

WATER IS SCARCE

SAVE WATER



Wastewater is a resource, the use of which has not yet been found

Diva Envitec Pvt Ltd

OVERVIEW

Scarcity of Water is well known to all and cannot be emphasised more. one of the depleting resources. Once water has served its myriad industrial uses, it must be treated to be reused, treated to enter the public utility wastewater treatment process or treated to return to the environment in a manner consistent with water quality regulations. The growing concern and environmental norms for Zero Liquid Discharge, Wastewater Pollution is becoming a challenge in the Industry.

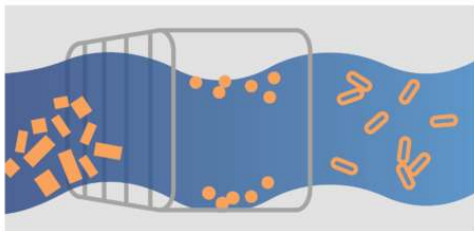


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WASTEWATER TREATMENT

The process of treatment starts with wastewater characterisation. The industry type and the contaminants contributing to the effluent streams are analysed. This is followed by preparing a basic/ process engineering package for the customer. The Design of wastewater treatment schemes are planned, equipment sizing done. A list of specifications of bought out items alongwith P&I diagram, layout drawing are prepared using 3D Solidwork programme. Overall responsibility of coordination in treatability studies, commissioning, trouble shooting & project management is with Diva Envitec Pvt. Ltd. From the main effluent sump to discharge, we help customers identify the right technology to treat their industrial wastewater. We take the source control approach to resolve problems and trouble shooting systems

Advanced Purification Process



PRELIMINARY

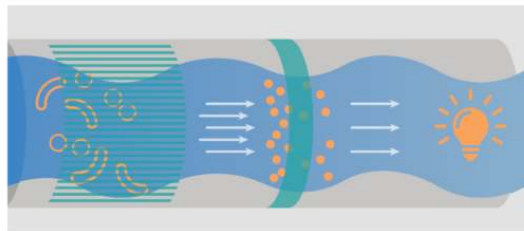
Trash, grit, and other inorganic materials are removed.

PRIMARY

Solids settle to the bottom or float to the top, and are removed.

SECONDARY

Beneficial microbes feed on solids and organic matter for removal of harmful bacteria and other pollutants.



MEMBRANE FILTRATION

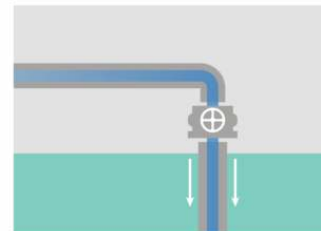
Removes microscopic particles including suspended solids, bacteria, and protozoa.

REVERSE OSMOSIS

Membranes remove most toxic organics and organisms, in addition to salts and lead.

UV/ADVANCED OXIDATION

Ultraviolet light combined with chlorine creates chemical reactions that destroy all trace chemicals, organisms, or contaminants that remain at this stage.

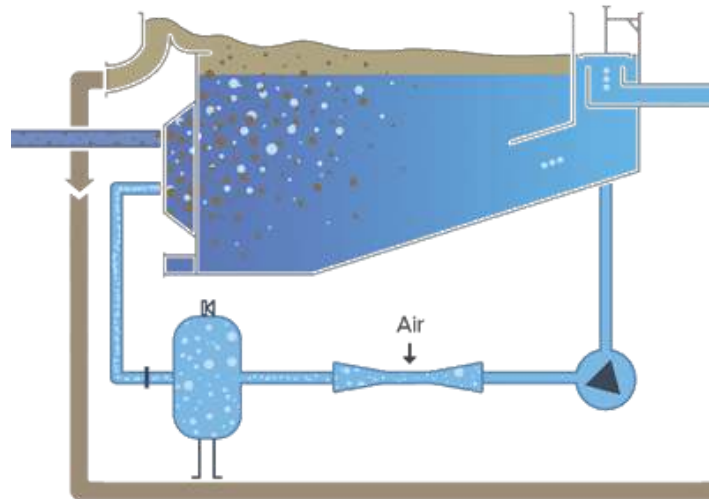


GROUNDWATER INJECTION

The highly purified water is injected through wells into the groundwater basin to be used for future drinking water purposes.

WASTEWATER TREATMENT

Characterization Of Effluent Wastewater characterization is the first step to proceed with treatability studies. The final goals are set in terms of end results and effluent parameters desired , depending on the end goal of the treated water. The various parameters to be analyzed for the effluent at laboratory are pH, Total Solids, BOD, COD, Chlorides, Sulphates, etc. After characterization primary treatment to the effluent for the removal of suspended & colloidal matters from the effluent is established – DAF, Clarifiers, physical treatments etc



After establishing the primary treatment of influent wastewater, the secondary treatment method is decided. This could be anaerobic, aerobic, anoxic – oxidation, photocatalytic – depending on the type of prime contaminants. Sometimes we can also carry out on-site, costs for which are discussed mutually with the client.

The primary, secondary and tertiary treatments are run separately in our lab to determine optimum parameters and operating conditions for each stage of treatment at plant level. A holistic approach is taken on how the water can be best managed in the plant and bespoke solutions are designed.

Environmental Issue Managing wastewater is a challenge in Industry and a big environmental issue. Treatability studies help identify the problems. Based on our experience, a study is conducted by plant visit by Diva Envitec Pvt Ltd water experts. Treatability



Wastewater Characterization

Primary Treatment Studies

Physical Treatment Studies

Chemical Treatment Studies

Biological Treatment Studies

Anaerobic Treatment

Facultative Treatment

Aerobic Treatment

Anoxic Tertiary Treatment Studies

Technology identification

– Photo-oxidation , MBBR, MBR, Anaerobic, Aerobic, Electro-oxidation etc Lab Model Trial Study at our Innovation center Flow Chart Of Proposed wastewater treatment scheme

Applications

Pigment & Dyes

Pesticide & Agrochemicals

Dairy Products

Food & Beverage

Pharmaceutical & API- Toxic wastewater

Sugar & Distillery Condensate recovery and reuse

Chemical and other industries

Caustic recovery from spent brines

Colour removal from Dyestuff Industry

Metals (Ni, Zn, Pb, Cr etc.) removal System for an Electro-plating, Automobile industries.

Metal complex cyanide removal system Waste Coolant Demulsification System

Diva Envitec Pvt Ltd

7A, C Wing, Crystal Plaza

Andheri (West), Mumbai, 400053

Maharashtra India

Email : info@aboutfilter.com

www.divaenvitec.com



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