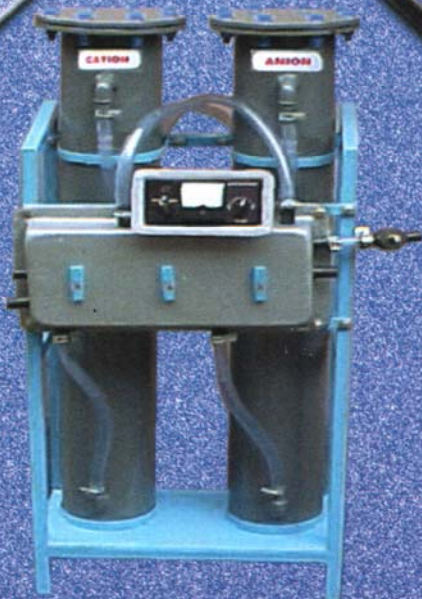




WATER DEMINERALISER



KOMAL INDUSTRIES
MUMBAI

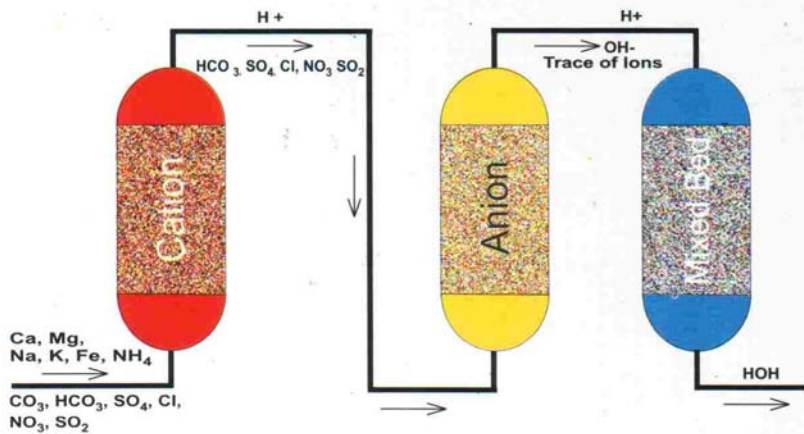
DTM WATER SYSTEM

WHAT'S DEMINERALISATION ?

Water is one of the most abundant natural elements. It is also one of the most contaminated ones. A number of minerals readily dissolve into water. They have to be removed from the raw water before it can be used for any industrial applications.

A demineraliser removes these minerals from the raw water by an ion-exchange process. This process first exchanges the cations of the salts for the hydrogen ions and, then, exchanges the anions of the salts for the hydroxyl ions.

Komal's water demineraliser employ the modern ion-exchange technology to give you chemically pure water.



HIGH ON QUALITY

The new Komal demineraliser...

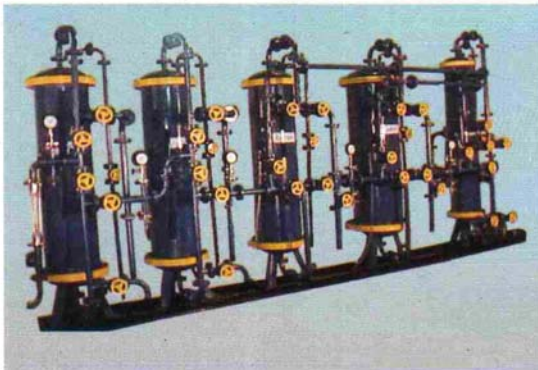
- 1...gives you chemically pure water-instantly and continuously, year after year.
- 2...has durable resins with the highest demineralising capacity.
- 3...uses resins of the highest quality.
- 4...comes with the conventional conductivity meter.
- 5...is extremely easy to operate and needs practically no attention after it is installed.
- 6...can be connected directly to any water supply mains.
- 7...is delivered promptly.
- 8...is available in a wide range of flow-rates.

WIDE RANGE OF APPLICATIONS :

Chemically pure, demineralised water is a more efficient substitute for distilled water in a wide range of applications.

