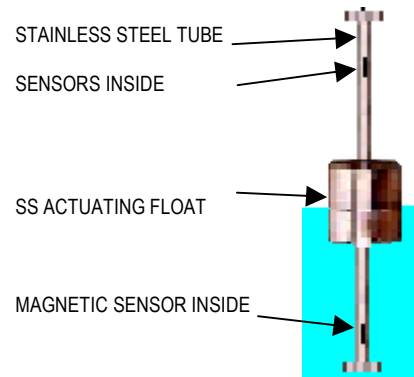


We specialize in Liquid Level Monitoring and Automatic Control Systems. These are based on Magnetic Level sensing.

Probe Unit

The level sensing is done by means of a probe unit as shown. It is made of stainless Steel. A number of sensors suitably spaced, depending of functional requirements are enclosed inside the Probe Unit.



An Actuating Float, made from Stainless Steel or PP is used to actuate these sensors. This Float has a Ring Magnet of specific polarity for correct operation of the Control System.

Control Unit.

This receives signal from sensors as liquid reaches their level. This signal then operates the Controller/ Indicator System.

The Control Systems are designed as 'stand alone' units and are specific to the capacity and system of operation of Pumps.

Type of Pumps or Valves where these can be used

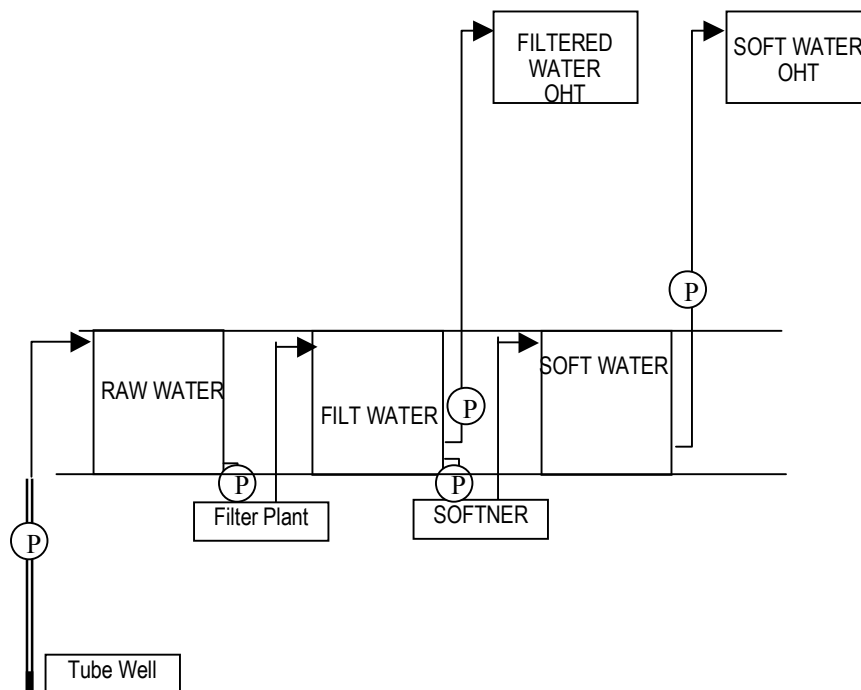
The pumps can be of ANY type or capacity i.e. Single phase mono-block pumps, Jet Pumps, Single or Three phase submersible pumps, or other heavy capacity pumps or pumps related to chemical or process or dozing etc.

Most application in Water

Active Control Systems have become very popular with consultants, designing **Water Supply and Disposal Schemes** in Industry. The main reason is that unlike normal conductivity types, these are unaffected by water corrosion. This has helped reduce the constant manual checking, and bring about extremely high *Functional Reliability*.

Most of our clients are from professional maintenance/ project engineers and consultants. e.g. Oberoi Group of Hotels are consistently using our systems, both in **Projects and Maintenance**. So is the case with **Le Meridien, Delhi, Mother Dairy, CDIL** etc.

How these systems are being used?



All pumps are controlled based on Level of water in tank being monitored

Level Indication for all tanks at a central location, or desired location.

Level Audio Alarms at High and Low

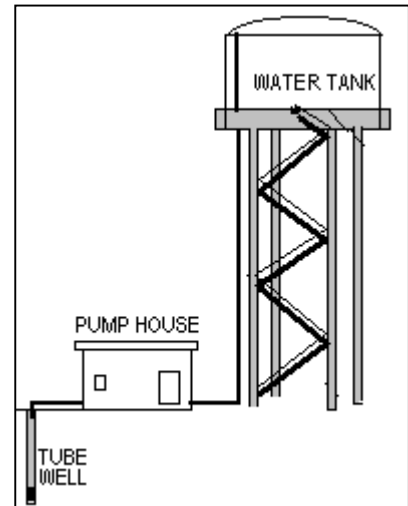
TYPICAL WATER SUPPLY SYSTEMS

This is a standard arrangement where water is drawn from a tube well (submersible pump) and pumped directly to the overhead tank.

