Moving water by mechanical means can be dated back to the first civilizations. The shadoof, an early example from ancient Egypt, is a hand-operated device used to lift water from one level to another. Merely a counter-weighted pole with a skin or bucket hanging from one end, the simple shadoof is still in use today.

Only with the advent of the powered pump was significant progress made in pumping technology. First steam pumps and then electric pumps were coupled to piping in various build-in-place systems for irrigation applications. Often unreliable and difficult to service, these systems were the norm in the golf course industry for decades.

The next technological leap came with the creation of skid-mounted systems - a change Flowtronex helped pioneer. Designed to meet basic flow and pressure requirements, early fixed-speed systems were simple and functional. They relied on limit-switch technology for on-off control and used a hydro-pneumatic tank to maintain system pressure. Though low-tech they were much easier to maintain than build-in-place systems.
Today the Flowtronex Silent Storm represents the apex of variable speed water pumping system technology. Designed for easy set and start, Silent Storm integrates precision computer control with Variable Frequency Drive (VFD) efficiency, giving golf course superintendents the ultimate in fully-programmable pump stations.

Flowtronex is dedicated to manufacturing the finest water pumping systems available for golf course applications. Having built some of the Golf industry’s first skid-mounted pump stations in 1974, Flowtronex continues a tradition of innovation and quality with the Silent Storm variable speed pumping system, the finest water pump station available.

Today Flowtronex is an ITT Industries company and has pumping systems operating in over seventy countries around the world. Top PGA courses, key Golf Course Consultants and knowledgeable superintendents consistently turn to the leading pumping system manufacturer for their pump station solutions.
Silent Storm vertical and horizontal variable speed pumping systems cover a wide range of pressures and flows.

Flowtronex manufactures a complete line of pump station solutions and control upgrade options for the Golf industry. From the variable speed efficiency of Silent Storm to the simplest fixed speed system or a complete system to a control retrofit, no application is too large and no upgrade is too small.

Designed to meet specific requirements, Silent Storm Variable Frequency Drive (VFD) systems are completely CUL Listed for both the US and Canada and CE rated for Europe. Available in vertical and horizontal configurations, Silent Storm systems use computer control to cover a wide range of pressures and flows.
The Silent Storm Express, delivered in just short four weeks, is a custom-designed variable speed pump station with operational and control capabilities near those of Silent Storm.

For other applications there is FloMax, a variable speed system that offers ease of use in a functional, compact design. FloMax is an attractive alternative when an application does not warrant the full range of options available with Silent Storm.

Add variable speed control to an older fixed speed system with the VFD Retrofit control panel or quickly breathe new life into existing VFD pump station controls with the PLC Retrofit pump station control panel.

Supplementing these pump station options is a range of system accessories. From the total control of Integrated Water Management to the absolute protection of Surge and Lightning Advanced Protection (S.L.A.P.), Flowtronex has everything needed to complete any pump station installation.
Flowtronex embraces current technologies to ensure optimum communication and control while providing the most expedient solution to customer needs. From robust control software to an informative company web site, these digital tools are designed to make pump station operation and ownership easier.

PumpLog 2000 remote pump station monitoring and control software provides full remote station access through a user-friendly online graphical interface. PumpLog 2000 can connect to multiple pump stations, communicates with web-ready devices like PDA’s and is easy to use.

PumpLog.net is an entirely new approach to the advanced monitoring and control software package. Using satellite technology PumpLog.net connects directly to the Internet from the pump house - and there are no wires to bury. With PumpLog.net superintendents can easily gain access to pump station information from anywhere in the world.

The Flowtronex web site at www.flowtronex.com offers fast, friendly access to technical specifications and complete product information, a full description of services and support capabilities and helpful engineering reference data.
Digital technical and operations manuals replace bulky 3-ring binders. The convenience of CD-ROM simplifies information searches and gives superintendents handy backups of pump station monitoring and control software. 

By providing electronic sales and operational materials Flowtronex has helped raise the standard for industry support. Online Request for Quote forms, accessible 24-hours a day, expedite project quotes and help track customer inquiries.

Automatic Power Saver (APS) determines actual system pressure requirements and gives VFD systems the ability to exactly match those demands. The result is both water and energy savings.

Flowtronex developed variable speed control software Smoothflow VI to ensure reliable, fully programmable pump station operation. With decades of development behind it Smoothflow offers superintendents stability and flawless system operation.
The Flowtronex manufacturing process is designed for efficient project flow with integrated quality control. Using advanced production tools and manufacturing techniques helps Flowtronex maintain a technological edge on the factory floor and makes Flowtronex the leading name in pumping systems.

Manufacturing tools like the pump head fabricator and the plasma pipe cutter reduce production time while creating superior components. Advanced techniques like continuous-seam skid welding and steel grit blasting ensure superior strength & long service life.

The plasma table cutter follows a programmed pattern to convert steel plate up to one-inch thick into uniform components. Operated by professionals, the device ensures consistent steel elements for pump station skids, pump plates and heads.

Flowtronex also manufactures aluminum and stainless steel systems for harsh environments. These systems are designed to pump brackish or high-saline water.

