Rockflow attenuation and infiltration systems

Maximum flexibility for design and installation

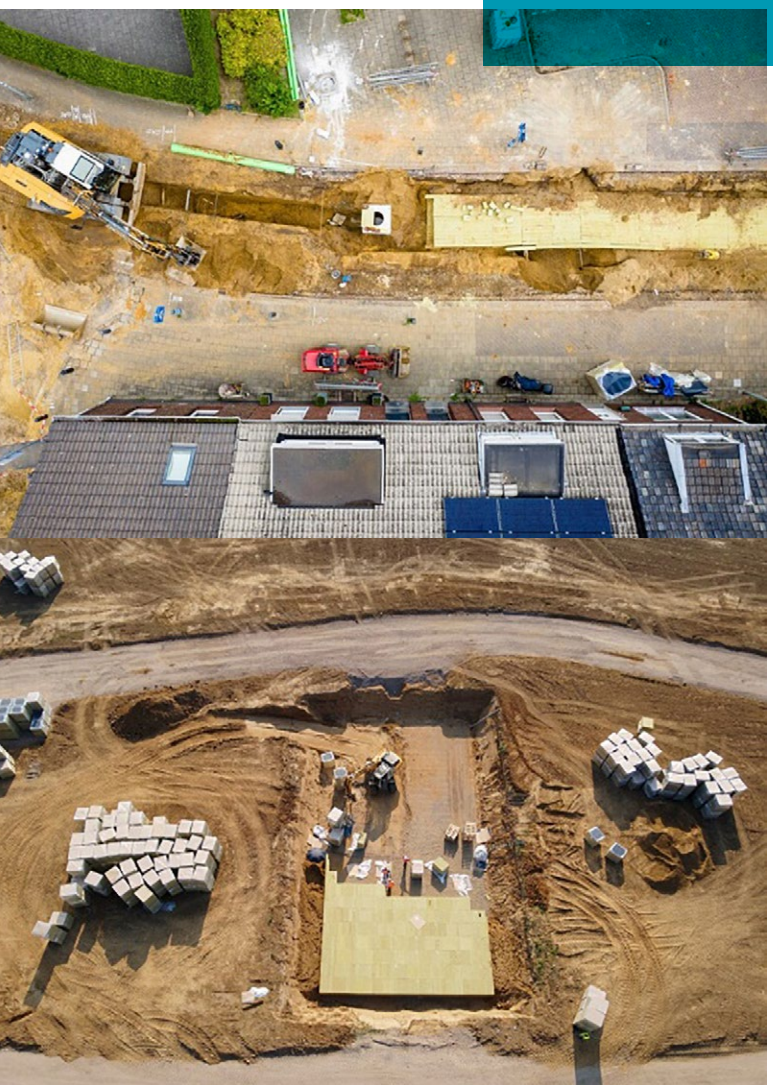
When installing a rainwater infiltration system, an objective is to minimise landtake and make optimum use of the available space. Rockflow provides maximum design freedom.

Choose the shape and height that suits your project

Rockflow can be adapted to fit almost any given set of circumstances. If the site demands a long, narrow water retention system such as on a street, install Rockflow in a linear arrangement with gullies or household connections from the side. If you are using Rockflow under a town square or car park, then choose a more rectangular attenuation and infiltration system with water inlets at either end. Any length and width are possible. Due to the absence of geotextiles, it is not essential to install square or rectangular shapes. The shape of the system is highly variable and may be varied along its length.

The height may also be adapted to suit the specific circumstances of the site. A Rockflow system can be formed out of elements of 330, 500, 660 and 1000mm in height. Subject to groundwater levels, elements may be 'double-stacked' to form a system up to 2m high by placing two 1000mm elements on top of each other. This ensures maximum local buffering capacity.

If an underground infiltration solution is proposed for an an area with high groundwater levels, subject to the loads at finished ground level, Rockflow elements of 330mm high may be used with a minimum cover layer of 400mm. This makes it possible to adopt a Rockflow system with a groundwater level as little as approximately 800mm below the surface.



Rockflow installed as linear infiltration (top) or a central attenuation and infiltration system (above).

Several versions of Rockflow elements: 500, 660 and 1000mm in height. Not shown: 330mm element.

A Rockflow system 2m high, made of two layers of 1000mm elements.

No delay due to obstacles

During installation, contractors often come across unexpected obstacles below ground such as pipes and cables. This is not a problem for Rockflow: simply cut a section of stone wool out of the system to suit the obstacle. Stone wool is easy to cut by hand, using any suitable knife (or a stone wool knife). This does not damage the system and it remains uncompromised by minor modification.

Stone wool is easy to shape using a stone wool knife or similar.

Ducts or pipes as obstacles. In a linear attenuation and infiltration system, the stone wool may be interrupted and connected to the next stone wool element with an appropriate pipe. This makes it unnecessary to move existing services and avoids delays on site or inconvenience for local residents or businesses.

Rapid installation

Rockflow elements are light and easy to transport. The largest element is 1.0x1.2m x1.50mm and weighs approximately 22kg. The elements are easy to install by hand, without having to use plant or specialist equipment.

You can request a Rockflow specialist to be present during a new project for training, support and advisory purposes. We not only supply solutions, but also partner with designers and contractors. If required local technical representatives will monitor installation and provide practical guidance for installation and completion.

Manually installing 500mm high Rockflow elements.

Rockflow elements are installed on a blinding layer of sand. Depending on the design, a Rockflow system can be installed at a speed of 25-30m^2 per hour by a two- to three-person team. The quickest installation observed by us is 60m2/hour by four people!

A safe product to work with

Stone wool is safe for workforce, animals and the environment. Our stone wool is certified as non-carcinogenic. Apart from the possibility of temporary itching caused by loose fibres (we recommend long sleeves during installation), stone wool has no adverse side-effects. In addition to long sleeves/ trousers, we recommend a face mask especially during any cutting. Other safety measures are not required. Rockflow meets the requirements of Dutch Soil Quality legislation (BBK) and is safe to install in below ground.

More information about the hydraulic behaviour of Rockflow.

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ROCKWOOL Group is the world leader in stone wool products, from building insulation to acoustic ceilings, external cladding systems to horticultural solutions, engineered fibres for industrial use to insulation for the process industry and marine & offshore. We are committed to enriching the lives of everyone who experiences our products and services, and to helping customers and communities tackle many of today's biggest sustainability and development challenges including energy consumption, noise pollution, fire resilience, water scarcity, urban flooding and more.

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RAINWATER SYSTEMS