

Data sheet

Brazed heat exchanger XB

Description / application



The XB is a range of copper brazed plate heat exchangers for use in District Heating (DH) and District Cooling (DC) applications, e.g. domestic hot water production, district heating substation to separate the network from house installation or as pressure breakers. The range consist of numerous individual plate sizes of which several can be delivered with different corrugation debth or pattern, thus ensuring that the optimal heat exchanger can be selected for all applications.

Approvals:

- CE certificate according (PED) 97/23/EC
- GOST/ Russia
- SVGW/Switzerland
- VA/Denmark

Main data:

- Min. temperature -10 °C
- Max. temperature +180 °C
- Max. working pressure 25 bar
- Flow media
 - DH: Circulation water / glycolic water up to 50%
 - DC: ethylene-, propylene-glycolic water, ethanol-water solutions and other suitable heat transfer media. (Please contact your Danfoss representative).
- Connection size DN (threaded or flanged) 20...100

Ordering

Explanation, XB type

XB 10L – 1 – 10 — Number of plates

Pass of the heat exchanger
1 = 1-pass
2 = 2-pass

Plate type

Plate size

B = Brazed heat exchanger

The heat exchanger can consist of plates type L or plates type H.

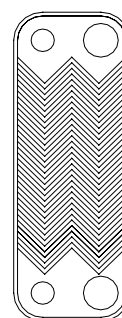
The H- type plate has larger herring bone angle than the L- type plate. H- type plate fits better for certain temperatures than L- type. H- type heat exchangers have better heating capacity, but they also have higher pressure loss.

The plate set can also be a combination of these two types. If every other plate is H-type plate and every other plate is L-type plate, the combination is called type M.

Plate types

Several of the heat exchangers can be delivered in three different basic corrugations: H M L making them optimal for different applications. Please see the characteristics below.

	H- types	M- type	L-type
Channel	Small	Medium Mix of H/L	Large
Angle if chevron pattern	Obtuse		Acute
Heat transfer	Relatively high	Medium	Relatively low
Pressure drop	Relatively high	Medium	Relatively low



L- type



H- type

Micro Plate Heat Exchanger (MPHE) principle:

Traditionally the different versions have been created by using different angles in the chevron pattern of the heat exchanger plates.

However new and more efficient heat transfer patterns have been developed. Characteristic for the pattern is that the corrugation consists of dimples in different size and shape, creating Micro Plate heat exchangers. Micro Plate heat exchangers offers same heat transfer with lower weight, size and pressure drop. Besides better heat transfer Micro Plate heat exchangers offers higher mechanical strength.



Micro Plate

1-pass brazed heat exchangers type XB

Type	XB 04-1	XB 06L-1	XB 06H-1	XB 10-1	XB 20-1	XB 24-1	XB 30-1	XB 37L-1	XB 37M-1	XB 37H-1
Connection	Thread	Thread	Thread	Thread	Thread	Thread	Thread	Thread	Thread	Thread
	G ¾ A	G ¾ A	G ¾ A	G 1 A	G 1 A	G ¾ A	G 1 A	G 1 A	G 1 A	G 1 A
No of plates, n										
8	004B1011	004B2024	004B2036	004B1004	-	-	-	-	-	-
10	004B1012	004B2025	004B2037	004B1005	004B1205	004B1027	004B1405	004B1675	004B1690	004B1705
16	004B1014	004B2026	004B2038	004B1008	004B1208	004B1028	004B1408	004B1676	004B1691	004B1706
20	004B1016	004B2027	004B2039	004B1010	004B1210	004B1029	004B1410	004B1677	004B1692	004B1707
26	004B1017	004B2028	004B2041	004B1013	004B1213	004B1031	004B1413	004B1678	004B1693	004B1708
30	004B1019	004B2029	004B2042	004B1015	004B1215	004B1032	004B1415	004B1679	004B1694	004B1709
36	004B1021	004B2030	004B2043	004B1018	004B1218	004B1033	004B1418	004B1680	004B1695	004B1710
40	004B1023	004B2031	004B2044	004B1020	004B1220	004B1034	004B1420	004B1681	004B1696	004B1711
50	004B1024	004B2032	004B2046	004B1025	004B1225	004B1067	004B1425	004B1682	004B1697	004B1712
60	004B1026	004B2033	004B2047	004B1030	004B1230	004B1068	004B1430	004B1683	004B1698	004B1714
70	-	004B2034	004B2048	004B1035	004B1235	004B1069	004B1435	004B1684	004B1699	004B1715
80	-	-	-	-	-	-	004B1440	004B1685	004B1700	004B1716
90	-	-	-	-	-	-	004B1445	004B1686	004B1701	004B1717
100	-	-	-	-	-	-	004B1450	004B1687	004B1702	004B1718
110	-	-	-	-	-	-	-	004B1688	004B1703	004B1719
120	-	-	-	-	-	-	-	004B1689	004B1704	004B1720
140	-	-	-	-	-	-	-	-	-	-
160	-	-	-	-	-	-	-	-	-	-
180	-	-	-	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-	-	-	-

