



Clever Watering

Every drop counts

 **GARDENA**[®]

Automatic Watering that works alongside you.

Save water and time as your garden flourishes.



Content

Irrigation around house & garden 4

Why automatic watering is worthwhile	6
All about saving water	8
10 Tips for smart watering	10
5 steps to a beautiful lawn	12
Warning signs of withering plants	13

Plant irrigation 14

GARDENA Micro-Drip-System

Balcony & Terrace	18
GARDENA Micro-Drip-System for Potted Plants	18
GARDENA Holiday and Balcony Watering	22

Raised Beds and Vegetable Beds	24
---------------------------------------	-----------

GARDENA Micro-Drip-System for beds

Hedges and Plant Rows	28
------------------------------	-----------

GARDENA Micro-Drip System for Hedges and Plant Rows

Lawn irrigation 32

GARDENA Sprinklersystem

Underground Water network 38

GARDENA Pipeline

Automatic Irrigation control 42

Overview GARDENA Control Solutions	43
---	-----------

At the tap

GARDENA Irrigation Control	44
GARDENA Soil Moisture Sensors	45

Permanently installed and underground

GARDENA Multi-Channel Control	48
-------------------------------	----

Watering via smartphone

GARDENA smart system	50
----------------------	----

Product overview and accessories 54

GARDENA Micro-Drip-System System Start	54
GARDENA Micro-Drip-System Connection Accessories	55
GARDENA Micro-Drip-System for Potted Plants	56
GARDENA Holiday and Balcony Irrigation	57
GARDENA Micro-Drip-System for Plant Beds	58
GARDENA Micro-Drip System for Plant Rows	59
GARDENA Sprinklersystem	60
GARDENA Pipeline	62
GARDENA Irrigation Control	63
GARDENA Multi-Channel Control	64
GARDENA smart system Watering Starter Sets	65

DIY – Guidance and help 66

DIY GARDENA Micro-Drip-System

GARDENA Starter Sets	66
Planning	68
Installation Types	68
Consumption values and connected load	70
Mounting	72

DIY GARDENA Sprinklersystem

Planning	74
Drawing a garden sketch	75
Selecting sprinklers	76
Overview for planning	78
Determine pipes	80
Defining connections and fittings	83
Selecting the control	84
Connecting the system	85
Installing the system	86
Tips and notes on maintenance	88

Shopping list

GARDENA Sprinklersystem	89
GARDENA Micro-Drip-System	90

Discover videos and information online	91
---	-----------

Water sensibly and efficiently: In all areas of your garden. With automatic watering you have more time to relax and enjoy.

Saving water and money? And still have more time for fun activities you enjoy? That's possible with GARDENA: It doesn't matter if you want to grow your plants in the garden, on the balcony or on the terrace. Get Europe's No. 1 irrigation brand and treat yourself to some rewarding moments with just one click. Switch from vigorous gardening duties to enjoyment mode while your plants are flourishing.

Plant areas: Raised beds and vegetable beds

The GARDENA Micro-Drip-System ensures that your plants germinate, grow, blossom and flourish. By watering exactly at the root of the plant.

Page 24



Plant rows: Hedges & shrubs

Watering for plant growth and well-being. Hedges and shrubs, border plantings or plant borders are irrigated in a sustainable manner.

Page 28





Potted plants: Balcony & Terrace

Well looked after. Now your plants are watered automatically and efficiently. Every day. Even when you are on vacation.
Page 18



The heart of auto- matic watering: The Irrigation Control

Now water is supplied to all areas of your garden. No matter the time, water requirements or which system. It liberates you to have the control for everything to run smoothly.
Page 42



Lawn

Achieve a green and lush lawn with a Sprinklersystem. Discover the elegant and efficient lawn care solution that is even water-saving. Underground installed sprinklers get the hard work done and disappear when not in use.
Page 32



Underground Water Network

Always be connected to the source. Thanks to this invisible underground Pipeline solution, you have access to water wherever you need it.
Page 38

Why investing in intelligent, automatic watering is worthwhile?

Always, but especially when the world is changing, a green space is good for you.

Let's care for them and expand green spaces. In cities, the countryside, the garden, on the terrace or on the balcony.

Discover your sustainable watering solution. After all, GARDENA technology benefits people and also plants.



Healthy plants and greener lawns ...

are proof of watering your garden correctly. Thanks to automatic irrigation it is a piece of cake to keep your garden areas beautiful and lush.



More time to relax ...

while the system takes care of the irrigation in your garden. Thanks to automatic watering you have more time to relax on the terrace, balcony or among beautiful flower borders and vegetable beds.



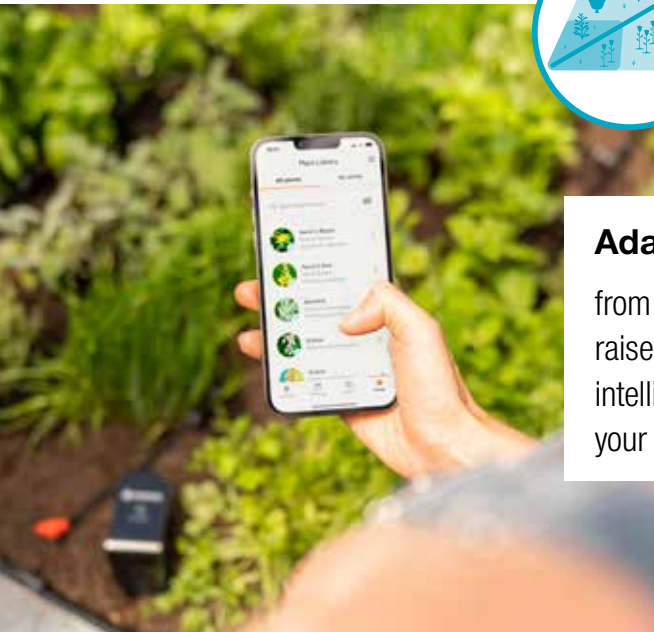
Conserve resources ...

by switching from manual to automatic watering. Automated and precise irrigation is much more efficient. You can save up to 70 % of the water while your garden thrives. Every drop counts.



Adaptable & clever ...

from small to large lawns, from flower pots on the balcony to raised beds in your garden: GARDENA offers customised and intelligent solutions, which can be conveniently adapted to all your watering needs.



Did you already know, ...

... that plants absorb water from the soil with the help of its roots?

Plants consist of approx. 80 to 90 % water and would no longer be able to survive without water. Water dissolves nutrients in the soil, which are transported upwards to the plant via the roots to support growth and other metabolic processes, including photosynthesis.

... the water requirement varies greatly from plant to plant?

The lettuce in the vegetable patch, the hedges in front of the house and the lavender on the balcony - they all need to be watered at different intervals and with different amounts of water.

... that there are four stages of the warning signs of plant thirst?

Dark green, bluish coloured lawns or plants with withered and dropping leaves are typical signs of acute water shortage. Garden experts distinguish between four phases of a plant's drying out: incipient thirst, acute water shortage, wilting and death. You can find the warning signs on page 13.

... that drought stress reduces photosynthesis, growth and survival of the plant?


Drought stress mainly occurs when water demand exceeds the available amount of water available or when the transpiration rate rises sharply including water deficit, drought and high salinity in the soil.



Hortensie
(Hydrangea macrophylla)

4 to 5 litres*

Prefer it regularly damp to wet.



Lavender (Lavandula)

Prefer to be dry than too moist. Ensure good water drainage, so that no waterlogging occurs.

... that too much water can have a negative impact on plant growth?

There is often a tendency to water more than necessary when a plant shows warning signs of thirst. The already stressed and weakened plant roots would deteriorate even quicker due to access to insufficient oxygen.

... that the best time to water is in the morning?

The soil has cooled down overnight and absorbs the water well. In the blazing sun the water would evaporate immediately.

... that you can reduce up to 70 % water consumption compared to conventional irrigation techniques?

Automatic irrigation conserves this precious and valuable resource and gives the plants exactly the right amount of water they need - not too much or too little. Precise watering enhances your plants growth, making them more beautiful and healthier and providing you a richer harvest.



Lemon (Citrus limon)

3 to 4 litres*

Rarely but thoroughly, avoid waterlogging. In winter keep dry.



Tip

Without water you cannot achieve a healthy garden. Discover our range of Water Controls that transport water just at the right time. No matter if you want to irrigate one particular area or your entire garden. GARDENA offers a range of Water Controls that are directly connected to a water tap.

The multi-channel Irrigation Control will be heart of your garden that waters different areas separately with individual watering schedules, e.g. lawn, flower boxes or vegetable beds. Now each area will get the right amount of water at the right time.

More on page 42

Heather

(Calluna vulgaris)

3 litres*

Water regularly on warm days in autumn.



10 tips for clever watering

How you can save time and money through needs-based watering.

1



Keep consistently moist

Most plants are dependent on a constant soil moisture level. Drip irrigation saves water, because with each drop, you're targeting water to the roots. The result: vigorous growth, a better yield and more beautiful, healthier plants.

2



Watering economically

For a flower bed, one or two waterings a week is usually sufficient. Use as much water as necessary and as little as possible. This can be achieved using an automatic irrigation system with moisture sensor in the bed, on the balcony or in the lawn. The sensor is your reliable guide, as it skips irrigation schedules when the soil is moist. Just insert it in the soil and know for sure whether the plants need water or not.

More on page 45

3



Watering the roots

You should water the roots and not other parts of the plant. This is where it matters the most. Too little water often only wets the surface of the soil, e.g. when mulch is applied. With the Micro-Drip-System, you water the plant efficiently and precisely directly at the root. Crops depend on even soil moisture in their ripening phase before harvesting. This is especially important for the formation of roots and tubers of carrots or potatoes, leaves of basil, heads of cauliflower or lettuce, pods of beans or fruits of tomatoes or fruit.

Wrong:

Only the top layer of soil is soaked, the roots do not get any water



Better:

The soil is well moistened, Water penetrates deeper to the roots



4



Water early in the morning

The soil cools down at night. If you water in the morning, less water evaporates compared to watering on hot soil. Your plants are able to absorb sufficient water before the soil heats up during the day. Let a Water Control take charge of the watering schedule and irrigate your plants at the right time: While you sleep, it takes care of the watering duration and frequency based on a pre-defined schedule.

5



Keep the leaves dry

Plant diseases are always a cause for concern for gardeners. Wet leaves are more susceptible to sickness. If left wet overnight, fungal infections may arise. Therefore: Try not to wash off the leaves when watering, but water the root area. The Micro-Drip-System waters the plant precisely and directly at the roots.

6



Avoid waterlogging

Waterlogging prevents the roots from breathing. The roots drown without oxygen. Therefore, a soil moisture sensor is the ideal solution to identify soil that is too wet. If this is the case, simply skip a watering cycle.

7



Use rain water

Collecting rain water conserves drinking water. This is good for both your wallet and for the plants. Plants love the fact that rainwater is warmer than tap water and has a lower calcium content.

More on page 31

8



Use high-quality clay-rich soil

Earth containing a lot of clay minerals retains water better due to its ability to swell, providing the plants with a more consistent supply of water. A good quality top soil ensures excess water can drain away during wet summers and in winter thus preventing waterlogging. Loam and humus are also good at retaining water.

9



Group plants together

Grouping plants according to their needs allows for more efficient watering. Modern water controls take into account the needs of different watering zones and required watering methods.

10



Regional plants

Growing indigenous plants requires less effort, fertiliser, pesticide – and water. "Old" varieties adapted to the local conditions are more suitable than over-bred global hybrid cultivars. But there are other locally cultivated plants that have adapted to the domestic climate.

5 steps to a beautiful lawn



A good soil is the basis

The ideal basis for lawns is also a loamy sandy soil. Nutrient-rich humus as a root base ensures good growth. If in doubt, it even pays to remove poor topsoil and replace it with new soil.



The lawn type makes the difference

Here it is worth investing a little more in a high-quality mixture - for a healthy, weed-free lawn. You avoid grass varieties that do not meet the usual quality criteria this way. Ornamental lawns, play lawns and utility lawns are recommended. The last mentioned is one of the most frequently sold types, because it is resilient and looks good at the same time. Ornamental lawn has finer-leaved grasses that grow close together, which makes it look particularly beautiful carpet-like.



Mow and scarify once, please!

Our lawn needs to be cared for. That means mowing and verticutting. When mowing, you should make sure not to cut off more than a third of the leaf volume. Experts recommend a cutting height of 35-45 mm. With the GARDENA SILENO, you cut the grass cleanly with precision blades and reliably achieve the desired cutting height. The fine cuttings act as a natural fertiliser on the lawn. This promotes healthy growth and saves precious time in which you can do what you like to do. Do you want the best possible care for your lawn? Then you should verticut it once a year. To do this, mow the lawn as deep as possible to a height of approx. 20 to 30 mm.



Fertilising keeps your lawn in shape

Good nutrients keep you healthy - this also applies to your lawn. Too few nutrients lead to visible deficiency symptoms. And that's exactly the risk when mowing and removing the grass. The lawn loses leaf mass and important nutrients. If the nutrient deficiency becomes too great, it slows down its growth, begins to discolour and becomes more susceptible to disease. To make matters worse, the reduced nutrient content of the soil can also make it easier for undesirable herbs to take root. To avoid this, fertilise the lawn, ideally before it starts to rain. If it does not rain, you should water the lawn so that it does not "burn". You can save about a third of the fertiliser by mulching the lawn if you leave back the clippings on your lawn. Robotic mowers mow so frequently that the clippings are always small. Classic mowers have mulching blades that shred the clippings and then leave them lying around.



Water - the recipe to achieve a beautiful lawn

Finally, it is always the right watering that determines how healthy and green your lawn is. Here, too, the rule is: Clever watering! Use the GARDENA Sprinklersystem, a complete system, consisting of Pop-up Sprinklers, Pipes and Connectors as well as the matching Irrigation Control (see p. 32).

Warning signals of dried out plants

Flowering plants

Lawn

Incipient thirst

1 Stage



- Plant feels slightly flaccid
- Leaves curl up slightly, some drooping



- Trodden-down blades don't stand up again by themselves for a long time

Acute lack of water

2 Stage



- Withered, drooping leaves
- Lush green begins to fade



- Deep dark green, bluish tinge
- Lush green begins to fade

Withering

3 Phase



- Very wilted, dry leaves, flower heads and stems
- Yellow to brownish leaf tips



- Curled-up blades
- Yellow or light brownish tips of the blades of grass

Death

4 Stage



- Yellow or brownish leaves
- Dry stems
- Plant usually beyond saving



- Large patches of yellow or brownish lawn
- Lawn may need repairing

Micro-Drip-System: Caring for your plants and every precious drop.

Watering precise at the root



From now on the Micro-Drip-System irrigates for you! The Micro-Drip-System is an automated watering solution that is growing in popularity. The increase in demand is undoubtedly linked to hotter and drier summers and changing perception to this scarce resource in our society.

There are key sustainable advantages that make this solution unbeatable: You can save up to 70 % of water through targeted watering directly at the root of the plant. The system is installed in no time. So if you want to water more plants with the Micro-Drip-System, this can be done in just a few steps - thanks to the patented Quick & Easy connectors. Your plants will be supplied with exactly the right amount of water at the right spot.

The result is beautiful and healthy plants.



Plant areas: Raised beds and vegetable beds

Are you considering watering plant areas?
Do you want to water entire beds of lettuce,
beans, strawberries or shrubs?

Discover the suitable irrigation solution based on
the type of plants and setting of the plants in the
bed. Based on the watering needs of your plants
you can select from a range of Micro-Drip Drip
Heads and Spray Nozzles. In combination with a
Water Control and Sensor you can optimise the
irrigation process even more.

More see page 24

Potted plants: Balcony & terrace

With conventional watering, the plant often
receive too much water. Micro-Drip Drip Heads,
on the other hand, carefully transport water
directly to the root of the plant over a defined
period of time. It is the ideal invisible irrigation
solution for your potted plants.

More see page 18

Plant rows: Hedges & shrubs

For hedges and rows of plants, you lay a dripline
that supplies the plants with water above or below
the ground. The underground installation is particu-
larly ideal for permanent plantings while above
ground installation of the dripline are best suited
for annual plantings. With the Micro-Drip-System
you water directly at the roots. This way you avoid
overwatering and the soil does not get too wet.

More see page 28

Easy and convenient ...

Thanks to the Quick & Easy connection technology the Micro-Drip-System is very easy to install. There is no prior knowledge needed. The drip irrigation starts with the Watering Control which is installed directly at the tap. From there, the water flows through the Master Unit to driplines and connectors, transporting it to directly to the plants in the desired sections in your greenspace, such as plant areas, potted plants or plants rows. Drip Heads and Spray Nozzles are individually placed along each plant. Drop by drop the water is directly transported to the root of the plant. Select from a range of options to either manually or automatically irrigate your plants. GARDENA even enables you to control the irrigation schedule from the comfort of your smartphone.

What do you want to irrigate?

Potted plants in planters



Endline Dripper

Planters and raised beds for planters or raised beds or plants that do not like to be watered from above



Inline Dripper

Vegetable beds and flower border for an even distribution of water to vegetable beds or flower borders

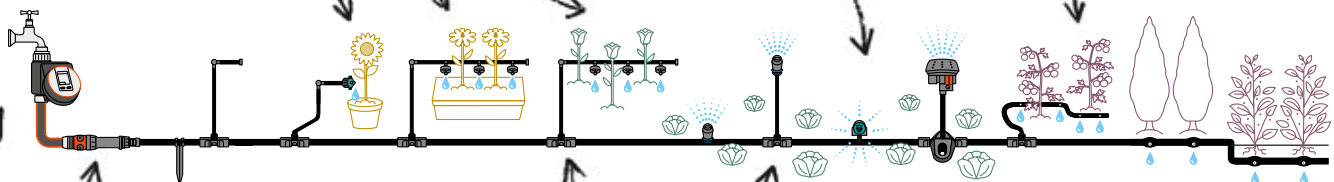


Spray Nozzles

Vegetable rows, shrubs and hedges for rows of hedges/bushes or small plants (e.g. tomatoes)



**Dripline with
integrated drippers**



System start

The GARDENA Master Unit 1000 is the starting point of the GARDENA Micro-Drip-System. It reduces the water pressure for the optimal operation of Drip Heads and Spray Nozzles.

More page 54

Connection

With patented Quick & Easy technology you connect all components with each other. If you want to irrigate other areas, you simply disconnect the components and rearrange them.

More page 55

Even more water and time-saving with a Water Control.

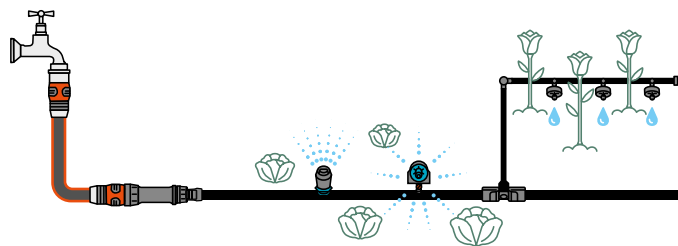
More page 42

Quickly explained & quickly installed

You can easily install the Micro-Drip-System yourself. You can find more information on installation in the DIY section on page 66 or watch the online videos. In no time you will supply your plants comfortably and efficiently with this precise and sustainable plant irrigation solution.

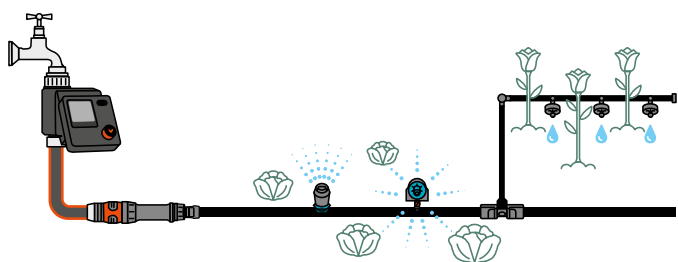
How to step up and control your Micro-Drip-System

Only you know what works best for you and what your garden needs. From automated irrigation with Water Control installed at the tap, to intelligent watering with Water Control and Soil Moisture Sensor to smart watering via the GARDENA smart App with the smart Water Control and smart Sensor. Everything is possible. Explore all available options and discover an automatic watering solution with the ideal comfort level for your needs.



Directly at the tap

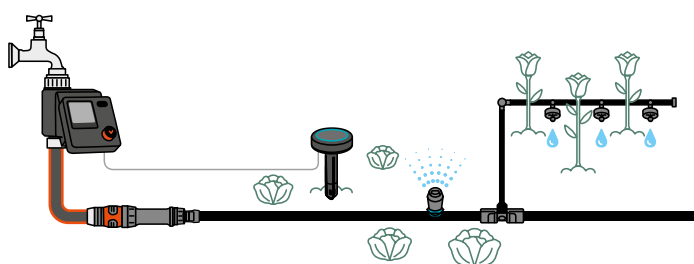
Basic and flexible to install and use. First you need the Master Unit 1000 or Master Unit 2000, which regulates the pressure and filters the water. Connect the Connecting or Supply Pipe directly to the Master Unit. You easily regulate the constant water supply by actively turning on and off the water tap.



With Water Control

Water reliably and conveniently by automating the watering schedule with the GARDENA Water Control. You can easily define and set the days, duration of the watering cycle and exact timings on the units itself. The Water Control then takes care of everything without any need of interference. Discover our range of models and select the system that is best suited for the needs of your garden.

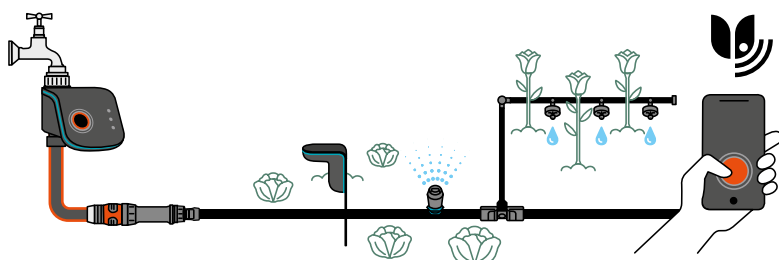
More on page 46



With Water Control and Soil Moisture Sensor

You can also combine your Water Control with the GARDENA Soil Moisture Sensor. It is directly connected to the Water Control via a cable and reliably measures the soil moisture. Especially after longer periods of rain the soil is very moist. The Sensor would signal this to the Water Control and a pre-defined watering schedule will automatically be skipped. Thus water is saved and the plants receive the best care.

More on page 46



With smart Water Control and smart Sensor

Irrigate the smart way. This is the most water-efficient and intelligent way to care for your garden. Just open the GARDENA smart App and control your garden maintenance from home or on the go. The smart system automatically provides the optimal care. It takes into account soil moisture measured by the smart Sensor and weather forecast. The watering schedule of the smart Water Control is then automatically adjusted when required. You can even use voice control and connect the smart system with Alexa, Apple HomeKit or Google Home.

