

INDION® DEIOMATIC **Mixed Bed 150**

INDION Industrial Mixed Bed Deionizers are designed to produce high purity treated water required by the pharmaceuticals and electronic industries. These deionizers can be used as polishing units after two bed deionizers or directly to obtain high purity water. Mixed Bed Deionizers are single column units, filled with strongly acidic cation and strongly basic anion exchange resins mixed together evenly. Dissolved solids in the water are thus removed, producing water of very high quality - confirming to IP specifications of purified water. The treated water, however is not free from bacteria and pyrogen.

A mixed bed Deioniser produces very pure water quickly, economically and efficiently. It contains an intimate mixture of cation and anion resins. Thus in effect, water passing through a mixed bed is subjected to an infinite series of two stage demineralization. The treated water produced will have residual dissolved solids below 1.0 PPM, conductivity below 1.0 micro Siemens cm. In general, it conforms to I.P (Indian Pharmacopoeia) standards for deionised water.

The mixed bed unit has a very sharp exhaustion point, marked by a sharp rise in the conductivity, which is at a constant, low value till then. At this point the unit is regenerated, starting with the separation of the two resins as a first step. The resins are backwashed to separate them, by sending a flow of water upwards through the resin bed. Due to the difference in densities, they separate forming two distinct layers, with the anion resin on top and the heavier cation resin at the bottom. The Separated resins are then regenerated individually with sodium hydroxide (caustic soda) for the anion, Hydrochloric acid for the cation, rinsed individually and finally remixed again for another cycle of operation to produce very pure deionised water.

Features

- Plug & play unit
- Portable Unit which can be moved to points of use
- Separate Regeneration Unit
- Auto regeneration based on quality or operating between regeneration (OBR)
- Continuous monitoring of treated water quality
- LED display to show operation status



- Simple PVC pipe work
- Optional feature available with hand held remote control from 20m distance

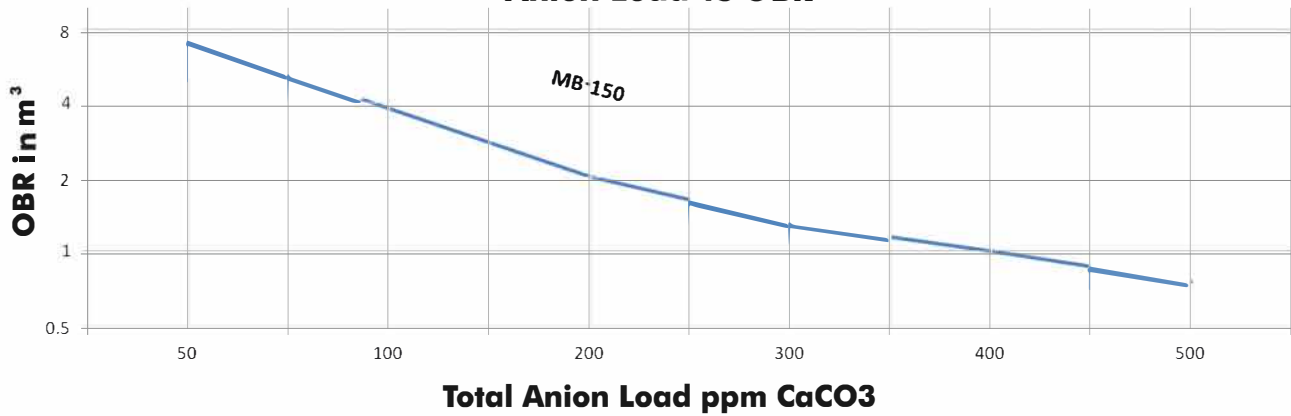
Benefits

- Conductivity of the treated water quality is less than 1 $\mu\text{S}/\text{cm}$
- It can control both service pump and regeneration pump if needed
- Audible alarm to take preventive action
- Smaller skid area required
- Durable structure for longer equipment life
- Less regeneration time
- Consistent water outlet quality

Technical Specification

| Model | Feed flow rate | Feed pressure | Regenerates | | Oil free air requirement | Treated water quality | |
|--------|----------------|--------------------|-----------------------------|------------------------------|--------------------------|----------------------------------|-------|
| | | | Hydrochloric acid (HCL) 33% | Sodium Hydroxide (NaOH) 100% | | Electrical Conductivity at 25° C | pH |
| MB 150 | Maximum | Maximum | Liters | Kg | 0.4 Kg/cm ² | µs/cm | |
| | L/h | Kg/cm ² | Liters | Kg | m ³ /min | µs/cm | |
| | 500-1500 | 3 | 7.5 | 2.5 | 0.141 | < 1 | 6-7.5 |

Anion Load vs OBR



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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