



# Assembly instruction for gasketed plate heat exchanger kits

Applies for T2, M3, TL3 and T5 units

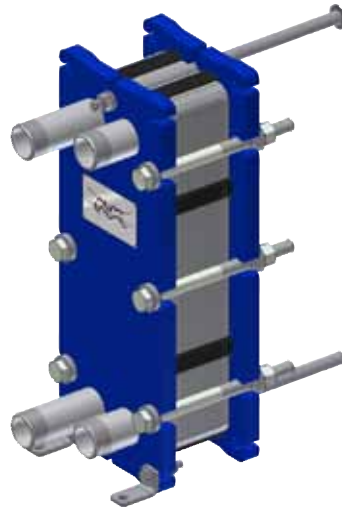


**Note:** The gasketed plate heat exchanger kits from Alfa Laval are divided into plate-kits and frame kits. Each plate kit contains 50 plates-and gaskets. Each frame kit contains one complete set of frame components.

This instruction is based on assembly process of a standard M3 unit with threaded pipe connection.



T2



M3



TL3



T5

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# Step 1 - Put on name plate and Alfa Laval logotype sticker



1.1 Place the sticker onto the frame plate according to the location sketch

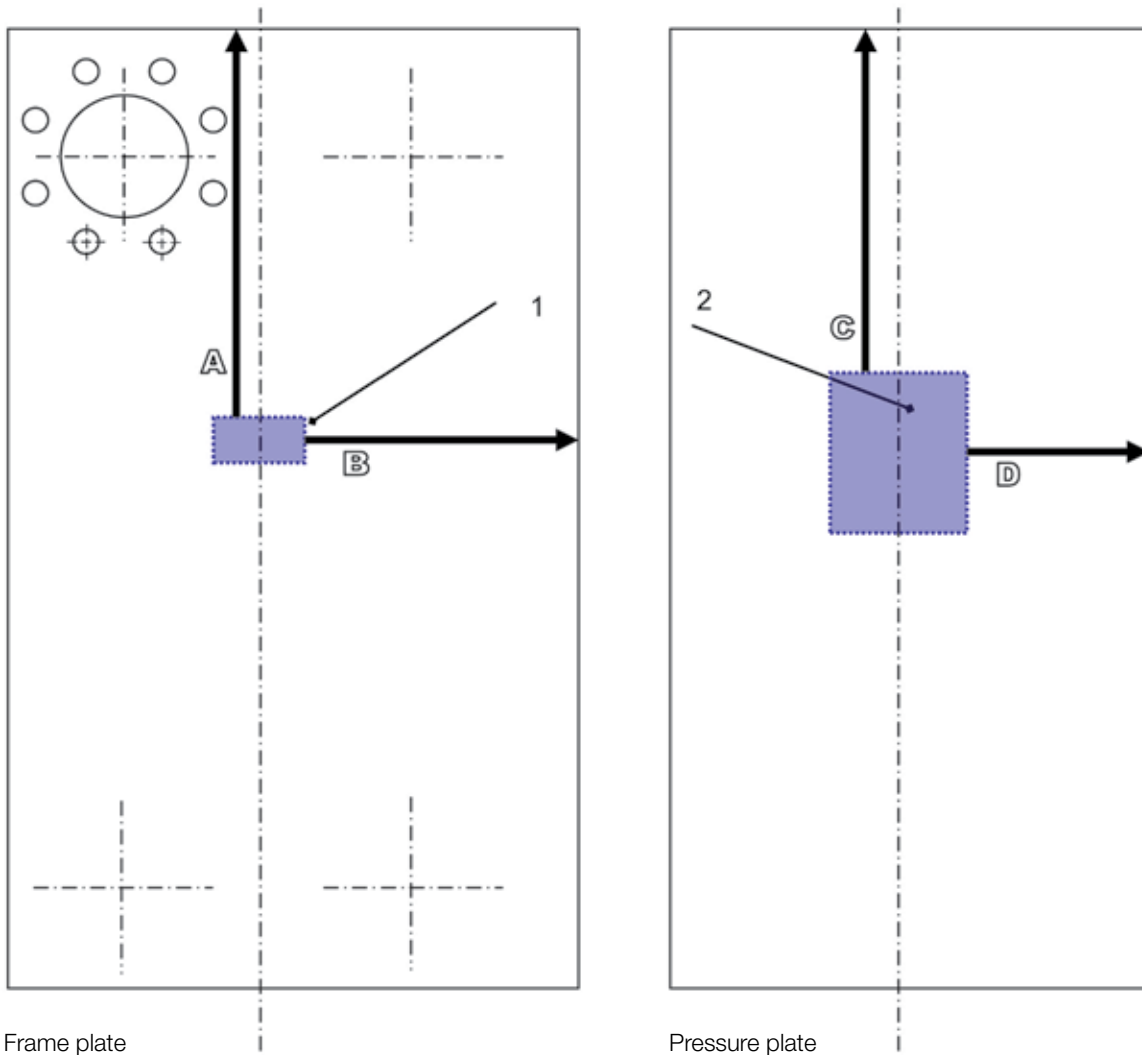


1.2 Mark the name plate position according to the location sketch



1.3 Drill four holes on the pressure plate to fit the holes in name plate and then put the name plate into position

## Marking elements location



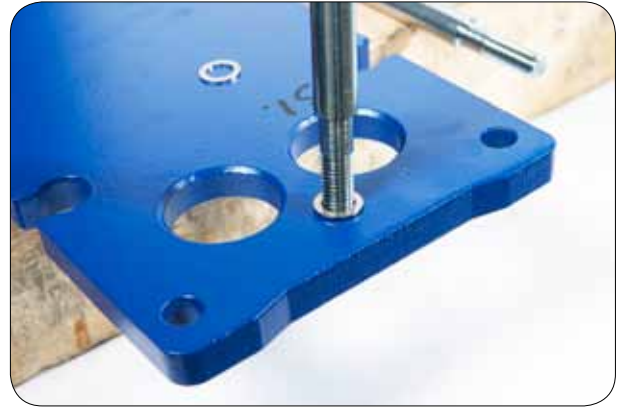
1. Alfa Laval logotype sticker
2. Name plate

Unit type	A	B	C	D
T2	100 mm	22 mm	83 mm	25 mm
M3	170 mm	43 mm	134 mm	32 mm
TL3	250 mm	47 mm	285 mm	37 mm
T5	220 mm	76 mm	220 mm	65 mm

## Step 2 - Assembly carrying bar and guiding bar



2.1 Place the carrying bar into the hole on the top of the frame plate.



