

NEW TAPWARE STANDARD PASSES THE TEST

The newly revised version of AS 3718 is a welcome update on past documentation, writes **Paul Oliveri** from PROVE Standards and Engineering.

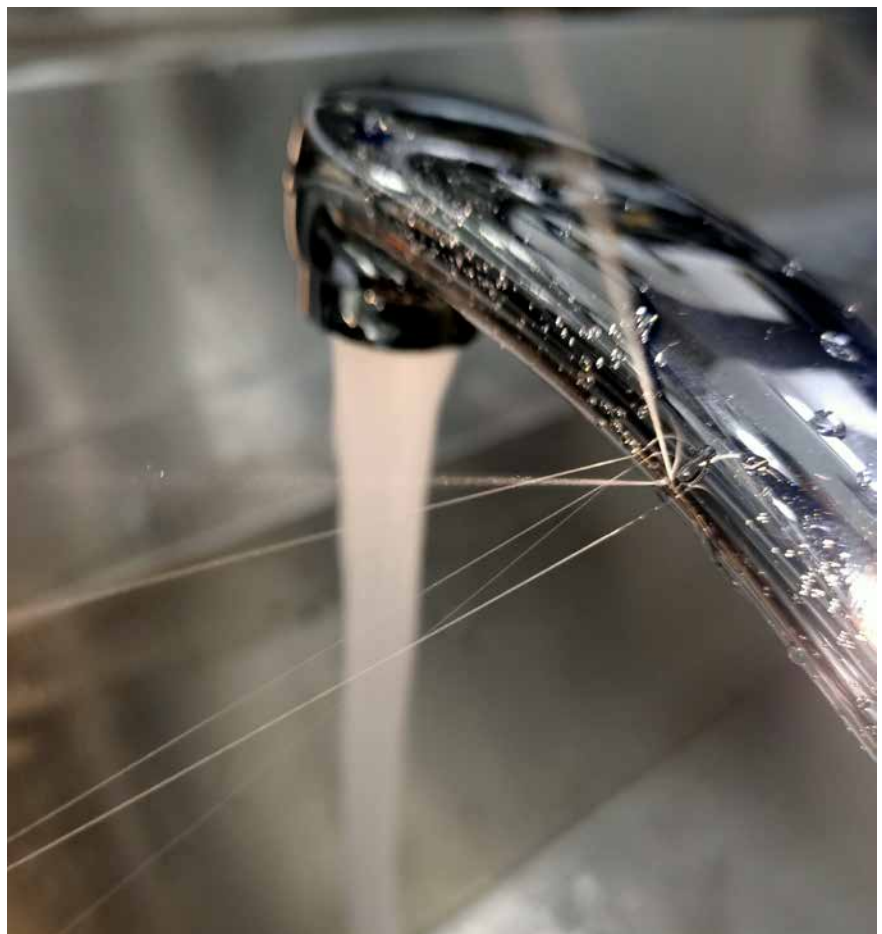
Tap mounts come loose? Spout or tap body started leaking? These are issues that a plumber can encounter just after fitting off or even months after a job is completed, and often it's the plumber who is in the firing line from the client. You would find no shortage of stories from plumbers who have had issues with substandard tapware products that seem to have 'made it through the cracks' and become available for sale.

So, who is watching the door at the quality department for tapware in Australia? That would be AS 3718, the tapware standard that ensures that the material, manufacturing, and performance requirements of tapware sold in Australia are up to scratch. Like all Australian standards, AS 3718 is a dynamic document that combines input from laboratories, industry partners, manufacturers, and plumbers to ensure it remains relevant and up to date with new trends in materials, styles, and the performance of tapware sold in Australia.

The third edition of AS 3718 has recently been released, and with it comes new requirements for surface mounting strength, a new specification on the hydraulic strength of spouts, and more rigorous endurance testing requirements for rotating spout designs. Does that mean the 2021 edition of AS 3718 will make tapware less prone to the failures mentioned above? You bet it will! And here are some key points where it will make a difference.

SURFACE MOUNTING STRENGTH

Under previous versions of AS 3718, tapware was deemed compliant if it could withstand a 50kg pull out force without deforming the tap or its mounting hardware. Given no



The newly revised standard AS 3718 is designed to enhance quality control provisions, making life easier for plumbers.

one operates a tap by trying to pull it straight up and out of the bench, it didn't reflect a real-world usage scenario.

AS 3718:2021 address this by requiring a torque to be applied to the body of the tap rather than an axial force. The revised requirements simulate someone pulling the spout downwards towards the benchtop under a 50Nm torque, which is more reflective of a real-world loading scenario where the mounting hardware must

remain undeformed and functional. Additionally, the loading is now applied 360° around the tap to ensure the mounting hardware such as threaded rods and washers are fully stressed in all directions.

SPOUTS & PRESSURE

The revised AS 3718 now also has provisions for ensuring areas that do not see a permanent hydrostatic pressure are tested to ensure they are structurally sufficient. This new

requirement means that not only does the tap body and its shut-off device need to be tested hydrostatically, but the waterways after the shut-off device such as the spout must also be subjected to a pressure test.

Spouts with restrictive flow controllers fitted to get high water star ratings can see increased dynamic pressures within the spout during use, which can fatigue and crack the spout. This problem has become a common failure point in recent years. This new requirement ensures that the spout and its delivery waterways and seals are capable and fit for purpose when under a dynamic flow pressure state. On top of additional pressure requirements, the spouts of rotating taps are also now required to be stress-tested under a prolonged endurance test to ensure that repeated rotation of the spout does not lead to leakage and premature failure of the rotating hardware seals.



Plumbers often cop the blame for poor-quality products.

So, what does this mean for plumbers installing tapware in the future? The additional requirements added to AS 3718:2021 ensure that tapware is tested to a more rigorous set of conditions, and, more importantly, a

more realistic set of scenarios that better reflect the real-world usage conditions of in-service tapware. All of which can only help to increase the quality of products made available for sale in Australia, and hopefully reduce the call backs for plumbers from leaking spouts and wobbly taps.

And what if you are a plumbing professional and want to have your say? Or perhaps help push the conversation on issues you are seeing in the field? Providing a submission or becoming involved in the process of revising and drafting standards may be the best way to help weed out recurring issues in the tapware and plumbing products space. ■

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