



Assembly instruction for gasketed plate heat exchanger kits

Applies for M6, TS6, TL6 and M10 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 the assembly process of a standard M6 unit with studded connections and rubber linings with distance rings.



M6



TS6



TL6

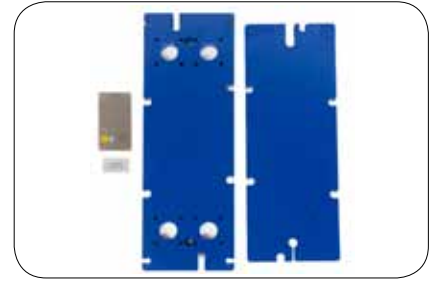


M10

Index

Step 1 - Put on name plate and Alfa Laval logotype sticker and prepare assembly of name plate.....	5
Step 2 - Assemble stud bolts.....	7
Step 3 - Assemble rubber linings and distances.....	8
Step 4 - Assemble feet.....	9
Step 5 - Assemble carrying bar and guiding bar.....	7
Step 6 - Assemble distance sheet and pressed collars.....	10
Step 7 - Assemble gaskets.....	11
Step 8 - Assemble plates.....	12
Step 9 - Assemble pressure plate and support column.....	13
Step 10 - Assemble tightening bolts.....	14
Step 11 - Assemble name plate.....	15
Step 12 - Pressure test.....	15

Step 1 - Put on name plate and Alfa Laval logotype sticker and prepare assembly of name plate.