2.2 Assemble the carrying bar with help of nut and repeat the procedure to assemble the guiding bar.



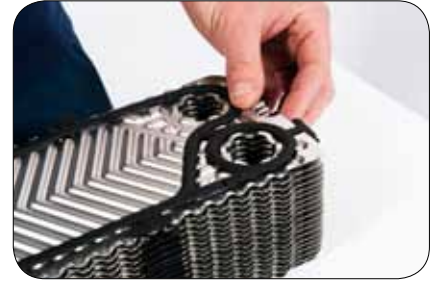
# Step 3 - Assemble connections



3.1 Assemble the connections with the threaded side facing out from the frame plate. Connection position according to the drawing of the heat exchanger.

MODEL / REF. CUSTOMER NAME / REF. NO. DRAWING NO.	PART NO. Example	ORDER NO. Example	DATE 2013-05-20	REV. 0	<b>M3-FG</b> PED	PLATE HEAT EXCHANGER			
REMARKS: TEST PRESSURE: 6.5 bar SIDE 1    6.5 bar SIDE 2 DESIGN PRESSURE: 5 bar    5 bar MAX. TEMPERATURE: 120 °C    55 °C MIN. TEMPERATURE: 0 °C    0 °C NET WEIGHT: 39 kg WEIGHT WITH WATER: 44 kg					GASKET: NBRP CLIP-ON PLATE MATERIAL: ALLOY 316 PLATE THICKNESS: 0.50 mm HEATING SURFACE: 12 m <sup>2</sup> PLATE GROUPING: 1/250,1/250 HEAT LOAD: 2900 kW			(Due to legal requirements installed within EU/EEA)	
ALL DIMENSIONS IN MILLIMETERS Do not use this drawing for foundation bolting or piping layout.					TOTAL LENGTH: 400 TOTAL WIDTH: 180 TOTAL HEIGHT: 480				
SIDE	MEDIA	F.D.G.	INLET	TEMP.	OUTLET	TEMP.	FLOW RATE	PRESSURE DROP	LIQUID VOL.
1	Water		S1	120.0 °C	S2	97.9 °C	32.9 l/s	98.58 kPa	2.58 dm <sup>3</sup>
2	Water		S3	20.0 °C	S4	53.5 °C	20.8 l/s	53.43 kPa	2.49 dm <sup>3</sup>

