



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

Features and Benefits

- ◆ Produces 2 Liters/min 18.2 Meg Type I water
- ◆ Analytical, biological, ultra-low TOC models
- ◆ Costs less than individual RO & DI systems
- ◆ System runs on 12 VDC internal operation
- ◆ Exceeds ASTM, CAP, CLSI & USP Specs
- ◆ Accepts 100-240 VAC, 50/60 Hz power
- ◆ Certified by CSA for the US & Canada
- ◆ Can be bench, shelf or wall-mounted
- ◆ Meets latest USP water specifications
- ◆ CE marked for export to Europe, Etc
- ◆ Remote dispenser included in price
- ◆ 2-Year warranty - (most Countries)
- ◆ User installable and serviceable
- ◆ 0.2 micron final filter capsule
- ◆ DI modules can be recycled
- ◆ 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

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Product Availability

AQUA SOLUTIONS Compact Reverse Osmosis (RO) plus Type I DI Systems combine a 10 or 20 Liter/hour Reverse Osmosis Pre-treatment System with a 2-Liter/minute Analytical, Biological, Ultra-low TOC Analytical, or Ultra-Low TOC Biological grade Type I DI system, all enclosed in a **single cabinet**. Analytical and biological models are available with an optional **built-in UV sterilizer**.



These systems produce purified water that meets or exceeds ASTM, CAP, CLSI, and USP specifications 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 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 specifications, a remote dispenser, and a 0.2 micron (absolute) final filter capsule.

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

Type I Combination Reverse Osmosis + Type I DI Systems



- Model Number** **General Description**
- RODI-C-12A** Compact, combination Reverse Osmosis plus Type I *Analytical Grade* DI System for operation on any quality 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 any quality tap water. The system includes a *built-in, dual-wavelength 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 or RNase activity*.
- RODI-C-12B** Compact, combination Reverse Osmosis plus Type I *Biological Grade* DI System for operation on any quality 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, dual-wavelength 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" (508 mm) Wide x 20" (508 mm) High x 12" (305 mm) Deep
Operating weight	..... 75 - 100 lbs (34 - 45 kg)
Internal system power	..... 12 VDC @ 2.5 Amps from external switching power supply
External switching power supply	..... accepts 100-240 VAC @ 50/60 Hz
AL and BL Models	..... require dual 100-240 VAC @ 50/60 Hz outlet
Minimum/maximum tap water inlet pressure	..... 10/100 PSIG (0.7/6.7BAR)
Total shipping weight	..... 100-150 lbs (45-68 kg)
Tap water inlet connection	..... 1/4" or 3/8" NPT



RO System Specifications

Type I DI System and Purified Water Specifications

Nominal RO flow rate	..... 10 or 20 Liters/hour
Maximum allowable TDS in feed water	..... 1,000 PPM
RO recovery rate	..... 25-33%
RO membrane type	..... TFC (thin film composite)
RO product & reject flowmeters	..... included
Activated carbon prefilter part #	..... CC1050
RO storage tank capacity	..... 30 or 42 Liters Std
RO storage tank weight (full)	..... 100-125 lbs (45-57 kg)
RO storage tank size	..... 15.5" (394 mm) dia by 25" (508 mm) high (an optional 130 or 200 Liter RO storage tank is available)

Ion Exchange (DI) capacity	..... ~2,000 grains as CaCO ₃
Resistivity	..... 18.2 Megohm-cm
Bacteria	..... <1 cfu/ml
TOC (models AL and BL)	..... <5 PPB
TOC (models A, AU, B & BU)	..... <50 PPB
Endotoxin	..... <0.001 EU/ml
RNase	..... <0.01 ng/ml
DNase	..... <4 pg/μl
Flow rate	..... 2-Liters/minute
0.2 micron final filter capsule	..... included
Recirculation	..... continuous