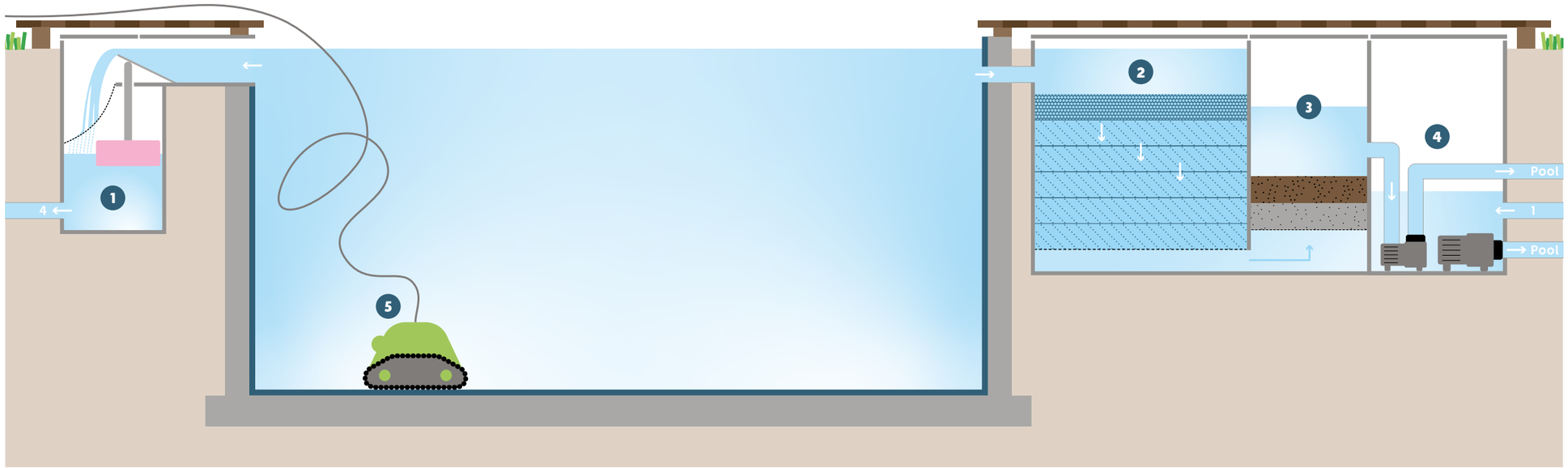
Technology

At Biotop, we strive to make our technology as simple as possible and easy to understand for the user.



↑ **Schematic cross section**

1 The purpose of the **Curved Sieve Skimmer** is to remove floating particles from the Living Pool. The water flows over a curved screen with a mesh width of only 0.3 millimetres that removes even the smallest particles. A sophisticated mechanism controls the water flow via a flexible flap so that the correct amount of water always flows over the screen. Biotop was granted a European patent for this innovation.

Advantages
- Even the finest particles are eliminated from the system
- The screen is self-cleaning
- Nutrients are removed from the water

2 Water flows vertically through the **Bio Compact Filter** from top to bottom and is biologically cleaned along the way. Organic compounds and impurities that could cause cloudy water are broken down by microorganisms. The result is crystal-clear water. To optimise the cleaning performance of the microorganisms, water flows through the bio filter permanently. The biologically cleaned water then flows back into the pool.

Advantages
- Biological cleaning with no need for chemicals
- Requires no electrical power
- The bio compact filter is comparatively small in size and is installed under the deck, invisible to the user
- Takes up less space than common filter systems

3 The **PhosTec Upstream phosphate filter** efficiently binds the phosphorus dissolved in the water without the use of chemicals. Phosphorus promotes the growth of algae. By binding it, the algae are literally “starved”. The pool water flows through the filter from bottom to top to minimize the risk of clogging the filter. Nutrient-poor water is then pumped back into the pool by a small pump. Biotop was granted a European patent for combining the bio filter with the PhosTec Upstream filter.

Advantages
- Phosphorus is reliably removed from the water
- The filter’s compact size saves space
- Easy handling
- Simple replacement of the filter material
- Long lifespan

4 For the water circulation in a Living Pool Biotop has developed a special system. The pump is fitted in the so called **Submersible Pump Chamber** where it is completely submersed in water, allowing water to flow to it simply by the force of gravity instead of being “sucked in” by the pump. Mounted at the bottom of the chamber, the pump conveys the water back into the pool through pressure pipes.

Advantages
- Submersed pumps are quiet, creating almost no noise
- The low noise level means the chamber can be installed underneath the wooden deck
- The pump does not need to be uninstalled for winter
- The pipes do not need to be emptied for winter
- Incoming and outgoing pipes can be regulated individually

The components 2, 3 and 4 can be installed in a single unit, the **Combi-Box**, to save space.

5 The **pool robot** cleans the walls and bottom of the pool automatically.

Two water circuits: Easy to operate

The separation into two water circuits allows the pumps to operate economically and with minimal use of space. The first circuit is responsible for cleaning the surface of the water and removing floating particles. Its pump runs throughout the day.

The purpose of the second circuit is to eliminate organic compounds. Its pump runs continually during the swimming season. Features like rock fountains, waterfalls or curtain fountains can be integrated into either or both of the circuits.