



Water management is a major challenge facing town planners, builders, architects, housing societies and commercial complexes. Increasing pollution of water supply sources, both surface and groundwater, has made the quality of water, particularly for drinking, a critical concern. Moreover, many residential and commercial complexes suffer from inadequate water supply because of the growing water scarcity.

Indeed, availability and quality of water has become a key deciding factor in the purchase of any property.

Ion Exchange (India) Ltd. is the pioneer of water treatment in India with more than five decades of experience in total water management for industries, institutions, homes and communities. Our complete range of technologies, products and services enables us to provide total water solutions for residential and commercial complexes, translating into assured quality of water for every use

- drinking, cooking, bathing, laundry, air conditioning, swimming pools, car washing and gardening.

To treat solid waste sustainably, we offer waste-to-energy solutions that convert solid waste (organic kitchen waste and sewage sludge) into energy, hot water and rich organic fertiliser.

All this, backed by comprehensive operation & maintenance services, will ensure any property becomes water and energy- neutral.

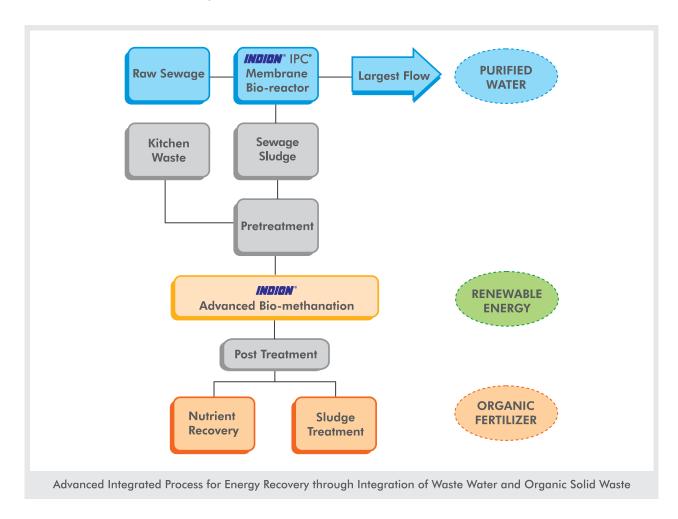
INDION® Integrated Waste Management System ... with recovery of Purified Water I Renewable Energy I Organic Fertilizer

In most parts of the world, domestic sewage and solid waste are collected and treated separately. The cost of treating sewage and sullage is substantial due to the energy cost of aeration. Additionally, sewage treatment produces sewage sludge that requires extensive treatment before discharge. Organic waste usually ends in secured/unsecured landfills.

The INDION® Integrated Waste Management System is an advanced process for treating liquid waste (sewage/sullage) and organic kitchen waste (generated in homes & communities), using state-of-the-art technologies such as the INDION® IPC MBR and INDION® Advanced Bio-methanation process.

Features

- A unique system that treats both liquid and solid waste and generates:
 - Purified water
 - Renewable energy (Heat or Electricity)
 - Organic fertilizer
- Integrated with an Odour Control System
- Customised & modular systems



Sewage and Sullage Treatment Plants – An Assurance against Water Shortage

Recycling of sullage and sewage provides an effective and dependable solution in helping resolve the perennial water shortages in cities – where the domestic sector consumes 80% of water. It is, in fact, ideal for housing/commercial complexes that do not have a guaranteed water supply.

Sullage (grey water from bathrooms and kitchens) and sewage can be treated and recycled for toilet flushing, gardening, vehicle washing and other such low-end uses, reducing the requirement of fresh water by 60%. This makes more fresh water available for drinking, cooking, bathing and laundry while reducing dependence on unreliable/insufficient water supplies.

Recycle of sewage and sullage is also significant from the hygiene and sanitation point of view, to help create a cleaner and healthier environment.

Features

- All-in-one packaged treatment systems
- Modular designs
 - $-5 \,\mathrm{m}^3/\mathrm{d} 6000 \,\mathrm{m}^3/\mathrm{d}$
- High-quality effluent
 - BOD < 10, TSS < 15, TN < 5 ppm
- Compact with minimal civil work
 - 1/3 space of conventional STPs
- No chemicals & minimal power
 - 1 kw/h 3 kw/h maximum

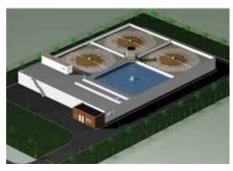
- Material Of Construction (MOC)
 - Mild Steel Epoxy Paint (MSEP)
 - Bolted tank
 - Civil
- Automatic with option of remote monitoring and 24 x 7 operating systems from India's largest service network



INDION New Generation Packaged Sewage Treatment Plant (NGPSTP)



INDION Fluidised Media Reactor (FMR)/INDION Moving Bed Bio-reactor (MBBR)



