

ELGA

PURELAB® Chorus

Laboratory Water Purification Solutions
In Tune With Your Needs





A trusted brand delivering you choice



Market leader in
water purification,
innovation &
technology.

For over 75 years we have specialized in water purification solutions for laboratory, clinical and healthcare, leading the market in innovation and technology advancements.

Thousands of our products are in daily use around the globe, helping scientists, health professionals and laboratory managers achieve high levels of accuracy and consistency in their work.

We are part of Veolia, the world's largest environmental company, creating sustainable and responsible solutions that improve people's lives and the environment.

Our dedication to pure water and only pure water is a guarantee that we will continue to provide the best solutions with the best service for many years to come.

We believe in giving our customers a choice in how they use our water purification solutions, supported by excellent service and support. We aim to deliver value for our customers who partner with us and we believe that responsibility is the keystone for all our business activities.

Award Winning Products



reddot design award
winner 2011

dba design effectiveness
award winner

"Providing choice
to customers is
at the core of
our commitment
to deliver
solutions that are
technologically
advanced, easy to
use and maintain
and designed
around the
needs of all our
customers"



Global coverage, local service and support

Every ELGA solution comes complete with one extra feature – first class service and support wherever you are in the world. Our service engineers apply their expertise to the installation, validation and maintenance of your water purification solution in compliance with all the relevant codes.

Visit www.elgalabwater.com to find your nearest contact.

Delivering Service Excellence

First-time-fix and customized service contracts to suit budgets and demand.

Training

'Hands on' operation training (on or off site) to get you up and running first time.

Right Solution, First Time

To ensure you get the right system for your needs we will first carry out a test, on site, that analyzes your feed water purity. We combine this data with information about your applications, impurities you want to remove, lab design and budget to ensure you get the right solution for your particular needs.

Need a Validated System?

ELGA offers a market-leading validation package with fully trained personnel using controlled equipment and documentation to support you throughout the validation process.



"I like ELGA equipment because it works and is practically maintenance free – you set it running and then get on with other things. It's a real 'fit it and forget it' system and has proved extremely valuable in the Centre's busy and demanding laboratories and clean rooms."

