

**One-Stop Solutions for the Food & Beverage Industry**



**Advanced,  
absolutely reliable solutions  
for all your process applications,  
water management,  
chemical treatment and  
service requirements.**



## *A Complete Menu Of Solutions*

**Over 45 years of pioneering specialisation** in total water and environment management, comprehensive process technologies and an extensive service network enables Ion Exchange (India) Ltd. to present a complete, customised bouquet of solutions for the food & beverages sector. We offer the widest range of advanced systems for process applications as well as the complete water treatment circuit, along with chemical treatment programmes and 24/7 comprehensive technical support.

**Single source solutions** from design, through engineering, operation and maintenance, upto retrofit. Our customised, total solutions, technical support and comprehensive services ensure your systems operate at optimal performance with hassle-free single point contact.

**A dedicated team** from our specially set up F&B vertical works closely and exclusively with your industry to understand its needs and provide innovative, integrated solutions to meet these.

Which is why Ion Exchange is the partner of choice for almost every prestigious brand in the F&B sector.



## Process Applications

Filtration, separation and purification systems play an essential role in food and beverage processing. Our advanced membrane processes using micro/ultra/nano filtration & reverse osmosis and special ion exchange processes are used in purification and separation systems for all types of process applications –

Cheese production  
 Whey processing/concentration/demineralisation  
 Gelatin deashing, decolorisation, deodorisation & concentration  
 Liquid glucose/dextrose/sorbitol deashing, decolorisation & deodorisation

Bottle wash recycling in beverage production and breweries with caustic recovery  
 Wine/beer filtration  
 Juice debittering/clarification/concentration  
 And many more ...

High end technology is customised to Indian conditions.

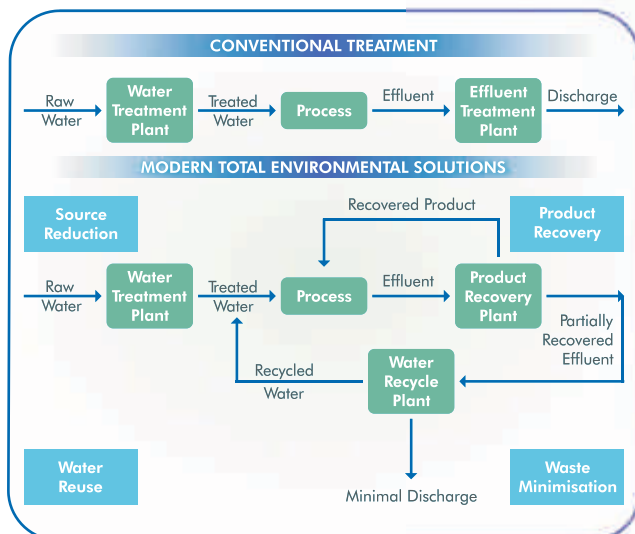


## Total Water Management

Water treatment systems with material of construction to requirement.  
 Waste water treatment – aerobic and anaerobic based, and recycle  
 Cooling & boiler water treatment programmes complying to food industry requirements.  
 Ion exchange resins (WQA Gold Seal approved for specific applications)  
 RO antiscalants (NSF certified), activated carbon and other performance chemicals

## Service Support

Total water management consultancy  
 Application lab & pilot studies for new applications  
 O&M and BOO/T for water systems, utilities and membrane/ion exchange systems for F&B processing  
 Comprehensive 24/7 service back up  
 Service contracts



## Speciality Chemical Treatment Programmes

We offer a wide range of customised chemical treatment programmes to complement engineered water treatment as well as for process applications. They give excellent ROI by improving quality of product as well as by reducing costs and improving plant performance and life. Our range of fuel and fireside treatment programmes help maximise combustion efficiency, conserve energy and protect the environment.

Our high performance speciality chemicals are manufactured in our ISO 9001 O 14001 & ISO 45001 certified facility.

Our engineers conduct in-depth surveys of your plant and system requirements, closely monitor the treatment programmes and regularly evaluate results to make required adjustments for optimum benefit.

### INDION® Ion Exchange Resins

(WQA Gold Seal approved for specific applications)



Decolorisation  
Softening, demineralisation,  
decausticiser etc.  
Deashing of sorbitol/  
glucose/dextrose/  
gelatin etc.

### INDION® Cooling Water Treatment



Environmentally safe  
INDION products  
treat open  
recirculating cooling  
water systems.  
INDION corrosion  
and scale inhibitors  
control corrosion,

scaling and fouling over a variety of water quality and system conditions. Our various bio-degradable biocides control growth of algae, fungi & bacteria.

