van Walraven



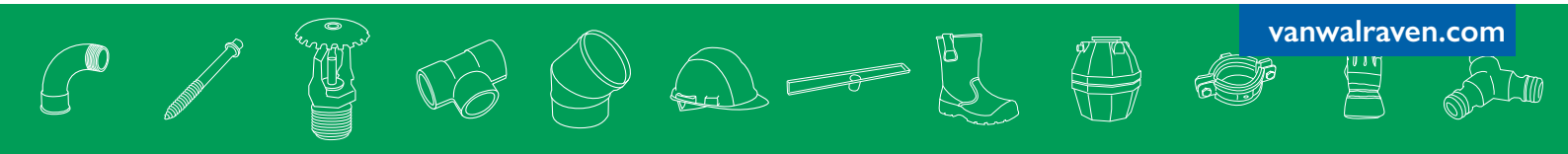
STEP-BY-STEP PLAN

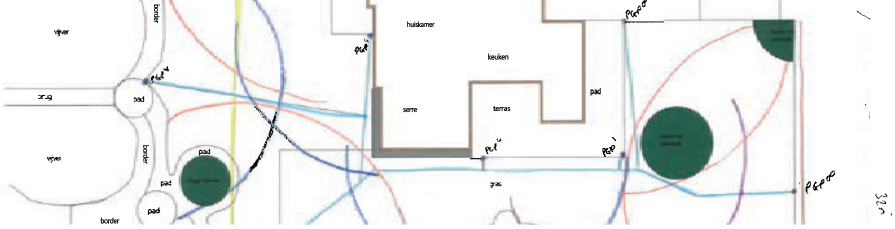
Better at irrigation

From piping system to sprinkler

A complete package for the design and installation of irrigation for gardens and parks: PE pipes for transporting water to sprinklers and PP compression fittings in all sizes for reliable connections. A punch plier for connecting drippers, micro sprinklers, and pop-up sprinklers, as well as the associated tools for adjustment.

Irrigation systems are increasingly common due to the rise in dry summers. For convenient and worry-free garden care, we, Van Walraven, supply all required products and can provide advice or a complete, tailor-made irrigation plan. Several factors determine the most suitable solution for a project. We consider the area to be irrigated, the piping, the sprinkler type, and whether control should be automatic or manual. We work with you so that the interplay of all components performs as intended.

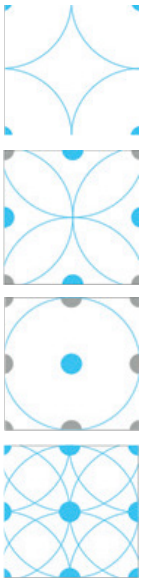




Step 1. Draw the garden

Create a scale drawing of the garden that includes buildings, terraces, paths and driveways, and the nature of the surfaces such as lawn, planting, and trees. This prevents unintentional wetting of houses, paths, and terraces, and identifies potential obstacles such as trees. Indicate the location of the outdoor tap or any pump, and the planned positions of the controller and manifold where applicable.

Step 2. Plot the sprinklers



Direct the spray away from buildings and terraces. Start by placing sprinklers in the corners. From each corner, draw an arc with a compass equal to the selected sprinkler throw, ensuring the spray remains within the section.

If the centre is not reached, consider adding sprinklers at the midpoints along the sides. Where sprinkler jets do not overlap, add sprinklers. Overlap is required to compensate for wind and pressure differences.

A layout with fewer sprinklers is also possible by placing a sprinkler at each of the four corner points with a reach to the opposite corner.

Step 3. Sprinkler selection

Select sprinklers with the appropriate reach using the spray table supplied for each model. Toward a house, path, or terrace, the spray arc should not overlap. Along a hedge or border, overlap is acceptable. Match the sprinkler to the application. Hunter PGJ 04-A and PGP ADJ-IN are suitable for lawn areas but, due to their firm jet, are not suitable for borders. For borders, the Hunter MP sprinkler is more appropriate. Determine water demand by adding the consumption of each sprinkler.

Products and control

Sprinklers can be controlled automatically with a timer or controller. Use manifolds and manual or electric valves in combination with an irrigation controller or watering computer for fully automatic operation. By opening groups in sequence, pump capacity is used efficiently. Irrigation is possible wherever required. We also offer sprinklers that retract below ground level when not in use.



HUNTER PGJ 04-A
Article185210



HUNTER PGP ADJ-IN
Article185215



HUNTER MP1000 3M.
Article185188

Step 4. Determine zones (groups)

Divide the garden into groups according to water demand and exposure. A lawn requires more water than borders, and a lawn facing south requires more water than a lawn facing north.

Step 5. Choice of water main or irrigation pump

Adequate water availability is essential for installing a sprinkler system. If a group needs more water than the water main can supply (in the Netherlands, the utility is obliged to provide at least two bar of inlet pressure at the water meter), a self-priming irrigation pump can be a solution. Where surface water is available, this option can also be more economical.

Determine the capacity of the water main with the bucket test. Place an empty 10 L bucket under the tap, open the tap, and measure the time to fill the bucket to 10 L. The number of seconds gives the flow rate at that tap. For example, if filling takes 22 seconds, then 60/22 = 2.73 and 2.73 × 10 L = 27.27 L/min.

When using a self-priming irrigation pump, select a model that meets the demand of the group with the highest requirement. We supply various models with different capacities. After selecting the water source, measure the available pressure for the sprinklers since this determines their reach.

Step 6. Piping

Install piping from the manifold to the sprinklers. Because winters in the Netherlands can bring severe frost, a polyethylene hose, also called a PE pipe, is suitable. These pipes are flexible and therefore less prone to cracking during frost. Pressure losses occur in pipes and fittings due to wall roughness and flow disturbances at elbows and tees. Choose the correct diameter and keep the route from manifold to sprinkler as short as possible.

For a complete overview of products for the design and installation of irrigation for garden and park, scan the QR code. You can reach us via vanwalraven.com, GWW@vanwalraven.com +31 (0)297 300 120