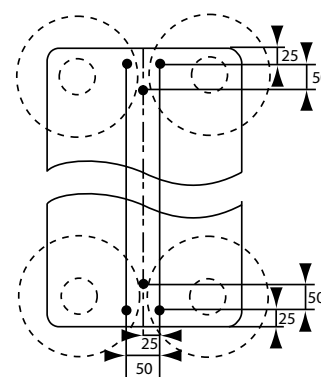
Ordering, continued

1-pass brazen heat exchangers type XB

Type	XB 51H-1	XB 51L-1	*XB 51H-1 SB	*XB 51H-1 SB	*XB 51L-1 SB	*XB 51L-1 SB	XB 60-1 ²⁾	*XB 60-1 SB	XB 70L-1 ²⁾	XB 70M-1 ²⁾	XB 70H-1 ²⁾
Connection	Thread	Thread	Thread	Flange	Thread	Flange	Flange	Flange	Flange	Flange	Flange
	G2A	G2A	G2A	DN50	G2A	DN50	DN 65	DN 65	DN 65/100 ¹⁾	DN 65/100 ¹⁾	DN 65/100 ¹⁾
No of plates, n											
8	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-
30	004B1815	004B1194	004B1103	-	004B1345	-	-	-	-	-	-
36	004B1818	004B1195	004B1104	-	004B1346	-	-	-	-	-	-
40	004B1820	004B1196	004B1105	-	004B1347	-	-	-	-	-	-
50	004B1825	004B1197	004B1106	-	004B1348	-	-	-	004B2425	004B2000	004B2012
60	004B1830	004B1198	-	004B1107	-	004B1350	-	-	004B2430	004B2001	004B2013
70	004B1835	004B1199	-	004B1108	-	004B1351	004B2035	004B1136	004B2435	004B2002	004B2014
80	004B1840	004B1200	-	004B1109	-	004B1352	004B2040	004B1138	004B2440	004B2003	004B2015
90	004B1845	004B1201	-	004B1110	-	004B1353	004B2045	004B1115	004B2445	004B2004	004B2016
100	004B1850	004B1202	-	004B1111	-	004B1355	004B2050	004B1116	004B2450	004B2005	004B2017
110	004B1855	004B1203	-	004B1112	-	004B1356	004B2055	004B1117	004B2455	004B2006	004B2018
120	004B1860	004B1204	-	004B1114	-	004B1357	004B2060	004B1118	004B2460	004B2007	004B2019
140	-	-	-	-	-	-	004B2070	004B1119	004B2470	004B2008	004B2020
160	-	-	-	-	-	-	004B2080	004B1120	004B2480	004B2009	004B2021
180	-	-	-	-	-	-	-	-	004B2490	004B2010	004B2022
200	-	-	-	-	-	-	-	-	004B2499	004B2011	004B2023

- ¹⁾ primary side (PN 25) / secondary side (PN 16)
²⁾ delivered with mounting brackets ex factory

*
Special versions; SB
This version includes 6 supporting bolts M12x20

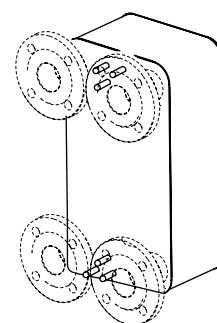


2-pass brazen heat exchangers type XB

Type	XB 04-2	XB 10-2	XB 20-2	XB 30-2	XB 51H-2	XB 51L-2
Connection	Thread	Thread	Thread	Thread	Thread	Thread
	G ¾ A	G 1 A	G 1 A	G 1 A	G 2 A	G 2 A
No of plates ¹⁾ , n						
20/20	004B1036	004B3010	-	004B3410	-	-
26/26	004B1037	004B3013	-	004B3413	-	-
30/30	004B1038	004B3015	-	004B3415	004B3615	004B1292
36/36	004B1039	004B3018	-	004B3418	004B3618	004B1293
40/40	004B1040	004B3020	004B3220	004B3420	004B3620	004B1294
46/46	004B1041	004B3023	004B3223	004B3423	004B3623	004B1295
50/50	004B1042	004B3025	004B3225	004B3425	004B3625	004B1296
56/56	004B1043	004B3028	004B3228	-	004B3628	004B1297
60/60	004B1044	004B3030	004B3230	-	004B3630	004B1298
66/66	-	-	-	-	004B3633	004B1299
70/70	-	-	-	-	004B3635	004B1300

