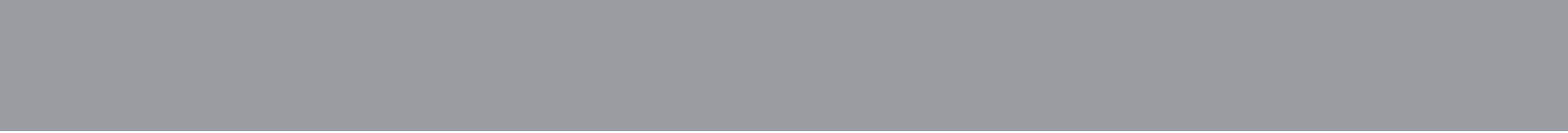


# PURELAB<sup>®</sup> Chorus<sup>®</sup> 3



*Operator Manual*  
MANU39996 VER 02 3/17



## WELCOME

Thank you for purchasing the Chorus 3. Please read the following Health and Safety notice before proceeding.



### HEALTH AND SAFETY

Please follow the safety information detailed in this instruction sheet. Failure to observe these instructions could result in damage to the equipment, processes, associated equipment and injury or death to persons.

#### 1. Electricity



##### WARNING!

POSITION THE POWER SUPPLY SO THAT IT CANNOT COME INTO CONTACT WITH WATER.

#### 2. Residual Preservative



##### WARNING!

DURING THE COMMISSIONING CYCLE TRACE RESIDUAL PRESERVATIVE IS FLUSHED FROM THE SYSTEM. A MATERIAL SAFETY DATA SHEET IS AVAILABLE UPON REQUEST.

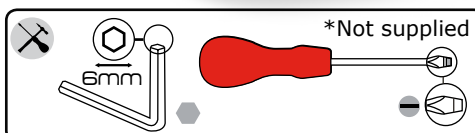
#### Control of Substances Hazardous to Health (COSHH)

Material safety data sheets are available upon request.

ELGA Labwater  
+44 (0) 203 567 7300  
Email: [info@elgalabwater.com](mailto:info@elgalabwater.com)

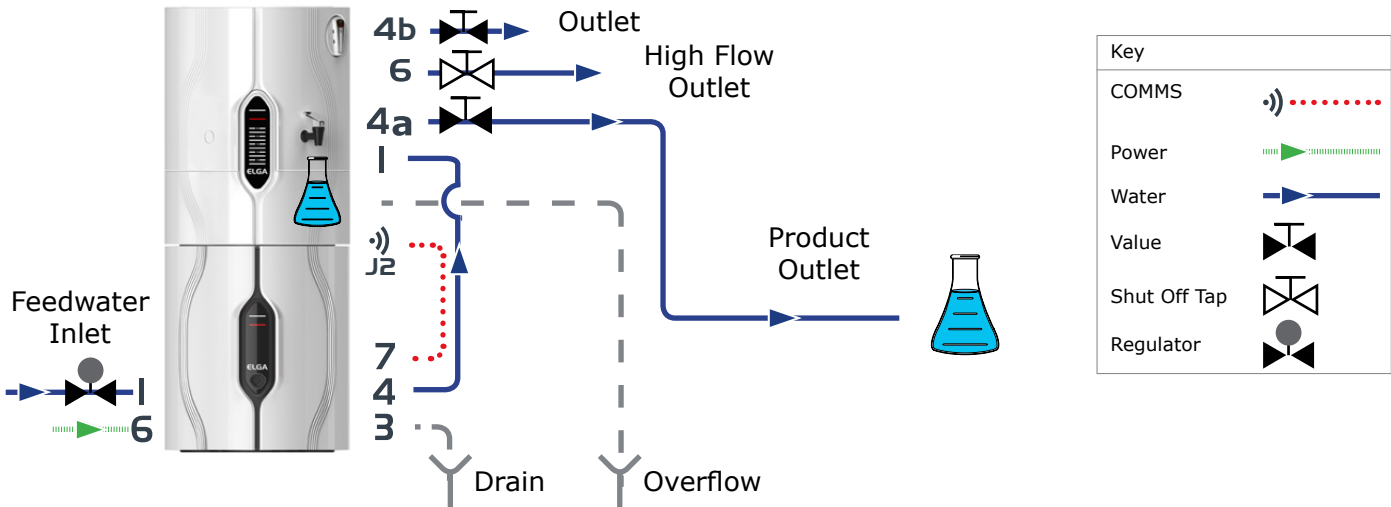
Website: [www.elgalabwater.com](http://www.elgalabwater.com)

ELGA® is the global laboratory water brand name of Veolia. PURELAB® is an ELGA Labwater trademark and technology. Owing to a policy of continual improvement, we reserve the right to amend the specifications given in this guide.  
© 2017 ELGA® Labwater / VWS (UK) Ltd. All rights reserved.

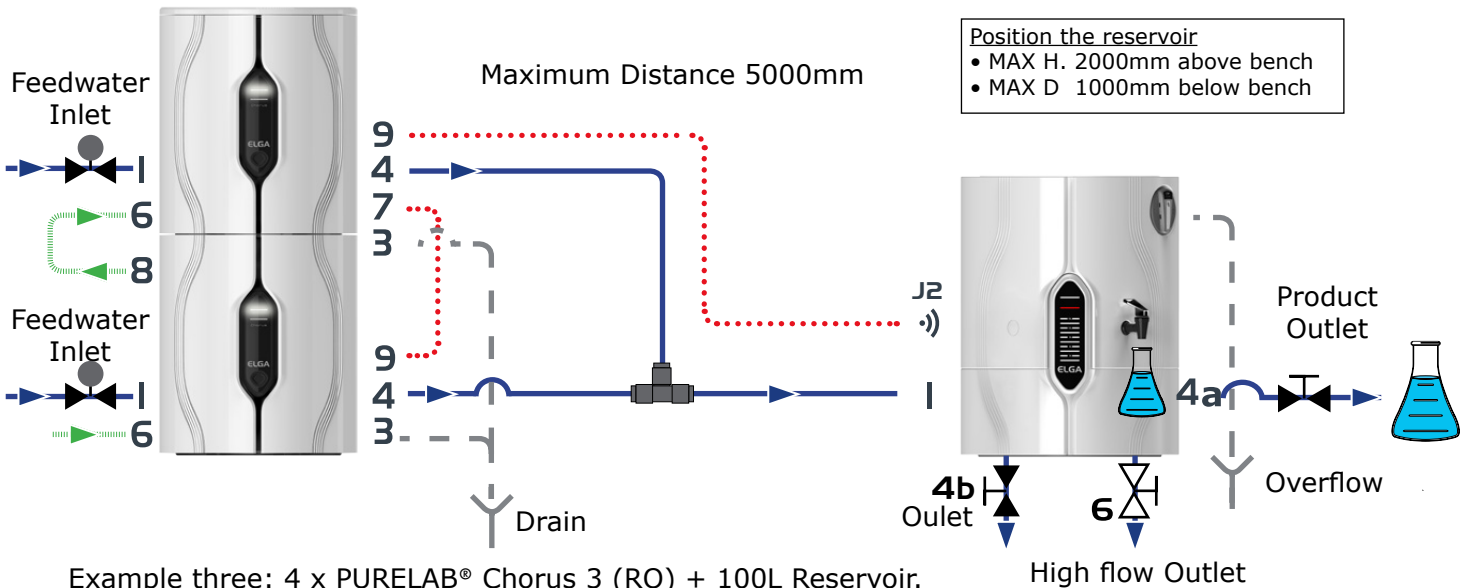


SYSTEM CONFIGURATION

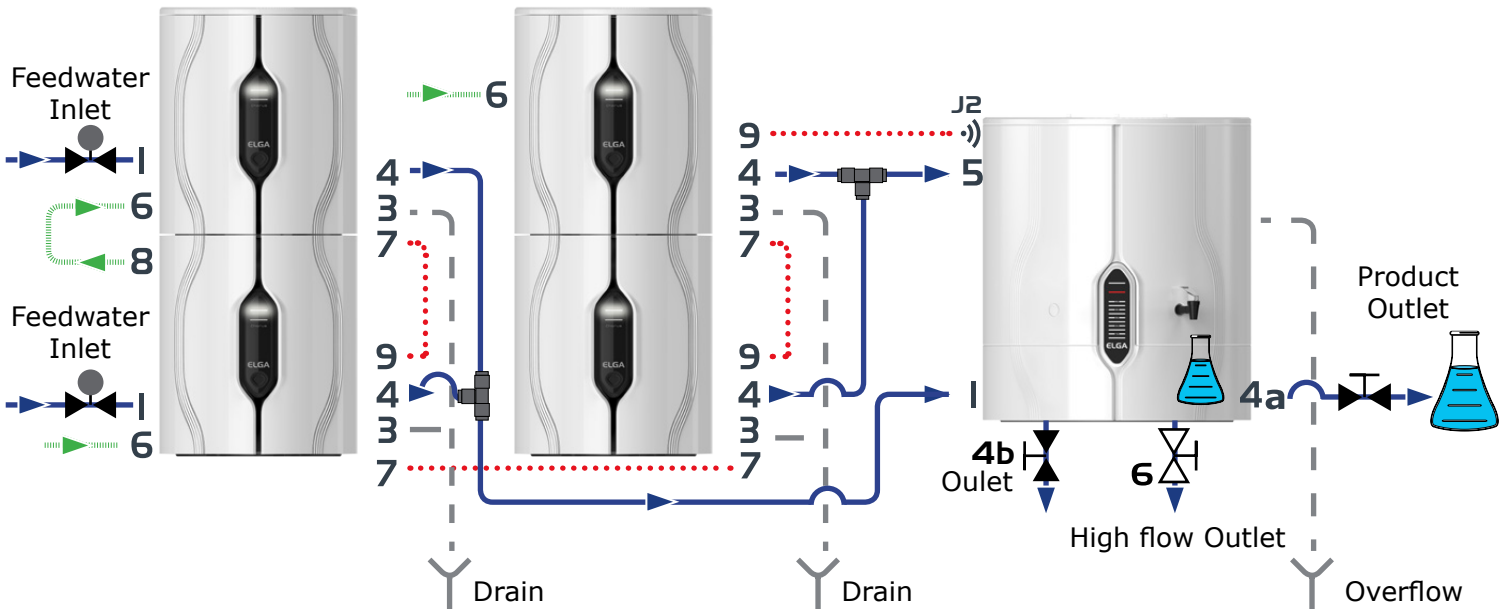
Example one: 1 x PURELAB® Chorus 3 (RO) + 15L or 30L Reservoir.



Example two: 2 x PURELAB® Chorus 3 (RO) + 60L Reservoir.



Example three: 4 x PURELAB® Chorus 3 (RO) + 100L Reservoir.



Further advice on configuration connections.

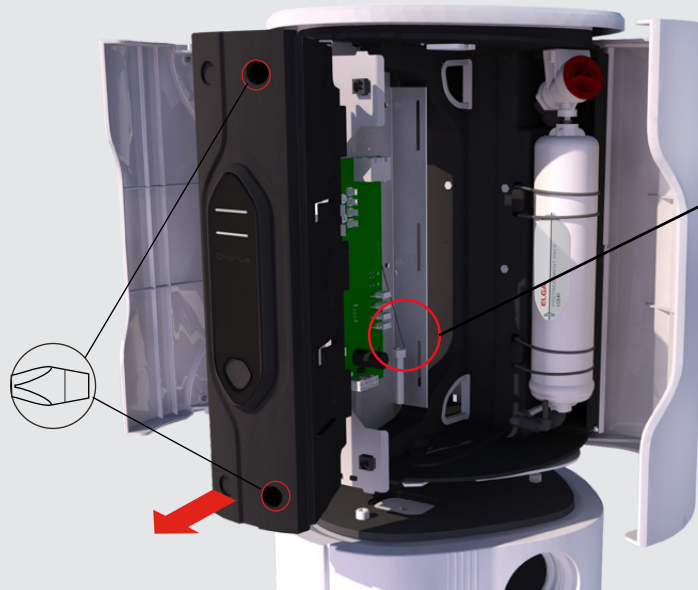


**Ia** MODULAR STACKING BENCH MOUNTED, RESERVOIR ON TOP**WARNING!**

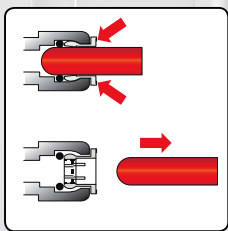
ONLY PLACE ONE CHORUS SYSTEM ONTO TOP OR BELOW THE RESERVOIR.

**1b MODULAR STACKING, RESERVOIR UNDERNEATH**

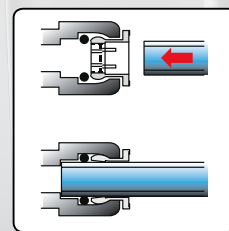
a. Screw down the reservoir plate.



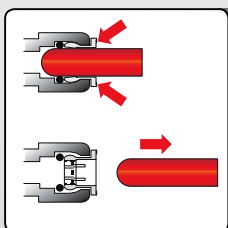
b. Place on top of reservoir, line up with bolt heads. Screw in joining bolt.

**2 CONNECT THE WATER (PORT No. 1)**

a. Remove the transit plugs from the water inlet connection.



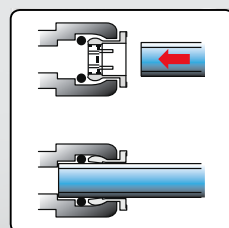
b. Using the tube supplied, firmly push one end securely into the water connector.

**3 CONNECT THE DRAIN (PORT No.3)**

a. Remove the transit plugs from the water outlet connection.

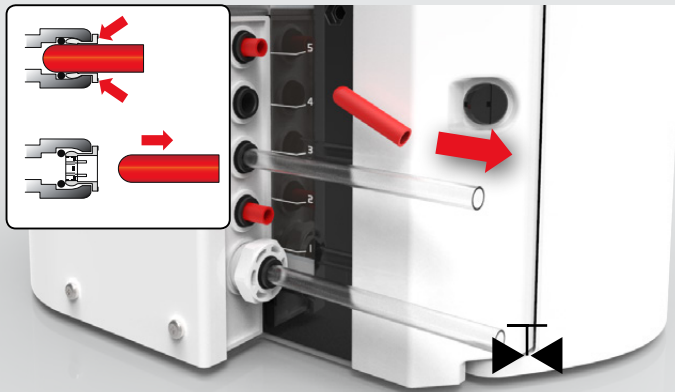
**CAUTION!**

Ensure drain pipe is not in waste water.