## Step 4 - Assemble gaskets



4.1 Assemble the gaskets onto the four-holed channel plates by using the fastening clips.



4.2 Repeat the above procedure to assemble the gasket onto the zero-holed end plate.

4.3 Repeat the above procedure to assemble the gasket onto the zero-holed end plate.



4.4. Apply glue in the gasket groove.





4.5 Cut two channel plate gaskets into half.

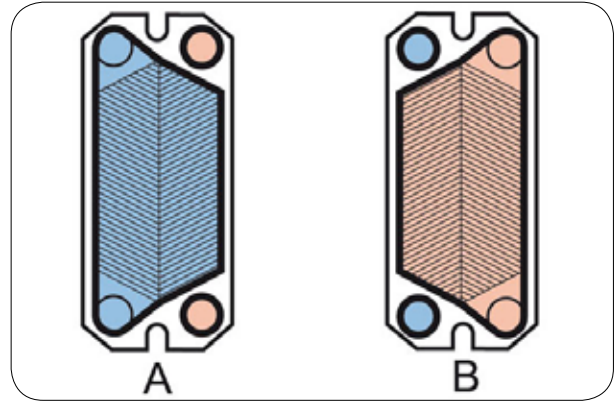
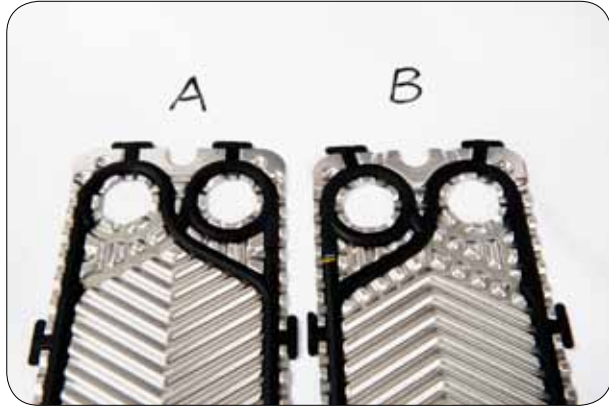