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

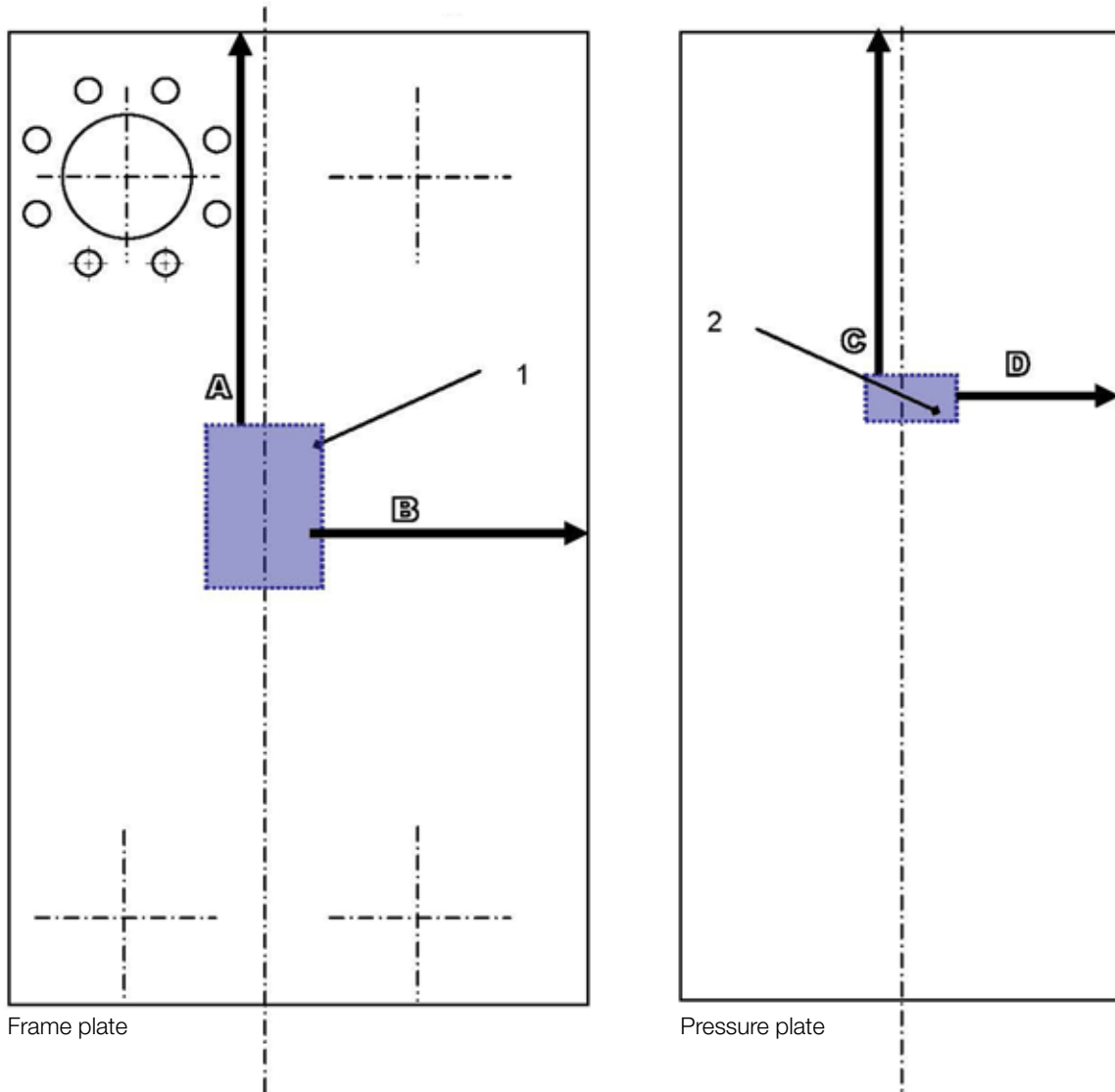


1.2 Mark the name plate position according to the location sketch.



1.3 Drill four holes on the pressure plate to fit the holes in name plate.

Marking elements location



1. Alfa Laval logotype sticker
2. Name plate

Unit type	A	B	C	D
M6	353 mm	101 mm	265 mm	114 mm
TS6	220 mm	141 mm	220 mm	154 mm
TL6	375 mm	To centre	375 mm	To centre
M10	375 mm	177 mm	220 mm	156 mm

Step 2 - Assemble stud bolts

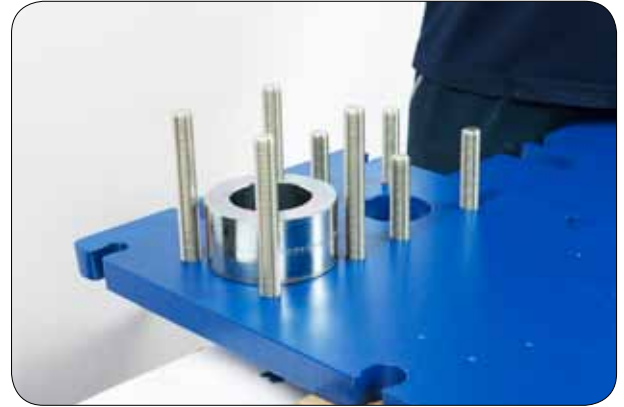


2.1 Clean the threads from paint.



2.2 Screw the stud bolts until they reach the end of the threads in the frame plate.

Step 3 - Assemble rubber linings and distances



3.1 Position the distance rings according to the drawing of the heat exchanger.

MODEL / REF. CUSTOMER NAME / REF. NO. SERIAL NO.	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE	ORDER NO. ORDER DATE		
PLATE HEAT EXCHANGER M6-FG									
DATE: 2013-06-04 REV: 0									
REMARKS:									
TEST PRESSURE: 13 bar DESIGN PRESSURE: 10 bar MAX. TEMPERATURE: 75 °C MIN. TEMPERATURE: 0 °C NET WEIGHT: 150 kg WEIGHT WITH WATER: 170 kg				SIDE 1: 13 bar SIDE 2: 10 bar MAX. TEMPERATURE: 75 °C MIN. TEMPERATURE: 0 °C NET WEIGHT: 150 kg WEIGHT WITH WATER: 170 kg					
GASKET: NBR/CLIP-ON PLATE MATERIAL: ALLOY 316 PLATE THICKNESS: 0.50 mm HEATING SURFACE: 1'112MM ² (132M ²) HEAT LOAD: 900 kW									
FRAME PLATE (FIXED)									
PRESSURE PLATE (MOVABLE) SECTION A-A									
ALL DIMENSIONS IN MILLIMETERS									
Do not use this drawing for foundation bolting or piping layout.									
		TOTAL LENGTH			745				
		TOTAL WIDTH			320				
		TOTAL HEIGHT			920				
SIDE	MEDIA	F.D.G.	INLET	TEMP.	OUTLET	TEMP.	FLOW RATE	PRESSURE DROP	LIQUID VOL.
1	Water	2	S1	75.0 °C	S2	64.7 °C	20.95 kg/s	89.26 kPa	6.16 dm ³
2	Water	2	S3	55.0 °C	S4	65.2 °C	21.17 kg/s	84.40 kPa	6.16 dm ³