Corrosion, scale, silica inhibitors /dispersants  
Iron specific, oil, bio-dispersants  
Oxidising and non-oxidising biocides/algaecides  
Multi-functional products

### Closed Circuit Corrosion & Scale Inhibitors

A complete range of INDION corrosion inhibitors to control impingement & general corrosion.

Engine cooling systems  
Hot water systems  
Chilled water systems  
Furnace cooling systems

### Once-through Circulation Systems

Our non-polluting INDION chemicals improve cooling efficiency of systems.

FDA-approved potable water treatment  
Metal sequestrants  
Corrosion inhibitors  
Scale retardants  
Antifoulants-dispersants

### INDION® Boiler Water Treatment

A wide range of boiler water chemical solutions for low, medium and high pressure boilers to prevent deposits and corrosion in pre-boiler, boiler and post-boiler systems.



Our unique DEHA based oxygen scavengers offer superior protection against corrosion even in condensate lines. We have food grade products for the food industry.

Phosphate and carbonate treatment programme  
Chelant programme  
Closed system treatment, electrical boiler treatment  
Sludge conditioners  
Anti-foamers and oxygen scavengers  
Complete condensate line treatment programmes to solve specific corrosion problems  
Combination of filming & neutralising amines



## **INDION® Fireside Treatment**

We offer energy-saving fuel additives that are vital for any combustion system treatment programme.



- Water emulsifier
- sludge dispersants
- Combustion catalysts
- Slag/corrosion control agents
- Residual fuel oil additives
- Multi-purpose fuel oil and solid fuel additives
- Coal dust suppressants and flow enhancers
- Stack emission control

## **INDFLOC® Flocculants & Polyelectrolytes**

- Clarification and purification of water
- Effluent treatment
- Treatment of process liquor
- Gelatin clarification/purification



## **INDION® Polymeric Adsorbents**

Polymeric adsorbents are available in different polarities, surface areas and various chemical natures with polystyrenic and polyacrylic ester matrices for decolorisation/debittering of juices.

## **INDION® Easytest Kits**



Specially designed for on-the-spot analysis of make-up water, boiler water and cooling water, without a trained chemist.

- |                  |                  |
|------------------|------------------|
| Total hardness   | Phosphate        |
| Alkalinity       | Sulphites        |
| Calcium hardness | Silica           |
| Chloride         | TDS              |
| Iron             | And many more... |

## **INDION® Water Quality Monitoring Products**

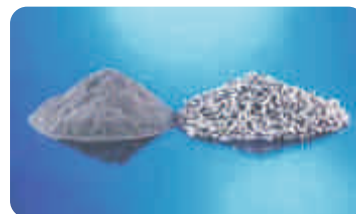
We manufacture a wide range of water quality monitoring instruments at our state-of-the-art manufacturing facility. The range includes process analysers and hand-held portable instruments for measuring critical water parameters like dissolved oxygen, conductivity, pH, Redox and resistivity.

## **INDION® Antiscalants & Membrane Cleaning Chemicals**



- Eliminate scaling & fouling of reverse osmosis membranes
- Dispersal of suspended solids & colloids
- Removes biofoulants, organics, metal oxides, hydroxides & other colloidal particulate based foulants

## **INDICARB Activated Carbon**



For dechlorination, pesticide and organics removal, sugar decolorisation.

- Granular, powder & extrudate forms
- Low leachability products for

effective reduction of oil, organics, decolorising & deodorising



## Packaged Drinking Water & Natural Mineral Water Plants

We undertake turnkey projects, complete with water treatment, blow moulding and filling machines, labeling and packaging machinery. A full-fledged laboratory is set up with facilities for mineral and bacteriological analysis of the water, to ensure compliance with BIS/international specifications.

### Hallmark Features

- Consistent treated water quality
- PLC based automated operation
- Chemical injection, UV ozonation and other disinfection systems
- Remineralisation of bottled water
- Pre-validated systems to industry accepted standards
- Compliance with latest BIS/international specifications
- Complete O&M and lab testing facility with trained manpower

### Single Point Responsibility

- Turnkey project management
- Assured compliance with standards
- Operation, maintenance and monitoring of plant
- Comprehensive service maintenance contracts
- Daily water analysis tests/weekly reports
- Company trained, experienced manpower
- Ex-stock, genuine spares and consumables
- Regular quality and operational audits