- ¹⁾ afterheating / preheating

SB version:
Supporting bolts
in the front.



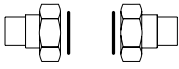
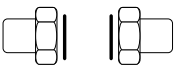
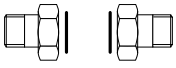
Ordering, continued

Special versions

Special versions for different mediums, connections / couplings, max. operating pressures, materials and capacities are available on request. Please contact the local sales representative for details.

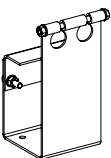
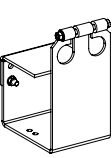
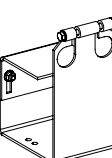
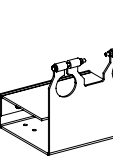
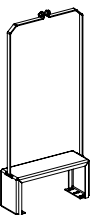
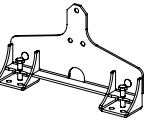
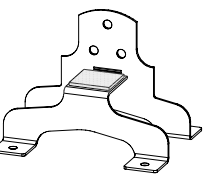
Accessories

Tailpieces for brazed heat exchanger type XB

	Description	Suitable for	Connection	Code No. ¹⁾
	Solder tailpieces	XB 04, XB 06 XB 24	G ¾ A / 15 mm	004B2945
			G ¾ A / 18 mm	004B2946
		XB 10, XB 20 XB 30, XB 37	G 1 A / 15 mm	004B2904
			G 1 A / 18 mm	004B2905
			G 1 A / 22 mm	004B2906
		XB 51	G 2 A / 28 mm	004B2910
			G 2 A / 35 mm	004B2911
			G 2 A / 42 mm	004B2912
	Weld-on tailpieces	XB 04, XB 06 XB 24	G ¾ A / DN 20	004B2944
			G 1 A / DN 15	004B2901
		XB 10, XB 20 XB 30, XB 37	G 1 A / DN 20	003H6909
			G 1 A / DN 25	004B2903
			G 2 A / DN 32	004B2907
		XB 51	G 2 A / DN 40	004B2908
			G 2 A / DN 50	004B2909
	Threaded tailpieces	XB 04, XB 06 XB 24	G ¾ A / G ¾ A	004B2947
			G ¾ A / G 1 A	004B2953
		XB 10, XB 20 XB 30, XB 37	G 1 A / G ¾ A	004B2913
			-	-
			-	-

¹⁾ One set contains 2 tailpieces with unionnuts and gaskets

Mounting brackets for brazed heat exchanger type XB

				Suitable for	Code No.
XB 04, 06, 24	XB 10, 20, 30	XB 37	XB 51	XB 04, XB 06, XB 24	004B2948
				XB 37	004B1728
				XB 10, XB 20, XB 30	004B2919
				XB 51	004B2923
				XB 60	004B2924¹⁾
				XB 70	004B2925¹⁾
				XB 51SB, 60SB	
				30-60 plates	004B1788
				70-100 plates	004B1789
				110-160 plates	004B1790

¹⁾ The brackets are delivered with XB 60 and XB70, they will thus be needed only for service or special purposes.

