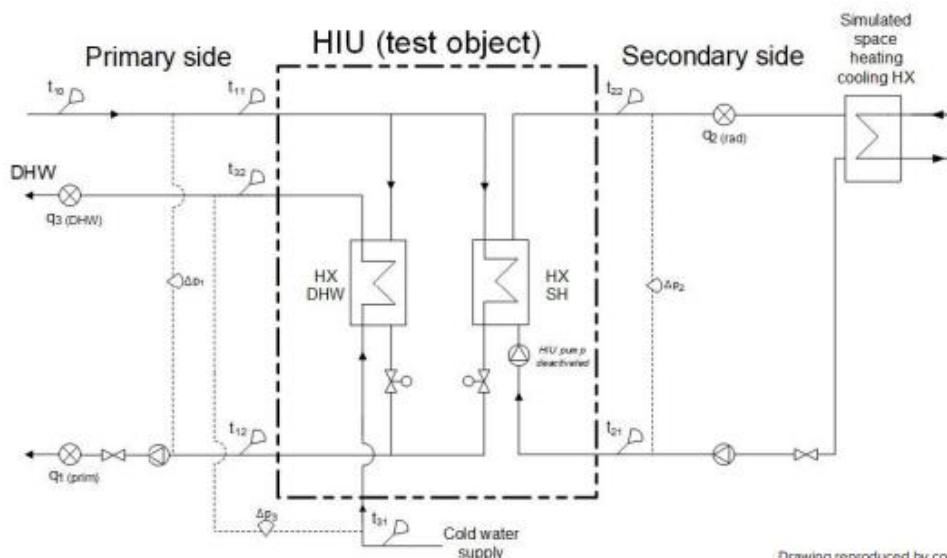


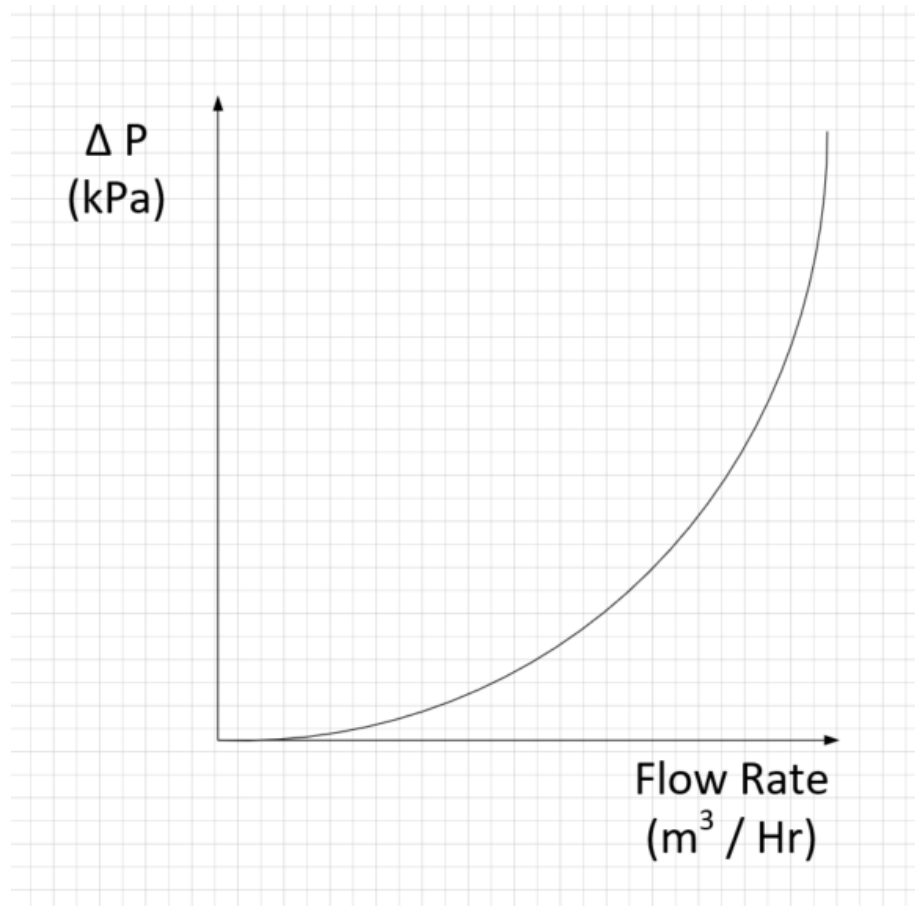
<b>Change Note</b>		<b>CN-070</b>
<b>Change to:</b> Technical Assumption 55		
<b>Description:</b> Cold water supply pressure		
<b>References:</b> All tests, Test regime paragraph 2.13		
<b>Change originator:</b> IR		<b>Date of request:</b> 17/11/21
<b>Rev:</b> 01	<b>Date authored:</b> 17/11/21	<b>Proposed change to assumption:</b> Yes

