T.I.P. Technische Industrie Produkte GmbH
Siemensstraße 17
74915 Waibstadt

Tel.: 07263-9125-0
Fax: 07263-9125-25
info@tip-pumpen.de

Aquarium- and pond air pumps

Pumps for special applications
Our special pond pumps have been designed for specific areas of use. These include pond aeration and preventing closed ice cover in winter. The design and technology of these pumps is tailored to these specific applications.

Ample oxygenation is of critical importance for the ecological balance of your pond. This is not only true in the warmer months of the year. Garden ponds need air even in winter, so they must not be allowed to freeze over completely. Just as important is regularly cleaning the pond surface to remove dirt particles before they sink in and degrade water quality. Our special pumps have been developed to facilitate careful pond maintenance by catering to these requirements effectively and efficiently.

Pond aeration - key to maintaining biological balance

Keeping a garden pond continuously and fully supplied with oxygen is one of the key tasks and responsibilities in pond care. Aquatic plants and animals need oxygen to survive. Lack of oxygen degrades living conditions in the pool and fosters outbreaks of disease. On hot days especially, the oxygen content of water can drop significantly. But even from spring onwards and until well into autumn, algae and dead plant debris in the water consume large amounts of oxygen. In extreme cases hypoxic pond death can occur. By ensuring continuous oxygenation, pond air pumps offer an effective remedy for this problem.

Anti-icing function - ensuring oxygenation in frosty weather
People often underestimate the demands of pond care during the colder part of the year. Over the course of the year – especially in late summer and autumn – plant debris accumulates at the bottom of the pond and produces decomposition gases through a natural biological process. The resulting fall in oxygen content can be extremely hazardous to the pond's ecosystem, especially if the water freezes over. Decomposition gases can no longer escape, while the supply of fresh oxygen is cut off.

Especially for fish in a state of winter torpor – but for all other pond inhabitants too – a sheet of ice over the water can be a serious hazard. Breaking up the frozen pond surface to release decomposition gases and oxygenate the water is not advisable. This is not only a laborious and time-consuming process, which will have to be repeated if the water refreezes. The resulting noise is also seriously stressful for the fish, as it disturbs these sensitive creatures during their winter rest. What is more, there is the risk that the pool will remain frozen over for a lengthy period in the event of a prolonged absence – if you are on winter vacation for example.

A much more appropriate and effective – and far easier – solution is to use a pump with an anti-icing function. This is another job that can be done by pond air pumps. By imparting constant, gentle motion to the water, they keep the pond surface from freezing over completely. This dual function – oxygenating the water during the warmer part of the year and keeping the pond ice-free in winter – makes pond air pumps suitable for year-round use.

Pond air pumps - oxygenation for your pond

Pond air pumps are ideal for year-round use. In summer they ensure the pond is fully supplied with the oxygen needed to support life. During the colder part of the year, this type of pump keeps the pond ice-free. The gentle water movement caused by the air inflow helps stop the pond freezing over completely. In keeping with their purpose, pond air pumps are suitable for non-stop use – an extremely important consideration, as both efficient oxygen enrichment and the anti-icing function depend on continuous operation. Pond air pumps are sited outside the pond, above the water level if possible. Where a pump is sited below the water level, a check valve stops any liquid flowing back into the pump.

We recommend the API 100/1 with 2.2 watts rated power as an energy-saving starter model. The package includes a ten metre air hose, a check valve and an air stone. With a maximum flow rate of 90 litres of air per hour, the API 100/1 is primarily suited to use in small ponds or aquaria. The considerably more high-powered API 1000/4 is a extra-high-quality, fully equipped model. This adjustable pump features four connections, four ten metre air hoses and a total of four air stones. The 900 litres per hour air flow rate is testimony to this model's high performance. With 12 watts rated power, the API 1000/4 achieves outstanding results through its energy-efficient operation and relatively low power consumption. Main technical information for comparison:

	API 100/1	**API 1000/4**
Rated power Max. air flow rate	2.2 watts 90 l/h	12 watts 450-900 l/h
No. of air stones	1	4
No. of air hoses	1	4
No. of check valves Weight (gross) Weight (gross)	1 0.8 kg	4 3.2 kg