

Water Softening and Demineralization

IONTEC



The Principle

IONTEC softens or demineralizes water used for beverages or for other purposes (e. g. for heating, cooling, cleaning). For ion exchange there are ion exchange resins in the unit. They contain loosely held cations or anions. These ions exchange with the ions in the treated water as it passes through the unit. For softening of water a resin containing Na^+ is applied. The Ca^{++} and Mg^{++} ions which form hardness in water are exchanged for the Na^+ ions of the resin. When most of the ions in the resin have been replaced the resin is exhausted and a regeneration cycle is initiated. Regeneration with brine strips out Ca^{++} and Mg^{++} from the exhausted resin. For water demineralization all dissolved ions are removed from the water. Therefore, the water passes through a cation resin containing H^+ to replace all cations and through an anion resin containing OH^- to replace all anions. H^+ and OH^- then combine and form purified water. Both resins can be in separate vessels or together in a single vessel (mixed bed design).

Typical Technical Data

Capacity

10 - 3.000 hl/h

Material

according to requirements (plastics; stainless steel)

Options

duplex operation
hardness measurement
pre-filtration
Cleaning-in-Place

Highlights

All stainless steel execution as standard
Mixed bed design on demand for water demineralization
Customized design; different automation levels

The Centec Group

Centec offer fully automated, skid-mounted process units and high precision measurement technology from a single source. Our systems and sensors are engineered to perfectly meet the most demanding requirements of the brewery, beverage, food and pharmaceutical industries. With a team of experienced engineers, we aim to create quantifiable added value for our customers. We are your partner from planning and design through to commissioning of your plant.



ProDetec Pty.Ltd.

P. +61 (02) 9620 8700

F. +61 (02) 9620 8755

E. info@prodetec.com.au

A. 17/38 Powers Rd,
Seven Hills NSW 2147

www.prodetec.com.au

Centec
Gesellschaft für Labor- & Messtechnik mbH
Wilhelm-Röntgen-Strasse 10
63477 Maintal. Germany

 +49 6181 1878-0

 +49 6181 1878-50

 info@centec.de

centec.de
centec.cz
centec-uk.com
centec-usa.com
centecrrr.com