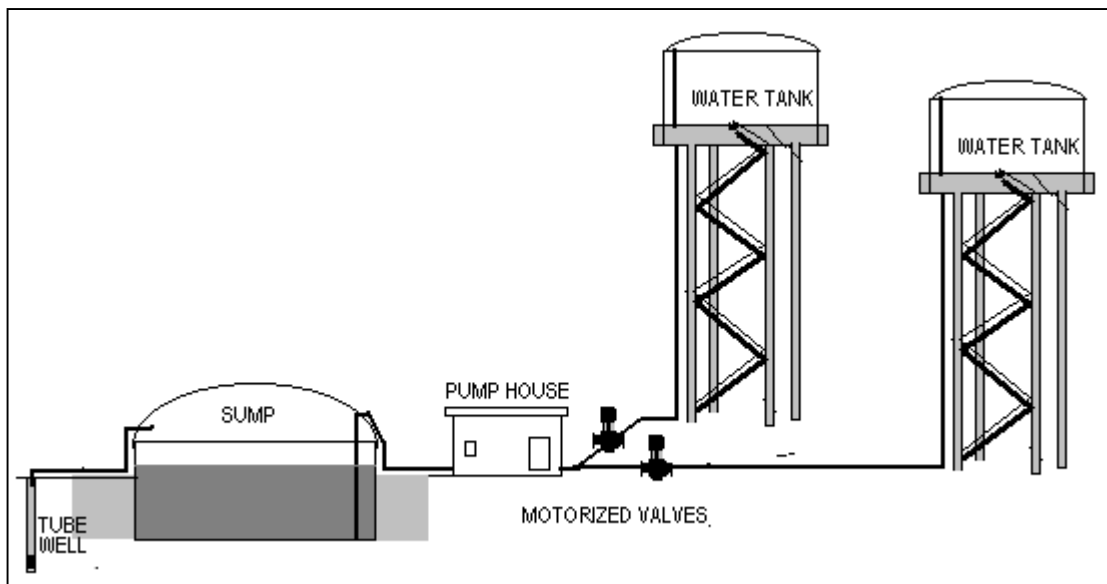
A variation to this is a sump tank where water is received from a tube well or municipal water supply and then pumped to the overhead tank.

Automation system provides

- a) Level indication in 5 OR 10 stages depending on depth of tank
- b) Automatic Control of water pump. In case there are two pumps, then the control system is configured to operate
 - i) In automatic alternate duty change at every operation. OR
 - ii) Manual pump selector for deciding the duty and standby pump.
- c) Level warning alarm in case pump fails to operate.
- d) Other options like Control of pumps based on TIME, control of dosing pump,

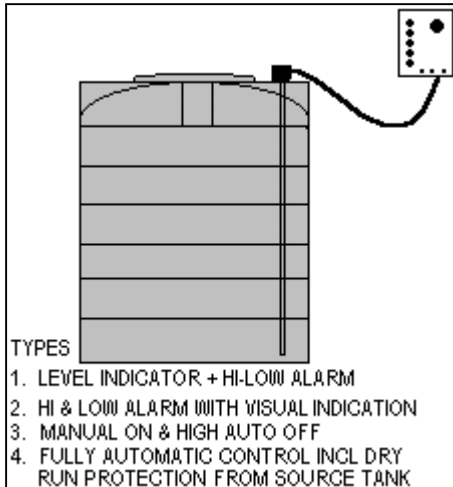


WHEN USING ONE SUMP TO FILL TWO OR MORE TANKS



The system can also have motorized valves to have effective control on filling operation, as shown above

FIELD WATER SUPPLY



In field water supply, where water tanks are inaccessible, ACTIVE CONTROLS systems are extremely effective in better water management. These help in reducing wastage due to overflowing, give timely information of water availability, including audio signal to start or switch off the pump.

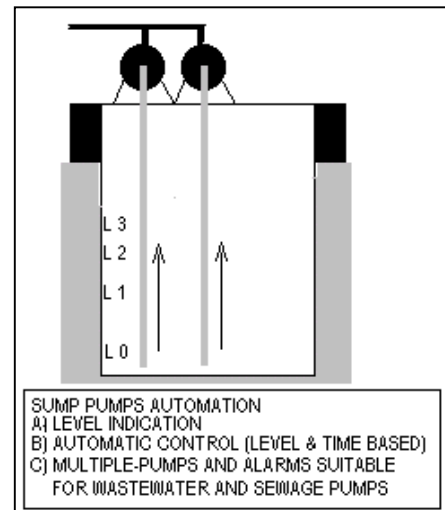
These can also help in automatically starting or switching off water pumps where they are electrically driven.