Steve Walker – Senior Experimental Officer
Nanoscience and Technology Centre



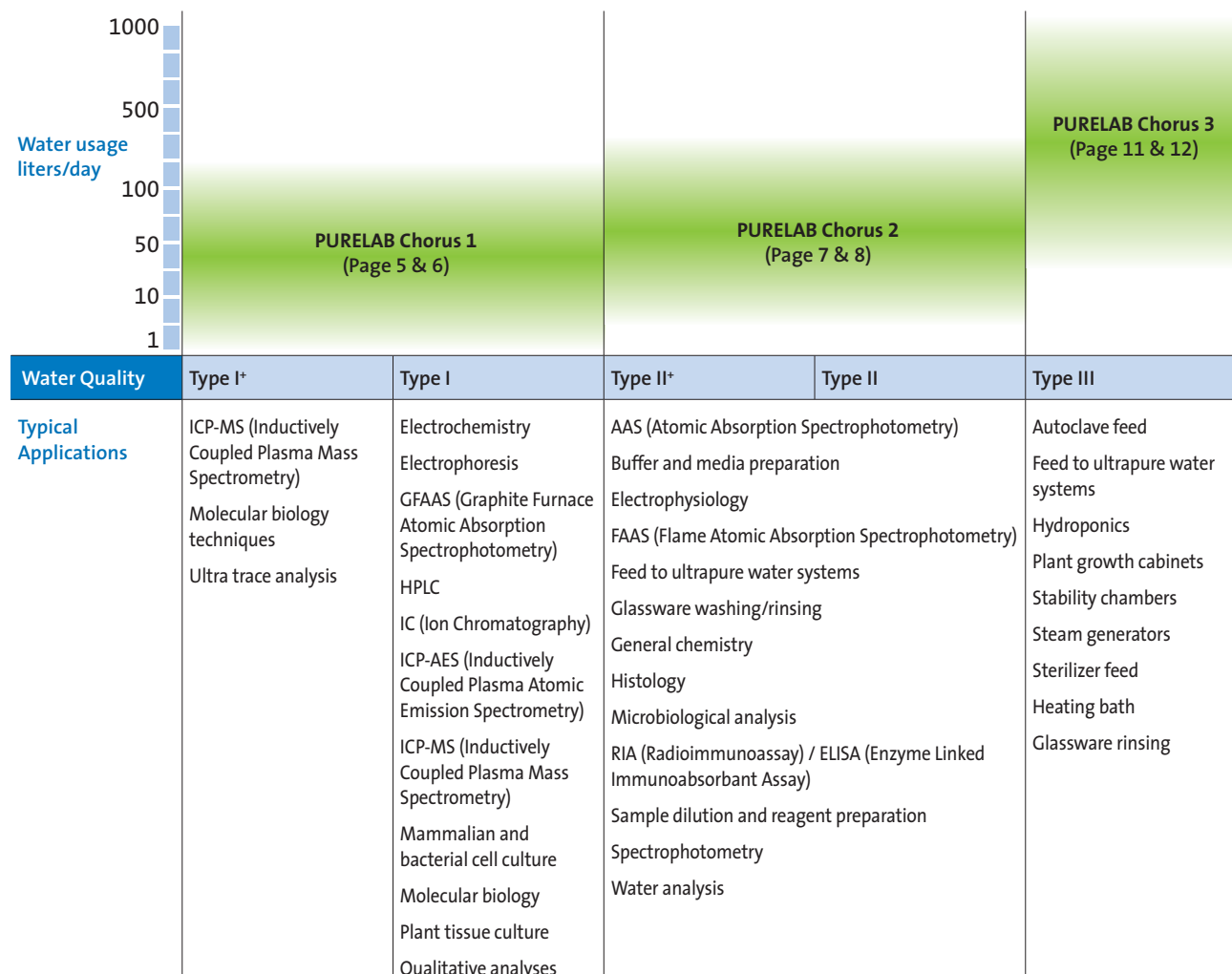
PURELAB Chorus... Your Choice

PURELAB Chorus gives you the choice to configure a solution that best suits your needs with the added benefit of flexibility should your future needs change.

- PURELAB Chorus 1** – For your ultrapure Type I+I solutions
- PURELAB Chorus 2** – For your pure Type II solutions
- PURELAB Chorus 3** – For your general grade Type III solutions
- Halo Dispense Solutions** – Three remote dispensing and monitoring solutions
- Storage Reservoirs** – Designed to accommodate PURELAB® Chorus water purification solutions

Solutions Finder

This guide will help you select the best solution for your application needs. Our team of technical/application specialists are available to answer questions, as well as providing friendly, expert advice. Email info@elgalabwater.com



Analytical Research Challenge

The Analyst's Challenge

Type I ultrapure water required for HPLC. The customer is concerned that the presence of trace ions in the water will interfere with the assay.

Water is also required for general chemistry.

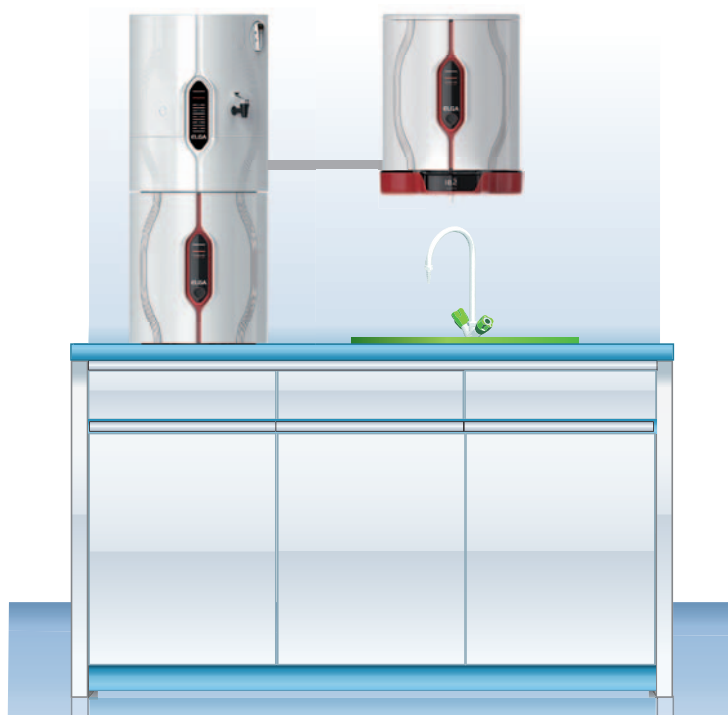
The analyst has experienced accidental flooding of the lab after leaving his old water purification system unattended while filling a container.

Solution

PURELAB Chorus 2 with a 15 liter storage reservoir for general chemistry feeding PURELAB Chorus 1, positioned above the sink with Halo Advanced dispenser integrated underneath optimizing laboratory space.

