

Geberit Pluvia

■ GEBERIT

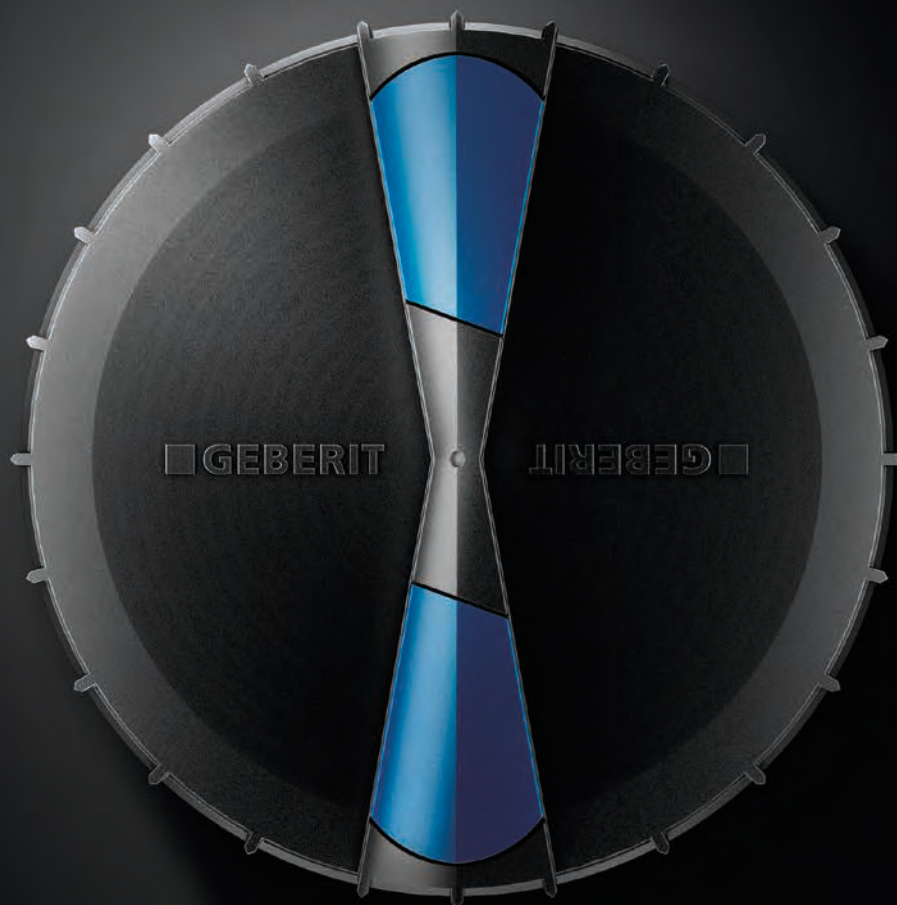
Let it rain

Superior roof drainage



Know-how
from
Switzerland

Superior roof drainage



Space saving. Improved efficiency. Design freedom.

- Reduced pipe diameters, less downpipes, no grade on horizontal pipes; increased ceiling height
- Compact outlet design with high flow rates through smaller pipe diameter
- Easier design using Autodesk® Revit® with BIM data

Siphonic drainage

Fewer pipelines, superior performance, more usable space

Geberit Pluvia drains roofs more efficiently and reliably; performing at its best under the heaviest rainfall.

Siphonic roof drainage requires less pipes and fittings than conventional drainage.

The use of smaller pipes with no gradient frees up valuable space.

Greater design freedom in planning, reduced construction costs and improved functionality are all good reasons to choose Geberit technical expertise.

Efficient roof drainage

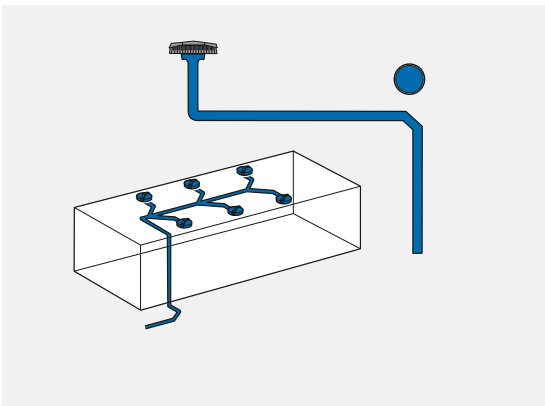
Fewer roof outlets and downpipes.
No fall on horizontal pipes. More space.

