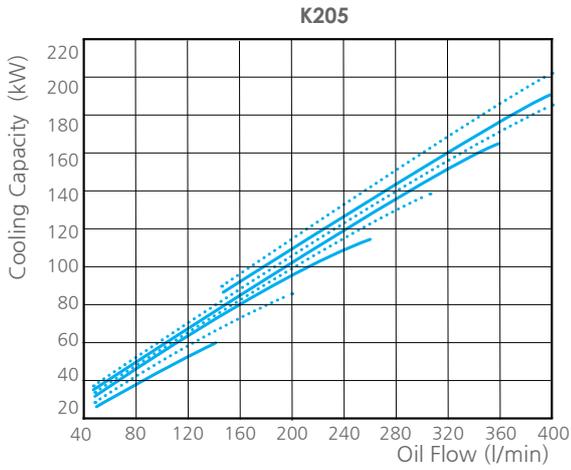
### Connections

Model	Inlet/Outlet Ports				Remark
	A1	A2	B1	B2	
K030	PT 3/4"	PT 3/4"	PT 3/4"	PT 3/4"	PT - Male only PF - Female only
K070	PT 1"	PT 1"	PT 1"	PT 1"	
K105	PT 1"	PT 1"	PT 1"	PT 1"	
K205	PT 1 1/2"	PT 1 1/2"	PT 1 1/2"	PT 1 1/2"	
BL30	PT 1"	PT 1"	PT 1"	PT 1"	
BL120	PT 1 1/2"	PT 1 1/2"	PT 1 1/2"	PT 1 1/2"	

Performance curve



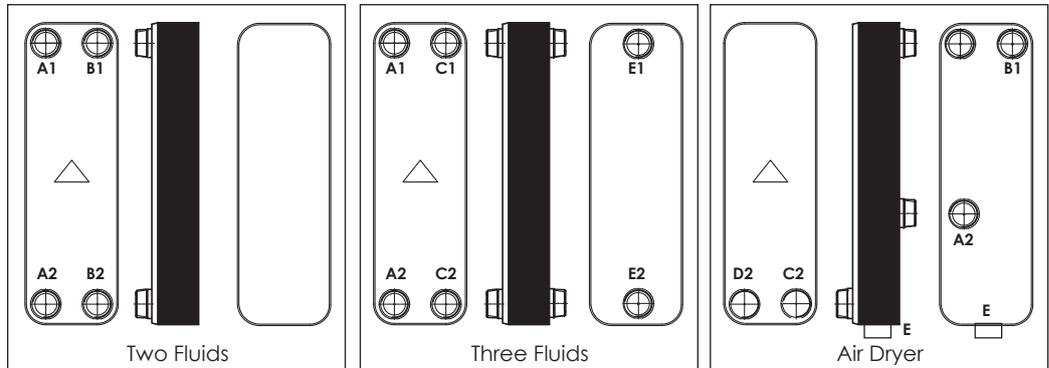
\*Performance curve conditions: Fluid: VG68 / Fluid temperature: 60°C, Cooling water temperature: 20°C / Flow rate ratio: Fluid: Cooling water = 2:1



**Performance curve conditions:** Fluid: VG68 / Fluid temperature: 60°C, Cooling water temperature: 20°C / Flow rate ratio: Fluid: Cooling water = 2:1

Installation

1. Fluid connecting directions

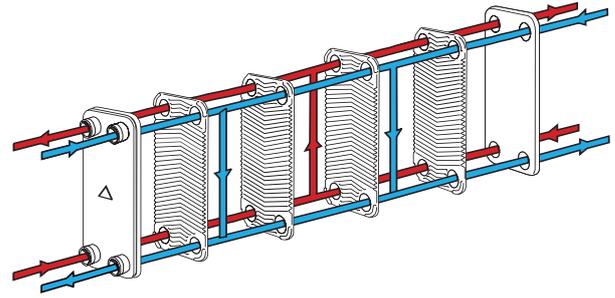


Applications	Type	Fluid 1 (Side 1)	Fluid 2 (Side 2)	Fluid 3 (Side 3)
Evaporator (Single Refrigerant)	K, K-S, R, C	Refrigerant A2->A1	Chiller water B1->B2	
	Z400, Z401, Z600	Refrigerant 1 A2->B1	Chiller water A1->B2	
Evaporator (Dual refrigerant)	K215, K215S	Refrigerant 1 A2->A1	Refrigerant 2 C2->C1	Chiller water E1->E2
	Z415, Z416	Refrigerant 1 A2->C1	Refrigerant 2 C2->A1	Water E1->E2
Condenser	K, K-S	Refrigerant A1->A2	Cooling water B2->B1	
	Z400, Z401, Z600	Refrigerant B1->A2	Cooling water B2->A1	