Real-time TOC monitoring provides confidence in organic purity.

AutoVolume Dispense feature eliminates accidental flooding of the lab and positioned above the sink for additional peace of mind.



Life Science Challenge

The Biologist's Challenge

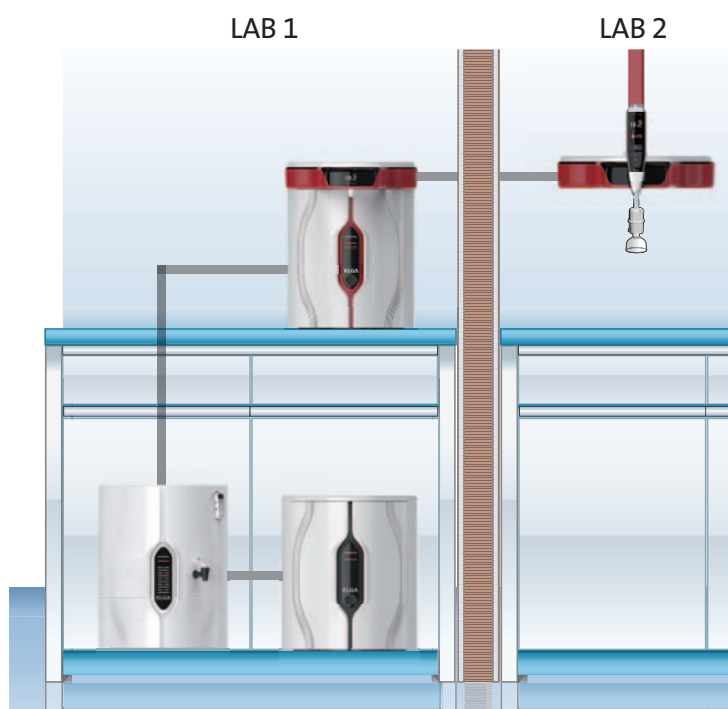
Lab 1 – Type I ultrapure water required for Gel Preparation. The biologist is concerned that the presence of endotoxins is affecting the host organism. The laboratory also requires a feed to an autoclave.

Lab 2 – Type I ultrapure water required for DNA to cell transfer. The Customer is concerned with the presence of nucleases and bacteria.

Solution

Lab 1 – PURELAB Chorus 3 with 30 liter storage reservoir positioned under the bench feeding PURELAB Chorus 1 and Advanced Halo Dispense. (Storage Reservoir for direct feed to Autoclave)

Lab 2 – Additional Halo flexible dispenser positioned in Lab 2, fitted with Point-Of-Use Biofilter for DNase / RNase removal.





Why the demand for ultimate water purity?



For the most sophisticated research and testing applications, e.g. ICP-MS (Inductively Coupled Plasma Mass Spectrometry), ultra trace analysis and molecular biology techniques, it is critical that the ultimate water purity is employed to prevent interference and, therefore, inaccurate results from contaminating impurities (see examples in the table below).

