



Aquarius H₂O
Dynamics Pvt. Ltd.

Sculpt waste water to its origin

D-PF[®]

Sustainable ETP Solution

Present ETP Treatment Trends Overview



Sculpt waste water to its origin

Greater attention and ongoing development work is happening in waste water and particularly in ETPs since 1990s.

Conventional ETP with Primary chemicals treatment combines with biological activated sludge followed by sand, carbon filtration and ultrafiltration being applied in larger treatment plants as well as Industrial sectors followed by NF, RO etc. Than greater attention towards non chemical and totally biological way treatment is happening now a days. Many times anaerobic followed by aerobic biotreatment is adopted and now latest is MBR concept is used for greater efficiency of biological with best water quality which can be re used safely at cost effective way.

In Conventional biological treatment shock loading and change of behavior of bacterial processes always make the ETPs worst effected down the processes.so to run ETPs is always a challenge for experts in all ways and need skilled manpower.

For controlled quality with better efficiency round the year only membrane technology can work. So we had introduced a new way of treatment for ETPs and get read of all this issues in a simple way.

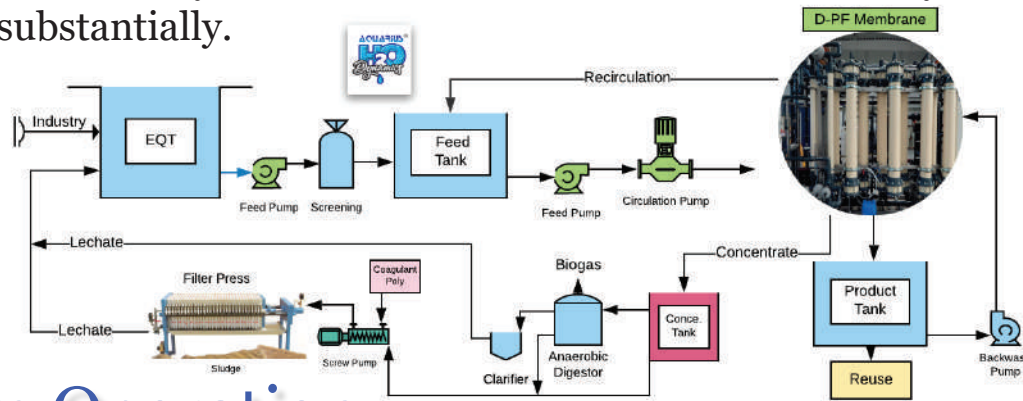


Hollow Fiber Nanofiltration Membranes

D-PF[®] special membranes with hollow fiber is used having various porosity and permeability which gives colorless, clean and zero TSS and zero turbidity water having COD reduction depending on type of chemistry is used to treat direct effluents and 90-95 % direct pure water is obtained which is suitable for re use or go to RO and rest water is treated and direct converted into the sludge and then leachate taken back to treatment in system. So almost 100 % water is get purified and can come out from ETPs hassles. RO will run with better efficiency and life of membranes and recovery also elongated substantially.



Sculpt waste water to its origin



System Operation

The D-PF[®] system operates on a continuous basis by controlling the rate of permeate flow from the membrane modules. A feed pump and recirculation pump ensure cross flow velocity as well as feed ratios and regular interval backwash by product generated is maintaining the flux. Same time reject is also extracted to maintain the recovery and TSS level. It is auto software based continuous operational system. Auto CEB and CIP controls when needed to clean in case of low flux. Complete safe operation and no any input control parameters range needed like ETPs.



Advantages

- **Robust Tubular membranes** are more durable and require less frequent replacement.
- **Less sludge & TDS** Due to no chemicals less sludge is generated and hence less TDS added in water.
- **Low power requirements** comparable with Conventional Biological treatments based ETPs.
- **Compact footprints** does not require huge tanks and area and Capex.
- **Lower installed capital cost** since no additional tanks, civil structures and savings in time.
- **Less lifetime operating** cost due to lower power costs , membrane replacements & labor costs.
- **Proven** reliability of the NX Filtration tubular product.
- **Safer working environment** for the operator since maintenance cleaning does not require as it is auto back washable by our software.
- **Minimizes operator** exposure to waste water and potential health impacts.
- **Resistant to chemical degradation** due to the use of high strength membrane chemistry.
- **Effluent Screening** is assured so membrane rupture or breakage is not an issue.
- **Concentrate** is Anaerobically digested and Biogas generation gives fuel value.
- **Most Environmentally Sustainable Treatment Technology till now in all available technology.**



Sculpt waste water to its origin



Significant Benefits

- Allows application to larger Industrial and Municipal Plants.
- D-PF[®] is much energy efficient HF-NF Membranes.
- Robust Tubular membranes increases life.
- Replaces Entire ETP system.
- Self-cleaning mode with CEB/CIP system.
- Lowest footprint of Plant.

Applications

- Industrial waste water like Textile, Food, Pharma, Chemicals, Dairy, Refinery, many more.
- Municipal Drinking Plants.
- Produce & Flow Back Water.
- Dye Desalting & Concentration.
- Caustic Purification till 5%.

Technology

- 0.7 mm PES tubular membrane With various Daltons.
- PLC based controls minimizes human error.
- Prefabricated skids minimize time and installation cost.
- D-PF Produces consistently high quality treated water.
- 15 to 40 LMH operating flux range depends on Chemistry and design parameters.
- 0.3 to 0.5 Kw power/M³ of Product generated.
- Average 1 to 3 year life cycle cost or more than it depends on chemistry.



Sculpt waste water to its origin



Aquarius H₂O Dynamics Pvt. Ltd.



Sculpt waste water to its origin



Registered Office:

303,304,305,Suryansh gateway,
Sardar Patel Ring Road,
Science City Cir, Ahmedabad,
Gujarat 380060.

Factory:

Plot No.:803 - A/3,
Nr. Patel Airtemp India Ltd.,
Rakanpur-Kothari Road,
Rakanpur-382721,
Gandhinagar, Gujarat, India.



+91 97374 44282



www.aquariush2odynamics.in



sandip@aquariush2odynamics.com

