



Water Safety & Hygiene

Who we are

BEAMA's Water Safety & Hygiene group represents the commercial brassware industry. Members' products provide safe, hygienic and economic water storage and distribution in sectors including healthcare, education, sport and leisure, military and commercial properties.

What we do

The group raises awareness and provides education on the selection, installation, maintenance and use of commercial brassware products.

Part of the BEAMA trade association, this new group has incorporated the BEAMA TMVA (Thermostatic Mixing Valve Association). Its title reflects a broader product scope that now includes a wider range of valves and other products, enabling a shift of focus from point of discharge solutions to a system approach.

The group aims to improve understanding of products and their place in water distribution systems, encouraging a practical approach to water safety and hygiene.

BEAMA encourages an industry focus on:

The right product – compliant and suitable for the installation

Best practice installation & maintenance – following manufacturers' instructions and industry guidance

A holistic approach to Water Safety & Hygiene – ensuring all parts of a system are addressed

Thermostatic Mixing Valves



TMVs accurately control water temperatures for hand-washing, bathing, showering and bidets. They are designed to maintain the desired water temperature, even when the incoming water pressures or flow rates change.

TMVs provide two important solutions:

- Allow water to be stored and circulated at temperatures that combat Legionella bacteria – while ensuring water is delivered at a safe temperature
- Prevent scalding injuries – these can be fatal, especially to vulnerable groups such as the young and the elderly, and sadly 20 people died as a result of contact with hot water across England and Wales in 2011. Failing to fit or removing a TMV will increase the risk of scalding.



The benefits of TMVs are endorsed in many official safety regulations and guides:

- Building Regulations Part G
- Department of Health HTM 04-01
- HSE ACoP L8 (Control of Legionella)
- HSE HSG220 (Health and safety in care homes)
- Department for Education BB87
- NHS list of preventable 'Never Events'
- BRE IP 14/03



Product quality is ensured by compliance with:

- approval schemes TMV2 and TMV3 (operated by BuildCert and based on European standards)
- WRAS (Water Regulations Advisory Scheme)
- D08 (for valves used in NHS facilities)

The TMVA helped to develop these important regulations, guides and standards by engaging fully with public bodies and by publishing its own Code of Best Practice. The Water Safety & Hygiene website contains detailed FAQs and the group provides a reliable service of answering technical queries. BEAMA will continue its work to promote correct design, installation, use and maintenance of TMVs.

Progressing to the Water Safety & Hygiene group means also using members' expertise around the products on pages 3 and 4, allowing the group to promote best practice that has a larger impact on improving the safety, hygiene and economy of the whole system. BEAMA believes issues in water systems can almost never be solved by addressing just one part, be it products, setup or usage – the infamous silver bullet does not exist.

Water Safety & Hygiene product benefits



Pressure reducing valves cover a wide range of valves that share a common function – reducing a high inlet pressure to a lower more desirable outlet pressure.

Benefits

- Limit supply pressures that are too high
- Maintain a constant system pressure even when the inlet supply pressure fluctuates
- Protect valves and appliances from damage caused by excessive pressure
- Can reduce water use, as lower pressure entails less water usage
- Minimise noisy pipe work

Balancing valves provide either hydraulic balance (in hydronic heating and cooling systems) or thermal balance (hot water systems) in residential or commercial buildings.

Benefits

Hydraulic balancing benefits system efficiency by regulating supply of energy to individual circuits or heat exchangers, and reduces the pumping requirements by preventing short circuiting during peak demand.

Thermal balancing brings safer hot water by preventing conditions that encourage microbiological activity. It optimizes the time required to provide hot water at desired temperature to the outlet and minimizes wastage of water.



Isolating valves are designed to stop a fluid in a pipeline to allow maintenance or repair of a section of tube or piece equipment downstream of the valve.

Benefits

A wide range of type, size and material mean isolating valves can provide solutions for most popular pipe connections.

Isolating valves are specified according to the benefits of the valve type:

- Best flow characteristics (full bore gate)
- Reduced water waste (reduced bore)
- Lighter in weight (butterfly valves)
- Quick action closure (quarter turn valves)



Backflow prevention devices ensure that contaminated fluid does not flow back into the water supply line. The choice of backflow prevention device is determined by the fluid risk category downstream of the device.

Benefits

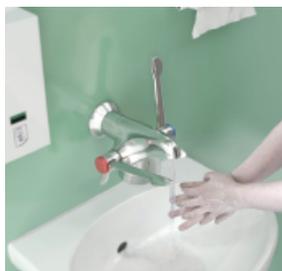
Backflow prevention in whatever form protects the water supply line from contamination. The consequences of not providing any kind of backflow prevention can be severe and in some cases fatal – hence the dedicated backflow prevention section in the Water Supply (Water Fittings) Regulations 1999.



Product benefits & BEAMA activities

Taps and showers

Taps are valves that control the flow of water at basins or sinks. Mixing taps blend the incoming hot and cold water to produce water at a desired temperature.



Showers vary in mounting type, pipe exposure and kit form. Showers can be supplied with pre-mixed water, or incoming hot and cold water can be blended in the shower valve to the desired temperature.

Both taps and showers are available with manual, automatic and electronic operation.

Benefits

- Reduce water use with flow regulator or self-closing mechanisms.
- Self-closing mechanisms are more hygienic, reducing contact with contaminated surfaces.
- Reduce the risk of scalding through preset maximum temperature limiters, pressure balancing mechanisms or integral TMVs with anti-scald failsafe.
- Concealed or recessed showers are anti-ligature when the control and shower head have smooth surfaces with no ligature points.



BEAMA Water Safety & Hygiene activities

BEAMA Water Safety & Hygiene will build upon the TMVA's significant successes to become further established as an expert knowledge base – offering engineering and design expertise crucial for preventing scalding and restricting contamination.

The current activity plan includes contributing expert insight, through European association CEIR, to revisions to EN1111, EcoDesign and Labelling, CPR, WEEE and RoHS. The group has also recently provided input to L8, HTM 04-01, BuildCert schemes and WRAS, and is developing new CPD training.

BEAMA invites all manufacturers, public bodies and associations to engage with us and promote best practice for Water Safety & Hygiene.