Geberit has been designing and perfecting siphonic roof drainage systems since the 80's. Today Geberit is a world leader, with Pluvia siphonic drainage systems having been installed in more than 30 countries. Geberit has more than two decades of experience in the Pacific region.

Some of the most ground breaking architectural designs have been made possible thanks to Pluvia siphonic technology. Large roof areas can be drained using fewer pipes and simplified hydraulic designs, releasing architects from the restrictions of conventional roof drainage systems.

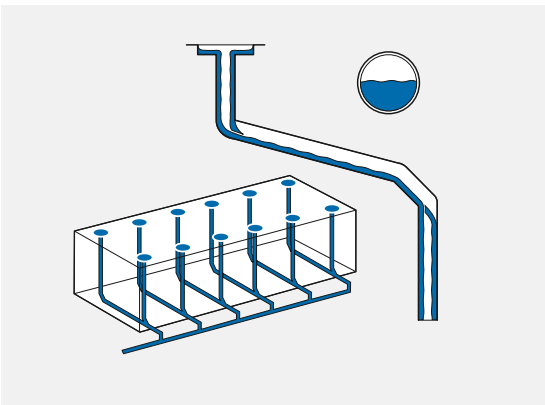
Drains more rainwater using half the pipe size

Siphonic roof drainage



- Fewer roof outlets and downpipes
- Smaller pipe diameters
- Self-cleaning system
- Horizontal pipes laid flat
- More valuable space
- Less material and labour

Conventional roof drainage system



- Many roof outlets
- Many partially-filled downpipes
- Large pipe diameter
- More in-ground pipe network
- Horizontal pipes installed with fall



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- Architectural flexibility due to the pipe layout providing more usable space
 - High flow creates an efficient self-cleaning system
 - Fewer outlets and downpipes results in less material and labour
 - HDPE is fully recyclable and meets Green Star requirements
 - Impact resistant material suits trafficable areas
 - Suitable for rainwater harvesting

