Disassembly / Assembly of Block Heat Exchangers

Works Standard

Block Heat Exchanger Type:

Drawing no.:

Please observe all information on the drawing (e.g. tightening torques) as well as WS 1270 (PTFE expansion bellows) and WS 1501 (Installation and Operating Instructions) if applicable.

	Disassembly: Set the block heat exchanger vertically	**Item number**
	If applicable to the heat exchanger: dismount the bellows	
01.	Loosen all tie rods nuts, starting from the top	
02.	Remove the compression springs and the centering discs	
03.	Lift off the top pressure plate	
04.	Remove all the tie rods and nuts	
05.	Lift off the clamping flange and the O-ring gasket	
06.	Lift off the top header (possibly strong adhesion of the top header with the graphite piece - due to the gasket - if needed carefully use a lever)	
07.	Remove screws and nuts	
08.	Lift the shell above all blocks	
09.	Remove the baffles	
10.	Lift off the blocks one by one starting from the top (possibly strong adhesion between the individual blocks - due to the PTFE gasket - if needed carefully use a lever)	
11.	Remove bottom header	
12.	Carefully remove all PTFE gasket residues **Do not damage the gasket seats!**	

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Graphite and SiC Heat Exchangers and Process Equipment

Disassembly / Assembly of Block Heat Exchangers

Assembly: Mounting the heat exchanger vertically **Item number**

01. Place the pressure plate horizontally, on squared timbers or on a pedestal
02. Position (centred) the flat gasket with adhesive
03. Place the bottom header
04. Put a PTFE gasket on the bottom header and add the first block, with service side holes in line with the side nozzle on the shell
05. Install all the other blocks one by one. Put a PTFE gasket between each block. Check the alignment of the process holes by inserting two metal rods as far apart as possible into the product holes and make sure that they are perfectly aligned
06. Position (centred) the flat gasket with adhesive on the pressure plate
07. Insert all baffle segments in the proper position. Take into consideration the later placement of the side nozzles on the shell)
08. Slowly lower the shell over all blocks stack. Note that the side nozzles on the shell and the holes in the blocks shall be aligned
09. Screw shell and lower pressure plate together
10. Place the PTFE gasket on the upper block. Place the top header on top of it
11. Install the O-ring gasket
12. Insert the clamping flange
13. Insert the tie rods
14. Center the flat gasket above the top header
15. Place the top pressure plate on the top header
16. Tighten tie rods on the vessel flange using nuts (the lower face of the nuts and the tie rods shall be on the same level)
17. Mount the compression springs with centering discs
18. Tighten (criss cross tightening sequence) the compression springs to the length indicated on the drawing. If needed the springs can be compressed up to 5 mm more
19. Press the clamping flange on the O-ring-gasket
20. Pressure test with water on the service side (we recommend carrying out the pressure test on the service side only, so that even the smallest leakages can be noticed on the dry process side)
21. Finally carry out the usual pressure test according to WS1589i

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