

# ECO-CHEM

PURIFYING WATER SUSTAINING LIFE



Dialysis Water Treatment – It's a matter of trust

Eco-Chem newly enhanced portable RO system is designed for ease of use, quiet operation, and superior reliability. Unlike other portable RO systems, Eco-Chem's unique compact design is a complete package. All pretreatment, which includes dual carbons (tank plus filter) and anti-scalant for hardness reduction, is located inside the cabinet. It has everything you need to transform your tap water into dialysis quality water (no softener or salt is needed).

#### FEATURES

- 1) Cost effective water treatment system
- 2) Uses the reverse osmosis principle
- 3) Suitable for all types of commercial/industrial usage
- 4) Suitable designing & best engineering work
- 5) Latest in water treatment technology
- 6) Cleans the water contaminants
- 7) Removes all dissolved water impurities
- 8) Using semi-permeable membrane
- 9) Delivers pragmatic & profitable water treatment solution
- 10) Heavy duty cycle, easy installation & low maintenance
- 11) Removes non-essential and corrosive salts, metals & chemicals
- 12) Making water safe for tools and equipment usage
- 13) Easy to install and cost-efficient
- 14) Removes salts, minerals and other impurities
- 15) Rejects bacteria, sugars, proteins, and other particles
- 16) Designed as per the technical details provided by the client
- 17) Serves the requirement with highest level of precision
- 18) High production capacity, reliable & durable
- 19) Ideal for different types of commercial / industrial setups
- 20) Highly effective and easily maintainable
- 21) Can be cleaned with ease and operate continually

#### ENHANCED FEATURES

- Effective patient care (up to two stations)
- Unique compact design
- Entire device conform WHO standard
- Plug-n-play controller
- Recirculation feature reuses excess product water, reducing water usage up to 45%
- Complete package

PARAMETERS	Model -100	Model - 200	Model - 500	Model - 1000	Model -2000
<b>TREATMENT CAPACITY</b>	100 LPH	200 LPH	500 LPH	1000 LPH	2000 LPH
<b>FLOOR AREA</b>	3m X 3M	3m X 3 m	4 m X 4 m	5m X 4 m	5m X 4m
<b>MOC</b>	SS	SS	SS	SS	SS
<b>POWER CONSUMPTION</b>	2 kw	3 kw	4 kw	5 kw	6 kw
<b>TERTIARY FILTRATION</b>	✓	✓	✓	✓	✓
<b>ULTRA VIOLET SYSTEM</b>	✓	✓	✓	✓	✓

## MAIN TECHNICAL PARAMETERS

- Input water requirement
- The original water is tap water which pressure  $\geq 0.20\text{MPa}$
- Conductivity  $\leq 300\text{mS/cm}$ , and the water quality should accord with GB57492
- Water standard
- PH: 5.5-7.5
- Copper:  $\leq 0.1\text{mg/l}$
- Cond.  $\leq 10\text{mS/cm}$
- Chloride:  $\leq 0.1\text{mg/L}$
- Cyanide  $\leq 0.001\text{mg/L}$
- Lead  $\leq 0.005\text{mg/L}$
- The best pressure of RO: 0.8-1.2MPa

• The max pressure of RO: 1.4MPa

### water output size :

We can supply many models of the hemodialysis RO system based on the number of the beds as follows :-

Model	Water Output ( L/hr)	Bed Number
Model 150	150L/hr	1 – 4
Model 250	250L/hr	4 – 7
Model 500	500L/hr	7 – 15
Model 750	750L/hr	15 – 20