Applications	Type	Fluid 1 (Side 1)	Fluid 2 (Side 2)	Fluid 3 (Side 3)
Heating, Cooling	K, K-S, R, C, E, F	Cold water (or hot oil) A2->A1	Hot oil (or cold water) B1->B2	
	Z400, Z401, Z600	Cold water (or hot oil) A2->B1	Hot oil (or cold water) A1->B2	
Oil cooler	<b>K, BL, H, JX</b>	<b>Cold water (or hot oil) B1-&gt;B2</b>	<b>Hot oil (or cold water) A2-&gt;A1</b>	
	Z400, Z401, Z600	Refrigerant 1 A2->B1	Hot oil (or cold water) A1->B2	
Air Dryer (Refrigerant)	A030, A070	Refrigerant A2->B1	Air C2-> Separator ->D2	
	A210	Refrigerant B1->A2	Air D2-> Separator ->C2	

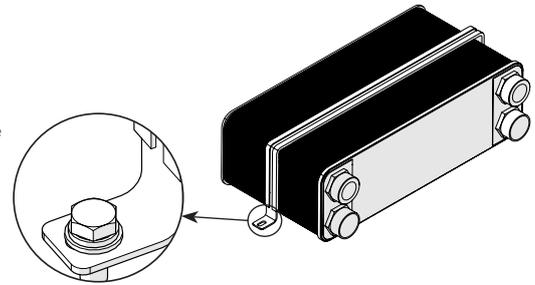
\* The fluid connection direction above is a standard recommendation that achieves the best performance. Please contact the HydroLync sales representative if you want to connect the fluid in a different direction.

- Always install HPC vertically (especially in refrigerant systems). This is done to maintain the minimum amount of water under the connector.
- To achieve high heat efficiency and high heat transfer rate, HPC must be installed in reverse as shown in the right picture.



**2. Mounting**

- It is dangerous to expose the device to vibrations, excessive pulsating pressure, or temperature changes. Therefore, it is important to mount the heat exchanger to prevent the transfer of vibrations. If there is such a risk, a vibration absorber should be installed, and for large diameter pipelines, it is recommended to use appropriate converters. In addition, rubber mounting strips should be used as a buffer, that is, a vibration-absorbing material, between the HPC and the mounting clamp..
- The mounting method of HPC is as shown on the right. For small HPCs, it is also possible to mount a flat cooler directly onto the pipe/connectors.
- To prevent damage to the stud bolt due to excessive force, refer to the chart when installing the stud bolt.



**Torque Guide for Stud Bolt Fastening**

Item	"First time bolting torque(MAX) (kgf-cm)"	"First time loosening torque(MIN) (kgf-cm)"	"Fifth time loosening torque(MIN) (kgf-cm)"
M6	30.6	4.6	3.06
M8	61.2	8.67	6.12
M10	107.1	15.3	10.2
M12	158.1	23.4	16.3

This table is based on ISO 2320:1997(E) Table 8. Excessive torque on the connection of the heat exchanger can cause damage to the stud bolts.

**3. Preventing Freezing of HPC**

Freezing or icing can damage the HPC and the system. Therefore, the following methods are recommended to minimize freezing of the HPC:

- Use a strainer or filter with <1mm, 16 mesh before the inlet water.
- Use a brine (e.g. glycol) when the evaporation temperature is close to the freezing point.
- Low operating pressure causes low evaporation temperature, and if the evaporation temperature is below 0°C, the water will freeze. The HPC is the most vulnerable area for cracking because it is where the temperature is the lowest at the bottom.
- Always run the cooling water pump for a few minutes before starting the compressor in a cooling system. To stop the system, always stop the compressor first and then the cooling water pump.

**(1) Low-pressure cut-out switch (LP)**

The low-pressure cut-out switch should be installed with the appropriate set value. If the actual evaporation pressure is lower than the set value, the compressor will automatically shut off..

**(2) Low Temperature Controller (LT)**

The function of the thermal stat is to prevent the evaporation temperature from dropping below 0°C. If the evaporation temperature always exceeds 0°C, there is no opportunity for the water to freeze or expand.

**(3) Water Temperature Sensor**

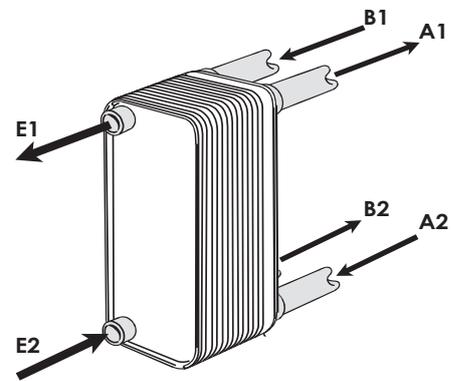
Installing a floating temperature sensor near the water outlet is also a way to prevent the water from freezing. The recommended set temperature for buffering is 4°C.

**(4) Flow Switch**

Installing a water flow switch in the water circuit can prevent HPC freezing by stopping the flow of cooling water. Typically, low flow rates can occur due to malfunctioning of the water pump, pipe leakage, pipe blockage due to pipe contamination, or filter contamination.

**4. Cleaning**

If contamination occurs in a plate heat exchanger, most of the soft foreign substances that block the inside can be removed by backflushing. For example, glycolic acid oxalic acid, which is a weak acid with a concentration of less than 5%, is added to the cleaning tank. For optimal cleaning, the flow rate of the cleaning solution should be at least 1.5 times the normal flow rate, and it should be used in backflush mode as much as possible. After use, the heat exchanger should be carefully rinsed with clean water. Before the final rinse, a 1-2% solution of sodium hydroxide (NaOH) or sodium bicarbonate (NaHCO<sub>3</sub>) must be used to neutralize all acids. If the acidity is too high, the copper and stainless steel inside the HPC can be etched or corroded.