More on page 50



Balcony & terrace



You don't necessarily need a huge garden. Outdoor oasis can also be found on balconies and terraces. Whether oleander, laurel or lavender: planters and potted plants can turn your terrace or city balcony into an oasis of well-being. Blooming flower boxes bending towards the sun. Be surrounded by eye-catching and colourful plants and enjoy time with friends in your outdoor oasis. Now you can easily design the outside as charming as the inside and make it beautiful for yourself. Get the water-efficient and absolutely convincing irrigation solution for your balcony or terrace.



Discover our
Starter Sets for Balcony
& Terrace on page 66





Quenching the insatiable thirst

The plants in pots and planters can be divas. Sometimes they complain about waterlogging, they drown in water, they feel dehydrated, or they cry out for water. And other times, the plants bend their neck because they don't receive sufficient water. The Micro-Drip-System is your little helper to ensure accurate and water-efficient watering of your plants. Drop by drop it transports water directly where it is really need: at the root of the plant. Especially due to the scarce amount of soil available, only little water can be stored and regular watering is a must for potted plants. You want to provide just the care right for your plants? Then Micro-Drip-System is the right solution you have been looking for. It cares for your plants with every precious drop. Not only when you are at home but also when you are traveling. Your plants will continue to thrive, even when you are away. Beautiful and healthy plants are the result from precise and accurate watering at the root of the plant. You don't know where to start? With the help of the Starter Sets, the Micro-Drip-System is easy to install. Every step is easy to follow, even if you're not technically minded or struggle with your green thumb. With AquaBloom you don't even need a power supply, because the device is solar powered and can water up to twenty plants. From now on you can relax and your plants are well looked after.



More time to relax.

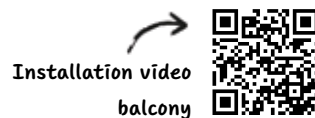
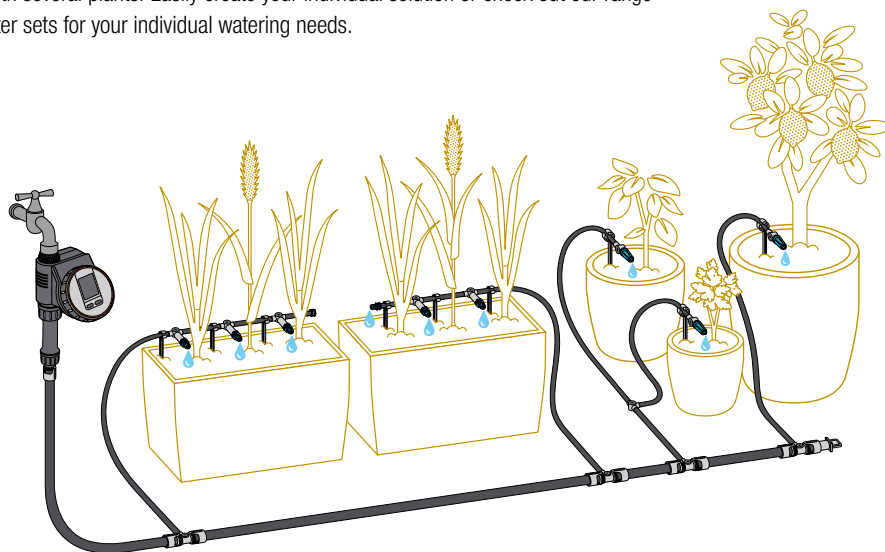
The Micro-Drip-System takes care of the irrigation.

Maybe you have to get used to it first: to the free time. The Micro-Drip-System is always there to reliably and conveniently care and water your geraniums, verbenas, petunias, herbs and other plants in your outdoor space. After all, the growing season lasts from spring to autumn and the system will support you throughout that time period. The Micro-Drip-System: your reliable and water-efficient helper for a blossoming outdoor space.

Drip Heads are the best technique to water plotted plants and planters. Endline Drip Heads are ideal for watering stand-alone plants in individual pots. Inline Drippers are best suited for flower boxes and pots with several plants. Easily create your individual solution or check out our range of starter sets for your individual watering needs.



For balconies and terraces, the 4.6 mm Supply Pipe and Connectors are most suitable. You can easily hide the installation behind the pots and planters for it become nearly invisible.



Feature of Dripper



Ideal amount of water
Either constant or adjustable water output.



Reliable water volumes
Consistent water delivery over the entire system. Thanks to pressure compensating Drip Heads. Even with differences in height between the pots, it is guaranteed that all plants are watered evenly.



No clogging
Labyrinth technology in the Drip Heads prevents deposits. The system cleans itself.



Auto Stop
Saves water because the the Drip Heads closes itself when it is switched off and does not drip.



Easily cut the pipe and combine it with other components.

Screw the Endline Dripper onto the end of the pipe.

Inline Dripper are mounted into the ends of two pipes.



Tip
The Installation tool helps you to easily screw the Endline Dripper onto the end of the pipe.



DIY instructions see page

66

Which type of Dripper is the right one ...?

New!

Endline Dripper

suitable for watering stand-alone plant pots. They are screwed onto the end of the pipe.

Inline Dripper

are mounted into the ends of two pipes to water a row of plants, such as in flower boxes or beds.

For plants with the same need of water

Standard Drip Heads – Consistent flow rate for plants with the same water requirement.



For plants with the same need of water and height differences

Pressure-compensating Drip Heads – For a uniform flow rate over the entire system, even with pots with height differences.



For plants with a different need of water

Adjustable Drip Heads – Flexibly adjustable to the water requirement of the plant.



For plants with a different need of water and height differences

Adjustable and pressure-compensating Drip Heads – Flexibly adjustable to the water requirements of the plant, even with pots with height differences.



Irrigation miracle without the need of water tap

With the autonomous irrigation solutions from GARDENA, watering your plants on the balcony or terrace is going to be a breeze. You don't have a water tap on your balcony or terrace? Or you don't want to be connect to the main water supply?



You don't have access to a water tap or power?
GARDENA AquaBloom



Is there no water tap and power socket on your balcony or terrace? Then the solar-powered AquaBloom is the perfect solution for you. It supplies plants and flowers with water without the need to have access to a socket or water tap. AquaBloom can water up to 20 plants and transform your balcony or terrace a blooming oasis.

- No water connection necessary.
- No electricity connection needed.
- Solar powered.
- 3-in-1 control unit (pump, watering control, solar panel).
- 14 pre-defined watering programmes.
- As set available: 10.5 l sustainable, expandable water reservoir.

Further benefits of AquaBloom



Battery and solar-powered control

You don't need a power socket. Simply insert the supplied batteries and you are ready to go.



Set watering frequency

You can set the desired watering frequency by simply turning the orange control knob. From 10 minutes every 12 hours to 20 minutes every 72 hours. The choice is yours.



Effortlessly irrigation

AquaBloom transports the water to your plants, even if the water tank is on another floor.



Easy to install

Combine AquaBloom with the Micro-Drip-System on balconies and terraces. Simply connect the supply pipe to the AquaBloom, select the desired schedule and the supply of water starts. The water from the water tank is pumped to each Dripper, watering the root of the plant.

You have a power connection? GARDENA Balcony Watering



The GARDENA Fully Automatic Flower Box Irrigation automatically irrigates up to 25 plants. No water tap is required. This autonomous irrigation solution can pump water even from sustainable water reservoir, such as rainwater tanks. It is also suitable for watering potted plants. The water flow is controlled by the computer and is automatically switched on and off. This is convenient and gives you more free time to relax. The integrated 14 watering programmes allows you to provide and selection the optimal care for your individual plants. The set requires everything you needs, including a pump. Now you are ready to go in no time.

- The water is pumped out of the container with the pump.
- With the watering control for the pump you can choose from 14 watering programmes.
- Inline Dripper deliver water to the plants in a dosed and water-saving manner.

Tip

Indoor / holiday watering

Suitable for outdoor and also indoor plants. You can easily water your plants, even when you are not at home. GARDENA offers a clever, automatic watering solutions for up to 36 indoor plants. You don't require access to a water tap. The pump activates the watering schedule for one minute every day. The distributors supply drop by drop the roots of the plants with water. The full set includes pump, pipes, water reservoir, various irrigation drip distributors and transformer with integrated timer. Everything you need to start watering your plants immediately. The low-voltage transformer ensures safe and flexible use.



Product overview
see page 57

57

Raised beds and vegetable beds



Is the green salad really organic? You can be assured they are if you grow vegetables and fruits in your own garden. You want a lush, colourful bouquet of flowers from your large perennial bed? You like to look out into the greenery and gaze over ornamental trees or ground covers? More and more people have the desire to live in harmony with nature. They discover new hobbies and enjoy planting their flower and vegetable plots but also fruit and vegetable cultivation. Ideal project for a fun family experience. The right irrigation solution ensures that your outdoor oasis becomes a desired place to relax while your vegetable beds are thriving.



Discover our
Starter-Sets for your
vegetable and ornamental
garden and raised beds
on page 67

Installation video
vegetable bed



Irrigating plant areas

The majority of vegetables mostly consist of up to 90 % water, from broccoli to tomatoes and the top seller, cucumber. To thrive, the plants need plenty of water. Especially in hot summer months, such as July and August. Consistent and precise irrigation is also crucial for newly planted plants. Because of their shallow roots, young crops need care and gentle watering if they are to thrive. A useful and practical alternative to a watering can or garden hose is drip irrigation, which transports water directly where it is needed: at the root of the plant. Micro-Drip-System is the most efficient way to water your plants. Other parts of the plant stay dry which is especially important for the leaves. This means no unnecessary watering, no lost water and a water-efficient irrigation solution. As part of the Micro-Drip-System you can also select from range of Spray Nozzles and Sprinklers that provide the optimal care for your plants and vegetables. Easily create your own individual irrigation solution: From irrigating smaller to large sections. GARDENA offers a range of Spray Nozzle with various spray radius, from 90 to 360 degrees. Finally a system that cares for your plants and supports richer harvest.



Best irrigation for your bed? It's here!

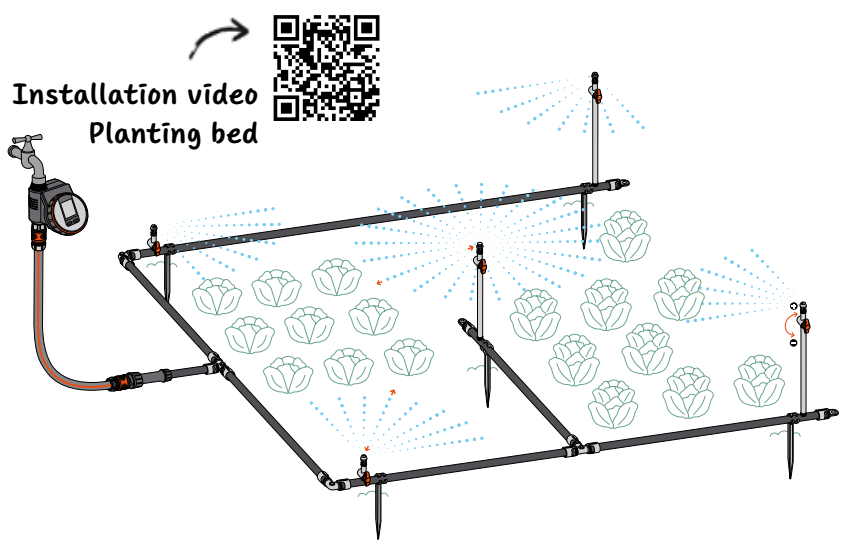
Micro-Drip-System for plant areas

Vegetable beds and flower borders

Summers are getting hotter and drier. Water-efficient irrigation is therefore fundamental. Use Spray Nozzles as a reliable and accurate irrigation solution for your plants. Decide how to use the little irrigation helpers most effectively. There are so many options, simply choose based on the watering requirements of your plants. Thanks to the Quick & Easy connectors, you can reach every corner in the bed and the system grows with you, so to speak.

For example, if your vegetables are positioned in a row, you install the Endline Micro Strip Sprinkler or Micro Strip Sprinkler.

If you want to water your plants from a corner, select the 90° Spray Nozzle. Alternatively, you can position a 360° Spray Nozzle in the middle of the bed to irrigate all the surrounding plants. There is also the ingenious 6-in-1 Spray Nozzle with six different spray patterns and volume regulation. With the fine Micro Mist Nozzle the water is finely atomised from above. This is a boon for sensitive seedlings.



Endline Micro Strip Sprinkler

Irrigation of long narrow vegetable and flower beds in one direction.

Micro Strip Sprinkler

Irrigation of long narrow vegetable and flower beds in both either direction.

Spray Nozzle 90°

Irrigation of vegetable and flower beds from the corner.

Spray Nozzle 180°

Irrigation of vegetable and flower beds with 180° spray jet.

Spray Nozzle 360°

Irrigation of vegetable and flower beds in the centre of the bed.

6-in-1 Spray Nozzle

Can be used for all areas. Rotating head allows direct spray range spray-wide regulation.

Micro Mist Nozzle

Irrigation from above. Ideal for watering of plants or seedlings in the greenhouse.

Loving plants. Easy installation.

The system grows with your plants. With the Extension Pipes, the Spray Nozzles grow upwards with your plants. You can regulate the flow and the range and adapt flexibly to the required situation.



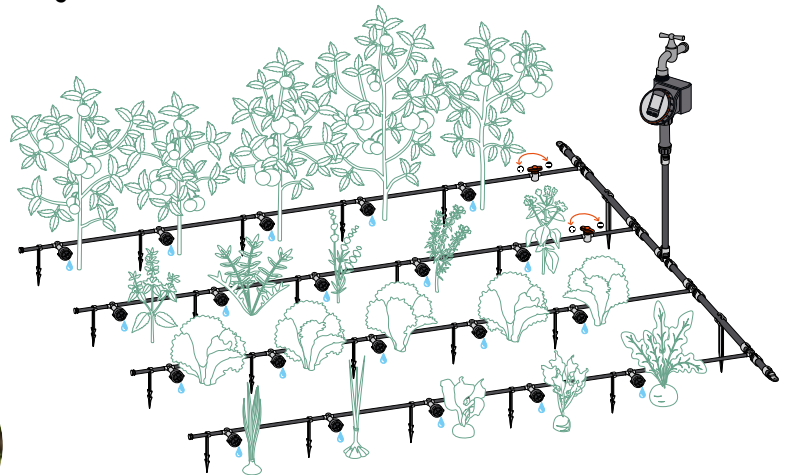
DIY instruction see page 66

66

Raised beds and sensitive plants



Installation video
Planting bed



Inline Drippers protect plants that do not want to be watered from above. You save water while at the same time providing excellent care for your plants. Especially with crops, it is important to ensure even soil moisture. For the root and tuber development of carrots or potatoes, basil leaves, cauliflower or lettuce heads, consistent watering is crucial.



The inline drip head overview can be found on page 21.

Product overview see page 56

56

Hedges & Shrubs



Anyone who has ever experienced the benefits of an irrigation installation in plant hedge and rows will not turn back. On the one hand your plants, such as hedges, shrubs or small row of plants, benefit from it. On the other hand, you feel better as you have less gardening chores. From now on, your Micro-Drip-System takes over all watering chores, while you relax in your favourite chair. Your plants get exactly what they need: the exact amount of water to thrive. The drip irrigation system supplies your plants with the hydration they need sustainability and precisely. Due to the slow release, the water seeps into the soil.



Discover our
starter-sets for
your plant rows
on page 67



Watering plant rows

You don't have to be brave. Just motivate yourself to try this way of irrigation. You will be amazed! Simply take the drip irrigation line in your hand, run it along your hedges and shrubs and the irrigation of your garden is in safe hands. The Dripline has integrated drippers which are positioned at 30 cm distance. Ideal for efficient and accurate watering of row of plants. Practically no great effort is required - you simply install and start using the system. Your plants are being well taken care of, while you can do what you enjoy doing. By the way, you can choose to use above-ground or below a invisible ground installation.



The direct link to the root

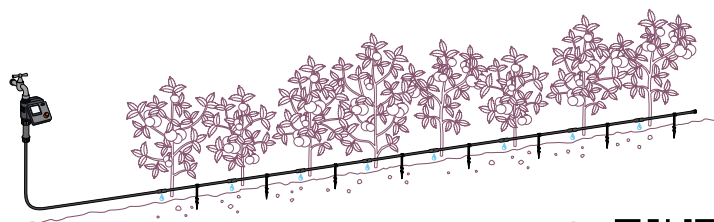
Watering intelligently with a dripline.

It is important to keep the root balls moist immediately after planting. And these "green walls" still need water later on. Decide whether you want to lay the drip line above or below ground; both options work. The Micro-Drip-System provides continuous, regulated and efficient water supply. Plants thrive especially well in rows of plants, such as hedges, bushes and shrubs. The integrated drippers supply water to the plants directly "in line" along the roots.

Dripline for vegetable- and small plant rows

Above ground installation

- Maximum pipe length: 30 m (Master Unit placed centrally in the pipe run)
- Branches and extensions at any time possible with Easy & Flexible connectors



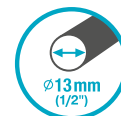
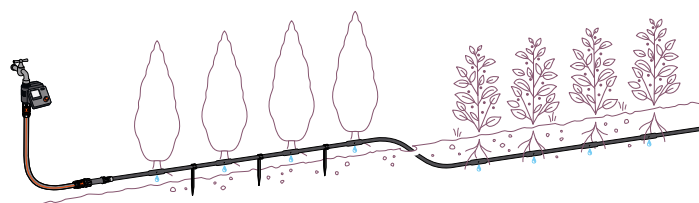
Installation-
video



Dripline for hedges and border plantings with even spacing

Above and below ground installation

- Maximum pipe length 140 m (Master Unit placed centrally in the pipe run)
- Branches and extensions are possible at any time with Quick & Easy Connectors
- Constant water output even with differences in height
- Invisible underground installation thanks to the root protection



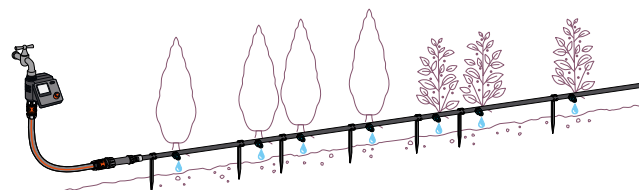
Installation-
video



Hedges and border plantings with uneven spacing

Above ground installation

You can turn the Endline Dripper in irregular intervals directly into the Dripline in order to water directly at the plant. You can find an overview of the Endline Dripper on page 21.



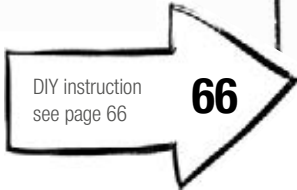
Product overview
see page 59

59



Love plants. Easy installation.

The system grows with your plants. You can regulate the water flow and the range flexibly and adapt to the changing situation.



Did you know that you can use rainwater sustainably?

We consume around 140 litres of drinking water per capita every day. Are there ecological alternatives? Of course there are! Collect rainwater and use it! It makes sense to save the valuable resource of water and use rainwater for watering the garden, since it falls from the sky for free anyway. If you use rainwater, you make an active contribution to environmental protection and save money. In addition rainwater is naturally free of lime and chlorine and has the right temperature. This is good for your plants. So become a rainmaker, fetch the collected rainwater from a rain barrel, well or cistern, pump the water with the help of your chosen pump and water your garden with a clear conscience.



You can find our pump range at www.gardena.com

Lawn



Regular immersion in a green oasis can be healing. Perhaps that is why the lawn is one of the areas that most people consider the most important part of a beautiful garden. Lush and green, soft and dense. The lawn makes you feel good, especially when you look outside into the garden. It makes you even enjoy to spend more time outside while breathing in the scent of the fresh grass. What is the magic formula for a well-kept lawn? The most important fertiliser for the lawn is water. That's why watering is important in every part of your garden. How do you implement this in every day life? It is simple. Just install an irrigation systems that enables to you supply water to every corner of your garden. It is the first step into an automated underground irrigation solution. Once installed, you can easily irrigate your lawn with the support of the GARDENA Sprinklersystem. Flexible, convenient and efficient. We tell you how to achieve this.

The Sprinklersystem that understands your lawn

Finally a beautiful lawn! GARDENA is at your side when it comes to understanding your lawn. Because when the intelligent Sprinklersystem takes over the irrigation, your lawn reliably gets as much water as it needs. You don't have to think about it and you don't have to water any longer by yourself. With an automatic Sprinklersystem, you are investing in sustainable lawn care solution. After just a few simple steps, the lawn irrigation system is installed and even in increasingly dry summers, your lawn is reliably cared for. The invisible and unobtrusive Sprinklers disappear back into the ground once they have completed their irrigation task. Installed with an irrigation control your system works fully automatic. This way your lawn is efficiently watered. Explore our wide range of Pop-up Sprinklers for small and large, round, square or complex lawns. Simply adapt your choice to the shape of your lawn. And if you're considering to install a new lawn, it's best to be smart and consider automatic irrigation when planning your garden.



Convenient and reliable lawn irrigation

Sprinklersystem

Still watering your garden with a hose? The trend is shifting - also for sustainable reasons - towards automatic underground irrigation. When it's time to water, the water flow pushes the Pop-up Sprinklers out of the ground and they disappear again once pre-defined watering schedule has been completed. The watering schedules are based on the shape of the lawn and its water requirements. Based on your pre-defined watering schedule, the Pop-up Sprinklers supplies your lawn with water exactly at the frequency and duration as it requires. This gives the soil enough time to absorb the water without running off unused on the surface or seeping away. That is sustainable lawn irrigation.



1 Irrigation Control & valves

For the automation of the Sprinklersystem and for controlling of different watering zones.

2 Pressure Regulator

The Pressure Regulator with integrated filter prevents pressure peaks and protects against dirt water. This improves the quality of the system.

3 Pipes & Connectors

Simple, durable and watertight thanks to the Quick & Easy technology.



4 Pop-up Sprinklers

A wide range for flexible installation for every garden size.



Tip

The GARDENA myGarden Planner helps you to plan your Sprinklersystem installation based on your requirements of your individual garden. Recreate the layout of your garden by using the automatic planning aids. In a few simple steps you have everything you need to install the ideal Sprinklersystem installation for your garden. Also check the DIY section in this brochure for more detailed information.

 **Sprinklersystem planner**



DIY instructions
see page 74

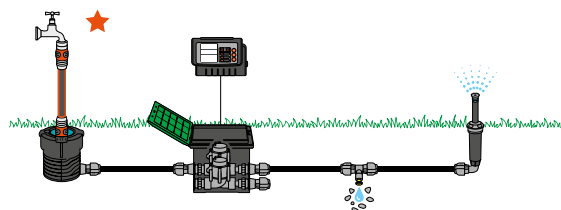
74

Automatic irrigation - exactly the way you need it.

Choose ideal Water Control for you and your garden.

