

Type I Compact - Combination Reverse Osmosis + Type I DI Systems



Features and Benefits

- ◆ Produces >18.2 Megohm-cm Type I water
- ◆ Analytical, biological & ultra-low TOC types
- ◆ Costs less than individual RO & DI systems
- ◆ Exceeds ASTM, CAP, NCCLS & USP Specs
- ◆ System runs on 12 VDC internal operation
- ◆ Accepts 100-240 VAC, 50/60 Hz power
- ◆ Certified by CSA for the US & Canada
- ◆ CE marked for export to Europe, Etc.
- ◆ Can be bench, shelf or wall-mounted
- ◆ Remote dispenser included in price
- ◆ 2-Year warranty - (Most Countries)
- ◆ User installable and serviceable
- ◆ 0.1 micron final filter capsule
- ◆ DI modules can be recycled
- ◆ Meets USP 29 specifications
- ◆ Complete instrumentation
- ◆ Fully automatic operation
- ◆ Continuous recirculation
- ◆ Made in the USA

Options and Upgrades

- ◆ Add a UV Sterilizer
- ◆ Provide RO or Type II/III DI water
- ◆ Upgrade RO capacity to 20 Liters/hour
- ◆ Upgrade RO storage tank to 130-200 Liters

Product Availability

AQUA SOLUTIONS Compact Reverse Osmosis (RO) plus Type I DI Systems combine a 10 or 20 Liter/hour Reverse Osmosis Pretreatment System with an Analytical, Biological, Ultra-low TOC Analytical, or Ultra-Low TOC biological grade Type I DI system, all enclosed in a **single cabinet**. Basic analytical and biological grade models are available with an optional **built-in UV sterilizer**.



Model RODI-C-12BL

These systems produce purified water that meets or exceeds ASTM, CAP, NCCLS, and USP 29 specs for Type I reagent grade water.

The Compact RO + DI System should be considered whenever:

- ◆ A Central DI System is either not available, or not planned, at any given site, and/or
- ◆ Incoming tap water contains more than 170 parts per million (PPM) of total dissolved solids, and/or
- ◆ Type I purified water usage exceeds 20 liters per day, or 100 liters per week.

Under these conditions, the RO + DI system can produce better quality water, **at lower cost**, than systems without built-in RO pretreatment.

This system is ideally suited for applications where the existing central RO, DI or distillation pretreatment system is either unreliable, overloaded (with regard to capacity), or nonexistent in a particular location. It is also suitable for applications where either space or funding limitations preclude purchasing separate RO and Type I DI systems.

The RO portion of the system features **fully automatic operation**. It includes an activated carbon prefilter, product and reject flow meters, one or two TFC (thin film composite) high-capacity RO cartridges, and an external 30, 42, 130, or 200 Liter pressurized tank for storing the RO purified water for later use by the DI system.

The Type I DI portion of the system features a high-purity TOC reduction and DI polishing module, **continuous recirculation**, a digital resistivity monitor that meets USP 29 specifications, a remote dispenser, and a 0.1 micron (absolute) final filter capsule.

AQUA SOLUTIONS Compact Reverse Osmosis plus Type I Reagent Grade DI Systems offer features and benefits that are not found on many other systems. **And, they are very competitively priced!**

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Type I Combination Reverse Osmosis + Type I DI Systems General Description & Specifications



Model Number General Description

- RODI-C-12A** Compact, combination Reverse Osmosis plus Type I **Analytical Grade** DI System for operation on tap water. **Requires Purification Kit Number 2613M1T-A** (not included in system price). Kit includes high purity TOC reduction DI module and a final filter capsule.
- RODI-C-12AU** Identical to Model RODI-C-12A above, except it includes a **built-in Ultraviolet (UV) Sterilizer** to prevent the growth of microorganisms within the system.
- RODI-C-12AL** Compact, combination Reverse Osmosis plus Type I **Ultra-low TOC Analytical Grade** DI System for operation on tap water. The system includes a **built-in UV Oxidizer/Sterilizer** to reduce TOC to the lowest possible levels, while preventing the growth of microorganisms within the system. **Requires Purification Kit Number 2613M1L-A** (not included in system price). Kit includes a high purity TOC reduction DI module and a final filter capsule.
- Note:** Models RODI-C-12B, 12BU, and 12BL (described below) include a **built-in Ultrafilter** to provide a 4-6 log reduction of pyrogen, endotoxin, DNase, and RNase, resulting in Type I water that is **pyrogen/endotoxin free and has no DNase/RNase activity**.
- RODI-C-12B** Compact, combination Reverse Osmosis plus Type I **Biological Grade** DI System for operation on tap water. **Requires Purification Kit Number 2613M1T-A** (not included in system price). Kit includes high purity TOC reduction DI module, and a final filter capsule.
- RODI-C-12BU** Identical to Model RODI-C-12B above, except it includes a **built-in Ultraviolet (UV) Sterilizer** to prevent the growth of microorganisms within the system.
- RODI-C-12BL** Compact, combination Reverse Osmosis plus Type I **Ultra-low TOC Biological Grade** DI System for operation on tap water. The system includes both a **built-in Ultrafilter** to provide a 4-6 log reduction of pyrogen, endotoxin, DNase, and RNase, and a **built-in UV Oxidizer/Sterilizer** to reduce TOC to the lowest possible levels, while preventing the growth of microorganisms within the system. **Requires Purification Kit Number 2613M1L-A** (not included in system price). Kit includes a high purity TOC reduction DI module and a final filter capsule.

Overall System Specifications



Cabinet dimensions	20" Wide x 20" High x 12" Deep
Operating weight	75 - 100 lbs
System power source	12 VDC switching power supply
12 VDC power supply input	100-240 VAC, 50/60 Hz at <2.5 Amps
12 VDC power supply output	12 VDC at 2.5 Amps
Minimum tap water inlet pressure	10 psi
Maximum tap water inlet pressure	100 psi
Total shipping weight	100-150 lbs
Tap water inlet connection	1/4" or 3/8" NPT



RO System Specifications

Nominal RO flow rate	10-20 Liters/hour
Max allowable TDS in feed water	1,000 PPM
RO recovery rate	25-33%
RO membrane type	TFC (thin film composite)
RO flowmeters	included
Activated carbon prefilter part #	CC1050
RO storage tank capacity	30 or 42 Liters
RO storage tank weight (full)	100-125 pounds
RO storage tank size	15" diameter by 20-25" high (optional 130 or 200 Liter storage tank is available)

Type I System Specifications

DI flow rate	2-3 Liters/minute
DI Resistivity	>18.2 Megohm-cm
Recirculating remote dispenser	included
0.1 micron final filter capsule	included
Recirculation	continuous
Number of DI Modules	one
Digital resistivity monitor	included
Ultrafilter cartridge	optional
UV oxidizer/sterilizer	optional
DI capacity	* ~2,000 grains as CaCO ₃