

Safety Action Notice

Reference SAN(SC)21/04

Issued 04 February 2021

Review Date 21 February 2022

RWC TMV3 Easifit 15mm T-type thermostatic mixing valves: elevated mixed water outlet temperatures under certain conditions

This notice is based on the English estates and facilities alert, NHSE/I-2020/005, issued on 08 Dec 2021

Summary

The RWC Easifit 15mm T-type TMV3 thermostatic mixing valve has failed some of the audit performance tests from HTM 04-01-part A. This may result in elevated outlet temperatures in specific circumstances and a risk assessment may be required

Action

1. Bring this notice to the attention of all appropriate managers and staff.
2. Establish whether implicated valves are in use. If not, no further action is required.
3. If implicated valves are in use:
 - a. Establish whether they are used as a temperature control for showers or if their use is limited to washbasins only. If only used on washbasins the risk is significantly lower than on showering.
 - b. A multi-disciplinary team (Water Safety Group) should conduct a risk assessment based on the local application of the valve to determine whether the temperature fluctuation can be tolerated or the valve needs to be remediated/replaced.

Deadlines for action

Actions underway: Immediately

Actions complete: 12 April 2021

Equipment Details

Manufacturer	Reliance Worldwide Corporation (UK) Ltd.
NSF cert no.	NSF2011/1018
Description see Figure 1 (over)	Easifit T-type thermostatic mixing valve with brushed chromium plated DZR brass body. Temperature is controlled via an adjustment screw located under a detachable cap. Both hot and cold-water inlets incorporate single check valve cartridges and stainless-steel strainers. The 4 in1 version in addition incorporates angled inlets with integral spherical valves. Maximum working pressure 10 bar.
Application Codes	HP-S, HP-W, LP-SE & LP-WE
Size	15mm Compression
Designations	Easifit 15mm 2 in1 HEAT112010, Easifit 15mm 4 in1 HEAT112050
Markings	Red and blue dots on inlets, valve body laser etched 4311801, REAS123, detachable blue cap printed Easifit, Reliance TMV2/3.



Figure 1

Problem / background

Audit testing is performed to the requirements of Health Technical Memorandum 04-01: Supplement – Performance Specification DO8: thermostatic mixing valves (Healthcare premises) issued 2017.

Table 2 of HTM 04-01-part A notes, states:

“Where installed, it is preferable that thermostatic mixing devices are fitted directly to the mixed temperature outlet or be integral with it, and be the method of temperature and flow control, i.e. the mixing device should not be separate nor supply water via a second tap or manual mixer since there will be many cases where draw-off of cold water will not occur. If a separate thermostatic device is used, it should be fitted as close to the outlet as possible, which should be a flow-only control.”

It is therefore expected that the Easifit T-type valve will not be used for shower use (see action 3.a.)

The RWC 15mm Easifit tee type valve has failed the following audit performance tests:

- 7.10 Temperature stability with changing water supply pressure
- 7.12 Temperature stability at reduced flow rate

The failures identified during audit testing were seen at points in the testing where the hot water pressure was three times higher than the cold water pressure, but in the two extreme supply conditions there are two instances (clause 7.10) where the mixed water temperature was recorded as being 3.4°C above the maximum permitted value for shower outlets with the maximum value recorded being 45.4°C.

In accordance with the auditing procedures the valve underwent a 48-hour thermal endurance to awaken the thermostatic properties of the valve as specified in DO8 clause 6.3. After 48 hours the valve was re-tested and failed the same clauses (7.10 & 7.12) in the same manner.

The number of valves installed in healthcare facilities is unknown as they are sold through a wide range of suppliers, although RWC suggested that the majority are sold for domestic applications. The valve has been tested and satisfies the performance requirements for domestic use, i.e. BS EN 1111 and BS EN 1287.

Manufacturer contact details

Mr. Eric Winter - RWC Director of Product Development eric.winter@rwc.com

Suggested onward distribution

Capital Planning & Design
Care Home Services
Estates and Facilities

Health & Safety
Hospices
Risk Management

Supplies/Procurement

References

Health Technical Memorandum 04-01: Supplement. Performance specification D 08: thermostatic mixing valves (healthcare premises). 2017 edition.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/607739/Health_tech_memo_0401_supp_D08.pdf

Enquiries

Enquiries (and adverse incident reports) in Scotland should be addressed to:

Incident Reporting & Investigation Centre (IRIC)

NHS National Services Scotland

Gyle Square, 1 South Gyle Crescent, Edinburgh EH12 9EB

Tel: 0131 275 7575 Email: nss.irc@nhs.scot

Report options are available on the HFS website: [How to report an Adverse Incident](#)

Further information about reporting incidents can be found in [CEL 43 \(2009\)](#) or by contacting IRIC at the above address.

NHS National Services Scotland is the common name for the Common Services Agency for the Scottish Health Service. www.nhsnss.org
© Crown Copyright 2021

Addressees may take copies for distribution within their own organisations