



Level 2



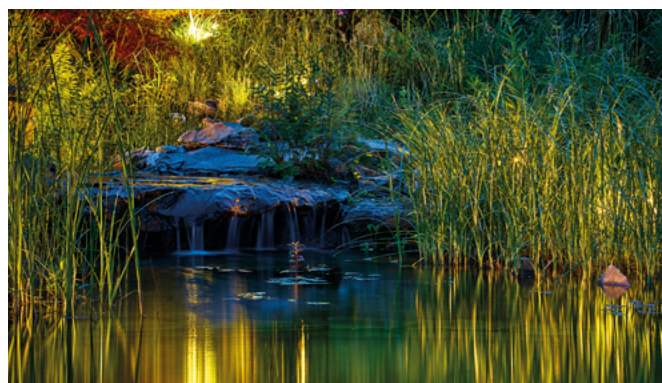
2 days

## Freely designed watercourse

Detailed instructions for creating a 5 m long watercourse with reservoir of your own design

Water, nature and creativity can come together to create unique spaces within a garden. Let your ideas flow as freely as the water to create a dreamlike atmosphere for your watercourse project. We're here to help you every step of the way.

We wish you plenty of fun and success with your DIY project!



# 1. Step

## Requirements

Before we get down to the fine details, we first need to clarify how much time you should plan in for your project, and which products, tools and materials you will need for the example described: a free-flowing watercourse that is 5 m long and approximately 60 cm wide.

**Building time:** The amount of time you spend depends greatly on the complexity of your free-form watercourse. As a rule of thumb, you can expect to spend about 2-3 hours per cubic metre of excavated earth. Installation of the remaining materials will take another day and a half. In our example, you should allow two days for doing the building work and installing the components.

**A small tip:** You don't need any heavy equipment to build the watercourse. However, if you have a small digger available, we recommend using it for the rough earthwork, especially for digging out the reservoir.

### Tools and materials you will need

To build the watercourse, you will need garden tools such as a shovel and spade, a wheelbarrow, a watering can or garden hose and string (e.g. cord), as well as a utility knife and a folding rule or tape measure. You will also need timber construction screws to fasten the pond edge system. You can get these from any conventional hardware/DIY store or building supplies merchant.

You can be as creative as you like in shaping the bottom of the watercourse and the waterline. Depending on your style and taste, you can arrange large and small stones, thick ones and flat ones, and gravel into your desired formation.



Lastly, of course, you will need water. You can calculate the amount of water you will need for your watercourse by multiplying the length of the watercourse by its width and depth. The volume of the reservoir is twice this amount.

For the project described here, this is:

- Width: 0.60 m
- Length 5 m
- Mean depth: 0.05 m
- Amount of water required for the watercourse:  $0.60 \text{ m} \times 5 \text{ m} \times 0.05 \text{ m} = 0.15 \text{ m}^3 = 150 \text{ l}$ .
- Reservoir volume:  $150 \text{ l} \times 2 = 300 \text{ l}$

## 1. Step – Requirements

### OASE products you will need

You can create a free-form watercourse that is 5 m in length using the following components:

- Protective pond fleece (item no. 43334)
  - 12 m<sup>2</sup> for the watercourse beneath the liner
  - 16 m<sup>2</sup> for the reservoir
  - Offcuts as a base for heavy stones positioned on the liner
- PVC liner
  - 2 m wide and 6 m long for the watercourse (available from specialist stores)
  - 4 m wide and 4 m long for the reservoir (available from specialist stores)
- Liner adhesive (item no. 36861 or 36862)
- Pond edge system, 14 cm (item no. 57751), with ground stakes (item no. 57753)
- Maxima reservoir system (item no. 72952)
  - Watercourse without weirs: Maxima x2
  - Watercourse with 1–2 weirs: Maxima x3
- Pump chamber 15000 (item no. 72949)
- Spillway box 15000 (item no. 72946)

The appropriate watercourse pump ensures that the water flows from the reservoir into the watercourse:

- Aquarius Universal Premium 12000 watercourse pump (item no. 56879)

