

ELGA

# PURELAB® Chorus

Solutions for Type I Ultrapure Water





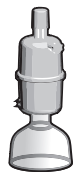


# Configure your solution

## Step 1: Choose your system

Typical Applications	Select The Impurities You Want To Remove	Integrated Purification Technology					Your System and Part Number
		Advanced deionization (PureSure)	Real Time TOC Monitoring	Ultra-filtration	Micro-filtration	184nm / 254nm UV lamp (Full Spectrum UV)	
PCR, Preparation of buffers and culture media for mammalian cell culture, IVF, reagents for molecular biology	Nucleases (RNase / DNase)	✓	✓	✓	●	✓	<div>PURELAB Chorus 1 Life Science</div> <div></div> <div>Part No. PC1LSCXM1</div>
	Bacterial Endotoxin and Pyrogens						
	Inorganics (e.g. Iron, Lead and Copper)						
	Organics (e.g. Pesticides, Herbicides, Decayed Plant and Animal Tissues)						
	Bacteria (<0.1 CFU/ml)						
	Particulates (Ultrafiltration <0.01µm)						
HPLC mobile phase preparation; blanks Sample dilution in GC, HPLC, AA, ICP-MS and other advanced analytical techniques	Trace Ions (e.g. Silica & Boron)	✓	✓	●	✓	✓	<div>PURELAB Chorus 1 Analytical Research</div> <div></div> <div>Part No. PC1ANRXM1</div>
	Inorganics (e.g. Iron, Lead and Copper)						
	Organics (e.g. Pesticides, Herbicides, Decayed Plant and Animal Tissues)						
	Bacteria (<0.1 CFU/ml)						
	Particulates (Microfiltration <0.05µm)						
Electrochemistry  Electrophoresis	Inorganics (e.g. Iron, Lead and Copper)	✓	●	●	●	●	<div>PURELAB Chorus 1 General Science</div> <div></div> <div>Part No. PC1GSCXM1</div>
	Organics (e.g. Pesticides, Herbicides, Decayed Plant and Animal Tissues)						
	Bacteria (<1 CFU/ml)						
	Particulates (≥0.2µm)						
PURELAB Chorus's unique integral recirculation maintains constant peak water purity and photo-oxidation ensures low bacterial counts. See TN014, TN015, TN016.		Technology Notes					
		TN024 TN025 TN026 TN027	TN028 TN029	TN038	TN038	TN017 TN036	TN014 TN015 TN016

## Step 2: Choose how you dispense

## Step 3: Optimize

Performance						Your Dispenser and Part Number	Optional Foot Switch Dispense	Optimize Your Water Purity at the Point-of-use
Purity Monitoring Right to the Point-of-Use	Auto Volume Dispense	Variable Flow Rate Dispense	Drop by Drop Control	Locked Dispense	Flexible Handset			Filter and Part Number
✓	✓	✓	✓	✓	✓	 <p>Halo Flexible Dispenser</p> <p>Part No. LA756</p>	✓	<p><b>Biofilter</b></p> <p>Endotoxin removal (&lt;0.001 EU/ml)</p> <p>DNase removal (&lt;20 pg/ml)</p> <p>RNase removal (&lt;0.002 ng/ml)</p>
✓	✓	✓	✓	✓	•	 <p>Halo Advanced Dispenser</p> <p>Part No. LA755</p>	✓	 <p>Part No. LC197</p>
								Technology Note
								TN030 TN031
•	•	✓	✓	✓	•	 <p>Halo Dispenser</p> <p>Part No. LA754</p>	✓	<p><b>Microfilter</b></p> <p>Particulate removal (≥0.2 µm)</p>  <p>Part No. LC134</p>

To download Technology Notes, please visit [www.elgalabwater.com](http://www.elgalabwater.com)