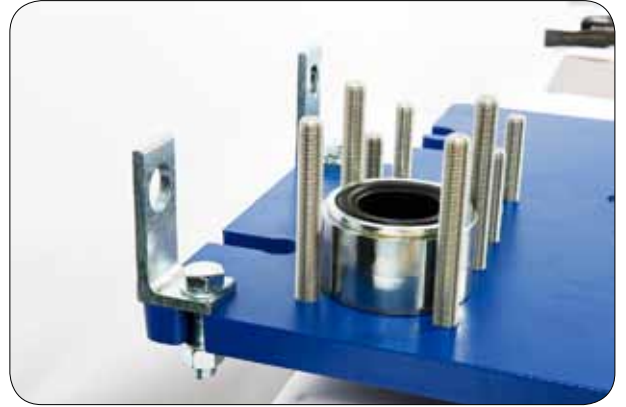
3.1. Assemble the rubber linings.



3.3. Glue the metal rings onto the rubber linings.

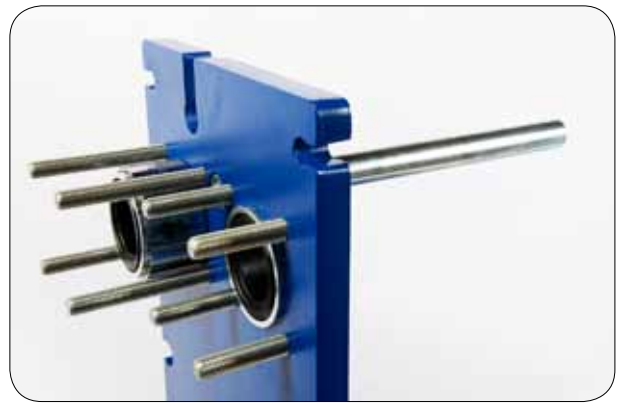


Step 4 - Assemble feet



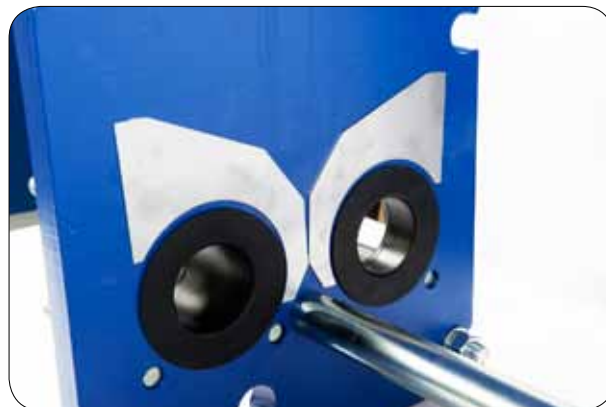
4.1 Assemble the feet onto the frame plate.

