



**We remove everything from water**

**Except – “Hydrogen & Oxygen”**



**IONIC**

Ionic Engineering Technology Pvt Ltd

**We Treat Water – “Differently”**



**FULLY AUTOMATIC HIGH PURITY  
PROCESS WATER TREATMENT**



**HIGH PURITY PROCESS WATER TREATMENT SYSTEM  
FULLY AUTOMATIC WITH DIGITAL CONTROLS**



**TUBULAR MEMBRANE FILTRATION**

## **“HELPING CREATE A LIVEABLE PLANET”**

Water! There is no alternative to this. What you don't know about water can cost you plenty. What you learn about water can save you lots. Many have predicted that water will be the oil of the future as clean/usable water becomes more valuable and scarce and the next world war will be for Water. Dispute over water resources are increasing day by day. Water treatment is the piece of the puzzle as it relates to properly managing and using this ever important scarce resource. Water treatment is like a chain. Every link should be strong enough to give you uninterrupted supply of enough treated water of right quality when you need it and at lowest “Life Cycle Cost”.

Water treatment is a complex subject. Water treatment is not taught in schools and colleges as a regular subject. Many companies treat water as Ionic does. But we treat water – “Differently”. Water is a utility and like electricity and gas, the more efficiently it is used, the more money is saved. Why is water many a times ignored? Water is assumed to be cheap and available in plenty. But if you know the true cost of water, you will realize that it is not cheap. Water's true cost is more than what shows up on the water and sewer bills received each month. The true value of water includes

Cost of raw water -Cost of water treatment -Cost of waste water treatment-Cost of capital equipment Cost of energy lost through water -Cost of productivity lost through water



**Chlorine Dioxide - What you can't say from it's name.** All water treatment starts with water disinfection. IONIC realized disinfecting water properly is as important as treating water and is offering a unique and cost effective solution for water disinfection.

We have developed fully automatic Chlorine Dioxide generators for water disinfection.  $\text{ClO}_2$  is 2.5 times more powerful than conventional Chlorine.



**ClO<sub>2</sub> GENERATORS**

Raw Water Clarification - especially from river, dam and lakes will have high amount of turbidity and suspended solids which will be removed by our unique **Lamella Inclined Plate Clarifier** technology. These clarifiers with no moving parts and easy operation and maintenance occupy 1/10 of the space of a conventional clarifier and handle up to 2000 ppm turbidity easily.



**LAMELLA CLARIFIER**

IONIC **"Next Generation" Multigrade filter** uses carefully selected and mixed grade of filter media for effective filtration of water having turbidity up to 50 NTU. The filter unlike conventional pressure sand filters uses **"VARY VOID"** principle for depth filtration and operates at higher specific velocity and needs back wash once a day. They also consume less amount of water during backwash operation. Automatic and manual versions are available.



**MULTI GRADE FILTER**

IONIC offers its unique Fully automatic and Manual **"Quick Cycle" water softeners with "Salt Saving Technology"** for producing soft water having very low level of residual hardness. Unlike competitive conventional softeners our units **consumes 30% lower salt during regeneration** and thus giving our customers a green solution for softening water. Quick Cycle softeners utilize 5<sup>th</sup> generation premium resin technology combined with innovative engineering design to get full benefits.



**WATER SOFTENER**

### Small in Size- Big in Performance

IONIC offers its unique skid mounted compact, pre-engineered **Fully automatic PLC controlled “Quick Cycle” demineralisers with “Chemical saving technology”** for producing demineralised water having conductivity < 1.0  $\mu\text{S}/\text{cm}$ . All components are carefully selected to give long term reliable performance. Advanced safety features have been incorporated for reliable operation 24 hrs. and 365 days a year. Optionally print out facility and Remote Real time monitoring can be provided for critical parameters.

