

4.19.1 Metric Form Specification Sheet For ASME Section VIII, Division 2 Bellows Expansion Joints, Metric Units

Date: _____/_____/_____	Applicable ASME Code Edition: _____		
1. Item Number: _____	Vessel Class: _____		
2. Drawing/Tag/Serial/Job Number: _____	Vessel Manufacturer: _____		
3. Quantity: _____	Vessel Owner: _____		
4. Size: _____ OD _____ ID mm	Installation Location: _____		
Expansion Joint Overall Length: _____ mm			
5. Internal Pressure: Design _____ MPa			
6. External Pressure: Design _____ MPa			
7. Vessel Manufacturer Hydrotest Pressure		Internal _____ MPa	External _____ MPa
8. Temperature	Design _____ °C	Operating _____ °C	Upset _____ °C
9. Vessel Rating	MAWP _____ MPa	MDMT _____ °C	Installed Position: Horz. Vert.
10. Design Movements [Note (1)]: Axial Compression: (-) _____ mm Axial Extension: (+) _____ mm Lateral: _____ mm Angular: _____ deg			
11. Specified Number of Cycles: _____			
12. Design Torsion: Moment _____ N-mm or Twist Angle: _____ deg			
13. Shell Material: _____		Bellows Material: _____	
14. Shell Thickness: _____ mm Shell Corrosion Allowance: Internal: _____ mm External: _____ mm			
15. Shell Radiography: Spot Full			
16. End Preparation: Square Cut Outside Bevel Inside Bevel Double Bevel (Describe in Line 24 if special)			
17. Heat Exchanger Tube Length Between Inner Tubesheet Faces: _____ mm			
18. Maximum Bellows Spring Rate:	No	Yes – _____ N/mm	
19. Internal Liner:	No	Yes – Material _____	
20. Drain Holes in Liner:	No	Yes – Quantity/Size: _____	
21. Liner Flush with Shell ID:	No	Yes – Telescoping Liners?	No Yes
22. External Cover:	No	Yes – Material: _____	
23. Pre-Production Approvals Required:	No	Yes – Drawings / Bellows Calculations / Weld Procedures	
24. Additional Requirements (i.e., bellows pre-set, ultrasonic examination, etc.):			

NOTE:

(1) For multiple movements, design movements (line 10) can be replaced by operating movements, which should then be described under "Additional Requirements" (line 24). For each one of them, axial compression or axial extension, lateral deflection and angular rotation at each extremity of cycle, together with the specified number of cycles, should be indicated. When known, the order of occurrence of the movements should also be indicated.