- ◆ Pharmaceuticals
- ◆ Cosmetics
- ◆ Surface Cleaning
- ◆ Chemicals
- ◆ Electronics
- ◆ Paints
- ◆ Battery manufacturing
- ◆ High Pressure Boiler
- ◆ Hospitals
- ◆ Laboratory
- ◆ Research Technology
- ◆ Distilleries.

KOMAL is offering water Demineraliser in four different configuration. MR series in more sturdy M.S. Rubberline with C.I.R.L valves. FP Type in light weight moulded FRP vessel. LD series in moulded LDPE vessels and K & D types in PVC/PP with FRP Box valve assembly. All these types are supplied with a Conductivity meter and a Sensor to read the conductivity on-line.



ML SERIES - M.S.R.L. CONSTRUCTION

ML series of plants are made from rubberlined vessels. Since the plant are sturdy compact and all the working plants are accessible from the front, the plant can be Installed almost anywhere it can stand. The unit is assembled on a steel baseplate for ease of transportation and Installation.

Complete system can be supplied with both pre and post treatment. KOMAL offers completely integrated system including Recirculating loop for Pharma and Food Industries.

Model No	Flow-rate	Capacity between Regeneration (based on 100 ppm. as TDS)
ML-12	1,500 Lit/hr.	50 m ³
ML-14	2,000 Lit/hr.	100 m ³
ML-16	3,000 Lit/hr.	150 m ³

Water Purification System

FPK SERIES - FRP CONSTRUCTION

FPK Series' pressure vessels are manufactured using composite Fiber Glass. Vessels are 60% lighter than steel vessels. All the vessels are Vigorously tested. LD series vessels are low cost LDPE construction. They are all moulded and have better impact strength and lighter in weight.

Model	Flow-rate	Capacity bet. Regeneration (based on 100 ppm as T.D.S.)
FPK-5	150 Lit/hr.	3 m ³
FPK-6	250 Lit/hr.	6 m ³
FPK-8	600 Lit/hr.	12 m ³
FPK-10	1,000 Lit/hr.	18 m ³
FPK-12	1,200 Lit/hr.	30 m ³
FPK-13	2,000 Lit/hr.	35 m ³
FPK-14	3,000 Lit/hr.	50 m ³
FPK-16	5,000 Lit/hr.	100 m ³

L.D.P.E CONSTRUCTION

LD 10	100 lit/hr.	3 m ³
LD 15	150 lit/hr.	5 m ³
LD 30	300 lit/hr.	10 m ³
LD 55	500 lit/hr.	20 m ³
LD 80	800 lit/hr.	28 m ³

MIXED-BED SYSTEMS

Our mixed-bed demineralisers are used where water of extremely high purity is needed. They have Cation and Anion exchanger resins mixed in a single column. This achieves higher purity standards, more neutral pH and greater silica and CO₂ removal control than can be done with a Two-bed system.

Model	Flow-rate	Capacity between Regeneration (based on 100 ppm as T.D.S.)
D-4	75 Lit/hr.	700 liters
D-5	250 Lit/hr.	1,500 liters
D-6	600 Lit/hr.	3,500 liters
D-8	1,000 Lit/hr.	4,500 liters
D-10	1,500 Lit/hr.	6,000 liters

Quality of Treated water from Mixed Bed :

pH	: 6.5 to 7.0
Conductivity	: less than 1 μ S / cm
T.D.S.	: less than 1 ppm.
Silica	: less than 0.02 ppm.

PRE AND POST TREATMENT

ACTIVATED CARBON FILTER



Use Activated Carbon filter as a pre filter to DM plant for the removal of gaseous impurities including Chlorine. Activated carbon will also adsorbs Organic and acts as a filter media. Available in MS, MSRL, FRP, LDPE, and PVC Construction.

MICRON FILTER



We have Capillary membrane in micro and ultra filtration technology for bacteria removal of more than 99%+ or particulate removal.

Carbon cartridges for adsorption of gases and organic. These carbon block cartridges eliminates the problems associated with loose carbons.

