



Our Restless Quest for increasing productivity & quality made us focus on the most Important & Neglected Ingredient water. Which in turn gave Birth to the company called SCALE GUARD WATER ENGINEERING that changed the way water was managed in the Plastic Industry.

It is no more surprising that effective cooling water system provision, operation & maintenance can improve the productivity considerably. This is proved at our customer end with improved capacity, quality of product, ease of operation & reduced cost.

At Scaleguard we provide complete solution for water management at your plant/factory which includes designing plumbing system, material supply and site irrection, supply of water treatment plants, cooling tower- chillers chemicals, VFD for energy savings on process pumps and automation of total water management. Our Services includes

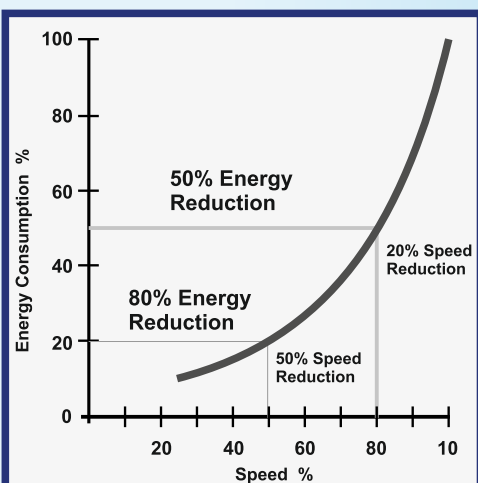
1. Site Visits: We conduct site visits to understand the exact requirement and conditions on ground for customized solutions
2. Advanced Technology: Our products are developed based on continuous feedback from on-site conditions and constant research and development based on latest advancements in technology.
3. Onsite erection, commissioning and services: Due to our expertise, quick turn around of projects with least involvement of customers has been our strength.

## VARIABLE SPEED PUMP SYSTEMS FOR COOLING TOWER, PROCESS & CHILLER WATER CIRCULATION PUMPS

Our Variable speed pump systems enable excellent energy savings in applications such as "Chilled water circulation" and "Cooling Tower" Water Circulation. When the plant does not operate at full capacity, the pumps still operate at full RPM resulting in wastage of electricity, Whenever there is variation in the pump load the pump RPM is varied while keeping the pressure constant. The VFD Control panels are specially designed protect the pump and motor against damage due to harmful electrical conditions such as over current, under current, phase loss, voltage fluctuations etc.

### Features & Benefits

- ✓ Excellent energy savings
- ✓ Complete pump & motor protection
- ✓ Adjustable pressure set point
- ✓ Low wear & tear of pump & motor parts
- ✓ Constant high pressure for all equipment
- ✓ Soft start & stop eliminates water hammer / cavitation
- ✓ Lead / Lag & alteration of pumps in multi-pump systems



**Dramatic savings in energy due to variable speed operations.**

**At 100% load, the energy consumption is 100% however, with just 20% drop in load there is drop in energy consumption by 50%.**

## INTELLIGENT PUMP CONTROL PANELS

Our Intelligent Pump Control Panels protect the pumps & motors from harmful hydraulic & electrical conditions such as dry run and motor damage. These control panels help to monitor critical pump operating parameters for preventive maintenance and long pump life. Pumps can be operated automatically based on water level.

### Features & Benefits

- ✓ Graphical LCD display with touch buttons
- ✓ Automatic water level based pump operation
- ✓ Single control panel for up to 2 pumps
- ✓ All pumps & motor protections built-in
- ✓ Fault information is stored in memory
- ✓ Available in Plastic & Metal body
- ✓ GSM Modern for remote control of pump (optional)

### Display & Monitoring

- ✓ Display of pump running status
- ✓ Continuous display of all three phases of voltages & Current
- ✓ Display of water level in underground and overhead tank
- ✓ Pressure level status: High / Low (Optional)
- ✓ Display of last 20 faults
- ✓ Display of cumulative pump run time
- ✓ Selection of Auto / Manual mode
- ✓ Display of power parameters: kVA / kVAH, kW/KWH, Hz / PF



### Pump & Motor Protections

- ✓ Dry run protection
- ✓ Over current (overload) protection
- ✓ Over / Under voltage protection
- ✓ Phase loss protection
- ✓ Phase reversal protection
- ✓ Phase unbalance protection
- ✓ Earth fault protection
- ✓ Over heat protection
- ✓ Low PF protection

## DIGITAL TEMPERATURE CONTROLLER FOR COOLING TOWER FAN MOTOR

Our Digital Temperature Controllers operate the cooling tower fan based on the temperature of water in the circuit. Our Digital Temperature Controller receive temperature feedback from a thermostat and turns the motor on and off automatically as and when required.

### Features / Benefits

- ✓ Maintain standard water temperature with LED Display and touch buttons.
- ✓ Uniformity in product quality and fitment.
- ✓ Energy savings by switching on / off fan motor. Automatic ON after power failure.



For Automation of Tank filling & visual indication of water level

**Bicolor Level Indicator**

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