## Step 4: Choose your dispense position



**Integrated Halo Dispenser**



**Wall Mounted with Halo Dispenser integrated underneath**  
(LA769 – Wall Mounting Kit)



**Independent Halo Dispenser**  
(LA768 – Halo Dispense Mounting Kit)

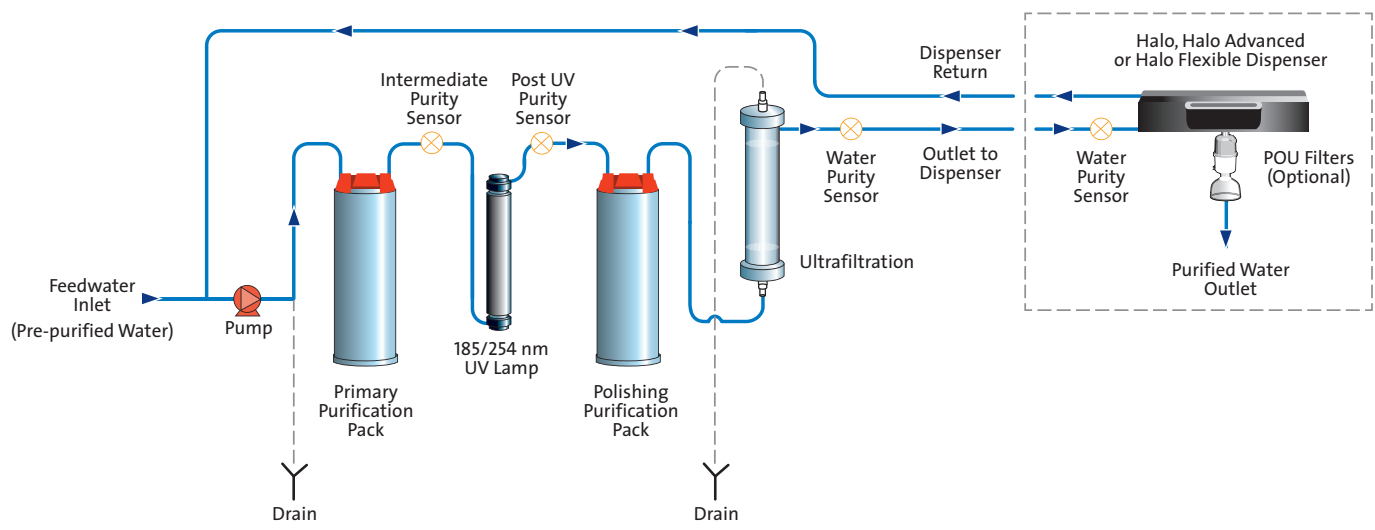


**PURELAB Chorus 1 with integral and independent Halo Dispenser**  
(Up to four Halo Dispensers in any combination can be connected together)