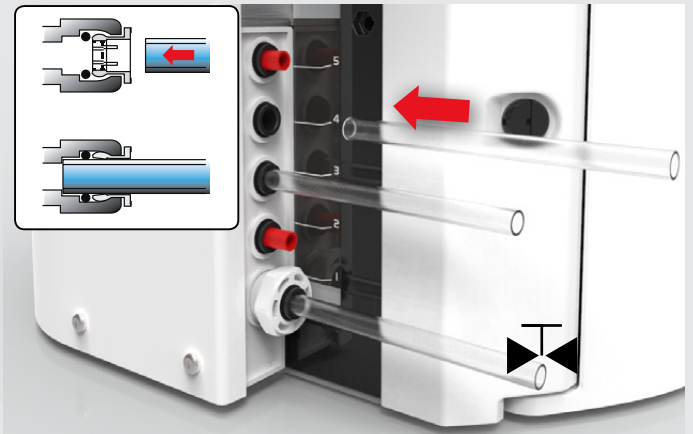


b. Using the tube supplied, firmly push one end securely into the water connector.

## 4 CONNECT THE PURIFIED WATER OUTLET (PORT NO.4)



a. Remove the transit plugs from the water outlet connection.



b. Using the tube supplied, firmly push one end securely into the water connector.

**N.B This product is not suitable to operate directly with a chorus dispenser.**

## 5 COMMS CONNECTIONS

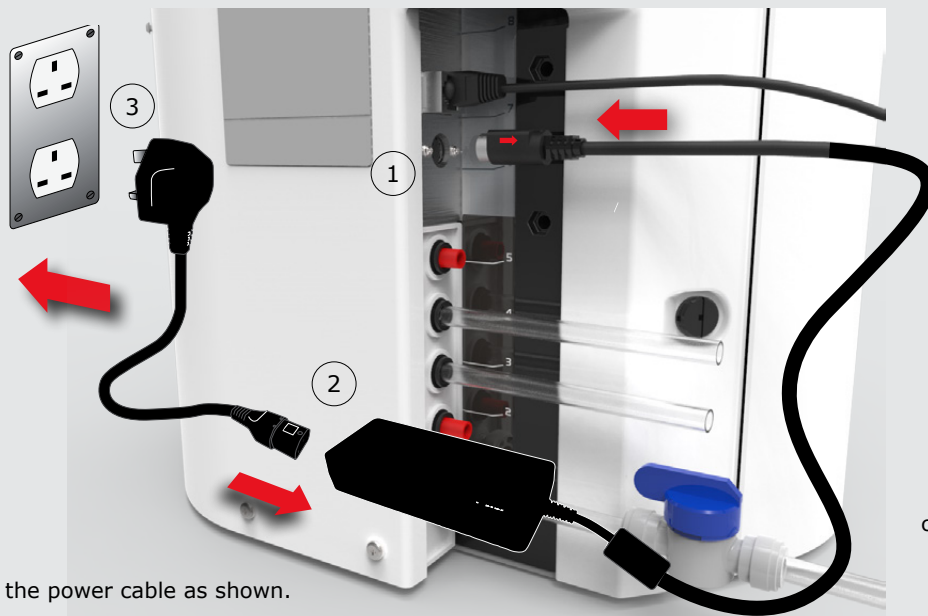


### WARNING!

ONLY USE COMMS CABLE SUPPLIED BY ELGA.



## 6 CONNECT THE POWER (NO.6 PORT)



a. Connect the power cable as shown.

b. Only use the power supply supplied with the Chorus. The power supply must be earthed.



c. **PRESS ONCE** to start Commission mode. Bottom red light will be flashing until cycle has ended.

Approx 60 minutes



### WARNING!

ONLY USE THE APPLIANCE COUPLER (MAINS LEAD) AND POWER SUPPLY PROVIDED. IF THE EQUIPMENT IS USED IN A MANNER NOT SPECIFIED BY ELGA, THE PROTECTION PROVIDED BY THE EQUIPMENT MAY BE IMPAIRED. POSITION THE POWER SUPPLY SO THAT IT CANNOT COME INTO CONTACT WITH WATER.



# The Laboratory Water Specialists

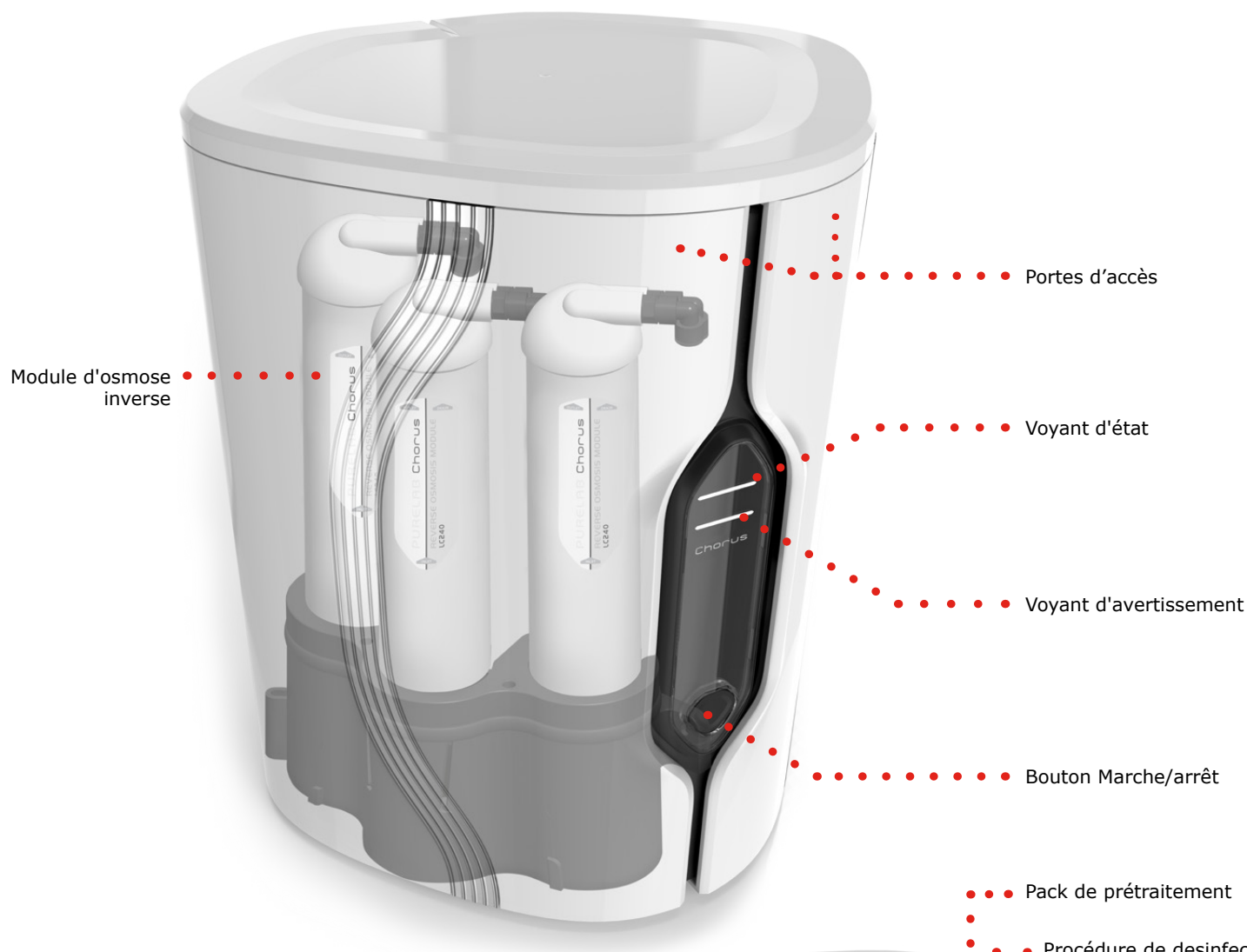


PURELAB®  
Chorus



## Bienvenue

Merci d'avoir acheté le Chorus 3. Veuillez lire les instructions de santé et de sécurité suivantes avant toute utilisation.



### Santé et sécurité

Veuillez respecter les normes de sécurité indiquées sur cette fiche d'instruction. Veuillez respecter les normes de sécurité indiquées sur cette fiche d'instruction. Il existe un risque d'endommagement de l'appareil, des équipements et procédés associés ainsi qu'un risque de blessure ou de mort en cas de non-respect des consignes.

#### 1. Electricité



##### AVERTISSEMENT !

POSITIONNER L'ALIMENTATION DE SORTE QU'ELLE NE PUISSE PAS ENTRER EN CONTACT AVEC DE L'EAU.

#### 2. Conservateur résiduel



##### AVERTISSEMENT !

LORS DU CYCLE DE MISE EN SERVICE, DES TRACES DE CONSERVATEUR RÉSIDUEL SONT RINCÉES HORS DU SYSTÈME. UNE FICHE TECHNIQUE DE SÉCURITÉ SUR CE COMPOSANT EST DISPONIBLE SUR DEMANDE.

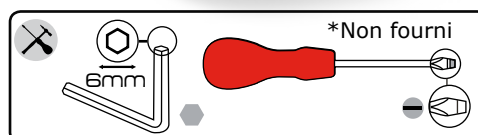
#### Contrôle des substances dangereuses pour la santé (COSHH)

Des fiches de données sur ce composant sont disponibles sur demande.

ELGA® Labwater  
+44 (0) 203 567 7300  
Email: info@elgalabwater.com

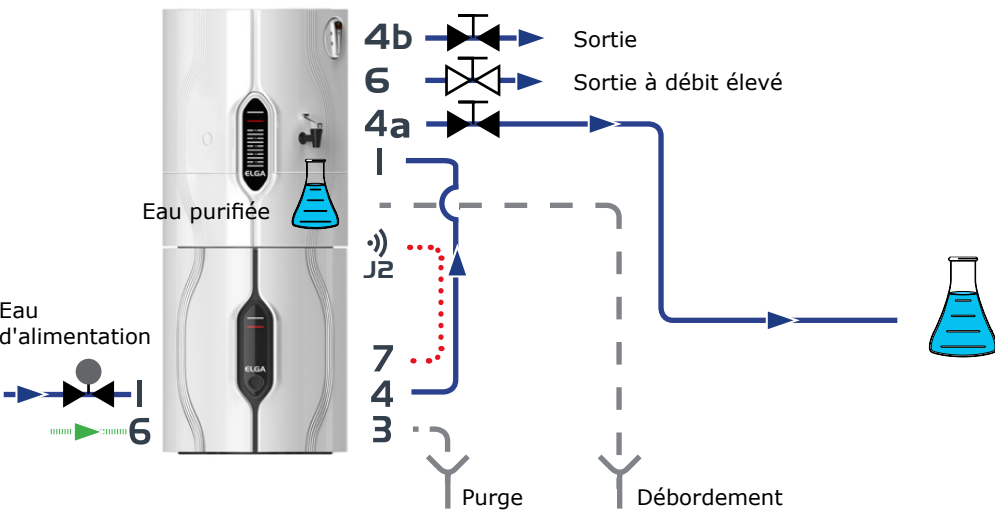
Fax: +44 (0) 203 567 7205  
Website: www.elgalabwater.com

ELGA® est la marque de commerce des laboratoires mondiaux de Veolia Water. PURELAB® est une marque et une technologie de ELGA® LabWater. Dans le cadre de notre politique d'amélioration permanente, nous nous réservons le droit de modifier les spécifications données dans ce document.  
© 2017 ELGA® LabWater/VWS (UK) Ltd. Tous droits réservés.



