

GEBERIT PLUVIA

LET IT RAIN

SUPERIOR ROOF DRAINAGE



**KNOW
HOW**
INSTALLED



FEWER PIPELINES **MORE** **PERFORMANCE**

Geberit Pluvia drains roofs efficiently and reliably even under the heaviest rainfall. Because significantly less product material and space is required for siphonic roof drainage than for conventional systems, free space is created. Greater design freedom in planning, higher cost-effectiveness during installation and operation – all good reasons to choose Geberit expertise. Through tried-and-tested technology, innovative details and a holistic service, Geberit Pluvia has been setting new standards for many years.

More convenient and faster handling

- More compact construction and an ergonomic design for all Geberit roof outlets up to 25 l/s
- Rotating lock bar sealing for easy installation and maintenance
- Extra-long Geberit HDPE straight connectors for greater flexibility in terms of installation

Easier and reliable planning

- BIM data for Autodesk® Revit®
- Geberit Pluvia Product Finder

ROOF DRAINAGE WITH NEGATIVE PRESSURE

The right technology ensures a better result: While conventional systems simply allow rain to run off through sloping pipes, the compact Geberit Pluvia pipe system fills up quickly and extracts the rainwater from the roof using the resultant negative pressure. The Geberit Pluvia roof outlets prevent air from being sucked in and guarantee reliable performance. The result: double the amount of rainwater discharge at half the pipe diameter. There is also greater design freedom in terms of planning, since there is no longer any need for pipelines that have to be laid with a slope.

FEWER ROOF OUTLETS

Thanks to the high discharge rate of the siphonic system, fewer roof outlets are required. This results in savings in product material and the amount of work needed, while also preserving the roof.

FEWER DISCHARGE STACKS

Because the pipes are filled completely, fewer drains are required. The result: greater flexibility in planning.

FEWER UNDERGROUND PIPE CONNECTIONS

Fewer discharge stacks and fewer connections mean lower installation and material costs.

SMALLER PIPE DIAMETER

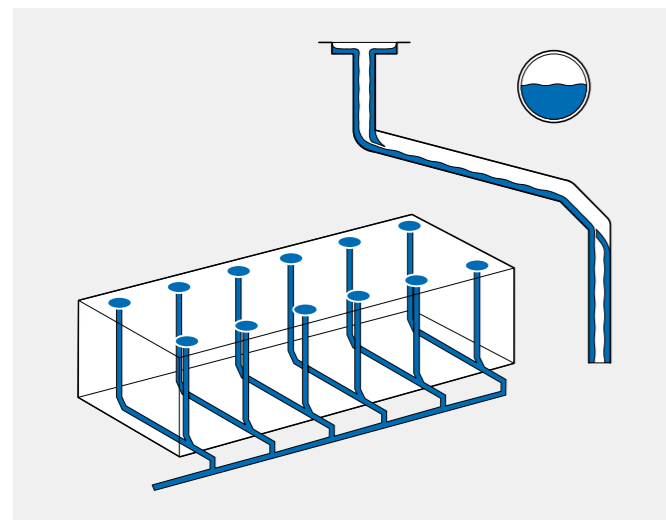
Geberit Pluvia pipelines are designed for complete filling. This reduces the pipe diameter to the bare necessity.

SELF-CLEANING SYSTEM

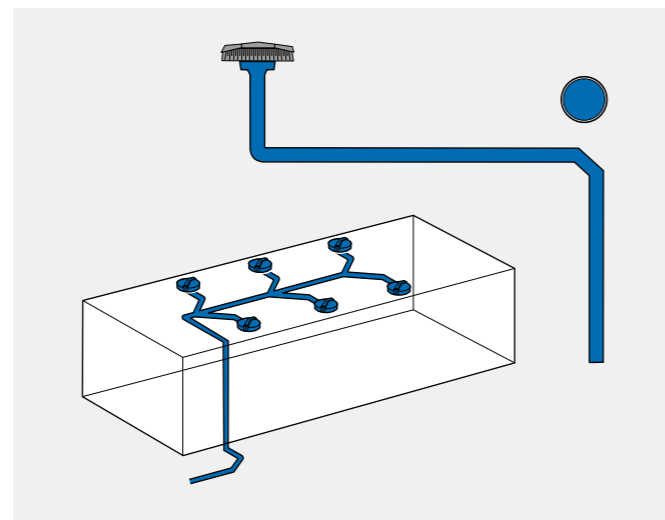
The high flow velocity of more than 0.5 m/s when the pipeline is filled produces suction which contributes to the self-cleaning of the system. This ultimately means less time spent on maintenance.

NO SLOPE

Because Geberit Pluvia pipelines are laid horizontally, the drainage system does not result in any loss of space.



