



You see **Effluents**... We see **Profits** for you

 **ION EXCHANGE**  
*Refreshing the Planet*

Pollution and increased demand have made good quality water scarce and expensive, both in terms of direct cost of water and the effect of unsuitable water on plant economics and product quality. Meanwhile, disposal norms are getting tighter and their enforcement stricter. Ion Exchange can help you to effectively and economically solve your water scarcity problems by conserving vast volumes of water and protecting the environment by reducing discharge.....while generating substantial savings for you.



## Water Recycle...

good for your bottom-line  
and  
good for the environment too

Our effluent recycle solutions are integrated to yield optimal benefit. For instance, recycle systems are combined with speciality water treatment chemical programmes that substantially reduce water discharge (for example, cooling tower blowdown); and state-of-the-art effluent treatment plants are integrated with zero liquid discharge processes. They are backed by comprehensive operation and maintenance services, for high performance continuity.

Industries that have installed our effluent treatment, recycle and zero liquid discharge systems have gained an excellent payback on their investment through:

- Assured availability of water for process needs as well as low end uses.
- Less requirement of fresh water. Therefore, considerable savings in fresh water costs.
- Additional savings through recovery of valuable by-products for re-use in process.
- Compliance with pollution control regulations and a clean environment through reduced / zero effluent discharge.

# See how our customers have benefited

- A leading fertilizer company in North India has installed a recycling plant - design capacity 128 m<sup>3</sup>/h. Cooling tower blowdown and regenerant waste from the demineralisation plant are recycled and reused in process.
- A leading electronics company in Rajasthan was the first company in India to use recycled effluent to produce treated water with resistivity > 10 mΩ-cm.
- Several engineering component manufacturers have installed oily waste effluent recycling systems, thereby minimising discharge and reusing water for process application.
- For a textile unit, a 10 MLD zero liquid discharge plant helps recover maximum water and salt solution for reuse.
- A two wheeler giant in Aurangabad is benefiting by Rs. 12 lakhs every year by recycling 720 m<sup>3</sup>/day of effluent.



- A four-wheeler manufacturing company installed an effluent recycling plant for total water and environment management for its expanded project at Haryana.
- A large refinery in Chennai is saving 200 m<sup>3</sup>/h of fresh water by recycling their process effluent using a combination of ultra filtration and reverse osmosis technologies. The cost of the recycled water is less than half that of fresh water.





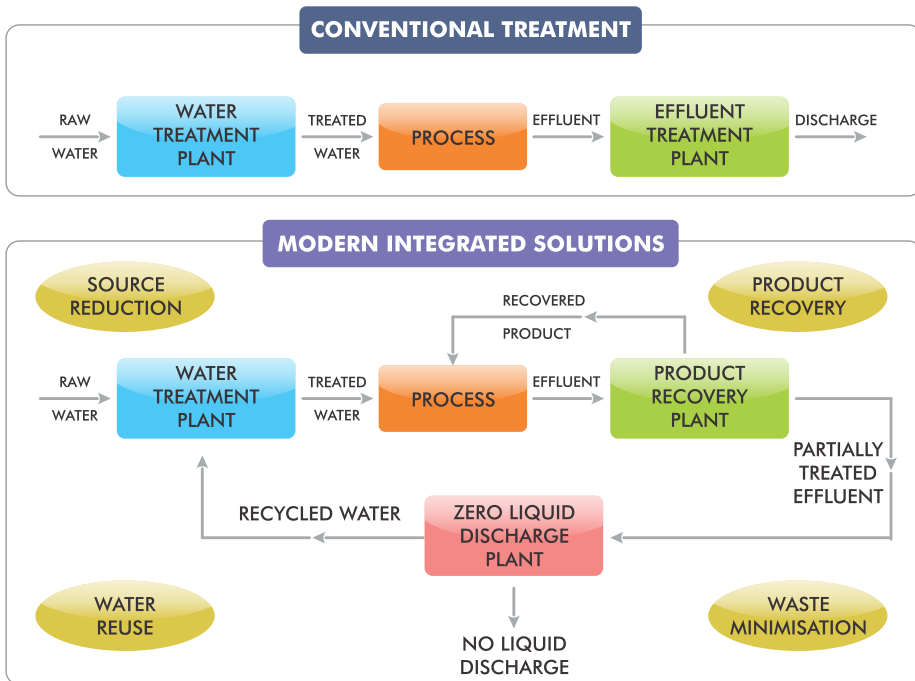
- A refinery at Jamnagar installed a water treatment plant that is designed to contain and treat all internal process/utility waste water and storm/fire water, with the objective of zero liquid discharge.
- A pharmaceutical company is saving Rs. 36 lakhs a year on fresh water by recycling 2200 m<sup>3</sup>/day of effluent for process.
- In keeping with their eco-vision, a premium hotel installed a zero liquid discharge system that recycles over 800 m<sup>3</sup>/day waste water.
- A speciality paper manufacturing company invested Rs. 300 lakhs to recycle its white water effluent. The benefits - uninterrupted and good quality water supply of 500 m<sup>3</sup>/h, recovery of fibres worth Rs. 6.3 lakhs a month and compliance with disposal regulations.
- A multinational cement company in North India installed a zero liquid discharge system that recovers 85 per cent of the waste water for reuse.
- A synthetic rubber company at Panipat, installed a zero liquid discharge plant to meet the challenges of availability, cost and quality of water.
- A leading synthetic fibre manufacturer in Silvassa has installed a zero liquid discharge system to meet environmental compliance regulations.



Experience the

# Gains of Total Water Management

Our recycle solutions integrate physicochemical, biological and membrane separation processes for optimum water recovery. They include advanced effluent treatment processes, micro filtration, ultra filtration, nano filtration and reverse osmosis systems, membrane bioreactors and advanced photochemical oxidation.



Greater water demands, increasing environmental pollution and industrial & municipal waste disposal pose crucial challenges that call for an integrated approach of total environment management.

Ion Exchange (India) Ltd. offers a complete portfolio of advanced environmental solutions and services for industrial, infrastructure and municipal applications. Technology solutions encompass water, liquid & gaseous effluents, solid waste & bio-solids and renewable energy, while services include consultancy, turnkey contracting, O&M and BOOT projects.



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