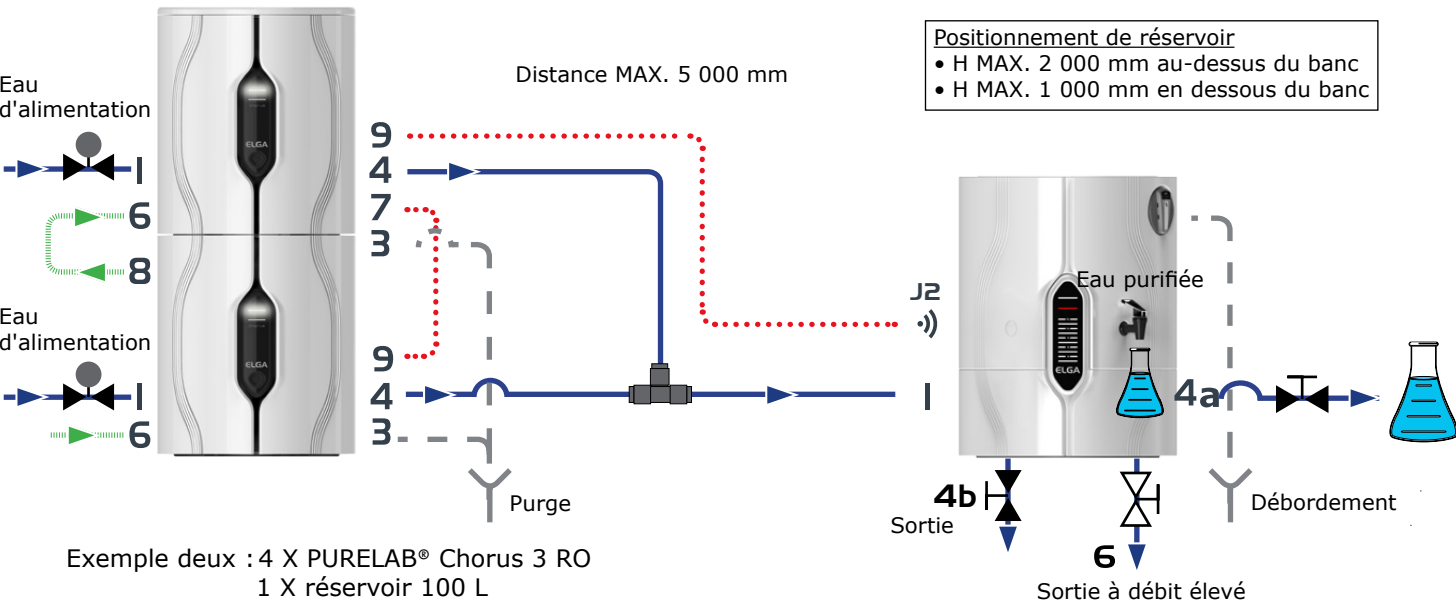
CONFIGURATION DU SYSTÈME

Exemple un : 1 X PURELAB® Chorus 3 RO  
1 X réservoir 15L ou 30L

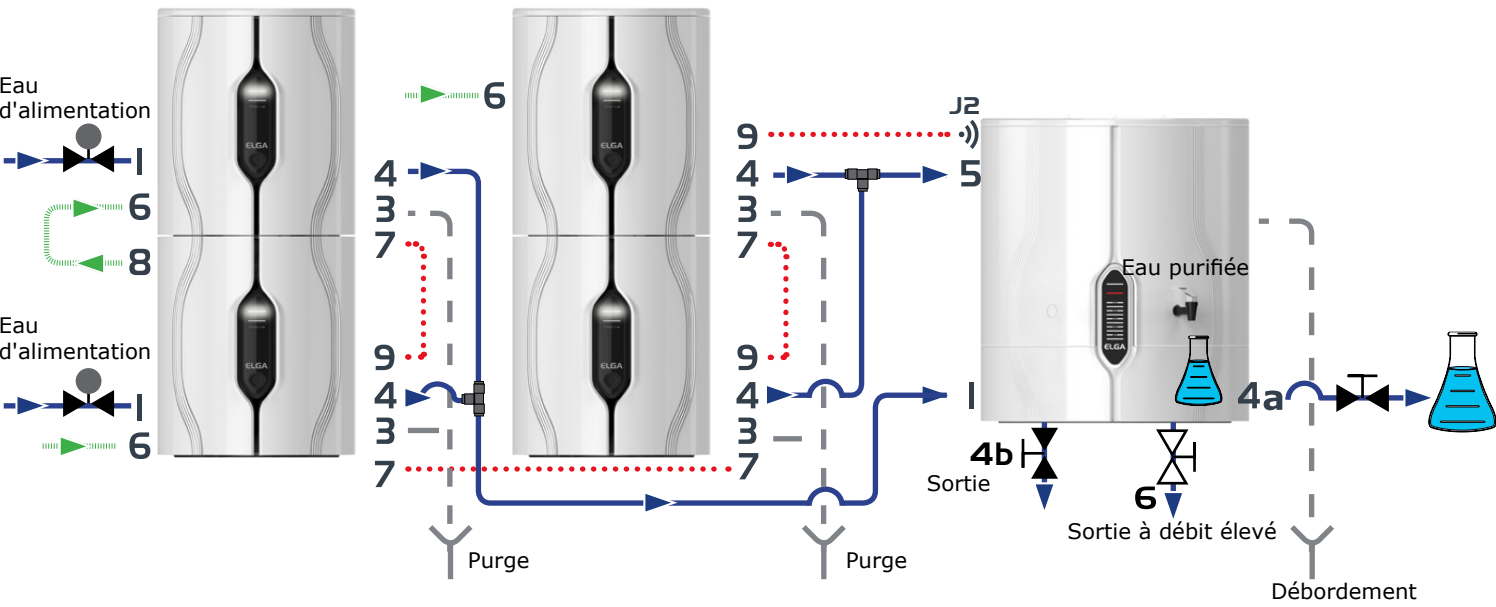


| Légende         |                                                                                     |
|-----------------|-------------------------------------------------------------------------------------|
| COMMUNI-CATIONS |  |
| Al. électrique  |  |
| Eau             |  |
| Soupape         |  |
| Robinet d'arrêt |  |
| Détendeur       |  |

Exemple deux : 2 X PURELAB® Chorus 3 RO  
1 X réservoir 60 L



Exemple deux : 4 X PURELAB® Chorus 3 RO  
1 X réservoir 100 L



Contactez votre fournisseur local pour toutes configurations plus avancées.

## **Ia** EMPILEMENT MODULAIRE DE MONTAGE SUR BANC RÉSERVOIR EN PARTIE SUPÉRIEURE



### **AVERTISSEMENT !**

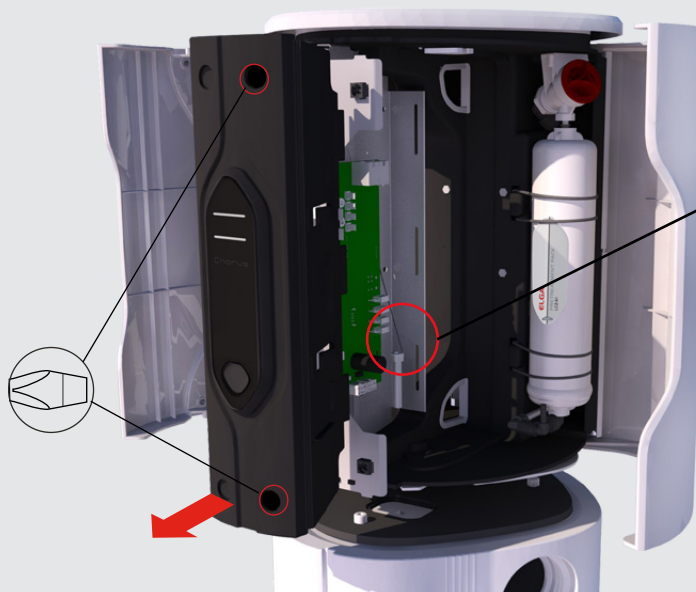
LE SYSTÈME CHORUS EST À PLACER UNIQUEMENT SUR OU SOUS LE RÉSERVOIR.



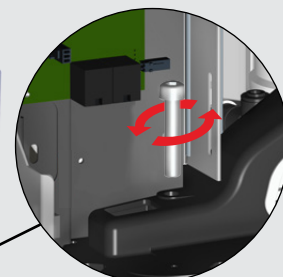
## 1b EMPILEMENT MODULAIRE RESERVOIR DESSOUS



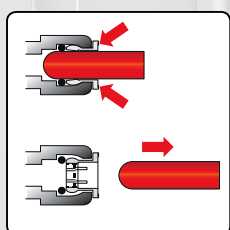
a. Vissez la plaque du réservoir.



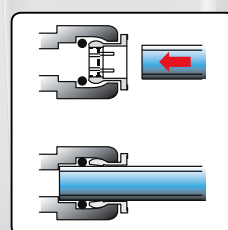
b. Placez-la sur le réservoir, bien en face des têtes d'écrous. Vissez le boulon d'assemblage.



## 2 RACCORDEMENT À L'EAU (PORT No. 1)



a. Retirez les bouchons de transport du raccordement d'admission d'eau.



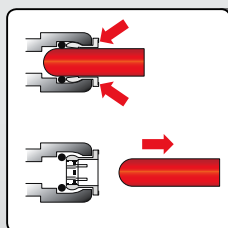
b. Poussez fermement une extrémité du tuyau fourni dans le connecteur d'eau en veillant à sa bonne fixation.

## 3 RACCORDEMENT DU REJET (PORT No.3)

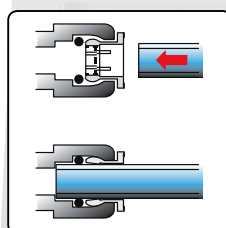


### ATTENTION!

Assurez-vous que le tuyau de rejet ne se trouve pas dans l'eau éliminée.



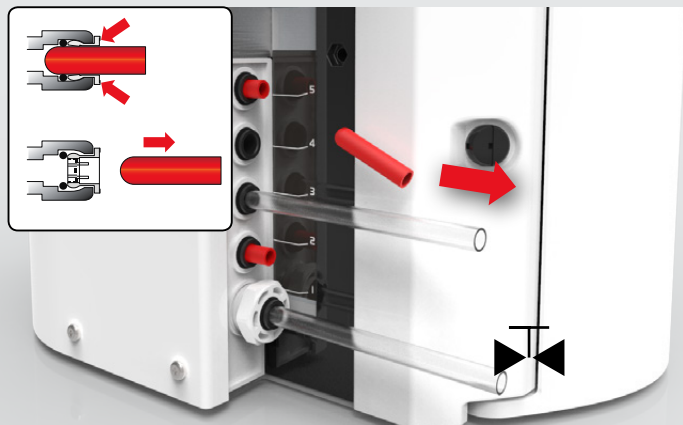
a. Retirez les bouchons de transport du raccordement de sortie d'eau.



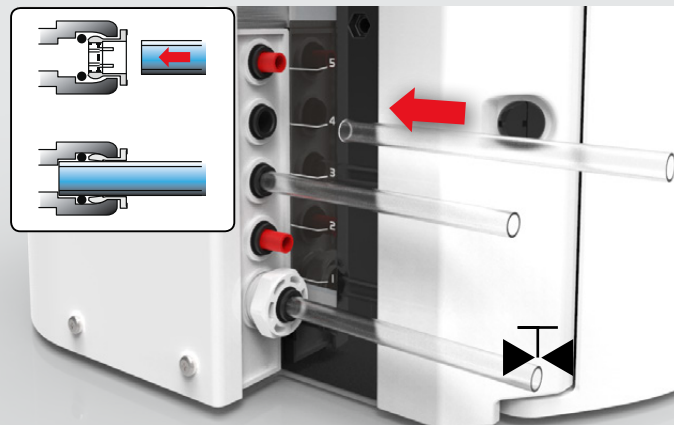
b. Poussez fermement une extrémité du tuyau fourni dans le connecteur d'eau en veillant à sa bonne fixation.



## 4 RACCORDEMENT DE LA SORTIE D'EAU PURIFIÉE (PORT NO.4)



a. Retirez les bouchons de transport du raccordement de sortie d'eau.



b. Poussez fermement une extrémité du tuyau fourni dans le connecteur d'eau en veillant à sa bonne fixation.

**N.B Ce produit n'est pas fait pour être utilisé directement avec une distribution Chorus.**

## 5 RACCORDEMENTS COMMS (Port NO 7)



### AVERTISSEMENT !

UTILISEZ UNIQUEMENT LES CÂBLES COMMS FOURNIS PAR ELGA®, CONSULTEZ LE MANUEL D'UTILISATION POUR PLUS D'INFORMATIONS.

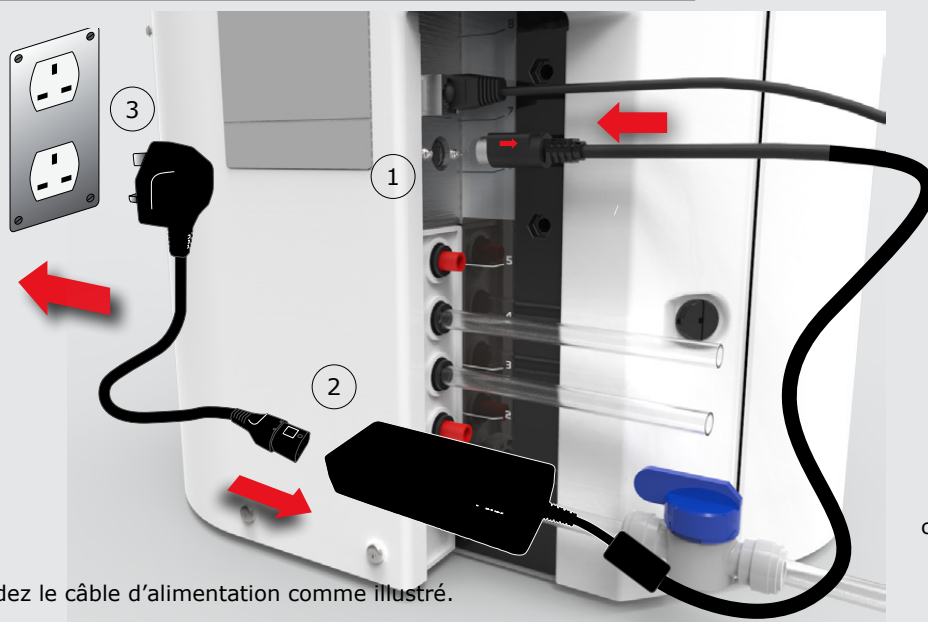
Port 7  
or  
Port 9



Reservoir J2 or J1

Voir 'Reservoir Guide d'installation'.

## 6 RACCORDEMENT À L'ALIMENTATION (NO.6 PORT)



a. Raccordez le câble d'alimentation comme illustré.

b. Utilisez uniquement l'alimentation fournie avec le Chorus. L'alimentation électrique doit être reliée à la terre.



4

c. **APPUYEZ UNE FOIS** pour lancer le mode Mise en service. Le voyant inférieur rouge clignotera jusqu'à la fin du cycle.

Environ 60 minutes



### AVERTISSEMENT !

UTILISEZ UNIQUEMENT LA PRISE DE COURANT DE L'APPAREIL ET L'ALIMENTATION FOURNIES. SI L'APPAREIL N'EST PAS UTILISÉ COMME ELGA LE RECOMMANDE, LA PROTECTION FOURNIE PAR L'ÉQUIPEMENT PEUT S'EN TROUVER AFFECTÉE. POSITIONNEZ L'ALIMENTATION DE SORTE QU'ELLE NE PUISSE PAS ENTRER EN CONTACT AVEC DE L'EAU.