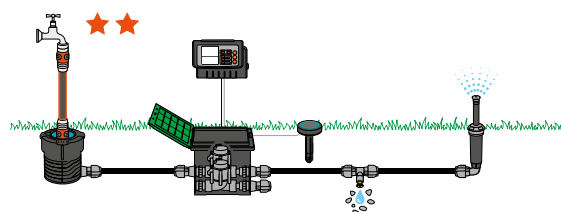
The summers are getting hotter and drier, your garden is getting thirstier. And it wants to be watered, even when you don't have time or are on holiday. Choose from range of solution that makes most sense for you and your garden. From manual to fully automatic, everything is possible.

With power connection



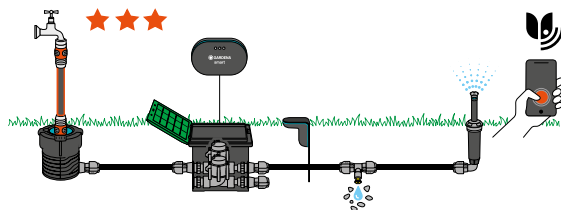
Classic Irrigation Control

It's simple and flexible. With a multi-channel control, you can use the display to programme a schedule to water your lawn. By opening and closing the valves, the watering cycles are then executed automatically and reliably.



Classic Irrigation Control with Sensor

Optionally combine a Soil Moisture Sensor with your Sprinklersystem. This has the advantage Sensor continuously monitors the moisture level of the soil. If the soil is sufficiently moist, after an extensive rainfall, a pre-defined watering schedule is automatically skipped. This allows you to water cleverly and efficiently, even when you are not at home.

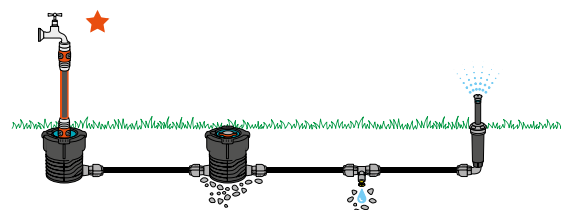


smart multi-channel Irrigation Control with smart Sensor

This control allows for six valves to be individually programmed and irrigate up to six garden areas as needed. You can operate the smart Irrigation Control via the GARDENA smart App and set up a suitable watering schedule for each individual watering zone. Weekdays and duration of the watering cycles can be selected individually. Via the smart GARDENA App you can access the Sprinklersystem at any time and from anywhere. Together with the smart Sensor and weather forecast the watering schedules are automatically adjusted and you save even more water while your garden is thriving.

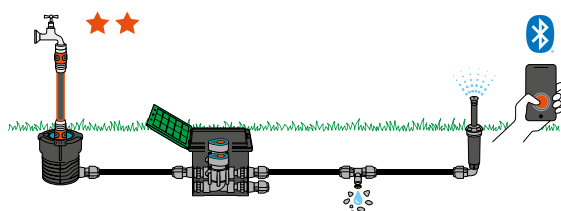


Without power connection



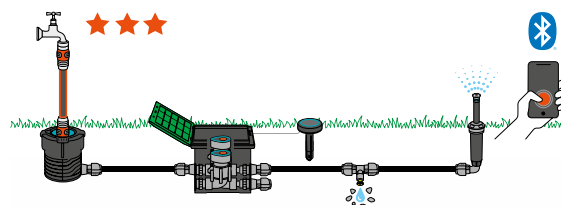
Regulator and Shut-off Valve

With this you can regulate the water flow of individual Pop-up Sprinklers or groups of Pop-up Sprinklers simply by opening and closing them manually.



Irrigation Valves 9 V Bluetooth®

Even without a power connection, you can automate the watering with the help of the Bluetooth® control. The control unit is simply mounted on the valves. The valves open and close automatically according to a schedule.



Irrigation Valves 9 V Bluetooth® with Sensor

The system becomes even more professional with the help of Soil Moisture Sensors. These are connected to the Bluetooth® control unit via a cable. If the soil is sufficiently moist, planned watering cycles are automatically skipped. This helps to save water.



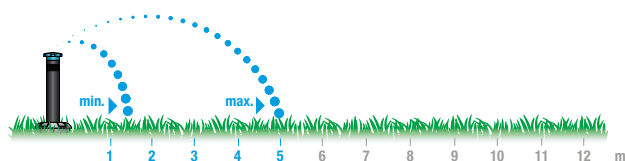
The Sprinklers at a glance

Our new Pop-up Sprinklers are made of high quality materials and ensure an even more reliable and watering.

Small-sized lawns

Pop-up Sprinklers SD range

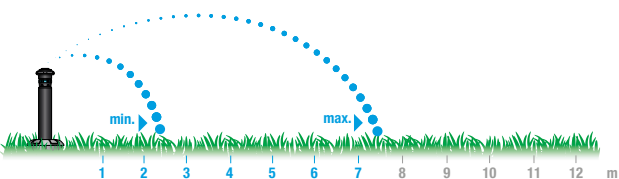
SD Pop-up Sprinklers are designed for small and narrow lawn areas. Thanks to the wide range of the spray sector, you can also use the sprinklers particularly well in corner areas. The Pop-up Sprinkler can be flexibly adjusted without tools from 5-360°, depending on the conditions on site. The spray distance can also be adjusted by a screwdriver to the size of the area. The integrated filter protects the nozzle from dirt.



Medium-sized lawns

Pop-up Sprinklers MD range

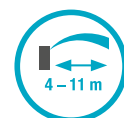
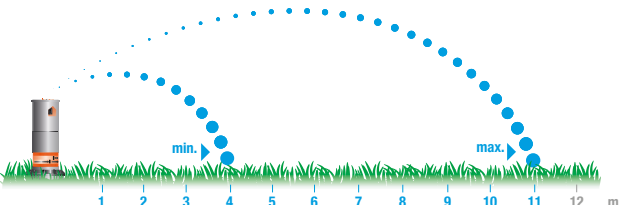
The Pop-up Sprinklers from the MD models are circular sprinklers for medium-sized lawn areas, which convince with new, consumer-friendly functions and can be combined with T-sprinklers, as well as the OS 140 within one zone. A highlight is also the water-efficient Rotary nozzle. With its rotating spray pattern and its low wind sensitivity and dosed precipitation, it is easier for the plants to absorb the water well. The sprinkler distributes the water evenly, regardless of spray distance and sector setting.



Large-sized lawns

Turbo-driven Pop-up Sprinkler T380

With the GARDENA T-irrigation models you can water large lawns comfortably. Thanks to a similarly low water flow rate, you can combine them with the MD Sprinklers and the OS 140.



Square or rectangular areas

Pop-up Oscillating Sprinkler OS 140

Square or rectangular areas between 2 and 140 m² can be watered simply and conveniently. Where previously several circular sprinklers and pipes were used, now one sprinkler is enough for lawns up to 140 m². The Pop-up Sprinkler OS 140 is also suitable for particularly small and narrow areas. Uniform watering: 16 flexible precision nozzles made from soft plastic ensure particularly even water distribution and reliable operation.



High plants

Pop-up Sprinkler MD40/300

The MD40/300 Pop-up Sprinkler has a 30 cm long sprinkler body which allows watering even over taller plants. It is equipped with a rotating nozzle that distributes the water with gentle, water with gentle rotating jets and, if desired, can water the lawn and plants at the same time.



New!



Pressure regulation and water filtration

Pressure Regulator

Research and development ensure that GARDENA products are constantly being further developed. For example, the combination of pressure regulation and water filtration improves the service life of the Sprinklersystem. The pressure is regulated to a maximum of 3.1 bar. The Pressure Regulator protects the Sprinklersystem from too high water pressure and can be combined with the underground Pipeline and Connectors. This prevents damage and prolongs the life of the system. In addition, the integrated filter protects against dirt.



New!



Underground water network



It is a fact that plants need water. No matter where they are located in the garden. Either you use a watering can or the water is automatically transported to every corner in your garden. How does it work? The answer is Pipeline. An underground water network with endless possibilities to provide the right care for you and your plants. This irrigation system is straightforward to install and suitable for gardens of any size. Pipeline connects even remote areas of your garden with the water supply. With just one click you can tie in a range of devices to this life-changing GARDENA Irrigation System. From Water Tap to Micro-Drip-System, the choice is yours. Unlock the secret of sustainable and versatile watering for you and your garden. Just select the location, install a water socket and watering any area in your garden will become a breeze.

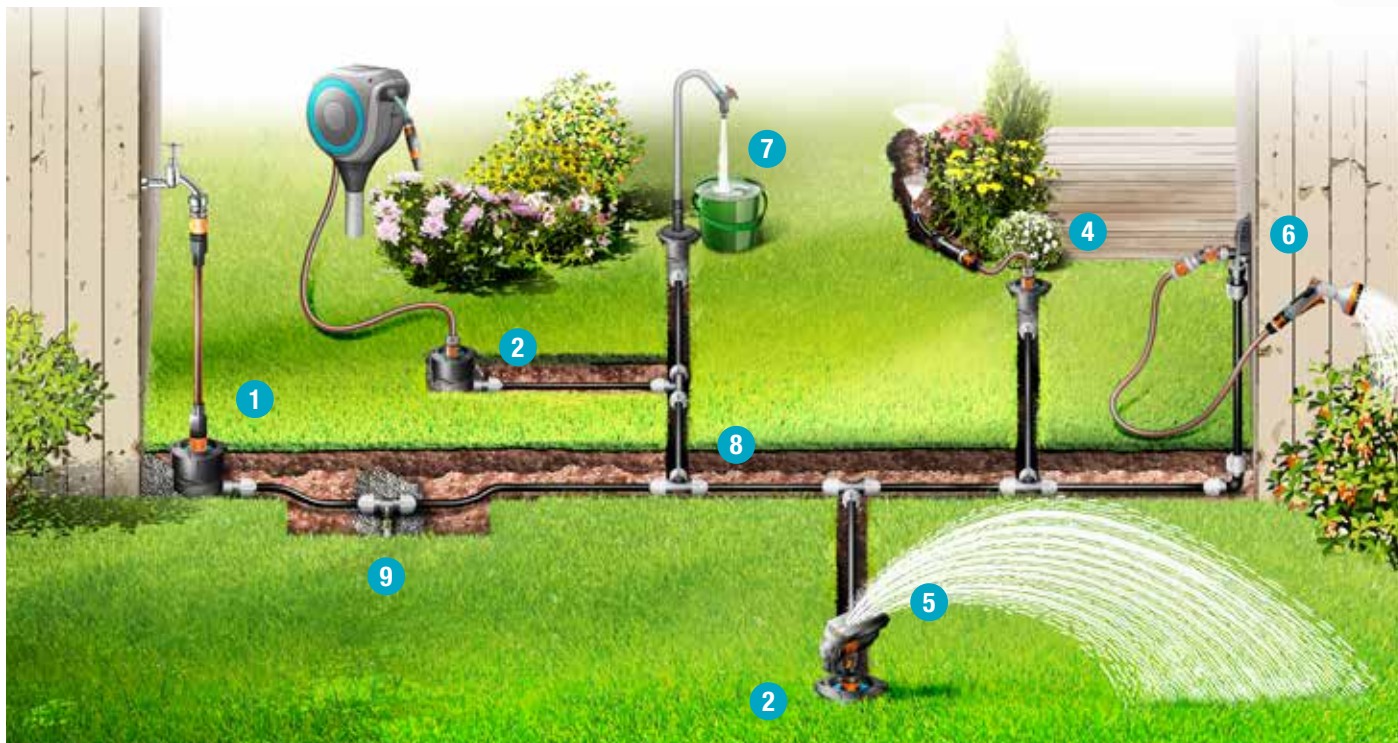
Connected to water supply

Using a garden hose or watering can are the traditional way of watering your garden. Modern technology has transformed the world of garden irrigation. Thanks to Pipeline, even remote areas of your garden will receive just the right care for them to blossom to their fullest potential. Without tugging or rolling up a hose or dragging water. Pipeline is basically a more sophisticated and versatile concept of a garden hose system. It is installed underground and connects all areas of your garden to an invisible network of pipes and Water Stations that ensure continuous water supply. Hidden and convenient. Just decide on the location, install a Water Station and create a convenient water source anywhere in your garden. They are called Water Stations as you can connect a range of devices to it and withdraw water like electricity from a socket. From garden hose to automatic irrigation solutions, such as Micro-Drip-System. Each Water Station is equipped with an automatic stop valve, so there is no need to go to the water tap and no water is wasted when disconnecting the hose. Thanks to Pipeline underground network system, water supply is guaranteed which will put you in a happy mood.



Unlimited possibilities with the Pipeline

Get out of old habits. You can keep everything as it is or optimize the irrigation of your garden. In this case optimising means using water sensibly while also giving yourself some relief. Discover the world of Pipeline and the benefits of an underground installed water network that transports water to even remote areas of your garden. We guide you through a Pipeline optimised garden. You will realise that Pipeline is a must-have irrigation helper ideal for any garden.



Convenient, reliable and easy to install

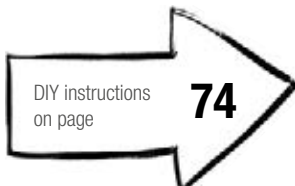
Pipeline is straightforward to install and can easily be configured to your individual garden. Just cut the pipes to the required lengths and build your own underground network. Quick & Easy technology allows easy connection of pipes with connectors. Just push the pipes on either end of the connector and twist the grey part to lock the pipes in place. Just as simple as that.



Frost protection

Use the Drain Valve at the lowest position in the system to make the complete installation frost-proof.

Installation video
Pipeline





2 WATER OUT



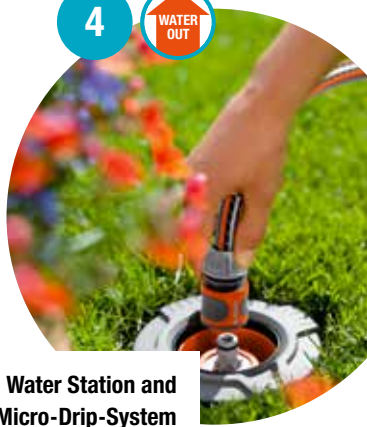
Water Station and Hose Box
Wherever the hose box is placed in the garden, with Pipeline you have always the suitable connection to the water supply.

3 WATER OUT



Water Station
Water Station with Original GARDENA System. Flexible connecting options for all OGS applications.

4 WATER OUT



Water Station and Micro-Drip-System
With the Pipeline system water can be supplied to the Micro-Drip-System.

1 WATER IN



Connecting Point
The water inlet to the system. Connected to the water tap with GARDENA Profi System for maximum water flow.

7 WATER OUT



Water Station & Pipeline Garden Water Tap
The Pipeline Garden Water Tap provides for convenient access to water.



Pipeline and Sprinklersystem
Using the valve box or the control- and shut-off valve the Sprinklersystem can be connected to the underground Pipeline.

5 WATER OUT



Water Station and Pipeline Oscillating Sprinkler
Watering made easy by attaching the Pipeline Oscillating Sprinkler onto the Water Station for watering the desired area.

6 WATER OUT



Water Plug
The GARDENA Water Plug provides for easy tapping without the classic water tap. The Water Plug can be attached to the wall or in loose subsoil with spike.

Automatic water control



It's quite time-consuming to meet the water requirements of each individual plant in your garden. When it comes to watering, it does not only depend on the right amount of water, but also on providing it to the plants at the right time and at the correct intervals. The automatic Water Control does just that. This makes plant irrigation even more efficient. Your potted plant needs water daily, the vegetables once a week, and the flat-rooted shrubs grow best when they are watered vigorously once every three days in the early morning. As a gardener, you can sometimes get stressed, because your garden needs water even when you are away or simply still asleep. The clever solution is automatic Water Control.



Why are automatic Water Controls so vital?

Because the best time to water your plants is early in the morning. But you might still be in bed sleeping. Early mornings the soil absorbs the water particularly well. The nutrients easily dissolve around the roots and the plants can re-charge their batteries for the day. The results are healthy plant growth and rich harvest. With the Water Control, you will never forget to water again and save yourself the effort of getting up early. It relieves you from gardening chores and you have more time to relax. Water Control can also even stand in while you are on holiday. Due to the clearly defined watering schedules, you save not just water, but also time.

How would you like to irrigate?

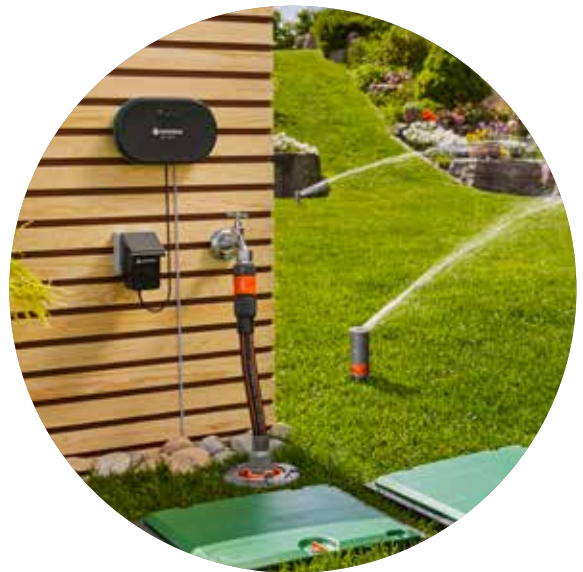
Above-ground irrigation - from the tap
For watering of max two garden areas.



Everything is straightforward and flexible: install the Water Control directly at the tap and your plants will be automatically be well taken care off. The GARDENA Water Control can easily be set up to water your plants in the mornings or when you are out and about. Just select the frequency and duration of the watering cycle and the Water Control takes charge of your gardens' well-being. Discover our range of Water Controls and find the right model for your needs.

More on page 44

Below-ground irrigation
For watering of several garden areas or for fully automated lawn irrigation.



Multi-channel Irrigation Control is ideal when the amount of water from the tap is not sufficient to operate the complete irrigation system at the same time or when different areas in the garden have individual watering needs. Use it to water the lawn, the hedges or the flower beds independently of each other. With the multi-channel Irrigation Control you can set watering schedules and provide just the right care for each individual area.

More on page 48

The ideal model for your needs

GARDENA offers a variety of water controls that are easy to use and reliable. From digital devices to App-controlled water controls, find the suitable product for every different application needs.



Digital Water Controls

Benefits

- Operating panel can be removed for easy programming
- Easy adjustment thanks to an intuitive push and turn principle
- Can be used in combination with a Soil Moisture Sensor



Water Control Bluetooth®

Benefits

- Easy configuration via GARDENA Bluetooth® App from up to 10 m distance
- Easy set up with step-by-step instructions
- Can be used in combination with Soil Moisture Sensor

smart Water Control

Benefits

- Easy configuration via GARDENA smart App from anywhere
- Auto Schedule develops the ideal irrigation schedule automatically
- smart home: operation via voice control with Alexa, Apple HomeKit or Google Home

Special features



High quality

Weather-proof electronics and corrosion-resistant valve. Pressure-resistant from 0.5 to 12 bar.



Water-saving

Usage with Soil Moisture Sensor automatically skips predefined watering schedule when soil is already sufficiently moist.



Safe Stop

The unique technology prevents watering when the battery is low.



Manual Watering

The central button allows you to start manual watering with automatic stop function.

At the root of the plant

Soil Moisture Sensors

Watering your garden has never been so easy and accurate: The innovative Soil Moisture Sensors from GARDENA automatically ensure that your garden is watered as needed and in a water-saving manner by measuring the real-time soil moisture and sending this data to your Water Control. If the soil is sufficiently moist, the pre-defined watering schedule is skipped. As a result, your plants automatically receive reliable and accurate care, while you save water.

Used in combination with analog or Bluetooth® Water Controls



Soil Moisture Sensor

Benefits

- Skips the next watering schedule if soil is sufficiently moist
- Flexible set up of the moisture levels limits for Flex, Select, Master & Bluetooth Water Controls
- Connection with Water Computer can be extended with Extension Cable (art.no. 1868-20)

Operated via GARDENA smart App



smart Sensor

Benefits

- Measures the soil moisture and sends a signal to the smart Water Control to skip the watering schedule when required
- Measures temperature
- Flexible setting of moisture level
- History of measured soil moisture data can be tracked on the app

Special features



Extra flat head

The smart Sensor has a modern design with a flat head. It can easily be placed in the lawn. The robotic lawnmower will drive over it and continue mowing.



Versatile

The sensors can be used in combination with a multi-channel Irrigation Control or Bluetooth® Irrigation Valve.

More information on the smart system on page 50 or under www.gardena.de/smart



GARDENA Irrigation Control

Above-ground Water Controls

Flex



Balcony & terrace / micro irrigation

Use

- For watering potted plants/balcony plants
- Flexible setting with short cycles and high watering frequencies (up to every 4 hours)
- Ideal in combination with the GARDENA Micro-Drip-System

Watering schedules	1
Start time	flexible
Duration	1 sec. - 99 min.
Intervals	every 4/6/8/12/24/48/72 hours
Selection of weekdays	predefined cycles
Watering cycles/day	up to 6 (every 4 hours)
Water-saving option	• with Soil Moisture Sensor
Manual watering	•
Art.-No.	1890

Select



3 watering schedules / all garden areas

Use

- For convenient, flexible watering
- 3 individual watering schedules including start time, duration, week days - ideal e.g. for pre-watering the soil
- Ideal in combination with Sprinklers or Micro-Drip-System

Watering schedules	3
Start time	flexible based on schedule
Duration	1 sec - 7 hrs 59 min per schedule
Intervals	weekdays per schedule
Selection of weekdays	• per schedule
Watering cycles/day	up to 3
Water-saving option	• with Soil Moisture Sensor
Manual watering	•
Art.-No.	1891

MultiControl duo



Up to 2 areas

Use

- For independent watering of 2 areas
- For instance the lawn behind the house and the flower beds in front of it

Watering schedules	2 x 1
Start time	flexible based on schedule
Duration	1 sec - 3 hrs 59 min per outlet
Intervals	selection of weekly programs or in cycles every 8/12/24 hrs every 2nd/3rd/7th day
Selection of weekdays	• for each schedule
Watering cycles/day	up to 3 (every 8 hours)
Water-saving option	• with Soil Moisture Sensor
Manual watering	•
Art.-No.	1874

Master



6 watering schedule / very flexible settings / up to 6 areas

Use

- For automatic watering of a large area in the garden with a maximum of flexibility in time
- 6 individual watering schedules including start time, duration, week days
- Watering of up to 6 different areas in combination with the ● Water Distributor automatic.

Watering schedules	6
Start time	flexible based on schedule
Duration	1 sec - 4 hrs per schedule
Intervals	weekdays
Selection of weekdays	• for each schedule
Watering cycles/day	up to 6
Water-saving option	• with Soil Moisture Sensor
Manual watering	•
Art.-No.	1892

App based watering controls

Bluetooth®



Via GARDENA Bluetooth® App / all garden areas



Use

- For convenient, flexible watering per Bluetooth® App
- Up to three individual watering schedules
- Ideal in combination with Sprinklers or Micro-Drip-System

Benefits of the Bluetooth® App:



Watering schedules	3
Start time	flexible per schedule
Duration	1 min - 8 hrs per schedule
Intervals	weekdays per schedule
Selection of weekdays	• for each schedule
Watering cycles/day	up to 3
Water-saving option	• the Soil Moisture Sensor
Manual watering	•
Art.-No.	1889

smart Water Control



Control via GARDENA smart app



smart Water Control

With the smart Water Control you can flexibly set the watering schedules in the GARDENA smart App and adjust them as needed at any time.

