

CSIR-CMERI OxiMax Improved Iron Removal Plant (A National Award Winning Technology)

Designed & Developed by



Manufactured & marketed by



About CSIR-CMERI

The Central Mechanical Engineering Research Institute (CMERI) is the apex R&D institute for mechanical engineering under the aegis of the Council of Scientific and Industrial Research (CSIR). Established in 1985 in Durgapur, W.B., it is the only national level research institute in this field, CMERI's mandate is to serve industry and develop mechanical engineering technology so that India's dependence on foreign collaboration is substantially reduced in strategic and economy sectors. Besides, the institute is facilitating innovations and inventions for establishing the claims of Indian talent in international fields where Indian products shall ultimately compete. In the new millennium, CMERI is poised to expand its horizon of research activities so as to steer the country forward in cutting-edge and sunrise fields. Improved iron removal plant for community purpose use has been designed & developed by CSIR-CMERI, Durgapur.

About HES Water Engineers India Pvt. Ltd.

Since its inception in 2005, HES Water Engineers India Pvt. Ltd. has been at the forefront of introducing effective, sustainable, and economical technologies to treat potable water and has supplied & installed 10,000+ plants for improvement of water quality and removal of contamination. With similar vision to make available clean drinking water to the people of India the two organizations have joined hands, wherein CSIR-CMERI transferred its technology for iron removal to HES Water Engineers India Pvt. Ltd. for manufacturing and marketing of the same.



The need for iron removal

The presence of excess iron in ground water creates several problems including health hazards to the masses and also causes rust, stains on house hold washings and laundry. Groundwater iron removal process in the present work is adapted to remove iron efficiently from the groundwater without affecting the other water quality parameters.

About CSIR-CMERI OxiMax Improved Iron Removal Plant

The present work comprises of an improved iron removal plant which accommodates a force & lift type arrangement fitted with the existing India Mark-II hand pump and/or submersible pump with a number of scientifically arranged aeration mechanism around the aeration chamber, pre-settling chamber, settling chamber and an outlet tap to collect the safe iron-free drinking water.



Advantages & Features:

- CSIR Technology Award Winner -2017 (Received from the President of India)
- Instant iron free water
- Principle of removal: Oxidation, precipitation and filtration
- Naturally available materials used for removal
- No electric power requirement Implementable in remote villages

- No chemicals requirement for removal of iron
- Useful to community service
- Attachable to the Mark-II hand pump and submersible pump also
- Maintenance: Through backwashing (facility provided)

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