1. Very compact
2. Fully automated PLC controlled
3. Skid mounted
4. Corrosion resistant construction
5. Pre-engineered and tested
6. 18 Models and 6 flow capacities
7. High quality of treated water
8. Low chemical consumption
9. Low power consumption
10. Low water consumption
11. MB quality without MB
12. Unattended operation
13. Unique safety features
14. Highly reliable components
15. Low maintenance cost
16. High quality UPVC piping and valves
17. High quality SS 316 multistage process pump
18. High quality control panel
19. FRP/SS 304 skid option
20. Printout facility option
21. Remote Monitoring Option
22. Integrated Pretreatment



QUICK CYCLE D.M PLANT





IONIC offers its unique skid mounted compact, pre-engineered **"Matrix" series**. Fully automatic PLC controlled Advanced Reverse Osmosis systems with **"easy Control"** and **"Real Time Monitoring"** technology for producing purified water required in process, boiler feed, drinking etc. All components are carefully selected to give long term reliable performance. Advanced safety features have been incorporated for reliable operation 24 hrs. and 365 days a year.

The **unique "Real Time" monitoring system** developed by us for the first time in India is capable of providing normalized values for flow, salt rejection, salt passage, pressure drop continuously and **has a very unique "ADP Indicator" (Allowable Decline in Performance)** to tell the customer in plain English text what is the condition of the membranes since start up. Reference values are stored internally and automatically compared with the present normalized values to provide the customer on the spot decision making inputs for safe and long term reliable operation of the system. In a way, this system protects the membranes from irreparable damage due to excessive fouling which if not detected at the right time may lead to costly downtime and membrane replacement.

**The unique ADP indicator supports membrane cleaning decision making too!**

When to clean the membranes? Or Whether membrane cleaning is successful, partially successful or failure can be easily determined even by a layman.

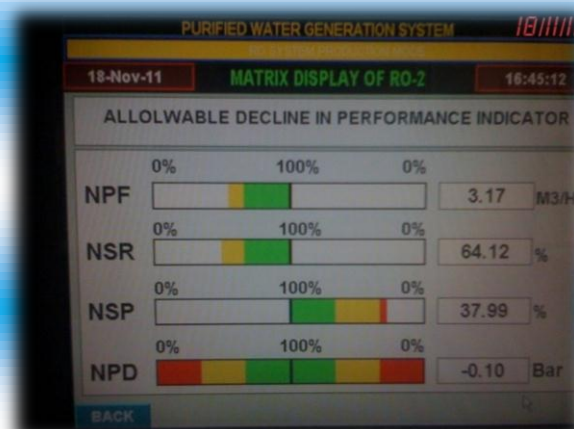
All the above comes with affordable cost of ownership to our customers and backed by quality after sales service.

**Our R.O plants are easier to configure and use than your cell phones!**

**You have the option of having our Remote Monitoring system.**



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## Pharmaceutical water systems- "Sometimes lack of growth is essential".

IONIC offers its unique skid mounted compact, pre-engineered Fully automatic PLC controlled, ultramodern, 100% Sanitary Purified water generation system to meet USP, EP, JP, BP, IP with "Real Time Monitoring" technology for producing purified water required for pharmaceutical applications. All components are carefully selected to give long term reliable performance. Advanced safety features have been incorporated for reliable operation 24 hrs a day, 7 days a week and 365 days a year.

Ionic's involvement in the project starts from raw water source to the point of use. With our over 30 years of experience we are confident to meet current and future water quality requirements.

The system uses a range of technologies like Ultra filtration, Ion exchange, UV, RO, EDI etc. The most critical microbiological quality attribute is met easily with our properly designed and engineered systems. We do not put, unlike our competitors, any unreasonable conditions for meeting the final purified water quality commitments.

Our solutions are unique and are backed by proper documentation for DQ, IQ, OQ, SOPs for operation, maintenance and sanitisation.

Our systems are energy, chemical and water saving too! They consume less power, less chemicals and discharge lower quantity of water while producing purified water thus reducing our customers manufacturing cost.

Advanced instrumentation and control with user friendly features makes the operation easier and reliable.