The watercourse pump and the spillway box are connected with a hose:

- 8 m spiral hose, 1½” (item no. 37178)

Depending on the design, other optional products are available to help you with your project:

- A stone liner for lining the edges of the watercourse (available from specialist stores)
- 1x Unifix universal adhesive for fixing the stone liner (item no. 57148)
- 4x FoamFix installation foam for fixing stones (item no. 70972)

**Tip:** If you don't want to build your watercourse based on our example but prefer to adopt a completely different approach, then bear in mind that it is particularly important to correctly calculate the volume of water you will need. The calculated number of litres is an important indicator for you when choosing the appropriate equipment such as the watercourse source, pump, hose and reservoir.

Once you've got all your materials together, it's on to the next step – preparation.

**2.**  
**Step**

**Preparation**

The materials and tools you need are now ready and at hand. The next step is to determine the exact location for the watercourse and draw a sketch of it. With freely designed watercourses, good preparation and an accurate sketch are crucial if the project is to be implemented successfully. By doing this, you will avoid mistakes at the building stage and will always have all of the steps and details available to refer to at a glance.



When determining the location for the watercourse, we recommend that you take the following criteria into account:

- **Sun exposure:** Ideally, the location should be as semi-shaded as possible, allowing for around four to six hours of sunshine a day.
- **Vegetation:** Choose a location sufficiently far away from larger trees so that foliage does not fall directly into the watercourse in autumn.
- **Viewing angle:** Most importantly, the watercourse should be visible from your favourite spot in the garden.

Once you've found a suitable location, measure the surface area carefully and make a sketch of it. Using pegs and string, mark the course and position of the watercourse and reservoir before transferring both to the sketch. Remember to take into account the power supply for the pump when doing this.

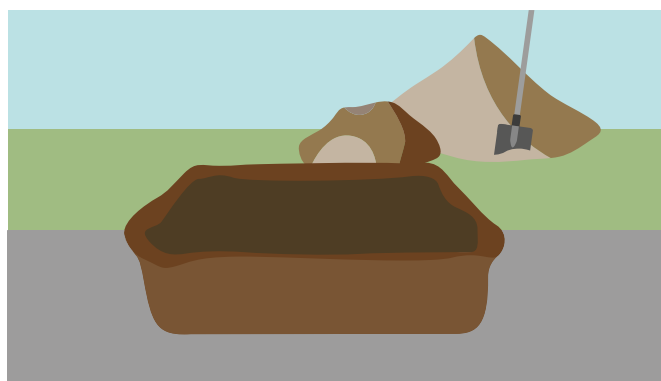
**3.**  
**Step**

**Construction**

The sketch is now complete, and you can see that watercourse babbling away in your mind's eye. All that's left to do is to get down to work building your watercourse and make it a reality.

**Digging out the reservoir:**

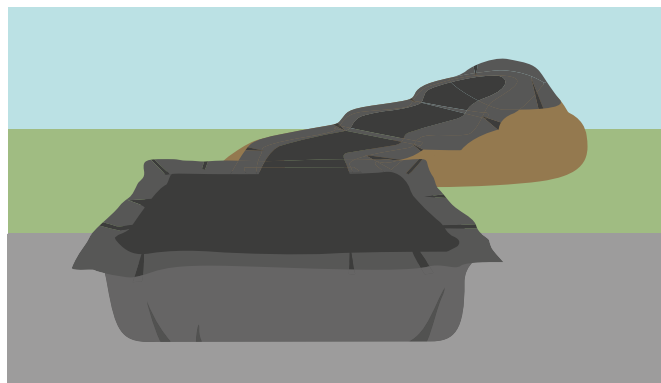
- Start work on your watercourse by digging out the reservoir. Make sure to dig the pit about 15 cm deeper where the pump chamber will be. It is important that the watercourse pump is always placed at the lowest point of the reservoir.
- Next, use the excavated material to model the bottom of the watercourse or to level out any unevenness. Excavated material that is not needed must first be stored elsewhere. This can be used later for the edge design.



