

## Cascada I Specifications

Output Water Quality	
Water Type	I
Resistivity (MΩ·cm @ 25 °C)	18.2
TOC (ppb)	< 5***
Output Flow Rates	Up to 2 L/min
Bacteria (cfu/mL)	< 0.1 *
Particles (> 0.2 μm)	< 1/mL*
Endotoxin (Eu/mL)	< 0.001**

\* With 0.2 μm bacteria removal final filter  
 \*\* With positive charged Nylon KA1 endotoxin removal final filter  
 \*\*\* With feed TOC less than 50 ppb

Feed Water Requirements	
Conductivity	< 100 μs/cm @ 25 °C
Pressure	< 6 bar
Temperature	5 ~ 40 °C
Dimension (mm)	
System	H 575 x W 366 x D 492
Reservoir	H 1200/900/600 x W 390 x D 384
Dispensing Station	H 845 x W 280 x D 300
Dry Weight (kg)	
System	23
Reservoir	5 (35 L); 7 (70 L); 9 (105 L)
Dispensing Station	6
Electrical Requirements	
Input Voltage	100-240 V 50-60 Hz
Power	200 VA

Ordering Guide			
Part Number	Description		
LW31101	Cascada I system		
Consumables		Accessories	
LW32201	Ultrapure Cartridge 1 RO feed	LW32401	PE Reservoir 35 L
LW32202	Ultrapure Cartridge 2 DI feed	LW32402	PE Reservoir 70 L
LW32203	Ultrapure Cartridge 3 Low TOC	LW32403	PE Reservoir 105 L
LW32204	Ultrapure Cartridge 4 Low Boron	LW33601	TOC Indicator kit
LW32301	Final Filter - Particulate	LW32502	Reservoir UV Sanitization Module
LW32302	Final Filter - Bacteria	LW33502	Reservoir Resistivity Kit
LW32303	Final Filter - Endotoxin	LW32601	Remote Dispenser With Station Type 1
LW35101	UV Lamp 185/254 nm	LW32604	Flexible Dispenser Type 1
LW32207	Reservoir UV Lamp 254 nm	LW33501	Resistivity Monitor Pre-DI
LW32501	Vent Filter for Reservoir	LW32801	Sanitization Box
LW33802	Printer Paper	LW33701	Foot Switch
Service		LW32702	Inlet Decompression Valve
LW34001	Validation Documents-C1	LW33801	Printer
LW34002	Validation Service-Cascada		



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# Cascada™ I

## Integrated Laboratory Water Purification System



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Filtration. Separation. Solution.<sup>SM</sup>



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PN 12004

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## Integrated. What you see is what you get.

The Cascada I Laboratory Water Purification System is fully integrated to produce up to 2 L/min of Type I ultrapure water. Real-time water quality and operating conditions are displayed on the dispensing interface. A compact dispensing stand (28x30 cm) offers true flexibility to users to maximize bench space utilization and to locate the dispenser at the most convenient point of use.



► **Type I water** from the Cascada I system meets or exceeds Type I water standards as specified by ASTM, CAP, ISO 3696, CLSI, JIS K0557 and high-purity water as described in USP, EP and ChP. Type I water is required for critical laboratory applications such as:

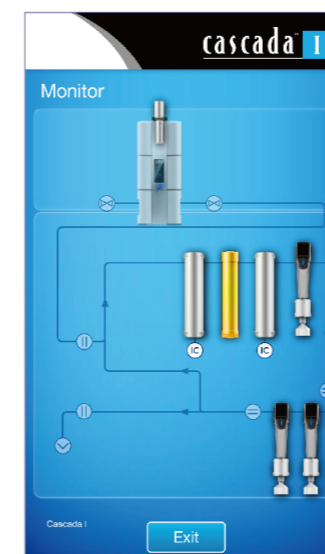
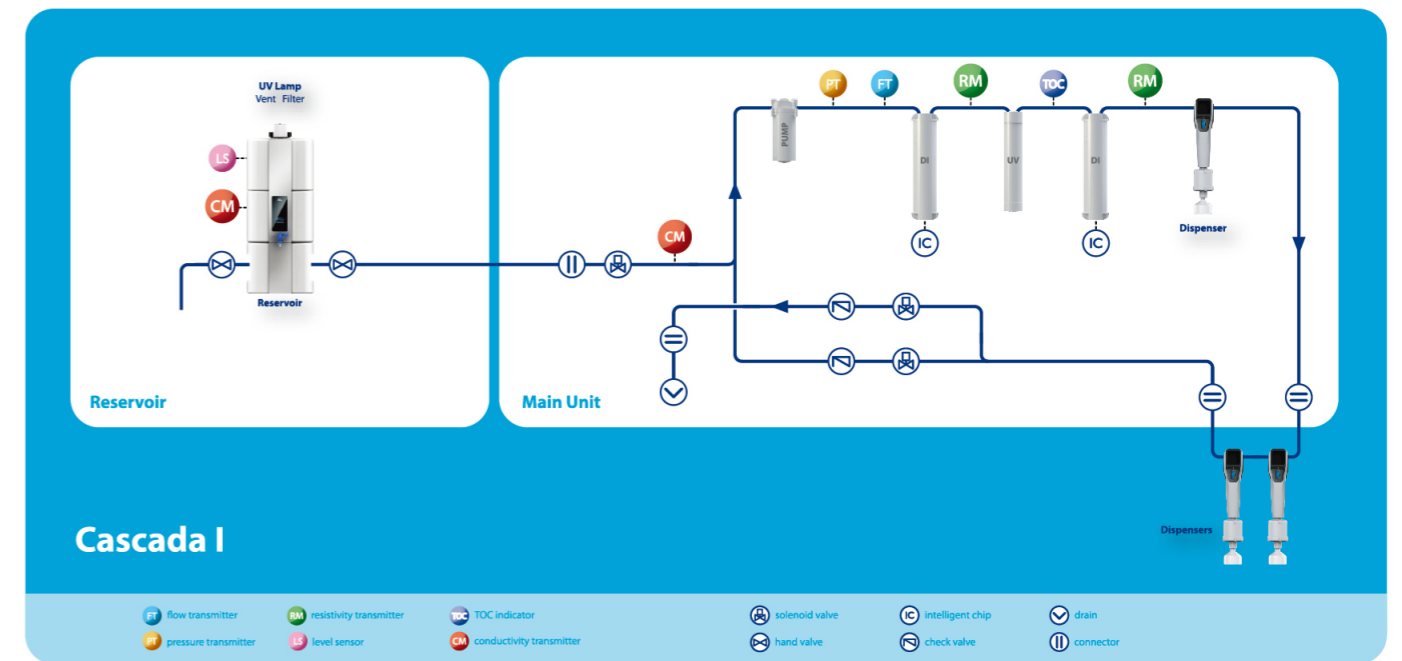
- Analytical instrumentations: HPLC, UPLC, AA, ICP, LC-MS, GC-MS, ICP-MS, Ion Chromatography, Electrochemistry, Particle Counter, TOC Analysis
- Life science instrumentations: PCR, DNA sequencing, electrophoresis
- Preparations for cell culture, molecular biology and monoclonal antibody applications

► **Choice of final filters** to match your application needs:

- 0.2 µm for bacteria removal
- 0.1 µm for particulate removal
- Positively-charged capsule for RNases, DNases and endotoxin removal

► **Flexible dispensing options** on the Cascada I system allow you to draw Type I water either directly from the flexible dispenser on the system, or from two additional remote dispensers each placed up to 2.9 m away (up to 5.8 m in serial). Each dispenser may also be placed on a stand or used freely from up to 0.8 m away.

- **Real-time resistivity and Total Organic Carbon (TOC) levels are monitored and displayed “in your hand” ... what you see is what you get.**
- Choice of dispensing modes:
  - constant flow rates with choices from drops to 2.0 L/min.
  - fixed volume (up to 90 L).
- Routine system control functions are fully available on the dispenser including “Print Report” for Good Laboratory Practices. This allows maximum bench space utilization. For example, both main system and reservoir may all be placed under the bench.



- **Choice of deionization cartridges with IC tag** to meet your applications:
  - Standard high volume polishers.
  - Low TOC for sensitive analysis.
  - Low Boron for ICP analysis.
- **UV technology** offers effective oxidation of organic materials and enables rapid water quality recovery upon system re-starts.
- **Total Organic Carbon (TOC) monitoring** option offers reliable real time results.
- **Automated disinfection processes** ensure complete system sanitization.
- **Integrated leakage sensor** with unique base cover will detect presence of water droplet 1 mm from the discharge point.
- **Monitor screen** provides scientific criteria for consumables management based on:
  - Flow rate and pressure sensing
  - Usage time
  - Water quality monitoring
- **7” touch screen** offers friendly and intuitive user experience:
  - “Touch” sequences similar to smart phones encourage new users to operate with ease
  - Color-coding (Red, Amber, Blue) and *Flashing* indicators offer guidance to any non-routine actions needed and their urgency/criticality
  - Unmatched “width” and “depth” of system control
- **Displayed languages** are selectable in English, Chinese, Japanese, or Korean to suit user’s preference.