

ABOUT US – The Incredible Aussie Made Dam Buster Story

Faced with a never-ending list of flooded buildings with seriously non-compliant box gutter roof drainage systems, and in nearly all cases, having no satisfactory available means of fixing them, one day Forensic Plumbing Investigator Russell Kirkwood had an idea.

After extensive discussions with business partner and Chartered Loss Adjuster (Insurance) Expert David Pockett, the first Dam Buster rainhead was made in Melbourne in 2016 as basically a 'passion project'.

The Dam Buster rainhead invention incorporated all of the requirements of Australian Standards and roofing Handbooks into a single, highly innovative and great looking rainhead device. Rainheads had been around for centuries; but nobody had ever thought of this solution before. It's incredible to think that every single rainhead made in Australia to this time, even by major industry players, was also non-compliant with the mandatory standards and unfit for purpose. Furthermore, the various state and territory regulators were doing nothing about it because they thought the problems were 'unfixable'. Fortunately, Australian ingenuity was up to the task of finding a solution that worked, straight out of the box.

To further develop the rainhead and ensure the fundamental design was sound and able to pass all necessary tests to meet the mandatory Australian Standards, Russell and David sought assistance from two very highly respected Forensic Engineers, Richard Kingston and Rowan Gregory, both of whom had worked extensively in the insurance repair field.

Initial tests were extremely promising, demonstrating that the rainhead performed brilliantly from a hydraulic perspective. Indeed, the original design was so good that it has remained fundamentally unchanged ever since the first one was made.

The 'Dam Buster' name originated due to the similarities between our rainhead invention and the weirs that can be seen on large scale water reservoirs (dams) which need the ability to safely overflow potentially huge volumes of water. We also recognised that the dubious design methods for contemporary low pitched metal roofs proliferating at an unbelievable rate across Australia, were also creating virtual 'dams' on the roofs of buildings but without any adequate overflow provision – resulting in water-logged disasters left, right and centre! And finally, our vision was to burst onto the scene and change the game from flooded buildings and crappy products, over to a compliant, highest quality roof drainage system that can be relied on by everyone – even during extreme weather events.

The Dam Buster rainhead was launched onto the Australian market in late 2017 and was quickly pushed onto the national stage in 2018 when it took out an Australian Good Design Award (Hardware and Building products).

The Dam Buster team has since designed an additional range of fully integrated, equally innovative, and world-first box gutter drainage products consisting of a free flow sump, a range of side outlet devices and also a range of elbow devices, all of which have created yet another revolution in box gutter design.

Formal hydraulic testing of the rainhead was initially carried out by Professor Terry Lucke of the AHSCA Research Foundation at its purpose-built test rig at the University of the Sunshine Coast. That

testing against the Australian Standards further confirmed the rainhead design worked and also performed to the highest possible level. Subsequent products were tested 'in house'. Russell Kirkwood built Dam Buster's first test rig inside a factory in Springvale with the assistance of an experienced building and plumbing company, who generously provided Dam Buster space within their factory in the early years. All in-house testing was closely supervised by another of Australia's leading hydraulics experts, Adjunct Associate Professor Robert Keller of Monash University.

Roof drainage has always relied on the power of gravity, but the revolutionary approach taken by Dam Buster meant that our designs easily achieve what would have been, only until recently, considered absolute miracles. This simple approach has re-written the book on rainheads and box gutters right across Australia.

The remarkable thing really is that none of these products had ever been invented before. From one revolutionary idea, Dam Buster has now created an entire range of products that are genuinely world firsts; an entire roof drainage system, which is fully modular and 'off the shelf'. The system is the "Ikea" of roof drainage but simpler – and also very highly cost effective.

Roof plumbers and builders who convert to the Dam Buster system don't go back. Architects and Building Designers immediately see the amazing flexibility the system adds to their designs, and which in turn helps them to materialize even more spectacular visions. Hydraulic Engineers also suddenly now have a very simple design method available providing assurance that what they specify works, even under severe conditions. Finally, homeowners also benefit by not only having a fast and cost-effective roof drainage system installed, but also by having absolute confidence their homes will not leak from box gutters even in very significant storm events.

No other manufacturer of box gutter products anywhere in Australia can remotely match this story of genuine innovation and engineering excellence. The fact is that nobody anywhere in the world has anything like the Dam Buster products– and that's why we have also invested in an extensive number of patents and given all of our products a range of other intellectual property protections both internationally and at home.

Dam Buster is a 100% Australian good news story which will have impact across the world. This impact will also include an enormous sustainability and environmental benefit due to the large reduction now easily achievable in building damage and contents losses commonly caused by water ingress from defective roof drainage. And with the increasing frequency of severe weather events, the timing for these amazing products also couldn't be better.