

AVIDITY™ SCIENCE

cascada™ I

Integrated Laboratory Water Purification System



Enabling science to improve the quality of life



保吉生化學股份有限公司
BIO-CHECK LABORATORIES LTD.

台北 | (02) 2246- 7799
台中 | (04) 2371- 9412
台南 | (06) 238- 9287
高雄 | (07) 222- 9968



www.BIO-CHECKLIFE.com.tw

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:

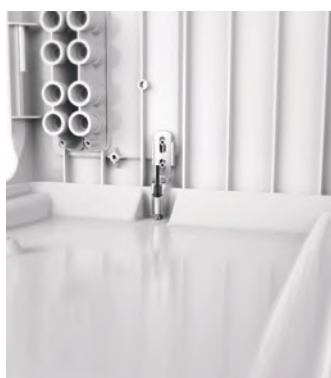
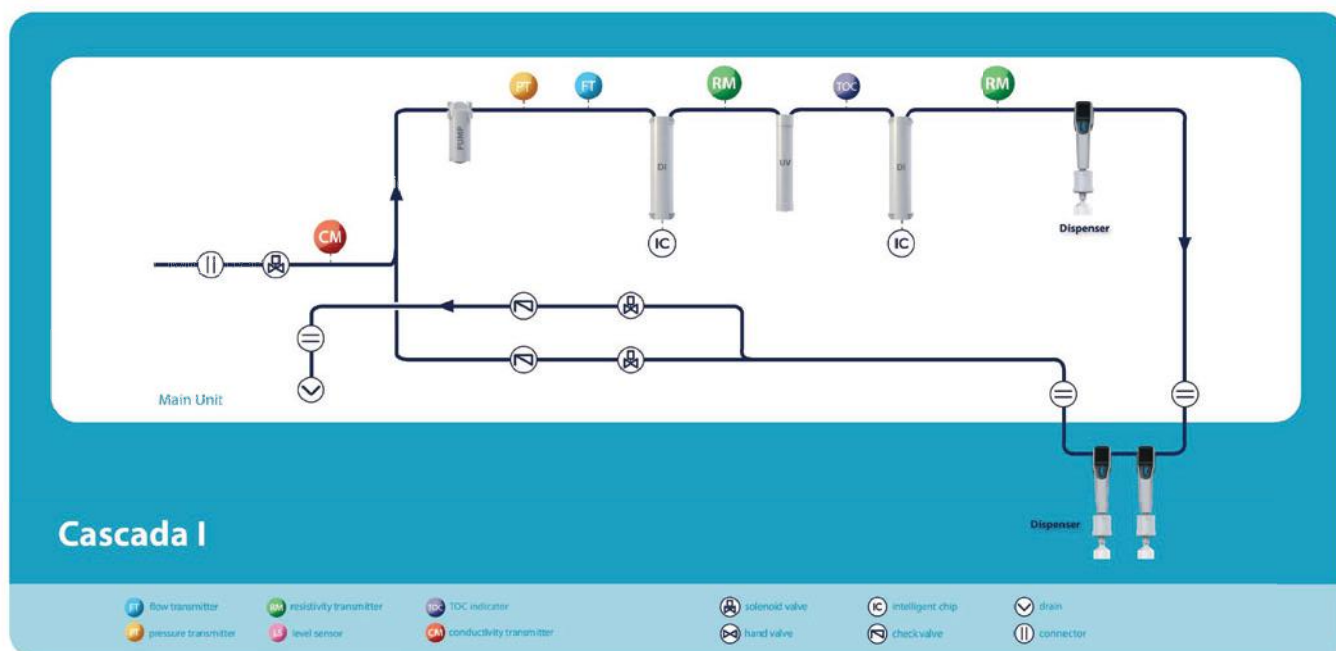
- Analytical instrumentations: HPLC, UPLC, AA, ICP, LC-MS, GC-MS, ICP-MS, Ion Chromatography, Electrochemistry, Particle Counter, TOC Analysis
- Life science instrumentations: PCR, DNA sequencing, electrophoresis
- Preparations for cell culture, molecular biology and monoclonal antibody applications

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

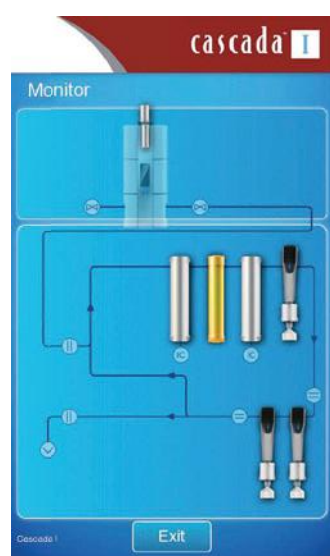
- 0.2 µm for bacteria removal
- 0.1 µm for particulate removal
- Positively-charged capsule for RNases, DNases and endotoxin removal

► **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.

Cascada I Specifications

Output Water Quality	
Water Type	I
Resistivity (MΩ.cm @ 25°C)	18.2
TOC (ppb)	< 5****
Bacteria (CFU/ml)	< 0,01
Particles (>0,2µm)	< 1/ml*
Endotoxin (EU/ml)	< 0,001**
RNASE (pg/ml)	< 1***
DNASE (pg/ml)	< 5***
PROTEASE (µg/ml)	< 0,15****
Output Flow Rate	Up to 2 L/min

* With LWFS32302 final filter
** With LWFS32303 final filter
*** With TC004 final filter
**** With feed water TOC less than 50 ppb

Ordering Guide	
Part Number	Description
LWFS31101	Cascada I system
LWFS31101C	Cascada I system with Feed water conductivity
LWFS31101T	Cascada I system with TOC indicator
LWFS31101TC	Cascada I system with TOC indicator & Feed water

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
Dispensing Station	H 845 x W 280 x D 300
Dry Weight (kg)	
System	23
Dispensing Station	6
Electrical Requirements	
Input Voltage	100-240 V 50-60 Hz
Power	200 VA



Avidity Science (Zhejiang) Co., Ltd.
Bld F, No. 1332, WanGuo Road, EDZ, Jiaxing, Zhejiang, China. 341001
T: +86 (0)573 8282 8199 | E: CH.Info@avidityscience.com
www.AvidityScience.com

Avidity Science, Ltd.
Unit D4 Drakes Park, Long Crendon Industrial Estate, Bucks. HP18 9BA UK
T: +44 (0)1844 201142 | E: EMEA.Info@avidityscience.com
www.AvidityScience.com/en_gb

Avidity Science, K.K.
Izumi Akasaka Building 6th Floor, 2-22-24 Akasaka Minato-ku, Tokyo 107-0052
T: +81 (0)3 6277 8440 | E: JP.Info@avidityscience.com
www.AvidityScience.com

Avidity Science, LLC.
819 Bakke Avenue Waterford, Wisconsin 53185 USA
T: +1 262-534-5181 | E: US.Info@avidityscience.com
www.AvidityScience.com

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