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FLAT ROOF DRAINAGE FOR EFFICIENT RAINWATER EVACUATION

SIPHONIC OUTLETS AND DRAINAGE PIPE SYSTEMS
FOR FLAT AND LOW-GRADIENT ROOFS

PIPELIFE
always part of your life

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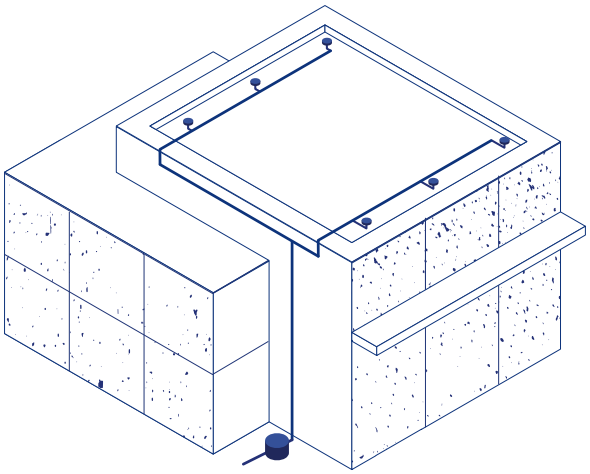
SIPHONIC DRAINAGE FOR FLAT-ROOFED BUILDINGS

Effective rainwater discharge systems are critical for ensuring the structural integrity and safety of flat or low-gradient roofs. Inefficient drainage can lead to sagging, overflow and leaks while also exposing your roof to fungal growth and insect infestations.

PIPELIFE siphonic roof drainage systems utilize negative pressure to evacuate rainwater at more than twice the speed of a traditional gravity system. By keeping air out, the siphonic mechanism produces a closed water column during drainage. Compared to gravity systems, this ensures a much higher flow velocity through smaller pipe diameters for fast and efficient water evacuation.



APPLICATION AREAS

PIPELIFE's siphonic solution offers high-capacity drainage for flat roofs of up to 3% incline and a minimum area of 150 m^2.

Compatible with a diverse range of roof types:

Cold Insulated Inverted Green

FACTORIES

WAREHOUSES

SHOPPING MALLS

AIRPORT TERMINALS

CONVENTION CENTERS

APARTMENT BLOCKS

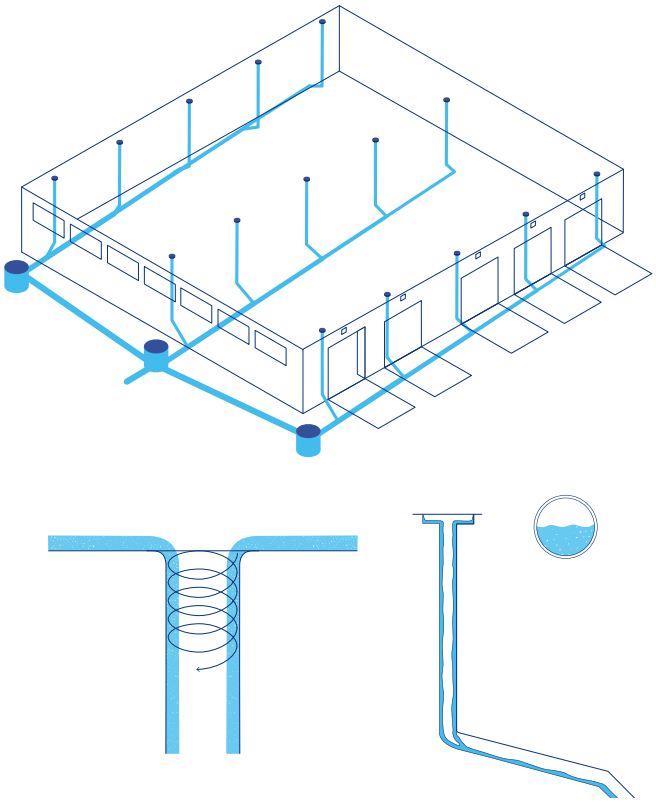
OFFICE BUILDINGS

HOTELS

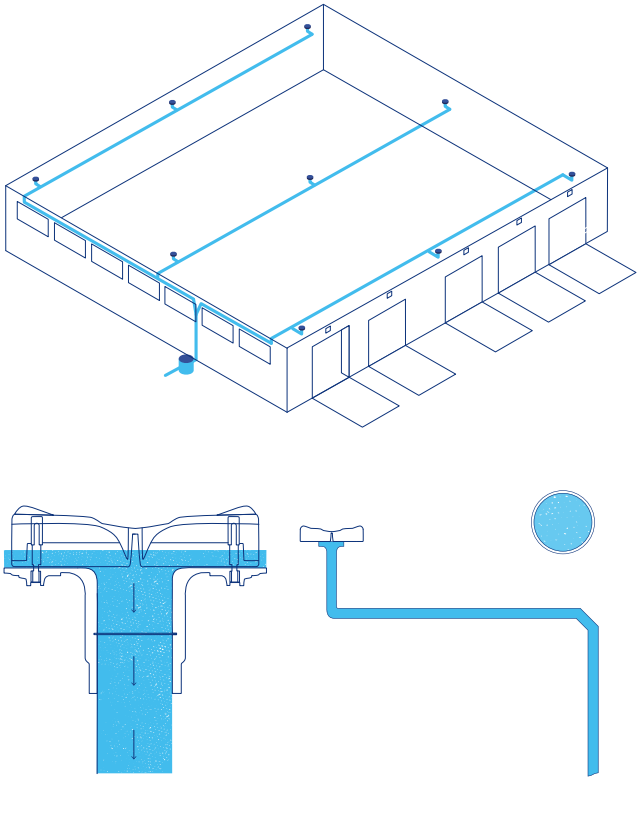
GRAVITY VERSUS SIPHONIC DRAINAGE SYSTEM

During periods of high precipitation, the siphonic apparatus draws rainwater into the downpipe at a flow rate of up to 20 l/s (DN75). This exceeds standard siphonic drainage speeds by up to 60% and is more than twice as fast as a conventional gravity system. As a result, PIPELIFE siphonic systems require far fewer outlets, downpipes and underground network connections than gravity systems.

Conventional drainage system



PIPELIFE drainage system



Where gravity systems allow a combination of water and air to enter, siphonic systems only permit water during drainage. Rainwater occupies the full inside profile of the pipe for more efficient evacuation at a higher flow velocity.

SAVE 25–55%

ON MATERIAL COSTS

- **FEWER PIPES, FITTINGS AND OUTLETS**
- **SMALLER PIPE DIAMETERS**
- **UP TO 60% LESS INSTALLATION TIME**

BENEFIT FROM ADVANCED RAINWATER DRAINAGE

FULLY UTILIZE AVAILABLE SPACE FOR COMMERCIAL ACTIVITY AND ARCHITECTURAL FLEXIBILITY.

Rather than being installed with a slope, connected pipes can run parallel to the ceiling at the highest possible point. This provides extra space to capitalize on your building's elevated areas for extra storage, increased commercial activity and greater design freedom.

AVOID UNNECESSARY REPLACEMENTS WITH ROBUST AND RELIABLE LEAK-FREE CONNECTIONS.

PIPELIFE siphonic system pipes are joined with butt-welded or electrofusion connections, providing tensile resistance and a reliably secure alternative to socket-fitting joints.

REDUCE INSTALLATION TIME AND IMPROVE SYSTEM RELIABILITY WITH PRE-FITTED SIPHONIC OUTLETS.

