

☑ PLATE TYPE

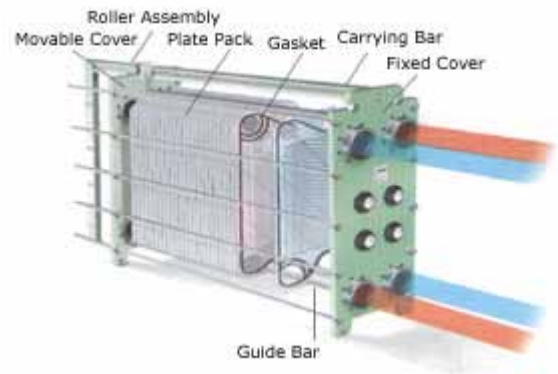
○ PRINCIPLE & STRUCTURE

■

Carrying bar

Guide bar

가



· Plate pack

Fixed cover Movable cover

가

Tie bolts

(Type of heat plate)

▣ HIGH-THETA PLATE



▶ ()

High turbulent flow(High Heat transfer coefficient)

▶ (Perfect temperature approach.)

▶ (High pressure drop.)

▣ LOW-THETA PLATES

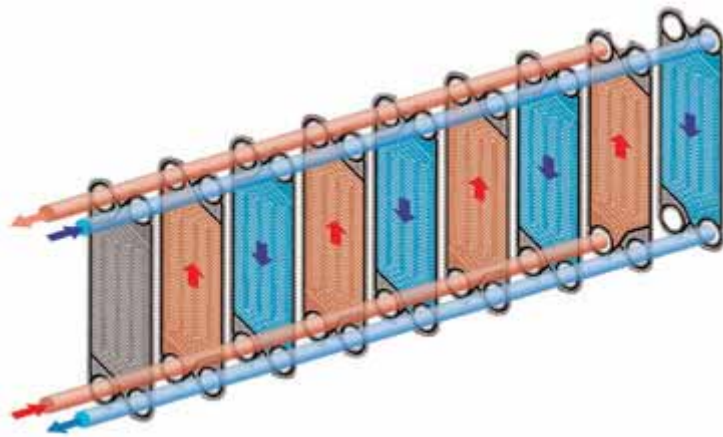
▶ ()

High turbulent flow(High Heat transfer coefficient)

▶ (High temperature approach.)

▶ (Low pressure drop.)

- H(High Channel) : Two high-theta heat plate.
- L(Low Channel) : Two low-theta heat plate.
- M(Medium Channel) : One high-theta heat plate plus
one high-theta heat plate .



○ FEATURES

▪

(Plate)

(Corrugated,)

(Turbulence)

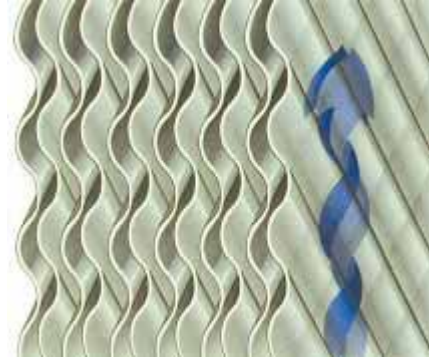
,

(Counter Flow)

, (Dead Space)

. (Shell & Tube)

5



(K : 3,000 ~ 6,000Kcal/m²h , Water/Water)

▪ (Temperature approach)

(Corrugated Pattern)

가

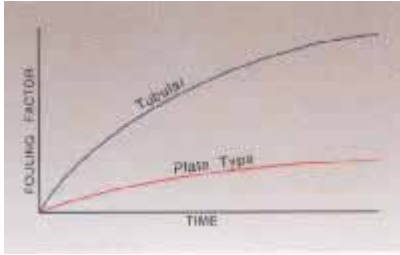
가

Temperature Approach 1

. (Shell & Tube)

5

가



▪ (Low fouling)

(Channel)

(Scale)

(Fouling

Factor)

▪ (Low heat loss)

(t=0.6mm)

▪ (Minimum Setting Area)

DHT

20% -

30%

가

Service

..