PURELAB Chorus 1

Delivering the ultimate in water purity for absolute confidence in your results

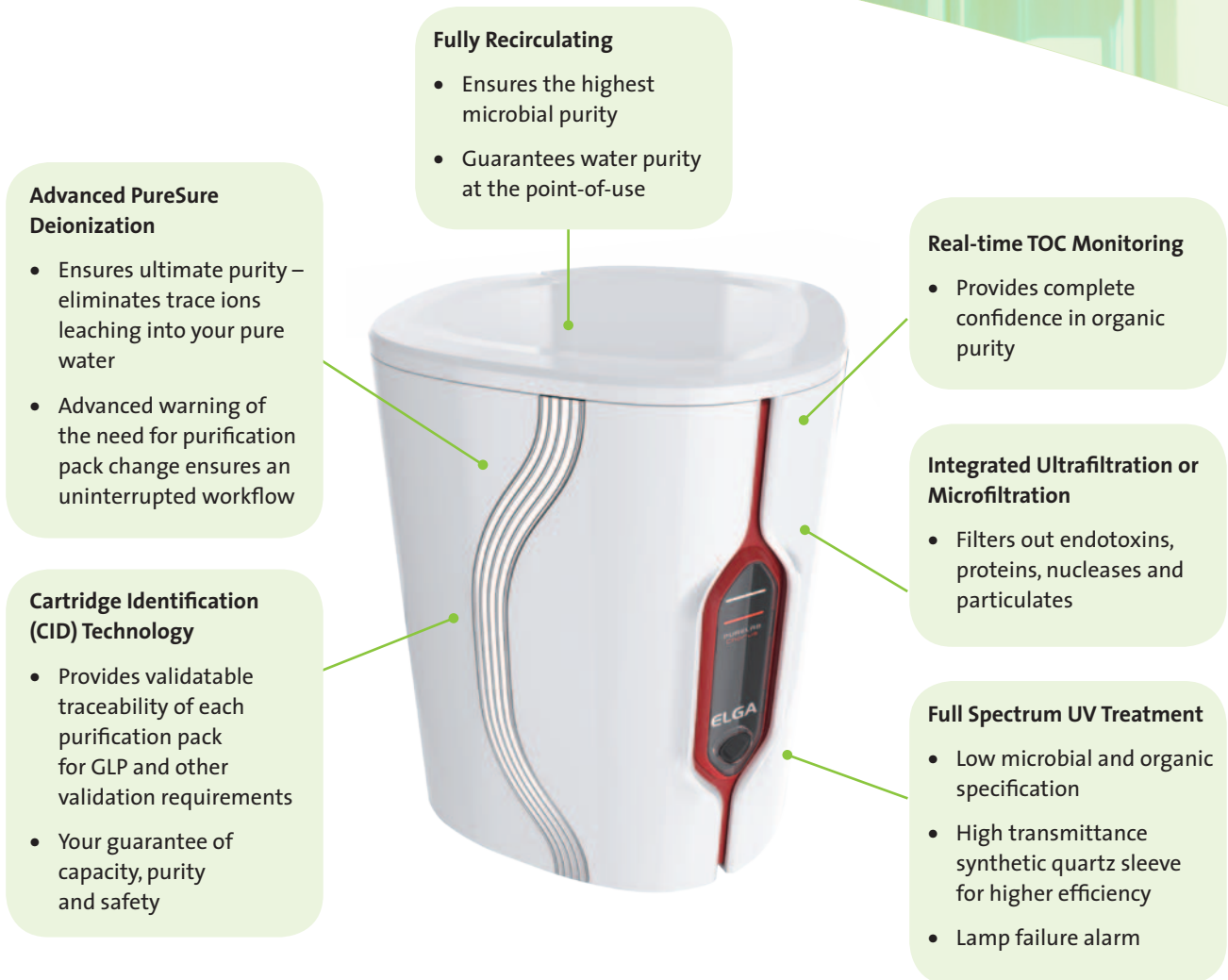
When your application requires the ultimate in water purity, PURELAB Chorus 1 provides the perfect solution. Consistently delivering water purity of 18.2MΩ-cm (Type I+/I) and underpinned by the advanced PureSure® deionization system, the PURELAB Chorus enables you to focus on attaining accurate results while ensuring an uninterrupted work flow.

The PURELAB solution for overcoming your water purification challenges

| Challenge | PURELAB Solution |
|--|--|
| Your application demands the ultimate in water purity, i.e. simply having a resistivity of 18.2 MΩ-cm is not good enough | PureSure system provides the ultimate inorganic purity (guaranteeing the retention of silicon and boron species) |
| Organic breakthrough must be prevented | Constant real-time Total Organic Carbon (TOC) monitoring gives you peace of mind by letting you know what is happening with organic purity as you dispense your water sample |
| You cannot afford to stop work to change a purification pack | PureSure system ensures that work is not interrupted |
| The highest level of microbial purity is required throughout the entire life of the water purification system | Ongoing control to minimize potential bacterial growth is guaranteed through simple and complete sanitization of all wetted parts |

Common Scientific Applications

- ICP-MS (Inductively Coupled Plasma Mass Spectrometry)
- Molecular biology techniques
- Ultra trace analysis
- Electrochemistry
- Electrophoresis
- GFAAS (Graphite Furnace Atomic Absorption Spectrophotometry)
- HPLC
- IC (Ion Chromatography)
- ICP-AES (Inductively Coupled Plasma Atomic Emission Spectrometry)
- Mammalian and bacterial cell culture
- Molecular biology
- Plant tissue culture
- Qualitative analyses



Halo Dispense Solutions

- Three Halo dispense and monitoring solutions enable you to position the dispenser independent from the water purification system. This means you can locate PURELAB Chorus on a bench, under bench or wall mounted to optimize valuable space in your laboratory
- Up to four dispense solutions can be connected in series with different point of use options to suit your application and configured to your specific water purity requirements





PURELAB Chorus 2

What is Pulse Technology?