Models operated on normal battery cells are available for indication and alarm, whereas where electrical pumps are used, the normal systems are based on 220 V AC

SUMP PUMPS

In case of Sewage disposal systems, treatment plants, basement sumps where waste water level needs to be monitored and pumps or valves controlled, ACTIVE CONTROL systems are very reliable. These are designed to operate one or more pumps depending on inflow and discharge, and the level in sump tanks. Very effectively used in complete STP operation.

- a) Pump 1 switches ON at level L1 and
- b) Switches off at level L0
- c) On next operation Pump 2 switches ON at Level L1 and switches off at Level L0
- d) If during the operation of P1 OR P2 level rises higher to L2, the pump not operating also switches ON. At this point both pumps operate to pump out the water
- e) If level further rises to L3 despite both pumps operating, an audio alarm is sounded to warn the attendant of the situation.

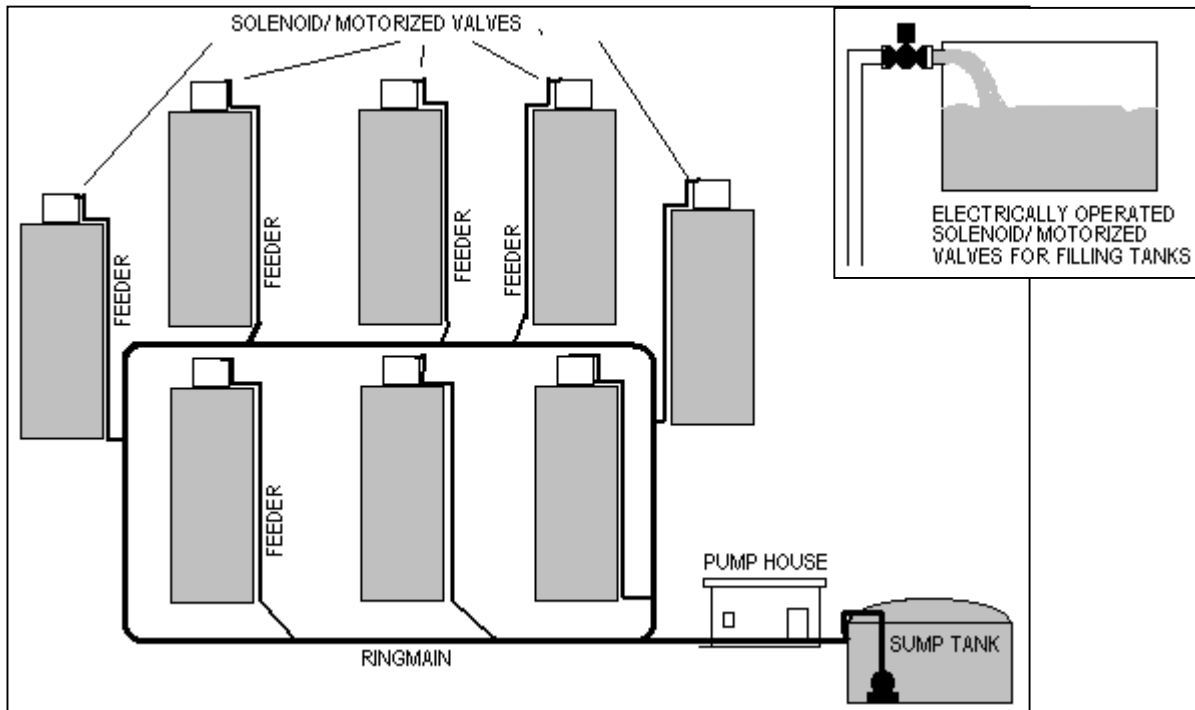


This is a typical application. We can provide any type of controls to suit the user plan, design or requirement.

AUTOMATION OF WATER SUPPLY SYSTEM

Where a number of buildings are supplied water from one set of pumps, a very effective plan is through a ring-main, which supplies water to all the feeders. This type of systems is operated based on levels.

- a) The system is configured to operate in such a way that the pump will be switched ON when level in any ONE tank drops, but will be switched OFF, when all the tanks are full.
- b) All tanks are provided with normally open solenoid valves. These are independent of the water level controller and operate as Float type (Ball cock) valves. Each valve has one level controller to prevent overflow.



