

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

Features and Benefits

- Produces 2 Liters/min J8.2 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 J00-240 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

- 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 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, 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 0.22 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 very competitively priced!**



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Type I Combination Reverse Osmosis + Type I DI Systems



- Model Number** **General Description**
- RODI-C-1 2A** Compact, combination Reverse Osmosis plus Type I *Analytical Grade* DI System for operation on any quality tap water. *Requires Purification Kit Number 2613M 17-A* (not included in system price). Kit includes high purity TOC reduction DI module and a final filter capsule.
- RODI-C-1 2AU** Identical to Model RODI-C-1 2A above, except it includes a *built-in Ultraviolet (UV) Sterilizer* to prevent the growth of microorganisms within the system.
- RODI-C-1 2AL** 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 2613M 1L-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, 1 2BU, and 1 2BL (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 2613M 17-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- 1 2BL** 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 2613M 1L-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

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 port	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 (on optional 130 or 200 Liter RO storage tank is available)

Type I DI System and Purified Water Specifications

Ion Exchange (DI) capacity	-2,000 grains as CaCO ₃
Resistivity	18.2 Megohm-cm
Bacteria	< 1 du/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