Step 5 - Assemble carrying bar and guiding bar

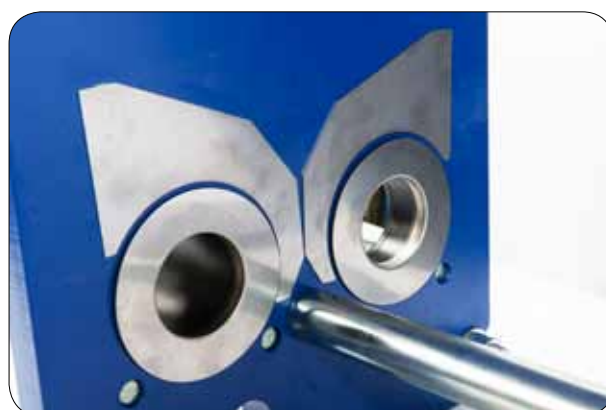


5.1. Raise the frame plate into up-standing position and assemble the carrying bar into the hole on the top of the frame plate with help of the nut. Repeat the procedure to assemble the guiding bar into the frame plate.

Step 6 - Assemble distance sheet and pressed collars



6.1 Apply glue onto the distance sheets and assemble the distance sheets around the linings on the frame plate's inside.



6.2 Assemble the pressed collars.

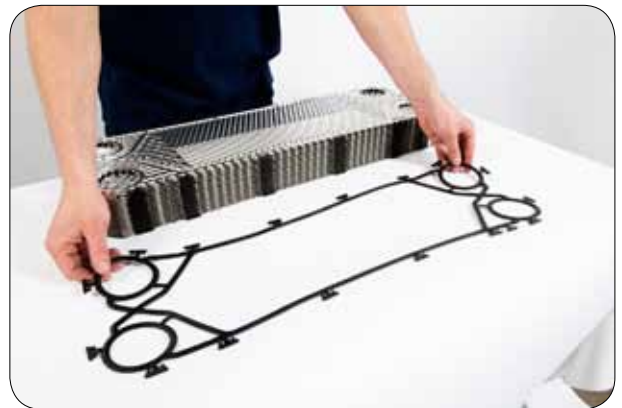
Step 7 - Assemble gaskets



7.1 Assemble the gaskets onto the channel plate by using the fastening clips.

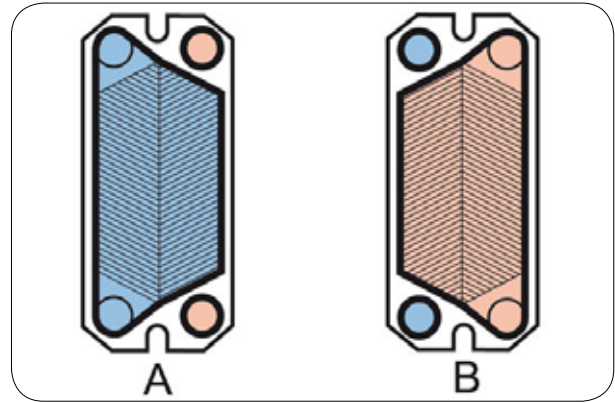
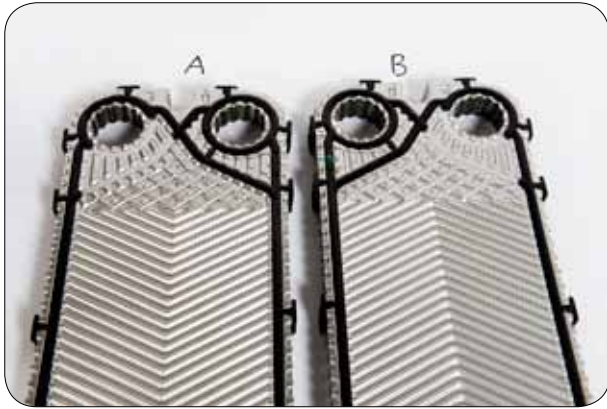
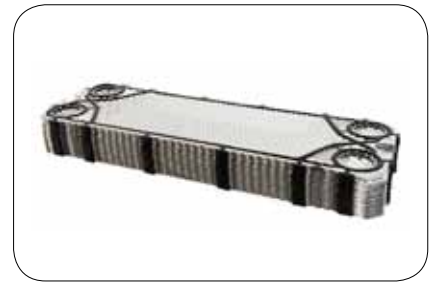