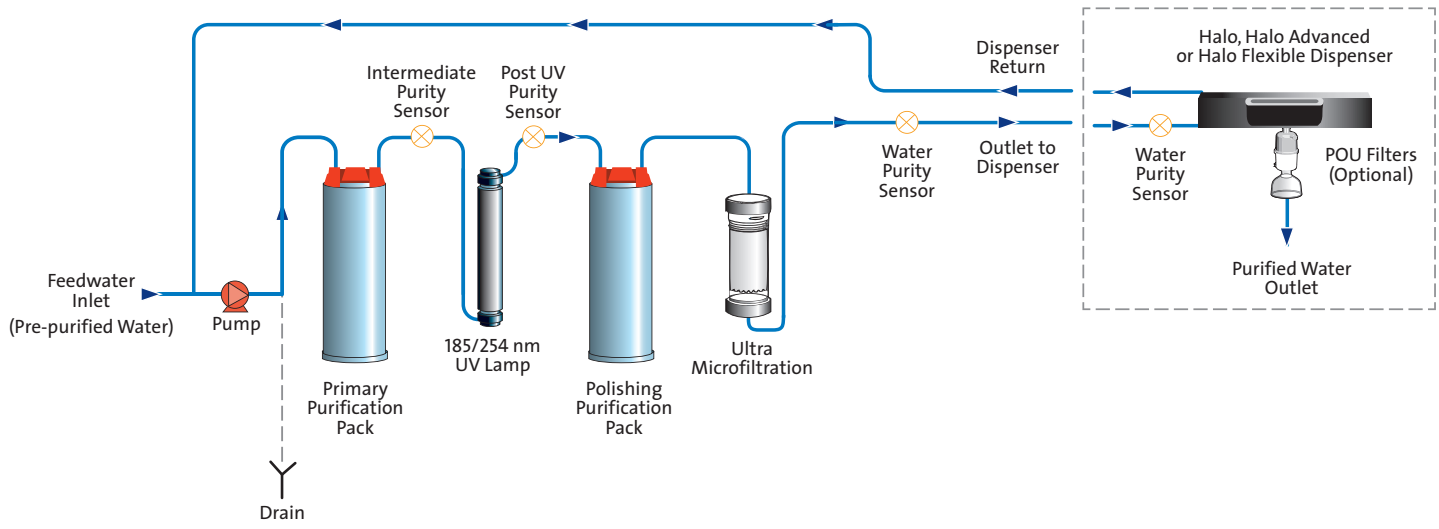


# What's inside?

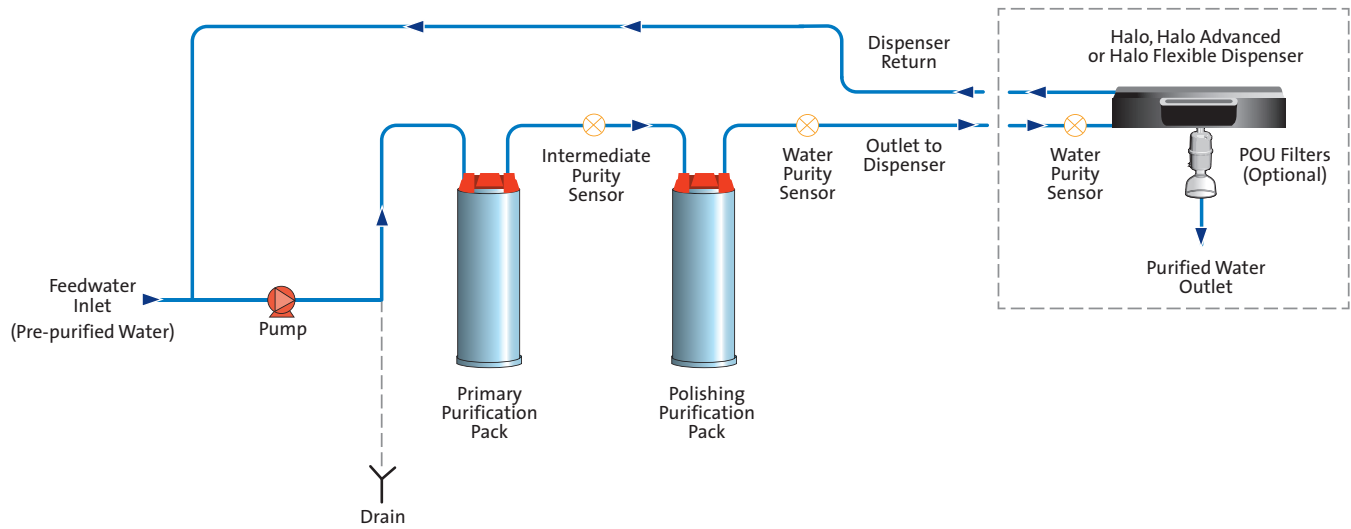
## PURELAB® Chorus 1 – Ultrapure Water for Life Science Applications



## PURELAB® Chorus 1 – Ultrapure Water for Analytical Research Applications



## PURELAB® Chorus 1 – Ultrapure Water for General Science Applications



## Treated Water Specifications

APPLICATION	Life Science	Analytical Research	General Science
Dispense Flowrate	Up to 2.0 l/min <sup>3</sup>	Up to 2.0 l/min <sup>3</sup>	Up to 2.0 l/min <sup>3</sup>
Inorganics @ 25°C	18.2 MΩ-cm	18.2 MΩ-cm	18.2 MΩ-cm
Total organic carbon (TOC)	1-3 ppb <sup>1</sup>	1-3 ppb <sup>1</sup>	3-10 ppb <sup>1</sup>
Bacteria	<0.1 CFU/ml <sup>2</sup>	<0.1 CFU/ml <sup>2</sup>	<1 CFU/ml <sup>2</sup>
Bacterial endotoxin	<0.001 EU/ml	–	–
pH	Effectively neutral	Effectively neutral	Effectively neutral
Particles	Ultrafiltration	≥ 0.05µm	≥ 0.2µm <sup>2</sup>
RNase	<0.002 ng/ml	–	–
DNase	<20 pg/ml	–	–
Purification pack capacity	Liters to 18.2 MΩ-cm = 80,000/(µS/cm + (2.3 x ppm CO <sub>2</sub> ))		

<sup>1</sup> Dependent on feed water – recommended feed <50ppb TOC.

<sup>2</sup> With POU filter fitted.

<sup>3</sup> When connected to Halo, Advanced or Flexible dispense module.

## Dimensions and Weights

Dimensions	Height minimum 435mm, Width 375mm, Depth 340mm		
Weight	19kg (42lb)	19kg (42lb)	18kg (40lb)

## Feedwater Requirement

Source – originally from potable supply, then pre-treated <sup>5</sup>	Preferably reverse osmosis (RO) produced by PURELAB Chorus 3 or filtered service deionization (SDI) or distilled. Note: mixed bed or twin bed deionized supplies should be cation limited at exhaustion.		
Fouling index (max)	1 for all models. A 5-10 micron membrane prefilter is recommended for all non-RO feeds		
Service deionization (SDI) – MΩ-cm	1 MΩ-cm minimum resistivity at exhaustion		
Reverse Osmosis (RO) – µS/cm	Recommended <30 µS/cm		
Free Chlorine	0.05 ppm max		
TOC	Recommended 50 ppb max (RO feed)		
Carbon dioxide	30 ppm max		
Silica	2 ppm max		
Particulates	Filtration down to 0.2 micron advisable to protect internal and/or point of use filters		
Temperature	1 - 40°C – Recommended 10 - 15°C		
Flowrate (maximum requirement)	130 l/hr (34 USG)		
Drain requirements (gravity fall with air gap). Maximum during service	Up to 2 l/min (0.5 USG)		
Feedwater pressure	0.7 bar (10 psi) maximum, 0.07 bar (1 psi) minimum <sup>4</sup>		

<sup>4</sup> Fit LA652 Pressure Regulator where feedwater pressure exceeds specified limits

## Electrical Requirements

Mains Input	100 - 240V AC, 50 - 60Hz all models
System voltage	24V DC
Power consumption during peak demand (dispense)	90VA
Noise level during recirculation	<40 dBA

### <sup>5</sup> Choosing the correct Purification Pack

Part No.	When used
LC232	Feed water is General Grade RO (Type III) such as PURELAB Chorus 3 or distribution loop
LC244	Feed water is SDI (service deionization) with a 0.2µ prefilter fitted
LC245	Feed water is a filtered DI distribution loop or reservoir with recirculation maintaining a purity >1MΩ-cm
LC246	Guarantee the lowest TOC specification feed water is a filtered DI distribution loop or reservoir with recirculation maintaining a purity >1MΩ-cm