# Les spécialistes de l'eau de laboratoire

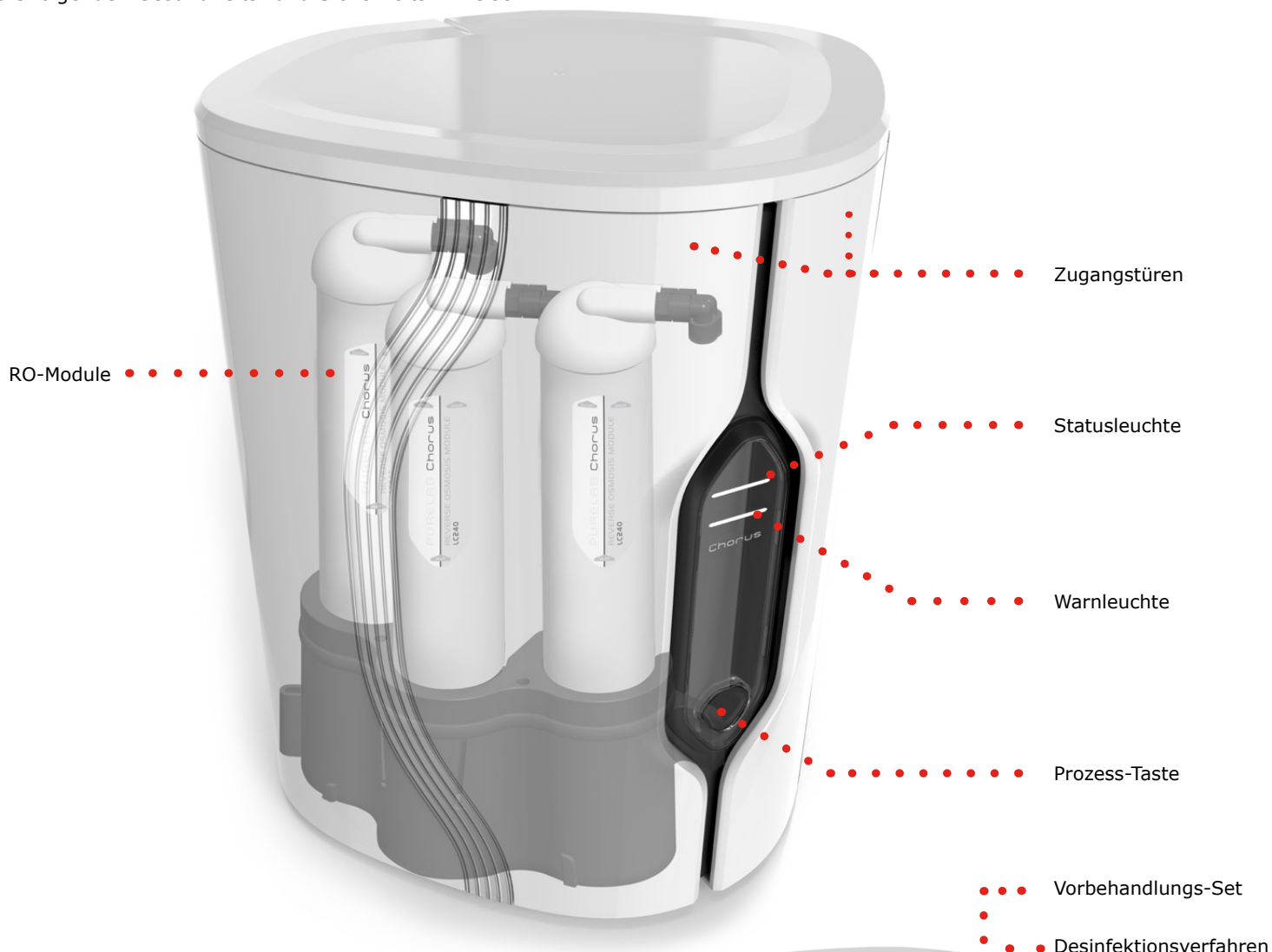


PURELAB®  
Chorus



## Willkommen

Vielen Dank für den Kauf von Chorus 3. Bitte lesen Sie, bevor Sie fortfahren, die folgenden Gesundheits- und Sicherheitshinweise.



### Gesundheit & Sicherheit

Bitte beachten Sie die in dieser Anleitung angegebenen Sicherheitsinformationen. Bitte beachten Sie die in dieser Anleitung angegebenen Sicherheitsinformationen. Bei Nichtbeachten dieser Hinweise kann es zur Beschädigung des Geräts, von Prozessen, verbundenen Geräten sowie zur Verletzung oder zum Tod von Personen kommen.

#### 1. Elektrizität



##### WARNUNG!

STROMVERSORGUNG SO POSITIONIEREN, DASS EIN KONTAKT MIT WASSER AUSGESCHLOSSEN IST.

#### 2. Restliche Konservierungsstoffe



##### WARNUNG!

WÄHREND DES INBETRIEBNAHMEZYKLUS WERDEN SPUREN VON KONSERVIERUNGSTOFFEN AUS DEM SYSTEM GESPÜLT. EIN SICHERHEITSDATENBLATT IST AUF ANFRAGE ERHÄLTICH.

#### Kontrolle gesundheitsgefährdender Substanzen (COSHH)

Sicherheitsdatenblätter sind auf Anfrage erhältlich.

ELGA® Labwater  
+44 (0) 203 567 7300  
E-mail: [info@elgalabwater.com](mailto:info@elgalabwater.com)

Fax: +44 (0) 203 567 7205  
Website: [www.elgalabwater.com](http://www.elgalabwater.com)

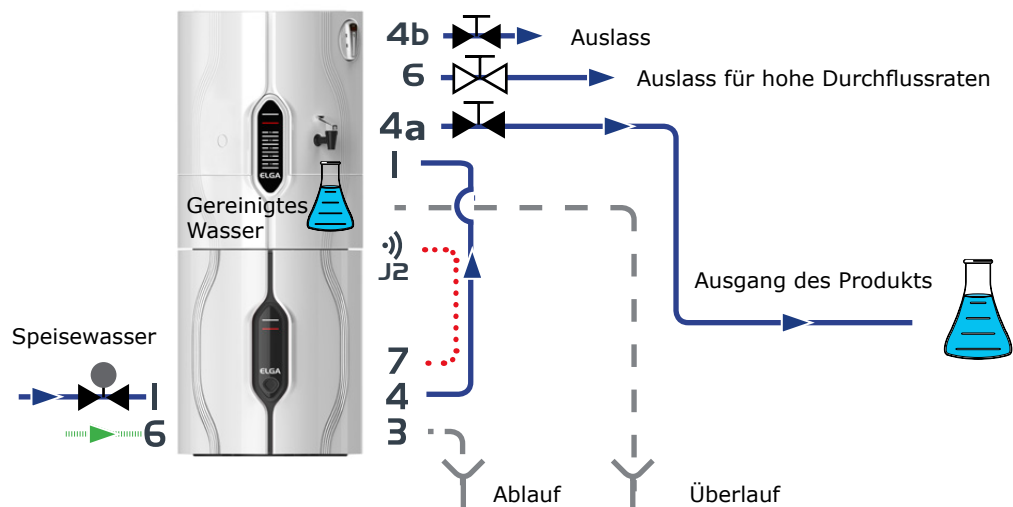
ELGA® ist der weltweit eingetragene Markenname für Laborwasser der Veolia Water. PURELAB® ist eine Handelsmarke und Technologie von ELGA® Labwater. Aufgrund unserer Philosophie der kontinuierlichen Produktverbesserung behalten wir uns das Recht vor, die technischen Daten in dieser Anleitung jederzeit zu ändern.

© 2017 ELGA® LabWater/VWS (UK) Ltd. Alle Rechte vorbehalten.



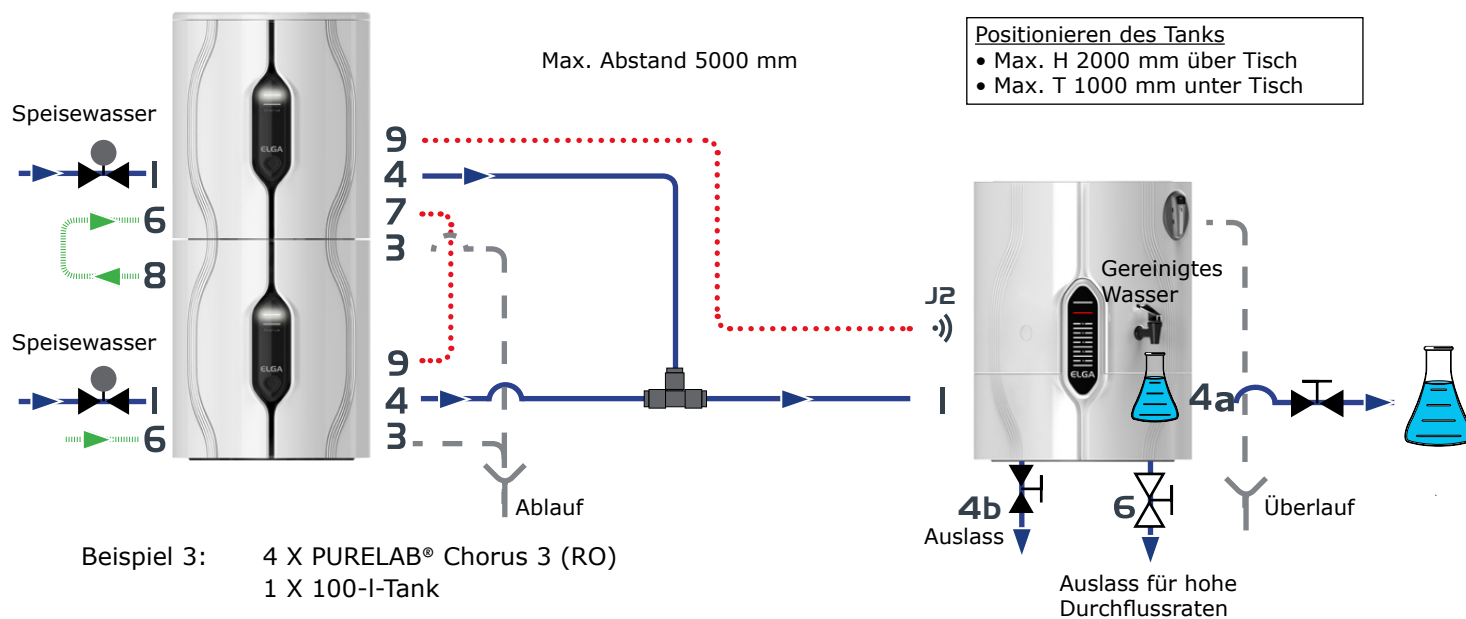
## SYSTEMKONFIGURATION

Beispiel 1: 1 X PURELAB® Chorus 3 (RO)  
1 X 15-l- oder 30-l- Tank



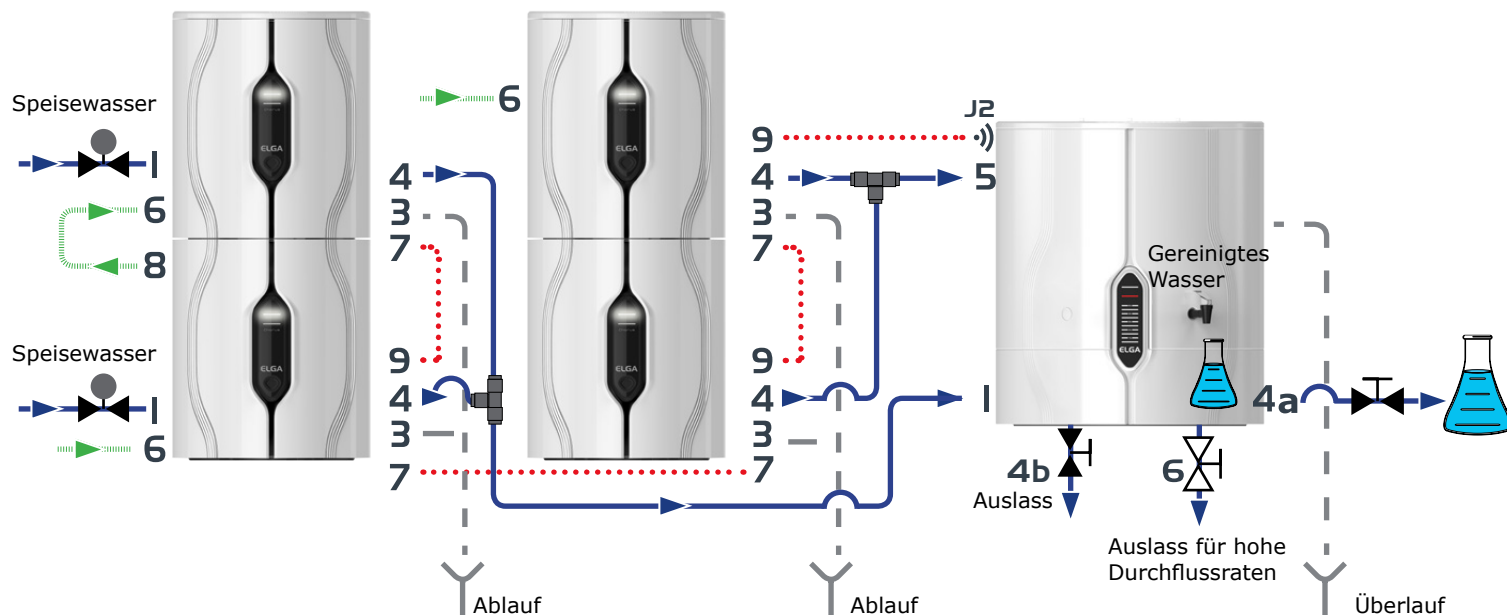
| Legende                     |       |
|-----------------------------|-------|
| KOMMUNIKATIONSSCHNITTSTELLE | ..... |
| Stromversorgung             | ..... |
| Wasser                      | ..... |
| Ventil                      | ..... |
| NRV                         | ..... |
| Absperrventil               | ..... |
| Regler                      | ..... |

Beispiel 2: 2 X PURELAB® Chorus 3 (RO)  
1 X 60-l-Tank



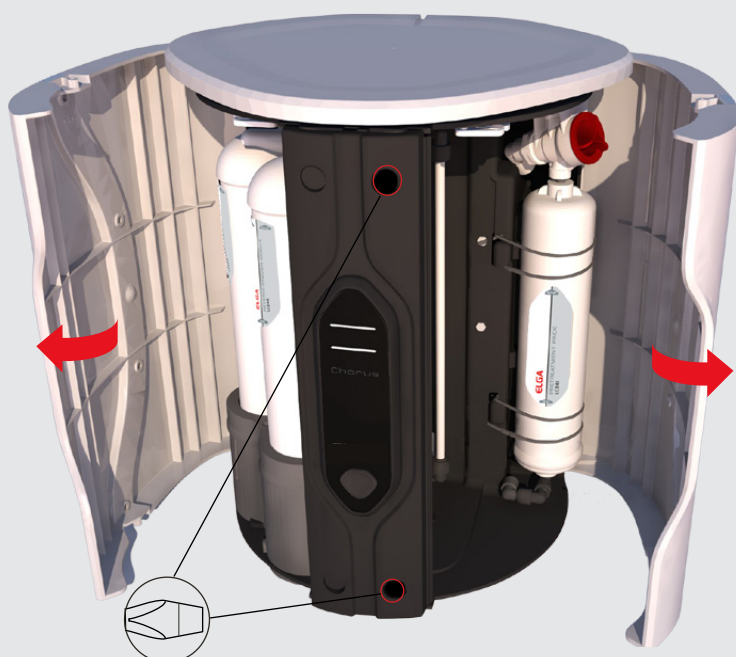
Positionieren des Tanks  
• Max. H 2000 mm über Tisch  
• Max. T 1000 mm unter Tisch

Beispiel 3: 4 X PURELAB® Chorus 3 (RO)  
1 X 100-l-Tank

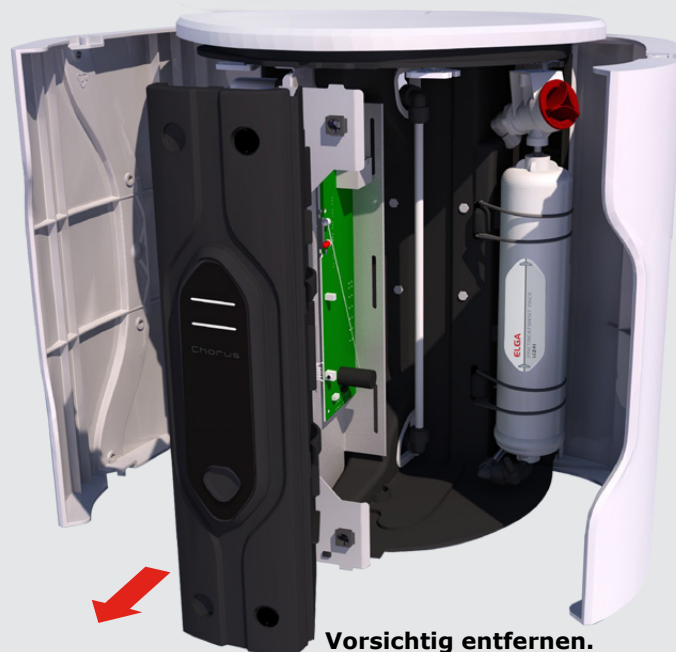


Kontaktieren Sie bitte Ihre zuständigen Serviceunternehmen für weitere Konfigurationsbeispiele.



