



L-LINE
brazed plate
heat exchangers



L-line heat exchangers are copper or nickel brazed exchangers dedicated to standard heating or cooling installations of liquid-liquid type. 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

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 every other channel formed by heat plates. Connections, threaded or flanged, are placed in cover plates.

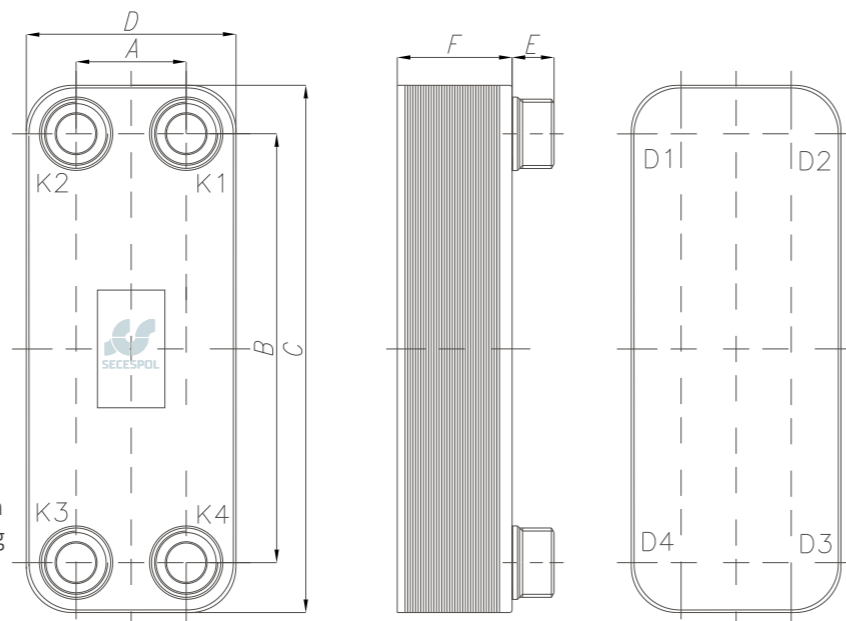
TECHNICAL DRAWING

- 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						Capacity of one channel	Max. no. of plates	Weight
	mm / inch								
	A	B	C	D	E	F	L / gal		kg / lb
LA12LN	40 / 1.6	154 / 6.1	192 / 7.6	74 / 2.9	16 / 0.8	9+2,45*NP / 0.35+0.1*NP	0,024 / 0.006	60	0,5+0,04*NP / 1.1+0.1*NP
LA14LN	42 / 1.7	164 / 6.5	201 / 7.9	80 / 3.2	16 / 0.6	9+2,3*NP / 0.35+0.09*NP	0,022 / 0.006	60	0,6+0,05*NP / 1.3+0.1*NP
LA22LN	42 / 1.7	260 / 10.2	300 / 11.8	80 / 3.2	16 / 0.6	9+2,3*NP / 0.35+0.09*NP	0,035 / 0.009	60	0,7+0,07*NP / 1.5+0.2*NP
LA34LN	42 / 1.7	432 / 17.0	469 / 18.5	80 / 3.2	16 / 0.6	9+2,3*NP / 0.35+0.09*NP	0,054 / 0.014	60	0,9+0,11*NP / 2.0+0.2*NP
LB31LN	68 / 2.7	232 / 9.1	286 / 11.3	117 / 4.6	28 / 1.1	10+2,35*NP / 0.39+0.09*NP	0,047 / 0.012	150	1,5+0,15*NP / 3.3+0.3*NP
LB47LN	68 / 2.7	360 / 14.2	414 / 16.3	117 / 4.6	28 / 1.1	10+2,35*NP / 0.39+0.09*NP	0,072 / 0.019	150	2,1+0,15*NP / 4.6+0.3*NP
LB60LN	68 / 2.7	480 / 18.9	534 / 21.0	117 / 4.6	28 / 1.1	10+2,35*NP / 0.39+0.09*NP	0,091 / 0.024	150	2,5+0,21*NP / 5.5+0.5*NP
LC110LN	170 / 6.7	378 / 14.9	463 / 18.2	255 / 10.0	28; 100 / 1.1; 3.9	12+2,4*NP / 0.47+0.09*NP	0,162 / 0.043	200	5,1+0,46*NP / 11.2+1*NP
LC170LN	170 / 6.7	600 / 23.6	685 / 27.0	255 / 10.0	28; 100 / 1.1; 3.9	12+2,4*NP / 0.47+0.09*NP	0,255 / 0.067	200	10,9+0,59*NP / 24+1.3*NP
LD235LN	204 / 8.0	682 / 26.9	784 / 30.9	306 / 12.1	100 / 3.9	16+2,5*NP / 0.63+0.1*NP	0,398 / 0.105	280	39+0,85*NP / 86+1.9*NP

dim. F+/-3%

NP – number of plates

FLOW TYPES:



1 - one-pass

2 - two-pass with 4 connections

2S - two-pass with 6 connections

WORKING PARAMETERS

- max. temperature: 230°C / 446°F
- min. temperature: -195°C / 0°C (for flange CS)
-319°F / 32°F (for flange CS)
- max. pressure: LA, LB: 3 MPa / 435 PSI
LC, LD: 2,5 MPa / 363 PSI

MATERIALS

- stainless steel
- copper or nickel brazing

MEDIA

- water
- air
- neutral liquids and gases
- other liquids and gases 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"	
LB31	1", 5/4"	
LB47	1", 5/4"	
LB60	1", 5/4"	
LC110	2", 5/2"	DN50
LC170	2", 5/2"	DN50
LD235		DN80

SS – stainless steel

CS – carbon steel

FLOW TYPES IN THE EXCHANGER



one-pass channels are paralleled

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

INSULATION

Two part insulation for L-line is made of polyurethane foam covered with aluminium (APFI). Parts are fastened with latch clamps.

Working parameters:

- max. working temperature: 135°C / 275°F
- thickness: 30 mm / 1,19 in
- thermal conductivity: 0,024 W/mK
0.0139 Btu/ft. hour °F