



## L-LINE

brazed plate  
heat exchangers

>>> effective heat transfer >>>



L-line heat exchangers are copper brazed exchangers dedicated to standard heating or cooling installations. Special corrugation pattern of the plates ensures compromise between low flow resistance and high heat exchange efficiency. Vacuum furnace technology ensures integrity and permanent fusion of plates which enables the unit to withstand high-pressure and high-temperature conditions. It is an ideal solution for heating, HVAC, technological, cooling and industry installations. There are many connection types to be chosen as well as one- or two-pass variants.

## APPLICATION

- tap water heating systems
- central heating systems
- solar and geothermic heating systems
- installations with heat pump
- installations with fireplace with water jacket
- heating, HVAC, technological, cooling and industry installations

## FLOW TYPES



1 - one-pass



2 - two-pass  
with 4 connections



25 - two-pass  
with 6 connections

## CONSTRUCTION

L-line brazed plate heat exchangers are counter current flow devices. Heat exchange area is created by stainless steel corrugated plates brazed together with copper or nickel brazing as a non-dismountable unit. Media flow is arranged so that the two media go through channels formed by every other heating plate. Connections, threaded or flanged, are placed in cover plates.

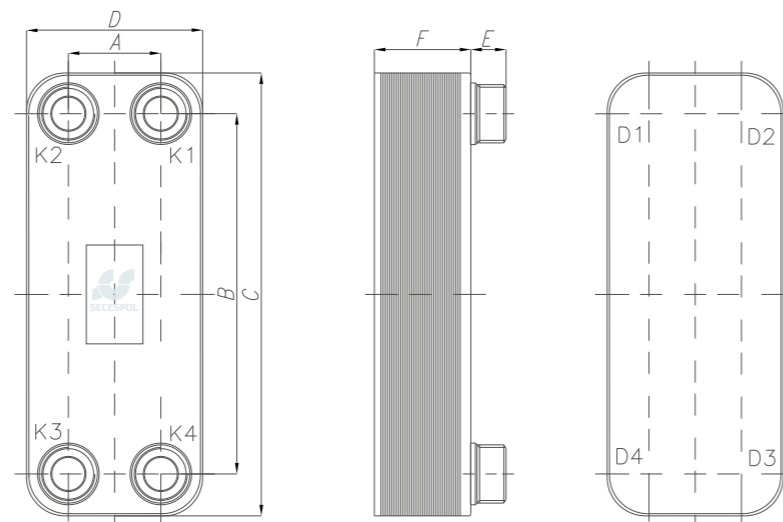
## TECHNICAL DRAWING

**Standard location of connections – one-pass:**  
K1/K4 – inlet/outlet hot side  
K3/K2 – inlet/outlet cold side

**Standard location of connections – two-pass:**  
D4/K4 – inlet/outlet hot side  
K3/D3 – inlet/outlet cold side

**In two-pass with 6 connections:**

K1 – vent connection / inlet of central heating return  
K2 – vent connection / inlet of tap water heating circulation return



