

AVIDITY™

SCIENCE

cascaTM III

Integrated Laboratory Water Purification System



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Integrated. What you see is what you get.

The Cascada III Laboratory Water Purification System is fully integrated to produce up to 30 L/hr of Type III water directly from tap water. It dispenses Type III pure water at up to 2 L/min from a flexible dispenser or at more than 2 L/min directly from the reservoir. 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.



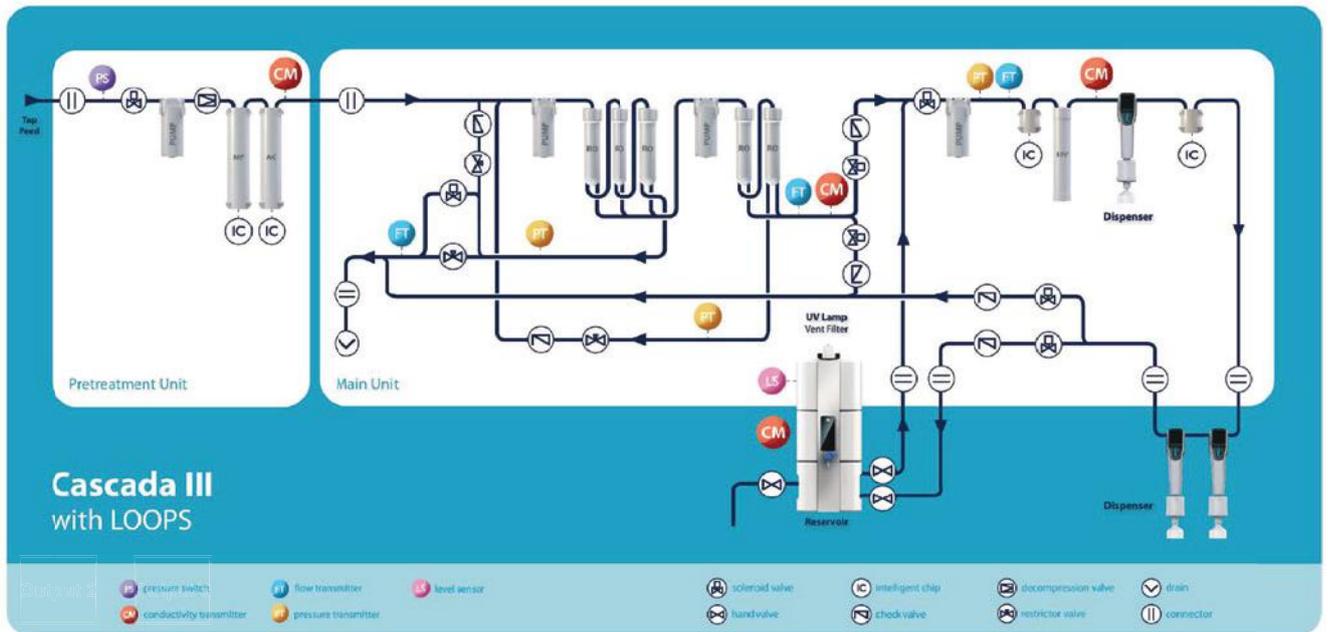
► **Type III water** is required for sensitive laboratory applications:

- Microbiology media preparations
- Final rinsing for most laboratory apparatus
- As feed water for:
 - Type I ultrapure water systems
 - automated glassware washers
 - humidity chambers
 - sterilizers

► **Integrated controls** on the Cascada III system enable Type III water to be always available from the reservoir. Water quality is maintained by optimizing UV sterilization and CO₂ vent filtration.