Accessories continued
Insulation for 1-pass brazed heat exchangers type XB

Type	XB 06-1	XB 10-1	XB 20-1	XB 30-1	XB 37-1L	XB 37-1M	XB 37-1H	XB 51-1	XB 60-1	XB 70-1						
No of plates																
8	004B1191	004B1113	-	-	-	-	-	-	-	-						
10			004B1313	004B1513	004B1721	004B1721	004B1721	-	-	-						
16								-	-	-						
20								-	-	-						
26								-	-	-						
30	004B1192	004B1124	004B1324	004B1524	004B1722	004B1722	004B1722	004B1924	-	-						
36					004B1723				-	-						
40									-	-						
50	004B1193	004B1135	004B1335	004B1535	004B1725	004B1723	004B1723	004B1935	-	004B2535						
60									-							
70					004B1726				004B2145	004B2550						
80	-	-	-	004B1550	004B1725	004B1725	004B2145				004B2550					
90	-	-	-				004B1726	004B1725	004B1950	004B2145						
100	-	-	-		004B1727	004B1726				004B1725	004B1960	004B2160			004B2570	
110	-	-	-	-			-	-	-			004B2180				004B2599
120	-	-	-	-			-	-	-			-	-	-		
140	-	-	-	-	-	-	-	-	-	-						
160	-	-	-	-	-	-	-	-	-	-						
180	-	-	-	-	-	-	-	-	-	-						
200	-	-	-	-	-	-	-	-	-	-						

Insulation for 2-pass brazed heat exchangers type XB

Type	XB 10-2	XB 20-2	XB 30-2	XB 51-2	
No of plates ¹⁾					
20/20	004B3115	-	004B3515	-	
26/26		-		-	
30/30		-		004B3720	
36/36	004B3120	-	004B3520		
40/40		004B3325		004B3525	004B3725
46/46	004B3125				
50/50	004B3130		004B3330	-	004B3730
56/56		-			
60/60		-		004B3735	
66/66	-	-			
70/70	-	-			

¹⁾ afterheating / preheating

Insulation properties

Type	PU (Polyurethane) see page 12 for XB 06-XB 51	Coated steel sheet and polyester insulation, see page 12 for XB 60-XB 70
Heatconductivity, λ [W/mK]	0.035	0.042
Max temperature, °C		
-Permanent, °C	130	150
-Short term peak, °C	160	180
Wall thickness, mm	20	30

Technical data
1-pass brazed heat exchangers type XB

Type	XB 04-1	XB 06L-1	XB06 H-1	XB 10-1	XB 20-1	XB 24-1	XB 30-1	XB 37L-1	XB 37M-1	XB 37H-1	XB 51L-1 XB51H-1	XB 60-1	XB 70L-1 XB 70M-1 XB 70H-1
Max. working pressure (bar)	25 (16) ¹⁾												25(16) ¹⁾ /16 ³⁾
Max. operating temp. (°C)	DH 180, DC 100												
Min. operating temp. ²⁾ (°C)	-10												
Flow medium	DH: Circulation water / glycolic water up to 50% DC: ethylene-, propylene-glycolic water, ethanol-water solutions and other suitable heat transfer media. (Please contact your Danfoss representative).												
Volume/channel (litres)	0.060	0.025	0.017	0.050	0.060	0.100	0.075	0.102	0.070	0.057	0.210	0.260	0.55/0.70 ³⁾
Heat surface, m²/plate	0.020	0.023	0.023	0.023	0.029	0.037	0.041	0.054	0.051	0.051	0.081	0.099	0.256
Connection type	Cylindrical external thread acc. to DIN ISO 228/1											Flange, DN	
Connection size	G ¾ A			G 1 A		G ¾ A	G 1 A				G 2 A	65 ⁴⁾	65 ⁴⁾ /100 ⁵⁾³⁾
Plate material	Stainless steel, mat. no. 1.4404												
Brazing material	Copper												

¹⁾ 16 bar versions are available on enquiry (all types except XB 04-1, 24-1). XB 70-1 secondary side: max. working pressure 16 bar

²⁾ At flow temperatures below 2 °C glycolic water must be used

³⁾ Primary side / secondary side

⁴⁾ Flanges PN 25 acc. to EN 1092, facing type B (B1)

⁵⁾ Flanges PN 16 acc. to EN 1092, facing type B (B1)

Heat exchanger heat surface

(n-2) * heat surface/plate

n = number of plates

Heat exchanger water volume

Primary side	Secondary side
(n/2-1) * volume/channel	n/2 * volume/channel

n = number of plates

2-pass brazed heat exchangers type XB

Type	XB 04-2	XB 10-2	XB 20-2	XB 30-2	XB 51L-2, XB 51H-2
Max. working pressure (bar)	25 (16) ¹⁾				
Max. operating temp. (°C)	180				
Min. operating temp. ²⁾ (°C)	-10				
Flow medium	Circulation water / glycolic water up to 50%				
Volume/channel (litres)	0.060	0.050	0.060	0.075	0.210
Heat surface, m²/plate	0.020	0.023	0.029	0.041	0.081
Connection type	Cylindrical external thread acc. to DIN ISO 228/1				
Connection size	G ¾ A	G 1 A			G 2 A
Plate material	Stainless steel, mat. no. 1.4404				
Brazing material	Copper				

¹⁾ 16 bar versions are available on enquiry (all types except XB 04-2).

