WATER POLLUTION CONTROL SYSTEMS

At Ishan Paryavaran we design, Manufacture, Operate and Maintain Water Pollution System.

ISHAN
PARYAVARAN PVT. LTD.

Deals in :

O&M OF E.T.P., S.T.P., RO, SOFTNER,
WASTE WATER TREATMENT,
SPECIALIST IN AIR & WATER POLLUTION
TURNKEY SUPPLIER OF ETP & STP

357, Industrial Area, Phase - I, Panchkula (Hry.)
Tele. : 0172-2585801
Mobile : 094170-11473, 93575-30009
E-mail : ishanppl@gmail.com, ishanparyavaran@gmail.com
Website : www.ishanparyavaran.in

Corporate Office : # 634, Sector 20-A, Chandigarh.

Works Unit II :
274-275, Industrial Estate, Alipur Barwala-134118
TEL: 0173-3258801, Email: ishaanppl@gmail.com

DESCRIPTION OF ISHAN DUAL CLARIFIER

IDC (Ishan Dual Clarifier) works on dual process of floatation sedimentation. A brief description is given below :

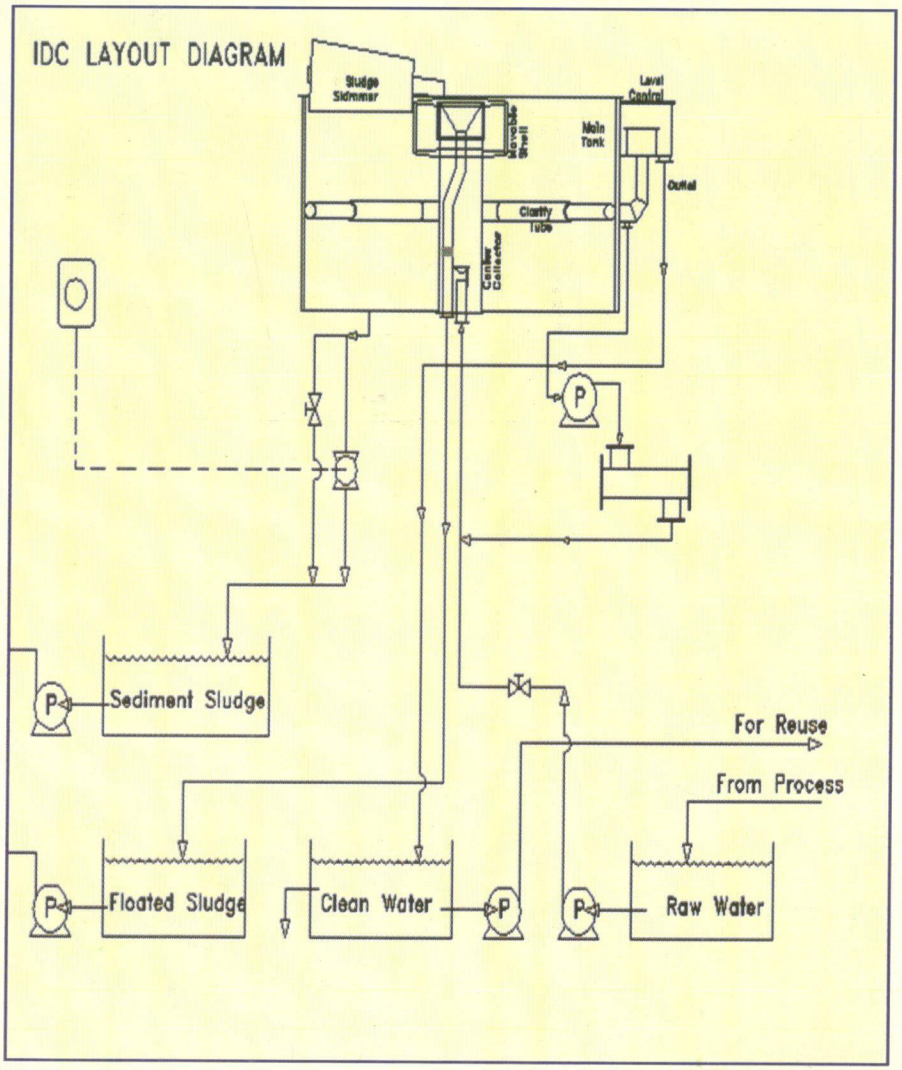
In floatation process a part of output water (about 20-25%) is mixed with air at high pressure and is re-calculated with incoming water. The air bubbles take the suspended particles along with it to the top where this is skimmed as sludge with the help of skimmer. A air mixing unit is used to mix air with water.