Benefits of the smart App:



More information on the GARDENA smart System on page 50.

Watering schedules	free selectable
Start time	flexible per schedule
Duration	1 sec - 10 hrs
Intervals	weekdays
Selection of weekdays	• per schedule
Watering cycles/day	individual
Water-saving option	• with smart Sensor
Manual watering	•
Art.-No.	19031 or supplied with smart system sets

Add-ons for analog or app-based watering controls



Soil Moisture Sensor

Measures and skips scheduled watering cycles as soon as a pre-set moisture level is reached. For optimized, water-conserving watering in connection with a GARDENA Water Control.

Art.-No. 1867



smart Sensor

Measures the soil moisture level and the ground temperature and transfers those data to the GARDENA smart App. Can be used in combination with the smart multi-channel Irrigation Control and the smart Home & Garden Pump.

Art.-No. 19040



Water Distributor automatic ●

Perfect in combination with the Water Control Master. With several irrigation lines, e.g. for GARDENA Sprinklers, Micro-Drip-System or Sprinklersystem. Each line can be triggered up to once per day by the Water Control Master. Ideal for planted areas with different watering needs or if the water pressure is too low to water them all at the same time.

Art.-No. 1197



Underground water control

Multi-channel control for the versatile gardens

The most common type of automatic watering is lawn irrigation. It is the most straightforward solution, not only for the lawn, but also for other areas of your garden. Dry spells in your garden are going to be a thing of the past. Whether you want to irrigate your lawn, flowerbeds, potted plants, shrubs or hedges, your automatic watering system will take care of it. The multi-channel Control is ideal when the water supply of the tap is not sufficient to cover the entire garden at once. It also lets you irrigate different areas of the garden individually. Define a watering schedule for each zone, incl. time and frequency. Sit back and relax.



Visit www.gardena.com/mygarden to plan your watering system with our my Garden Planner

Possible applications of the multi-channel control



Lawn/Sprinklersystem

The multi-channel Control is ideal to be used in combination with a Sprinklersystem. The lawn can be divided in different areas with individual watering schedules.



Watering several garden areas

For watering different areas in the garden the Micro-Drip-System can be connected to the Valve Box using a Water Station.



Tip

smart watering doesn't only mean more free time, but also reduced water consumption.

If you want to integrate automatic irrigation into your garden, the first step is planning. Ask yourself questions like: What do I want to irrigate? Which components are needed? Where is the water connection? How large is the area I want to irrigate? Is the available amount of water of the connection sufficient to irrigate all areas simultaneously? Or is it necessary to water only one area? You think this is too complex? It only seems so. With our Sprinklersystem Planner Tool you learn more about the topic and it supports you in the planning process. The GARDENA smart multi-channel Irrigation Control is the „control center“. It can be operated manually, automatically with a defined watering schedule or in combination with smart Sensor. In the smart App, the schedule can be activated with sunrise sunset automation. With the smart system your entire garden is irrigated at an optimum level and sustainable manner as it collects, analyses and aligns data from soil moisture data, weather forecast reports and auto schedule settings.

More on page 50.



Utilise all options

It can be so simple: You redesign your garden. You start from scratch and install a multi-channel solution right now. In doing so, you set the foundation that will later benefit your garden, relieve you from chores and reduce water consumption. It lets you define the ideal irrigation solution for the entire garden. Whether you start to use them now or later. The Water Control can be used individually and as part of a system if desired.

With power supply



How to centrally control the irrigation of your entire garden: Via the GARDENA Multi-Channel Control **1**, the 24V irrigation valves **2** in the valve box **3** receive through a cable **4** the signal to open or shut-off the water flow. This way, up to 6 irrigation valves and the corresponding number of channels can be activated fully automatically. Your garden can be watered in the different areas according to their individual needs. Also, you have the option to connect a Soil Moisture Sensor. **5**



No power supply exists



How to control any number of watering channels via app, fully automatically and cordless with the GARDENA Bluetooth® App **1**. Simply program the data and transmit them to the irrigation valve via app. The Irrigation Valve 9 V Bluetooth **2** fits in a GARDENA Valve Box **3**. You have the option to connect a soil moisture sensor **4** to the control unit. Operating the system via battery makes the GARDENA Irrigation Valves independent from power supply. The valve boxes can be installed at any place in the garden.



Special features



EasyApp Control



Auto Schedule



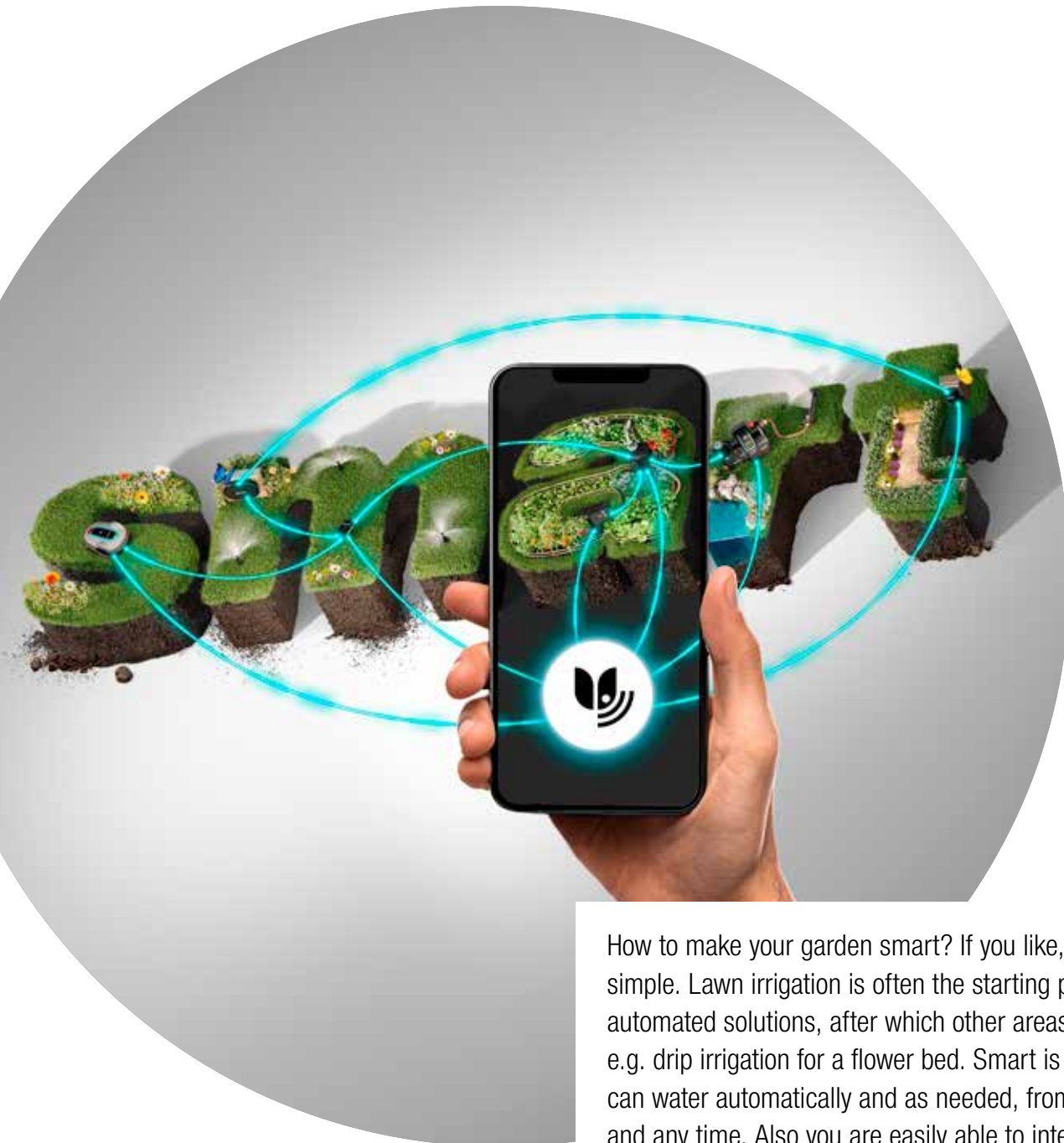
EasyConfig



Bluetooth®
Connection



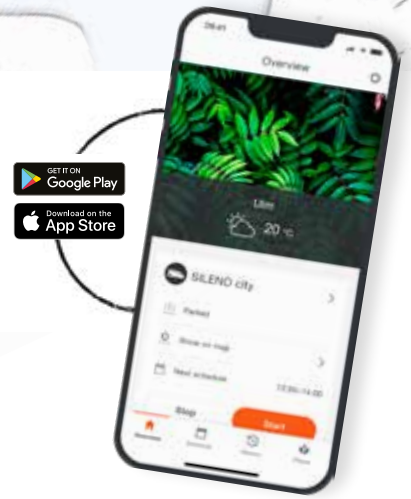
smart system



How to make your garden smart? If you like, quick and simple. Lawn irrigation is often the starting point for automated solutions, after which other areas can follow, e.g. drip irrigation for a flower bed. Smart is that you can water automatically and as needed, from anywhere and any time. Also you are easily able to integrate a smart robotic mower, pump or the smart adapter plug into your smart system. Coordinate watering and mowing times. You are on the road? No problem. You are always connected to your smart garden and in the picture at all times. You alone decide how and with what you enter into your personal smart system or whether and with which solutions you expand it.

Connect. Control. Thrive.

The GARDENA smart system is the intelligent system that converts your garden into a smart garden. Now you can complete daily gardening chores the smart way via the GARDENA smart App. Adjust and connect individual tasks or even automatise recurring chores. As a result you can save time and achieve a well-kept and thriving harvest while saving up to 70 % water. Via the smart App you can water one or several areas in your garden with bespoke settings or operate the robotic lawnmower. You can transform your garden into a relaxing, sustainable and comfortable space of well-being in no time at all. With the support of the GARDENA smart system, you have all the features at your fingertips.



smart lawn care

Mow the lawn automatically the smart way. With the GARDENA smart App, you can control your **smart SILENO Robotic Lawnmower** to achieve a carpet-like cut for all lawn sizes up to 1,500 m².



smart lawn irrigation

Effortlessly water multiple areas of your garden with an underground irrigation system. The **smart Irrigation Control** manages up to six irrigation valves – each of which can be independently controlled via the GARDENA smart App.



smart plant irrigation

Water a single garden area with tap water. The **smart Water Control** lets you remotely control your garden taps for perfect results – simply controlled via the GARDENA smart App.



smart and efficient irrigation

Measure the soil moisture and temperature in your garden or in planters and check it in the GARDENA smart App. Using the **smart Sensor** with a smart Water Control, a smart Irrigation Control or a smart Pump, you can save water and ensure the right level of watering.



smart and sustainable irrigation

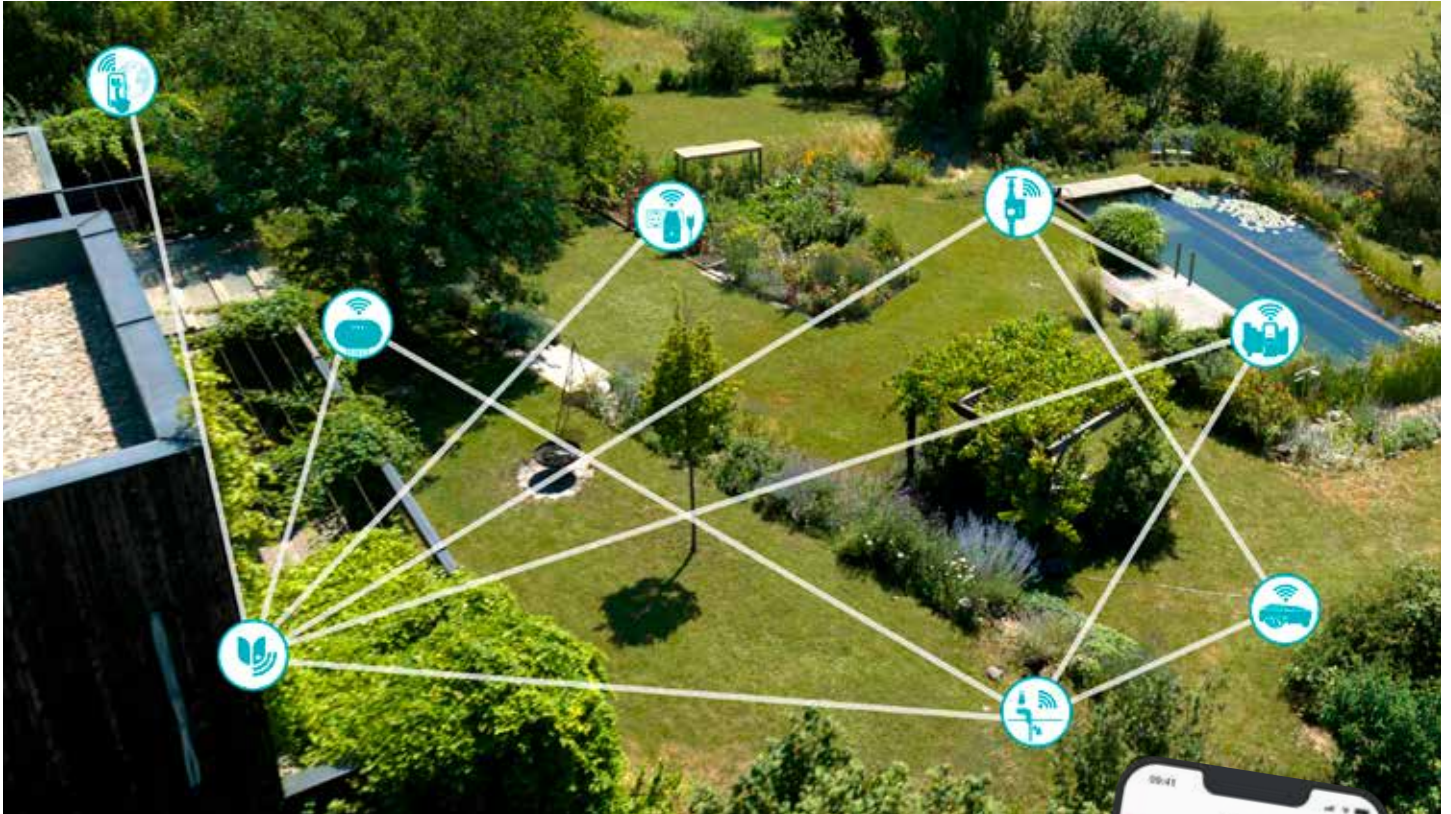
Use rainwater or groundwater for irrigation and domestic water supply with the **smart Automatic Home & Garden Pump**. Controlled via the GARDENA smart App, you can water your garden based on pre-set schedules, or even provide water to your toilet and washing machine.



smart control of electrical devices

Plug any electrical device into the GARDENA **smart Power Adapter**, e.g. your lights or fountain pumps and switch them on or off whenever you want, wherever you are via the GARDENA smart App. Keep your garden looking smart day and night.

Easy access to your networked garden



You want to keep track of the gardening chores at any time? You want to amend the maintenance setting even when you are out and about? The GARDENA smart system gives you the control you want and your garden the attention it needs.

The GARDENA smart range is an interconnected system with smart gardening devices that communicate with each other and the GARDENA smart App to provide just the right care for your garden. No matter where you are. Just open the app, connect to your smart garden and control each individual smart gardening device for a thriving and blossoming garden.

GET IT ON
Google Play

Download on the
App Store



GARDENA smart App

Download and connect to the free GARDENA smart App on your smart phone and access your entire garden at the touch of a button. Mowing the lawn and watering your plants has never been so easy and convenient. Even lights or other electrical devices can now be switch on and off with just one click.



smart Gateway

The smart gateway communicates with each GARDENA smart gardening device using powerful smart radio technology. The smart Gateway is connected to the router at home via LAN cable or WLAN.



smart App Benefits

Discover the variety of functions*

More at
www.gardena.com/smart



EasyApp Control

Easy control of your garden from anywhere with the GARDENA smart app.



Auto Schedule

Develops the optimal plan for the care of the garden.



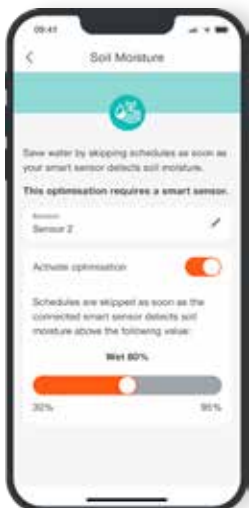
History

Review of sensor values and watering history of the last 7 days. Including skipped cycles due to sufficient soil moisture or predicted rain.



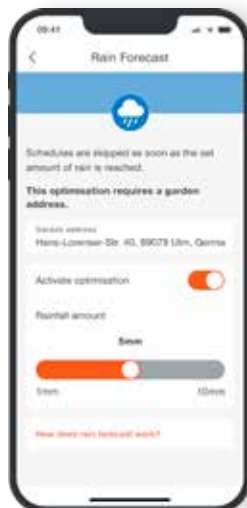
LONA™ Intelligence

Learns, maps and adapts the mowing individually to the Garden - thanks to intelligent, AI-based technology with location tracking.



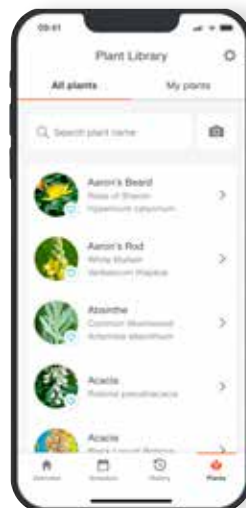
Soil moisture

Measures temperature and soil moisture in the garden to optimize irrigation and save water.



Weather forecast

Takes into account the local weather forecast. If sufficient precipitation is predicted, the scheduled irrigation automatically be suspended.



Plant library

Knows everything you want to know about your plants, from flowering time to optimal climate. Recognises plants by photo upload. Identify unknown plants with one click.








Smart Home

Control The GARDENA smart system devices and the smart Home by voice control with Alexa, via Google Home or Apple HomeKit.





Product overview

Micro-Drip-System System Start



	Connection to the tap		Pressure regulator and filtering		Installation
MADE IN EUROPE					
	Tap Fitting 13 mm (1/2") – G 3/4"	Tap Fitting 4.6 mm (3/16") – G 3/4"	Master Unit 1000	Master Unit 2000	Installation Tool
Use	For connecting the Connecting Pipe Flex 13 mm (1/2") to the Master Unit 1000/2000 (Art. No. 13333/13310) or directly to the water connection of a cistern (3/4") with maximum 1.5 bar	For connecting the Supply Pipe 4.6 mm (3/4") to the Master Unit 1000/2000 (Art. No. 13333/13310) or directly to the water connection of a cistern (3/4") with maximum 1.5 bar	Starter component of the Micro-Drip-System for reducing pressure to 1.5 bar and for filtering the water	Starter component of the Micro-Drip-System for reducing pressure to 1.5 bar and for filtering the water	Universal tool for the fitting of various articles and piercing of the connecting pipe
Water flow	–	–	up to 1,000 l/h	up to 2,000 l/h	–
Article No.	13222	13224	13333	13310	13313

Micro-Drip-System Pipes, Connectors and Accessories

Pipes and accessories

	13 mm (1/2")		4.6 mm (3/16")		13 mm (1/2")		4.6 mm (3/16")	
1 MADE IN GERMANY								
2 MADE IN EUROPE	Connecting Pipe Flex¹	Connecting Pipe Flex²	Supply Pipe²		Shut-off/Regulation Valves¹			
Diameter	13 mm (1/2")	13 mm (1/2")	4.6 mm (3/16")	4.6 mm (3/16")	13 mm (1/2")	4.6 mm (3/16")		
Use	Central supply pipe in the Micro-Drip-System, can be laid above or below ground, very supple due to unique flexible technology		Supply pipe for drip heads and spray nozzles, can be laid above or below ground		Shutting off individual pipelines 13 mm (1/2") (Art. No. 1346/1347)		Shutting off individual pipelines 4,6 mm (3/16") (Art. No. 1348/1350)	
Contents	15 m	50 m	15 m	50 m	1 piece	2 pieces		
Article No.	1346	1347	1350	1348	13207	13217		

Pipe Pegs







	13 mm (1/2")	4.6 mm (3/16")
1 MADE IN GERMANY		
	Pipe Pegs 13 mm (1/2")¹	Pipe Pegs 4.6 mm (3/16")
Use	The pipe peg is used for guiding and securing the supply pipe in the ground. Guiding and fixing the connecting/supply pipe.	
Contents	10 pieces	15 pieces
Article No.	13208	13218

Micro-Drip-System Pipes, Connectors and accessories

Connectors








MADE IN EUROPE

4.6 mm (3/16")

	 Connector	 L-Joint	 T-Joint	 4-Way Coupling	 Plug	 T-Joint Nozzles/ Endline Drip Heads
Use	Extension of the Supply Pipe	Precise branching of the Supply Pipe 4.6 mm (3/16") (Art. No. 1348/1350)	For branching off the Supply Pipe 4.6 mm (3/16") (Art. No. 1348/1350)	For branching off the Supply Pipe 4.6 mm (3/16") (Art. No. 1348/1350)	For sealing off the Supply Pipe 4.6 mm (3/16"), for sealing a hole in the Connecting Pipe 13 mm (1/2")	For fixing Spray Nozzles and Endline Drip Heads in the Supply Pipe 4.6 mm (3/16") (Art. No. 1348/1350)
Contents	10 pieces	10 pieces	10 pieces	10 pieces	10 pieces	5 T- pieces, 1 Closing cap
Article No.	13213	13212	13211	13214	13215	13216

13 mm (1/2")

MADE IN EUROPE

	 Connector	 L-Joint	 T-Joint	 Connector 13 mm (1/2") - 4.6 mm (3/16")	 Plug	 T-Joint Spray Nozzles	 Universal Connector
Use	Extension of the Connecting Pipe Flex and Supply Pipe 13 mm (1/2") (Art. No. 1346/1347, 13503, 13504)	Precise branching off the Connecting pipe Flex 13 mm (1/2") (Art. No. 1346/1347)	Branching off the Connecting Pipe Flex 13 mm (1/2") (Art. No. 1346/1347)	Transition from Connecting Pipe Flex 13 mm (1/2") to Supply Pipe 4.6 mm (3/16") (Art. No. 1348/1350)	Sealing of Connecting Pipe Flex 13 mm (1/2") (Art. No. 1346/1347)	For fixing Spray Nozzles in the Connecting Pipe Flex 13 mm (1/2") (Art. No. 1346, 1347)	For connecting the underground Dripline Pipe (Art. No. 1389/1395) with Connecting Pipe Flex 13 mm (1/2") (1346/1347), Dripline 13 mm (1/2") (13503/13504) for connecting the Connection Pipe Flex (Art. No. 1346/1347) with standard supply pipes 13-16 mm.
Contents	3 pieces	2 pieces	2 pieces	5 pieces	5 pieces	5 pieces	1 pieces
Article No.	13203	13202	13201	13204	13205	13206	13220

Micro-Drip-System for Potted Plants

Starter Sets

MADE IN GERMANY 



New! Set

Micro-Drip-Irrigation Balcony Set

For 15 plants

Contents: 1 Master Unit 1000, 20 m Supply Pipe 4.6 mm (3/16"), 10 Pipe Pegs 4.6 mm (3/16"), 15 Inline Drip Heads pressure-compensating 2 l/h, 5 T-Joints 4.6 mm (3/16"), 2 Regulation and Shut-Off Valves 4.6 mm (3/16"), 5 Plug 4.6 mm (3/16")

Artikel No. 13401



New! Set

Micro-Drip-Irrigation Terrace Set

For 30 plants

Contents: 1 Master Unit 1000, 15 m Connecting Pipe Flex 13 mm (1/2"), 10 Connectors 13 mm (1/2") - 4.6 mm (3/16"), 2 Plugs 13 mm (1/2"), 20 m Supply Pipe 4.6 mm (3/16"), 20 Pipe Pegs 4.6 mm (3/16"), 5 Plugs 4.6 mm (3/16"), 5 T-Joints 4.6 mm (3/16"), 3 Regulation and Shut-Off Valves 4.6 mm (3/16"), 10 Adjustable Endline Drip Heads 0-15 l/h, 20 Inline Drip Heads 2 l/h, 1 Cleaning Needle

Artikel No. 13400

Endline Dripper

1 MADE IN GERMANY 

2 MADE IN EUROPE



Endline Drip Head 2 l/h ¹

Water flow: 2 l/h

Special features:

Contents: 25 Endline Drip Heads, 1 Cleaning Needle

Article No. 13307

New!