When you talk to us you will find that purified water systems are not just having few vessels, piping, valves, membranes, tank etc.

*With IONIC the "BUG" stops in the raw water tank.*



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IONIC offers its unique **Fully automatic PLC controlled Ultra filtration system** for removing Colloidal particles, Colloidal Silica, bacteria etc.

Ultra filtration is beneficial when the high purity water is required and as part of pretreatment for Reverse Osmosis based systems. Hollow fiber membranes used are robust and the system is engineered for continuous trouble free operation. Graphical back lit MMI with digital sensors for flow, pressure etc. facilitate easy monitoring and control. Chemically sanitisable and hot water sanitisable versions are available.



IONIC offers fully automatic **chemical free deionisation system** for producing high purity water for engineering, semi conductor and pharmaceutical companies. The system consists of pretreatment system followed by R.O and EDI (Electro deionisation system) and produces purified water having resistivity up to 18.2 MΩ/cm.

Various capacities starting from 100 lph is available thus meeting the requirement of even very small volume requirements. Ideal for small pharmaceutical companies and a better alternative to conventional demineralisers.



IONIC offers packaged prefabricated **Sewage Treatment systems** with CAS/MBBR/SBR/MBR FBBR (Fluidised Bioreactor) technology. They are very compact with limited civil work, offer value for your money. Using bacteria cultured on special high surface area floating media they reduce organic pollutant by > 90% and makes the treated water safe for gardening or disposal. Various sizes available from 1 KLD to 1000 KLD available.



IONIC offers **NextGen CDI** Unique water treatment system to produce potable and process water from brackish water up 1500 ppm TDS. The technology is based on Capacitance principle and is simple and easy to use and consumes low power.

Ideal for producing drinking water and process water that does not require complete removal of salts.

Since it consumes low energy it can be coupled to solar / wind based power systems.



IONIC offers fully automatic **"EASY DRAIN"** Sludge dewatering system based on disposable bags. Very easy to use compared to conventional dewatering process like sludge drying beds, filter press etc.

For large systems we offer alternate technologies like screw press , centrifuge etc.

**EASY DRAIN  
AUTOMATIC  
SLUDGE DEWATERING  
SYSTEM**



IONIC offers Skid mounted **"idOSE" Smart Digital Chemical Dosing Systems** of various capacities and material of construction.

Intelligent smart digital dosing pumps the heart of the system ensures accurate dosing of process chemicals ensuring process safety, equipment safety and operator safety. Pumps and accessories are available in PVC, PP, PVDF and stainless steel.

Dosing tanks can be offered in SS, PP, PVC , FRP etc.

**SMART DIGITAL  
CHEMICAL DOSING SYSTEM**





***Waste water treatment - Your choice is clear:-***

As a corporate commitment to protect environment IONIC offers effluent treatment systems for various types of industries. Our experience in dealing with diverse industries makes it possible to offer techno-economically optimum solution for treating industrial waste water. Major industries we serve include automobile, engineering, chemical etc.

In consultation with carefully selected technological partners we are in a position to offer the latest in treatment technologies to protect our environment. Some of the solutions we have provided to our customers are unique and one of the kind in the industry.

We can provide a range of technologies involving physio-chemical treatment to advanced waste water treatment systems comprising electro chemical oxidation , membranes for recovery, recycling etc.



## About us

***Ionic Engineering Technology Pvt. Ltd. is a professionally managed ISO-9001/2008 company by people with over 35 years of hardcore experience in water and waste water treatment.*** Ionic is dedicated to the design, supply, service and maintenance of water and wastewater treatment plant and equipment. We provide a one-stop shop for integrated water and wastewater treatment needs, and focus on providing the optimum solution for every client's need.