In the second process, the heavier suspended particles settle at the bottom of the tank through gravity separation. The settled particles which are called sediment sludge are swept with the help of bottom scraper and collected in the sump at the bottom of tank, from where it is sent to further processing.

IDC is very economical and has very high processing effeciency.

It reduces the TSS and FOG by 85% to 95%.

BOD reduction is 40% to 55%



DESCRIPTION OF BELT FILTER PRESS

Belt Filter Press is a Continuous sludge dewatering device which uses chemical conditioning, gravity drainage and mechanically applied pressure to dewater sludge.

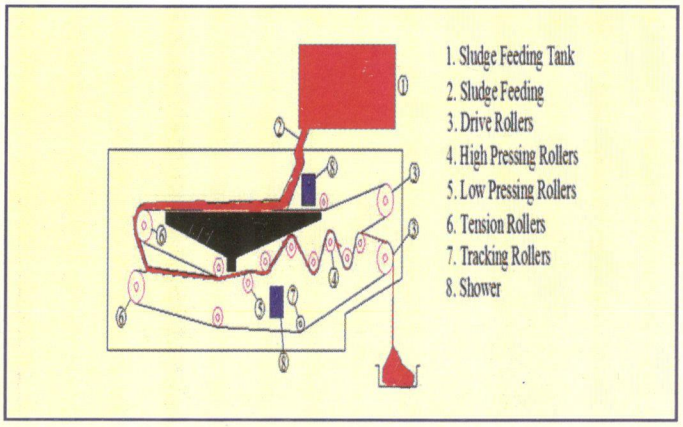
First, the conditioned sludge is introduced through a hopper to gravity drainage section where thickening takes place through the drainage of free water through the belt. Suspended solids concentration increases in this section. Following this sludge is subjected to gradual increasing pressure by squeezing opposing belt fabric. The belts are held in place by series of rollers that subjects the sludge to shearing forces as belt pass through a series of rollers that define a serpentine path. These forces thus introduced, release additional quantities of water from sludge increasing the solid content further. a continuous water spray keeps the pores of belt get plugged. The sludge cake is out at the outlet end.

It works with almost every type of sludge including primary biological from anaerobic and aerobic processes after some chemical conditioning.

Sizes varies from 0.5 meter to 2.5 meter of belt with capacities of 10m3/m. Through the output also depend on the characteristics of the sludge.

Our BFPs works with sludge of 0.5% to 2.0% DS.

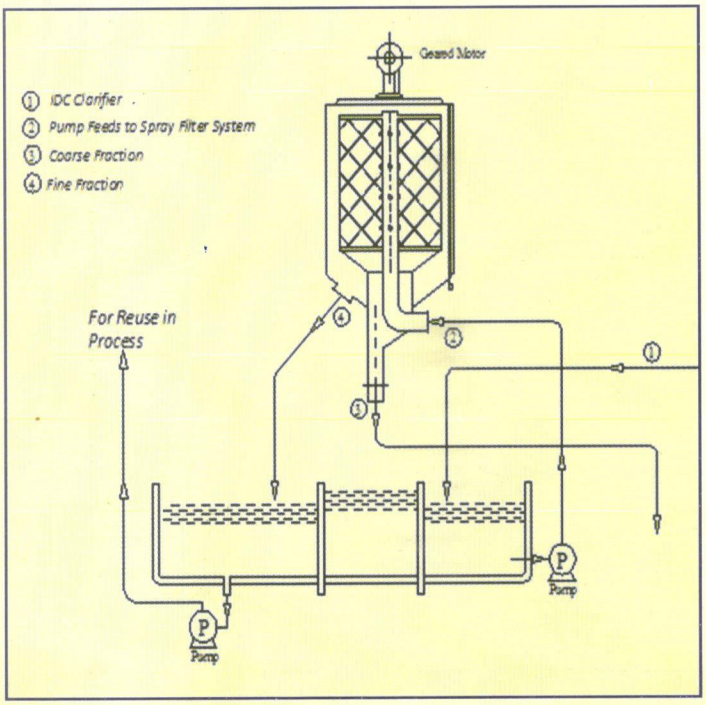
The output sludge is of 22% to 30% DS.