Proven reliability

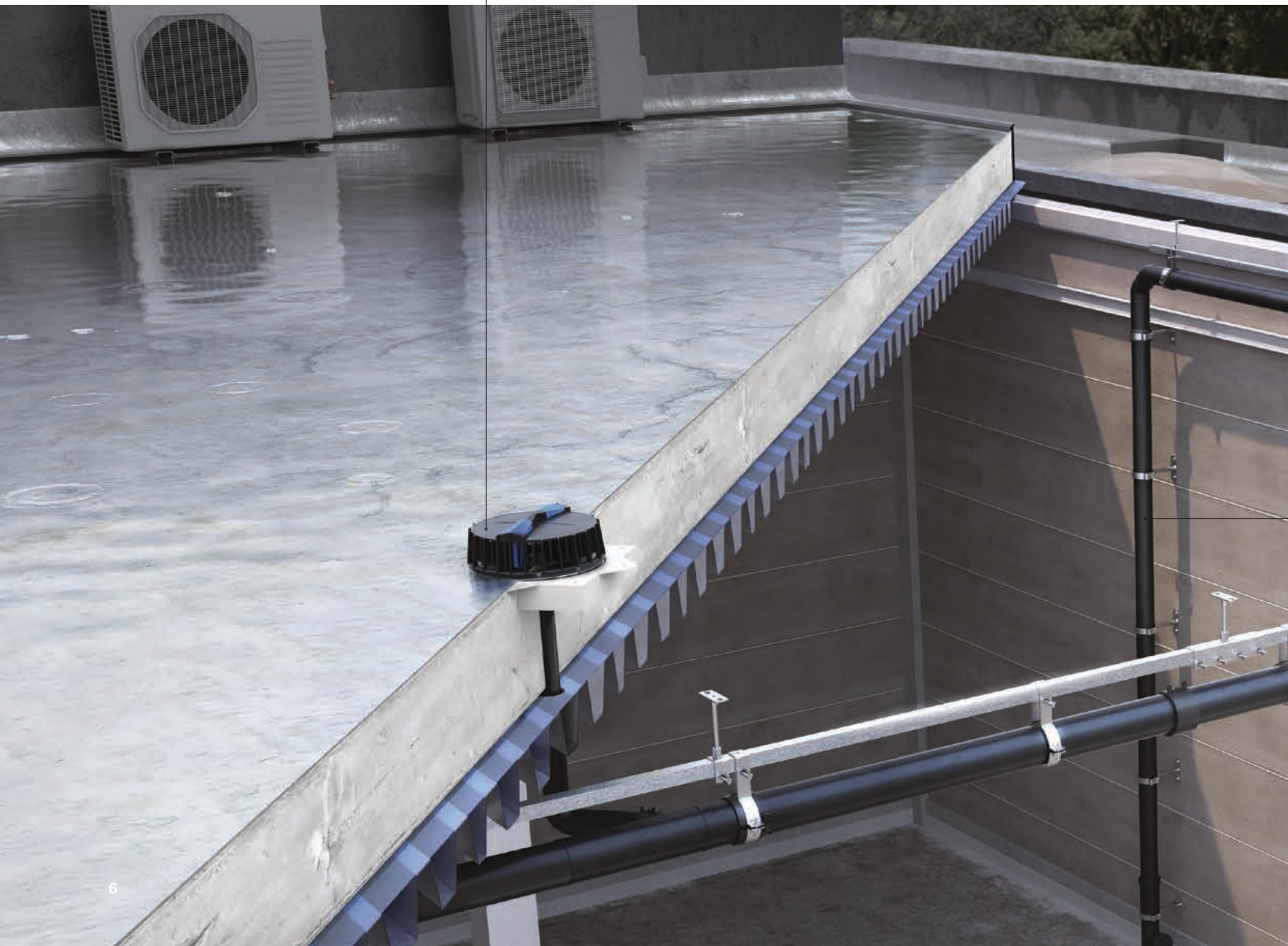
One system from the roof to the in ground storm water connection. Perfectly matched components ensure the system is balanced and functions flawlessly.

Using high quality materials ensures durability and cost effective operation.



The Geberit Pluvia roof outlets

- All outlets are factory tested. Quality and performance are guaranteed
- High efficiency design allows large roof areas to be drained quickly with fewer outlets
- Standardised sizes and parts make planning and installation easier than ever before
- Rotating lock bar sealing allows quick and easy installation and maintenance





Geberit pipes and fittings made from HDPE

- A tried and tested Geberit piping system for long term performance and durability
- Totally sealed system. Extremely robust welded joints.
- Impact, UV and corrosion resistant material
- Robust material and high connection strength makes it suitable for negative pressure and high velocities
- Suitable for casting in concrete
- Withstands extreme temperatures



Dedicated roof or gutter outlets Makes design easier

- Standardised design for the most common outlets - 12 to 25 L/s
- Easier design and selection due to simplified range
- New compact outlet design is easier to handle and install
- New rotating lock bar makes installation and maintenance quicker and easier

Flat roof

Geberit Pluvia outlets can be installed on a wide variety of roof types. They can be fastened to the roof and are suitable for use with all types of waterproofing systems.



Gutters

Geberit Pluvia gutter outlets have a compact design for use in gutters from 300mm.



Geberit Pluvia outlets

Optimum solution for all roof types and applications

	APPLICATION	
CAPACITY (L/s)	ROOF	GUTTER
12	 <p>359.105.00.1 1431095</p> <p>359.108.00.1 1431096</p>	 <p>359.111.00.1 1431097</p>
19	 <p>359.034.00.1 1431066</p>	
25	 <p>359.098.00.1 1431091</p> <p>359.099.00.1 1431092</p>	 <p>359.100.00.1 1431093</p>
45	 <p>359.345.00.1 1433199</p>	 <p>359.342.00.1 1433544</p>
60	 <p>359.346.00.1 1433545</p>	 <p>359.343.00.1 1433143</p>
100	 <p>359.347.00.1 1433546</p>	 <p>359.344.00.1 1433144</p>



Geberit and Reece have been supporting plumbers, builders and designers in Australia for almost 20 years. Reliability and trustworthiness are key factors when it comes to supporting large projects.