Every section of welded manifold is pressure tested up to 500 PSI to ensure a long life in the field. The process confirms that welds are free from leaks and that manifolds will be able to withstand even the most extreme conditions.

The Flowtronex production plant is laid out in a logical production flow pattern. The raw steel is brought in one end and the finished product leaves the other end. In between are fabrication and welds shops, blasting and painting facilities, assembly and testing areas and finally Quality Control and shipping.
A focus on performance and strict attention to detail make Silent Storm variable speed pumping systems the finest product on the market. Quality components, intelligent design features and a long service life leave no room for comparison.

**UL LISTED**
Our Silent Storm variable speed pump stations are fully CUL listed for both the US and Canada.

**Pressure Transducer**
Stainless steel pressure transducers are accurate and long-lived.

**OTIS III**
The Operator Terminal Information System has a scrolling LED readout displaying important station operational data which allows superintendents to easily monitor and control station operation from the panel door.

**NEMA 4 Enclosure**
While a lower-rated enclosure may fail under harsh conditions, the NEMA 4 enclosure provides optimum weather resistance and protects vital electrical components from chemical erosion and water damage.

**S.L.A.P.**
Surge & Lightning Advanced Protection provides the station’s vital electrical components with superior protection from lightning and power surges.

**Smoothflow VI**
Sixth generation Smoothflow is the most powerful and user-friendly control software in the industry.

**PumpLog**
Our remote pump station monitoring software provides access to your station from almost any location via modem.

**FlowNet**
The industry’s most comprehensive service network of factory-trained technicians that puts professional help only a phone call away.

**Stuffing Box**
Water is ported back to the wetwell from two points within the pump head, helping to keep the station dry and leak-free.

**Continuous Weld**
Skip-welded skids allow water to penetrate the skid seal, creating rust damage. An uninterrupted weld around the deck plate prevents water from penetrating the top of the skid, minimizing station-damage corrosion.

**Superior Strength**
Advanced construction techniques such as submerged arc-welding and pressure-testing manifolding up to 500 PSI ensure that the station will exceed the physical demands of operation.

**Steel-Grit Blasting**
All piping and structural members are steel-grit blasted prior to painting to provide a clean base for optimum top coat adhesion.

**Integral Wetwell Cover**
The station skid safely covers the wetwell and built-in hinged panel provides easy access.

**Fabricated Steel Discharge Heads**
The steel discharge head has superior strength (60,000 lb tensile vs. cast-iron 30,000 lb).
“Integrated Water Management” (IWM) describes a package of water quality management tools which combine with the efficiency of a Silent Storm VFD pumping system to provide superior water quality control. By selecting from a range of manufacturers IWM offers complete solutions for water quality issues.

IWM components, including Nutrifeed fertigation equipment, SO2 generators for pH and algae control and complete filtration options, can be monitored and controlled directly at the pump station or remotely from any point on the globe via the web.

Filtration

Proper filtration, the removal of undesirable particulate matter from irrigation water, helps avoid agronomic problems resulting from algae or other debris entering an irrigation system or being dispensed onto turf.

Filtration:
- Prevents Sprinkler Heads for Clogging
- Reduces Potential Damage to Pump Station from Debris and Algae
- Minimizes Obstruction in Valves

Fertigation

Fertigation is the injection of liquid fertilizer into an irrigation system mainline at the point of connection, the blanket coverage over all irrigation areas with nutrient-bearing water and controlled release of fertilizer via metered application. Fertigation helps maintain the long-term health of turf and ornamentals.

Flowtronex Nutrifeed systems accurately and reliably apply up to three different nutrients with the precision of digital control. In either stand-alone installations or directly linked through the Irrigation Central Control Computer.

Additional IWM Components

Sulfur Dioxide (SO2) burners reduce pH levels in irrigation water, help reduce built up sodium in the soil and neutralizes carbonates and bicarbonates in the water which minimizes mineral deposits on pump shafts and in irrigation lines and heads. SO2 treated water helps produce healthier turf, plants and trees while reducing operating and maintenance costs.

A Reverse Osmosis plant takes in water with high amounts of chlorides and delivers a continuous supply of irrigation water for a substantially lower cost than the municipal supply.

The GLR is a gas/liquid contactor designed to supersaturate liquids with a specific gas. When the gas is oxygen the GLR becomes an efficient aerator. The GLR has no moving parts and is virtually maintenance free.
Recognizing a critical need, Flowtronex has developed an effective program to meet an important yet often overlooked issue - service after the sale. To this end the FlowNet and Field Service programs were developed.

FlowNet, a global network of factory-trained and certified pump station technicians, provides service and preventative maintenance support for all pumping systems, regardless of manufacturer.

Flowtronex sponsors FlowNet School, a by-invitation annual pumping system education and certification program, to keep pump station technicians up to date on current and developing pumping system technologies.

Factory-direct Field Service supplements the independently owned FlowNet network. Strategically positioned Field Service offices offer factory-direct support wherever needed. Collectively FlowNet and Field Services provide the most extensive service and support available in the Golf industry.