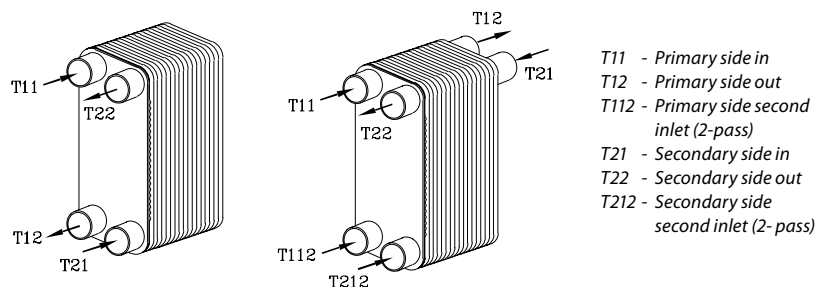
²⁾ At flow temperatures below 2 °C glycolic water must be used

To avoid corrosion and leakage in the copper brazed plate heat exchangers please observe Danfoss recommendations for the water quality in the guideline on www.heating.danfoss.com (Documentation).

For the standard range of heat exchangers material 1.4404 (316L) has been selected to achieve:

- good delivery service
 - good balance between low price and avoiding corrosion in the most common applications
 - 1.4404 offers better corrosion properties than e.g. 1.4301 but is more expensive.
- Attention must always be paid to the water condition when selecting material for a heat exchanger. The heat exchangers can be delivered in other materials on request.

Design and function



The heat exchangers are made of shape-pressed and brazed heat exchange plates, between which the flow channels are created. The heavy turbulence and counterflow principle enable efficient heat transfer. The task of the heat exchanger is to transfer heat from the primary to secondary flow through a heat transfer plate thus preventing the flows from mixing with each other.

The 2-pass heat exchanger should be chosen for domestic hot water. The 2-pass heat exchanger will often cool the district heating water to below 25 °C. This capacity can be achieved by using a larger temperature difference, a smaller water flow and a heat exchanger with an optimum heat transfer area. This will affect the choice of motorized control valve, for instance.

The choice of heat exchanger is determined by the desired heat output, required temperatures and the permitted pressure losses.

Sizing and selection

Dimensioning and selection of heat exchangers should be carried out with the support of the Danfoss dimensioning program for heat exchangers.

Mounting

It is recommended to mount heat exchangers on their base in vertical position. This will assure the best venting and the least fouling. It is recommended that all pipes connected to the heat exchanger are equipped with shut-off valves for maintenance purposes.