7.2 Repeat the above procedure to assemble the gasket onto the zero-holed end plate.



7.3 Assemble the end plate gasket onto the four-holed end plate.

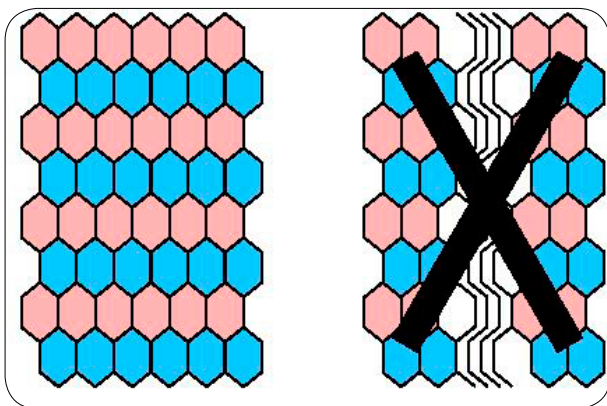
Step 8 - Assemble plates



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



8.2 Hang the plates according to the plate list of the heat exchanger.



8.3 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 :

		Hot side		Cold side	
Plate Fam. / Plate Grp / Frame / Plate material / thickness		M3 / 316 / ALLOY 316		0.50 mm	
Grouping		175		175	
Sealing material		NBR / CLIP-ON		NBR / CLIP-ON	
Nozzle orientation		S1 - S2		S4 - S3	

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

Plate No	Plate Code No	A/B	1	2	3	4	Plate Pattern
	FramePlate		O	O	O	O	
1	373017 4483		O	O	O	O	M3 2
2	372917 4403	A	O	U	O	O	M3 1
3	372917 4401	B	O	U	U	U	M3 1
4 6-48	372917 440	B	O	U	U	U	M3 1
5 7-49	372917 440	A	O	U	U	U	M3 1
50	372917 440	B	U	U	O	O	M3 1
51	373017 4416	A	O	O	U	U	M3 1
52	373017 4416	B	U	U	U	U	M3 2
	PressurePlate						

