



# Water Management System Control Solution for using Variable Frequency Drives

Our pump system provide a state-of-the-art solutions for your water pump management system. It can save you at least 30% of your regular electric cost as compared to your existing pump control system (Direct On Line Pump System). The water pressure is continuously monitored the PID controller configured with Variable Speed Drive will automatically adjust the pump speed to maintain constant pressure.



Variable Speed and Constant Pressure Control Pump System

# Water Management System



## Outline of Booster Pump System

Booster pump system is the advanced pressurized water supply facility where more than two pumps are combined in parallel. And this system consists of the optimized system with PID controller installed various system protection functions. This system uses the water supply method where service water is supplied under the constant pressure in piping and can be divided into quantity control method using pressure switch and Inverter control method using pressure transmitter.

## Applications

### - Water Supply

Main water supply system in the city waterworks and water supplying system  
High-rise building, hotel, camping area, school and other building  
Pressurized booster system.

### - Industrial

Water supply system for food industry such as beer distillery plant, beverage manufacturing plant, dairy products manufacturing plant and slaughter house, etc.  
Petrochemical industry pharmacy industry and metalworking industry where water and pressurized booster system play the critical role.  
Swimming pool, waterside facility, etc.

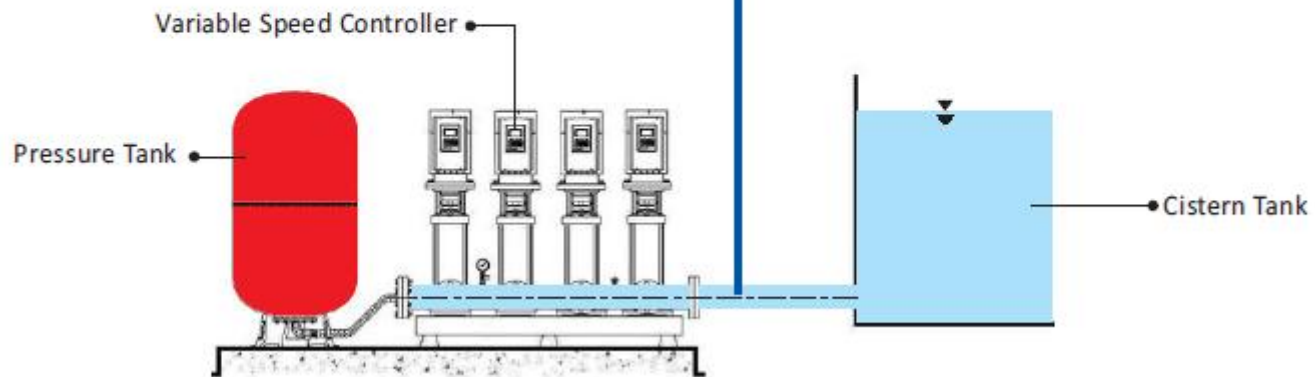
### - Irrigation

Irrigation of resort facility, golf course, etc.  
Park and other leisure facilities  
Orchard including vineyard and etc.



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### Benefits of Variable Speed and Constant Pressure Control Pump System

#### Save your Electric Cost & Construction Cost!

Our pump system has PID Controller configured with Variable Speed Drive to reduce the starting torque of pump that automatically operates when there is consumption of water only. The Variable Speed Drive will eliminate the instant motor start and it will start slow to operational & stop slowly eliminating higher electric consumption.

Our pump system can eliminate water tank or cistern tank above or the roof of the building. It saves construction cost by eliminating additional installation materials to support this heavy water tanks.

#### Enjoy suitable water pressure at the top floor of building.

Our PID controller maintains integrated constant discharge water pressure so that suitable water pressure will be able to supply water on the highest floors of the building.

#### Extend the Life Cycle of Pump And Pipes.

Our pump system will operate automatically when the water is demanded & the pump speed will adjust to maintain constant pressure thru Variable Speed Drive. With Variable frequency drive the pump will slowly start to operate & will slowly stop to prevent damage or fault to the pump & the pipe, even if the operation are frequently start & stop.

#### Save Installation Cost, Give More Space & Enjoy Less Noise Operation.

PID controller configured with Variable Speed Drive can give perfect solution from water hammering & operation noise of pump. With PID controller the size of the pressure tank is smaller than the Direct On Line pump system due to speed control, it will save material cost and installation space.

#### Easy Operation, Simple Installation and Convenient Maintenance.

You can easily monitor the pump operation status and system information, and can be easily Input or Modify the required operation in the LCD Screen. It is ready for BMS (Building Management System) thru RS-432 or RS232. It can be used via Internet Monitoring System thru TCP/IP protocols to monitor & Control the pump system via Internet.



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## Variable Speed and Constant Pressure Control Pump System

### Features of INJ-1000 Controller

#### <Touch Screen LCD Display>



VFD & PID Constant Pressure Controller for Booster Pump and HVAC Closed-Loop Pump System

Graphic screen display with back-light

System status display: Operating pressure, Set pressure, Auto/Off, Time and date and Alarm with time date records. Pump status display: Pumps in use, Lead pump, Pump run/stop, Pump speed in %/Hz/RPM and VFD fault.

Touch-Screen & Four arrow buttons for easy navigation and setup.

Functions: Automatic alternation (Cycle-based or time-based), Alarm log, Real time clock, Scheduled pressure setup function, Pressure transmitter setup, Password protection, Serial communication (BMS:Rs-485 & 232), Internet Monitoring (TCP/IP), Idle prevention, Freeze prevention, Low pressure alarm, High pressure alarm, Low suction pressure/Low water Level protection

Multi Capacity Pump Configuration: It is able to configure with small and large capacity pump together and control by each VFD.

