NEW TO OUR PRODUCT LINEUP

Paladex Piping Systems

vanwalraven.com



High capacity makes all the difference

The pipes come standard with a socket-and-spigot connection and are available in a range of lengths and inside diameters from 300 mm up to 1600 mm. That makes it easy to build out a large storage volume fast.

Paladex pipes are ideally suited for collecting, buffering, and—when needed—allowing large volumes of wastewater and rainwater to infiltrate.

Innovating for 15 Years

For more than fifteen years, Paladex has been producing the most innovative piping systems.

The Paladex system is especially well-suited for municipal sewer projects, commercial construction applications such as infiltration or firewater systems, and horticulture as water storage for greenhouse irrigation.

Thanks to a unique manufacturing process for medium- and large-diameter pipe, Paladex pipes deliver high ring stiffness (SN16) while staying lightweight. That makes transport and installation much easier.

High load rating

Class	Description of load class	EN 124 class	EN 124 test class	Ring stiffness	Minimum cover depth (meter)	% deformation
1	Areas used exclusively by pedestrians or cyclists	A15	15 kN	16	0.20	3.2%
2	Pavements, pedestrian zones, private parking spaces and parking decks for passenger cars	B125	125 kN	16	0.25	4.7%
3	Gutters along kerbs in roads, hard shoulders and shopping streets	C250	250 kN	16	0.40	4.5%
4	Public roads and parking areas with dynamic load	D400	400 kN	16	0.40	4.7%
5	Traffic areas with especially high wheel loads, such as industrial sites, etc.	E600	600 kN	16	0.60	2.2%
6	Infrastructure of airfields, military bases, container terminals, etc. with extremely high wheel loads	F900	900 kN	16	1.50	2.0%

Project-Based Approach

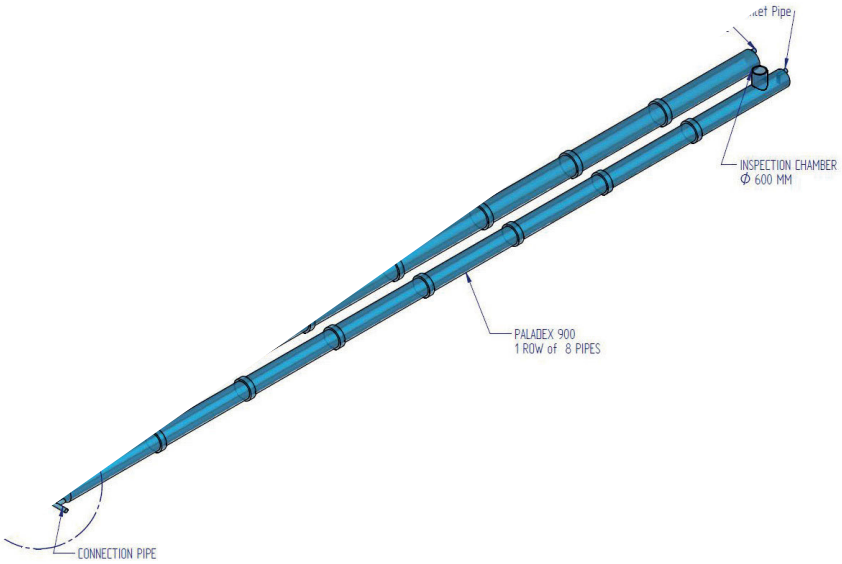
Cost savings thanks to a shorter build time.

With a project-specific approach, the available surface area can be used to its fullest to achieve the greatest possible volume. For example, on a project in Zeist, only 16 Paladex pipes were nested together instead of installing 340 infiltration units. That saves a significant amount of time and money.

With a clear design worked out in advance and thorough coordination, the configuration can be built exactly as intended. By placing access shafts in easy-to-reach locations, the system can be cleaned and inspected properly, ensuring optimal performance can be maintained.

Ideal for infiltration

For Paladex infiltration projects, the first step is calculating the required storage (buffer) capacity.



The volume to be stored is determined based on the roof area and paved surfaces, then calculated using the applicable stormwater standards.

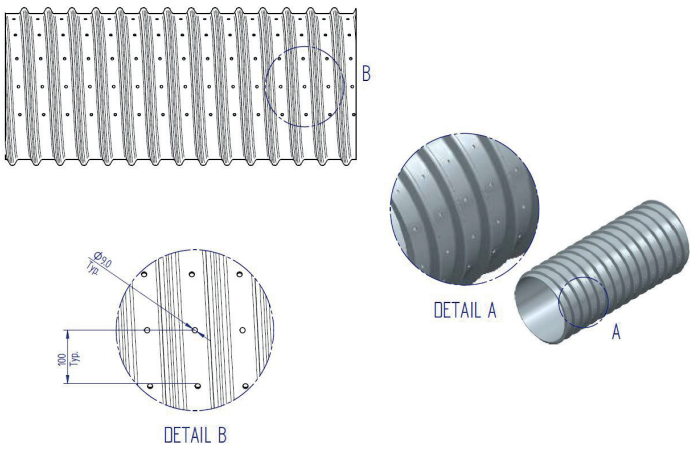
Easy to maintain

Because both pipes are fully accessible via the pipe inspection chambers, Paladex is also easy to maintain during operation.

For this project, the pipes were perforated with 9 mm holes and then completely surrounded with a 20/40 mixed aggregate bedding. On the top and both sides, this bedding is separated from the surrounding sand by a geotextile fabric. On the bottom, the fabric was intentionally not continued through, to help prevent clogging from silt over time.

The 20/40 rubble build-up creates an infiltration trench measuring 48 m1 long, 1.4 m1 high, and 3.3 m1 wide. Including the pipe, this provides a net volume of just over 100 m3.





Suitable for use as a culvert pipe

In Kockengen, a unique culvert was built for a project using Paladex.

A culvert links two waterways. Here, an internal diameter of 1000 mm is used, and it must be 30% filled with air. In other words, about one-third of the pipe sits above the waterline, allowing, for example, ducks to swim through.

Because the dewatering in Kockengen was only about 70 cm and the soil proved prone to settlement, there was at most 40 cm of cover left. In addition, the stormwater sewer had to be connected to the culvert, and that spot needed an access shaft for inspection and cleaning.

Based on the provided AutoCAD drawing, Van Walraven engineered a solution that brings all of the above requirements together in one integrated design.

The connections were positioned at the correct size and elevation, with an access shaft built into the center. A slope bevel was added at the pipe ends for a clean finish. By using SN16 Paladex pipes, future deformation is kept to a minimum, and thanks to the lightweight construction, the culvert can help reduce the impact of any potential settlement over time.



Supplied by Van Walraven

- PVC drain pipe and fittings
- PP infiltration sewer system
- and fittings
- PP inspection manholes
- Drainage
- Geotextile
- Paladex PE culvert pipe