### 3. Step – Construction

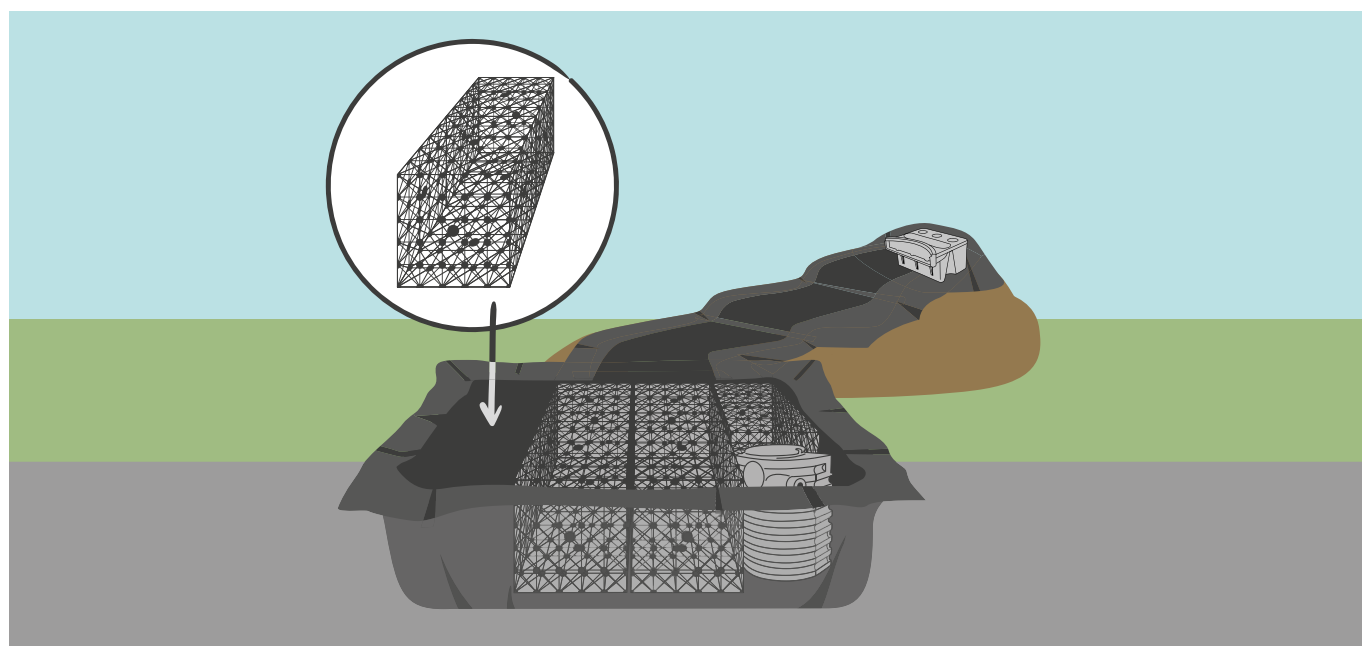
#### Modelling the bottom of the watercourse:

- Check the pit and the bottom of the watercourse for stones, sharp objects and roots, and remove them to the greatest extent possible in order to protect the liner from damage.
- First, lay the protective pond fleece and then the liner on top.
- The liner should protrude by at least 15 cm at the edges of the watercourse. This allows it to be optimally fixed to the waterline.
- To ensure that the liner lies as smoothly as possible in the bottom of the watercourse, cut it in at appropriate places, adjust it to the slope and curves, and affix the interfaces using the PVC adhesive.
- Repeat the last three steps for the reservoir lining.
- Stick the liner sections of the watercourse and reservoir together.



#### Installing the technology:

- Before placing the pump chamber in the pit, cut a hole in the container with the utility knife for the hose and power cable to pass through at the designated points (use a hole saw if you have one).
- For the reservoir, plug the Maxima system together in accordance with the instructions for use and place it next to the pump chamber in the pit.
- The watercourse source forms the starting point at the other end of the watercourse. Position it at the intended location on the liner and assemble the source according to the instructions for use. Lay the hose along the slope so that it can be hidden later.