▪ (Maintenance management expense reduction)

Gasket

가

가

. (Double fixing gasket & Plate)



▪ **(Standardization and adaptation)**

Plate

▪ **(The variety of the flow)**

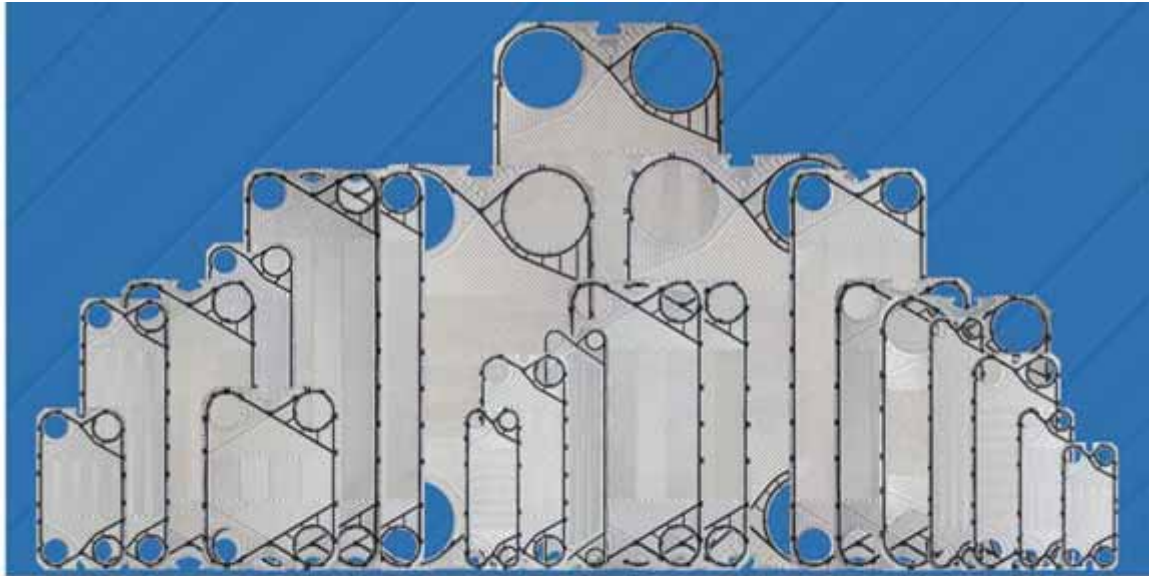
2 1-Pass Counter Flow 가 Muti-Pass Flow Pattern

▪ **(Legal controls and safety)**

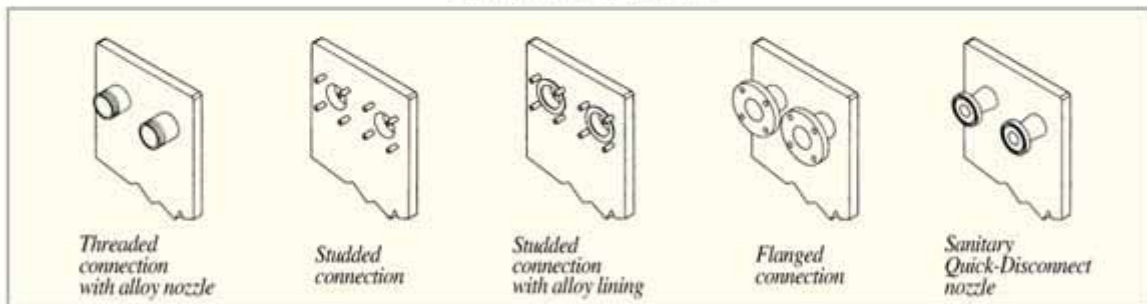
가

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○ SPECIFICATION



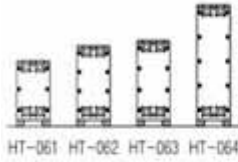
< Connection Options >



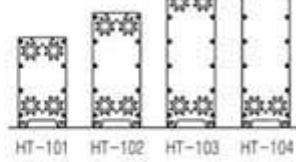
Max. operation temp.	180℃
Heat transfer area	0.1~2,000m ² /set
Max. operation press.	26kg/cm ²
Max. flow rate	2,500m ³ /hr.set
Plate material	S.S 304,304L,316,316L. Titanium, Ti-Pd, Nickel, Hastelloy, Avesta 254 SMO, Zirconium etc.
Gasket material	NBR, EPDM, FPM, Neoprene, IIR, Butyle, Silicone, Teflon Envelop(Special)