RO SYSTEM



The unique features of KOMAL Reverse Osmosis (RO) system allow you to produce consistently high quality water for a variety of applications with their compact designs, simple in operation and low-maintenance cost. Komal system is perfect for your use. Can be use as a pre DM or post DM system.

UV DISINFECTANT



A perfect disinfectant for water using Germicidal UV rays. KOMAL UVK series utilizes a compact integrated design comprising of both UV treatment chamber and Electrical Control. UV rays leave water in its natural state without causing any change in its colour, smell, taste. Provides a dosage in excess of 30,000 μ w-Sec/cm².

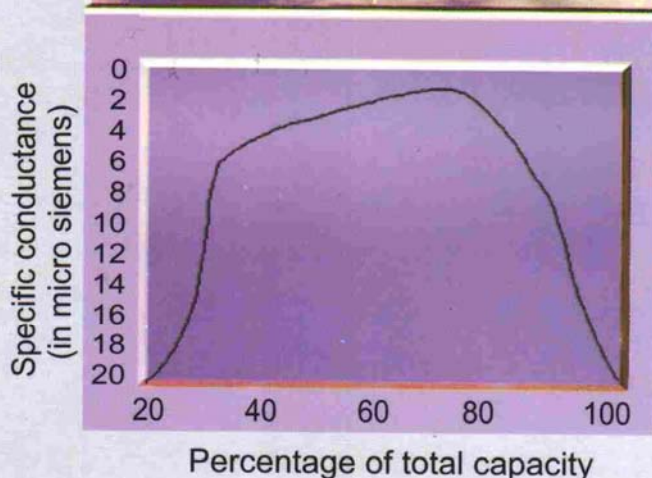
KOMAL DEMINERALISER : TECHNICAL INFORMATION

PERFORMANCE DATA

Model	Flow-rate Lit/hr.	Regenerant		Output per Regeneration (at 100 ppm. as T.D.S.)
		30% HCl	Caustic soda	
K-3	30	1 Lit.	0.25 kg	500 liters
K-4	75	2 Lit.	0.50 kg	1,500 liters
K-5	150	3 Lit.	1.00 kg	3,000 liters
K-6	250	5 Lit.	1.50 kg	6,000 liters
K-8	600	10 Lit.	3.00 kg	12,000 liters
K-10	1,000	15 Lit.	4.50 kg	18,000 liters
K-12	1,400	20 Lit.	7.50 kg	25,000 liters

Also available in custom-built sizes to suit your requirements.

Performance Graph of Conductivity



- ◆ Operating pressure range : 1.5 - 3 kg/cm²
- ◆ Operating temperature : 100°F (max)
- ◆ Electrical requirement : 230 volts, 50 cycles
(Only for Conductivity Meter)

Quality of the treated water from Two-bed (K-Series) :

- ◆ Conductivity : less than 25 micromhos/cm
- ◆ pH : 7.5 to 9.5
- ◆ T.D.S. : less than 5 ppm.
- ◆ Silica as SiO² etc. : less than 0.2 ppm.
- ◆ Carbon dioxide : nil

Single Range Conductivity meter



Model no : SRM
Range : 0 - 40 μ S / cm
Size of dial : 65 mm x 65 mm
Accuracy : \pm 0.5%

Double Range Conductivity meter

Model No : DRM
Range : 0-2 μ S / cm
0-40 μ S / cm
Accuracy : \pm 0.5%

Sensor are available in SS / PVC in threaded & flange type

Digital Conductivity meter



Model No : DLM
I Range : 0-20 μ S / cm
II Range : 0-200 μ S / cm
III Range : 0-2000 μ S / cm
Accuracy : \pm 0.2%

- ❖ Direct display of Conductivity
- ❖ 3½ LED display for measured value
- ❖ Rugged Conductivity Electrode
- ❖ Resolution 0.01 μ S / cm.
- ❖ Compact size, can be mounted on a panel

Manufacturers :

Komal

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