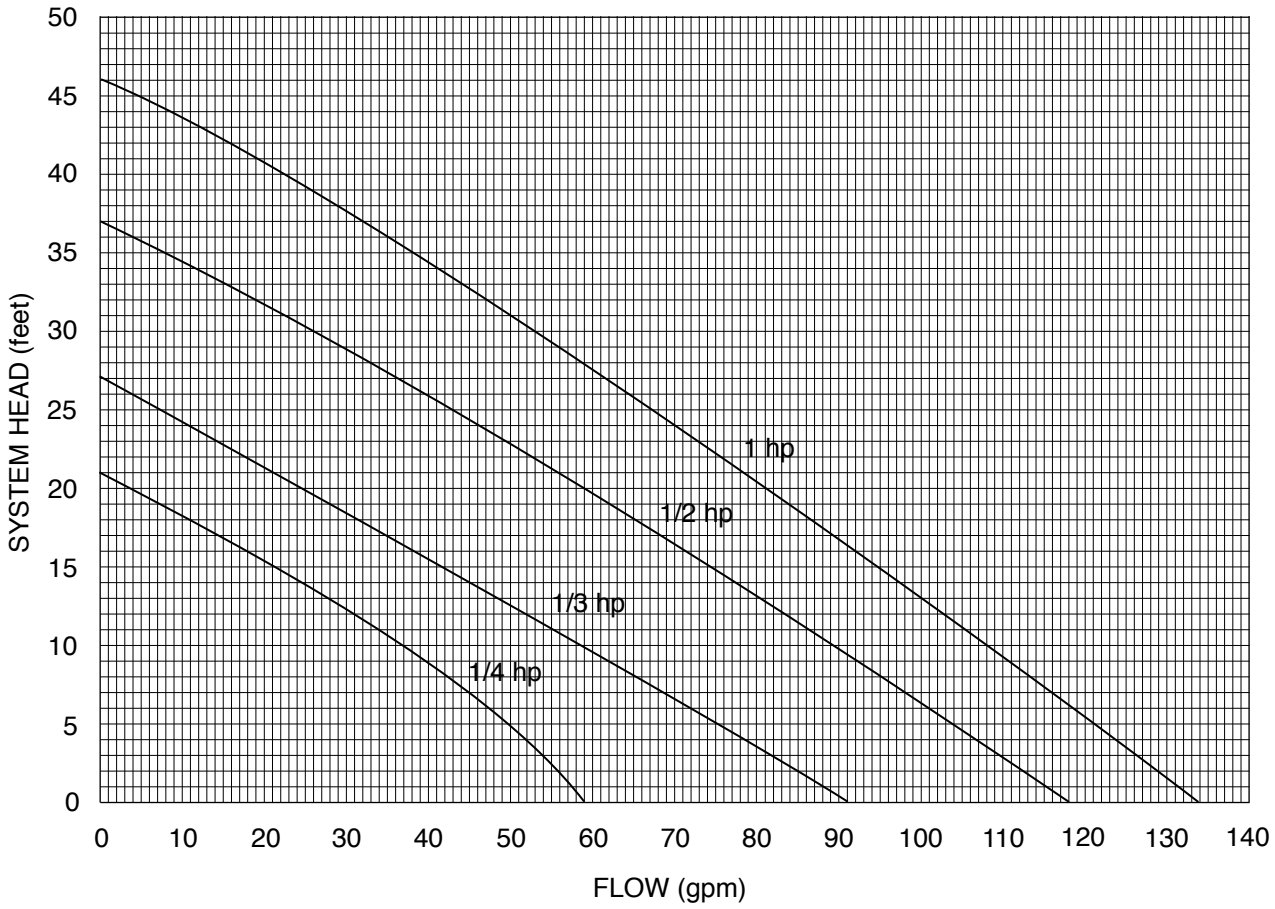
AquaVortex

AquaVortex pumps are heavy-duty submersible pumps designed to move substantial volumes of water at low pressures with optimal energy efficiency. They utilize semi-vortex impellers capable of pumping solids up to 1-3/8" without clogging, making them ideal for stormwater transfer systems and ponds with suspended organic matter. Unlike other solids pumps, they are designed to run continuously without overheating, even when the system head pressure is only a few feet. This makes them suitable for ornamental waterfalls and coarse-media filtration systems.