INDION Sequential Batch Reactor (SBR)



INDION Membrane Bio-reactor (MBR)

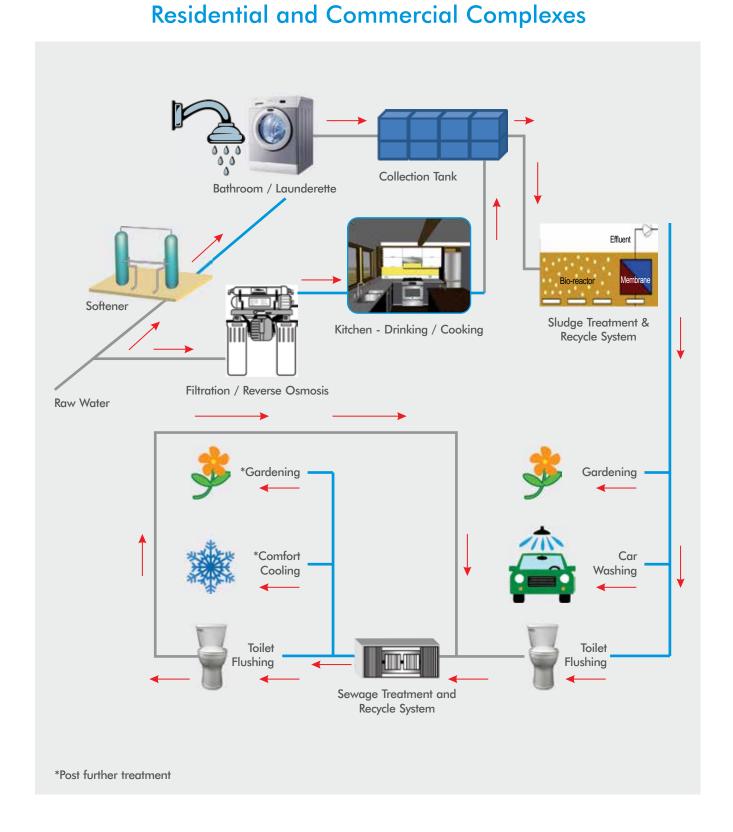
Our water management solutions extend to residential complexes, hotels, spas, educational institutions, hospitals, malls, offices, etc. by providing the following solutions:

- Water for drinking and use in kitchens and canteens
- Sewage treatment and recycle

Swimming pool water filtration and disinfection

Softened water for bathing and laundry

Total Water and Waste Water Management in



Ion Exchange's water treatment solutions are very effective and provide safe and pure water. Our range includes centralised water treatment plants and point-of-use purifiers.

INDION® Centralised Water Treatment Plants

Installed in the basement of any building, the system is simple and compact, yet effective and versatile enough to handle water from practically any source. It saves space, is modular and designed for minimal operator attention and maintenance.

The system typically consists of ultrafiltration. In case the water is brackish, then it is treated through a reverse osmosis (RO) unit. A softening unit can be incorporated to remove hardness to provide soft water for bathing and laundry. Treatment units specifically for the removal of iron, arsenic, nitrate or fluoride can be incorporated into the system in areas where these contaminants are present in groundwater supplies.

INDION® Filtration/Reverse Osmosis

Our products reduce suspended solids, turbidity, dissolved solids, microbial contaminants, pesticides and heavy metals, generating water that conforms to drinking water standards.





INDION® Softener

It treats hardness and offers advantages like more lather for bathing/shaving and reduces problems of hair loss, dry skin, etc. The softener plant also ensures less detergent is used for washing clothes, avoids scum formation, deposits on bathroom fitting, geysers, pipes, bathtubs and tiles.



Safe Drinking Water

80% of diseases are waterborne. So when it comes to protecting health, it is important that individuals get only the best quality drinking water. In many places where piped treated water is not available or is inadequate, residential and commercial complexes have to depend on bore well water which is usually hard and brackish with microbial and heavy metal contamination, or expensive tanker water of unknown quality. Even treated municipal supplies can get reinfected during storage or contaminated in old distribution lines.

ZERO B Point-of-Use Home Water Purifiers

Our Zero B range of home water purifiers suit all budgets and needs.



ZERO B Eco Chill



ZEROB Eco Chill (RO & UV)

It is the first water cooler in India with an integrated purifie (RO/UV) system that has unique features and user interface. is ideal for industries, corporate houses, educations institutions, hotels, cafeterias etc. It offers 3 temperature combination; warm, cold, and normal which makes Eco Chi a unique product and solution for drinking water in all three seasons.



Services

We offer round-the-clock service through our countrywide network of service offices with highly trained and experienced personnel. Besides annual maintenance contracts, our O&M services saves the hassle of operation, maintenance and supervision.

To the best of our knowledge, the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional / branch offices for current product specifications.

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