Geberit and Reece work together to provide the product, technical support and installation advice for any siphonic roof drainage project. Hundreds of projects have been successfully completed in Australia demonstrating that siphonic drainage has significant benefits over conventional roof drainage.

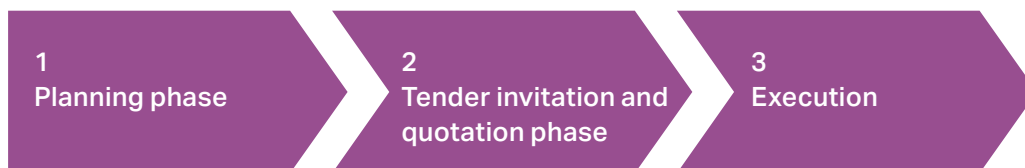
A strong partnership

Technical support with 40 years experience

For over 40 years, Geberit has supported hydraulic engineers, plumbers and builders around the world in the use of Geberit Pluvia siphonic roof drainage.

Thanks to the in-house product development and research in the field of hydraulics, customers have access to Geberit's comprehensive market and technology expertise. Reliability, proven performance and trustworthiness are key factors when it comes to supporting complex projects.

Geberit provides quality assurance, transparency and support, with our product experts available at every phase of the project. For long term piece of mind, Geberit will provide warranties on Pluvia projects installed to the correct specifications.



1 In the planning phase

- Geberit ProPlanner software for designing Geberit Pluvia systems
- Hydraulic calculation directly in Autodesk® Revit®

2 In the quotation phase

- Consultation during the tender process
- Assistance with tender preparation
- Detailed material lists

3 In the execution

- Construction site training for plumbers
- Installation advice
- Reliability of supply through the Reece plumbing network
- Support when design changes are required
- Final certification and warranty



A program for success

Easier design of Geberit Pluvia siphonic roof drainage

Geberit supports builders, developers, architects, hydraulic engineers and plumbers with the in house software, Geberit ProPlanner, for planning and designing siphonic systems. Geberit also offers parametric BIM (Building Information Modelling) data and a plugin for hydraulic balancing the system directly in Autodesk® Revit®.



Geberit ProPlanner

Geberit's in-house siphonic roof drainage design software has been refined over 40 years.

Geberit ProPlanner can be used to design and optimise the configuration of the overall system, by determining the required number of roof outlets and pipe diameters. With just a few clicks, a fully dimensional and calculated plan is created. Isometric drawings, hydraulic certificates and material lists are available as outputs.

Geberit Pluvia design made easier in Autodesk® Revit®

ProPlanner now has a plugin for Autodesk® Revit®. This enables seamless integration with the planning, design and construction phases of a project.

Designs are quicker and easier to update and allows for better coordination across

trades. When changes are made, quick recalculations are easier.

Geberit provides BIM data for Autodesk® Revit® with Revit® files for all HDPE components used in Geberit drainage systems. Building owners and maintenance engineers will benefit from the BIM data that is now available.

Geberit Pluvia for greater cost effectiveness

Darling Harbour Live, Sydney CBD

ICC Sydney is a \$1.5 billion development being delivered by the NSW Government and Darling Harbour Live as the epicentre of a 20-hectare transformation of Darling Harbour, comprising a vibrant mix of world class convention, exhibition and entertainment venues, a luxury 5 star hotel and a new urban neighbourhood including commercial and residential developments and a new city square.

Geberit Pluvia was specified for the siphonic roof drainage as it offered a number of clear advantages that resulted in significant savings in usable space, with a simpler pipe layout, fewer downpipes and floor penetrations. This translated into more saleable space and improved the value of the development.

Adam James is the hydraulic consultant for Darling Harbour Live. Adam is very familiar with Geberit products, having specified Geberit Pluvia and HDPE in many other projects.

Adam was also keen to call on the expertise of the Geberit team, taking advantage of the extensive support with free onsite training and design assistance.