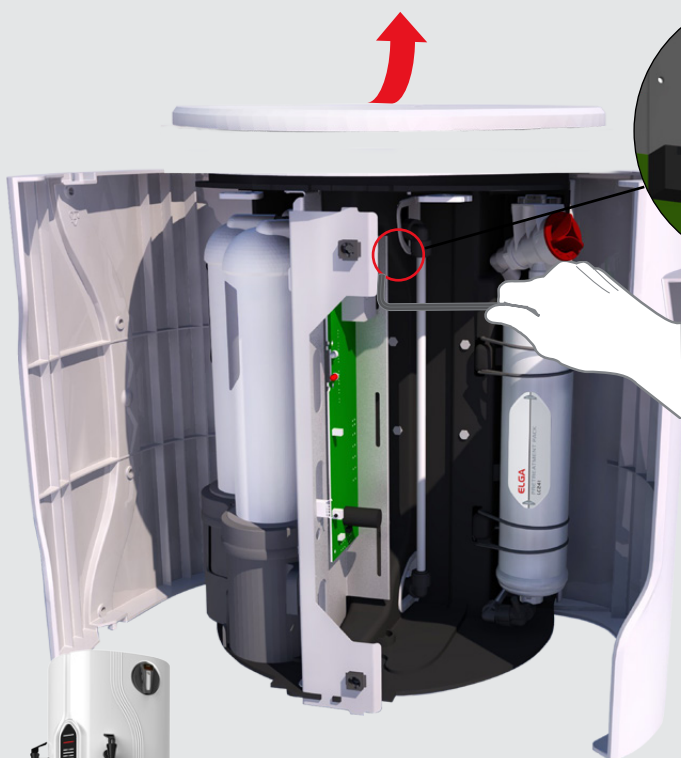
**Ia** MODULARES AUFSTAPELN RESERVOIR OBEN

a. Türen öffnen und Verschlüsse um eine Vierteldrehung lösen.

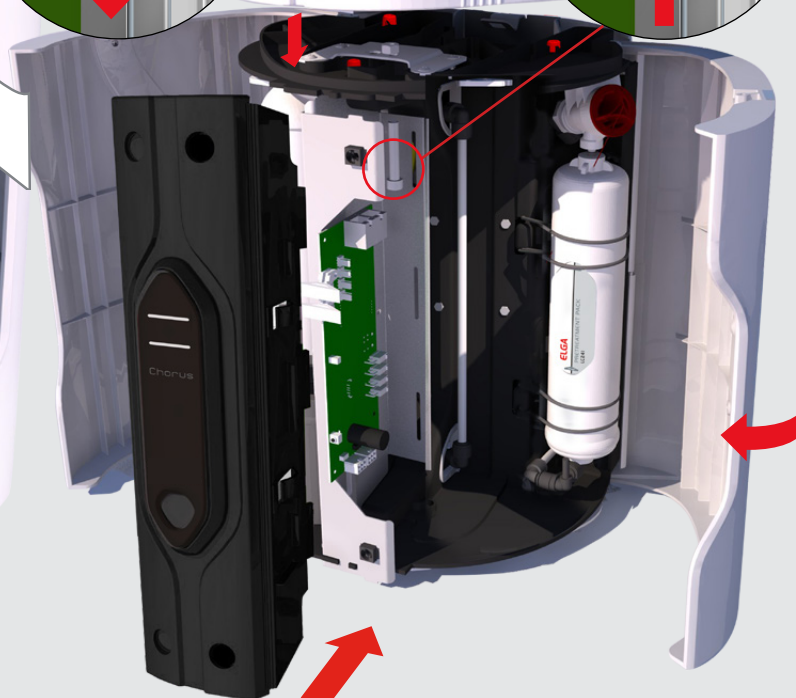
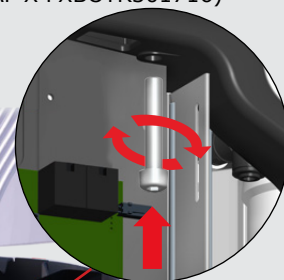
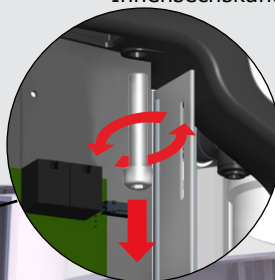


Vorsichtig entfernen.

b. Vorderwand entfernen und Deckelschraube mit Innensechskantschlüssel lösen. (6mm AF X FXBOYR301716)



c. Innensechskantschraube entfernen und Deckel anheben.

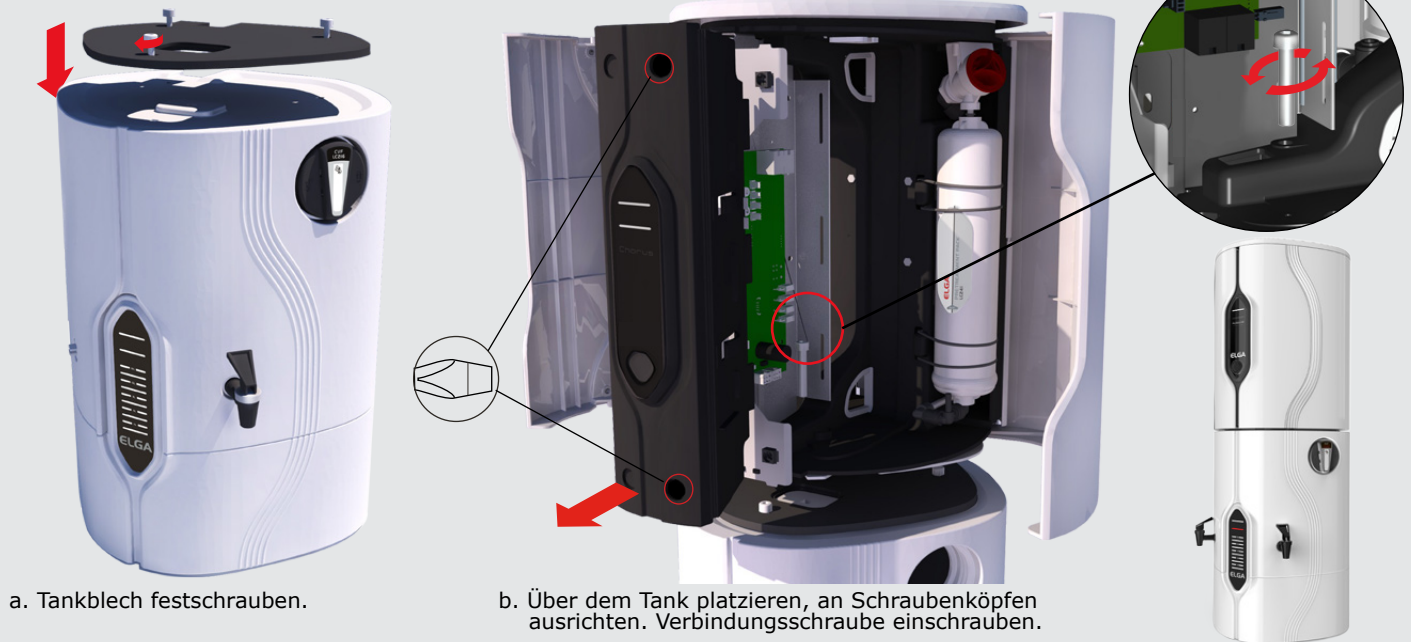


d. Tank oben platzieren und an den drei Punkten ausrichten. Innensechskantschraube wieder einschrauben, dann Vorderwand montieren.

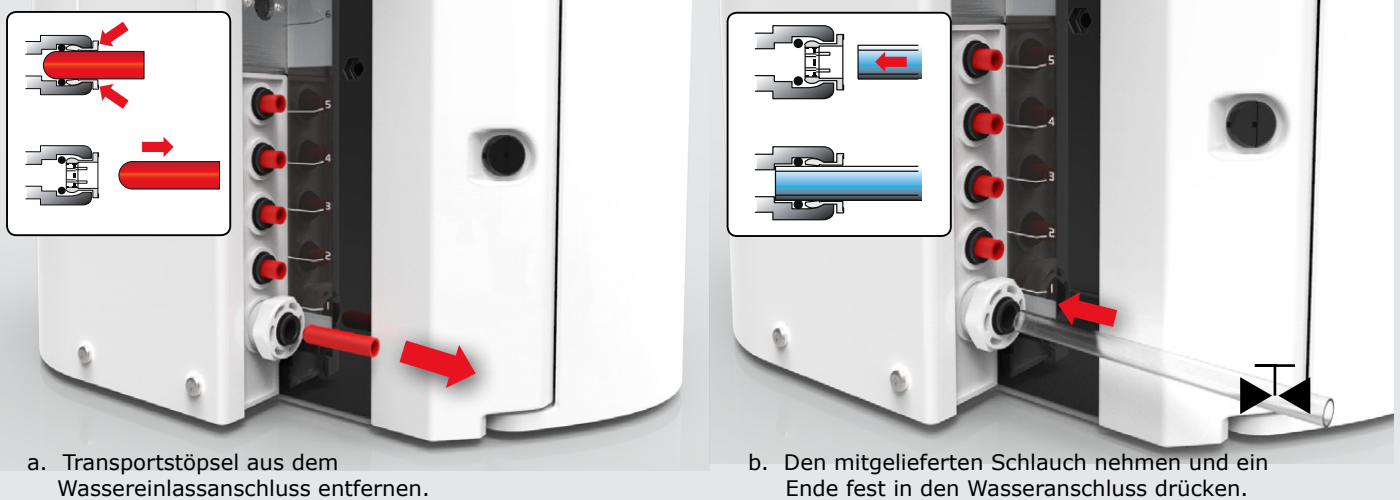
**WARNUNG!**

HÖCHSTENS EIN CHORUS-SYSTEM OBER- ODER UNTERHALB DES TANKS PLATZIEREN.

## 1b MODULARES AUFSTAPELN RESERVOIR UNTERHALB



## 2 WASSER ANSCHLIESSEN (ANSCHLUSS Nr. 1)

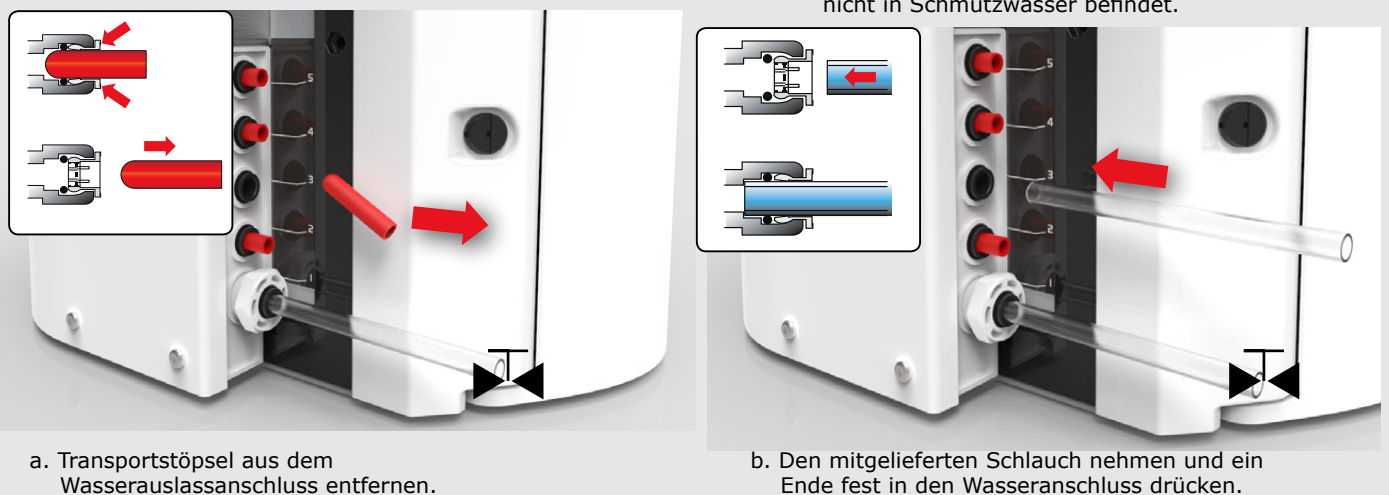


## 3 ABFLUSS ANSCHLIESSEN (ANSCHLUSS Nr. 3)

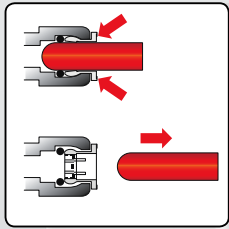


### VORSICHT!

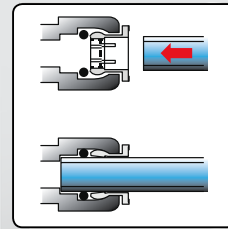
Stellen Sie sicher, dass sich das Abflusswasserrohr nicht in Schmutzwasser befindet.



## 4 REINSTWASSERAUSGANG ANSCHLIESSEN (ANSCHLUSS Nr. 4)



a. Transportstöpsel aus dem Wasserauslassanschluss entfernen.



b. Den mitgelieferten Schlauch nehmen und ein Ende fest in den Wasseranschluss drücken.

**Anm.: Dieses Produkt kann nicht direkt mit einer Chorus-Wasserentnahme betrieben werden.**

## 5 COMMS-ANSCHLÜSSE (ANSCHLUSS Nr. 7)



### WARNUNG!

NUR VON ELGA® MITGELIEFERTE COMMS-KABEL VERWENDEN;  
WEITERE HINWEISE FINDEN SIE IN DER BEDIENUNGSANLEITUNG.

