

COMPARISON BETWEEN PENTAIR CIRO SYSTEM & OSMONICS E4-3000 RO



Pentair RO System (500 LPH)


- Suitable for maximum TDS 1500 / 3000 ppm.
- Three stage NSF certified pre-treatment cartridge filtration.
- Post treatment (polishing cartridge).
- FRP membrane pressure vessel.
- Fully enclosed cabinet mounted system.
- Three flow indicators.
- Dow membranes.



Osmonics E4-3000 RO System (600 LPH)

- Suitable for maximum TDS 2000 ppm.
- One stage non-NSF certified pre-treatment cartridge filtration.
- No post treatment (polishing cartridge)
- Stainless Steel pressure vessel.
- Open to air skid mounted system.
- Two flow indicators.
- Osmonics membranes.

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| Features / Specification | Pentair CIRO | Osmonics E4-3000 RO | Benefits |
|---------------------------------|--|--|---|
| Input TDS | Can handle water up to a maximum TDS of 3000 ppm | Can handle water up to a maximum TDS of 1500 ppm | <ul style="list-style-type: none"> The CIRO system can be operated for much higher TDS ranges. No need to change/upgrade system if the water quality deteriorates. |
| Feed Water Limiting Conditions | Maximum temperature: 40 °C Turbidity: < 1 NTU Hardness: < 250 ppm | Maximum temperature: 30 °C Turbidity: Nil Hardness: NA | <ul style="list-style-type: none"> Due to less stringent feed limiting conditions of Pentair CIRO system, the pre-treatment and operation & maintenance cost will be less. |
| Pretreatment Cartridges Filters | Three-stage pre-filters Stage 1: NSF certified Pentek cartridge Stage 2: Pentek cartridge Stage 3: NSF certified Pentek cartridge | One stage, non NSF certified cartridge is provided | <ul style="list-style-type: none"> Efficient removal of micron suspended solids, iron & scaling properties of water. Compact, hygienic and safe as uses food grade materials. Trouble free & easy operation and maintenance. NSF certified ensures better quality |
| Polishing Cartridges Filter | One number world class NSF certified "Pentek" cartridge is provided for post treatment of RO water.  | No polishing cartridge is provided for post treatment of RO water. | <ul style="list-style-type: none"> Automatic pH correction of permeate water. Compact, hygienic and safe as uses food grade materials Lower operating cost – no chemical addition and backwash NSF certified ensures better quality |

| Features | Pentair RO | Osmonics E4-3000 RO | Benefits |
|------------------|--|---|--|
| Pressure Vessel | MOC (Material of Construction): FRP Make: Pentair | MOC (Material of Construction): Stainless steel Make: Osmonics | <ul style="list-style-type: none"> FRP technology is proven to be more advance and better technology. FRP gives you hassle free operation and longer life whereas Steel requires regular maintenance due to corrosion and deposits. FRP is light in weight and easy to handle during membrane cleaning and maintenance. Hygienic and cost effective over a period of time. |
| RO Membrane | Dow membranes are used. | Osmonics membranes are used. | <ul style="list-style-type: none"> Dow membranes are world No. 1 membrane. Easy availability & replacement |
| Non-return Valve | Provided | Not mentioned | <ul style="list-style-type: none"> Saving from costly repair as it protects the cartridges filters and high pressure pump from back flow. |
| Cabinet Mounted | Cabinet mounted completely enclosed system | Skid mounted open system. | <ul style="list-style-type: none"> Protect system from dust & foreign elements. Compact and attractive look. Trouble free & easy operation and maintenance. |
| Needle Valve | Provided. | Not Provided. | <ul style="list-style-type: none"> Protect the pressure gauges from damage. Increases the life of pressure gauges. |
| Flow Indicator | Three (feed, reject & permeate) flow indicators are provided. | Two (feed & permeate) flow indicators are provided. | <ul style="list-style-type: none"> Due to installation of reject flow indicator, the recovery of system can be optimised. |
| Flushing | Manual flushing provided. (Re-circulation loop is provided which help in automatic flushing of membrane at time of system start). | Auto flushing provided. | <ul style="list-style-type: none"> Auto flush is convenient but leads to wastage of water in case flushing is not required. |



Green area indicates feature benefit / advantage over Osmonics.