Conventional roof drainage system



Geberit Pluvia siphonic roof drainage



- High savings in materials
- Fast installation
- Architectural flexibility of design due to optimal use of space
- High flow capacity results in efficient self-cleaning effect
- High performance and reliability
- Possible to pre-install the pipe system on the floor

ALL-ROUND RELIABILITY

One system from the roof to the underground pipe connection: Perfectly matched components ensure that the overall system functions flawlessly. Sophisticated details and a consistently high level of material quality reliably ensure durability, safety and smooth operation.



1 THE GEBERIT PLUVIA ROOF OUTLETS

- Outlets for all roof types
- Each roof outlet is tested individually for tightness at the factory
- The function disc prevents air from being sucked in
- Twist lock mechanism for easy installation



- Can be used as an emergency overflow system (with installation kit)



2 THE GEBERIT PIPES MADE FROM HDPE

- Wide range of diameters
- Maximum abrasion resistance, zero corrosion
- Totally sealed, substance-to-substance welding joint
- Can be safely used for extreme temperatures
- Safe against ageing caused by UV rays
- Cast in concrete possible

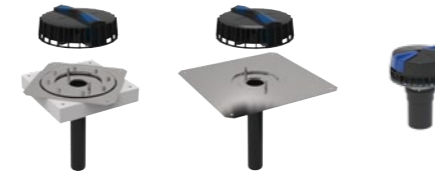


3 THE GEBERIT PLUVIA FASTENING SYSTEM

- All mechanical forces are transmitted to the square steel rail
- Fewer fastening points to the structure than with conventional fastening
- Can be installed easily using a hammer thanks to the universal tension wedges
- Ideal for lightweight roofs since there are only weak forces acting on the building structure

SUITABLE FOR MANY ROOFS

Siphonic roof drainage for all scenarios: Thanks to the modular construction and the many models of the Geberit Pluvia roof outlet, the system is suitable for almost all installation situations on large buildings and roofs. Required accessories for virtually all applications are available, and can make the system highly flexible. Whenever complex roof structures or difficult geometries pose a particular challenge, the Geberit team would be happy to work with you to find a solution.



Designation	Fastening flange	Contact sheet	Contact seam
Capacity	12 l / 25 l	12 l / 25 l	19 l
Application	Roof	Roof	Gutter
Materials	Plastic foils	Bitumen	Concrete/Metal

In regions with high rain fall intensity 45 l to 100 l outlets are available on request.



EXAMPLE 1:
CONCRETE ROOF WITH BITUMEN ROOF FOIL
Geberit Pluvia features a contact sheet that exceeds standard sizes and therefore makes for a better connection. Both the roof outlet for foil and the roof outlet for bitumen are directly fastened to the roof structure on site.

EXAMPLE 2:
LIGHTWEIGHT ROOF, INSULATED WITH ROOF FOIL AND THE GEBERIT VAPOUR BARRIER CONNECTION
Lightweight roofs benefit from the low static load thanks to Geberit Pluvia. The installation is performed with a flange connection. The long connection pipe effortlessly overcomes high insulation thicknesses. The Geberit vapour barrier connection can be used both for foil and bitumen.

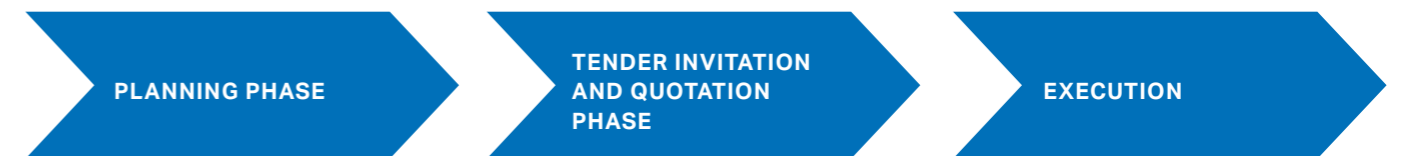
EXAMPLE 3:
WEIGHT-BEARING CONCRETE ROOF WITH BITUMEN ROOF FOIL
Green roofs and those that are suitable for promenade or parking decks are aesthetically pleasing and highly useful. Such roofs can be implemented with a supplementary set. The Geberit Pluvia supplementary set can be height-adjusted according to the configuration of layers.

EXAMPLE 4:
ROOF WITH STEEL GUTTER
Thanks to its compact design, Geberit Pluvia is also suitable for installation in gutters. Depending on the product material, the system can be installed using soldering or by means of a flange.