## Total Integrated Solutions

Treatment	Applications	Products
<p>Process Water Treatment</p> 	<p>Removes suspended solids, colloids, organics, iron and manganese from water Reduces dissolved solids, TOC, pesticides etc.</p>	<p>Ultra High Rate Clarifier, Lamella Clarifier, High Rate Solids Contact Clarifier Pressure Sand Filters &amp; Activated Carbon Filters (fully automated with MS/SS/MSRL) Ultra Filtration/Reverse Osmosis systems with UV/Ozonation and with various options including chemical/hot water sanitisation</p>
<p>Boiler Feed Make-up Water Treatment</p> 	<p>Produces high quality demineralised/soft water to medium/low pressure boilers Prevents and removes deposits, protects system from corrosion, gives trouble-free operation and clean boilers</p>	<p>Conventional and Layered Bed Ion Exchange Ultra Filtration Reverse Osmosis, Sea Water Desalination Speciality Chemicals for boiler feed water conditioning</p>
<p>Cooling Water Treatment</p> 	<p>Prevents corrosion, scale fouling and microbial growth in cooling water systems Side stream filtration to increase the cycles of concentration by reducing suspended solids</p>	<p>Speciality Chemicals for cooling water treatment Auto Valveless Gravity Filters Pressure Sand Filters</p>
<p>Waste Water Treatment &amp; Recycle</p> 	<ul style="list-style-type: none"> <li>Recovers cooling tower blow down and DM regeneration to minimize waste</li> <li>Milk evaporation condensate recycling</li> <li>Recycle &amp; recovery of other process effluents</li> <li>Bottle wash water recovery</li> <li>Treatment/recycle of canteen/colony sewage</li> </ul>	<ul style="list-style-type: none"> <li>Clarifiers</li> <li>Sand/Activated Carbon Filters</li> <li>Biological Treatment (e.g. membrane bio-reactor, fluidised media reactor)</li> <li>Anaerobic Digesters</li> <li>Ultra Filtration</li> <li>Reverse Osmosis</li> <li>Evaporators/Crystallisers</li> <li>Packaged Effluent Treatment Plants</li> </ul>
<p>Food &amp; Beverage Processing</p> 	<ul style="list-style-type: none"> <li>Deashing and decolorisation of whey/liquid glucose/sorbitol/dextrose/gelatin</li> <li>Debitting of juices</li> <li>Concentration of gelatin</li> <li>Whey separation &amp; concentration</li> <li>Sugar sweetness improvement/low calorie natural sweetener extract purification</li> <li>And many other...</li> </ul>	<ul style="list-style-type: none"> <li>Applied Ion Exchange Resins &amp; Plants</li> <li>Activated Carbon/Polymeric Adsorbents &amp; Plants</li> <li>Ultra Filtration/Nano Filtration/Reverse Osmosis Membranes &amp; Plants</li> </ul>

## Complete Service Support



Our extensive service network of trained technicians is available 24/7 to ensure your treatment equipment runs at optimal quality, quantity and cost.

After visiting and studying your facility, we provide a detailed report with recommendations that will help you to optimise the cost and improve your plant performance and life.

Our services include:

- Total water management consultancy
- R&D, feasibility & pilot plant studies
- O & M contracts

- Plant water audits
- Membrane cleaning
- Service contracts & emergency services
- Upgradation & automation

### Service contracts

Water systems require regular monitoring and maintenance to protect against fluctuating water conditions. With Ion Exchange at your service, you are guaranteed peace of mind with the assurance of efficient operation and long equipment life.

Our localised service allows us to schedule service and repairs as and when you need it. Our service contracts and preventive maintenance agreements include extended warranties, emergency repairs and complete replacement of necessary spares and consumables.



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 Offices for current product specifications.

**INDION**® and **INDFLOC**® are registered trademarks of Ion Exchange (India) Ltd.



## ION EXCHANGE (INDIA) LTD.

### Corporate Office

Ion House, Dr. E. Moses Road, Mahalaxmi,  
Mumbai - 400011 | Tel: +91 22 6231 2000  
E-mail: [ieil@ionexchange.co.in](mailto:ieil@ionexchange.co.in)

### Regional and Branch Offices

Bengaluru | Bhubaneswar | Chandigarh | Chennai  
Delhi | Hyderabad | Kolkata | Lucknow | Vadodara  
Vashi | Visakhapatnam

### International Division

R-14, T.T.C MIDC, Thane - Belapur Road, Rabale,  
Navi Mumbai - 400 701 | Tel: +91 22 6857 2400  
E-mail: [export.sales@ionexchange.co.in](mailto:export.sales@ionexchange.co.in)

### Overseas Offices

Bangladesh | Canada | Indonesia | Kenya  
Malaysia | Oman | Portugal | Saudi Arabia | Singapore  
South Africa | Sri Lanka | Tanzania | Thailand | UAE | USA

### Manufacturing Units

India - Ankleshwar | Hosur | Patancheru | Rabale | Verna | Wada

Overseas - Bangladesh | Indonesia | Saudi Arabia | UAE

All India Service and Dealer Network

[www.ionexchangeglobal.com](http://www.ionexchangeglobal.com)

