

CLiR 5000 SERIES

ULTRAPURE TYPE 1 LAB WATER SYSTEMS



RESINTECH INC.

INNOVATIONS IN ION EXCHANGE



ResinTech manufactures almost a million cubic feet of ion exchange resin every year in their U.S. factory.

Pioneering Water Purity Since 1986

Globally recognized as a leader in the use of ion exchange for water purification, ResinTech's industry-leading products are used in over 150 countries. Our mission is to ensure people and businesses get the greatest benefit from the water they rely on every day.

The Trusted Name in High-purity Deionization

For decades, ResinTech ion exchange media has been the critical component to achieving requisite water quality for high-purity applications ranging from semi-conductor manufacturing and laser applications to dialysis and ultrapure water for genetics.

ResinTech's legendary mixed-bed resins and deionization cartridges are trusted worldwide to drive low-TOC and resistivity as high as 18.2 MΩ-cm. In fact, ResinTech media sits inside many of the most widely used Type I lab water systems in the world.



ResinTech MBD-15-LTOC mixed-bed ion exchange resin



THE CLiR DIFFERENCE

With the launch of CLiR lab water systems, ResinTech is leveraging our experience in media and filter production to become the world's only vertically integrated lab water system manufacturer. Our goal is to provide the most dependable, self-serviceable, and affordable Type I water systems for laboratories. Our singular ability to manufacture the entire system — the media, the consumables, and the hardware — in our ISO-certified U.S. factory ensure superior quality control and unequalled value.

MODELS TAILORED TO YOUR NEEDS

The CLiR series, including models 5100, 5200, 5300, and 5400, offer specific features tailored to various laboratory requirements. From general lab applications to specialized fields like trace metal analysis and life sciences, each system is designed with your lab's unique needs in mind.

CLiR 5100

GENERAL CHEMISTRY



GENERAL CHEMISTRY APPLICATIONS

- Academia
- Reagent Grade Solutions
- Trace Metals Detection
- Clinical Diagnostics
- Atomic Absorption

EFFLUENT WATER

Resistivity	18.2 MΩ-cm
Flow Rate	up to 2.5 LPM
Bacteria	< 1 CFU/ml
Endotoxin	See 5300 & 5400
Particulates	< 0.2 µm
TOC	< 10 ppb
RNase	See 5300 & 5400
DNase	See 5300 & 5400

FEATURES

- Real-time Water Quality Monitoring
- Self-service Consumables
- Flexible Mounting Options*

Model Part Numbers	Description
CLS-5100-S-1	Benchtop base system, 120V/60Hz
CLS-5100-S-2	Benchtop base system, 220V/50Hz
CLS-5100-R-1	Remote dispense configuration base system, 120V/60Hz
CLS-5100-R-2	Remote dispense configuration base system, 220V/50Hz

* Remote dispense option allows you to position your system on a wall or under the sink.

CLiR 5200

ANALYTIC CHEMISTRY



ANALYTIC CHEMISTRY APPLICATIONS

- High Performance Liquid Chromatography (HPLC)
- Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
- Trace Organics
- Electrochemistry

EFFLUENT WATER

Resistivity	18.2 MΩ-cm
Flow Rate	up to 2.5 LPM
Bacteria	< 1 CFU/ml
Endotoxin	See 5300 & 5400
Particulates	< 0.2 µm
TOC	< 5 ppb
RNase	See 5300 & 5400
DNase	See 5300 & 5400

FEATURES

- Real-time Water Quality Monitoring
- Self-service Consumables
- Flexible Mounting Options
- + UV Oxidation
- + TOC Monitoring (Optional)

Model Part Numbers	Description
CLS-5200-S-1	Benchtop base system with UV oxidation Lamp installed, 120V/60Hz
CLS-5200-S-2	Benchtop base system with UV oxidation Lamp installed, 220V/50Hz
CLS-5200-R-1	Remote dispense configuration with UV oxidation Lamp, 120/60Hz
CLS-5200-R-2	Remote dispense configuration with UV oxidation Lamp, 220/60Hz
CLS-5200-S-1-TOC	Benchtop base system, 120V/60Hz with UV and TOC Monitoring
CLS-5200-S-2-TOC	Benchtop base system, 220V/50Hz with UV and TOC Monitoring
CLS-5200-R-1-TOC	Remote dispense configuration base system, 120V/60Hz with UV and TOC Monitoring
CLS-5200-R-2-TOC	Remote dispense configuration base system, 220V/50Hz with UV and TOC Monitoring

CLiR 5300

BIOLOGIC CHEMISTRY



BIOLOGIC CHEMISTRY APPLICATIONS

- Life Sciences
- Cell Culture
- Electrophoresis
- Immunochemistry

EFFLUENT WATER

Resistivity	18.2 MΩ-cm
Flow Rate	up to 2.0 LPM
Bacteria	< 1 CFU/ml
Endotoxin*	<0.005 EU/ml
Particulates	< 0.05 µm
TOC	< 10 ppb
RNase	< 0.01 ng/ml
DNase	< 4 pg/µl