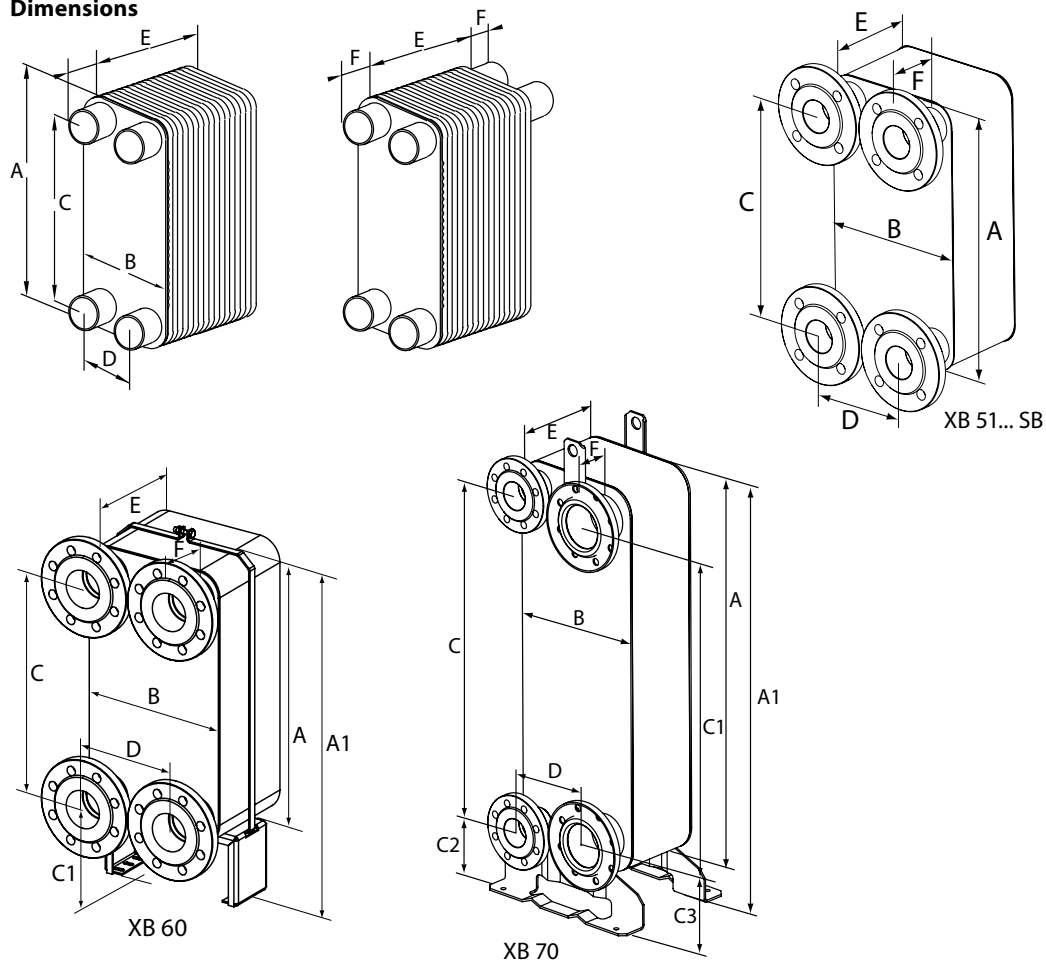
The pipes must be equipped with brackets to prevent any torsional stress concentration at the heat exchanger's pipe connections.

It is recommended that the heat exchanger is equipped with insulation.

The pipes to be connected must be mounted so that the strain caused by the thermal expansion, for instance, does not harm the heat exchanger.

Use a safety valve between a heat exchanger and a shut off valve on the secondary side to avoid breaking of the heat exchanger due to thermal expansion of liquid.

Dimensions



Type	Connection	External dimensions [mm]						Weight empty [kg]
		A/A1	B	C/C1 C2/C3	D	E	F	
XB 04-1-...	G ¾ A ¹⁾	296	93	248	45	11 + 2.25 x n	20	0.9 + n x 0.085
XB 04-2-...	G ¾ A ¹⁾	296	93	248	45	11 + 2.25 x n	20	1.13 + n x 0.085
XB 06 L-...	G ¾ A ¹⁾	320	95	270	45	8.5 + n x 1.7	20	0.67 + n x 0.08
XB 06 H-...	G ¾ A ¹⁾	320	95	270	45	8.5 + n x 1.3	20	0.67 + n x 0.08
XB 10-...	G 1 A ¹⁾	288	118	235	65	7 + 2.6 x n	50	1.5 + n x 0.12
XB 20-...	G 1 A ¹⁾	338	118	285	65	7 + 2.6 x n	50	1.6 + n x 0.14
XB 24-...	G ¾ A ¹⁾	490	93	442	45	11 + 2.25 x n	20	1.4 + n x 0.15
XB 30-...	G 1 A ¹⁾	438	118	385	65	7 + 2.6 x n	50	2 + n x 0.18
XB 37L-...	G 1 A ¹⁾	525	119	479	72	10 + 2.25 x n	50	2.6 + n x 0.16
XB 37M-...						10 + 1.73 x n		
XB 37H-...						10 + 1.45 x n		
XB 51L-... XB 51H-... XB 51... SB ⁵⁾	G 2 A ¹⁾	466	256	380	170	10 + 2.6 x n	50	8 + n x 0.38
XB 51... SB ⁶⁾	DN 50 ²⁾	466	256	380	170	7 + 2.6 x n	90	18.8 + n x 0.38
XB 60-... XB 60-...SB	DN 65 ²⁾	520/650	280	424/180	184	10 + 2.7 x n	90	12 + n x 0.64
XB 70L-... XB 70M-... XB 70H-...	DN 65 ²⁾ / 100 ^{4) 3)}	990/1110	365	861/816 180/203	214	10 + 2.7 x n	90	40 + n x 1.50

n = number of plates (for 2-pass heat exchangers the sum of afterheating and preheating plates)