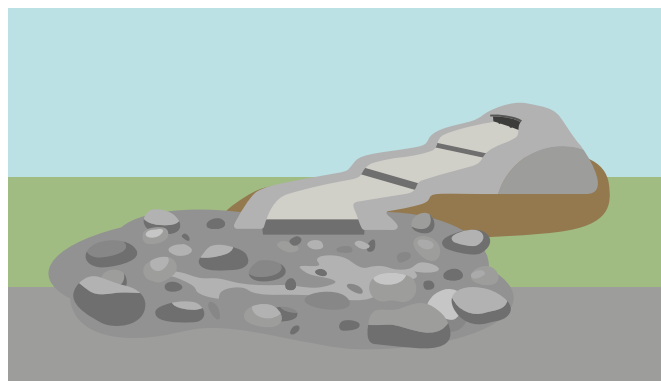
### 3. Step – Construction

#### Designing the bottom of the watercourse:

- After the basic work has been done, the design phase begins, starting with the bottom of the watercourse. Wherever you decorate with stones and gravel, make sure that you also lay additional protective pond fleece on the liner beforehand to protect it from damage. Also, rinse the stones and gravel with clean water before inserting them into the watercourse so that any excess dirt and dust is removed.
- Once everything has been correctly prepared, you can start decorating however you please.

- **Here are some of our tips** for designing the bottom of the watercourse:

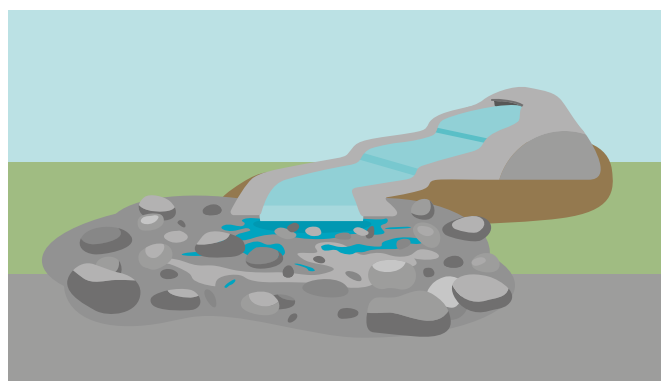
- Natural style: Small and large obstacles in the river bed lend character to the watercourse and give the flowing water a varied sound.
- Japanese style: Lining up flat stones like fish scales and letting them overlap slightly creates a great effect. In gardens with zen-like atmospheres, you can often find water gurgling away in meditative harmony. So if you're aiming to create this kind of garden, we recommend that you avoid any further obstacles.
- Consolidating stones: To ensure that the stones are firmly secured in place, glue them together with a small amount of FoamFix installation foam.
- Concealing the edges of the watercourse: If required, you can conceal the PVC liner at the edges of the watercourse using decorative liners such as the OASE stone liner.



- You can then fix and conceal any PVC and decorative liner that protrudes beyond the edge of the watercourse with soil. The watercourse source is very robust and can be covered with stones, for example, as you desire.

#### Letting the water flow:

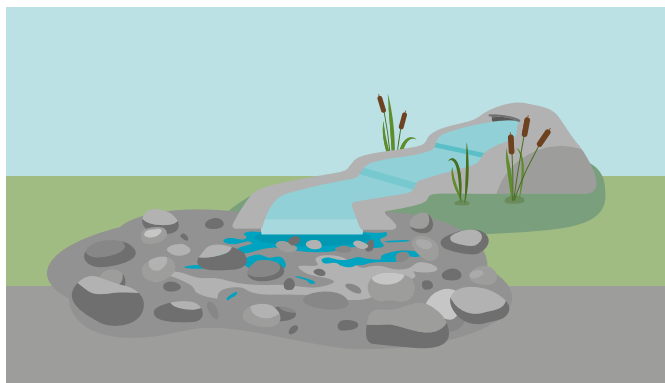
- You're just one step away from carrying out the first water test. To begin, guide the hose that is connected to the spillway box through the prepared opening in the pump chamber. Connect the watercourse pump to the hose and lower it into the pump chamber.
- And now the time has come to let in the water for the test run. First, check:
  - ✓ Is the watercourse sealed tightly, or is water being lost? If you discover a leak, check the liner transitions and improve the bonding if necessary.
  - ✓ Is the water backing up and flowing as it should? Relocate some stones and add others if necessary. Regulate the flow of the water by adjusting the pump output.