Pulse technology uses Electrodeionization (EDI) to purify the water instead of using traditional deionization cartridges.

EDI is an electrically driven water purification process which involves the use of Ion Exchange Resins and Ion Permeable Membranes.

Resins are continuously regenerated by the electrical current and never exhaust. The water purity is always maintained due to the absence of the adverse effects associated with resin bed exhaustion, such as silicon, boron or organic breakthrough.

Delivering water purity that meets and exceeds Type II⁺/II pure water purity

PURELAB Chorus 2 produces Type II⁺ purity water, better than double-distilled purity using Pulse (EDI) technology or ion exchange media. Integral full recirculation of purified water maintains optimum purity and photo-oxidation ensures a low bacterial count right to the point of use.

PURELAB Chorus 2 patented Pulse Technology delivers Type II⁺ water with economical running costs, perfect for laboratories requiring larger volumes of purified water. The only Electrodeionization (EDI) choice for Type II⁺/II water purity.

The PURELAB solution for overcoming your water purification challenges

Challenge

Your application requires the removal of most contaminants but highly purified or ultrapure water is not essential. Your application may require high volumes of water

Reliable, high purity water with good inorganic and microbial specifications

PURELAB Solution

- Sophisticated integral recirculation technology ensures optimum organic and inorganic quality where you need it — clear quality displays allow you to monitor quality in real-time at point of dispense

- Full recirculation ensures a high level of microbial control and easy use, and maintenance keeps quality high throughout the life of the product.

Common Scientific Applications

- AAS (Atomic Absorption Spectrophotometry)
- Electrophysiology
- FAAS (Flame Atomic Absorption Spectrophotometry)
- Histology
- Microbiological analysis
- RIA (Radioimmunoassay) / ELISA (Enzyme Linked Immunoabsorbant Assay)
- Preparation of reagents for chemical analysis or synthesis
- Stills Replacement
- Buffer Preparation
- pH Solution Preparation
- Washing/Rinsing
- All Stainless Steel Autoclaves
- General Chemistry
- Spectrophotometry
- Water Analysis

Integrated Pulse (EDI) Technology or Deionization

- A choice of purification technologies to suit your laboratory requirements
- Economic running costs

Cartridge Identification (CID) Technology

- Provides validatable traceability of each purification pack for GLP and other validation requirements
- Your guarantee of capacity, purity and safety



254nm UV Treatment

- Low microbial specification
- Longer period between sanitization
- Lamp failure alarm

Fully Recirculating

- Ensures the highest microbial purity
- Guarantees water purity at the point-of-use

Halo Dispense Solutions

- Three Halo dispense and monitoring solutions enable you to position the dispenser independent from the water purification system. This means you can locate PURELAB Chorus on a bench, under bench or wall mounted to optimize valuable space in your laboratory
- Up to four dispense solutions can be connected in series with different point of use options to suit your application and configured to your specific water purity requirements



Halo Dispense Solutions

Three remote dispensing and monitoring solutions enable you to position your PURELAB Chorus where you want – freeing up valuable work space.

- **Halo Dispense** – Fixed position dispenser for your basic dispensing needs
- **Halo Advanced Dispense** – Fixed position dispenser with advanced control features
- **Halo Flexible Dispense** – Hand held dispenser providing you with advanced control features and ultimate flexibility



Unique Halo glow, changes colour and flashes alerting you of changes in system performance

Prioritized information displayed at all times (system status, TOC, alarm)

Clear water purity display for absolute confidence as you dispense

Real-time TOC monitoring for critical applications. For units with TOC capability

Water purity is monitored right up to the point of use giving you peace of mind

Flexible dispensing in six different ways

- Variable flow – drop by drop or up to two liters per minute
- AutoVolume dispense from 50ml up to 60 liters
- Default AutoVolume setting to suit your personal volume needs
- Hands free with optional foot control dispense
- Locked dispense at your selected flow
- Hand-held dispensing with Halo Flexible Dispenser