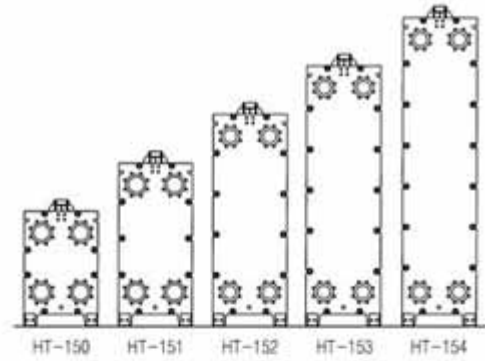
HT-02



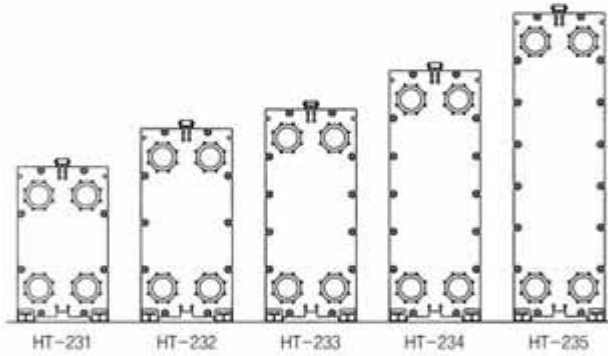
HT-061 HT-062 HT-063 HT-064



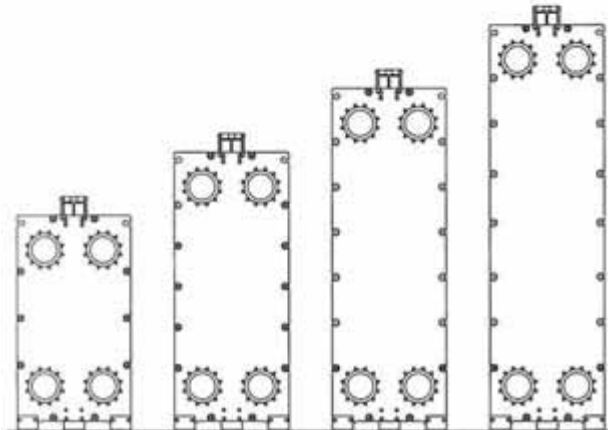
HT-101 HT-102 HT-103 HT-104



HT-150 HT-151 HT-152 HT-153 HT-154

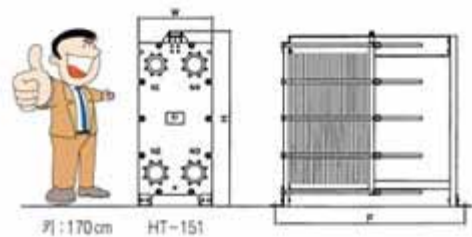


HT-231 HT-232 HT-233 HT-234 HT-235



HT-351 HT-352 HT-353 HT-354

MODEL	HEAT TRANS. AREA (m ² /plate)	CON. (A)	MAX. FLOW RATE (m ³ /hr)	FRAME SIZE			
				W	H	P Min.	P Max.
HT-02	0.01	10A	6.5	91	176	50	350
HT-061	0.08	50A	80	328	647	500	1300
HT-062	0.12	65A	80	328	798	500	1300
HT-063	0.13	80A	80	328	847	500	1500
HT-064	0.23	80A	80	328	1198	500	1500
HT-101	0.16	80A	200	464	880	500	1500
HT-102	0.26	100A	200	464	1120	500	1500
HT-103	0.36	150A	200	464	1409	500	1500
HT-104	0.46	150A	200	464	1649	500	1500
HT-150	0.25	100A	420	720	1239	800	2450
HT-151	0.55	150A	420	720	1713	800	2450
HT-152	0.85	200A	420	720	2187	800	2450
HT-153	1.15	200A	420	720	2661	800	2450
HT-154	1.45	200A	420	720	3135	800	2450
HT-231	0.60	200A	950	886	1602	1000	4000
HT-232	0.93	250A	950	886	1977	1000	4000
HT-233	1.08	300A	950	886	2164	1000	4000
HT-234	1.40	300A	950	886	2539	1000	4000
HT-235	1.85	300A	950	886	3102	1000	4000
HT-351	1.09	300A	2400	1115	2302	1400	4500
HT-352	1.75	350A	2400	1115	2922	1400	4500
HT-353	2.45	400A	2400	1115	3542	1400	4500
HT-354	3.15	400A	2400	1115	4162	1400	4500
HT-							
HT-							