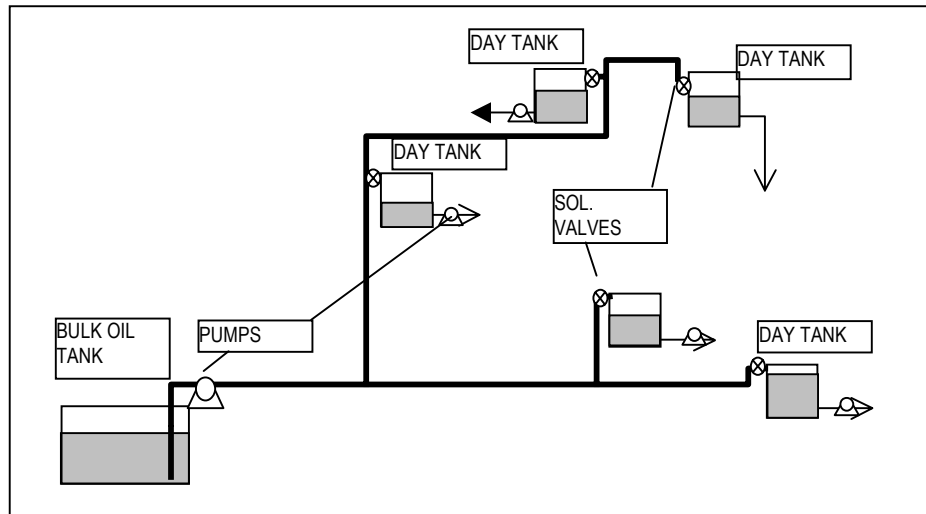
As each tank gets filled up, it gives the signal to the pump to switch off. Just above this level the inlet solenoid valve of this tank closes, thereby preventing overflow. When the last tank fills up, the pump switches off.

The unit may also have a level indicator to give the availability in each tank. The level indicator can be placed at any suitable location near the pump room.

OIL HANDLING SYSTEMS

For those doing pipelines for oils in Fuel handling systems, our Liquid Level monitoring and control systems will be of immense interest.

Most fuel handling systems are based on Level monitoring and Operation of Pumps. We at Active Controls, offer you world class



- a) Level Indicators
- b) Automatic Pump Controllers (Level switches)
- c) Level Warning Alarm
- d) Dry Run Protection Controller

These are available in any combination to suit your project's requirement. We are enclosing details of the systems. We would like to assure you that the control systems are well proven, and in use since last seven years.

Some of our clients are

Grand Hyatt, New Delhi, Cecil Oberoi Shimla, Jaypee Agra, JMD Regent Square Gurgaon, Metropolitan Hotel Nikko, TCS Gurgaon, Van Vilas Agra, Honda Motor Cycle and Scooter Company, Mother Dairy, Jindal Centre New Delhi, Le Meridien New Delhi, Napino Auto Electrical mfg Co,

ACTIVE CONTROLS, CLIENTS AND APPLICATIONS BY THEM

Hotel Le Meridien :

A total of 30 control systems for sump pump control. Waste water from toilets, kitchens and all other points of use gets collected in sumps which are located below the second basement level. The control systems are used to monitor these levels. They start the pump when level rises to High and switch off when the sump tanks are empty. This has helped the hotel save on manpower and constant monitoring. They are also using the system to control their effluent treatment tank,

Hotel Cecil, Shimla

- a) Monitoring and control of Water supply in conjunction with pumps and electrically operated solenoid valves.
- b) Oil level monitoring and control
- c) Waste water sump pump control
- d) Expansion tanks in air conditioning (Hot and Cold Water)

Ananda Himalayas , Narendranagar (Haridwar)

- a) Complete water supply system right from source to disposal going through filtration, soft water, hydro-pneumatic system
- b) Waste water control
- c) Oil level

Jaypee Agra, Grand Hyatt Delhi, Nikko Metropolitan Delhi, JMD Regent Square (Gurgaon)

Complete automation of Oil Handling system for generating sets and boilers.

Wildflower Hall, Mashobra (Shimla)

Boiler feed water system, Oil Handling System

McDonalds New Delhi:

Wastewater sump pump control and Water Level Indicators for monitoring main water supply.

RAJ VILAS, JAIPUR

Waste water sump pump controls : 13 systems

NMDC,

Flocculent Tanks, Waste water disposal

Mother Dairy

Water and Waste water level indicators and controllers

Hotel; Udai Vilas, UDAIPUR:

- a) Water Supply system,
- b) Waste Water Chlorine contact and Irrigation tanks
- c) Swimming pools balancing tanks: Level Indicators and Controllers , Dry run protection and automatic make up through solenoid valve controls
- d) Water bodies automatic level make up and dry run protection for pumps.