### HGPC Ordering code

**Example:** HGPC M80 S FP 10 - 50 - 1 - 1 -  

1   2   3   4   5   6   7   8

<b>1 Models</b>	M25
M Series	M65
	M80
	M100

<b>2 Types of heat transfer plate</b>	Tiny
	Small
	Medium
	Large

<b>3 Frame types</b>	FP
	B
	CDL

<b>4 Max working pressure</b>	10 bar
	16 bar
	20 bar

<b>5 Number of plates</b>	Number of plates
---------------------------	------------------

<b>6 Materials of plate</b>	1 316L
	2 304
	3 Titanium
	4 Others

<b>7 Materials of gasket</b>	1 NBR (STANDARD)
	2 EPDM
	3 VITON
	4 Others

<b>8 Customization label</b>	Customization label
------------------------------	---------------------

### HGPC Part ordering code

**Example:** PH M80S FP10-50-1-1-

1   2

<b>1 Part code</b>	PH Plate H type
	PV Plate V type
	GK Gasket

<b>2 Product Code</b>	The product code on the name plate
-----------------------	------------------------------------

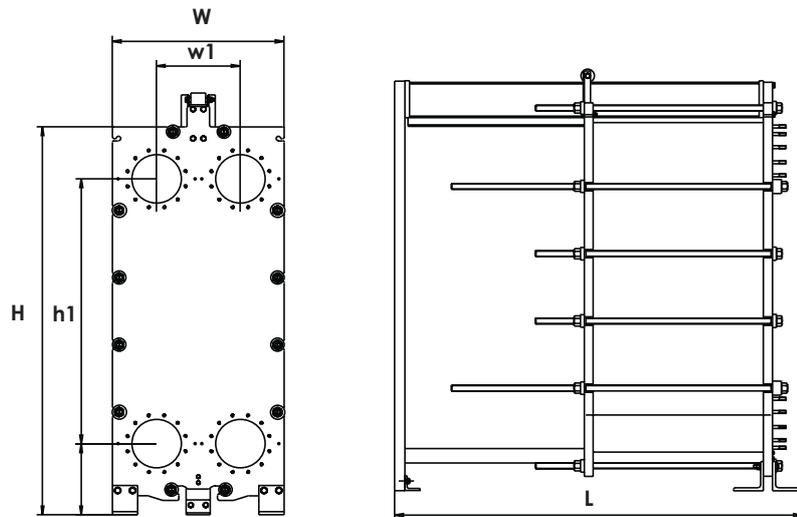


**H:** High theta

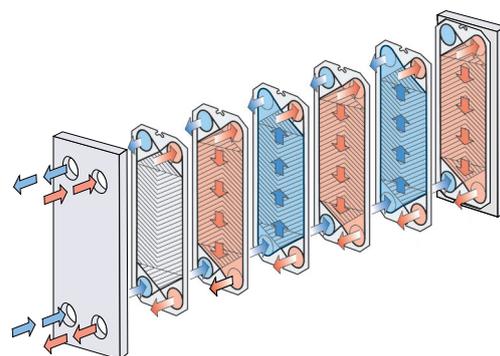


**L:** Low theta

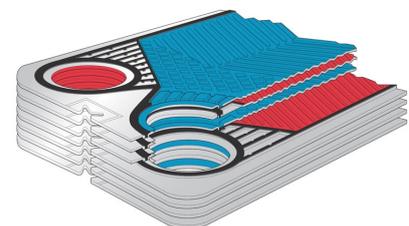
HGPC Specifications



Model	W	w1	H	h1	L	Flange	Max. Pressure	Max. Flowrate
	mm	mm	mm	mm	mm	inch	bar	L/min
M25	198	150	595	381	415-520	JIS 10/16K 25A	10/16	175
M65M	340	150	1052	800	617-922	JIS 10/16K 65A	10/16	1550
M80S	435	238	1117	794	640-960	JIS 10/16/20K 80A	10/16/20	2033
M80M	435	238	1393	1070	640-960	JIS 10/16/20K 80A	10/16/20	2033
M100T	540	262	1130	727	500-810	JIS 10/16/20K 100A	10/16/20	3417
M100M	540	262	1536	1133	500-810	JIS 10/16/20K 100A	10/16/20	3417
M100L	540	262	1942	1539	500-810	JIS 10/16/20K 100A	10/16/20	3417



Flow direction of hot fluid and cold fluid



Efficient Heat Exchange Structure

A gasketed plate heat exchanger (HGPC) is an efficient heat exchange device consisting of a series of thin metal plates with corrugated shapes and gaskets. The high-temperature fluid and low-temperature fluid between the plates are separated by sealing gaskets and flow independently in each channel. The heat transfer coefficient of HGPC is 3-5 times higher than that of shell-and-tube heat exchangers, as the high and low-temperature fluids reach a high level of turbulence when flowing through the plate channels, maximizing the heat exchange performance.