DESCRIPTION OF ISHAN SPRAY FILTER

Ishan Spray Filter is designed for filtration of the effluents generated by the industrial activity; particularly generated by the industrial activity; particularly by paper industry. Effluent containing solids from 100 ppm to 5000ppm. A synthetic cloth of fine mesh from 65 to 500 microns is used as media for efficient fiber recovery and effluent fractionation.

It is fitted with cleaning shower mechanism which eliminates the cloth removal for cleaning.



Raw water enter the system under pressure of about 1Kg/Cm² (14.2psi)

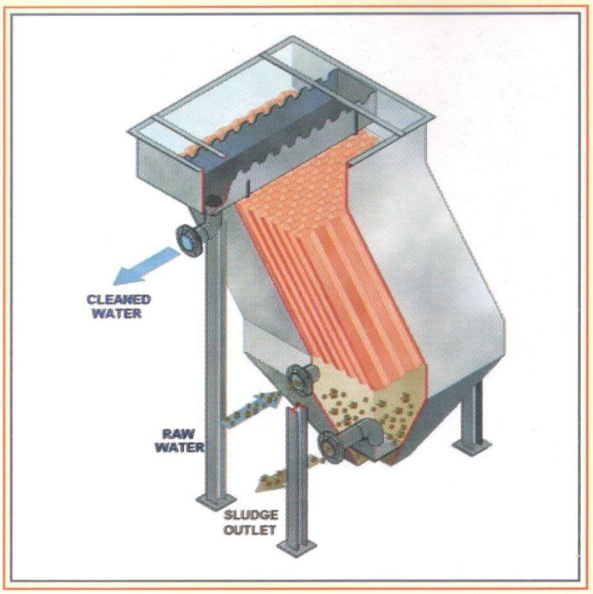
Through non-clogging nozzles it is sprayed uniformly on the cloth media.

A geared motor continuously rotates the drum with cloth.

Coarse fraction fall inside the drum and is directed for reuse.

Fine fraction passes through cloth and is discharged separetely.
Cloth is cleaned periodically with shower spraying it.

ISHAN TUBE/PLATE SETTLER



ADVANTAGES OF ISHAN TUBE/PLATE SETTLER

- Unit is completely assembled, easy to operate
- Low Installation cost
- Reduced floor space
- High Settling efficiency

APPLICATIONS

- The basic purpose of clarifier is to remove solids from the stream of waste water.
- Our clarifiers are build to suit every specific requirements to give optimal solutions
- Most suitable for industrial waste water treatment