Endline Drip Head 2 l/h, pressure-compensating ²

Constant 2 l/h independent of the water pressure

Self-cleaning with membrane/labyrinth technology, constant water output, self-sealing when system switched off

Contents: 10 pieces

Article No. 13302

New!



Adjustable Endline Drip Head 0-15 l/h ¹

Adjustable from 0-15 l/h

Fully adjustable endline drip head with integrated cleaning needle

Contents: 10 pieces

Article No. 13305

New!



Adjustable Endline Drip Head pressure-compensating ²

Adjustable from 1-8 l/h, independent of the water pressure

Adjustable with volume scale, self-cleaning with membrane/labyrinth technology, constant water output, self-sealing when system switched off

Contents: 5 pieces

Article No. 13304

New!

Inline Dripper

For Potted Plants

For Plant Areas

1 MADE IN GERMANY 

2 MADE IN EUROPE



Inline Drip Head 2 l/h ¹

Water flow: 2 l/h

Special features: Can also be used as Endline Drip Head

Contents: 10 Inline Drip Heads, 1 Plug, 1 Cleaning Needle

Article No. 13317

New!



Inline Drip Head 2 l/h, pressure-compensating ²

2 l/h

Self-cleaning with membrane/labyrinth technology, constant water flow, self-sealing when system switched off

Contents: 10 Inline Drip Heads, 1 Plug

Article No. 13312

New!



Adjustable Inline Drip Head 0-15 l/h ¹

0-15 l/h

Fully adjustable spray head with integrated cleaning needle

Contents: 10 Inline Drip Heads, 1 Plug

Article No. 13315

New!



Adjustable Inline Drip Head ¹ pressure-compensating

1-8 l/h

Adjustable, with volume scale. Self-cleaning with membrane/labyrinth technology, constant water output, self-sealing when system switched off













Contents: 5 Inline Drip Heads, 1 Plug

Article No. 13314

New!

Holiday and Balcony Watering

Watering with power supply

	  	 	 
 			
	Holiday Irrigation Set	Holiday Irrigation Set with Water Reservoir	city gardening Balcony Watering
Use indoor/outdoor	Indoor, for up to 36 pot plants	Indoor, up to 36 pot plants	Outdoor, up to 25 plants
Water connection required	–	–	–
Power connection required	•	•	•
Contents	Transformer, pump, 3 drip distributors with 12 outlets each, 9 m Distribution Pipe, 30 m Drip Pipe, 36 Pipe Pegs, 20 Plugs	10.5 l extendable water reservoir, transformer, pump, 3 drip distributors with 12 outlets each, 9 m Supply Pipe, 30 m Drip Pipe, 36 Pipe Pegs, 20 Plugs	Water Control for pump, 25 Inline Drip Heads approx. 2 l/h with Plug and Cleaning Needle, 10 m Distribution Pipe 4.6 mm (3/16"), 15 Pipe Pegs
Article No.	1265	13366	1407

Solar-powered Watering

	 	 	
<p>1 MADE IN GERMANY</p> <p>2  reddot winner 2020 innovative product</p> 			
	Solar-powered Irrigation AquaBloom Set²	Solar-powered AquaBloom Water Reservoir Set	Water Reservoir^{1,2}
Use indoor/outdoor	Outdoor, up to 20 plants	Outdoor, up to 20 plants	Outdoor
Water connection required	–	–	–
Power supply required	–	–	–
Contents	1 x Main-Unit with integrated pump and solar panel, 20 x 0.5 l/h pressure-compensating Inline Drip Heads, 15 x (3/16") Pipe Pegs, 3 x rechargeable AA batteries 1.2 V, 2,400 mAh, 8 x (3/16") Plugs, 1 x Filter, 20 m (3/16") Distribution Pipe	1 x 10.5 l Water Reservoir extendable with Plug, 1 x Main-Unit with integrated pump and solar panel, 20 x 0.5 l/h Inline Drip Heads pressure-compensating, 15 x (3/16") Pipe Peg, 3 x rechargeable AA batteries 1.2 V 2,400 mAh, 8 x (3/16") T-Joints, 8 x (3/16") Plugs, 1 x filter, 20 m (3/16") Distribution Pipe	1 x 10.5 l Water Reservoir 1 x Plug (3/16")
Article No.	13300	13301	13367

Micro-Drip-System for Plant Areas

Starter Sets

MADE IN GERMANY



New! Set

Micro-Drip-Irrigation Vegetable Bed/Flower Border Set

For up to 60 m² vegetable bed/flower border

Contents: 1 Master Unit 1000, 1 Installation Tool, 25 m Connecting Pipe Flex 13 mm (1/2"), 15 Pipe Pegs 13 mm (1/2"), 2 T-Joints 13 mm (1/2"), 2 L-Joints 13 mm (1/2"), 3 Plugs 13 mm (1/2"), 5 Control Valves 4.6 mm (3/16"), 4 Spray Nozzles 90°, 1 Spray Nozzle 360°, 5 Extension Pipes for Spray Nozzles

Article No. 13450



New! Set

Micro-Drip Irrigation Raised Bed/Bed Set

For a bed/raised bed with up to 35 plants

Contents: 1 Master Unit 1000, 1 Installation Tool, 15 m Connecting Pipe Flex 13 mm (1/2"), 5 Pipe Pegs 13 mm (1/2"), 1 T-Joint 13 mm (1/2"), 2 L-Joints 13 mm (1/2"), 5 Connectors 13 mm (1/2") - 4.6 mm (3/16"), 2 Plugs 13 mm (1/2"), 15 m Distribution Pipe 4.6 mm (3/16"), 20 Pipe Pegs 4.6 mm (3/16"), 35 Inline Drip Heads 2 l/h pressure-compensating, 2 Regulation and Shut-off Valves 4.6 mm (3/16"), 5 Plugs 4.6 mm (3/16")

Article No. 13455

Spray Nozzles

MADE IN GERMANY



New!	New!	New!	New!	New!	New!
Endline Micro Strip Sprinkler	Micro Strip Sprinkler	Spray Nozzle 90°	Spray Nozzle 180°	Spray Nozzle 360°	6 in 1 Spray Nozzle

Use	For covering long, narrow beds with fine spray	For covering long, narrow beds with fine spray	For covering beds with fine spray from the corner	For covering beds with 180° fine spray	For covering beds with 360° fine spray	Flexible use for different garden areas
Irrigation diameter	–	–	–	–	6 m	–
Range	approx. 2.75 m	approx. 5.5 m	approx. 2.5 m	approx. 2.5 m	approx. 3 m	adjustable
Sprinkling width	approx. 0.6 m	approx. 0.6 m	–	–	–	–
Contents	5 pieces	5 pieces	5 pieces	5 pieces	5 pieces	2 pieces
Article No.	13318	13319	13320	13321	13322	13324

Nozzles, Sprinklers & Accessories

MADE IN GERMANY



	Nozzles			Sprinklers	Accessories		
	New!	New!	New!	New!	New!	New!	New!
	Micro Mist Nozzle	Small Area Spray Nozzle	Inline Small Area Spray Nozzle	Oscillating Sprinkler OS 90	Extension Pipe for Spray Nozzles	Reguliertventil	Extension Pipe OS 90
Use	For covering newly planted beds with fine spray from above	Accurate watering of small areas such as shrubs and flower bushes	Accurate watering of small areas such as shrubs and flower bushes	Watering of square and rectangular areas	For Spray Nozzles for watering over tall plants	For adjusting the flow rate and range of Spray Nozzles	For Oscillating Sprinkler OS 90
Area coverage	Ø 1m	Ø 10–40 cm	Ø 10–40 cm	1–90 m ²	–	–	–
Range	–	–	–	Adjustable from 0.5–7 m	–	–	–
Sprinkling width	–	–	–	Adjustable from 1.5–13 m	–	–	–
Contents	5 pieces	10 pieces	10 Small Area Nozzles, 1 Plug	1 Oscillating Sprinkler, 1 Plug	5 pieces	5 pieces	2 pieces
Article No.	13323	13306	13316	13325	13326	13231	13334

Note

For an overview of Inline Drip Heads for plant areas, please to go page 56.



Micro-Drip-System for Plant Rows

Starter Sets

MADE IN EUROPE



4.6 mm (3/16")

13 mm (1/2")



New! Set

Micro-Drip-Irrigation Vegetable/Plant Row Set (15 m)

For 15 m planting row or sensitive kitchen garden and ornamental plants



New! Set

Micro-Drip-Irrigation Hedge/Bush Set 25 m

For 25 m planting row (e.g. hedges or planted borders)



New! Set

Micro-Drip-Irrigation Hedge/Bush Set 50 m

For 50 m planting row (e.g. hedges or planted borders)

Internal pipe diameter	4.6 mm (3/16")	13 mm (1/2")	13 mm (1/2")
Water output	1.6 l/h per section of 30 cm	1.6 l/h per section of 30 cm	1.6 l/h per section of 30 cm
Installation	only above ground	above and below ground	above and below ground
Contents	1 Master Unit 1000, 15 m Drip Irrigation Line 4.6 mm (3/16"), 15 Pipe Pegs 4.6 mm (3/16"), 1 Plug 4.6 mm (3/16")	1 Master Unit 1000, 25 m Drip Irrigation Line 13 mm (1/2"), 15 Pipe Pegs 13 mm (1/2"), 1 Plug 13 mm (1/2")	1 Master Unit 1000, 50 m Drip Irrigation Line 13 mm (1/2"), 1 Plug 13 mm (1/2")
Article No.	13010	13500	13501

Drip Lines

4.6 mm (3/16")

13 mm (1/2")

MADE IN EUROPE



New!

Dripline 4.6 mm (3/16") 15 m



New!

Dripline 13 mm (1/2") 25 m















New!

Dripline 13 mm (1/2") 50 m

Internal pipe diameter	4.6 mm (3/16")	13 mm (1/2")	13 mm (1/2")
Water output	1.6 l/h per section of 30 cm	1.6 l/h per section of 30 cm	1.6 l/h per section of 30 cm
Use	15 m planting row for sensitive kitchen garden and ornamental plants	For extending the above and below ground Drip Irrigation Lines for planted borders or lawns	For extending the above and below ground Drip Irrigation Lines for planted borders or lawns
Installation	only above ground	above or below ground	above or below ground
Contents	15 m Drip Irrigation Line without fittings	25 m Drip Irrigation Line without fittings	50 m Drip Irrigation Line 13 mm (1/2") without fittings
Article No.	1362	13503	13504

Sprinklersystem

Pop-up Sprinklers











	SD Models		MD Models			
						
	Pop-up Sprinkler SD30	Pop-up Sprinkler SD80	Pop-up Sprinkler MD40	Pop-up Sprinkler MD80	Pop-up Sprinkler MD180	Pop-up Sprinkler MD40/300
Watering area	Up to 30 m ²	Up to 80 m ²	Up to 40 m ²	Up to 80 m ²	Up to 180 m ²	Up to 40 m ²
Watering sector	Fully adjustable without tool from 5–360° 	Fully adjustable without tool from 5–360° 	Fully adjustable without tool from 80–360° 	Fully adjustable without tool from 80–360° 	Fully adjustable without tool from 80–360° 	Fully adjustable without tool from 80–360° 
Range	adjustable from 1.5–3 m	adjustable from 3–5 m	adjustable from 2.5–3.5 m	adjustable from 3.5–5 m	adjustable from 5–7.5 m	adjustable from 2.5–3.5 m
Nozzle type	Spray nozzle	Spray nozzle	Rotary nozzle	Rotary nozzle	Rotary nozzle	Rotary nozzle
Dirt resistance	Integrated filter	Integrated filter	Integrated filter + double pop-up system			
Special features	The Water Smart technology of the rotary nozzle improves water absorption by the plant (up to 30 % water saving compared to spray nozzles)					
Connecting thread	1/2" female thread	1/2" female thread	1/2" female thread	1/2" female thread	1/2" female thread	3/4" male thread
Article No.	8241	8243	8231	8232	8233	8239

¹ **MADE IN GERMANY** 






² **MADE IN EUROPE**

	T Models			OS 140
				
	Turbo-driven Pop-up Sprinkler T100¹	Turbo-driven Pop-up Sprinkler T200¹	Turbo-driven Pop-up Sprinkler T380¹	Pop-up Oscillating Sprinkler OS 140²
Watering area	Up to 100 m ²	Up to 200 m ²	Up to 380 m ²	Up to 140 m ²
Watering sector	Fully adjustable from 70 - 360° 	Fully adjustable from 25–360° 	Fully adjustable from 25–360° 	
Range	Adjustable from 4–6 m	Adjustable from 5–8 m	Adjustable from 6–11 m	2–15 m
Dirt resistance	Integrated filter	Integrated filter	Integrated filter	Integrated filter
Special features		Anti-vandal protection by memory function: Sprinkler automatically returns to the pre-set sector		Fine adjustment of the range and width of spray by means of flow control
Connecting thread	1/2" female thread	1/2" female thread	3/4" female thread	3/4" female thread
Article No.	8201	8203	8205	8223

Connection for Pop-up Sprinklers










	1/2" male thread			3/4" male thread			3/4" male thread		
MADE IN GERMANY 									
	L-Piece 25 mm	Angle Piece 25 mm	T-Piece 25 mm	L-Piece 25 mm	Angle Piece 25 mm	T-Piece 25 mm	L-Piece 25 mm	Angle Piece 25 mm	T-Piece 25 mm
Connections for	Connection for Pop-up Sprinklers SD30, SD80, MD40, MD80, MD180, Turbo-driven Pop-up Sprinklers T100 and T200			Connection for Turbo-driven Pop-up Sprinkler T380, Pop-up Oscillating Sprinkler OS 140			In combination with the flexible connectors (Art. No. 2739 and 2740) for Pop-up Sprinkler SD30, SD80, MD40, MD80, MD180, T100, T200, T380 and OS 140. For installing the Drain Valve (Art. No. 2760) within the run of the pipes		
Article No.	2780	2782	2786	2781	2783	2787	2784	2764	2790

Connection for Pop-up Sprinklers and Accessories

MADE IN GERMANY 				
	Sprinkler Connection 3/4" x 1/2" ¹	Sprinkler Connection 3/4" x 3/4" ¹	Sattle Clamp 25 mm x 3/4" female thread ²	Cutter for Sattle Clamp 3/4" thread ²
Use	For flexible "outline" Sprinkler connection in combination with Sattle Clamps or the T/L-Pieces with female thread	For flexible "outline" Sprinkler connection in combination with Sattle Clamps or the T/L-Pieces with female thread	Sprinkler connection within the run of the pipe in combination with the flexible connectors Art. No. 2739 and 2740, for connecting the Pop-up Sprinklers SD30, SD80, MD40, MD80, MD180, T100, T200 and T380.	Simple pipe perforation without drilling machine
Special features	–	–	fixed metal nut to simplify assembly	Hardened metal cutting edge for long durability. Handle opening for ejecting the cutting waste
Article No.	2739	2740	2728	2765






Below Ground Water Networks

Connections and Pipe Connectors





	Connections			Pipe Connectors				
MADE IN GERMANY 								
	Connector 25 mm x 3/4" female thread	Connector 25 mm x 1" female thread	Connector 25 mm x 1" male thread	T-Piece 25 mm	L-Piece 25 mm	Connector 25 mm	Reducing Connector 32–25 mm	End-Piece 25 mm
Use	For pipe connection to the Connecting Point, Water Station, the Regulator and Shut-off Valve, MD40/300 and for directly connecting the Sprinklersystem to the domestic water supply	For pipe connection to the Valve Boxes V1 and V3, to the Pressure Regulator and for directly connecting the Sprinklersystem to the domestic water supply	For pipe connection to the Valve Boxes V1 and V3 and for directly connecting the Sprinklersystem to the domestic water supply	Pipe branching for Connecting Pipe	Direction change of the Connecting Pipe	For connecting two 25 mm pipes	Transition from the 32 mm pipe to the 25 mm pipe	Terminating the Connecting Pipe
System	Pipeline, Sprinklersystem	Sprinklersystem	Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem
Article No.	2761	2762	2763	2771	2773	2775	2777	2778

Underground water distribution

Pipes and System Start

¹ MADE IN EUROPE 					
	Connecting Pipe ¹	Connecting Pipe ¹	Connecting Pipe ¹	Pipe Cutter 25 mm	
	Use	System pipes	System pipes	System pipes	For easy cutting and chamfering of Connecting Pipes 25 mm
	Length	25 m	50 m	10 m	–
	System	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem	Pipeline, Sprinklersystem
Article No.	2700	2701	2718	2727	









Sprinklersystem Accessories

¹ MADE IN GERMANY ² MADE IN EUROPE					
	Connecting Point ²	Regulator and Shut-off Valve ²	Sprinklersystem Pressure Regulator	Valve-Box Small ²	
	Use	With "Profi" Maxi-Flow Tap Connector, transports water into Pipeline and Sprinklersystem	For stepless regulation and shut-off of individual sprinklers or groups of sprinklers	Pressure reduction to max. 3.1 bar	For installation of the Pressure Regulator
	System	Pipeline, Sprinklersystem	Sprinklersystem	Sprinklersystem	Sprinklersystem
	Connection	3/4" male thread	3/4" male thread	1" male thread	–
Article No.	8262	8264	8200	1290	

Pipeline


















¹ MADE IN GERMANY ² MADE IN EUROPE									
	Connecting Point ²	Water Station ²	Water Plug	Starter Set Pipeline ²	Starter Set Pipeline with Oscillating Sprinkler ²	Complete Set Pipeline with Oscillating Sprinkler ²	Pipeline Oscillating Sprinkler ²	Pipeline Garden Water Tap	
	Use	With "Profi" Maxi-Flow Tap Connector, transports water into Pipeline and Sprinklersystem	Taking water from the Pipeline system	Taking water from the Pipeline system	Starter Set with 2 Water Stations	Starter Set with 2 Water Stations and Pipeline Oscillating Sprinkler	Complete set with 2 Water Stations and Pipeline Oscillating Sprinkler	For watering square and rectangular areas, ideal for flower/vegetable beds and lawn	Convenient water tapping at the Water Station
	Article No.	8262	8266	8254	8270	8272	8274	8251	8252

Accessories for Pipeline and Sprinklersystem

MADE IN GERMANY 				 	 
	"Profi" Maxi-Flow System Connector Set For connecting the Pipeline and Sprinklersystem to the water tap	"Profi" Maxi-Flow System Connection Set Complete set for connecting the Pipeline and Sprinklersystem to the water supply	Adapter Piece For creating a permanent hose connection	Drain Valve For draining water automatically when shutting down the system (connection Art. No. 2790, 2761)	Drain Valve Set For draining GARDENA products manually before the frost period
Use					
Article No.	1505	2713	1513	2760	2770

Water Controls





Above ground Water Controls

¹ MADE IN GERMANY  ²  reddot award 2016 winner		 	 	  	 	 	  
	Manual Tap Timer ¹ Useful: Switches off automatically after the pre-set watering duration	Water Control Flex ¹ Short cycles for watering pot plants - ideal for use with the GARDENA Micro-Drip-System. Intuitive turn and push feature	Water Control Select ¹ Individual setting options of 3 individual schedules, intuitive operation with just one button	Water Control Bluetooth [®] Watering via the GARDENA Bluetooth App from up to 10 m distance	Water Control Master ¹ 6 independent schedules, intuitive operation with just one button	MultiControl duo ¹ Flexible thanks to 2 individually programmable outlets. Fully automatic operation with Soil Moisture Sensor possible	smart Water Control ^{1,2} Watering times can be set flexibly and adjusted at any time via the GARDENA smart App
Schedules	–	1	3	3	6	1 schedule	individual setting
Energy supply	mechanisch	1 x 9 V alkaline battery (not included)	1 x 9 V alkaline battery (not included)	1 x 9 V alkaline battery (not included)	1 x 9 V alkaline battery (not included)	1 x 9 V alkaline battery (not included)	3 x AA 1.5 V alkaline battery (not included)
Watering duration	5-120 min	1 sec - 99 min	7 hrs 59 min per schedule	1 min - 8 hrs per schedule	1 min - 4 hrs per schedule	1 min - 3 hrs 59 min (per outlet)	1 min - 10 hrs
Watering frequency	–	every 4/6/8/12/24/48/72 hours up to six times per day	weekdays, up to 3 times per day	weekdays can be chosen for each schedule	weekdays, up to 6 times per day	selection of the weekdays or every 2nd/3rd/7th day	weekdays
Can be used with	–	Soil Moisture Sensor (Art. No. 1867)	Soil Moisture Sensor (Art. No. 1867)	Soil Moisture Sensor (Art. No. 1867)	Water Distributor automatic (Art.No. 1197), Soil Moisture Sensor (Art. No. 1867)	Soil Moisture Sensor (Art. No. 1867)	All smart system Sets, Water Distributor automatic (Art. No. 1197), smart Sensor (Art. No. 19040)
Article No.	1169	1890	1891	1889	1892	1874	19031

For smart Irrigation Control Starter Sets
please see page 65 or www.gardena.de/smart