* <0.001 EU/mL with optional Endotoxin Final Filter

FEATURES

- Real-time Water Quality Monitoring
- Self-service Consumables
- Flexible Mounting Options

+ Ultrafiltration

Model Part Numbers	Description
CLS-5300-S-1	Benchtop base system with Ultrafiltration module, 120V/60Hz
CLS-5300-S-2	Benchtop base system with Ultrafiltration module, 220V/50Hz
CLS-5300-R-1	Remote dispense configuration with Ultrafiltration module, 120V/60Hz
CLS-5300-R-2	Remote dispense configuration with Ultrafiltration module, 220V/50Hz

CLiR 5400

GENETIC CHEMISTRY



GENETIC CHEMISTRY APPLICATIONS

- Genetics
- DNA sequencing
- Polymerase Chain Reaction (PCR)
- Forensics
- Molecular Biologynsics

EFFLUENT WATER

Resistivity	18.2 MΩ-cm
Flow Rate	up to 2.0 LPM
Bacteria	< 1 CFU/ml
Endotoxin*	<0.005 EU/ml
Particulates	< 0.05 µm
TOC	< 5 ppb
RNase	< 0.01 ng/ml
DNase	< 4 pg/µl

* <0.001 EU/mL with optional Endotoxin Final Filter

FEATURES

- Real-time Water Quality Monitoring
- Self-service Consumables
- Flexible Mounting Options
- + UV Oxidation
- + Ultrafiltration
- + TOC Monitoring (Optional)

Model Part Numbers	Description
CLS-5400-S-1	Benchtop base system with UV and UF installed, 120V/60Hz
CLS-5400-S-2	Benchtop base system with UV and UF installed, 220V/50Hz
CLS-5400-R-1	Remote dispense configuration - with UV and UF installed, 120V/60Hz
CLS-5400-R-2	Remote dispense configuration - with UV and UF installed, 220V/50Hz
CLS-5400-S-1-TOC	Benchtop base system, 120V/60Hz with UV, UF, and TOC Monitoring
CLS-5400-S-2-TOC	Benchtop base system, 220V/50Hz with UV, UF, and TOC Monitoring
CLS-5400-R-1-TOC	Remote dispense configuration base system, 120V/60Hz with UV, UF, and TOC Monitoring
CLS-5400-R-2-TOC	Remote dispense configuration base system, 220V/50Hz with UV, UF, and TOC Monitoring

Testimonials

CLiR lab water systems are relied upon by the world's most respected educational and scientific institutions, including the National Institute of Health, the Food & Drug Administration, and Oak Ridge National Laboratory.

See why the world's top scientific institutions choose CLiR...

“ CLiR lab systems were a game-changer for our contract laboratory spaces. With 25 systems in place, we project to save nearly \$500,000 in consumables over ten years. That’s real money.”

- Phil Rinaldi (Real Estate Developer from Philadelphia, PA)

“ When consumables exhaust, your lab is really unproductive. Not only do CLiR consumables last longer, but they are made in the U.S., which means they are easier to get when we need them.”

- Dr. Rachel Morgan (Professor from Stanford, CA)

“ I love the simplicity and intuitiveness of the CLiR lab system. The touch screen interface, volumetric presets, and quick-change consumables make it a breeze to use and maintain, ensuring our lab operations run smoothly.”

- Emma Mitchell (Lab Manager from Raleigh, NC)

“ The flexibility of the CLiR lab system is unparalleled. The remote dispense option allows us to seamlessly integrate the system into our lab designs.”

- Alex Turner (Architect / Engineer from Austin, TX)

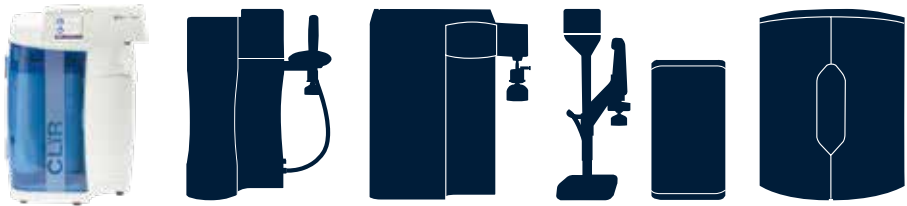
“ We were using ResinTech DI resin in our manufacturing facility. Since the water quality in the plant was dependable, it made sense to trust it for R&D as well. The CLiR system has consistently delivered the water quality we expect.”

- Daniel Thompson (R&D Director from Chicago, IL)

The Value of Vertical Integration

Our singular ability to manufacture the entire system – the media, the consumables, and the hardware – in our ISO 2015-9001 certified U.S. factory ensure superior quality control in and unequaled value.