Data capture via USB for system performance validation

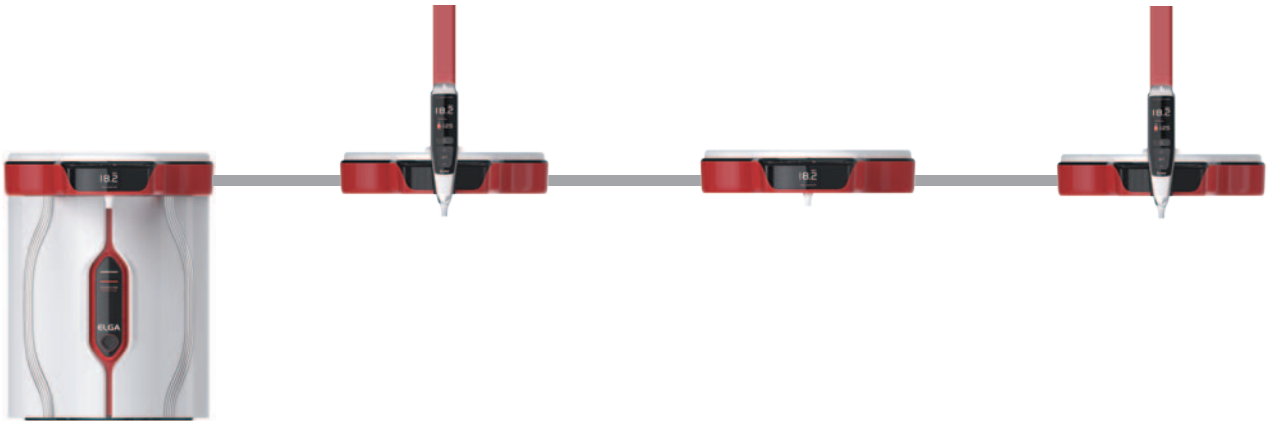
Multiple positioning

Three Halo dispense and monitoring solutions enable you to position the dispenser independent from the water purification system. This means you can locate PURELAB Chorus on a bench, under bench or wall mounted to optimize valuable space in your laboratory.



Multiple dispensing

Up to four dispense solutions in any combination can be connected in series with different point of use options to suit your application and configured to your specific water purity requirements.



Accessories

- Foot controlled dispense switch
- Thermal printer
- Leak sensor
- Wall mounting options

POU Filter for Multiple Applications

- Removal of endotoxins, DNase, RNase and bacteria
- Conforms to international water standards e.g. ISO 696: Grade 1, 2 & 3 ASTM D1193-06, Pharmacopeia USP, EP, JP & CLSI / CLRW





Storage Reservoirs

ELGA's unique range of 15, 30 and 60 liter storage reservoirs are designed to fit on top or below the PURELAB Chorus.

PURELAB Chorus 2 & 3

Reliable delivery of Type II or Type III water purity

When general laboratory grade water is needed PURELAB Chorus 2 (RO/DI) and PURELAB Chorus 3 (RO) provide reliable solutions with flexibility to suit your requirements.

PURELAB® Chorus 2 (Basic RO/DI) provides Type II pure water direct from a potable tap water supply.

PURELAB® Chorus 3 provides Type III (Primary RO Grade) water on demand with a wide range of flow rates up to 120 l/hr.

The PURELAB solution for overcoming your water purification challenges

Challenge

Your application requires the removal of most contaminants but highly purified or ultrapure water is not needed

You want the lowest costs of ownership

PURELAB Solution

Proven RO technology produces primary grade water (1-50 $\mu\text{S}/\text{cm}$)