## Installation



### Attention

Always wear protective and preventive gears before starting any work



**Hand protection gear:** Use protective gloves when necessary to avoid the risk of cutting and abrasion.



**Eye protection gear:** Wear safety goggles before performing product installation and maintenance.



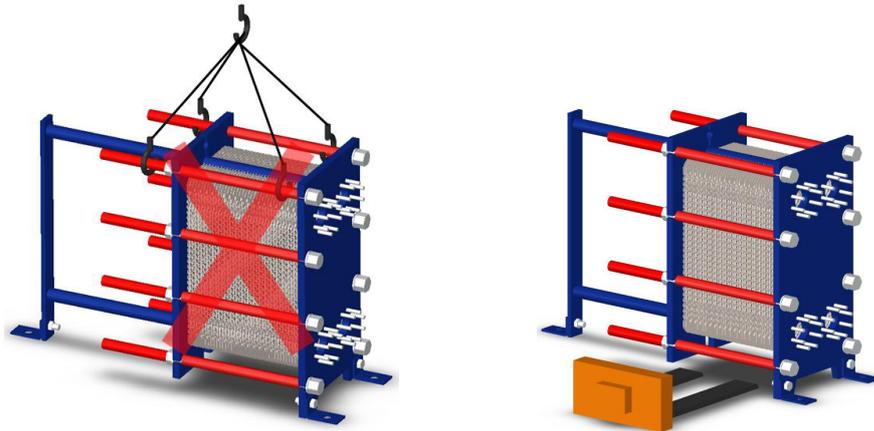
**Head protection gear:** Wear a safety helmet when working in areas where there is a risk of objects falling from above, hitting fixed objects, or electric hazards above the head.



**Foot protection gear:** Wear safety shoes to avoid injury from falling objects on your feet when working around heavy equipment or falling objects.

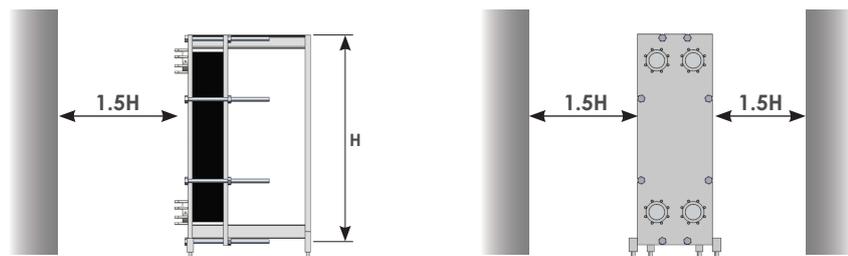
### 1. Handling

HGPCs are shipped fixed on wooden pallets. If you move the product using some parts of the structure other than the pallet, it may cause damage to the product and affect its heat exchange performance. Please refrain from moving any part of the product using flange pipes, plate fixing bolts, or directly with forklifts. We will not be responsible for any product damage or performance issues caused by inappropriate transportation methods by the user. Before handling, always wear protective and preventive gear.



### 2. Installation

Adequate workspace should be secured for maintenance when installing HGPC. As shown in the diagram below, in order to replace the plate properly, a space 1.5 times the height of the plate must be secured in the front and on both sides.



# HSC Series

## Shell & Tube Coolers



Water Oil Coolers

## Features



Copper-Aluminum Finned Tube

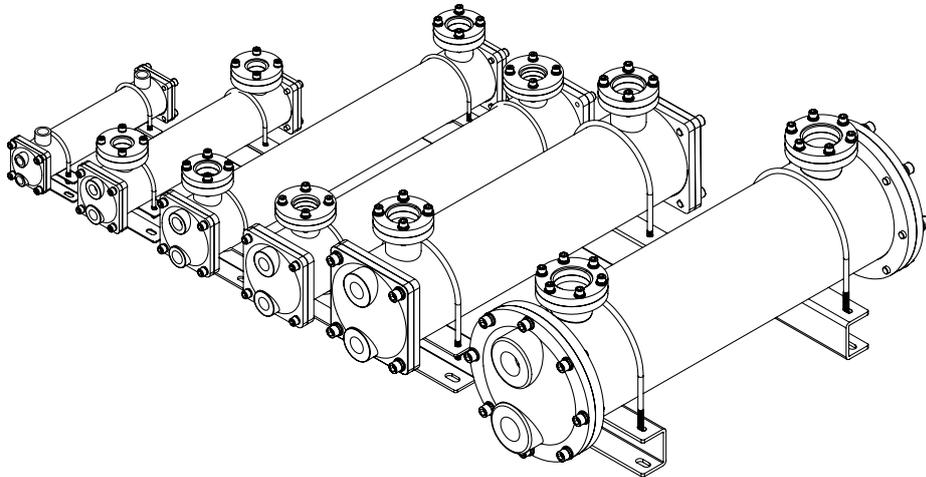
- Optimized design through fluid analysis
- Customizable production tailored to various customer usage environments
- General industrial, marine, and specialized heat exchangers available

**Quick Overview** Shell and tube heat exchangers are the most widely used industrial heat exchangers and are generally capable of delivering stable heat exchange performance in the most severe environmental conditions. The HSC Series provides both standard products applicable to various industrial environments and custom-made models designed for special environments.