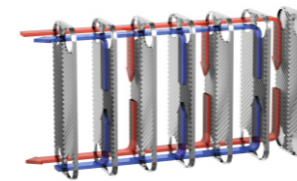
## TECHNICAL PARAMETERS

Type	Dimensions						Max. no. of plates	Weight kg / lb
	mm / inch							
	A	B	C	D	E	F		
LA12	40 / 1.6	154 / 6.1	190 / 7.5	72 / 2.8	16 / 0.6	9+2.5*NP / 0.4+0.1*NP	60	0.4+0.049*NP / 0.88+0.11*NP
LA14	42 / 1.7	164 / 6.5	203 / 8.0	81 / 3.2	16 / 0.6	9+2.3*NP / 0.4+0.1*NP	60	0.6+0.049*NP / 1.32+0.11*NP
LA22	42 / 1.7	260 / 10.2	299 / 11.8	81 / 3.2	16 / 0.6	9+2.3*NP / 0.4+0.1*NP	60	0.8+0.073*NP / 1.76+0.16*NP
LA34	42 / 1.7	432 / 17.0	471 / 18.5	81 / 3.2	16 / 0.6	9+2.3*NP / 0.4+0.1*NP	60	1.2+0.116*NP / 2.65+0.26*NP
LJ30	46 / 1.8	270 / 10.6	318 / 12.5	98 / 3.9	28 / 1.1	9+1.7*NP / 0.3+0.1*NP	60	1.1+0.064*NP / 2.43+0.14*NP
LH40	43 / 1.7	415 / 16.3	461 / 18.1	89 / 3.5	28 / 1.1	9+2.25*NP / 0.4+0.1*NP	60	1.7+0.134*NP / 3.75+0.30*NP
LB31	68 / 2.7	232 / 9.1	286 / 11.3	123 / 4.8	28 / 1.1	10+2.35*NP / 0.4+0.1*NP	150	1.6+0.114*NP / 3.53+0.25*NP
LB47	68 / 2.7	360 / 14.2	417 / 16.4	123 / 4.8	28 / 1.1	10+2.35*NP / 0.4+0.1*NP	150	2.1+0.168*NP / 4.63+0.37*NP
LB60	68 / 2.7	480 / 18.9	538 / 21.2	123 / 4.8	28 / 1.1	10+2.35*NP / 0.4+0.1*NP	150	2.6+0.219*NP / 5.73+0.48*NP
LM110	91 / 3.6	520 / 20.5	620 / 24.4	191 / 7.5	48 / 1.9	10+2.6*NP / 0.4+0.1*NP	200	8.4+0.408*NP / 18.52+0.90*NP
LC110	170 / 6.7	378 / 14.9	466 / 18.4	258 / 10.2	28; 140 / 1.1; 5.5	11+2.4*NP / 0.4+0.1*NP	200	8.7+0.408*NP / 19.18+0.90*NP
LC170	170 / 6.7	600 / 23.6	688 / 27.1	258 / 10.2	28; 140 / 1.1; 5.5	11+2.4*NP / 0.4+0.1*NP	200	11.5+0.617*NP / 25.35+1.36*NP
LD235	204 / 8.0	682 / 26.9	788 / 31.0	310 / 12.2	98 / 3.8	12+2.45*NP / 0.5+0.1*NP	280	40+0.828*NP / 88.18+1.83*NP
LE400	240 / 9.4	861 / 33.9	1008 / 39.7	387 / 15.2	94 / 3.7	17+2.75*NP / 0.7+0.1*NP	400	74.3+1.625*NP / 163.80+3.58*NP

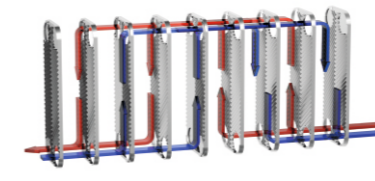
dim. F +/- 3%

NP - number of plates

## FLOW CHANNELS ARRANGEMENT



one-pass  
channels are paralleled



two-pass  
plates divided into two groups which are connected in series

## WORKING PARAMETERS

- max. temperature: 230°C / 446°F  
LJ: 120°C / 248°F
- min. temperature: -195°C / 0°C (for flange CS)  
-319°F / 32°F (for flange CS)
- max. pressure: LA, LB, LH: 3 MPa / 435 PSI  
LM, LC, LD, LE: 2,5 MPa / 363 PSI  
LJ: 1,6 MPa / 232 PSI

## MATERIALS

- stainless steel
- copper brazing

## EXEMPLARY MEDIA

- water
- glycol
- other consulted with the producer

## TYPE AND SIZE OF CONNECTIONS

Type	thread SS	flange SS or CS
LA12	3/4"	
LA14	3/4"	
LA22	3/4"	
LA34	3/4"	
LJ30	3/4"; 1	
LH40	3/4"; 1"	
LB31	1"; 5/4"	
LB47	1"; 5/4"	
LB60	1"; 5/4"	
LM110	2"	
LC110	2"; 5/2"	DN50
LC170	2"; 5/2"	DN50
LD235		DN80
LE400		DN100

SS - stainless steel

CS - carbon steel

## INSULATION

Insulations for L-Line heat exchangers are manufactured using aluminium covered polyurethane foam (APF) or expanded polypropylene (EPP).



Working parameters:	APFI	EPII
max. working temperature	+110 °C	+110 °C
thickness	30 mm	28 mm
thermal conductivity	0,026W/mK	0,035W/mK



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