CONSUMABLE VALUE COMPAISON



CLiR 5000 Series Brand T Brand S Brand M Brand E

	CLiR 5000 Series	Brand T	Brand S	Brand M	Brand E
Volume of Resin (Liters)	4.3	1.7	2.8	1.4	1.7
Cartridge List Price	\$765	\$1,010	\$1,070	\$1,474	\$847
Flow Rate	2.5	2.0	1.7	2.0	2.0
Throughput (Liters)*	10,940	3,990	5,817	3,140	3,975
Cost per Liter of Water	\$0.07	\$0.25	\$0.18	\$0.47	\$0.21
Annual Total Consumable Cost**	\$2,690	\$5,365	\$4,168	\$4,808	\$4,232
Annual Savings with CLiR	-	\$2,675	\$1,478	\$2,118	\$1,542
Made in the USA	Yes	No	No	No	No

* Assumes RO feed at 10 ppm.










** Based on manufacturer's recommended replacement interval.

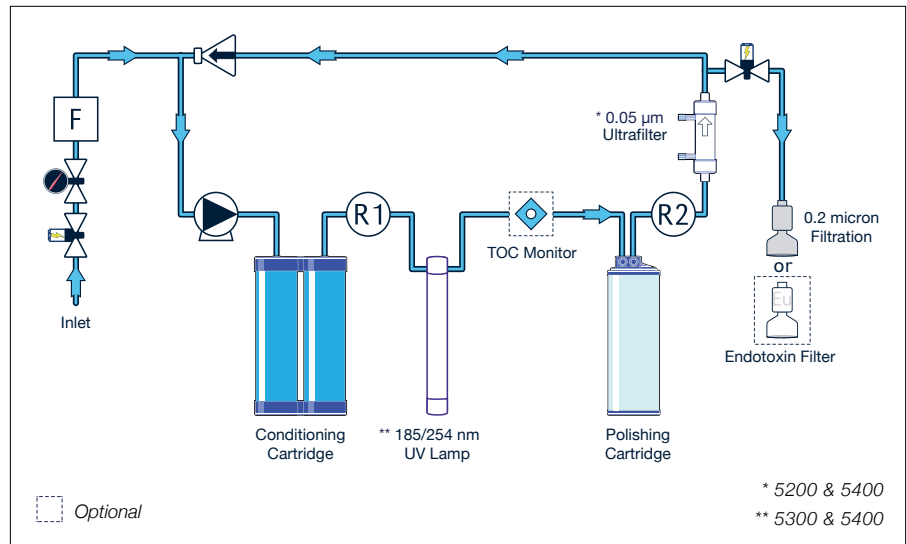


Scan the QR code to learn more.

System Overview

SYSTEM FLOW SCHEMATICS

-  Direction of Flow
-  Solenoid
-  Pump
-  Check Valve
-  Conditioning Resistivity Sensor
-  Final Resistivity Sensor
-  Pressure Regulating Valve
-  Final Filter
-  Flow Sensor



Height:
21.6 in
(54.8 cm)

Depth:
14.4 in
(36.5 cm)

Width:
14.7 in
(37.0 cm)

SYSTEM REQUIREMENTS

Source/Type	Reverse osmosis (RO) or Service deionization (SDI)
Conductivity	RO: < 20µS/cm SDI: > 1 MΩ (Resistivity)
Power	110 VAC 60 Hz (1.0 amp) 220 VAC / 50 Hz (0.5 amp)
TOC	RO: < 50 ppb or SDI: < 200 ppb
Temperature	4°C to 38°C

Options & Consumables

INSTALLED OPTIONS & ACCESSORIES*

Part Number	Description
CLA-5000-DF	Direct Feed Port
CLA-5000-DG	Recirculating Dispensing Gun with 0.2 micron capsule filter
CLA-5000-WB	Wall Mount Bracket

* Options must be preordered for factory installation.

CONSUMABLES SOLD SEPERATELY

Part Number	Description
CLF-5000-C1	Dual Conditioning Cartridge (RO Feed)
CLF-5000-C2	Dual Conditioning Cartridge (SDI / TAP Feed)
CLF-5000-P1	Polishing Ultrapure Cartridge
CLF-5000-P2	Polishing Ultrapure Low Organics Cartridge
CLF-XX-6402	POU 0.2 micron Capsule Filter - 1/4" MNPT x 1/4" hose barb
CLF-5000-02E	POU 0.2 micron Endotoxin Removal Capsule Filter - 1/4" MNPT x 1/4" hose barb
CLF-5000-005**	0.05 micron Ultrafilter - 3/8" Quick Disconnect Fitting (Pre-installed in 5300 and 5400 only)

** Pre-installed in 5300 and 5400 only

OTHER CONSUMABLES

Part Number	Description
CLX-5000-016	UV Bulb 254/185nm TOC Destruct
CLF-5000-F17	Sanitization Cartridge Only
CLX-5000-017	Sanitization Kit (includes cartridges, conditioning pack bypass, test strips, and gloves)



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