

INDION® Disaster Management Unit for Drinking Water

The INDION disaster management unit is a state-of-the-art containerised water treatment system specially designed to cater to emergency requirements of drinking water during natural calamities. Disasters such as floods, drought, cyclones and earthquakes result in highly contaminated water supply sources, leading to widespread waterborne diseases and epidemics. The INDION disaster management unit produces safe drinking water conforming to stringent IS 10500 standards.

Treatment

The INDION disaster management unit consists of ultrafiltration, reverse osmosis and ozonation modules which can be used in combination, depending on the quality of water to be treated. It is designed to produce 2000 litres per hour from surface or brackish water sources like ground water with TDS as high as 2000 mg/l.

Ultrafiltration: This membrane-based process removes all undissolved impurities including suspended solids, colloidal impurities, bacteria and viruses and a large number of organic compounds like pesticides and detergents.

Reverse osmosis: Also a membrane-based process that removes dissolved impurities (salts) from brackish water to produce potable water having low dissolved salts. This process is ideal for drought prone areas.

Ozonation: This consists of an ozone generator unit which produces ozone gas in situ and a mechanism which introduces the ozone gas into water to kill all bacteria and inactive viruses.

Special Features

- Skid-mounted, compact, designed to fit into a container
- Can be operated on a diesel generator
- Does not involve use of chemicals



Advantages

The INDION disaster management unit has been so designed as to make its operation independent of external factors that can hinder supply of drinking water to affected communities.

- Mobile containerised and truck mounted, it can easily & quickly be moved to difficult locations
- Does not depend upon availability of electricity. It can also work on a diesel generator. The unit can thus be operated in areas where electricity supplies have been disrupted by the disaster and in remote villages which do not have electricity
- Highly adaptable to prevalent conditions, however adverse

The INDION disaster management unit thus goes a long way in alleviating the hardship of communities affected by natural disaster, by generating and supplying them with safe drinking water and preventing the outbreak of waterborne diseases and epidemics.

Specifications

- One raw water pump with suction strainer
- One skid-mounted ultrafiltration system complete with HDPE feed tank, recirculation pump, set of membranes, necessary pipes & valves, instruments and electrical panel
- One container to house entire system
- One skid-mounted reverse osmosis system complete with HDPE feed tank, high pressure pump, set of RO membranes, necessary pipes & valves, instruments and control panel
- One skid-mounted ozonation system complete with ozone generator, contact column, necessary pipes & valves
- One set of mechanical & electrical spares, membrane cleaning & preservative chemicals along with tools & tackles

Technical Data

| Parameters | Surface/Ground Water | Parameters | Surface/Ground Water |
|---|----------------------|-------------------------------------|-----------------------------|
| Flow rate, m ³ /h | 2 | Power Supply | 20 HP, 3 phase or 25 KVA DG |
| Raw water quality | | Connections | |
| pH | 6.5 - 8.5 | Inlet, mm (hose adapter) | 40 |
| Suspended solids, mg/l | < 100 | Outlet, (pouches) | 200/500 litre |
| Total dissolved solids (TDS), mg/l | < 2000 | Drain, mm (PVC pipe) | 100 |
| Total hardness, mg/l as CaCO ₃ | < 200 | Dimensions | |
| Total alkalinity, mg/l as CaCO ₃ | < 300 | Width | 5.89 metre |
| Oil & grease, mg/l | Nil | Depth | 2.59 metre |
| | | Height | 2.9 metre |
| Treated water quality | | Weight (including container) | |
| pH | 6.5 - 8.5 | Shipping weight | 12 ton |
| Suspended solids, mg/l | < 1 | Working weight | 15 ton |
| TDS, mg/l | < 200 | | |
| Conforming to drinking water IS 10500 | Yes | | |

Our state-of-the-art manufacturing facilities are ISO 9001, ISO 14001 & ISO 45001 certified.

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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