∅ : 170 cm HT-151

○ UNIQUE DESIGN FROM DHT

■ Improved wave

Plate Metal to metal
 Plate
 Heat plate

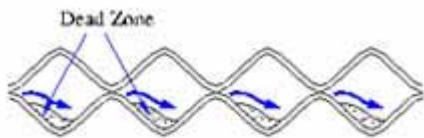
Dead-zone



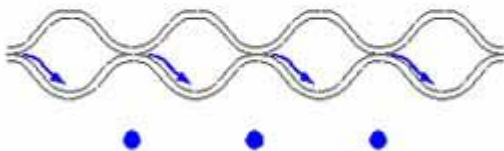
Improved Wave

Heat plate
 가 SIZE PLATE

■ Wide contact area



타사 제품



DHT 제품
Contact Area 비교

가

()

PLATE PLATE , Gasket

가

Plate Gasket

가

가

가

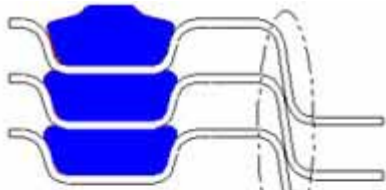
▪Double fixing gasket



DHT

Gasket

, Glue type None Glue Type



Insert Plate



Insert Gasket

(Easy disassembly and assembly)

Model 1-2

Insert Plate Insert Gasket 2 type 가
가 Plate

, 가
(or L.O cooler, Oil heater Oil Maintenance가

)

▪

(Plate) Thermal Length()

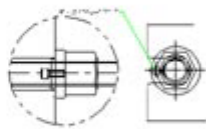
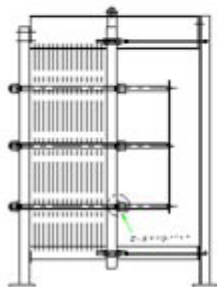
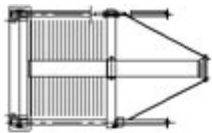
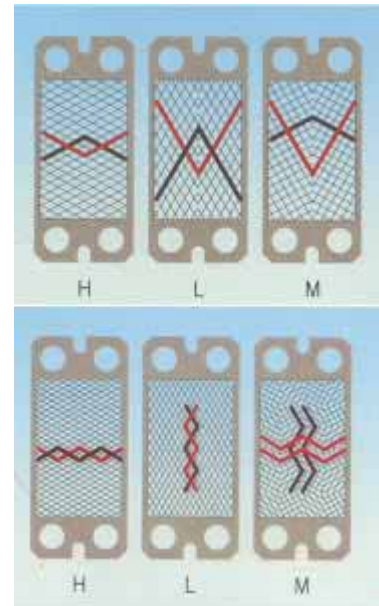
. High Theta Plate V ()

가

가 , Low Theta Plate

가

가 (Mixing)



TIGHT NUT 풀림방지

bolt/nut

(Anti Vibration Design)

Tight bolt/nut가 , Tight

가

○ APPLICATION

▪Chemical Industry()

Cooling lyes, soda, medicines

Cooling acids, fertilizers

Cooling sulpheric acids

Process cooling

Cooling circulating water

Cooling kerosene, pigments

Cooling salt solutions

Condensation of ethanol



▪Mechanical Industry()

Cooling machinery

Cooling emulsions

Cooling hydraulic oil

Cooling kiln water

Cooling transmission oil

Cooling autoclave water

Cooling engine coolant

Cooling quenching oil

Waste heat recovery

HVAC()

District heating

(Co-generation system, waste heat from industry, purpose-built heating plants)