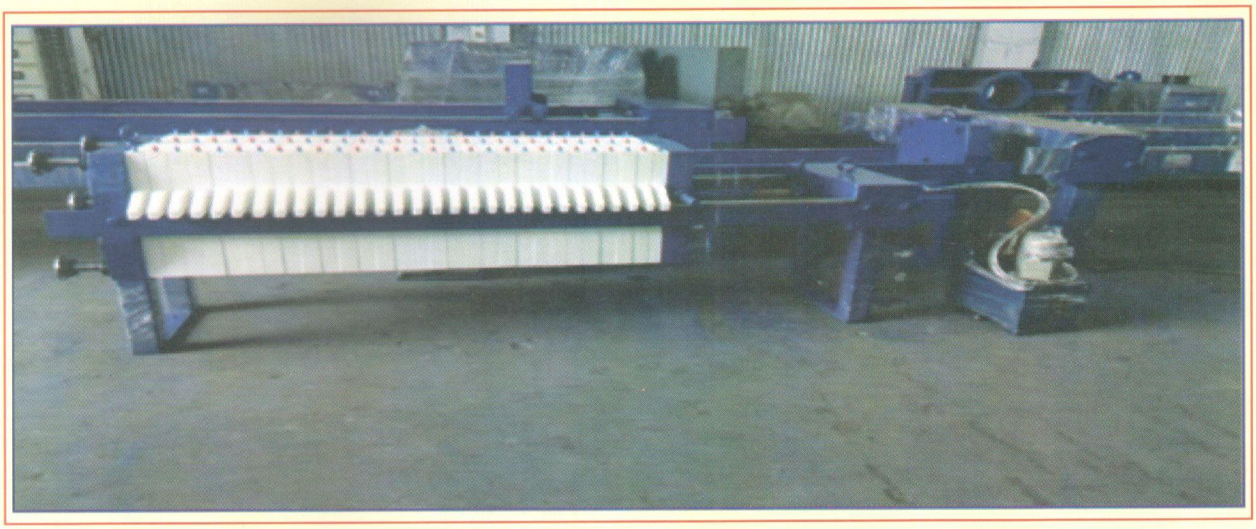
PRESSURE SAND FILTER & ACTIVATED CARBON FILTER

APPLICATIONS SAND FILTER :

- Waste water treatment
- Filteration for swimming pools
- Prefilteration for membrane system
- Filter high quality of water
- Thermoelectric power plants
- Irrigation and farming
- Aqua culture

APPLICATIONS ACTIVATED CARBON FILTER

- Pharmaceutical Production Water
- Dairy and Food Products
- Beverages
- Packages Drinking Water



A Filter press is a tool used in separation processes, mainly to separate solids and liquids.

The process uses the principle of hydraulic pressure drive to hold the press under pressure. Among other uses, filter presses are utilized in Paper, leather, dying industries etc., in order to separate water from solids in order to reuse the water during the paper, leather, dyeing industries etc.

Concept & Technology

Generally, the sludge that will be separated is injected into the center of the press and each chamber of the press is filled by ensuring the last chamber of the press is loaded before the sludge in the first chamber begins to become cake. As the chambers fill, pressure inside the system will increase due to the formation of thick sludge. Then, the liquid is strained through filter cloths by force using compressed air or water.

Applications

- Filter presses are used in a huge variety of different applications, from dewatering the sludge and to make further use of water.
- Filter press technology is widely established for ultrafine coal dewatering as well as filtrate recovery in coal preparation plants.

Efficiency

Plate and frame filter press produces cake with solid concentration upto 22-27%. It is the best sludge dewatering machine for secondary sludge.

- Fewer parts for easy maintenance.
- Captures a high amount of solids.
- In some areas, it is the only device capable of producing a cake that is dry enough to meet landfill requirements.

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We are Designing, Manufacturing, Erection and Commissioning of Plug & Play

COMPACT SEWAGE TREATMENT PLANTS

For Different types of Industries, Special Economical Zones (SEZs), Industrial Complexes, Municipal Corporations, Nagar Nigam, Hotel Industries And Residential Colonies

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COMPACT SEWAGE TREATMENT PLANT

Compact (Plug & Play) Sewage Treatment Plants for inland applications have been designed for gravity or pumping treatment of domestic sewage and built to be installed on the surface. These plants carry out the sewage treatment by biological means. The Plants are of the activated sludge process & MBBR process without requiring any other kind of dosing or additivation.

The Plant is single built in a closed module which has different chambers have been arranged, facilitating their transport and installation. Every chamber has been provided with the necessary access and inspection registers. This modular construction allows the increase of the processing capacity by placing more Plants in parallel. The air diffusers responsible for the oxygenation and agitation of the Sewage

The Plants are supplied fully pre-assembled and tested, so that they can be installed in their definite location in one day.