A STRONG PARTNERSHIP

Technical support with experience from more than 50'000 projects: For over 40 years, Geberit has supported sanitary engineers, plumbers and building owners around the world in the use of Geberit Pluvia. 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 and trustworthiness are key factors when it comes to supporting complex projects with optimal support services. The Geberit team is on site to provide help wherever it is needed.



IN THE PLANNING PHASE

- Consulting for Pluvia system conception
- Planning the number of roof outlets according to rainfall intensity
- Complete planning on the basis of construction plans
- Creation of isometrics with Geberit ProPlanner
- Material planning
- Provision of BIM content for Autodesk® Revit®

IN THE QUOTATION PHASE

- Assistance in preparing a quotation
- Creation of a material list with Geberit ProPlanner
- Offering of a complete system (outlets, fastening, pipes, tools)

IN THE EXECUTION

- Construction site training for plumbers and roofers
- On site inspections through Geberit consultants
- Support for change planning (incl. recalculations)
- Final project acceptance
- Maintenance training

FOR GETTING TO GRIPS WITH ALL YOUR DATA

A program for success: Everything starts with a good plan. That's why Geberit supports building owners, architects, engineers and sanitary engineers with the tailor-made Geberit ProPlanner software for planning and making calculations for medium-sized to larger projects. For Geberit Pluvia, Geberit also offers parametric BIM (Building Information Modelling) content.



GEBERIT PLUVIA PRODUCT FINDER

The information pool for all plumbers and sanitary engineers: the Geberit Pluvia Product Finder gives you access to the appropriate Geberit Pluvia roof outlet complete with accessories and installation instructions suitable for the respective roof structure. With just a few clicks you can find the right solution for your construction situation.

GEBERIT PROPLANNER

The system for calculating your roof drainage. The Geberit Pluvia module can be used to design the optimal configuration of your overall system. For example, it can determine the required number of outlets and the necessary pipe diameters.

With a few clicks of the mouse, a fully dimensioned and calculated plan is created. Isometric visualisation, hydraulic certificates, material lists and options complete with individual hourly rates are available straight away as output results. Geberit ProPlanner provides each detail in an optimal and logical visualisation.

BIM (BUILDING INFORMATION MODELLING)

Geberit provides country-specific BIM content for the popular Autodesk® Revit® software solution. Regular updates ensure that the content is always up to date, so you can also harness the advantages of holistic planning with BIM for Geberit Pluvia. This way, you can reliably avoid collisions with other technical building systems and everyone involved in the construction project can access the same version of planning at any time.

PLAYMOBIL LOGISTICS CENTRE FOR GREATER COST-EFFECTIVENESS

Germany's biggest toymaker is making more space for childhood dreams. Millions of toy packages are exported around the world every year and, with the company continuing to produce record volumes, a larger logistics centre is needed. Eight new storage halls with a total area of 80'000 m² have been built, featuring trapezoidal roofs the size of 12 football pitches: clearly a job for Geberit Pluvia roof drainage.

Because the pipelines are mainly routed horizontally and close to the ceiling, almost the entire converted room can be used for high-bay storage.

Teamwork was required at a height of 15 metres for this installation. The Geberit HDPE pipes and fittings were pieced together using a mobile electrofusion machine to create a leakproof overall system. This system was stabilised with the Geberit fastening system. This ensured a speedy installation of the surface-mounted, horizontal roof drainage pipes.



Playmobil logistics centre
Herrieden, Germany
↓



«Especially for this kind of mammoth project involving a huge amount of materials and coordination, it's important that Geberit is a reliable partner and that we have a cost-effective system.»

Wolfgang Schirmer
Schirmer planning office,
Sugenheim, Germany

«In terms of technology, Geberit covers a great deal with a good price-performance ratio. Because the individual components are perfectly fine-tuned to each other, installation can be performed both quickly and cost-effectively.»

Benjamin Heuchel, Project Manager
Güther Sanitär GmbH,
Feuchtwangen, Germany



1 WILLIAM STREET, BRISBANE

DELIVERS CUSTOMISED SOLUTION

A pioneer in the revitalisation of Brisbane's Queens Wharf district, 1 William Street, is the iconic structure transforming the city's skyline and government precinct.

Of the 74,853sqm of lettable area, developer CBUS has allocated 60,000sqm for the Queensland Public Service, with the government lease guaranteed for a 15-year term. With the capacity and function of the upper floors yet to be determined, Brookfield Multiplex and Axis Plumbing appointed Geberit to manage the challenge of "future-proofing" the building.

«For us, quality was everything – we needed a single source of supply that we could confidently rely on to buffer us against these undeterminable factors and was flexible enough to support whatever went in on those floors.

Geberit offered us an all-round technical solution that cannot be found elsewhere on the market; utilising their products and team meant we were able to satisfy our client's needs and expedite the bureaucratic consultation, documentation and approval processes.