4.6 Cut off the clips from one of the half gaskets.

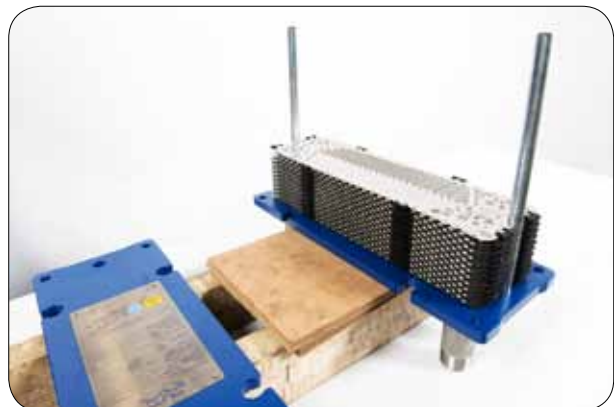


4.7 Combine the two half gaskets and assemble them onto the end plate.

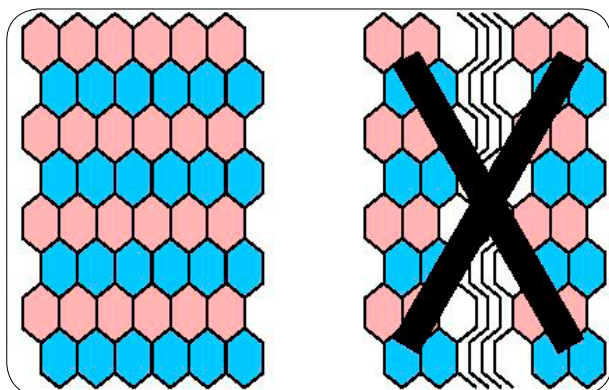
# Step 5 - Assemble plates



5.1 Assort the A-plates and B-plates according to the fishbone pattern.



5.2 Assemble the plates according to the plate list of the heat exchanger.



5.3 Check that the plate pack forms a honeycomb pattern. If not, the plates are not properly inserted.

**Plate Listing** Date : 2013-05-20

Customer : M3-FG  
 Model :  
 Project :

Item :

		Hot side	Cold side	
Plate Fam. / Plate Grp / Frame / Plate material / thickness	M3 / FG / ALLOY 316 / 0.50 mm			
Grouping	96			125
Sealing material	NBR/EP CLIP-ON			NBR/EP CLIP-ON
Nozzle orientation	S1 > S2			S4 < S3

The plates are assembled with the gasket side facing the frame plate.

Plate No	Plate Code No	A/B	1	2	3	4	Plate Pattern
	Frame/Plate						
1	373017 4483	A	O	O	O	O	M3 2
2	372917 4403	A	O	O	O	O	M3 1
3	372917 4403	A	U	U	U	U	M3 1
4	372917 4 03	A	U	U	U	U	M3 1
5	372917 4 03	B	U	U	U	U	M3 1
50	372917 4 13	E	U	U	O	O	M3 1
51	373017 44 03	A	O	O	U	U	M3 1
52	373017 44 03	A	U	U	U	U	M3 2

Pressure/Plate

Plate No	Quant.
373017 4 03	1
372917 4403	50
373017 4416	1
<b>Total</b>	<b>52</b>

# Step 6 - Assemble pressure plate



## Step 7 - Assemble tightening bolts



7.1 Grease the tightening bolts and nuts.



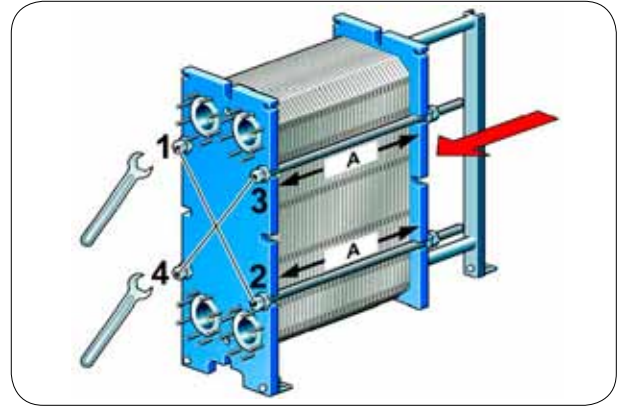
7.2 Assemble the tightening bolts, washers and nuts.







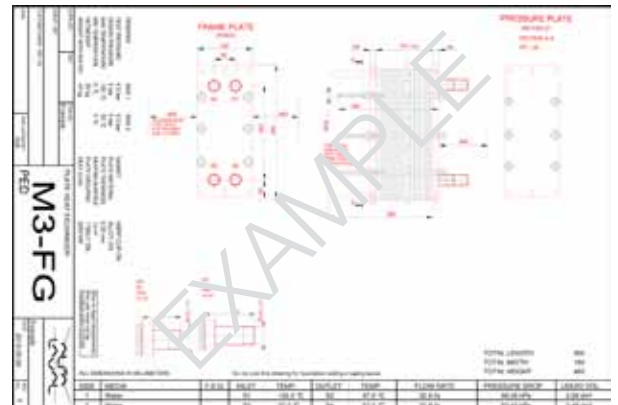
7.3 Tighten the plate heat exchanger to reach the A-measurement that is stated on the drawing of the heat exchanger.



7.4 Tighten the bolt diagonally.



7.5. Check the A-measure and the parallel between the frame and pressure plate.



## Step 8 - Pressure test

See separate testing instruction.





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