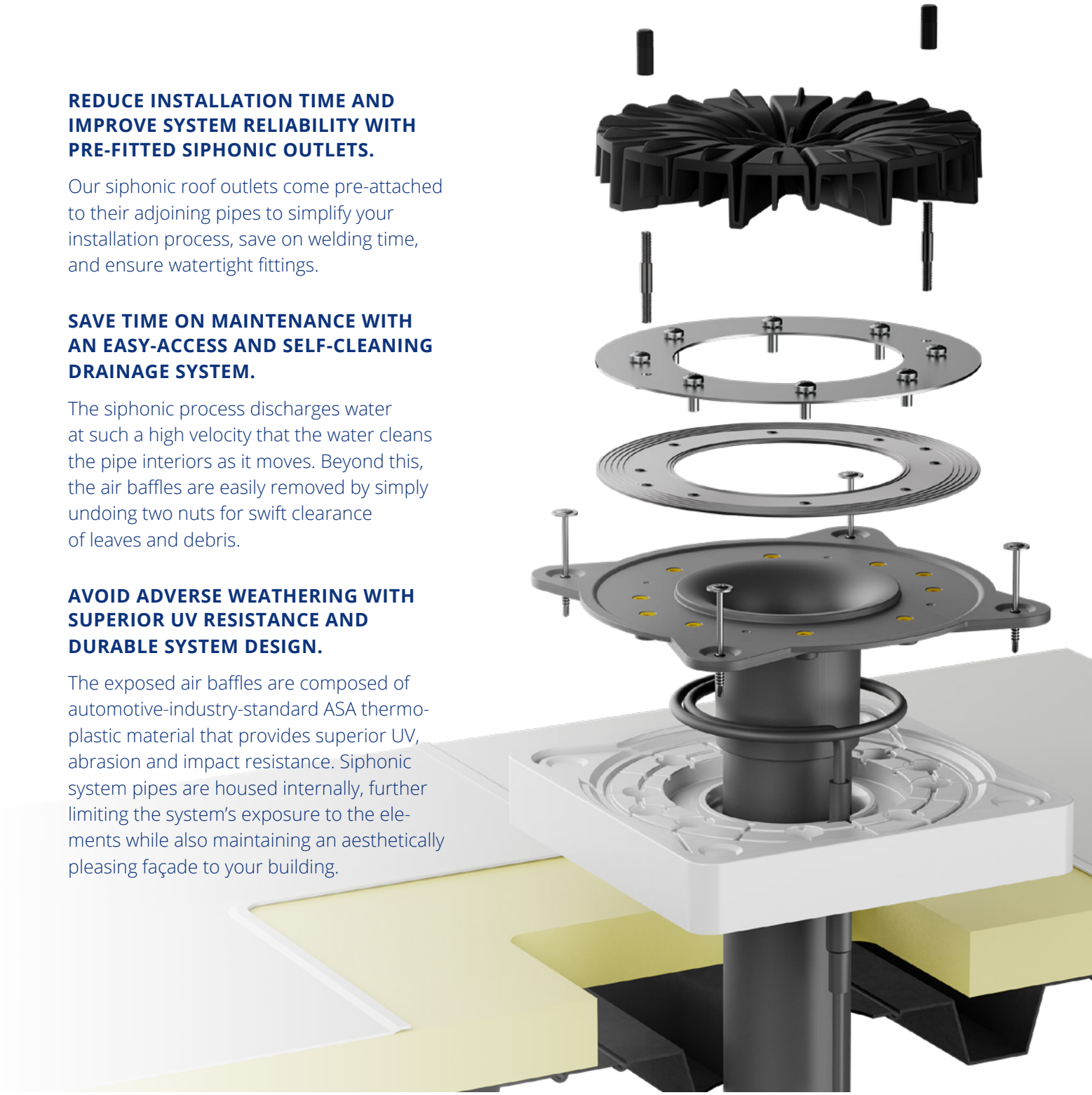
Our siphonic roof outlets come pre-attached to their adjoining pipes to simplify your installation process, save on welding time, and ensure watertight fittings.