Night electric saving system

Heating swimming pools

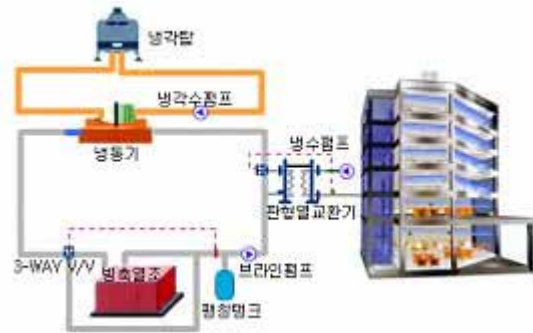
Heat recovery installations

Preheating heating water

Solar energy installations

Central cooling systems in

Airconditioning plants



Marine Application and Engines

()

Central freshwater coolers

Main engine lube oil cooler

Cooling piston coolant

Injection valve and nozzle cooling

Cooling transmission oil

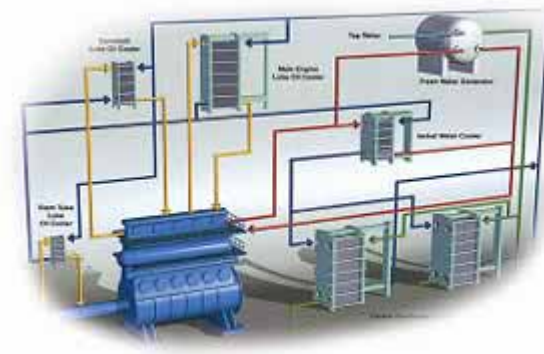
Compressor cooling

Preheating of sea water for desalination plants

Pre-heating heavy fuel oil

Pre-heating diesel oil

Jacket water cooler



***Steel Industry ()**

Mould cooling

Continuous casting plant cooling

Hydraulic oil cooling

Furnace water cooling

Cooling coking plant water

Emulsion cooling

Cooling machine coolants

Cooling compressor coolants

Cooling plating & galvanizing



***Power Stations ()**

Central cooling

Cooling of lubricating oil

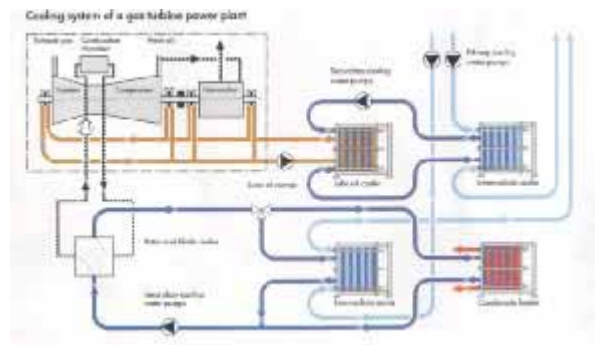
Cooling circulating water

Preheating of condensate

Cooling flushing coolant

Cooling transmission oil

Heat recovery



***Surface Treatment()**

Cooling electrolyte

Cooling paint

Cooling electroplating baths

Heating degreasing baths

Heating phosphating baths

▪Textile Industry ()

Heat recovery from textile washing agents

Heating wool washing liquids

Cooling dyeing plant effluent

Heating dyeing liquors

▪Food Industry()

Cooling, heating, concentration, and sterilization of juice,

milk, edible oil, Sugar liquid, and alcoholic liquids

Cooling fatty acids

▪Pulp and Paper Industry()

Cooling waste water

Cooling wash water

Heating of supplying

○ 판형 열교환기 선정시 유의사항

1. (Max. Working Pressure)

FRAME	Max. working pressure(Kg/cm2G)	Test pressure(Kg/cm2G)
10	10	15
16	16	24
25	25	32

2. (Corrosion resistance of heat plate material)

	(Description)	(service)
STS 304		()
STS 316	(10~15%)	POOL가 , 가
TITANIUM	가 , (0~70%)	
OTHERS		

3. 가 (Gasket material)

Material	Min. working temp.()	Max. working temp.()	Instant max. Working temp.()
NBR	-15	115	135
EPDM	-30	150	175
VITON	-15	180	200

가 , .

4. (Flow rate)

5. (Pressure drop)

가

가

30%

0.3 ~ 0.5 kg/cm²

6. (Fouling Factor)

()

가

가

가

가

가

0.0001~0.0003m²h

/Kcal

1/7~1/10

Over surfacing()

10%

7. (Insulation)

Fin

(Plate)

Frame

가

1%

()

가

MODEL	AREA	CON.	MAX.FLOW	W	H	P Min.	P Max.
HT-02	0.01	10	6.5	91	176	50	350