Half the diameter of similar pipes, Pluvia solved the challenges presented the awning design and the tight service duct. Freeing up space in the service rises, it also offers a higher discharge capacity (up 100L/s). The efficiency and compact nature of Geberit's Sovent and HDPE drainage systems gave us greater flexibility and saw us reduce the amount of discharge stacks from 10 to six, which translates to significant cost reductions.»

Bruce McIntosh
Axis Plumbing

Having spent over 50 years developing this technology, Geberit continues to innovate and improve upon its Sovent fitting. Boasting a higher rate of 12L/s and with a smaller pipe dimension of 110 mm, the new High Flow embodies the advances of modern construction methodology and is a market leader. The multi-junction fitting maintains consistency in velocity speed while being compact in size and is a 4L/s improvement on the competition. This extra capacity translates into nearly double the number of possible fixtures. With capacity for 900 fixture units as opposed to the 500 offered by other models, Geberit and Axis were able to plan for any contingency presented by the unknown upper floors

VODAFONE ARENA FOR ADDED RELIABILITY

In order to fulfil the required UEFA standards and increase capacity to 43'500 seats, Istanbul's long-standing Beşiktaş football club decided to demolish the İnönü Stadium, which had been in use since 1947, and to construct an impressive new stadium directly on the Bosphorus.



«We played an active role in the project and were able to provide ongoing technical support. With the seamless cooperation between our on-site team and the experienced plumbers from the company carrying out the job, the project was carried out safely and successfully. We are very pleased at the level of customer trust in Geberit.»

Fikret Gencgel
Product Manager
Geberit Tesisat Sistemleri Ticaret Ltd.

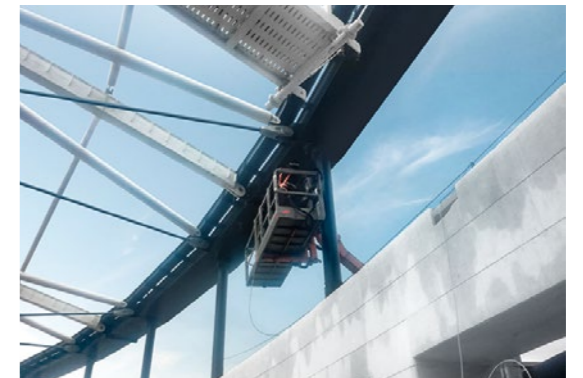


One part of the architectural concept was the impressive roof design, which posed particular challenges in terms of drainage. For example, the large overall size and the specific inclination of the roof called for the use of negative-pressure technology.

A solution was needed that would cope with as few stacks as possible with a distance of around 150 – 200 m to each of the roof outlets. On this basis, Geberit Pluvia was the obvious choice.

During the intensive preliminary planning stage, the team comprising the architect and construction company used the ProPlanner software and consulted the on-site Geberit project management team to find the economical solution they were looking for. The 125 roof outlets were reliably drained as required with only 19 stacks.

The installation had to be carried out using hoisting cranes because the structural conditions of the roof were unsuitable for scaffolding.



DARLING HARBOUR LIVE

GREATER EFFICIENCY

ICC Sydney is a 1.5 billion development forming the centrepiece of a 20-hectare revitalisation of Darling Harbour. The precinct includes world-class convention, exhibition and entertainment venues, a luxury hotel and a mixed-use neighbourhood with residential and commercial spaces.



↑ Darling Harbour Live Sydney

«Geberit team provided hands-on knowledge for the team of plumbers we had onsite. They assisted with onsite refresher courses in the use of HDPE, preparation and checking that joints had been finished correctly.»

Adam James
Hydraulic Consultant

Siphonic Drainage with Geberit Pluvia

Geberit Pluvia was selected for the siphonic roof drainage system due to its clear advantages: reduced pipe sizes, simpler layouts, fewer downpipes and minimal floor penetrations. This created significant space savings and increased design flexibility across the development. Hydraulic consultant Adam James specified Pluvia for the project and has worked with Geberit on many other developments. The team provided onsite training, refresher courses and technical support throughout installation.

Geberit HDPE for Trade Waste

Geberit HDPE was selected for the trade waste pipework due to its robustness and performance under demanding conditions. High-tech food preparation equipment, such as dishwashers and combi ovens, frequently discharges water at near-boiling temperatures, while grease and fats generated during food preparation can clog traditional PVC systems. Geberit HDPE resists grease build-up and is resistant to 95% of commercially available alkalis, acids, and chemicals.





RAC ARENA, PERTH

DESIGN **FLEXIBILITY**

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.

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