



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
- ◆ 0.22 micron final filter capsule
- ◆ DI modules can be recycled
- ◆ Complete instrumentation
- ◆ Fully automatic operation
- ◆ Continuous recirculation
- ◆ **Made in the USA**

Options and Upgrades

- ◆ 2700PRD - Programmable Dispenser
- ◆ Provide RO or Type II/III DI water
- ◆ Upgrade RO capacity to 20 Liters/hour
- ◆ Upgrade RO storage tank to 60 -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 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, 60, 84, 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**, digital resistivity monitor that meets USP specifications, a remote dispenser, and a 0.22 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 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 2713M1T-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 2713M1L-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 2713M1T-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 2713M1L-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/AU and BL/BU Models require dual 100-240 VAC @ 50/60 Hz outlet	
	Minimum/maximum tap water inlet pressure 20/100 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 Liner Polypropylene
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) tall (Larger RO storage tanks are available)

Ion Exchange (DI) capacity ~3,000 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 (models B, BU, and BL) <0.001 EU/ml
RNase (models B, BU, and BL) <0.01 ng/ml
DNase (models B, BU, and BL) <4 pg/μl
Flow rate 2-Liters/minute
0.22 micron final filter capsule included
Recirculation continuous