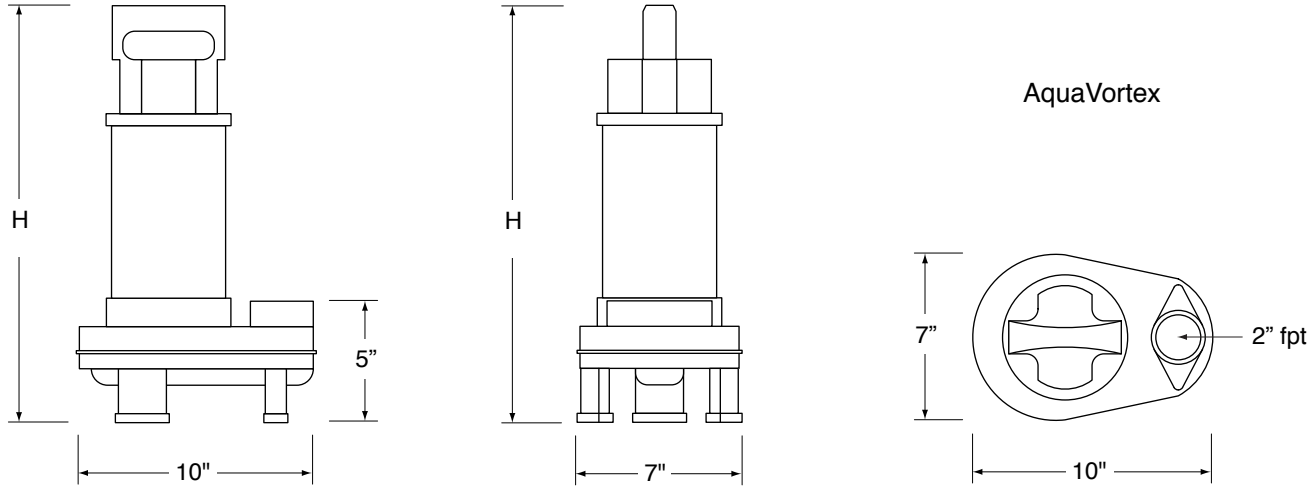
Four versions are available: 1/4hp (59gpm), 1/3hp (91gpm), 1/2hp (118gpm), and 1hp (134gpm). All feature stainless-steel motor housings with technopolymer hydraulics, making them lightweight and rust free, unlike cast iron pumps. Other features include ceramic shaft seals, thermal overload protection, 2" discharge fittings, and 20 ft power cords. Options include low-water float switches, high-water float switches, and dual-pump control stations.

HYDRAULIC PERFORMANCE



PHYSICAL AND ELECTRICAL CHARACTERISTICS

Model	Power	Voltage	Current	Flow	Outlet	LxWxH	Weight
AquaVortex-S25	1/4 hp	120v-1ø	3 a	59 gpm	2” fpt	7x9x15	18
AquaVortex-S33	1/3 hp	120v-1ø	5 a	91 gpm	2” fpt	7x9x16	20
AquaVortex-S50	1/2 hp	120v-1ø	7 a	118 gpm	2” fpt	7x9x16	23
AquaVortex-S100	1 hp	120v-1ø	10 a	134 gpm	2” fpt	7x9x17	27

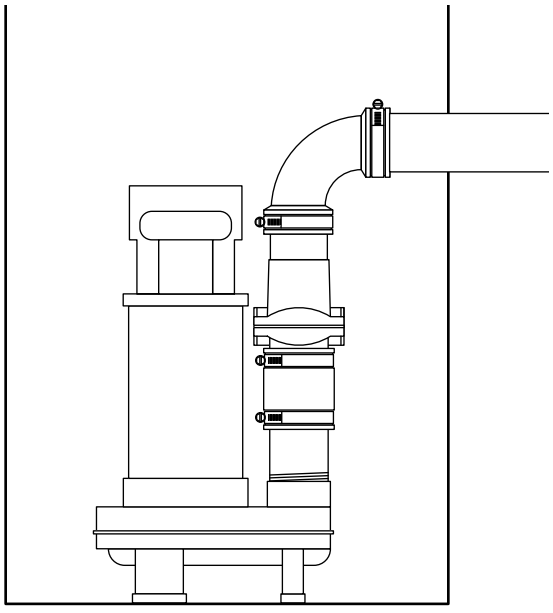


INSTALLATION AND OPERATION

AquaVortex pumps must operate fully submerged for effective cooling. If installation conditions make it possible for the water level to fall below the top of the pump for more than a few minutes, a submersible float switch or pressure switch is required to shut off the pump until the water level rises.

Since AquaVortex pump hydraulics and motors are optimized for high flow at low pressure, it is important that the plumbing system be designed to minimize pressure loss. For optimal performance, use 2” pipe for 1/4hp and 1/3hp pumps and 3” pipe for 1/2hp and 1hp pumps. Flexible PVC pipe is recommended to eliminate friction loss from fittings.

AquaVortex pumps must be installed upright on a firm base. Most installations require a check valve to prevent reverse flow when the pump is not running. Disconnect fittings such as unions, quick-release couplings, or flexible connectors are essential for winterization, maintenance, and repair. Pumps should never be lifted by their power cables, and the cables should never be cut.



AquaVortex pump in vault with check valve and flexible connectors

TRANSFER SYSTEMS

Two AquaVortex pumps can be operated by a custom control panel to create a reliable, high-rate transfer system. In the example below, two AquaVortex pumps installed in a small underground tank receiving pre-filtered rainwater transfer the water to an above-ground RainSilo corrugated steel storage tank. When the float switches in the pump tank detect rising water and the float switch in the storage tank detects available capacity, the control panel operates one or both pumps, depending on the rate of water flow. When the float switch in the storage tank detects the tank is filled, both pumps remain off and the water overflows to a storm drain or infiltration system. The control panel also alternates the sequence of pump operation to prolong the life of both pumps, and guarantees that if one pump fails, the second will operate.