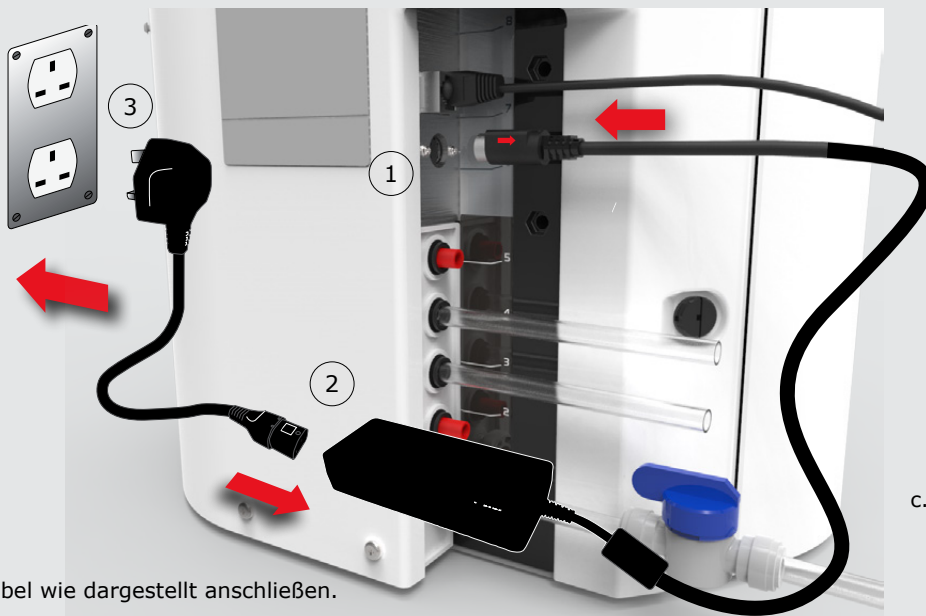
Port 7  
or  
Port 9



Reservoir J2 or J1

Siehe "Reservoir  
Installationsanleitung".

## 6 STROM ANSCHLIESSEN (ANSCHLUSS Nr. 6)



a. Stromkabel wie dargestellt anschließen.

b. Nur die mit dem Chorus mitgelieferte Stromversorgung verwenden. Die Stromversorgung muss geerdet sein.



4

c. **EINMAL DRÜCKEN**,  
um Inbetriebnahme-Modus  
zu starten.  
Die untere rote Lampe  
blinkt, bis der  
Kreislauf beendet ist.

Ca. 60 Minuten



### WARNUNG!

NUR MITGELIEFERTE GERÄTESTECKVORRICHTUNG (NETZKABEL) UND STROMVERSORGUNG VERWENDEN. WIRD DAS GERÄT AUF EINE NICHT VON ELGA FESTGELEGTE ART UND WEISE VERWENDET, KÖNNTE DER VOM GERÄT GELIEFERTE SCHUTZ BEEINTRÄCHTIGT WERDEN. STROMVERSORGUNG SO POSITIONIEREN, DASS EIN KONTAKT MIT WASSER AUSGESCHLOSSEN IST.



# Die Laborwasserexperten



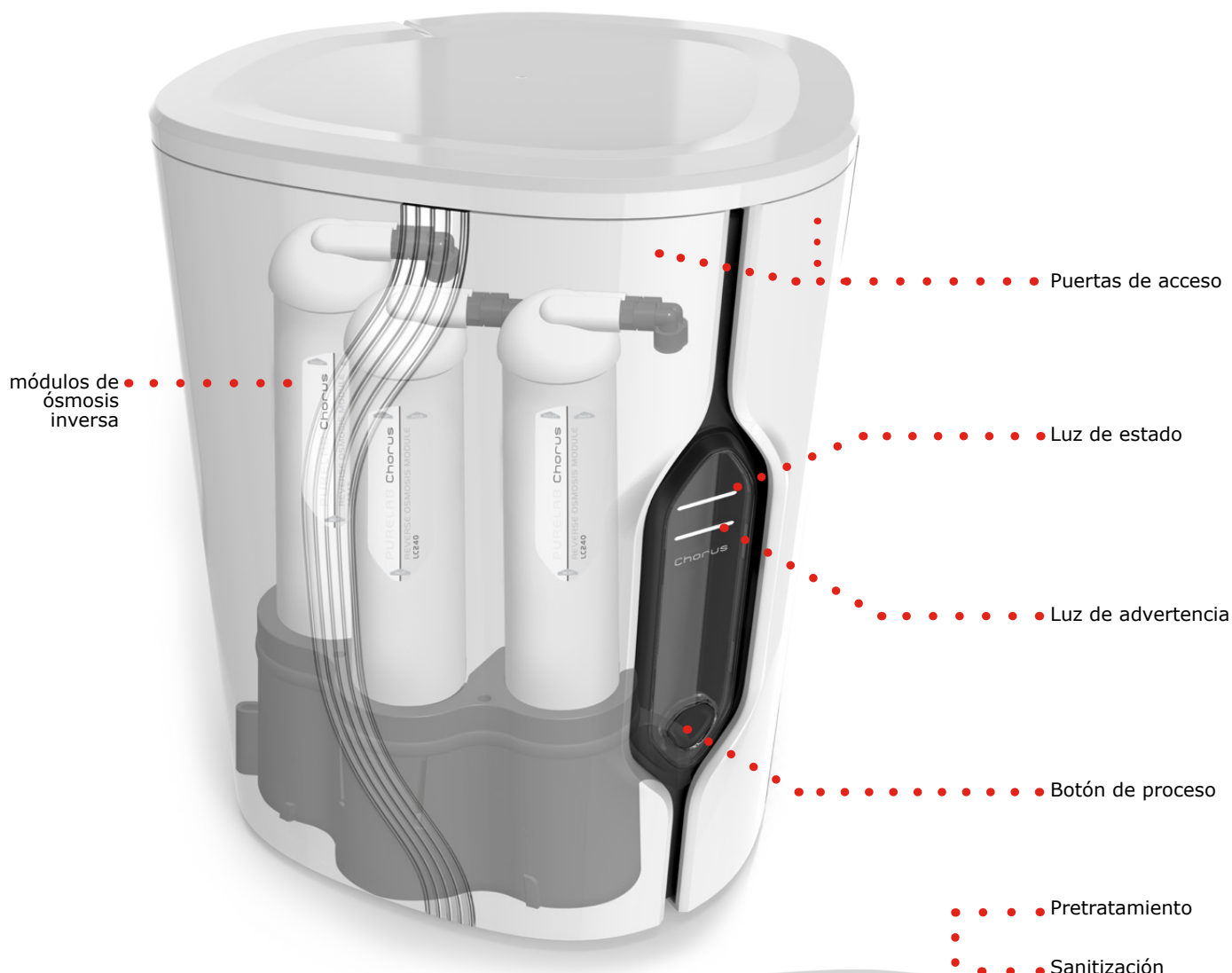
PURELAB®  
Chorus





## Bienvenido

Gracias por comprar Chorus 3. Lea los siguientes avisos sobre Salud y Seguridad antes de continuar.



### SEGURIDAD Y SALUD

Por favor, cumpla las notas de seguridad indicadas en la presente hoja de instrucciones. Por favor, cumpla las notas de seguridad indicadas en la presente hoja de instrucciones. El incumplimiento de tales instrucciones supone un peligro de muerte y podría provocar daños en los equipos, procesos y equipos asociados.

#### 1. Electricidad



##### ¡ADVERTENCIA!

COLOCAR LA FUENTE DE ALIMENTACIÓN DE MODO QUE NO PUEDA ENTRAR EN CONTACTO CON AGUA.

#### 2. Conservante residual



##### ¡ADVERTENCIA!

DURANTE EL CICLO DE PUESTA EN SERVICIO INICIAL LAS TRAZAS DE CONSERVANTES RESIDUALES SE ELIMINAN DEL SISTEMA MEDIANTE ENJUAGUE. EXISTE UNA FICHA DE DATOS DE SEGURIDAD DEL MATERIAL A DISPOSICIÓN DE QUIEN LA SOLICITE.

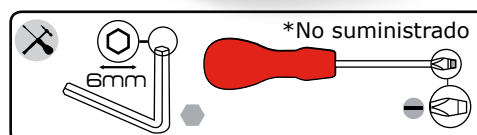
#### Control de sustancias con riesgo para la salud (COSHH)

Existen fichas de datos de seguridad de los materiales a disposición de quien la solicite.

ELGA® Labwater  
+44 (0) 203 567 7300  
Correo electrónico: [info@elgalabwater.com](mailto:info@elgalabwater.com)

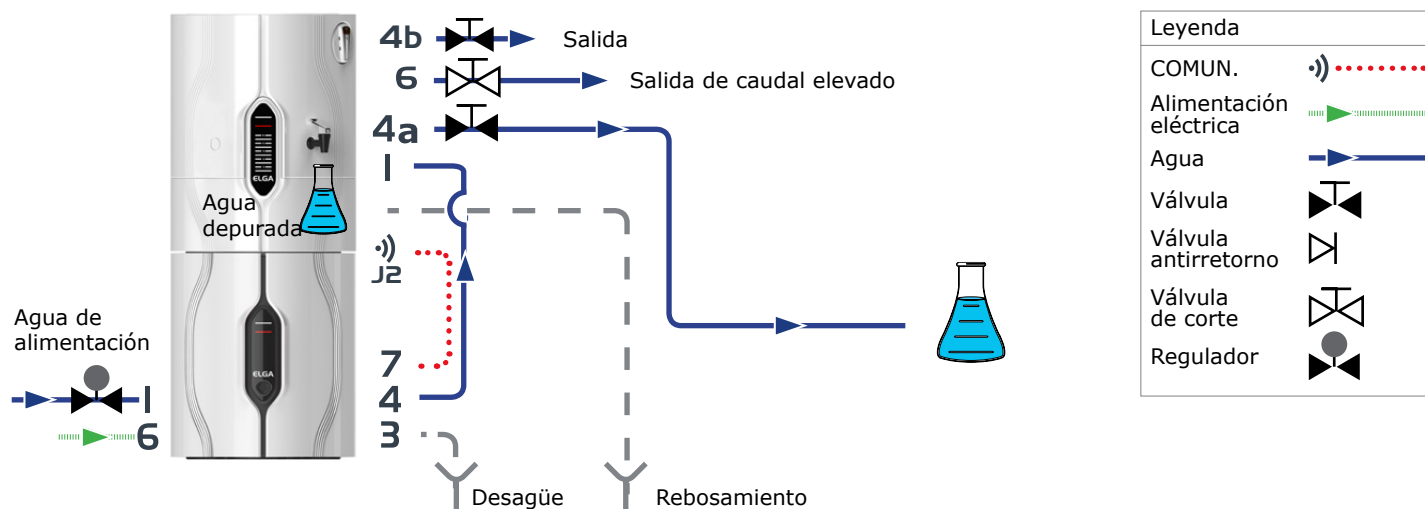
Fax: +44 (0) 203 567 7205  
Sitio Web: [www.elgalabwater.com](http://www.elgalabwater.com)

ELGA® es el nombre de la marca internacional para aguas de laboratorio de Veolia Water PURELAB® es una tecnología y marca comercial de ELGA Labwater. Según nuestra política de mejora continua nos reservamos el derecho a modificar las especificaciones indicadas en esta guía. © 2017 ELGA® Labwater/VWS (UK) Ltd. Todos los derechos reservados.