Water Controls




Accessories

	 Soil Moisture Sensor	 Extension Cable	 smart Sensor	 Water Distributor automatic
Use	For optimized water-saving irrigation. Connection to a GARDENA Water Control. Measures soil moisture and prevents scheduled watering when a preset moisture level is reached	Extension of the sensor's power cable up to 105 m, Soil Moisture Sensor (Art. No. 1867)	Measurement of the soil moisture and ground temperature, inclusion of the soil moisture into the water control via smart App	Fully automatic control of up to 6 accessories, one after the other
Can be used with	GARDENA Water Control Flex (Art. No. 1890), Select (Art. No. 1891), Bluetooth® (Art. No. 1889), Master (Art. No. 1892), MultiControl duo (Art. No. 1874), Irrigation Control 4030 (Art. No. 1283) and 6030 (Art. No. 1284), Irrigation Valve 9V Bluetooth® (Art. No. 1285)	Soil Moisture Sensor (Art. No. 1867)	all smart system Sets	GARDENA Water Control Master (Art. No. 1892)
Article No.	1867	1868	19040	1197

Multi-Channel Irrigation Control

Multi-Channel Irrigation Controls 24V

24 V / power supply













	 Classic Irrigation Control System 4030	 Classic Irrigation Control System 6030	 smart Irrigation Control
Use	Control of up to 4 Irrigation Valves 24V, for indoor and rain protected outdoor	Control of up to 6 Irrigation Valves 24V, for indoor and rain protected outdoor	Water several areas via smart App, control of 6 Irrigation Valves 24V per device
Can be used with	Irrigation Valve 24V (Art. No. 1278), Soil Moisture Sensor (Art. No. 1867)		Irrigation Valve 24V (Art. No. 1278), smart Sensor (Art. No. 19040)
Number of irrigation valves that can be controlled	4 (24 V)	6 (24 V)	6 (24 V)
Individual schedules per valve	3	3	individually adjustable via app
Watering duration per schedule	1 min - 3 hrs 59 min, centrally adjustable by 0 - 200-%		individually adjustable via app
Control via smart App	–	–	•
Article No.	1283	1284	19035

Valves

24 V | Power Connectors









Controls 9 V

¹ **MADE IN GERMANY** 

	 Irrigation Valve 24 V ¹ 	 Connection Cable 24 V 	 Cable Clip 24 V 	  Irrigation Valve 9 V Bluetooth 	  Control Unit 9 V Bluetooth 
Use	Connection to a GARDENA Irrigation Control via cable	Connection of up to 6 Irrigation Valves 24 V to a GARDENA Irrigation Control	Water-tight connection of the Connection Cable to an Irrigation Valve 24 V when using a Valve Box V1	Battery-operated valve control of irrigation systems without 230 V mains connection. Simple configuration of the programming with the GARDENA Bluetooth App	For the conversion of GARDENA 9 V Irrigation Valves until 2020. Replaces Controller 9 V and Programming Unit. Easy configuration of the programming with the GARDENA Bluetooth App
Can be used with	Irrigation Control System 4030 (Art. No. 1283), Irrigation Control System 6030 (Art. No. 1284), smart Irrigation Control (Art. No. 19035, 19210)		Connection Cable 24 V (Art. No. 1280)	Soil Moisture Sensor (Art. No. 1867)	Irrigation Valve 9 V (Art. No. 1251) (until 2020), Soil Moisture Sensor (Art. No. 1867)
Article No.	1278	1280	1282	1285	1287

Valve Boxes

¹ **MADE IN GERMANY** 

	   Valve Box 9 V Bluetooth Set ¹ 	 Valve Box V1 ¹	 Valve Box V3 ¹ 	 Connector for Valve Boxes V3
Use	Battery operated valve control of irrigation systems without 230 V mains connection. Easy configuration of the programming with the GARDENA Bluetooth App	For 1 Irrigation Valve 9 V or 24 V	For up to 3 Irrigation Valves 9 V or 24 V	For connecting 2 Valve Boxes V3 for the installation of the pressure regulator
Can be used with	Soil Moisture Sensor (Art. No. 1867))	Irrigation Valve 9 V Bluetooth (Art. No. 1285), Irrigation Valve 24 V (Art. No. 1278)		Valve Box V3 (Art. No. 1255) pressure regulator (Art. No. 8200)
Connection	4 x 1" male thread	2 x 1" male thread	4 x 1" male thread	1" female thread
Article No.	1286	1254	1255	2758

smart system Irrigation Control Start Sets

You find all GARDENA smart system products under www.gardena.de/smart

	  smart Sensor Control Set 	  smart Water Control Set 	   smart Irrigation Control Sensor Set 
Use	Watering of plants via smart App		
Contents	smart Water Control, smart Sensor, smart Gateway	smart Water Control, smart Gateway	smart Irrigation Control, smart Sensor, smart Gateway
Article No.	19202	19103	19210

DO IT YOURSELF

Micro-Drip-System



Put an end to the traditional watering solution, such as hose or water cans! You want to be supported with a compact and convenient irrigation solution? Then our Starter Sets are the perfect first step into drip irrigation. Select the set for your specific application area. The package contains a Master Unit with a Connecting Pipe, Connectors and the appropriate Nozzles or Drip Heads. Easily assemble the components together with just a click. Everything is securely connected. Rearrangement of the installation is possible at any time. A Water Control, extension sets or individual components can easily be added.

Tip

For even more convenient and time-saving irrigation, we recommend the Water Control Flex (art. no. 1890) or Select (art. no. 1891). Would you like even more comfort - or control the watering via app? Compare our Water Controls on page 46.

Starter Sets for Potted Plants

Up to 15 Potted Plants

Starter Set Balcony (Art. No. 13401)



Up to 30 Terrace Potted Plants on a terrace

Starter Set Terrace (Art. No. 13400)



Installation video balcony



Installation video terrace



You want to water more plants?

Easily complement the Start Sets by buying the following products:

- + Inline/Endline Drip Heads (see page 56)
- + Pipe Pegs (Art. No. 13218, 13208, see page 54)
- + Connectors (see page 55)
- + Additional Pipes (see page 54)

Tip

Use the colour code as a guide in the planning and selection process. The Starter Sets are also colour-coded for easy identification of your required application usage. If your installation requirement is particularly complex, we recommend using the GARDENA Micro-Drip Configurator as a support when planning your installation.

Online Configurator



Starter Sets for Plant Area

Raised beds and beds with up to 35 sensitive plants
Starter Set (Art. No. 13455)



Installation
video

You want to water more than 35 bed plants?

Simply buy the required quantities of Drip Heads:
+ Inline Drip Heads (see page 56)
+ Pipe Pegs (Art. No. 13218)
+ Connectors (see page 54)
+ Pipes (see page 54)

Vegetable/plant beds up to 60 m²
Starter Set (Art. No. 13450)



Installation
video

You want to extend your set?

Select from range of Spray Nozzles for your specific bed:
+ Spray Nozzles (see page 58)
+ Pipe Pegs (Art. No. 13208)
+ Connectors (see page 54)
+ Pipes (see page 54)

Starter Sets for Plant Rows

Hedges and Shrubs up to 25 m
Starter Set (Art. No. 13500)



Installation
video

Hedges and Shrubs up to 50 m
Starter Set (Art. No. 13501)



You have a longer plant row?

Simply buy your desired extension for your Dripline installation:
+ 25 m Dripline 13 mm 1.6 l/h (Art.-No. 13503) (see page 59)
+ 50 m Dripline 13 mm 1.6 l/h (Art.-No. 13504) (see page 59)
+ Pipe Peg (Art.-No. 13208)

Vegetable and plant rows up to 15 m
Starter Set (Art.-No. 13010)



Installation
video

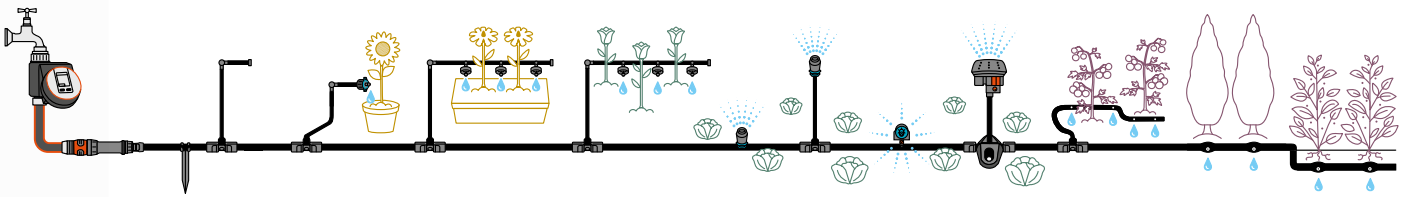
You have a longer plant row?

Simply buy your desired extension for your Dripline installation:
+ 15 m Dripline 4.6 mm 1.6 l/h (Art.-No. 13010) (see page 59)
+ Pipe Pegs (Art.-No. 13218)

Let's get started.

How to build your own Micro-Drip-System

You'll be amazed: assembling your own MDS solution is easier than you think. Just follow a few simple steps and you will quickly have your individual and convenient watering solution.



System Start

At the beginning you set the Water Control and then the so-called Master Unit. The Master Unit regulates the pressure and filters the water.

Connection

There are 2 different connection sizes. 13 mm Pipes and Connectors for larger areas and 4.6 mm Pipes and Connectors for smaller surfaces, such as balconies.

Potted Plants

For pots or flower boxes choose Drip Heads or Starter Sets marked in yellow.

Plant Areas

For beds you select Drip Heads, Spray Nozzles or Starter Sets marked in green.

Plant Rows

Pipeline for above and below ground irrigation of plant rows. Select the practical-Starter Sets marked in purple and extend them with Extension Pipes if desired.

The planning process

Do you want to extend your existing system or would like to cover an area in your garden that goes beyond the components included in the Starter Sets? Would you like to create your bespoke Micro-Drip solution and cover different areas in your garden? We are going to show you how many plants you can water with just one connection attached to the water tab.

1. Select number of water outlets available to cover the designated areas.
2. Then identify the load capacity of your irrigation system - the connection value. This is defined by considering following factors:
 - a.) Mode of installation of the Connection and Supply Pipes
 - b.) Positioning of the Master UnitYou can then compare the connection value of your system with the consumption values of all your planned application devices.



1. Assemble the irrigation equipment

Map out the number of pots or size of areas you want to cover. Define the suitable components based on the type of usage application, such as Drip Heads, Dripline or Spray Nozzles. Check out pages 56-59 and discover the range of components available by usage application.

For example:

Terrace with 4 potted plants and 1 plant tray with 5 plants

- 4 x Adjustable Endline Drip Head 1-8 l/h for 4 plant pots
- 5 x Inline Drip Head pressure-compensating for plant pot with 5 plants in row

Narrow flower bed at the edge of the terrace

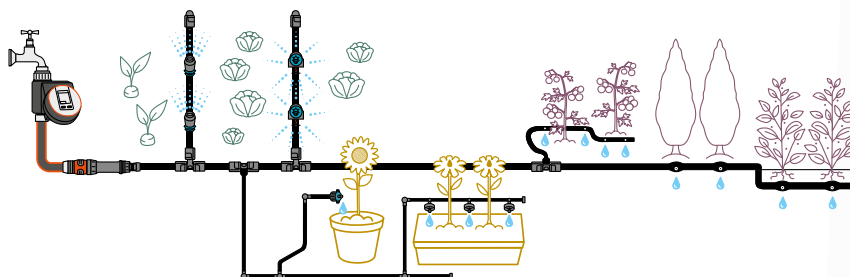
- 2 x Endline Micro Strip Sprinkler
- 1 x Micro Strip Sprinkler

2a. Select the ideal installation method of Connection and Supply Pipes

Installation type 1

4.6 mm and 13 mm pipes

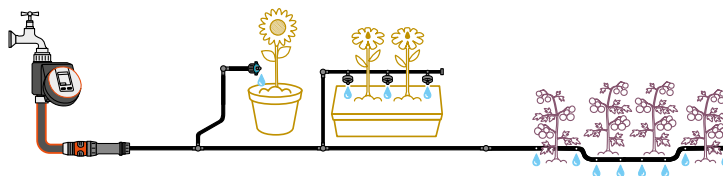
To be able to cover more plants, the Supply Pipe 4.6 mm is used in combination with the Connection Pipe 13 mm. The main line is the connection pipe, the small supply pipe transports the water to the plants. Maximum combination is approx. 60 m Connection pipe and approx. 15 m supply pipe.



Installation type 2

4.6 mm pipes

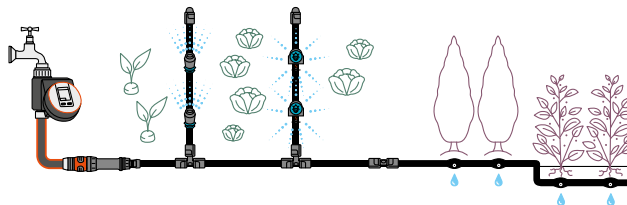
In this installation method only the supply pipe and drip line 4,6 mm is used. It is ideal for small garden beds or balconies. Maximum length is approx. 30 m.*



Installation type 3

13 mm pipes

Only the pipe and drip line 13 mm is used e. g. 13 mm drip line or connection pipe in combination with spray nozzles or endline drip heads. Maximum length is approx. 60 m

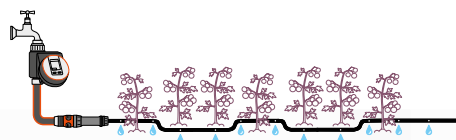


* The maximum pipe length is given as a guide only. The value can vary based on the number of connected components

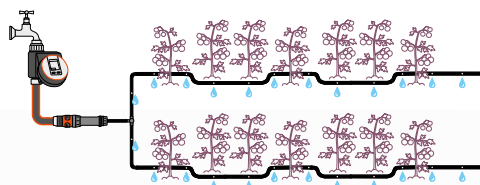
2b. Positioning of the Master Unit

The Master Unit is an important component of the Micro-Drip-System. With this ready-to-connect Master Unit the water pressure is regulated and the water is filtered. If you place the Master Unit centrally in the pipe run, you can easily double the length of the pipe system (see 3. Connection values). If the system starts further away from the tap, then you can bridge the distance with an underground GARDENA pipeline or a garden hose. Like this you prevent loss of water pressure.

Master Unit is placed at the System Start



Master Unit is placed centrally in the pipe run



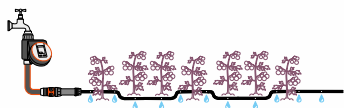

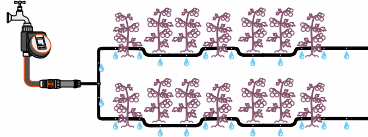

3. Comparison of consumption value and connection value

Three things you need to know:

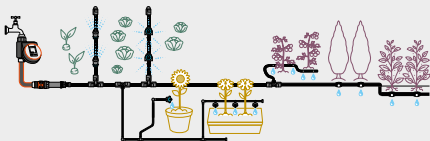
- The Master Unit is the starting point and defines the connection value, depending on the model and installation type.
- The connection value defines the capacity available for the maximum installation of Drip Heads, Spray Nozzles and Driplines.
- The connection value of the system must be higher than the consumption value of the installation.

The connection value depends on your selection of pipe combination and positioning of the master unit. You might notice in the below table that the connection value with a 13 mm pipe is higher than with a 4.6 mm pipe. Now enter how many Drip Heads and Spray Nozzles you are planning to install in your system. If the consumption value is below the connection value, you will have a reliable irrigation system.

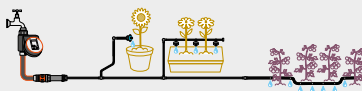
Connection values

		Master Unit at the System Start		Master Unit in the middle of the pipe run*	
					
		Master Unit 1000	Master Unit 2000	Master Unit 1000	Master Unit 2000
Installation type 1	Connection value Recommended pipe length**	500 13 mm max. 40 m 4.6 mm max. 15 m	1000 13 mm max. 40 m 4.6 mm max. 15 m	1000 13 mm max. 2 x 30 m 4.6 mm max. 15 m	2000 13 mm max. 2 x 30 m 4.6 mm max. 15 m
Installation type 2	Connection value Recommended pipe length**	50 max. 15 m	50 max. 15 m	100 max. 2 x 15 m	100 max. 2 x 15 m
Installation type 3	Connection value Recommended pipe length**	500 max. 40 m	1000 max. 40 m	1000 max. 2 x 30 m	2000 max. 2 x 30 m

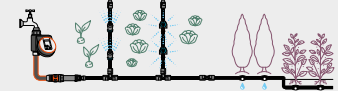
Installation type 1
4.6 mm and 13 mm pipes



Installation type 2
4.6 mm pipes



Installation type 3
13 mm pipes



* If the base unit is positioned centrally in the pipe run, then the connected value of each pipe is halved.

** The maximum pipe length is given as a guide only. The value can vary based on the number of connected components.

4. Assembly - simply put together

The Micro-Drip-System is very easy to put together.
Typical GARDENA.

Original GARDENA OGS system

From the tap to the Master Unit

It starts at the water tap: everything is interconnected, such as Water Control, hose and Master Unit. Easy, leakproof, flexible and safe. For over 50 years we are recognised for safe and innovative product solutions and connections.

Micro-Drip-System

From the Master Unit to the plants

Then the Micro-Drip-System takes over. The Driplines are simply put together with the Connectors (e.g. with 4-Way Coupling or T-Piece).

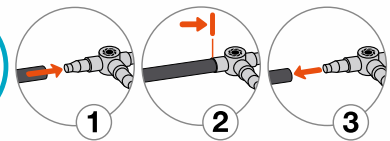
Easy thanks to Quick & Easy technology.

Screw on the desired
Water Control

Mount hose

2 Connect the Master Unit as
part of System Start

EASY &
FLEXIBLE



All Drip Heads, Nozzles
and Sprinklers are either
screwed or pushed into the
pipe. Everything is kept
tight, everything is very
easy to do.



1

The pipe can easily be
cut with scissors

6 Install Inline Drip Heads
for plant troughs

Cut the Pipes to the required length, then plug them together and attach the Drip Heads or Nozzles. You can also attach the Drip Heads and Nozzles first and then put the Pipes together. In any case, everything should be connected and the pipe closed at the end before you start the system with water. If you want to change something later, you can flexibly rebuild the system.

Create hole with installation tool

Screw Spray Nozzle in the pre-punched hole

Assemble the Regulation Valve below the Spray Nozzle and screw it into the Extension Pipe

Screw the Extension Pipe into the Connector

Simply push together



Connect Dripline and ready!

Plug in the connector

Secure Pipe with Pipe Pegs

Screw in Endline Drip Heads for potted plants

Screw in the Plug at the end of the system

Install the Plug at the end of the system

Planning Sprinklersystem

The intelligent irrigation system that understands your lawn.

Watering your garden can be a breeze. Install an automatic Sprinklersystem, a reliable system that takes care of your lawn while you enjoy your free time. We'll show you how it's done. From planning by yourself to getting it done for you: Just see what suits you best. The MyGarden Online tool and our customer service team are trusted and helpful partners at your side.



A Plan yourself

Create an irrigation plan for your individual garden. You will find the instructions on the next pages. Everything is explained step by step. You will find a tear-out shopping list on page 89.



B Plan online

Create your watering schedule with the help of the GARDENA Sprinklersystem planner "myGarden" at www.gardena.com/mygarden



C Use the GARDENA Customer Service

No time or mood to plan it by yourself? Our GARDENA customer service will support you. Inquire also about the costs for your individual planning.

Contact service

Telephone +49 731/4 90-123

Fax + 49 731/4 90-249

www.gardena.com/contact



We ask for your understanding that we accept no liability for installations created by ourselves and no guarantee for costs and damages, that may arise during the implementation of the planning.

DO it YOURSELF

Plan it yourself - automatic watering in 8 steps

1. Plan system
2. Select Sprinklers
3. Determine Pipes
4. Determine Connections
5. Select control unit
6. Connect the system
7. Installing the system
8. Tips & hints for maintenance

And off you go!

On the following pages you will find out everything you need to know to irrigate your garden automatically. GARDENA provides the best solution due to our expertise, development of GARDENA technology and united passion for gardens. So that you can enjoy your automated lawn irrigation solution with GARDENA Sprinklersystem soon.

1. Plan the installation - Draw a blueprint of your garden

Blueprint

1. Draw a blueprint of your property on a scale of 1:100 (1 cm = 1 m) or on a scale of 1:200 (1 cm = 2 m).
2. Mark the water connection (e.g. tap, well, cistern)
3. Mark all areas that need to be irrigated



2. Select Sprinklers

With our innovative Sprinkler range you will make the right choice for your project.



SD Sprinklers

With the SD Sprinkler models you can automatically water smaller lawns. Thanks to the easy adjustable spray sector from 5-360°, the Sprinklers are also suitable for installation in narrow corner and small lawn areas. Please note: The SD models cannot be combined with other Sprinkler models on the same pipe.



MD Sprinklers

The models of the MD Sprinklers with spray distance of 2.5-7.5 m are suitable for irrigation of medium-sized areas. Its innovative rotary nozzle improves the water absorption into the soil, making it an water-efficient lawn irrigation solution for your garden. Since the water flow is similar to the T-Sprinklers or the OS 140, you can combine them on one pipe. For watering smaller plants at the edges of the lawn, a model with a longer riser is also available.



T Sprinkler

For the irrigation of larger areas, you can use the T-line models. They maximum spray distance is 11 m. Convenient installation with MD Sprinklers in one pipe makes planning even easier for you.



OS 140

For the irrigation of square or rectangular areas, the OS 140 is a simple and convenient solution. The Pop-up Oscillating Sprinkler is also suitable for particularly small and narrow areas and can water lawns from 2-140 m². Where several circle sprinklers and pipes had to be installed, one sprinkler is sufficient.

Overview Sprinklers

	SD models		MD models				T Sprinkler			OS 140
	Pop-up Sprinkler SD30	Pop-up Sprinkler SD80	Pop-up Sprinkler MD40	Pop-up Sprinkler MD80	Pop-up Sprinkler MD180	Pop-up Sprinkler MD40/300	Turbo-driven Pop-up Sprinkler T 100	Turbo-driven Pop-up Sprinkler T 200	Turbo-driven Pop-up Sprinkler T 380	Pop-up Oscillating Sprinkler OS 140
Watering areas	Up to 30 m ²	Up to 80 m ²	Up to 40 m ²	Up to 80 m ²	Up to 180 m ²	Up to 40 m ²	Up to 100 m ²	Up to 200 m ²	Up to 380 m ²	2-140 m ²
Watering sector	5-360°	5-360°	80-360°	80-360°	80-360°	80-360°	70-360°	25-360°	25-360°	-
Distance between Sprinklers	1.5-3 m	3-5 m	2.5-3.5 m	3.5-5 m	5-7.5 m	2.5-3.5 m	4-6 m	5-8 m	6-11 m	2-15 m und 1-9.5 m
Sprinkler distance	1.5-3 m	3-5 m	5-3.5 m	3.5-5 m	5-7.5 m	2.5-3.5 m	4-6 m	5-8 m	6-11 m	-

!!! Important advice

SD models



Due to the different water consumption, the SD models must not be installed with other sprinklers in the same pipe.