## 1. Proposed Approach

The dynamic DHW test pressure should be increased to 3 bar g across all hot water tests. However, to try to prevent designers overengineering the boosted mains systems, it is recommended that only the pressure drop across  $\Delta P_3$  (See below Figure) should be logged and reported against the corresponding flow rate in the form of a graph as seen below.



Drawing reproduced by courtesy of  
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## 2. Rationale (underlying basis for the change)

Although 1.5 bar g pressure may be an acceptable pressure for many products that are to be tested, there may be a number for whom DHW performance would be hampered by the capabilities of the test rig at 1.5 bar g.

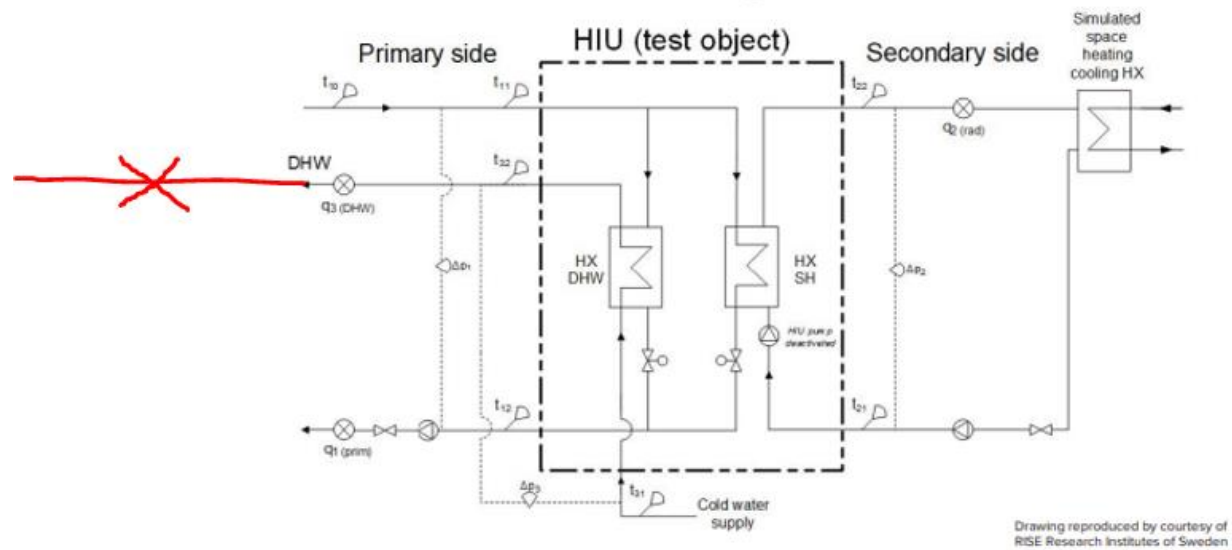
As 1.5 bar g test pressure is acceptable for the lower flow rates, it could be argued that there is then a requirement for two pressure settings. One for the low flow tests 2a, 2b, 3a, 3c and one for the new DHW performance test. However, this gives the test lab more instruments to adjust during the tests. As such, it is recommended that all of these tests are carried out at a setting of 3 bar g, as this would negate this extra work.

## 3. Impact of change (e.g. implications for test rig)

Reporting changes.

Ensuring fittings on DHW side are 3 bar g rated.

It is important that the regulating valve is positioned at the end of the line as shown below by the red X in the figure below. If the adjustment valve is positioned in front of the HIU the pressure transducer that is positioned after the HIU will register a pressure close to atmospheric pressure and give a falsely low reading, resulting in an incorrect high pressure drop figure.



## Evaluation of change

**Date evaluated:**  
14/12/21

**Those present:** BESA  
HIU Technical  
Committee

**Additional info  
required?:** No

**Modification to  
proposed  
approach?:** No

**Details:** Rationale explained in TN-024

**Signed off:** Yes