"Matthew Lloyd, one of Geberit's Hydraulic Engineers, provided hands on knowledge for the team of plumbers we had onsite. Matt assisted with onsite refresher courses in the use of HDPE, preparation and checking that joints had been finished correctly".

Adam James
Hydraulic Consultant



The same robust Geberit HDPE was the preferred choice for the trade waste pipework. Today's high tech food preparation machinery operate at very high temperatures, with modern dishwashers and combi ovens responsible for bursts of water at boiling, or close to boiling, temperatures. Food preparation also generates a large amount of grease and fats, which can clog traditional PVC piping. Geberit HDPE is robust enough to resist grease and fat build up and is resistant to 95% of all commercially available alkalis, acids and chemicals.



Geberit Pluvia for more design freedom

Marco Apartments, Melbourne CBD



The dual towers of the Marco development on Melbourne's Southbank are destined to become landmarks on the Melbourne skyline. At 36 and 40 levels towering up to 130m above street level, the height of the development posed significant challenges for plumbing contractors, Complete Plumbing Contracting.

Initial construction plans had specified conventional building and roof drainage. Director Ben Young understood the advantages of Geberit Pluvia and Sovent. By using Sovent fittings he could install a single stack and by using Geberit Pluvia reduce the number of downpipes. Sovent fittings offer significant economy of scale: they increase the capacity of the discharge stacks and eliminate the need to install a parallel ventilating stack.

Unlike conventional roof drainage systems, Pluvia drains large volumes of water using fewer pipes of smaller diameter and pipes can also be installed with no fall.

This results in more usable space that increases the value of the development.

"We always specify Geberit HDPE trade waste and drainage system. We've installed Sovent and Pluvia on all the high rise developments we've been contracted to because of their reliability and cost saving factor. We had the specification on the Marco development updated to include Sovent, Pluvia and Geberit HDPE piping. We trust Geberit products to get the job completed without any problems".

Ben Young, Director
Complete Plumbing Contracting

Space saving with Geberit Pluvia

Wollongong Hospital car park, NSW

A clever siphonic roofing solution from Geberit has reduced the need for piping in Wollongong Hospital's car park redevelopment. By using Pluvia siphonic drainage, the number of downpipes were reduced by 90% from 26 to only 2 downpipes. This created more space for car parking.

The innovative design of the Geberit Pluvia siphonic drainage system overcame design and cost challenges, including:

- A significant reduction in penetrations through concrete slabs for downpipes and roof outlets, thereby reducing installation costs
- Pipes were laid flat to maximise ceiling height and car park capacity
- Fewer downpipes reduced the risk of damage in high traffic areas



Conventional drainage systems require equal volumes of air to pass through the pipe when draining water from roofs, this limits the velocity and volume of water, resulting in larger pipe sizes. In a Pluvia siphonic drainage system, air is prevented from entering the system and a suction develops within the pipework, thereby increasing velocity and quickly draining large volumes of rainwater from the roof through the pipework to the stormwater system.



The combination of the Pluvia outlet design and robust HDPE increases the flow capacity at each outlet. The flow velocity within the system increases the efficiency of rainwater drainage significantly.

Pluvia outlets have a capacity of up to 100 L/s, meaning fewer outlets were required than in a conventional drainage system. The HDPE pipework is capable of withstanding high negative pressures and flowrates resulting in fewer down pipes and smaller diameters than a conventional drainage system. As fewer pipes had to be installed, so fewer bollards were required for protection against impact damage in car parking accidents. Overall, Geberit Pluvia siphonics achieved savings of 500m of pipe and more than 200 labour hours.

"Geberit's innovative piping solutions appealed to us as it significantly reduced the number of downpipes from 26 to just 2 which was one of the determining factors in our winning the contract. They solved our construction, practical and design issues."