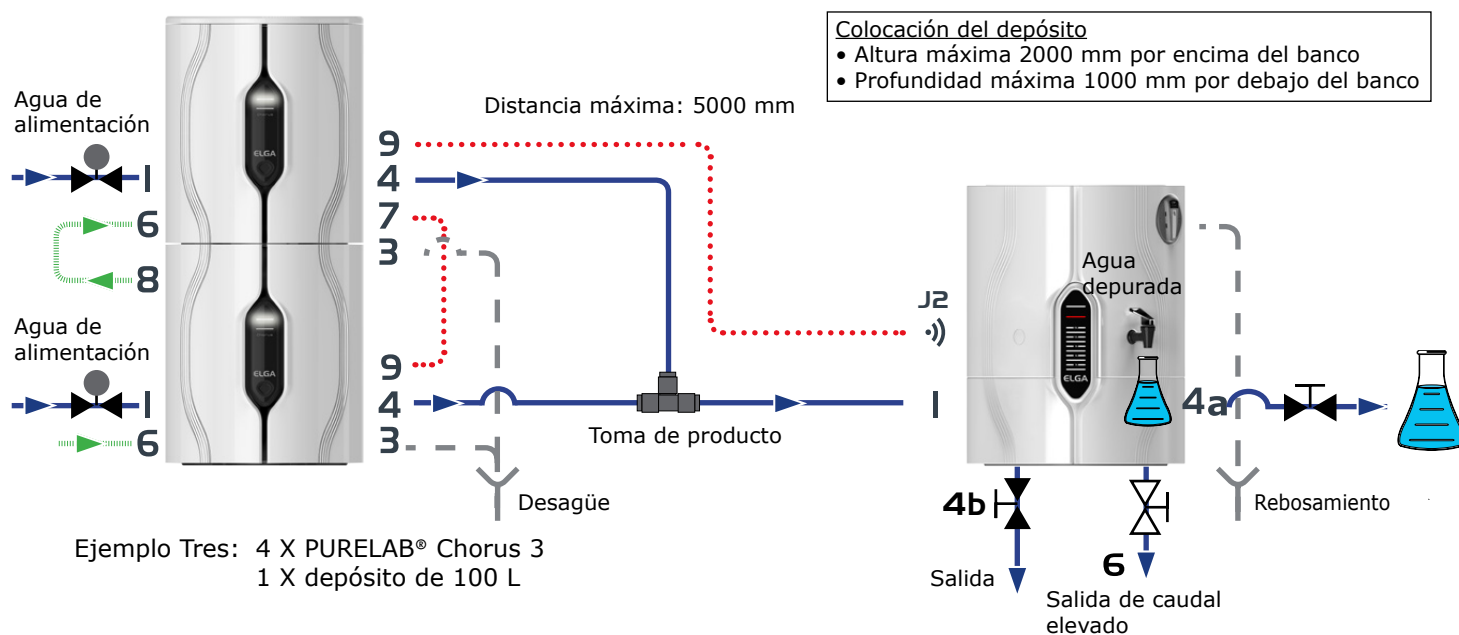


## CONFIGURACIÓN DEL SISTEMA

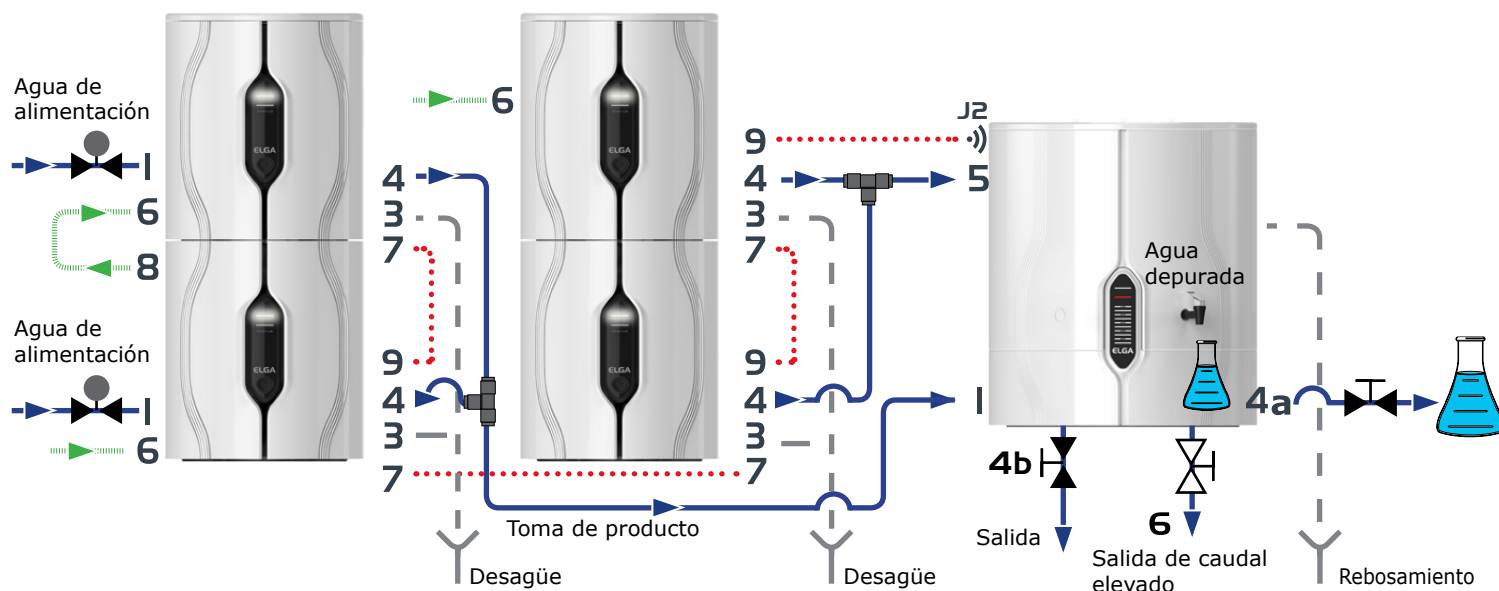
Ejemplo uno: 1 X PURELAB® Chorus 3  
1 X depósito de 15L o 30L



Ejemplo dos: 2 X PURELAB® Chorus 3  
1 X depósito de 60 L



Ejemplo Tres: 4 X PURELAB® Chorus 3  
1 X depósito de 100 L



Consejos adicionales sobre conexiones de configuración.

**1a APILAMIENTO MODULAR DESPOSITE POR ENCIMA****¡ADVERTENCIA!**

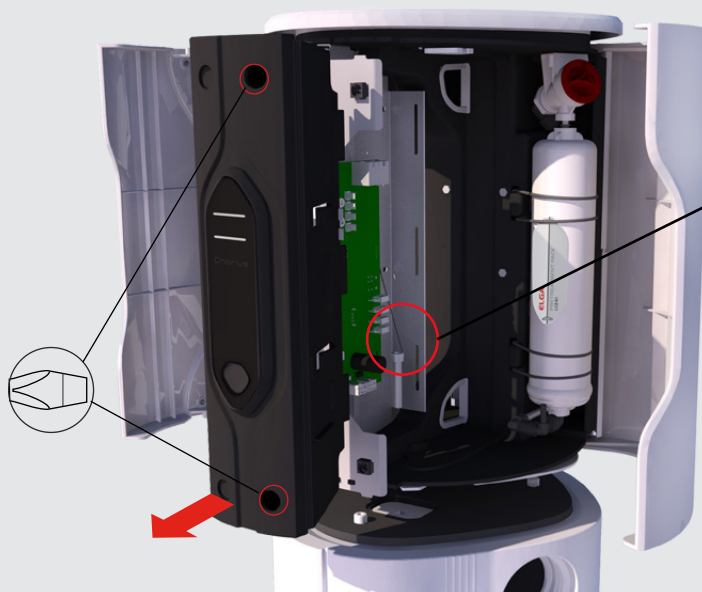
COLOCAR SOLAMENTE UN SISTEMA CHORUS EN LA PARTE SUPERIOR O INFERIOR DEL DEPÓSITO.



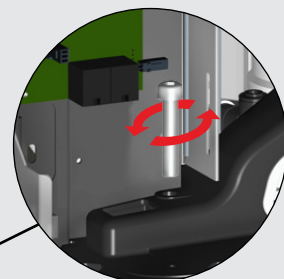
## 1b APILAMIENTO MODULAR DESPOSITE ABAJO



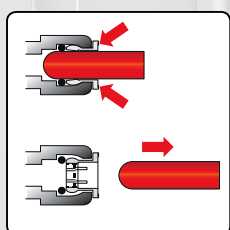
a. Atornillar la placa del depósito.



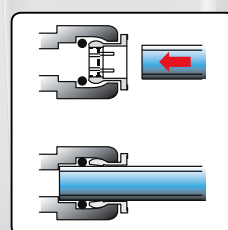
b. Colocar en la parte superior del depósito. Alinear con las cabezas de los pernos. Atornillar el perno de unión.



## 2 CONECTAR EL AGUA (Nº DE PUERTO 1)



a. Retirar los tapones de transporte de la conexión de entrada del agua.



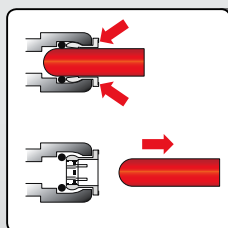
b. Con el tubo suministrado, introducir con seguridad un extremo por el conector de agua.

## 3 CONNECT THE DRAIN (PORT No.3)

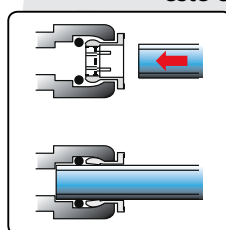


### ¡PRECAUCIÓN!

Asegurarse de que la tubería de desagüe no esté en el agua residual.



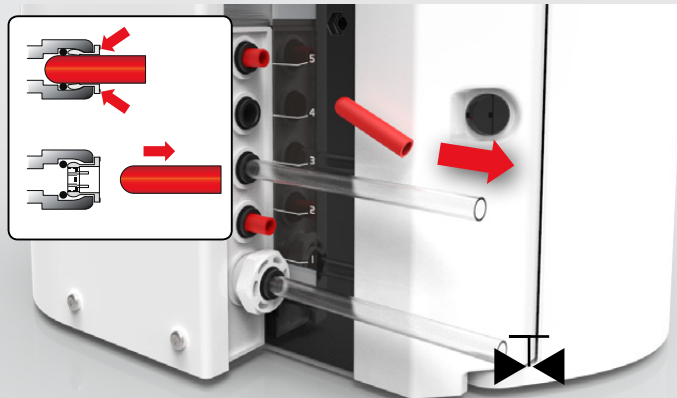
a. Retirar los tapones de transporte de la conexión de salida del agua .



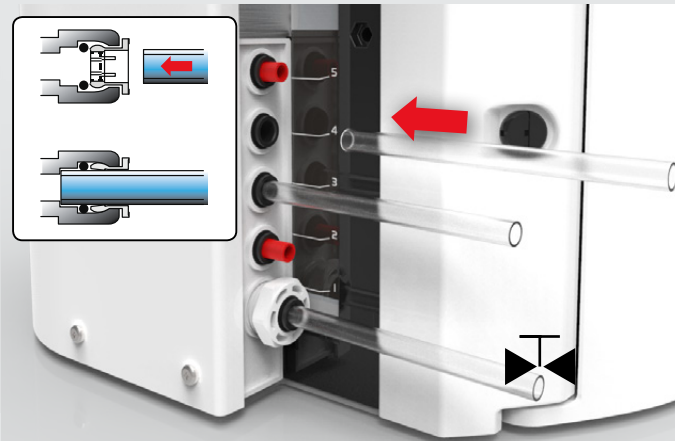
b. Con el tubo suministrado, introducir con seguridad un extremo por el conector de agua.



## 4 CONECTAR LA SALIDA DE AGUA DEPURADA (Nº PUERTO 4)



a. Retirar los tapones de transporte de la conexión de salida del agua.



b. Con el tubo suministrado, introducir con seguridad un extremo por el conector de agua.

**Nota** Este producto no es adecuado para su uso directo con un dispensador chorus.

## 5 CONEXIONES DE COMUNICACIONES (Puerto 7)



### ¡ADVERTENCIA!

UTILIZAR SOLAMENTE CABLES SUMINISTRADOS POR ELGA®, CONSULTAR EL MANUAL DEL USUARIO PARA MÁS INFORMACIÓN.

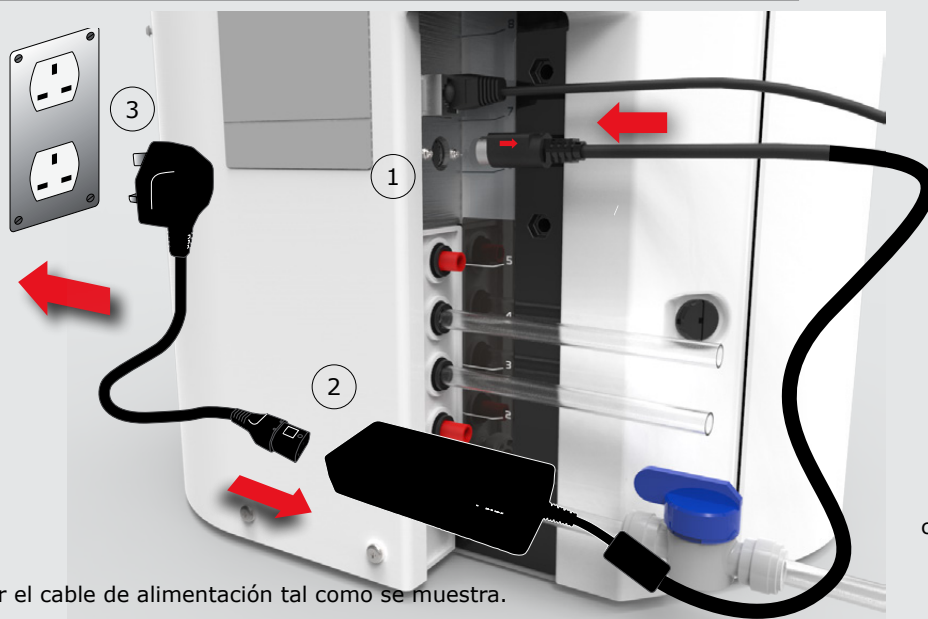
Port 7  
or  
Port 9



Reservoir J2 or J1

Ver 'Reservorio  
Guía de instalación'.

## 6 CONECTAR LA ALIMENTACIÓN ELÉCTRICA (PUERTO Nº 6)



a. Conectar el cable de alimentación tal como se muestra.

b. Utilizar solamente la fuente de alimentación incluida con Chorus. La fuente de alimentación debe estar conectada a tierra.

c. **PULSAR UNA VEZ** para iniciar el modo "Puesta en servicio". La luz roja inferior parpadeará hasta que termine el ciclo.

Unos 60 minutos



### ¡ADVERTENCIA!

UTILIZAR EXCLUSIVAMENTE EL ENCHUFE DE DISPOSITIVO (CABLE DE RED) Y LA ALIMENTACIÓN SUMINISTRADOS. SI EL EQUIPO SE UTILIZA DE MODO DIFERENTE AL ESPECIFICADO POR ELGA, NO SE GARANTIZA EL CORRECTO FUNCIONAMIENTO DE LA PROTECCIÓN FACILITADA. COLOCAR LA FUENTE DE ALIMENTACIÓN DE MODO QUE NO PUEDA ENTRAR EN CONTACTO CON AGUA.

Los especialistas en aguas de laboratorio

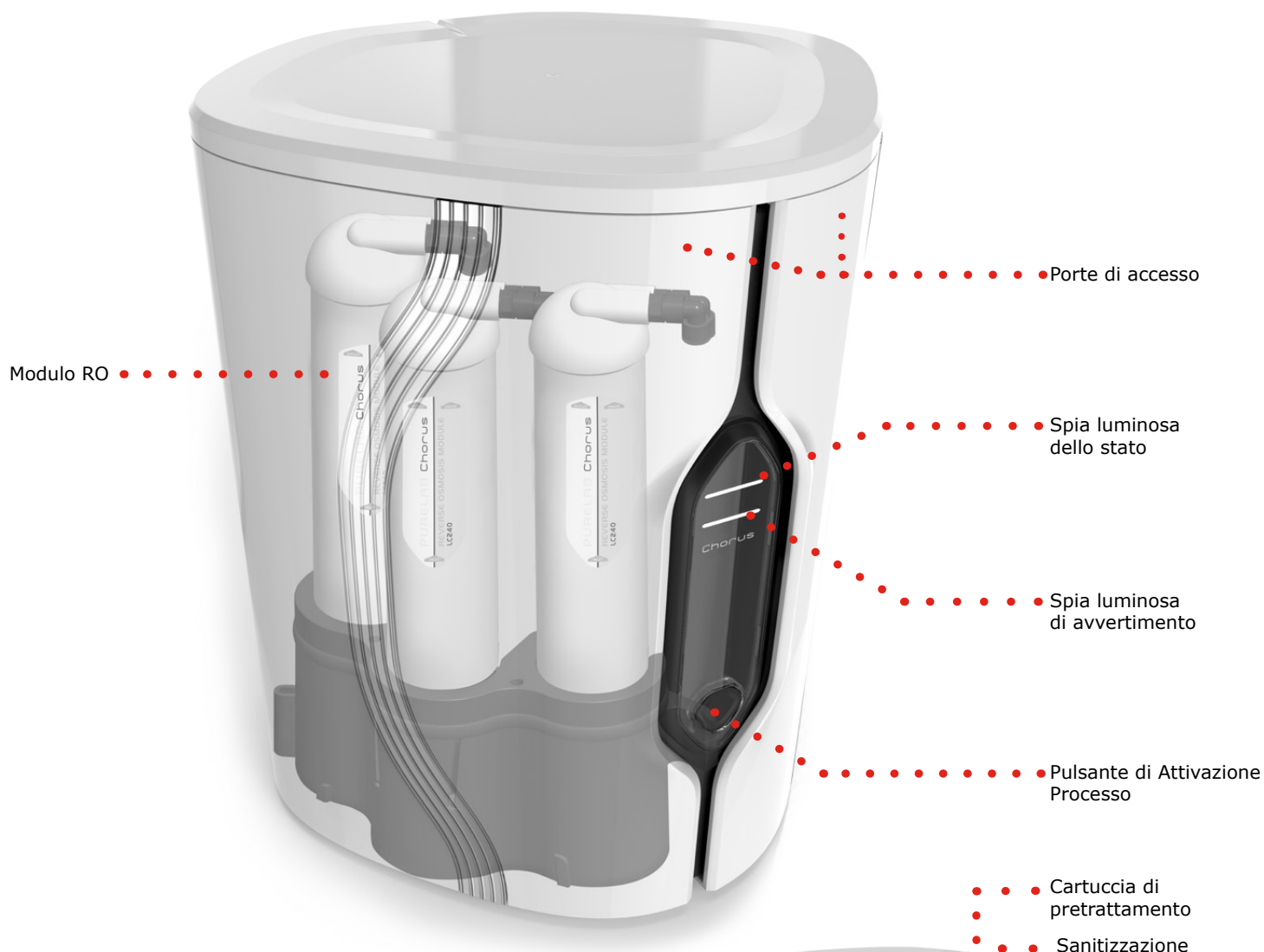


PURELAB®  
Chorus



## Benvenuti

Grazie per aver acquistato il Chorus 3. Prima di procedere, leggere le seguenti informazioni sulla salute e la sicurezza.