### 3. Step – Construction

#### Shaping the waterline:

- If you can hear a wonderful splashing sound at this stage, it means the water is flowing. Now only one thing is missing for that finishing touch to your watercourse—planting greenery along the waterline. Soil (for example, the soil left over from the excavation) can serve as a base for plants, stones and other decorations. You can choose from a wide-ranging selection of waterline plants available from your plant market or supplier, depending on your style and taste. For example, different grasses or large-leaf hostas are suitable for a green design.



**Tip:** Depending on the theme of the garden and the design of the watercourse, we recommend using plants and materials typical of the imitated country or style and on the appropriate scale. While the greenery in a mountain stream may be lush and wild, a Japanese garden has the effect of a fine, balanced landscape.

You can even enjoy your creation even after dark: Appropriate garden lighting will transform your watercourse landscape into a magical place at night that invites you to marvel and linger. Our range of garden and pond spotlights includes products suitable for use both under and above water.

**4.**  
**Step**

**Maintenance**

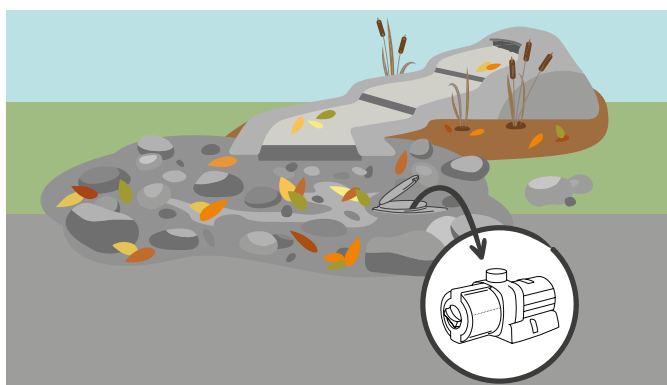
Once you've successfully completed your watercourse project, you'll no doubt want to make the most of the exhilarating new atmosphere in your garden for a long time to come.

To ensure that you can continue to derive enjoyment from your work, we would like to give you a few simple tips on how to maintain your watercourse:

- **Waterline:** Check the water level in the reservoir regularly and top up with water if necessary.
- **Vegetation:** Examine the surrounding vegetation from time to time. Cut back any plants that protrude too far into the watercourse and remove any unwanted greenery that has begun to grow there.



- **Autumn leaves:** As the gardening season draws to an end, leaves gradually begin to fall from the surrounding trees. To prevent the water from silting up and becoming cloudy, regularly remove fallen leaves and branches from the watercourse and reservoir.



- **Debris:** Dirt and other substances such as parts of plants are often washed towards the reservoir with the flow of the water. Check occasionally to see if a layer of silt has formed on the reservoir. To make removal as convenient as possible, we advise you to use a pond and pool vacuum (such as the OASE PondoVac 3, item no. 37102 / UK 37148).
- **Freezing temperatures:** If your watercourse pump should not be kept in the pond in sub-zero temperatures, make sure to remove it from the pond before winter sets in. This is also the perfect opportunity to clean the pump (for example, with AquaActiv PumpClean, item no. 43146 / UK 75806). Once you've removed (and cleaned) the pump, make sure it is safely stored in a bucket of water in a warmer area.

**We hope you enjoy your new watercourse!**

Did you find this project interesting and are already itching to get started on another one? For more inspiration, including detailed DIY guides, visit [www.oase.com/diy](http://www.oase.com/diy).