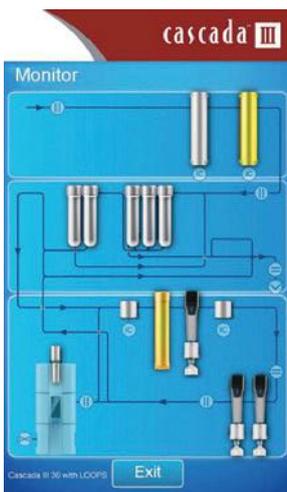
► **Flexible dispensing options** on the Cascada III system allow you to draw Type III water in 3 ways: directly from the reservoir tap, from a flexible dispenser on the system, or from two additional remote dispensers each placed up to 2.9 m away (up to 5.8 m in serial). Each dispenser may also be placed on a stand or used freely from up to 0.8 m away.

- **Real-time water quality is displayed on both the dispenser and the main monitor ... what you see is what you get.**
- Dispense rates of >2 L/min from the tap, or up to 2 L/min from the remote dispenser, enables >120 L/hr availability for peak period usage.
- 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, main system, pre-treatment module and reservoir may all be placed under the bench.



► Integrated Reverse Osmosis Technologies

- Patented 2-stage reverse osmosis technology enables superior and stable output quality. Output conductivity of 5 $\mu\text{s}/\text{cm}$ is typical from tap water as challenging as 2,000 $\mu\text{s}/\text{cm}$.
- Superior RO purification with up to 99% ion rejection rate. It improves life expectancy of final filters.



► 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.

► Integrated Pre-Treatment Module

- Integrated controls on inlet water pressure and monitoring of flow rates to optimize system operations. Optional booster pump available.
- 3.2" screen displays color-coded operating condition of each component.
- Choice of cartridges based on local tap water condition:
 - Silt Density Index (SDI)
 - Chlorine
 - Bacterial
- Easy cartridge replacement.
- An additional leakage sensor may be placed inside the pre-treatment module and will detect presence of water droplet as close as 1 mm.



Cascade III Specifications

Output Water Quality	
Water Type	III
Conductivity	< 5 µS/cm @ 25°C (Typical)
Ion Rejection Rate	> 99%
Organic Rejection Rate	> 99%
Bacteria (CFU/ml)	< 0.01*
Particles (>0.2µm)	< 1/ml*
Output Flow Rate	Up to 2 L/min

* With LWFS32302 final filter

Feed Water Requirements	
Conductivity	< 2000 µS/cm @ 25°C
Pressure	0.5 ~ 6 bar
Temperature	5 ~ 40°C
Free chlorine	< 3 ppm
Silt Density Index	< 12
pH	4 ~ 10
Dimension (mm)	
System	H 575 x W 366 x D 492
Reservoir	H 1200/900/600 x W 390 x D 384
Pre-Treatment	H 463 x W 220 x D 380
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)
Pre-Treatment	7
Dispensing Station	6
Electrical Requirements	
Input Voltage (V)	100-240 V 50-60 Hz
Power	200 VA Main Unit 75 VA Pretreatment

Output Flow Rates			
System	RO	From tank	From dispenser
Cascade III 5	5 L/h	≥ 2 L/min*	Up to 2 L/min
Cascade III 10	10 L/h	≥ 2 L/min*	Up to 2 L/min
Cascade III 20	20 L/h	≥ 2 L/min*	Up to 2 L/min
Cascade III 30	30 L/h	≥ 2 L/min*	Up to 2 L/min

* From tap on reservoir

Ordering Guide	
Part Number	Description
LWFS31405	Cascade III system 5L/H
LWFS31405R	Cascade III system 5L/H with Reservoir conductivity
LWFS31405L	Cascade III system 5L/H with Loop
LWFS31410	Cascade III system 10L/H
LWFS31410R	Cascade III system 10L/H with Reservoir conductivity
LWFS31410L	Cascade III system 10L/H with Loop
LWFS31420	Cascade III system 20L/H
LWFS31420R	Cascade III system 20L/H with Reservoir conductivity
LWFS31420L	Cascade III system 20L/H with Loop
LWFS31430	Cascade III system 30L/H
LWFS31430R	Cascade III system 30L/H with Reservoir conductivity
LWFS31430L	Cascade III system 30L/H with Loop



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