**HSC Materials**

Parts	Materials
Shell	Carbon(34CrMo4)/Stainless steel (SUS304/316L)
Covers	FC20/BRASS/SUS304
Tube sheet	SS400/BRASS/SUS304/SUS316L
Tubes	COPPER-TP2Y2/Cu90-Ni10/ Cu70-Ni30/SUS304/SUS316L
Baffles	SS400/SUS304
Aluminum Fin	1080A

\* Other materials may be changed according to customer request.



### Ordering code

**Example:** HSC - T - 8 - 850 - S

1    2    3    4

1 Series	
T	T Series
CR	CR Series

2 Shell size	
Code	Diameters
3	Ø89.1 mm
4	Ø114.3 mm
5	Ø139.8 mm
6	Ø165.2 mm
8	Ø219.0 mm
10	Ø273.0 mm

3 Tube length		Model						
Code	Length	3	4	5	6	8	10	
340	340 mm		●					
370	370 mm	●						
450	450 mm		●	●				
460	460 mm	●						
530	530 mm		●					
550	550 mm	●						
680	680 mm			●	●			
850	850 mm				●	●		
870	870 mm			●				
970	970 mm				●	●	●	
1200	1200 mm					●	●	
1500	1500 mm						●	

\* Customization is available beyond standard specifications.

4 Connection type	
Type	
S	Socket
F	Flange

Connection table				
Model	Connection sizes			
	Oil		Water	
	Socket	Flange	Socket	Flange
3	PT 1"	-	PT 1/2"	-
4	PT 1 1/4"	32A	PT 3/4"	-
5	PT 1 1/2"	40A	PT 1"	-
6	PT 2"	50A	PT 1"	-
8	PT 2 1/2"	65A	PT 1 1/4"	-
10	PT 3"	80A	PT 2"	-

\* Please consult with the sales department for other types of port.



## Specifications

### 1. Performance



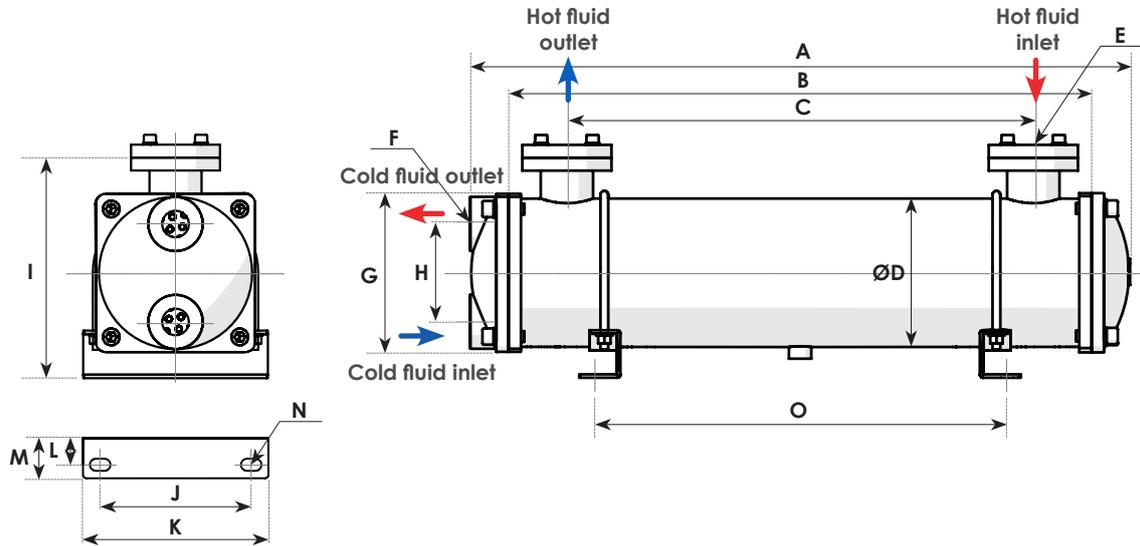
	Shell Side	Cover Side
<b>Max. Working pressure</b>	20 bar	20 bar
<b>Max. Test pressure</b>	30 bar	30 bar
<b>Max. Working temperature</b>	120°C	100 °C
<b>Number of the fluid channels</b>	1 Pass	2 Pass

**Performance curve conditions:** Fluid: VG32 / Fluid temperature: 60°C, Cooling water temperature: 32°C / Flow rate ratio: Fluid: Cooling water = 2:1