Now it is 10 years since Ionic Engineering Technology Pvt. Ltd. started operations with the main focus on technology, quality and performance related to water and waste water treatment solutions. ***The single purpose was to "Remove Everything from Water – Except "Hydrogen & Oxygen" and give customers "Peace of Mind" and not a "Piece of Equipment". We wanted to make a difference to the way you treat water for your drinking water and process needs and hence say "We Treat water – Differently"***

When we started, we did not want to be known just as another vendor or supplier and rather as a business partner and solutions provider who is interested in understanding correctly the end user requirement and offer a techno- economical value engineered right solution. In this, we have a selfish interest too! – Only in the customers well-being we can survive.

***Water and waste water treatment is important. But more important is how efficiently water and waste water is being treated.*** The right question to ask is ***"What is the True Cost of Water?"*** Water and waste water treatment is often taken for granted and technology, quality, performance, monitoring, operation and maintenance is ignored resulting in poor performance, repeated failures, high power consumption, high chemical cost, high maintenance and cleaning cost, wastage of water etc. Most of the time the management is not aware their pot is full of holes and their money is leaking like water! Unfortunately the management does not understand their profitability depends on efficient manufacturing operations and does not ask questions as to how efficient and sustainable their manufacturing process is.

***With the ever increasing scarcity of water and stringent waste water discharge norms, many of us consider this as a serious problem and not as a good opportunity to clean up our act!*** Most of us talk about 3R's - "Reduce, Recycle and Reuse" but do not know how and where to reduce, how and what to recycle and how and where to reuse! To get a solution to the above, isolated approaches does not help. What one has to adopt is an integrated step by step approach. Many a times we have seen non availability of water and waste water treatment disposable problems hampering the industrial operation including a threat of closure and hurdle for expansion. Non availability of potable water will lead to migration of human population as well as affect agriculture and industrial growth! If water is available it may be available at considerable cost and of poor quality requiring expensive and complicated treatment. Water is a utility like electricity and fuel, the more efficiently it is used, the more money is saved.

***To mitigate the problem of water scarcity IONIC offers innovative solutions with which industries can reduce their "Water Foot print".***



## How we are different?

- In Expertise we provide
- In Business ethics we follow
- In Technology we offer
- In Quality we design
- In User friendly products
- In Value for money you get
- In Peace of mind you get
- In Experience we have

## We are committed to

We are dedicated to using our professional expertise accumulated over many years, to providing the solution you want, when you want it. We also take great pride in ensuring that every client is satisfied with the operating efficiency of the systems we design and the overall level of service that we provide, whether during the initial contract phase or later, throughout the life of the plant.

- Providing expert advice, tailored to meet your requirements
- Supplying high quality, good value-for-money systems and equipment
- Supporting all our clients for the lifetime of their water & wastewater treatment systems
- Developing and deploying the best, most economic solutions for your needs
- Listen to our customers as well as our suppliers on products and technologies feedback and updates.
- Continuous improvement in all that we do

We have a long list of clients that have put their stated satisfaction with our performance by giving us repeat orders. These “Repeat Orders” are our best references; they tell potential new clients that we really do mean what we say.

Not only do we supply well engineered, high quality equipment, but we then provide “cradle to grave” support to those clients. We have clients to whom we still provide regular support and service several years after they bought their systems from us. We believe it is reasonable to assume this means they are still happy with what we provide.

Over this time, we have also learned that beyond the technical benefits, what really concerns our customers is "Peace of Mind" - knowing that newly installed equipment will be absolutely dependable over time. Proving it to be more than that just a slogan, our customers acknowledge time and time again that Ionic Engineering Technology Pvt. Ltd. truly provides them with a "Peace of Mind".

Whether you require a new plant, refurbishment of an existing one, technical support, service and maintenance or spare parts, our aim is to provide you with excellent value and create a long-term working relationship based on trust and satisfaction.

We provide a very wide range of equipment, systems and services across many industrial sectors. Therefore, we hope this brochure will give you a “flavour” of our capabilities. If you require additional information please just contact us, and we will be pleased to assist you.

***You deserve some "Peace of Mind" Ionic gives just that!***

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**Contact us today:- for "Peace of Mind"**



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