Minimal purification consumables ensure long-term operational costs remain low

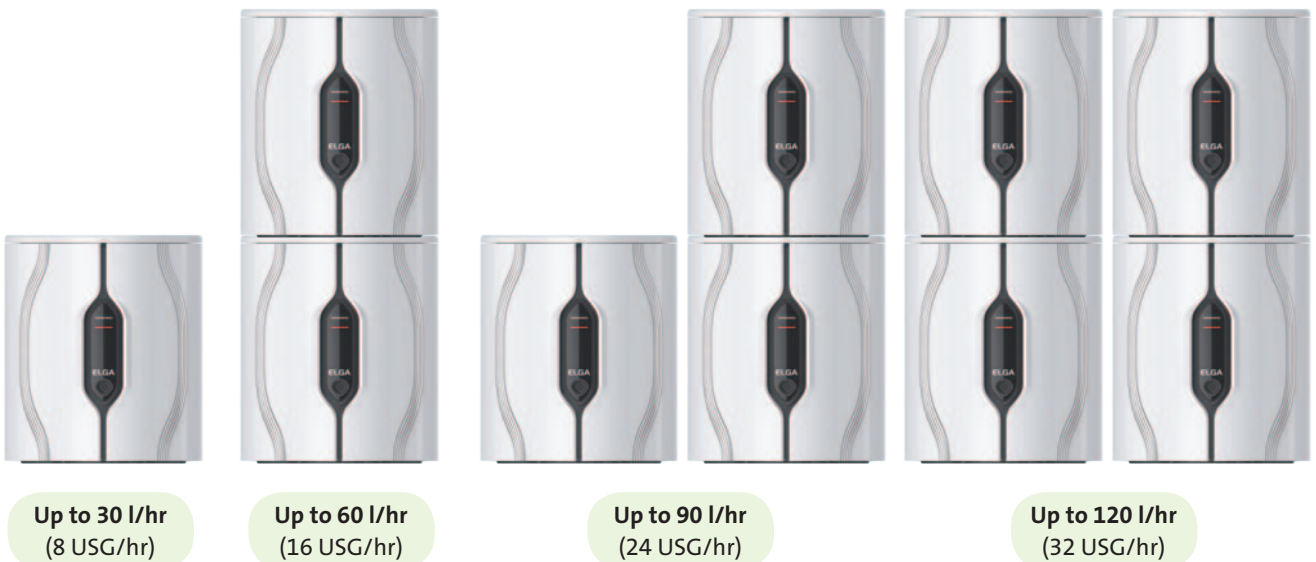
Common Scientific Applications

- Stills Replacement
- Buffer Preparation
- pH Solution Preparation
- Washing / Rinsing
- All Stainless Steel Autoclaves
- General Chemistry
- Spectrophotometry
- Heating Baths
- Hydroponics / Plant Growth Cabinets
- Steam Generators
- Stability Chambers
- Sterilizer Feed
- Feed to Type I & II Polishers



PURELAB® Chorus 3 – Upgradable and Reliable

- Easy upgrade to higher flow rates to meet your future demands
- Duplex systems guarantee maximum uptime