¹⁾ Cylindrical external thread acc. to DIN ISO 228/1

²⁾ Flanges PN 25 acc. to EN 1092, facing type B (B1)

³⁾ Primary side / secondary side

⁴⁾ Flanges PN 16 acc. to EN 1092, facing type B (B1)

⁵⁾ For number of plates n < 60

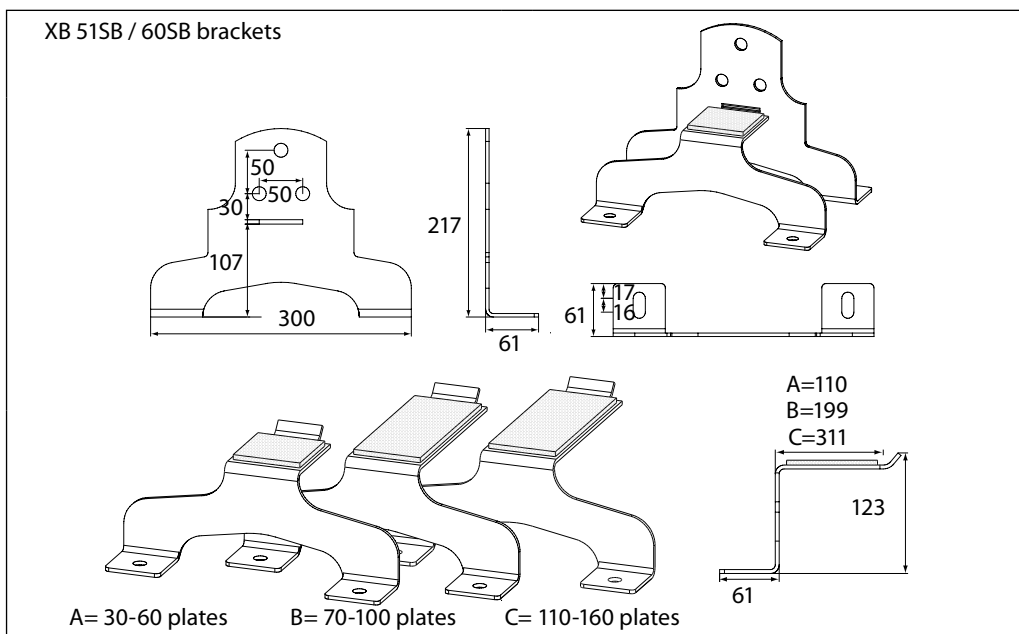
⁶⁾ For number of plates n ≥ 60

Dimensions continued

Mounting brackets

XB 04, 06, 24 bracket	XB 10, 20, 30 bracket
XB37 brackets	XB 51 bracket
XB 60 bracket	
XB 70 bracket	

Dimensions continued
Mounting brackets

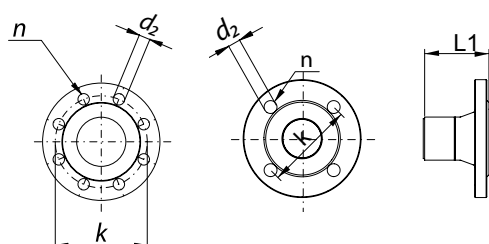


Dimensions
Tailpieces

	Description	Connection	Code No.	a mm	b mm	SW ¹⁾ mm
	Solder tailpieces	G ¾ A / 15 mm	004B2945	15	35	32
		G ¾ A / 18 mm	004B2946	18	35	32
		G 1 A / 15 mm	004B2904	20	35	37
		G 1 A / 18 mm	004B2905	20	35	37
		G 1 A / 22 mm	004B2906	25,6	35	37
		G 2 A / 28 mm	004B2910	32	45	65
		G 2 A / 35 mm	004B2911	39	45	65
		G 2 A / 42 mm	004B2912	51	45	65
	Weld-on tailpieces	G ¾ A / DN 20	004B2944	21,2	35	32
		G 1 A / DN 15	004B2901	21,3	40	37
		G 1 A / DN 20	003H6909	26	49,5	41
		G 1 A / DN 25	004B2903	33,5	40	37
		G 2 A / DN 32	004B2907	42,4	45	65
		G 2 A / DN 40	004B2908	48,5	45	65
		G 2 A / DN 50	004B2909	58	43	65
		G ¾ A / G ¾ A	004B2947	3/4"	40	32
	Threaded tailpieces	G ¾ A / G ¾ A	004B2953	1"	22	32
		G 1 A / G ¾ A	004B2913	3/4"	35	37
		-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-