Model	Flowrate (L/min)		Pressure drop(bar)		Heat Transfer		Area m <sup>2</sup>	Net Weight Kg
	Oil	Water	Oil	Water	Kcal/hr	Kw		
HSC-T-3-370-S			0.86	0.60	11,600	13	0.8	9
HSC-T-3-460-S	110	35	0.99	0.70	12,400	14	1.0	10
HSC-T-3-550-S			1.12	0.80	13,300	17	1.2	11
HSC-T-4-340-S			0.95	1.25	22,200	26	1.2	18
HSC-T-4-450-S (F)	200	65	0.97	1.33	25,200	29	1.6	19
HSC-T-4-530-S (F)			1.04	1.40	28,100	33	1.9	20
HSC-T-5-450-S (F)			1.11	1.44	35,400	41	2.1	26
HSC-T-5-680-S (F)	280	90	1.16	1.71	43,600	51	3.3	28
HSC-T-5-870-S (F)			1.21	1.97	51,800	60	4.1	30
HSC-T-6-680-S (F)			1.29	0.98	53,600	62	5.2	41
HSC-T-6-850-S (F)	320	100	1.45	0.99	61,100	71	6.6	46
HSC-T-6-970-S (F)			1.61	1.00	68,600	80	7.5	50
HSC-T-8-850-F (S)			1.62	1.42	115,000	134	11.4	91
HSC-T-8-970-F (S)	520	180	1.97	1.47	131,700	153	13.1	96
HSC-T-8-1200-F (S)			2.23	1.62	147,600	172	16.9	102
HSC-T-10-850-F (S)			1.19	0.95	179,300	208	21.9	155
HSC-T-10-970-F (S)			1.23	0.99	199,200	232	25.2	176
HSC-T-10-1200-F (S)	760	245	2.10	1.12	229,100	267	31.6	215
HSC-T-10-1500-F (S)			2.63	1.28	259,000	301	40.0	266

**S:** Socket / **F:** Flange

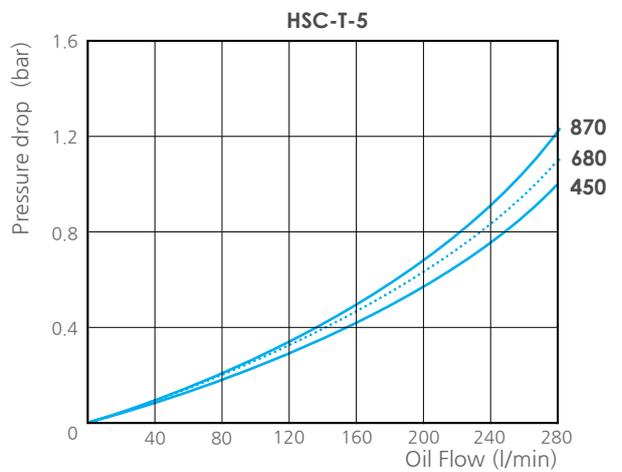
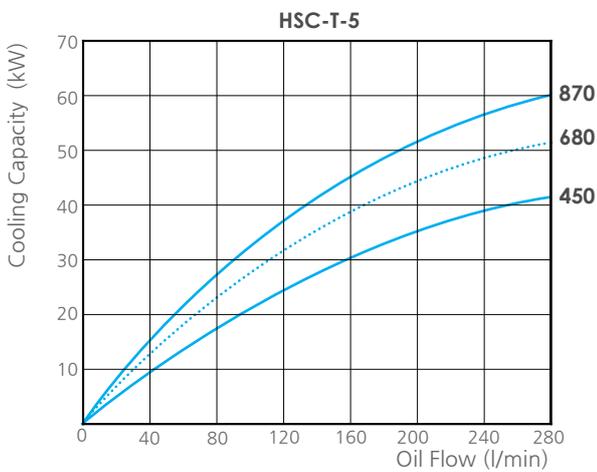
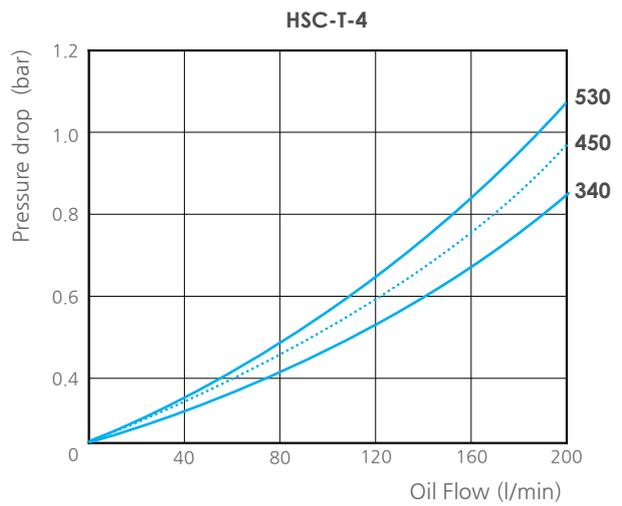
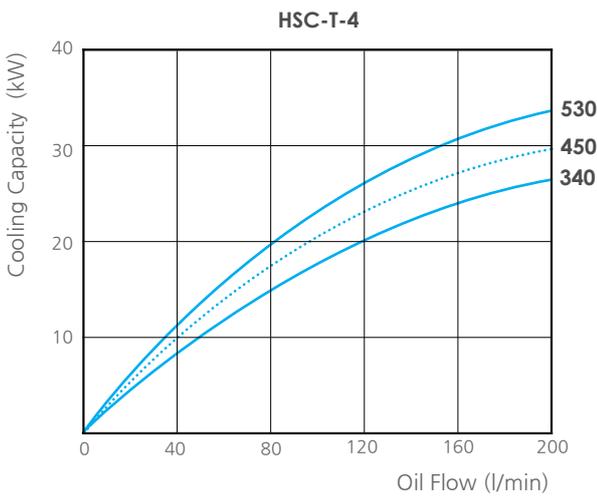
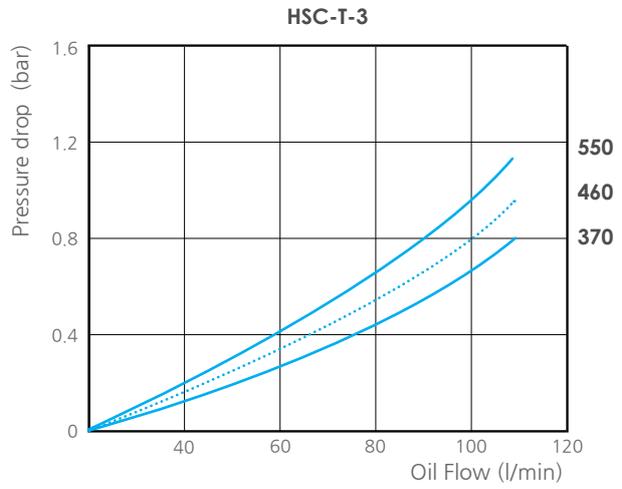
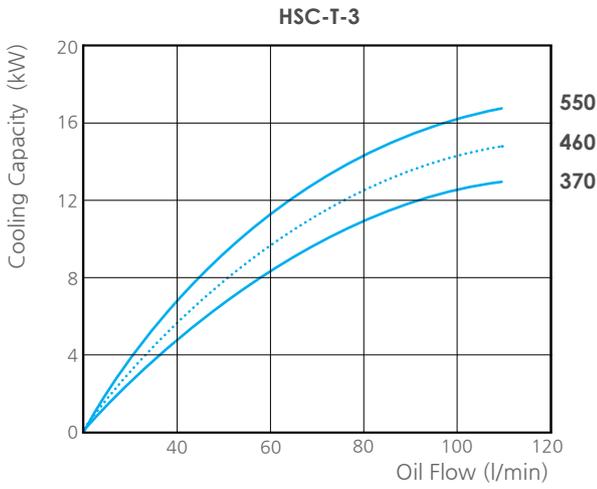
2. Dimensions