MD and T Sprinklers, Pop-up Oscillating Sprinkler



These sprinklers can be freely combined in the same pipe thanks to the same low water consumption.

What to pay attention to when planning

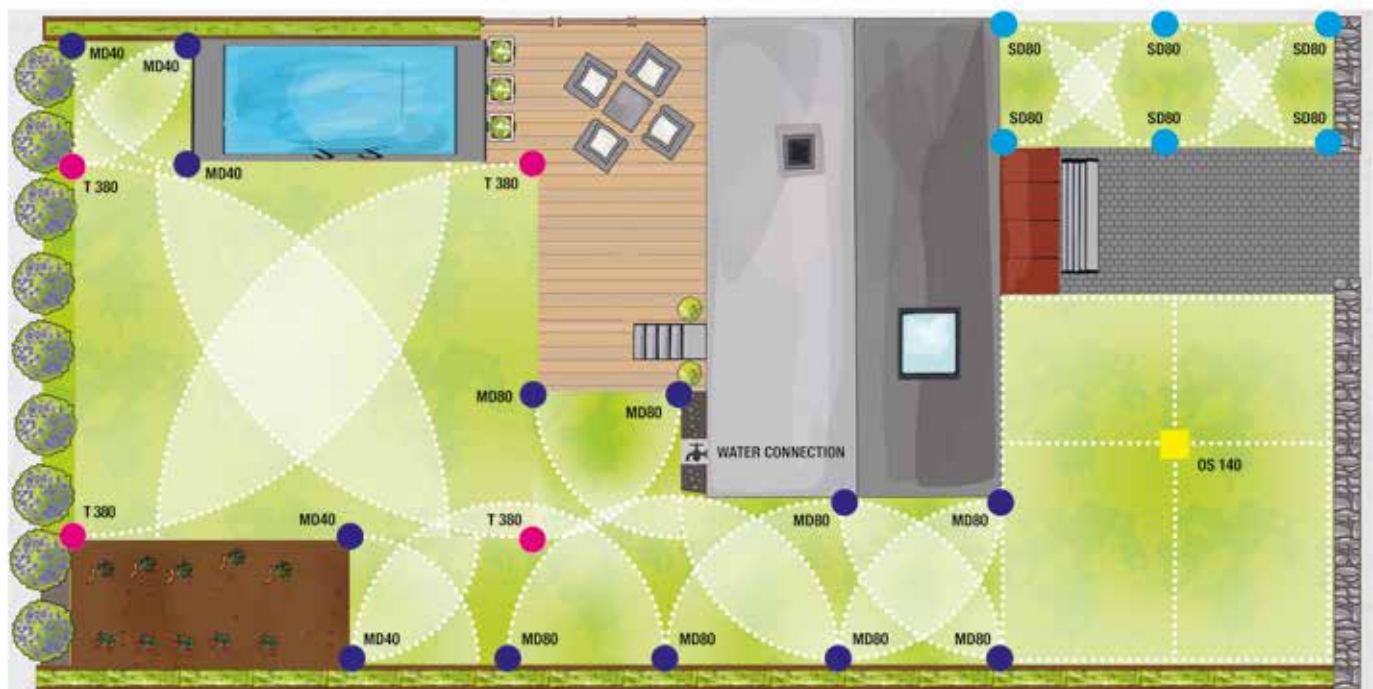
When positioning the Sprinklers, the goal is to achieve the most even water distribution possible in your garden. Each area should be watered twice and i.e. the spraying areas of two Sprinklers should overlap. This is called a 100% overlap. This way you achieve an accurate irrigation that is wind resistant.

- 100% overlap ensures that your lawn is watered as evenly as possible. Furthermore, more water is distributed in a shorter time period to achieve the most efficient and time-saving irrigation process. This also helps you to choose the optimal time for watering.
- If an even overlapping is not possible, you can also adjust the watering schedule by dividing the area into zones. More on this on page 80 Installation of pipes.
- First you position the Sprinklers in all the corners of your garden. Set them to the maximum possible spraying distance. Then position the Sprinklers at even intervals along the edge. For larger gardens you must also place Sprinklers in the centre to ensure a 100% overlap.
- We recommend installing MD and T-line Sprinklers where possible. These models can be combined with each other in the same pipe run. Here you can choose flexibly spray distances from 2.5 up to 11 m due to the matching precipitation rate of MD and T-Line sprinkler.
- We recommend SD Sprinklers for corners, where smaller spraying areas or spraying distances are necessary.
- The Square Sprinkler OS 140 does not require overlapping irrigation.





















Blueprint

Take the blueprint of your garden and complete the following steps:

1. Select the appropriate Sprinklers for your garden areas.
2. Draw the Sprinklers into the blueprint. Keep in mind the hints provided for the sprinkler positioning.
3. Add the selected Sprinklers with the correct description and quantity in your shopping list.








































Overview

Type	Name	Spray distance	Sector	
Irrigation of smaller lawns. Especially suitable for narrow, corner and edge areas	SD models Pop-up Sprinkler	Pop-up Sprinkler SD30 Pop-up height 100 mm 1/2" female thread Article No. 8241	Radius 1.5–3 m 	5–360° Sprinkler distance 1.5–3m 
		Pop-up Sprinkler SD80 Pop-up height 100 mm 1/2" female thread Article No. 8243	Radius 3–5 m 	5–360° Sprinkler distance 3–5m 
Irrigation of medium-sized lawns	MD models Pop-up Sprinkler	Pop-up Sprinkler MD40 Pop-up height 100 mm 1/2" female thread Article No. 8231	Radius 2.5–3.5 m 	80–360° Sprinkler distance 2.5–3.5 m 
		Pop-up Sprinkler MD80 Pop-up height 100 mm 1/2" female thread Article No. 8232	Radius 3.5–5 m 	80–360° Sprinkler distance 3.5–5 m 
		Pop-up Sprinkler MD180 Pop-up height 100 mm 1/2" female thread Article No. 8233	Radius 5–7.5 m 	80–360° Sprinkler distance 5–7.5 m 
For irrigation of plants		Pop-up Sprinkler MD40/300 Pop-up height 300 mm 3/4" male thread Article No. 8239	Radius 2.5-3.5m 	80–360° Sprinkler distance 2.5–3.5 m 
Irrigation of large-sized lawns	T-Models Turbo-driven Pop-up Sprinkler	Turbo-driven Pop-up Sprinkler T 100 1/2" female thread Article No. 8201	Radius 4–6 m 	70–360° Sprinkler distance 4–6 m 
		Turbo-driven Pop-up Sprinkler T 200 1/2" female thread Article No. 8203	Radius 5–8 m 	25–360° Sprinkler distance 5–8 m 
		Turbo-driven Pop-up Sprinkler T 380 3/4" female thread Article No. 8205	Radius 6–11 m 	25–360° Sprinkler distance 6–11 m 
Rectangular areas	OS 140	Pop-up Oscillating Sprinkler OS 140 3/4" female thread Article No. 8223	Range 2–15 m 	Sprinkling width 1–9.5 m 

Consumption values

Connection thread

5-90° = 6 	91-180° = 10 	181-270° = 13 	271-360° = 17 	1/2" female thread
5-90° = 10 	91-180° = 16 	181-270° = 22 	271-360° = 27 	1/2" female thread
80-90° = 2 	91-180° = 4 	181-270° = 6 	271-360° = 8 	1/2" female thread
80-90° = 4 	91-180° = 6 	181-270° = 9 	271-360° = 13 	1/2" female thread
80-90° = 6 	91-180° = 12 	181-270° = 17 	271-360° = 22 	1/2" female thread
80-90° = 2 	91-180° = 4 	181-270° = 6 	271-360° = 8 	3/4" male thread
70-90° = 8 	91-180° = 10 	181-270° = 14 	271-360° = 17 	1/2" female thread
25-90° = 9 	91-180° = 13 	181-270° = 17 	271-360° = 20 	1/2" female thread
25-90° = 15 	91-180° = 20 	181-270° = 25 	271-360° = 30 	3/4" female thread
= 22 				3/4" female thread

Connections for 1/2" female thread

Flexible connection



Article No. 2739



T-Piece

Article No. 2790



Angle Piece

Article No. 2764



L-Piece

Article No. 2784

Fixed Connection



T-Piece

Article No. 2786



Angle Piece

Article No. 2782



L-Piece

Article No. 2780

Connections for 3/4" male thread



Connector

Article No. 2761*

Connections for 3/4" female thread

Flexible connection



Article No. 2740



T-Piece

Article No. 2790*



Angle Piece

Article No. 2764



L-Piece

Article No. 2784

Fixed Connection



T-Piece

Article No. 2787



Angle Piece

Article No. 2783



L-Piece

Article No. 2781

3. Installation of pipes

A Determine connection capacity

Depending on the type and setting of the spray area, the Pop-up Sprinklers have different water consumption values. Our irrigation planner helps you to determine the water consumption for your individual Sprinklersystem. If the demand is higher than the amount of water supplied by your main water line, split up your system into several pipes. This is also referred to as irrigation channels. Your garden can be divided into several irrigation zones, and each zone is supplied with a separate pipe. The zones are irrigated independent from each other. To understand which connection value your main line can deliver, you need to determine the so called connection value. To do this, you have to calculate the amount of time needed to fill a 10-litre bucket with water.

Follow the below instructions:

1. Remove all connection parts, such as tap connectors or distributors from the water tap. For pumps, use at least a 3/4" hose.
2. Turn the tap on full blast or switch on your pump to fill a 10 litre bucket with water.
3. Track the time needed to fill the bucket (10 litres).

Please note: If the filling time exceeds 30 seconds, the installation of an irrigation system is not possible.

B Determine distance allowance

The bigger your garden, the longer the pipes can be. Since the water in the pipes has minimal frictional losses, this must be taken into account in the calculation:

1. How many metres in distance are between the tap or pump and the furthest located sprinkler? Make a note of this number.
2. For every 25 m of pipe length, you should now add 1 second to the previously determined bucket filling time. See example at point C.

Please note: Add 3 second to previously determined bucket filling time when the filling time is less than 14 seconds and want to use a Water Control, an Automatic Water Distributor or 2- or 4-way Distributor.

C Connection value

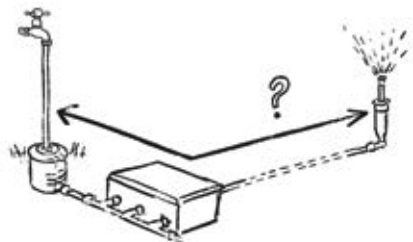
Now add up the values for the bucket filling time and the distance allowance previously determined.

Seconds	bis 9	10–13	14–19	20–24	25–30
Connection value	100	80	60	40	20

Example



Measured bucket filling time
= 10 seconds



Distance from water connection
to the furthest Sprinkler (here 39.5 m)
= 2 seconds

➔ Sum: $10 + 2 = 12$ seconds
➔ Connection value according to table above = 80

Connection with GARDENA Pumps

As an alternative to the domestic water connection, you can also operate the Sprinklersystem with a Pump. Using rain water is more sustainable and helps to save drinking water, e.g. by watering with rainwater from a cistern. GARDENA offers a comprehensive range of different models to suit your individual needs.

For the operation of your Sprinklersystem with a Pump you also need to determine a bucket filling time. The following overview shows the filling times of various GARDENA models:

Gardenpumps	Delivery head up to			
	Art. No.	3 m	5 m	7 m
9057	9	12	16	
9058	8	11	15	
9059	7	10	14	

Submersible Pressure Pumps	Delivery head up to				
	Art. No.	3 m	5 m	7 m	10 m
1771	9.9	10.3	11.3	12.6	
1773	9.0	9.3	9.7	10.3	
1766	11.6	12.5	14.2	16.8	
1476	10	11	12	13	
1489	11	12	13	14	
1492	10	11	12	13	
1499	10	11	12	13	

Automatic Home & Garden Pumps smart Automatic Home & Garden Pumps	Delivery head up to			
	Art. No.	3 m	5 m	7 m
1757	20	28	40	
1758	12	15	22	
1759, 19080, 19106	9	12	18	
1760	7	10	14	

If you are using a pump from another manufacturer, you can connect it with the help of the GARDENA Profi System Connection Set (Art. No. 1505). an approx. 1 m long piece of 19 mm (3/4") hose to measure the filling time for your pump.

D Determine the number of Pipelines (irrigation channels)

By determining the connection value in point C, you know the maximum amount of water your source can deliver. Each Sprinkler needs a minimum amount of water for optimal water distribution. We have already established the corresponding consumption values with a simple calculation (see overview on pages 78 & 79). However, if you have want to install more Sprinklers than the water source can handle, then you should divide your garden into so-called irrigation zones. Each zone will have a separate pipe and the irrigation schedule for each zone takes place consecutively one after the other. To plan the irrigation zones, proceed as follows.

1. Enter the consumption values for each Sprinkler in your blueprint (cf. page 79 or 82).
2. Divide your garden into zones and draw pipes starting from the water supply.
Try to group as many Sprinklers as possible in one area of the garden. Note here:
 - The combinability of Sprinklers in one Pipe (see page 77 above „Important notes“).
 - The connection value: Only plan as many Sprinklers per Pipeline that the connection value is not exceeded (see sample example on page 82).
3. Measure how many metres of pipe you need for your underground network.
See sample and garden sketch on page 82.

Consumption values of the Sprinklers

	SD models		MD models				T Sprinkler			OS 140
	Pop-up Sprinkler SD30	Pop-up Sprinkler SD80	Pop-up Sprinkler MD40	Pop-up Sprinkler MD80	Pop-up Sprinkler MD180	Pop-up Sprinkler MD40/300	Turbo-driven Pop-up Sprinkler T 100	Turbo-driven Pop-up Sprinkler T 200	Turbo-driven Pop-up Sprinkler T 380	Pop-up Oscillating Sprinkler OS 140
Waterin areas m ²	30	80	40	80	180	40	100	200	380	140
0-90°	6	10	2	4	6	2	7	9	15	22
91-180°	10	16	4	6	12	4	10	13	20	
181-270°	13	22	6	9	17	6	14	17	25	
271-360°	17	27	8	13	22	8	17	20	30	

Example

Determine supply Pipes on the basis of the Sprinkler consumption values

The connection value (here e.g. 80) must not be higher than the sum of the Sprinkler consumption values!

Pipe length per line

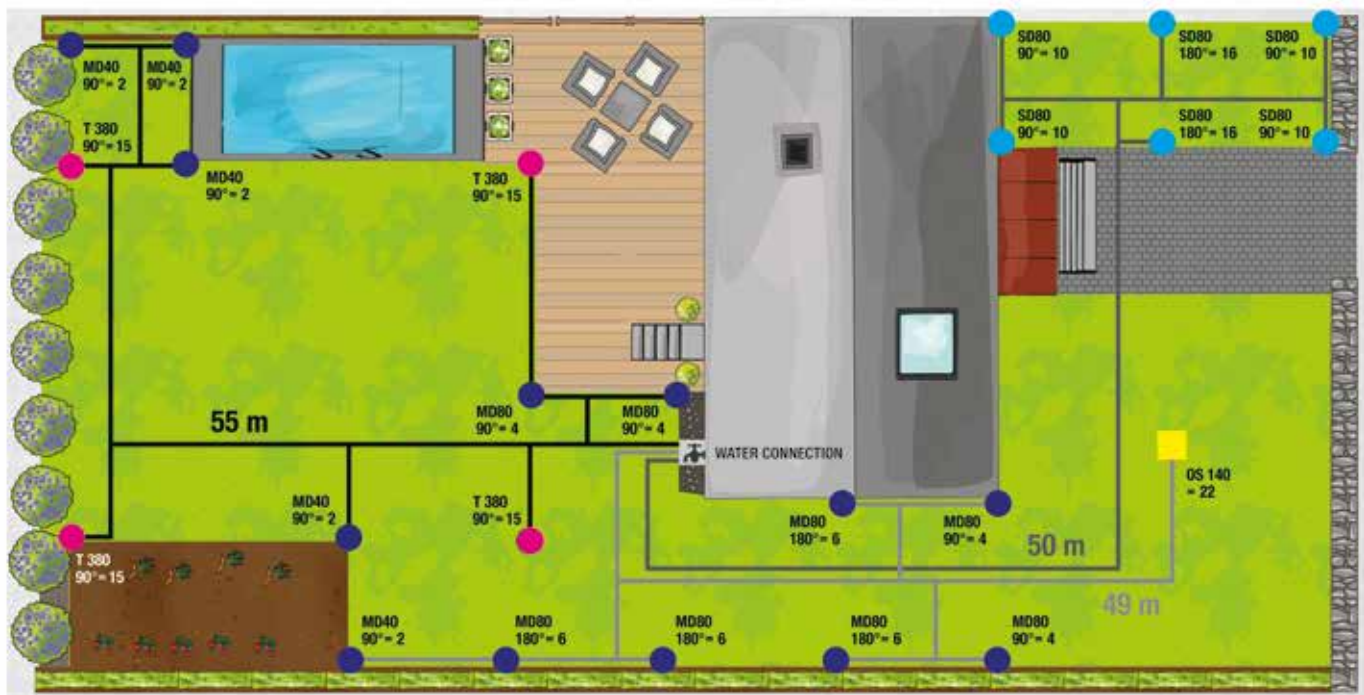
Pipe 1 $10 \text{ } \frac{1}{4} + 10 \text{ } \frac{1}{4} + 16 \text{ } \frac{1}{2} + 16 \text{ } \frac{1}{2} + 10 \text{ } \frac{1}{4} + 10 \text{ } \frac{1}{4} = 72$
 - = 50 m

Pipe 2 $22 \text{ } \blacksquare + 4 \text{ } \frac{1}{4} + 4 \text{ } \frac{1}{4} + 6 \text{ } \frac{1}{2} + 6 \text{ } \frac{1}{2} + 6 \text{ } \frac{1}{2} + 6 \text{ } \frac{1}{2} + 2 \text{ } \frac{1}{4} = 56$
 - = 49 m

Pipe 3 $4 \text{ } \frac{1}{4} + 4 \text{ } \frac{1}{4} + 15 \text{ } \frac{1}{4} + 2 \text{ } \frac{1}{4} + 15 \text{ } \frac{1}{4} + 15 \text{ } \frac{1}{4} + 15 \text{ } \frac{1}{4} + 2 \text{ } \frac{1}{4} + 2 \text{ } \frac{1}{4} + 2 \text{ } \frac{1}{4} = 76$
 - = 55 m

Expand the blueprint of your garden

1. Make a note of the connection value you have determined.
2. Now draw in the required Pipes. Take into account that the connection value must not be higher than the sum of the sprinkler consumption values.
3. Enter the Pipe lengths and add them up. There are Connection Pipes in 10 m, 25 m and 50 m units.



4. Determine Connections and Fittings

Now it's time for the Pipe Connections, Sprinkler Connections and Drain Valves.

A Pipe Connections

Now determine the Connectors for the Pipe Connections and transfer the defined quantities into your shopping list. See product overview page 61.

Connector
to extend



L-Piece
to change direction



T-Piece
to change direction



End-Piece
to Pipe end



B Frost protection

To protect your Sprinklersystem from frost damage, install at least one Drain Valve per Pipe. You install the valve at the lowest points of the pipe. See product overview on page 63. Installation instructions page 87.



T-Piece with Drain Valve



End piece with Drain Valve



C Sprinkler Connection

Now determine the Connecting Parts for the Sprinklers and transfer them to your shopping list. Please pay attention which connector fits your Sprinkler. See product overview page 61 and 78/79.

Sprinkler connection options for flexible installation

Patented Connection Technology "Quick & Easy" ① or in combination with the flexible Sprinkler Connections 2739 and 2740 ②. For flexible installation of the Turbo-driven Pop-up Sprinklers and Pop-up Sprinklers. Different options are possible: Within the run of the pipe with T-Piece, corner connection with Angle Piece or end connection with L-Piece. As alternative to the T-Piece: ③ Sattle Clamp for mounting without pipe disconnection.

Fixed Connection

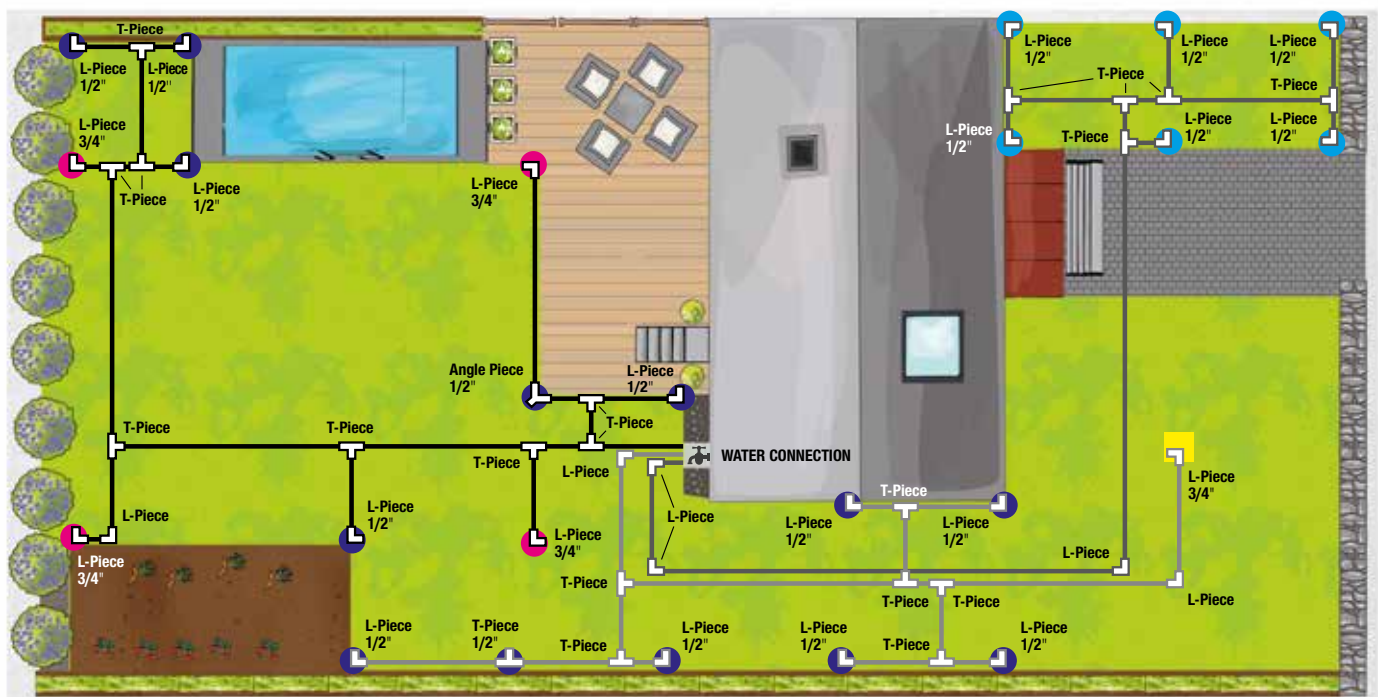


Flexible Connection



Expand the blueprint of your garden

1. Select suitable Pipe Connections and draw them on the plan and transfer them to the shopping list with the required quantities.
2. Select suitable Sprinkler Connections and draw them into the plan and transfer them to the shopping list with the required quantities.