¹⁾ Union nut, width across flats

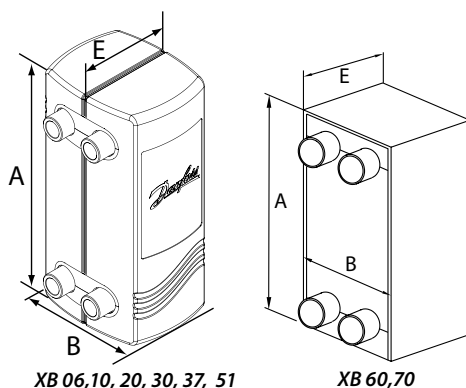
Flanges



Type	DN	L1	k	n	d ₂	PN
XB 51... SB	50	90	125	4	18	25
XB 60	65	90	145	8	18	25
XB 70	65/100 ¹⁾	90	145/180 ¹⁾	8	18	25/16 ¹⁾

¹⁾ Primary side/ secondary side

Insulation program (polyurethane) for brazen heat exchangers type XB



Insulations set of PU type for XB60, 70 can be delivered on request. Please contact the local sales representative for details.

Insulation dimensions for 1-pass brazen heat exchangers type XB

Type	XB 06-1	XB 10-1	XB 20-1	XB 30-1	XB 37L-1	XB 37M-1	XB 37H-1	XB 51-1	XB 60-1	XB 70-1
No of plates	mm									
8			-	-	-	-	-	-	-	-
10	004B1191 A=368 B=140 E=98	004B1113 A=336 B=176 E=137	004B1313 A=385 B=176 E=137	004B1513 A=487 B=176 E=137	004B1721 A=572 B=168 E=117	004B1721 A=572 B=168 E=117	004B1721 A=572 B=168 E=117	-	-	-
16								-	-	-
20								-	-	-
26					004B1722			-	-	-
30	004B1192 A=368 B=145 E=138	004B1124 A=336 B=184 E=197	004B1324 A=385 B=184 E=197	004B1524 A=487 B=184 E=197	A=572 B=170 E=155	004B1722 A=572 B=170 E=155	004B1722 A=572 B=170 E=155	004B1924 A=512 B=320 E=197	-	-
36									-	-
40									-	-
50	004B1193 A=368 B=150 E=168	004B1135 A=336 B=185 E=257	004B1335 A=385 B=185 E=257	004B1535 A=494 B=185 E=257	A=572 B=180 E=200	004B1723 A=572 B=180 E=200	004B1723 A=572 B=180 E=200	004B1935 A=512 B=320 E=257	-	004B2535 A=1202 B=445 E=259
60									-	
70									-	
80	-	-	-	004B1550 A=487 B=200 E=337	004B1725 A=572 B=180 E=250	004B1725 A=572 B=180 E=250	004B1725 A=572 B=180 E=250	004B1950 A=512 B=330 E=337	004B2145 A=580 B=360 E=313	004B2550 A=1202 B=445 E=340
90	-	-	-							
100	-	-	-							
110	-	-	-	-	004B1727 A=572 B=200 E=350	004B1726 A=572 B=190 E=305	004B1726 A=572 B=190 E=305	004B1960 A=512 B=340 E=392	004B2160 A=580 B=360 E=394	004B2570 A=1202 B=445 E=448
120	-	-	-	-						
140	-	-	-	-						
160	-	-	-	-	-	-	-	-	004B2180 A=580 B=360 E=502	004B2599 A=1202 B=445 E=610
180	-	-	-	-	-	-	-	-		
200	-	-	-	-	-	-	-	-		

Insulation dimensions for 2-pass brazen heat exchangers type XB

Type	10-2	20-2	30-2	51-2
No of plates ¹⁾				
20/20	004B3115 A=336 B=185 E=257	-	004B3515 A=494 B=185 E=257	-
26/26		-		-
30/30		-		-
36/36	004B3120 A=336 B=188 E=282	-	004B3520 A=494 B=185 E=257	004B3720 A=512 B=320 E=257
40/40		-		
46/46		-		
50/50	004B3125 A=336 B=200 E=337	004B3325 A=385 B=200 E=337	004B3525 A=487 B=200 E=337	004B3725 A=512 B=330 E=337
56/56				
60/60				
66/66	-	-	-	004B3730 A=512 B=340 E=392
70/70	-	-	-	

¹⁾ afterheating / preheating