Troy Williams, Project Manager
DM Plumbing

Flexibility in design with Geberit Pluvia

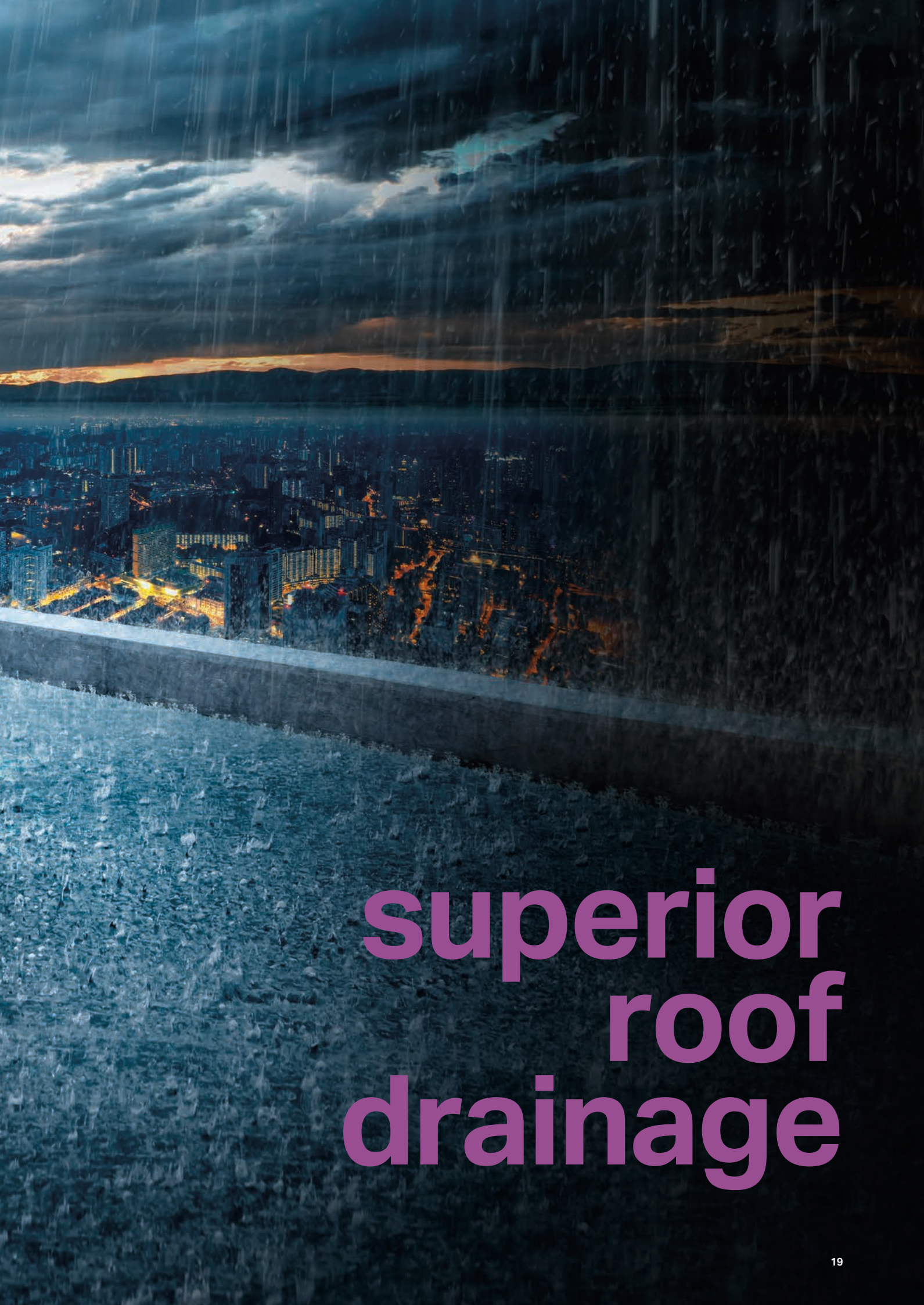
RAC Arena and Entertainment Centre, Perth CBD

Geberit Pluvia siphonic roof drainage proved its versatility for this project. The design freedom afforded by Geberit Pluvia allowed for the construction of a retractable roof, having initially been designed as a closed roof. This increased the value of the development as the arena is now an all-weather venue. It can host sporting events and take advantage of fine weather to provide an outdoor experience or offer shelter during inclement weather. It can also provide an enclosed sonic environment for rock concerts.



Geberit Pluvia





superior roof drainage

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