Plate No	Quant.
373017 4483	1
372917 4403	50
373017 4416	1
Total	52

Step 9 - Assemble pressure plate and support column

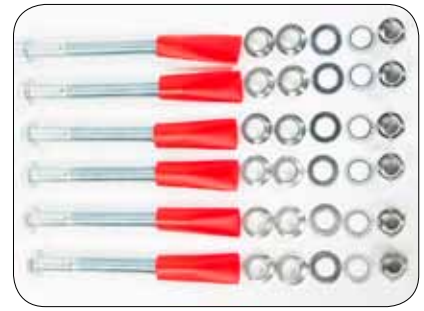


9.1 Hang the pressure plate onto the carrying bar and assemble the support column thereafter.



9.2 Fasten the bolts to secure the support column.

Step 10 - Assemble tightening bolts



10.1 Grease the head of the tightening bolts and the washers.



10.2 Put the protection tubes onto the tightening bolts.



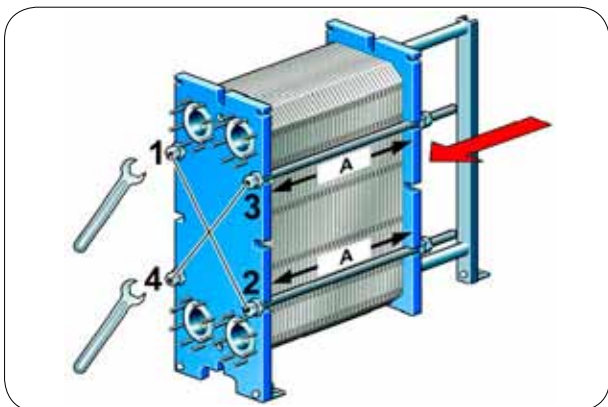
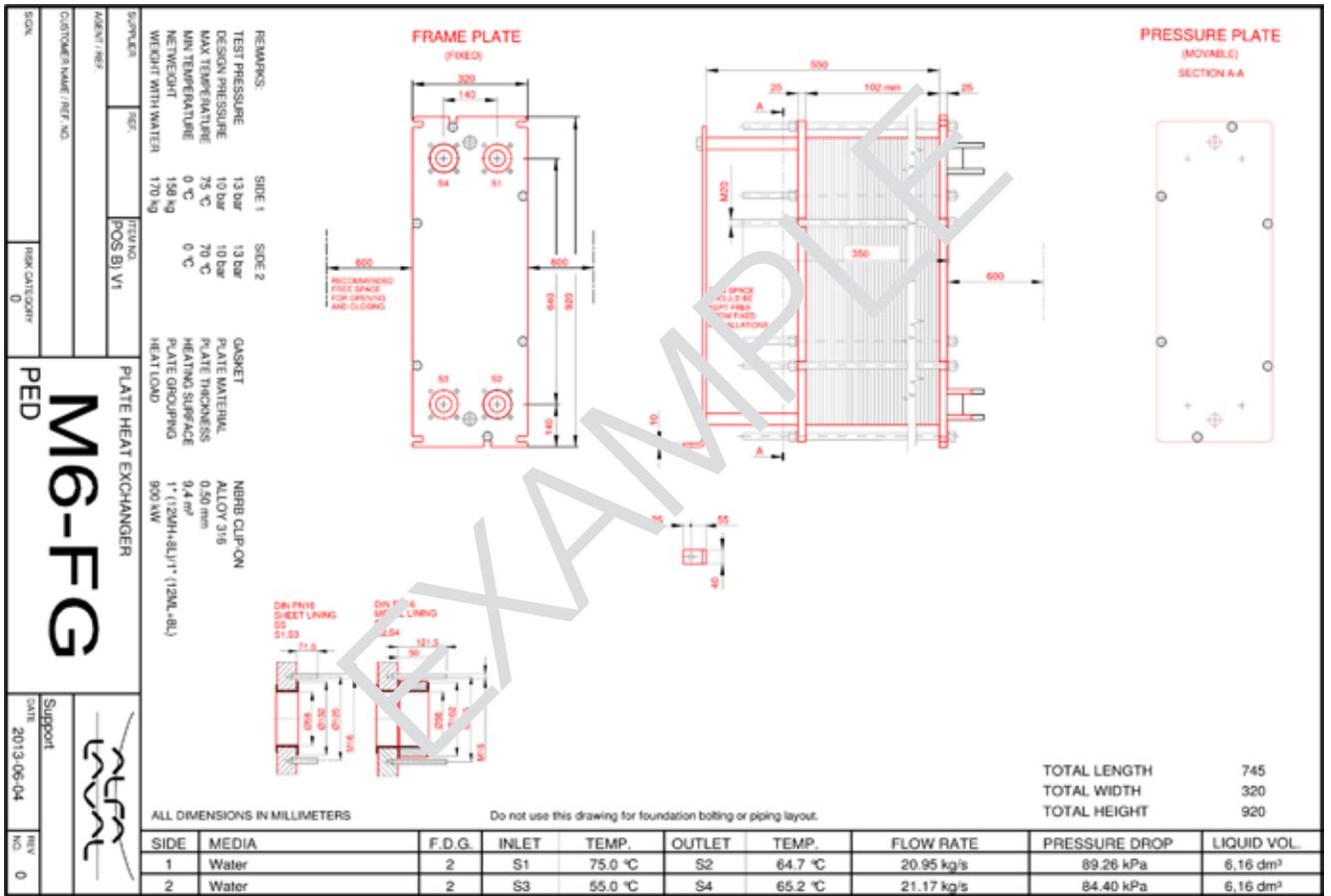
10.3 Grease the threads of the tightening bolts.



10.4 Assemble the washers and nuts.



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



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

Step 11 - Assemble name plate



11 Assemble the name plate into position on the pressure plate.

Step 12 - Pressure test



12 See separate testing instruction.

Alfa Laval in brief

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