



Plate heat exchanger

Heating Insulation

Standard design

The Alfa Laval heating insulation is delivered in sections (panels) in a separate box along with the heat exchanger. The system of panels ensures simple assembly and disassembly. Most insulation types are equipped with connecting spring locks in galvanized steel.

Application

To insulate plate heat exchangers operating at temperatures up to 180 °C. The insulation saves energy and provides protection against the heat of the plate pack. It also assures a dry and comfortable working climate in the operating room. The graph below shows the effect (W) lost to the environment for un-insulated plate heat exchangers as function of the difference (Δt) between the temperature inside the plate heat exchanger and the ambient temperature.

Availability

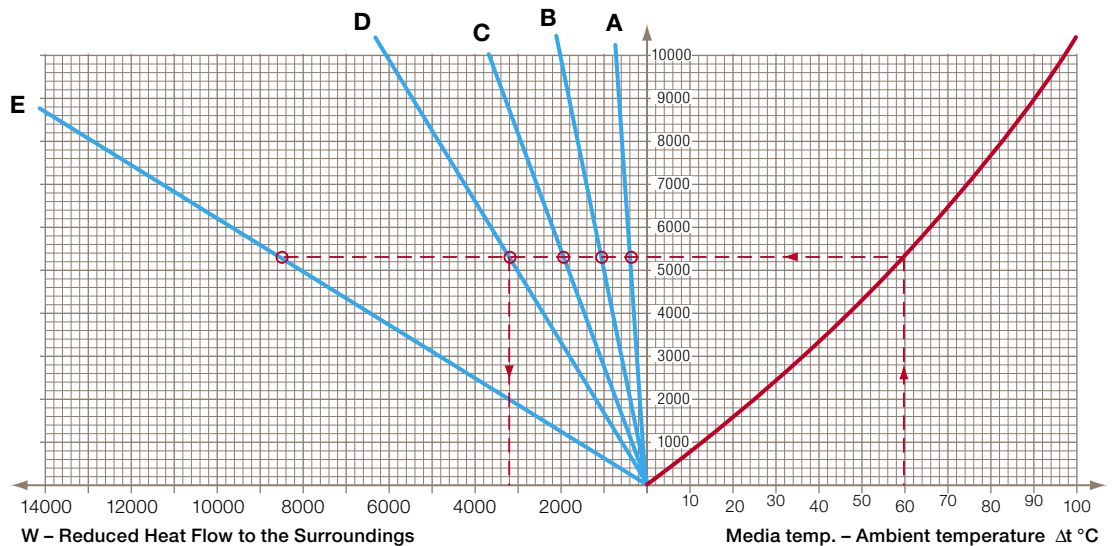
Heating insulations are available for most of the Alfa Laval plate heat exchangers. The table on the next page shows measurements for standard types.



A = M3 60plts
B = M6 100 plts
C = M10 200 plts
D = M15 150 plts
E = MX25 300 plts

W = Heat released from different sizes of Alfa Laval plate heat exchangers.

Δt = the difference between the average temperature inside the plate heat exchanger and the environment.



Example: M15-BFG 150 plates

1*M15-B AISI 316 0.50mm
 Load=12927 LMTD=19.9 k=7045
 Water T=110.0->70.0 1*75 L S1->S2
 Water T=90.2<-50.0 1*75 L S4<-S3
 Average temperature inside the PHE $(110 + 70 + 50 + 90) / 4 = 80^{\circ}\text{C}$.

Ambient temperature 20°C.
 delta t = 80-20 = 60°C
 The heat released will then be 3200 W or 3.2 kW.
 This is less than 0.3 promille of the total heat exchanged in the PHE.

Dimensions

Measurements in mm. Insulations for other models of Alfa Laval plate heat exchangers on request

PHE type	A _{max}	L _{max}	W _{max}	H _{max}
M10B / M10M	0-130	620	600	1205
FM	13 -230	740	600	1205
FG	231-350	880	600	1205
FD ASME	351-490	1020	600	1205
	491-630	1160	600	1205

M10B / M10M	0-130	620	600	1095
FD PED	131-230	740	600	1095
	231-350	880	600	1095
	351-490	1020	600	1095
	491-630	1160	600	1095

M15B / M15M	0-250	710	820	2250
FM	251-500	960	820	2250
FG	501-1000	1460	820	2250
FD	1001-1500	1960	820	2250
M3	0-80	280	310	545
FG	81-205	400	310	545
	206-275	480	310	545

M6/M6M	0-80	300	450	1005
FG	8 -130	350	450	1005
FD	131-180	400	450	1005
	181-230	450	450	1005
	231-280	500	450	1005
	281-350	570	450	1005
	351-420	640	450	1005
	421-490	710	450	1005

MX25B/MX25M	0-500	1080	1070	3200
FG	501-750	1330	1070	3200
FD	751-1000	1580	1070	3200
	1001-1250	1830	1070	3200
	1251-1500	2080	1070	3200
	1501-1750	2330	1070	3200
	1751-2000	2580	1070	3200

MX25B/MX25M	0-500	990	1070	2700
FMS	501-750	1240	1070	2700
FGS	751-1000	1490	1070	2700
	1001-1250	1720	1070	2700
	1251-1500	1990	1070	2700

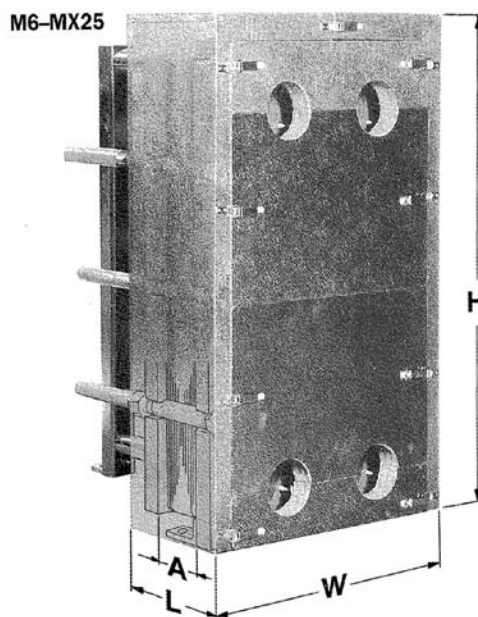
T20B/T20M	0-500	980	920	2400
FG	501-750	1230	920	2400
FS	751- 000	1480	920	2400
	1001-1250	1730	920	2400
	1251-1500	1980	920	2400
	1501-1750	2230	920	2400
	1751-2000	2480	920	2400

T5M	0-80	310	380	800
FG	81-130	480	380	800

TL10B	0-250	710	640	2100
FM	251-500	960	640	2100
FG	501-1000	1460	640	2100
FS	1001-1500	1960	640	2100

PHE type	A _{max}	L _{max}	W _{max}	H _{max}
TS20M	0-250	600	930	1600
FM	251-500	850	930	1600
FG	501-1000	350	930	1600
	1001-1200	1550	930	1600

TS6M	0 - 60	360	545	760
FG	61-160	460	545	760
	161 - 260	560	545	760
	261 - 400	700	545	760
	401 - 525	825	545	760



Technical Specification

Item	All PHE types excl type M3	PHE type M3
	Alustucco	Alustucco
Plating	1 mm	1 mm
Insulation material	Mineral wool 65 mm	Mineral wool 40 mm
Panel fixation	Snap locks galvanized	Screws

Particulars required for quotation

- A-measurement
- Tightening bolt length
- Type of connections
- Connection positions

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.