SAVE TIME ON MAINTENANCE WITH AN EASY-ACCESS AND SELF-CLEANING DRAINAGE SYSTEM.

The siphonic process discharges water at such a high velocity that the water cleans the pipe interiors as it moves. Beyond this, the air baffles are easily removed by simply undoing two nuts for swift clearance of leaves and debris.

AVOID ADVERSE WEATHERING WITH SUPERIOR UV RESISTANCE AND DURABLE SYSTEM DESIGN.

The exposed air baffles are composed of automotive-industry-standard ASA thermoplastic material that provides superior UV, abrasion and impact resistance. Siphonic system pipes are housed internally, further limiting the system's exposure to the elements while also maintaining an aesthetically pleasing façade to your building.



+ 50

YEARS SERVICE LIFE

MEET THE HIGHEST NATIONAL AND INTERNATIONAL STANDARDS:

UNI EN 1519 VDI 3806 DIN 1986-100

UTILIZE DIGITAL TECHNOLOGY WITH BIM

Take advantage of Building Information Modeling (BIM) with our comprehensive BIM portfolios. We offer complete system design services based on your digital layout. However, if you prefer taking the process into your own hands, simply download our regularly updated siphonic roof drainage library to create fast, accurate and efficient designs.

LET US PROVIDE YOU WITH A COMPLETE DIGITAL DESIGN OR DOWNLOAD OUR LIBRARY

COMPLETE THE SETUP WITH LEADAX ROOV

Wienerberger Leadax Roov is the perfect accompaniment to a PIPELIFE siphonic drainage system. The innovative membrane has been produced from recycled PVB waste and can be recycled and reused at the end of its expected lifespan of 50 years for a fully circular solution. It is easily installed on a variety of roof types without open fire and it's off-white colour promotes solar reflection to minimize indoor temperatures.

Wienerberger

CREATE SUSTAINABLE VALUE

PIPELIFE is helping you meet your sustainability goals with eco-friendly products and practices. We continuously optimize our processes throughout the value chain while maximizing the service life of our products and ensuring they can be recycled or reused at the end of their lifecycle.

A SYSTEM THAT LASTS

Our specialists at PIPELIFE work relentlessly on improving design and materials to maximize product service lives. This is not only more economical for our customers, but it also minimizes the use of raw materials and the overall environmental footprint. PIPELIFE siphonic roof drainage systems have a service life of over 50 years.

CIRCULARITY AT ITS CORE

Our siphonic system materials, including all pipes, fittings, heads, and clamps, are 100% recyclable. We are also striving to increase our uptake of recycled raw materials throughout our product range. For example, you can further reduce your building's environmental footprint with Wienerberger Leadax Roov — a sustainable roof membrane made from recycled PVB waste that utilizes the residual flow from safety glass as its primary raw material.

PRUDENT PRODUCTION

We are constantly improving the energy efficiency of our processes by reusing production off-heat, installing photovoltaic systems and utilizing closed cooling circuits. We also deploy industry 4.0 technologies to measure and further reduce our energy and raw material consumption, as well as their related CO2 emissions. Quality management systems and environmental measures are implemented at all production sites ensuring we meet national and international standards such as ISO 9001 and ISO 14001.

ECOLOGICAL CHOICES WITH EPDS

Environmental Product Declarations contain standardized third-party verified data about the environmental impacts of products across their entire lifecycle. PIPELIFE has started working on the digitization of EPDs to ensure transparency and provide detailed insights into the environmental impact of PIPELIFE products.

EFFICIENT CONSUMPTION

We are focused on building systems that require significantly fewer materials than conventional methods. Furthermore, PIPELIFE promotes water resource circularity throughout our rainwater management range. Our siphonic drainage system is highly compatible and integrates seamlessly with PIPELIFE stormwater management networks for an all-encompassing rainwater solution.

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