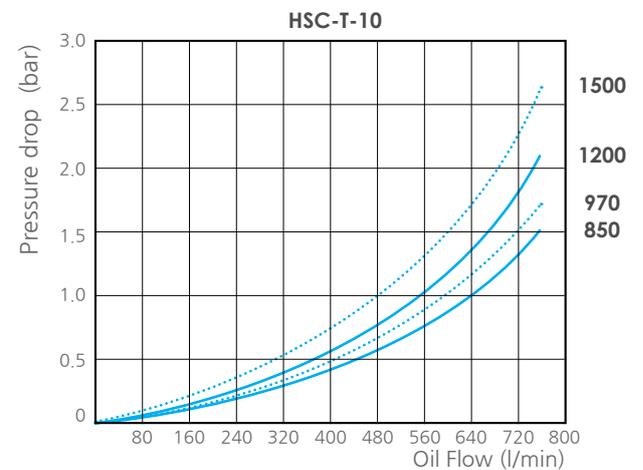
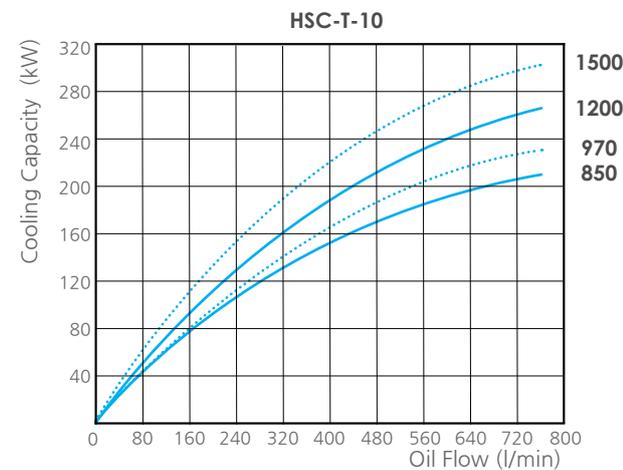
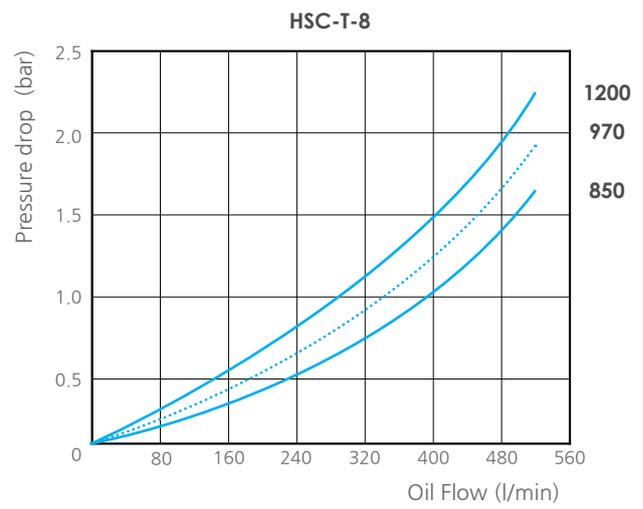
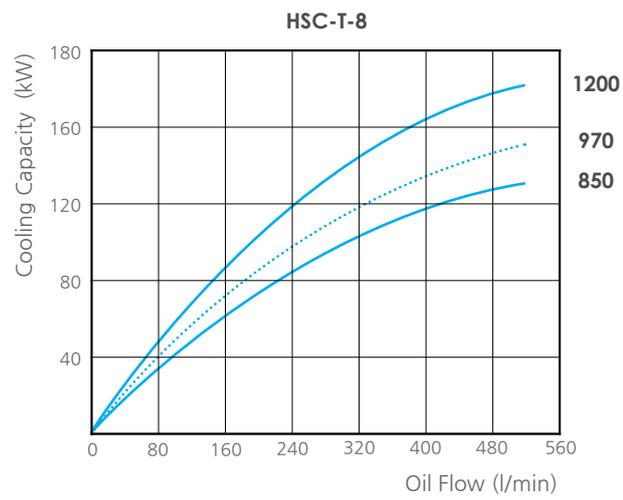
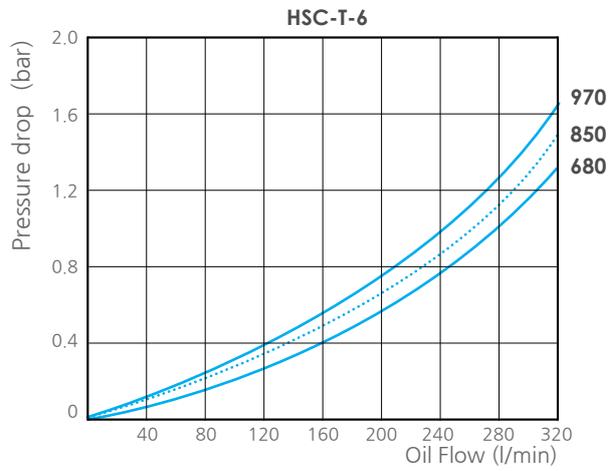
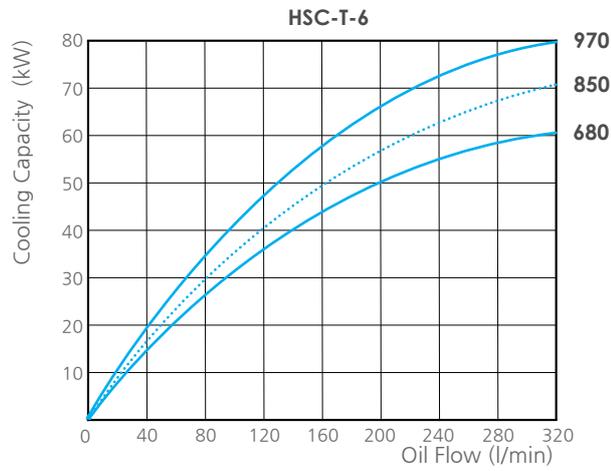
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HSC-T-3-370-S	422	370	258												465
HSC-T-3-460-S	512	460	348	Ø89.1	PT 1	PT 1/2	100	50	159	103	154	19	32	11x24	545
HSC-T-3-550-S	602	550	438												635
HSC-T-4-340-S	392	340	216												152
HSC-T-4-450-S (F)	502	450	326	Ø114.3	PT 1 1/4 (32A)	PT 3/4	125	66	198 (224)	105	170	28	50	13x25	262
HSC-T-4-530-S (F)	582	530	406												372
HSC-T-5-450-S (F)	520	450	340												307
HSC-T-5-680-S (F)	750	680	570	Ø139.8	PT 1 1/2 (40A)	PT 1	152	88	236 (271)	127	209	27	50	14x25	537
HSC-T-5-870-S (F)	940	870	760												727
HSC-T-6-680-S (F)	766	680	520												412
HSC-T-6-850-S (F)	936	850	690	Ø165.2	PT 2 (50A)	PT 1	180	104	269 (295)	167	210	23	50	15x40	582
HSC-T-6-970-S (F)	1056	970	810												702
HSC-T-8-850-F (S)	962	850	680												604
HSC-T-8-970-F (S)	1082	970	800	Ø219.0	65A (2 1/2)	PT 1 1/4	233	144	396 (354)	200	280	40	70	18x30	724
HSC-T-8-1200-F (S)	1312	1200	1030												954
HSC-T-10-850-F (S)	1004	850	642												604
HSC-T-10-970-F (S)	1124	970	762												724
HSC-T-10-1200-F (S)	1354	1200	992	Ø273.0	80A (3)	PT 2	360	172	447 (409)	300	360	39	70	18x38	954
HSC-T-10-1500-F (S)	1654	1500	1292												1254

S: Socket / F: Flange

**Performance curves**



**Performance curve conditions:** Fluid: VG32 / Fluid temperature: 60°C, Cooling water temperature: 32°C / Flow rate ratio: Fluid: Cooling water = 2:1



Performance curve conditions: Fluid: VG32 / Fluid temperature: 60°C, Cooling water temperature: 32°C / Flow rate ratio: Fluid: Cooling water = 2:1



KakaoTalk



YouTube



# **Hydro Lync**

**Engineering Excellence**

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