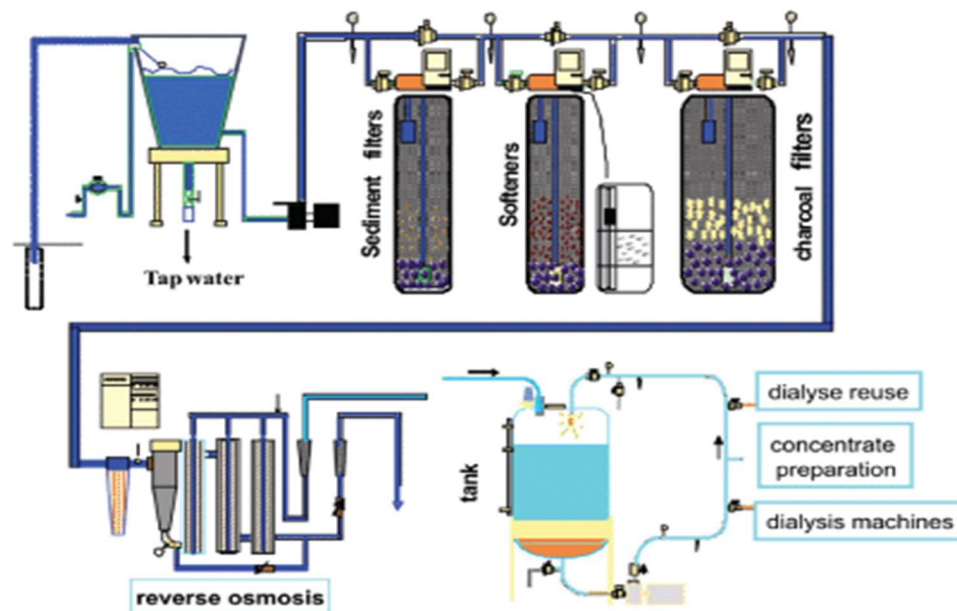


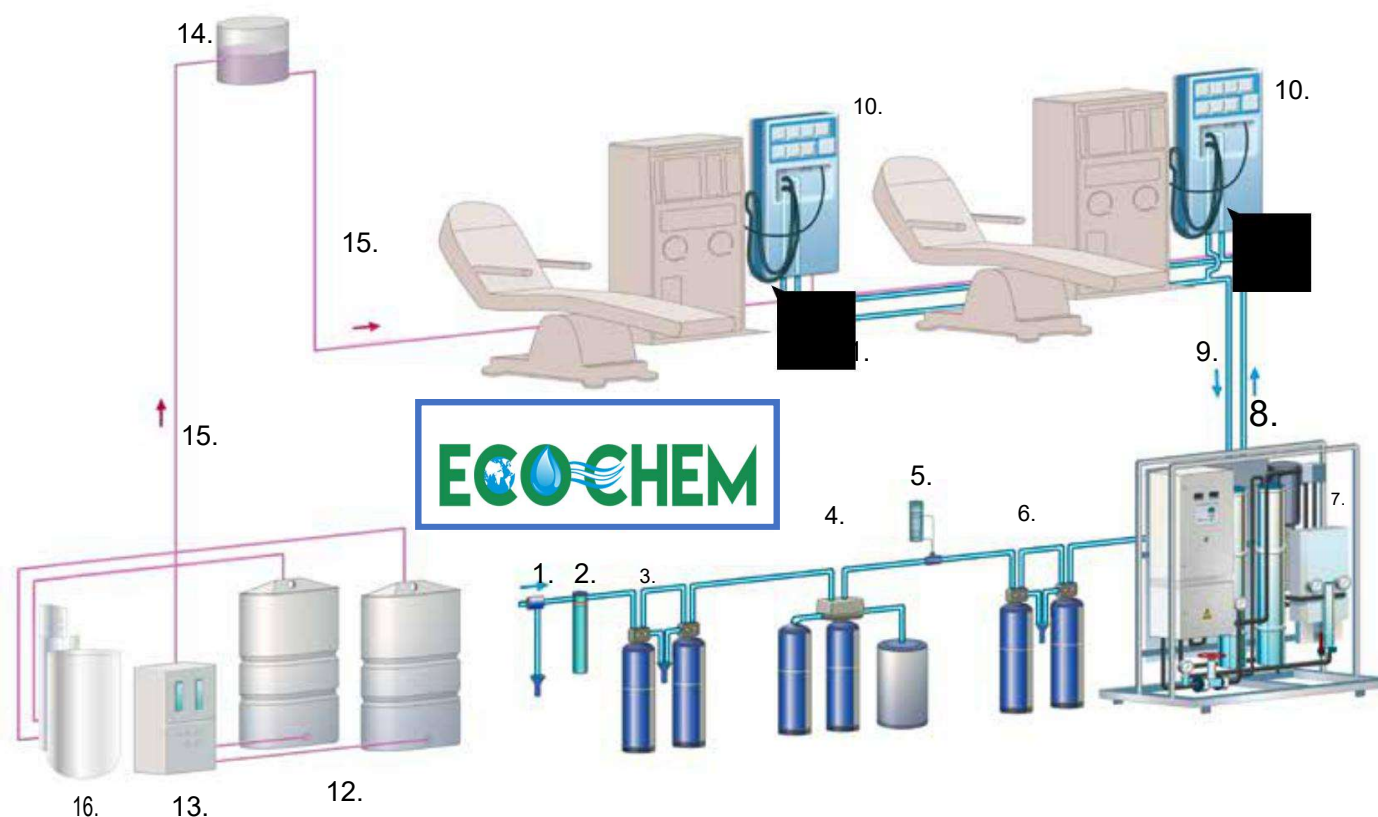
Fig. 1 - Diagram of treatment and distribution system in the hemodialysis center studied.



Fig.2 Dialysis Reverse Osmosis System



## At a glance – the complete water treatment system for artificial dialysis



- |   |  |
|---|--|
| 1. backflow preventer                                     | 9. return side distribution ringmain without dead legs                   |
| 2. pre-filter   | 10. bed head media panel   |
| 3. iron removal filter (option)                           | 11. double-hose connection system,<br>flow and return without dead zones |
| 4. duplex water softening unit                            | 12. concentrate holding tank   |
| 5. hardness monitoring unit limitron                      | 13. central concentrate distribution                                     |
| 6. activated carbon filter (option)                       | 14. high-level concentrate distribution reservoir                        |
| 7. Reverse osmosis unit                                   | 15. concentrate supply pipe  |
| 8. supply side distribution<br>ringmain without dead legs | 16. concentrate mixing system  |