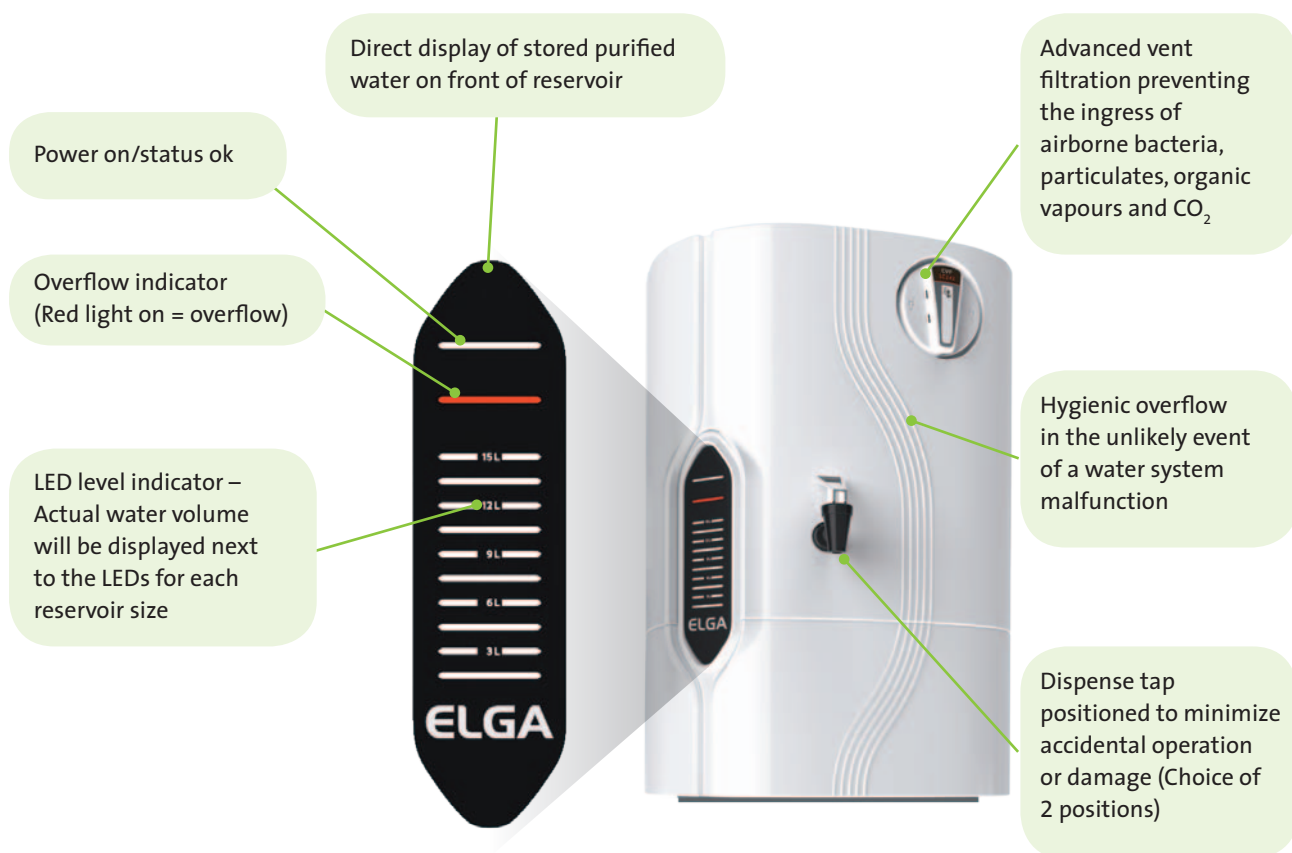


Storage Reservoirs

Maintaining optimum purity by minimizing degradation over time

ELGA's unique range of 15, 30 and 60 liter storage reservoirs are designed to maintain optimum purity of stored purified water and provide effective protection against airborne contaminants.

Storage reservoirs are designed to accommodate PURELAB® Chorus water purification systems. The unique space saving design provides a base for the water purification system resulting in one integral, compact unit. This solution removes the need for a separate reservoir and saves valuable bench top space. If preferred the reservoir can be positioned on top of the PURELAB Chorus or supplied as a standalone reservoir to suit the layout of your laboratory.



- Multiple positioning/mounting options to suit your laboratory layout
- Monitoring of reservoir water levels with automated refill ensures purified water is always available
- Designed with optimized / minimal surface area and through-flow of purified water to ensure there are no static areas to harbor bacteria
- Inert opaque polyethylene construction with smooth inner surface to prevent algal and microbial growth
- Fully self-draining base provides more complete sanitization and quicker rinse-out time
- Quick and easy installation with no unsightly and vulnerable extended tubing to a separate reservoir



**Storage reservoir
positioned on top of
PURELAB Chorus**



**PURELAB Chorus
positioned on top of
storage reservoir**



Commitment to Quality

PURELAB Chorus Systems are supplied with a Certificate of Conformity, ensuring they have been manufactured and tested at ELGA LabWater Global Operations, whose Quality Management System is approved by Lloyds Register Quality Assurance (LRQA) and complies with BS EN ISO 9001:2008.

ELGA's manufacturing facility has been approved by LRQA and complies with the environmental management system ISO 14001:2004.

The PURELAB Chorus has been designed to conform to the requirements of the Waste Electrical & Electronic Equipment (WEEE) Directive and the Restriction of Hazardous Substance (RoHS) Directive.

Assured Safety

The PURELAB Chorus is compliant with CE directives associated with safety and electromagnetic compatibility and is approved and tested by an accredited external company. The PURELAB Chorus is also compliant with the requirements of IEC/EN61010-1 and UL61010-1 and is marked with an ETL label showing compliance.

Contact Us:

ELGA offices and distributors are located in more than 60 countries and are fully trained in all ELGA systems.

To find your nearest ELGA representative, go to www.elgalabwater.com and select your country for contact details.

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Your local ELGA representative

The LabWater Specialists

ELGA is an integral part of Veolia Water Solutions and Technologies, the world's leading water service company. Veolia Water Solutions and Technologies has a worldwide team of over 10,500 people and is renowned for its capabilities in providing water solutions to customers throughout the entire water cycle.

The ELGA team focuses exclusively on water and its purification. It continually contributes to the unique technical and scientific applications expertise developed during the past 75 years. We are experienced in meeting the challenges that arise during the development, installation and servicing of single point-of-use water purification systems as well as large projects involving consultation with architects, consultants and clients.

Commitment
to global
citizenship

Sustainability Commitment

ELGA products are designed to have the lowest possible impact on the environment at all stages; manufacture, in service and at end of life. ELGA is accredited to ISO9001 and ISO14001 standards for environmental management.

We can calculate the carbon value of all our products throughout their lifetime and we make this information available to our customers and partners.

'We have a responsibility as a leader in the water purification industry to innovate using environmentally sustainable technologies and product designs and to ensure our operations have the minimum climate impact.'

Nora Ikene
Managing Director ELGA LabWater



Solutions & Technologies

www.elgalabwater.com