DISINFECTION - The discharge from the clarification chamber passes through an automatic gravity chlorinator. The chlorinator is calibrated for above normal water usage. Chlorine stocks are provided to cover maximum usage with built in safety factors to cover all foreseeable circumstances between the service periods.
The disinfection chamber is designed to provide a minimum of 30 minutes contact time between the effluent and chlorine to ensure achievement of bacterial die-off

STANDARD FEAUTURES -

- No Odour Generation
- Inside and Outer protection: epoxy paint / FRP
- Aeration system composed by a Blower, an air supply pipe, Fine bubble diffusers and an air relief valve
- Minimum Space Required
- Minimum Running Cost
- Minimum Maintenance
- Access and inspection registers in every chamber
- Packaged and transportable plant
- Suitable for remote locations
- Designed to the required capacity

We identify and study the possible options by which treated sewage can be recycled for Gardening, Flushing or for other Process Applications for industries. We are optimizing the size and power consumption of sewage treatment plant as possible as we can by our best knowledge.

We are Designing, Manufacturing, Erection and Commissioning of Plug & play

Ro system

for Different types of Industries, Specially for boiler feed, Industrial Complexes, Municipal Corporations, Nagar Nigam, Hotel Industries and Residential Colonies

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RO SYSTEM (REVERSE OSMOSIS)

The RO System works on the principle of Reverse osmosis, also known as hyper-filtration. One of the finest techniques for treating water, reverse osmosis eliminates contaminants from water thus making it fit for drinking purpose and other commercial and industrial applications. The RO system is provided with sediment pre-filter as the membranes are degraded by chlorine, bacterial attack, manganese, hydrogen sulfide and iron.

Reverse Osmosis & RO Membranes – Reverse osmosis, often abbreviated to RO is a technique employing a membrane which is "semi permeable" that is; under the influence of pressure a larger proportion of water (the solvent) passes through the membrane than do the dissolved salts or organic molecules (the solutes).

Such semi permeable membranes are common in nature; the skin is a good example and this phenomenon, osmosis, explains why you get thirsty as you swim in the sea or "plump-up" in a long fresh water bath.

Reverse Osmosis is very effective in treating brackish, surface and ground water for both large and small flows applications. Some examples of industries that use RO water include pharmaceutical, boiler feed water, food and beverage, metal finishing and semiconductor manufacturing to name a few.

APPLICATIONS for SYSTEMS

Pharmaceutical, Hotels, Hospitals, Municipal, Boiler Feed Water, Food Beverage, Spot Free Rinse Waste , Water Processing

The Plant comes with pre-piped and pre cabled connections [plug and play].

- **Plug and Play Unit**
- **Minimum civil construction required**
- **Small footprint**
- **High quality components**
- **High recovery**
- **High TDS Rejection**
- **Easy Spare parts availability as standard Components are used**
- **Modular in design**
- **Low energy and chemical consumption**
- **Quick Installation**

The DISC SCREEN finds many applications in both the municipal and industrial sectors where solids such as wool, lint, textile fibers, hair, and other organic residues, need to be removed or recovered as valuable by-products.

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ISHAN DISC SCREEN

The Disc Screen Micro-filter comprise of a caisson structure, divided into three separate zones having the purpose of feeding the waste stream, discharging the filtrate and discharging the overflow, with one or more pairs of revolving conical discs. The discs are complete with filter media capable of retaining suspended particles as small as 30 microns. The liquid to be filtered is fed to each pair of conical discs, through feed ducts; while the liquid portion passes through the filter media tangentially ,the solid particle retained on the face of the conical discs are controlled by a densifier comb located inside the conical discs, in conjunction with the speed of the discs themselves.

While the solids layer is building up on the conical face of the screen, it in essence 'precoats' the media and increases the performance of the Disc Screen by making it easier to remove finer solids. The filtrate is discharged from the bottom of the screen and can then be recycled and processed further. The Disc Screen can be provided with an automatic pressure cleaning system with spray nozzles, where the thickness of the solids layer gradually builds up, increasing their volume. The conical shape of the discs makes it easier for the solid particles to accumulate on the face of the discs; when the layer of solids reaches a point at which it is too heavy to adhere to the disc, solid layer rolls over the face of the disc, performing a self cleaning action. These are then automatically discharged from the DISC SCREEN through the opening located between the discs, opposite the feed end of the machine.