Safer water delivery in hospitals

CONTOUR 21+
MARKWIK 21+

Advanced thermostatic protection
from Armitage Shanks

Armitage Shanks

Why thermostats are important

The danger of scalding

With water temperatures in hospitals kept high – often in excess of 65°C - it is essential that vulnerable patients are protected from the dangers of scalding.

Scalding is highlighted within the NHS "Never Events" framework...

Events that should not occur if the available preventative measures have been taken... Thermostatic taps provide a very secure way of ensuring water is delivered at safe, reliable temperatures and if there is any interruption in supply the fitting quickly turns off.

Safe Hand washing

Hand washing is such a vital element of infection control in hospitals that it is important that the facilities are there to make this as easy as possible. HTM 04-01 advises that **hand washing is "best performed under running water at a safe, stable and comfortable temperature".**

Thermostatic taps ensure that water temperatures remain constant, without the user having to make any temperature control adjustments while they wash their hands. Many hospital hand washing protocols can take over a minute.

TMV3 safety

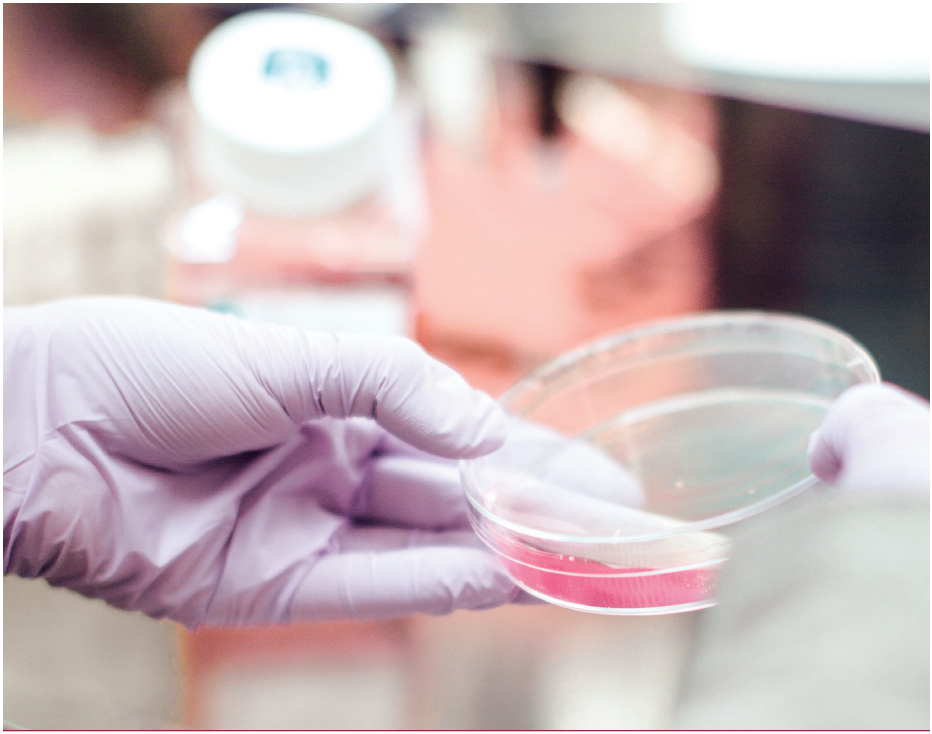
To further protect the user there is a supplement (D 08) which defines how the manufacturer has to prove their products thermal compliance by having their taps approved under the NSF/Buildcert TMV3 scheme.

Certified to NSF TMV3

Within the scheme in response to NHS user feedback, thermostatic taps have been designed to provide a reliable consistent controlled temperature and have safety features that ensure the tap is shut off instantly when there is a cold water interruption in supply.

Supporting the battle against infection

Markwik 21+ includes new features to help fight bacteria growth.



Common concerns

Some people question whether thermostats should be used as much as they are:

They argue by reducing water temperatures to a comfortable temperature for hand washing and safe scalding prevention, that the lower temperature will give bacteria a better environment to breed in, causing a potential danger to patients with a weak immune system.

Some TMVs may encourage bacterial growth because of a complicated design with numerous surfaces, which may be made of materials, such as polymers and rubbers, that themselves promote bacterial growth. In addition, internal water chambers may cause small relatively static reservoirs of stagnant water that again favour proliferation of micro-organisms.

Thermostats are expensive to buy and maintain: surely a more basic tap would cut costs in our budget-constrained NHS?
That's why when we redesigned M21+ we built in more features that help reduce the risk of bacteria growth.

Markwik 21+

Balancing thermostatic technology with greater protection against bacteria

1. Markwik 21+ has been redesigned with simpler internals and less plastic components. The mixer is now over 85% brass.

2. Smaller waterways reduce the amount of water left in the tap and create turbulence which has a scrubbing effect. Smooth bore waterways make it harder for bacteria to stick.

3. Sequential operation means that every time you turn the lever the tap is 'purged' of any static or cooled water which has built up.

4. Markwik 21 has a built in thermostat set close to the point of delivery, eliminating dead legs. Combined with a self draining spout and a built-in thermal cleanse feature there are less opportunities for bacteria to grow.

5. All taps, whether manual or thermostatic, are required to be risk-assessed for infection/scald risk, and maintained appropriately.

   Markwik 21+ mixers can be dismantled for disinfection, with internal components designed to withstand 90°C. The detachable spouts can withstand 135°C for autoclaving.

6. Maintenance is even easier with full access to fittings from the front, faster water isolation and rapid access to filters, check valves and the thermostat.

Testing made simple with the revised HTM04-01

Changes to HTM04-01 mean that the regular testing procedure for thermostats is far simpler and faster. On average it takes around 2-3 minutes to check a thermostat providing everything is working OK. The diagram below outlines the procedure.

Measure and record the mixed water temperature at the maximum flow rate. Adjust if required.

Isolate the cold water supply. If there is no flowstream after 5 seconds restore the cold water supply.

If there is a flowstream, collect water for 60 seconds. If it is less than 120 ml, restore the cold water supply.

After 15 seconds record the mixed temperature again. If it hasn't changed more than 2°C, the fitting has passed.

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