5. Select control unit

Now it's time to choose the right controller for your irrigation - the heart of the Sprinklersystem.

The Sprinklersystems can be equipped with single or multi-channel controls. Multi-channel controls are always necessary if you want to water two or more Pipes / zones in your garden independent of each other. This is necessary for larger gardens or watering areas with different water requirements. (see the information on page 81, point D).



With Power supply

Up to 6 irrigation channels

Up to 6 irrigation channels A 24 V Irrigation Valve is connected in front of each irrigation Pipe. (art. no. 1278) Via the GARDENA Irrigation Control, the Irrigation Valves are receiving the impulse to open or close up to 6 irrigation lines - depending on the type.

The following watering controls are available:

- Classic Irrigation Control System 4030 for up to 4 channels
- Classic Irrigation Control System 6030 for up to 6 channels
- smart Irrigation Control for up to 6 channels, programmable via the GARDENA smart App

Further information on the multi-channel control can be found on pages 48 and 64.

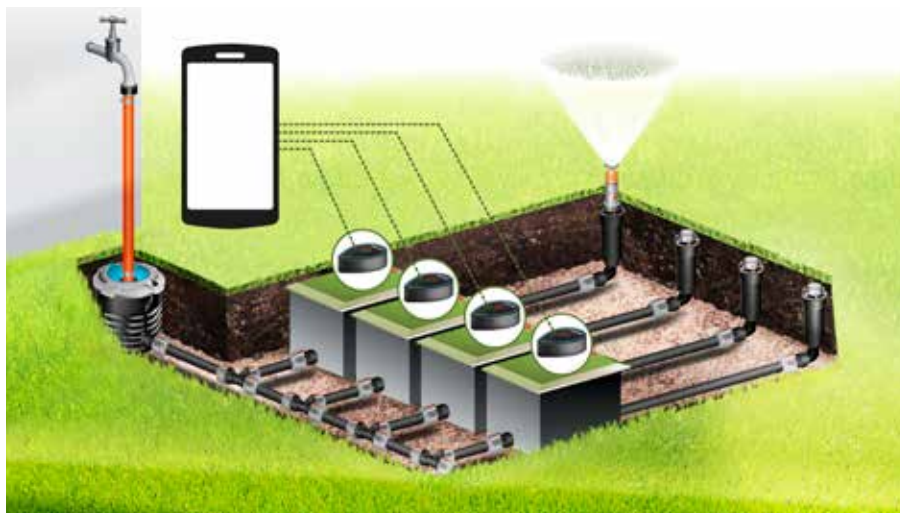


No power supply

Any number of irrigation channels

The entire configuration is done via the GARDENA Bluetooth® App. The corresponding signals are to the Irrigation Valves 9 V Bluetooth® (Art. No. 1285). The control unit (art. no. 1287) is installed directly on the Valve. These open and and close based on the settings made via the App. You can place the Valves anywhere in the garden. A new 9 V battery is enough for a whole season.

Further information on the multi-channel control can be found on pages 48 and 64.



6. Connect the system

The assembly is very easy thanks to the Quick & Easy technology. You will find a detailed product overview on pages 61 and 62. Transfer all required products to your shopping list.

We recommend the following products for easier installation of the system:



Profi System Connection Set

Complete set for connecting Pipeline and Sprinklersystem to the water supply. The set includes all components for the connection between the water tap and the Connecting Point.



Connecting Point

The Connecting Point is the ideal product for the transfer from the water supply (above ground) to the underground Pipes for Pipeline or Sprinklersystem.



Pressure Regulator

For better protection of your Sprinklersystem, we recommend installation of the Pressure Regulator. The best is to install the Pressure Regulator underground in the small valve box (article no. 1290) in front of the electric Valves. The Pressure Regulator fulfils two tasks:

1. High water pressure

If the water pressure from your connection is higher than 4 bar, the installation of the Pressure Regulator is required. This reduces the water pressure to max. 3.1 bar. If you have any questions about the pressure or about the correct connection to the domestic water supply ask your sanitary company if necessary.

2. Water filter

The integrated filter holds back dirt particles and the Sprinklersystem is protected from foreign objects. Especially if you use a Pump to supply water, impurities can occur which can impair its function. Due to the installation in the Valve Box, the Pressure Regulator is easily accessible for manual cleaning of its filter.



Valve-Box Small

The Box can be used to install the Pressure Regulator. This protects it and also makes it easily accessible for cleaning.



1" Connector

For convenient installation and removal of the Pressure Regulator and valve boxes to the underground Pipes.



Valve Box V3

Up to 3 Irrigation Valves 9 V or 24 V can be installed in the Valve Box V3. This makes them easily accessible as well as protected.



Various Connection Fittings

For connection to the Connection Point, Water Station, Valves and Valve Boxes, or for direct connection to the house installation.

7. Installing the system

Just a few more steps to fully automated watering.

This is how easy it is to install your Sprinklersystem professionally.*

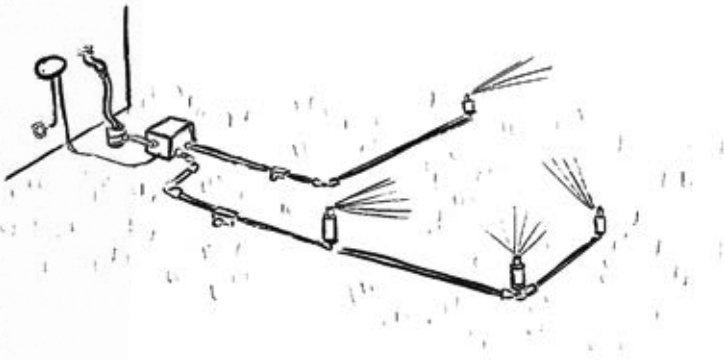


A Lay out all the parts in your garden according to the plan. Start at the beginning of your irrigation system.

Tip: If you unroll the Pipes 1 to 2 hours before and lay them out in the sun, they can be easily straightened.



B Cut the Pipes to the right length according to the plan. Make sure that no soil gets into the pipe. If necessary, chamfer the pipe, i.e. remove unclean cut edges. For straight Pipe cuts in just one turn, use the GARDENA Pipe Cutter for cutting the Connecting Pipes (Art. No. 2727).



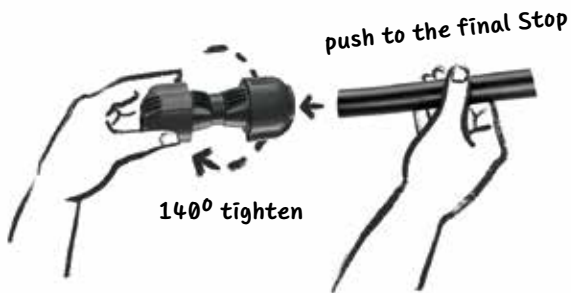
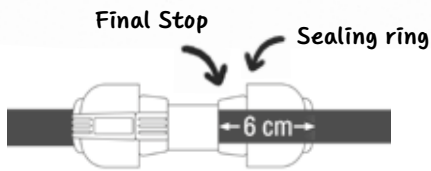
E Important! Now check whether your Sprinklersystem is tight. To do this, do a test run before you install the system underground. If the Sprinklersystem is tight, go on to step F. If the Sprinklersystem is not tight, check that the Pipes are really inserted into the connectors as far as they will go.



F Use a spade to dig v-shaped trenches approx. 20-25 cm deep. To do this, carefully remove the trenched and dig out the trench. Remove the stones from the trench.
Tip: Mow the lawn and water it beforehand. Then it's easier.

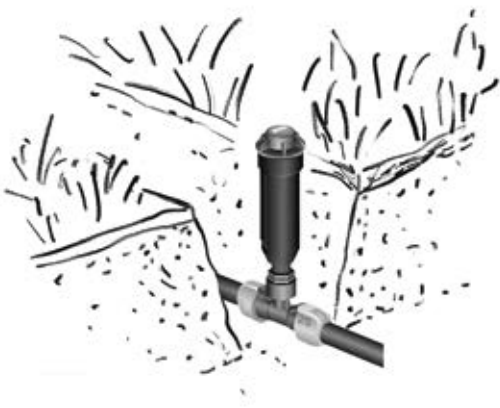


I Now pour the soil back in, put the turf on top and tread it down. If you water the soil and the turf first, everything will grow faster. And in 2 to 3 weeks you won't see any more of the installation.



C Now connect the elements. Push the Pipes approx. 6 cm into the connector over the O-ring. This creates a watertight connection. Caution: After approx. 4 cm there is a sealing ring. Please insert the tube further into the opening at this point.

D Now adjust the spray direction, the spray range and the spray width on the sprinkler. The settings are differently depending on the model. You can find more information on the labels on the Sprinklers themselves.



G Now place the Pipes with connectors and Sprinklers in the trench. All Sprinklers and Nozzles must be installed flush with the ground surface. The Nozzle head including recessed grip should be above the ground surface for regular cleaning.



H Install the Drain Valves at the lowest points of the system. The difference in height between the Drain Valves must not exceed 2 m on slopes. If necessary, install several drainage valves on the slope. In order to improve drainage and protect the Drain Valve, install it in a seepage pack of washed coarse gravel (about coarse gravel approx. 20 x 20 x 20 cm). Before installing the Drain Valves, rinse the system to remove any dirt that may have got into the system during installation. The Drain Valves opens automatically after irrigation, as soon as the water pressure is below 0.2 bar and drains the pipe.

* If you carry out the installation yourself, we ask for your understanding that we assume no liability and no guarantee for costs and damages that may arise during the implementation of the planning.

8. Tips & hints for maintenance

Here are some tips to help you enjoy your system for a long time.



Pressure Regulator

If the water pressure from your connection is higher than 4 bar, it is recommended to install the Pressure Regulator (Art. No. 8200). The integrated filter retains dirt particles.



Frost protection

Before the frost arrives, disconnect the system from the supply Pipe. Simply observe the additional frost notes for the products.



Transition from 19 mm or 32 mm to 25 mm

Pipe Connections

You have already installed your GARDENA Sprinklersystem before 2005? You want to replace or extend it now?

- Use the Adapter Piece (Art. No. 1513) for the transition from 19 mm to 25 mm pipes, use the adapter piece (Art. No. 1513) with the Connector 25 mm x 1" male thread (Art. No. 2763).
- Use the Reducing Connector (Art. No. 2777) to connect the 32 mm Connection Pipe to the 25 mm Pip



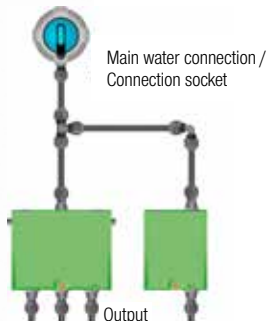
Permanent pressure resistant connection

For a connection that is resistant to permanent pressure, the connection between the tap and the Connecting Point (Art.-No. 8262) should be made via a 3/4" hose and 2 Adapter Pieces (Art.-No. 1513).



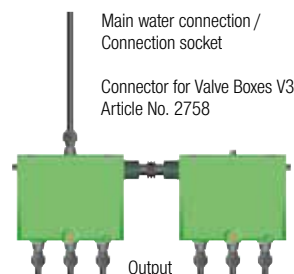
Most used tools

secateurs or GARDENA Cutting Tool to cut Pipes, screwdriver (slotted or cross, not available from us) to adjust the Sprinklers, spade to bury Pipes.



Combination V3- with V1 Valve Box

The V3 Valve Box is connected to the water connection. You can also combine it with a V1 Valve Box. To do this, branch of the Pipe and connect it to the V1 Valve Box.



Combination of V3 with V3 Valve Box

V3 Valve Boxes can be easily combined with each other, assembled and disassembled. This is ensured by the telescopic screw connection.

Tip: If you install several Valve Boxes next to each other, we recommend to screw the Valve Boxes together on a wooden board.



Shopping list GARDENA Sprinklersystem

Art. No.	Name	Piece
Pop-up Sprinklers		
8241	Pop-up Sprinkler SD30 1/2" female thread	
8243	Pop-up Sprinkler SD80 1/2" female thread	
8231	Pop-up Sprinkler MD40 1/2" female thread	
8232	Pop-up Sprinkler MD80 1/2" female thread	
8233	Pop-up Sprinkler MD180 1/2" female thread	
8201	Turbo-driven Pop-up Sprinkler T 100 1/2" female thread	
8203	Turbo-driven Pop-up Sprinkler T 200 1/2" female thread	
8205	Turbo-driven Pop-up Sprinkler T 380 3/4" female thread	
8239	Pop-up Sprinkler MD40/300 3/4" male thread	
8223	Pop-up Oscillating Sprinkler OS 140 3/4" female thread	
Connection for Pop-up Sprinklers		
2780	L-Piece 25 mm x 1/2" male thread	
2782	Angle Piece 25 mm x 1/2" male thread	
2784	L-Piece 25 mm x 3/4" female thread	
2764	Angle Piece 25 mm x 3/4" female thread	
2739	Sprinkler Connection 3/4" x 1/2"	
2740	Sprinkler Connection 3/4" x 3/4"	
2728	Saddle Clamp 25 mm x 3/4" female thread	
2765	Cutter for Saddle Clamp 3/4" thread	
2786	T-Piece 25 mm x 1/2" male thread	
2781	L-Piece 25 mm x 3/4" male thread	
2783	Angle Piece 25 mm x 3/4" male thread	
2787	T-Piece 25 mm x 3/4" male thread	
2790	T-Piece 25 mm x 3/4" female thread	
2761	Connector 25 mm x 3/4" female thread	
Pipes and Accessories		
2718	10 m Connecting Pipe 25 mm	
2700	25 m Connecting Pipe 25 mm	
2701	50 m Connecting Pipe 25 mm	
2727	Pipe Cutter 25 mm	
Pipes Connections		
2771	T-Piece 25 mm	
2773	L-Piece 25 mm	
2775	Connector 25 mm	
2777	Reducing Connector 32 mm - 25 mm	
2778	End-Piece 25 mm	
Frost protection		
2760	Drain Valve (Connection 3/4" male thread)	
2770	Drain Valve Set	

Art. No.	Name	Piece
Irrigation Control with power supply		
1283	Classic Irrigation Control System 4030	
1284	Classic Irrigation Control System 6030	
19035	smart Irrigation Control	
19210	smart Irrigation Control Sensor Set	
1278	Irrigation Valve 24 V	
1280	Connection Cable 24 V	
1282	Cable Clip 24 V	
Irrigation Control without power supply		
1285	Irrigation Valve 9 V Bluetooth®	
1286	Valve Box 9 V Bluetooth® Set	
1287	Control Unit 9 V Bluetooth®	
Irrigation Control Valve Boxes		
1254	Valve Box V1	
1255	Valve Box V3	
1286	Valve Box 9 V Bluetooth® Set	
2758	Connector for Valve Boxes V3	
Connection of the system		
8262	Connecting Point (3/4"- male thread)	
8200	Pressure Regulator	
1290	Valve-Box Small	
1505	"Profi" Maxi-Flow System Connector Set	
2713	"Profi" Maxi-Flow System Connector Set	
1513	Adapter Piece 26.5 mm (G 3/4") / 33.3 mm (G 1")	
8264	Regulator and Shut-Off Valve	
2762	Connector 25 mm × 1" female thread	
2763	Connector 25 mm × 1" male thread	
Sensor extensions		
1867	Soil Moisture Sensor	
19040	smart Sensor	
Pipeline extensions		
8266	Water Station (3/4"-male thread)	
8254	Water Plug (3/4"- male thread)	
8252	Pipeline Garden Water Tap	
8251	Pipeline Oscillating Sprinkler	

The Bluetooth® word mark and logos are registered trademarks of Bluetooth SIG, Inc. and any use of such marks by GARDENA is under licence. Other trademarks and trade names are the property of their respective owners.

Shopping list GARDENA Micro-Drip-System



Article No.	Name	Content	Piece
Systemstart and Accessories			
13333	Master Unit (flow rate up to 1000 l/h)	1	
13310	Master Unit (flow rate up to 2000 l/h)	1	
13222	Tap Fitting 13 mm (1/2") - G 3/4"	1	
13224	Tap Fitting 4.6 mm (3/16") - G 3/4"	1	
13313	Installation Tool	1	
Pipes and Accessories			
1346	Connecting Pipe Flex 13 mm (1/2"), 15 m	1	
1347	Connecting Pipe Flex 13 mm (1/2"), 50 m	1	
1350	Supply Pipe 4.6 mm (3/16"), 15 m	1	
1348	Supply Pipe 4.6 mm (3/16"), 50 m	1	
13207	Shut-Off/Regulation Valve 13 mm (1/2")	1	
13217	Shut-Off/Regulation Valve 4.6 mm (3/16")	2	
13208	Pipe Pegs 13 mm (1/2")	10	
13218	Pipe Pegs 4.6 mm (3/16")	15	
Connection			
13213	Connector 4.6 mm (3/16")	10	
13212	L-Joint 4.6 mm (3/16")	10	
13211	T-Pieces 4.6 mm (3/16")	10	
13214	4-Way Coupling 4.6 mm (3/16")	10	
13215	Plug 4.6 mm (3/16")	10	
13216	T-Joint Nozzles/Endline Drip Heads 4.6 mm (3/16")	5	
13203	Connector 13 mm (1/2")	3	
13202	L-Joint 13 mm (1/2")	2	
13201	T-Joint 13 mm (1/2")	2	
13204	Connector 13 mm (1/2") - 4.6 mm (3/16")	5	
13205	Plug 13 mm (1/2")	5	
13206	T-Joint Spray Nozzles 13 mm (1/2")	5	
13220	Universal Connector 13 mm (1/2")	1	
Micro-Drip-System for Potted Plants			
Starter Sets			
13401	Micro-Drip-Irrigation Balcony Set	1	
13400	Micro-Drip-Irrigation Terrace Set	1	
Endline Drip heads			
13307	Endline Drip 2 l/h	25	
13302	Endline Drip Head 2 l/h, pressure-compensating	10	
13305	Adjustable Endline Drip 0-15 l/h	10	
13304	Adjustable Endline Drip Head 1-8 l/h, pressure-compensating	5	
Inline Drip Heads			
13317	Inline Drip Head 2 l/h	10	
13312	Inline Drip Head 2 l/h, pressure-compensating	10	
13315	Adjustable Inline Drip Head 0-15 l/h	10	
13314	Adjustable Inline Drip Head 1-8 l/h, pressure-compensating	5	

Article No.	Name	Content	Piece
Holiday and Balcony Watering			
1265	Holiday Irrigation Set	1	
13366	Holiday Irrigation Set with Water Reservoir	1	
1407	city gardening Balcony Watering	1	
13300	Solar-powered Irrigation AquaBloom Set	1	
13301	Solar-powered Irrigation AquaBloom Water Reservoir Set	1	
13367	Water Reservoir	1	
Micro-Drip-System for Plant Areas			
Starter Sets			
13450	Micro-Drip-Irrigation Vegetable Bed/Flower Border Set (60 m ²)	1	
13455	Micro-Drip-Irrigation Raised Bed/Bed Set	1	
Spray Nozzles and Sprinklers			
13318	Endline Micro Strip Sprinkler	5	
13319	Micro Strip Sprinkler	5	
13320	Spray Nozzle 90°	5	
13321	Spray Nozzle 180°	5	
13322	Spray Nozzle 360°	5	
13324	6 in 1 Spray Nozzle	2	
13323	Micro Mist Nozzle	5	
13306	Small Area Spray Nozzle	10	
13316	Inline Small Area Spray Nozzle	10	
13325	Oscillating Sprinkler OS 90	1	
Accessories for Spray Nozzles and Sprinklers			
13326	Extension Pipe for Spray Nozzles	5	
13231	Regulation Valve Sprayers	5	
13334	Extension Pipe OS 90	2	
Inline Drip Heads			
13317	Inline Drip Head 2 l/h	10	
13312	Inline Drip Head 2 l/h, pressure-compensating	10	
13315	Adjustable Inline Drip Head 0-15 l/h	10	
13314	Adjustable Inline Drip Head 1-8 l/h, pressure-compensating	5	
Micro-Drip-System for Plant Rows			
Starter Sets			
13010	Micro-Drip-Irrigation Vegetable/Plant Row Set (15 m)	1	
13500	Micro-Drip-Irrigation Hedge/Bush Set (25 m)	1	
13501	Micro-Drip-Irrigation Hedge/Bush Set (50 m)	1	
Driplines			
1362	Dripline 4.6 mm, 3/16" (15 m)	1	
13503	Dripline 1.6 l/h for Above and Below Ground Irrigation (25 m)	1	
13504	Dripline 1.6 l/h for Above and Below Ground Irrigation (50 m)	1	

Discover GARDENA online



GARDENA myGarden



This is where you can design and plan your dream garden. The free online tool also offers automatic planning for Sprinklersystems.
www.gardena.com/mygarden

GARDENA Magazine



Here you will find tips, ideas and inspiration for your garden. Just take a look.
www.gardena.com/int/garden-life/garden-magazine



Instagram



We share our "passion for life" and for the garden with lots of other enthusiasts. Share your #GARDENAmoment with us on Instagram!
Gardena.Worldwide

Facebook



Garden lovers come together: We are on Facebook and look forward to meeting you there.
Gardena.Worldwide

Youtube



Look it up: Here you will find helpful tips and step-by-step instructions.
GARDENA Worldwide

Pinterest



There's lots to discover for projects both big and small for your home and garden. **GARDENA Worldwide**



The easy path to your own irrigation system

Would you like to have a convenient irrigation system in your garden?

- Information that will help you decide on the best solution.
- Reasons that make it easier to make your decision.
- Help with planning, from the blueprint to the final plan – do-it-yourself planning instructions. Step by step.

More at: www.gardena.com

Who and what else can help you

- Micro-Drip-System Online Product Advisor - which set fits your requirements? Here you will find helpful advice to support you in your purchase decision. www.gardena.com/micro-drip-system-planer
- GARDENA My Garden – the free online tool also offers automatic planning for Sprinklersystems www.gardena.com/mygarden
- The GARDENA customer service team will answer your questions or will refer you to the relevant planning installation service upon request.
- Videos on YouTube with informative films about our irrigation solutions

More about GARDENA

Would you like to know more about gardens and GARDENA? Just take a look in our other brochures, visit our website at www.gardena.com or subscribe to our free-of-charge newsletter at www.gardena.com/newsletter

Planning / Consulting Irrigation Systems

Phone +49 (0)7 31/4 90 2 46
Telefax +49 (0)7 31/4 90 3 89
service@gardena.com

GARDENA smart system

Phone +49 (0)7 31/4 90 690
Telefax +49 (0)7 31/4 90 389
service@gardena.com

GARDENA
Deutschland GmbH
D-89070 Ulm

We reserve the right to make changes, including product changes.

© GARDENA 2023

gardena.com

