

Waste Water Management: Save Water, Save Lives, Save Future!

Author: **Mr. C N Shukla**
Training & Development Consultant
Pune Techtrol Pvt. Ltd.

The level measurement and control instruments manufactured and supplied by Pune Techtrol are widely used in the processes of waste water treatment.

For the rapidly growing human population, the availability of so called abundant natural resources is shrinking; and the case of water is no different! Pune Techtrol Pvt. Ltd., the leading manufacturer of level measurement and control instruments, has always recognized the importance of preserving the environment and has believed in contributing to this noble cause.

Human beings can use and consume only fresh water. While three-fourth of the Earth's surface is covered in water, only three percent of it is fresh; and seventy percent of this three percent is locked up in the ice caps of Antarctic and Arctic regions.

What remains, is to be used by the entire human population of seven billion for their ever increasing needs, and habitual wastage. Also, around ninety percent of fresh water that is consumed, goes down the drains as waste water. Industries, which are increasing continuously in numbers, create lots of harmful pollutants that get mixed with water. The rate at which human beings are bidding farewell to water in the form of waste is indeed alarming.

Thus, arises the dire need of waste water management. Waste water treatment is the process of removing contaminants from waste water and making it reusable for all purposes. Processing of waste water is important with regards to the need of environment preservation in the current times. Waste water, if allowed to flow untreated, can play havoc not only with humans, but also with crops, forests and wild life as well. Hence, the treatment of waste water or effluent is increasingly becoming vital for survival of human race and the environment.

All waste water treatment processes require level monitoring and control. Level instruments are installed in almost all parts of water treatment and effluent treatment plants. The level measurement and control instruments manufactured and supplied by Pune Techtrol Pvt. Ltd. are widely used in the processes of waste water treatment.

A very useful feature of "Techtrol" instruments is that there is wide choice of Material Of Construction (MOC) for all the

instruments to suit specific requirements of the medium or liquid whose level is to be measured, detected or monitored.

These level instruments are mainly classified into level gauges, level switches and level transmitters. These "Techtrol" level instruments are specifically designed for this particular application, and hence increase the efficiency and reliability of the process.

The application of each of these level instruments for waste water management is explored further:

• Using Level Gauges for Waste Water Management

Pune Techtrol's wide range of level gauges useful for in the application of waste water management are as follows:

- ◆ Tubular Level Gauge (TTG) and Reflex Flat Glass Gauge (RFG) are glass gauges used to indicate liquid levels of chemical tanks & other storage /process tanks.
- ◆ Magnetic Level Gauge (MLG) is used to indicate levels of storage tanks of acid & alkali. It can also be improvised with alarm switches and transmitter for remote indication and control.
- ◆ Float and Dial Gauge (FDG) is useful for indication of liquid level in under-ground tanks. It is particularly suitable for applications involving limited head-space above the tank. It can also be improvised with alarm switches and transmitter for remote indication and control.
- ◆ Float & Board Gauge (FBG) is the simplest but very reliable instrument used for indication of liquid level in large storage tanks of effluent / treated water. It can also be improvised with alarm switches.

● Using Level Switches for Waste Water Management

Pune Techtrol's wide range of level switches useful for in the application of waste water management are as follows:

- ◆ Float Guided Switch (FGS) is single or multipoint level switch used for in clarifier and aeration tank. These switching contacts can be used for alarm indication or pump control.
- ◆ Displacer Switch (DS) is more suited for application in clear effluent and potable water. Switching points rated for 5A, 250VAC and can be adjusted at site as required.
- ◆ Cable Suspended Switch (FTS) is a simplest type switch and easy to install. These switching contacts are rated for 5A, 250VAC and can be used for alarm indication or pump control and are ideally suitable for application in settling tanks.
- ◆ Conductivity Type Switch (CNS) is used only for conductive liquids. It can be used for treated & potable water. More suitable in applications where the depth of tank is large.
- ◆ Float Pivoted Switch (FPS) is side mounted, single point switch rated for 5A, 250VAC. It is suitable for over ground tanks.
- ◆ Miniature Float Switch (MFPS/MFGS) is used for level detection in small /medium tanks.

● Using Level Gauges for Waste Water Management

Pune Techtrol's level transmitter useful for in the application of waste water management is as follows:

- ◆ The Techtrol Ultrasonic Transmitter (TUS) is a non-contact type level transmitter, generally used for measurement of flow in open channel or level monitoring in tanks. It is compact, non-contact, and easy to install, integral type transmitter for continuous level measurement of non-corrosive liquids and slurries. It is programmable through Keys. Owing to its aforementioned characteristics, it proves highly useful in waste water management plants. It is used for various processes in storage tanks, filter beds, flotation cells, water / waste water/effluent treatment (WTP, ETP), etc.

Since its inception, Pune Techtrol Pvt. Ltd. has time and again innovated and added on to the list of level measurement and control instruments which can be used for applications like waste water management. It takes pride in being not only a company of products, but a company of value too!

For further information on level measurement and control instruments, contact our experts on +91 20 66342900, mail us at ho@punetechtrol.com or visit www.punetechtrol.com

About Pune Techtrol

Pune Techtrol Pvt. Ltd. has evolved from a six employee enterprise, in 1984 to become a premier Indian company recognized for quality level measurement and process automation systems for liquids & solids. We are an ISO 9001 2008 Company located in the Industrial belt of Pune, around 180 kms from Mumbai, the commercial capital of India. Pune is famous globally for quality instrumentation industries with ample skilled & talented work force.

'Techtrol' is recognized as most reliable & trusted brand, delivering quality products unsurpassed in terms of accuracy, workmanship, performance, safety & ease of installation, providing long uninterrupted service in wide & varied industrial applications. Our products are designed & engineered for optimal performance and with practical experience gained over last several years has equipped us, to meet the most demanding user requirements.

