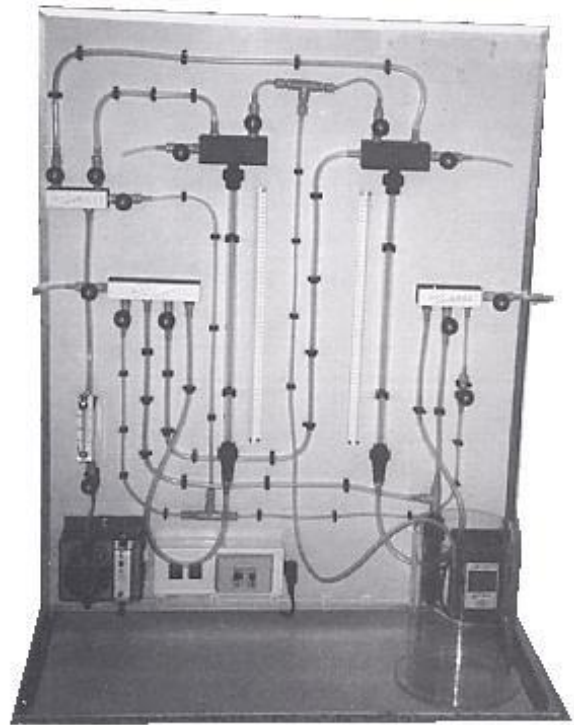


Demineralisation unit

DESCRIPTION

- This unit softens hard water by forcing it through a resin where an ion exchange occurs.

- Two columns:
 - One cationic column, which replaces the cations of the solution with H^+ ions.
 - One anionic column, which replaces the anions of the solution with OH^- ions.



SUGGESTED APPLICATIONS

- Illustration and understanding of the process of ion exchange.
- Capacity of the various resin materials : hard and soft.
- Comparison of untreated water flowing into an anionic column with untreated water flowing into a cationic column.
- Verification and study of the resin regeneration system.
- Follow up of the conductivity of the treated solution.
- Efficiency of the unit, study of saturation.
- Influence of the flow rate.
- Direct water supply.

GPB T30

1- Supply tank - 4 sections

Solution of HCl
 Solution of NaCl
 Water to be treated (or solution)
 Demineralized or distilled water
 Volume : 100 L – PVC

2- Supply pump

Centrifugal (0-30 L/h) – electromagnetic
 P = 0.37 KW

3- Rotameter

Stainless steel – with adjustment valve
 0-100 L/h

4- Manifold – 3 valve set

Supply toward anionic column
 Supply toward cationic column
 Regeneration of the columns

5- Cationic resins

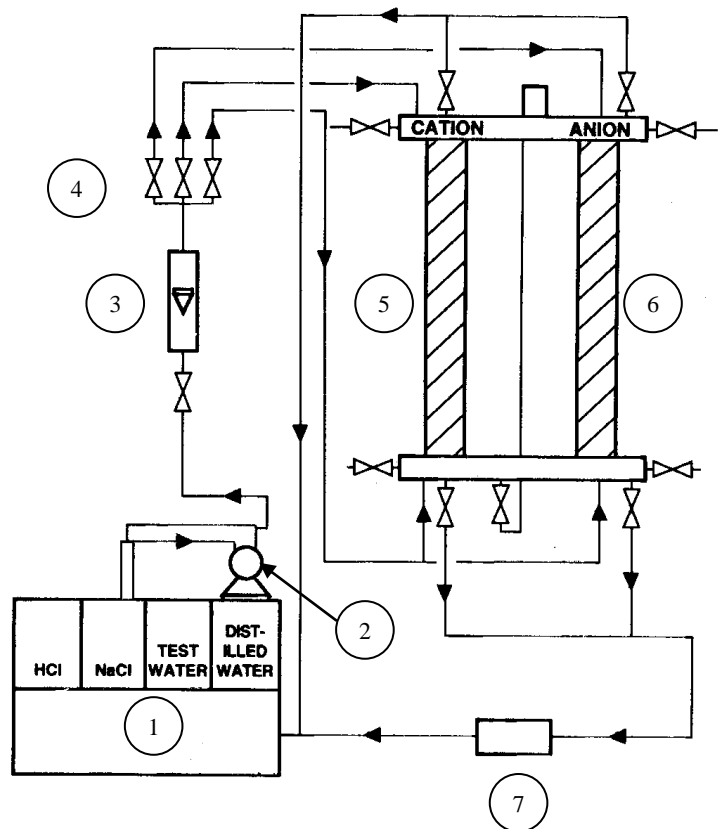
2 interchangeable types of resins, hard or soft
 Transparent PVC column - DN50
 Length 500 mm

6- Anionic resins

2 interchangeable types of resins, hard or soft
 Transparent PVC column - DN50
 Length 500 mm

7- Conductivity-pHmeter

Measurement on the line of the conductivity and pH
 Conductivity : range 0-1999.9 $\mu\text{S/cm}$
 pH : 0-14
 Accuracy: $\pm 2\%$
 Maximal temperature: 50°C



UTILITIES

Electricity : 380 VAC – 50 Hz
 Evacuation
 Network water

DIMENSIONS

Length : 1200 mm
 Width : 800 mm
 Height : 1500 mm

Possible to work with resins in series or in parallel, in back run or co-current.