### Salute e sicurezza

Seguire le informazioni sulla sicurezza illustrate nel presente foglio. Seguire le informazioni sulla sicurezza illustrate nel presente foglio. La mancata osservanza delle presenti istruzioni potrebbe provocare danni alle apparecchiature, ai processi, alle apparecchiature associate e alle persone con lesioni o morte.

#### 1. Elettricità



##### AVVERTENZA!

POSIZIONARE L'ALIMENTAZIONE DI CORRENTE IN MODO CHE NON POSSA VENIRE A CONTATTO CON ACQUA.

#### 2. Conservante residuo



##### AVVERTENZA!

DURANTE LA MESSA IN FUNZIONE, IL CONSERVANTE RESIDUO DELLE TRACCE DI CICLO È ELIMINATO DAL SISTEMA. UNA SCHEDA TECNICA DI SICUREZZA SUI MATERIALI È DISPONIBILE A RICHIESTA.

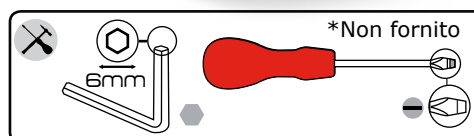
#### Controllo delle sostanze pericolose per la salute (COSHH)

Schede tecniche di sicurezza sui materiali sono disponibili a richiesta.

ELGA® Labwater  
+44 (0) 203 567 7300  
Email: [info@elgalabwater.com](mailto:info@elgalabwater.com)

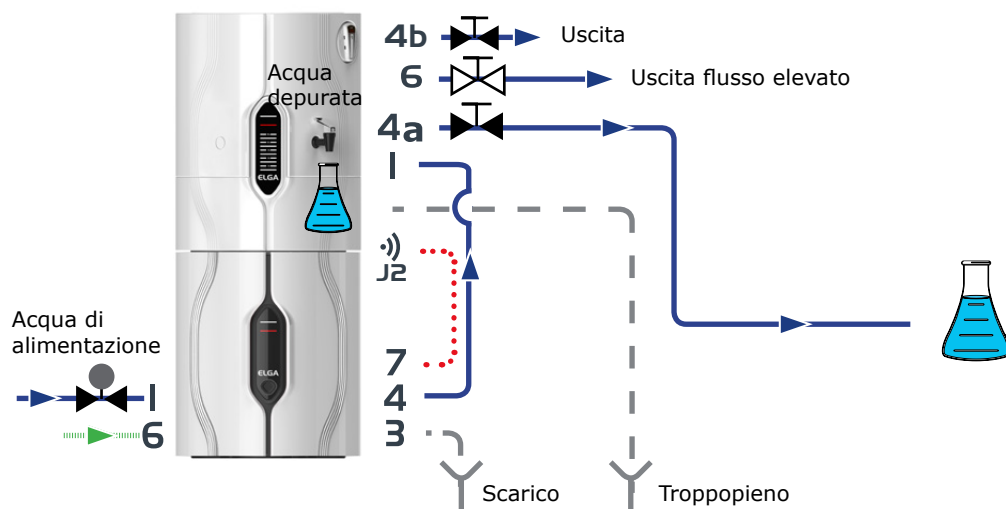
Fax: +44 (0) 203 567 7205  
Sito web: [www.elgalabwater.com](http://www.elgalabwater.com)

ELGA® è il marchio di laboratorio globale di Veolia Water PURELAB® è il marchio commerciale e la tecnologia di ELGA® Labwater. In base a una politica aziendale di continuo miglioramento, ci riserviamo il diritto di modificare le specifiche fornite nella presente guida. © 2017 ELGA® Labwater/VWS (UK) Ltd. Tutti i diritti riservati.



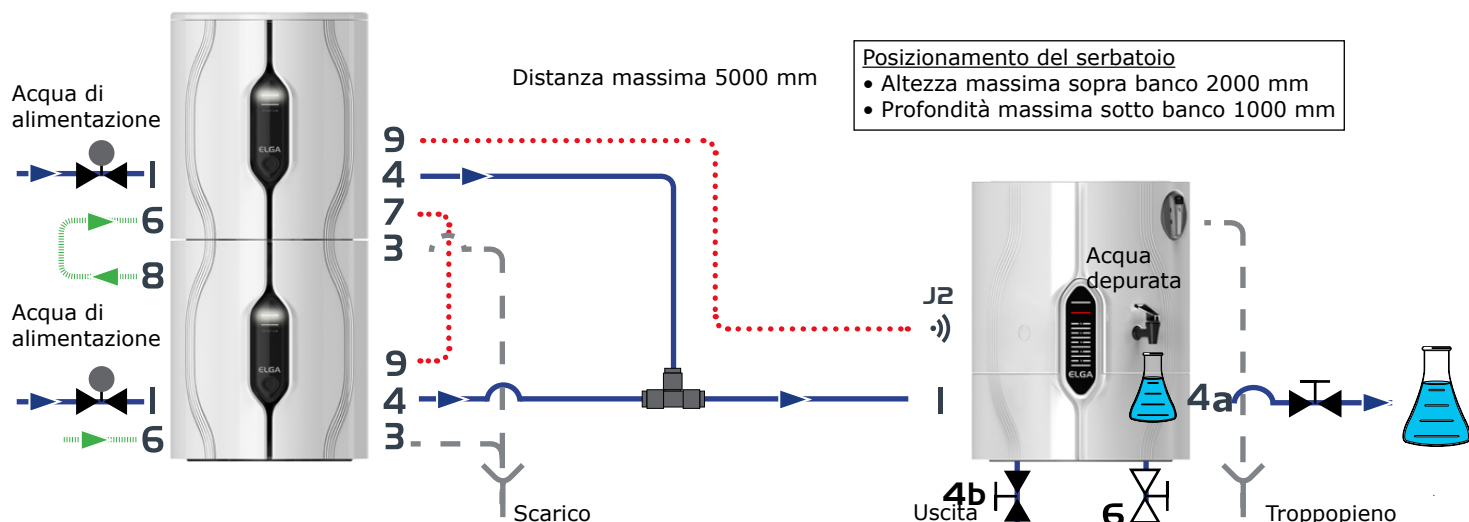
## CONFIGURAZIONE DI SISTEMA

Esempio uno: 1 X PURELAB® Chorus 3 (RO)  
1 X Serbatoio da 15L o 30L



| Legenda            |     |
|--------------------|-----|
| COMUNICAZIONE      | ⋯⋯⋯ |
| Alimentazione      | →   |
| Acqua              | →   |
| Valvola            | ⌵   |
| Valvola di arresto | ⌵   |
| Regolatore         | ⌵   |

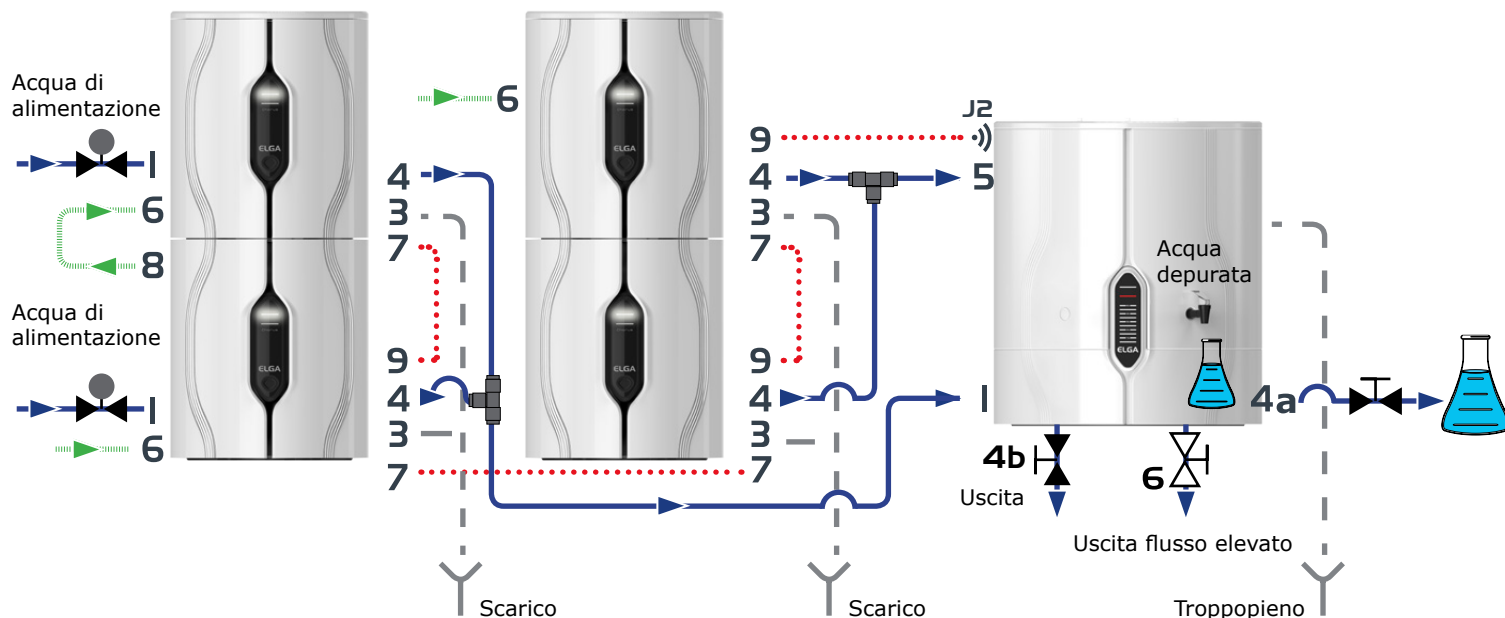
Esempio due: 1 X PURELAB® Chorus 3 (RO)  
1 X serbatoio da 60 L



**Posizionamento del serbatoio**

- Altezza massima sopra banco 2000 mm
- Profondità massima sotto banco 1000 mm

Esempio tre: 4 X PURELAB® Chorus 3 (RO)  
1 X serbatoio da 100 L



er ulteriori configurazioni, contattare i gruppi di assistenza locali.



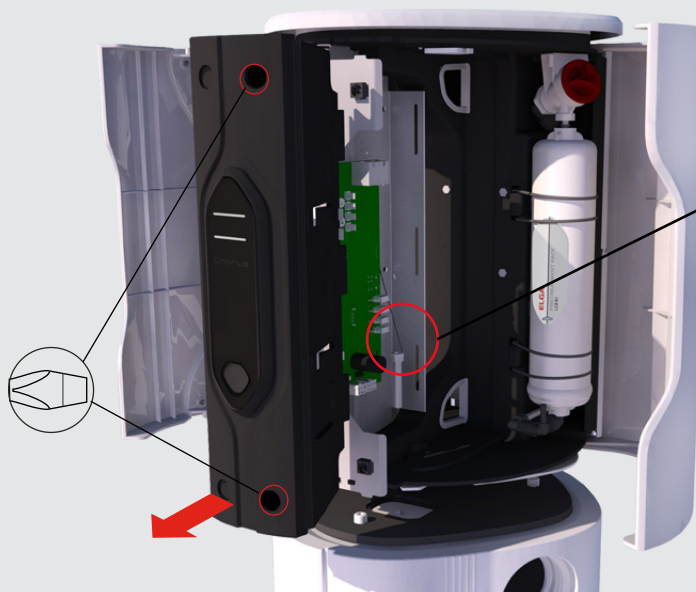
**1a** IMPILAGGIO MODULARE RESERVOIR SOPRA**AVVERTENZA!**

POSIZIONARE SOLAMENTE UN SISTEMA CHORUS SOPRA O SOTTO IL SERBATOIO.

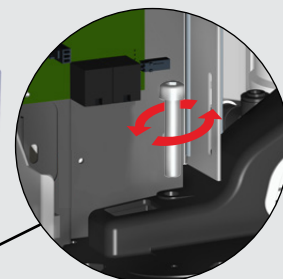
## 1b IMPILAGGIO MODULARE SERBATOIO SOTTO



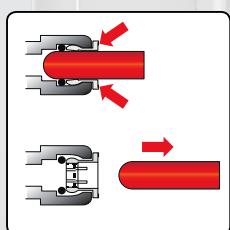
a. Avvitare sotto la piastra del serbatoio.



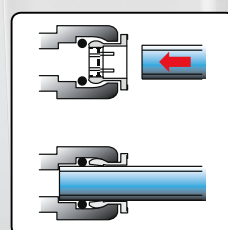
b. Posizionare sopra al serbatoio, allineare con la testa delle viti. Avvitare la vite di congiunzione.



## 2 COLLEGARE L'ACQUA (PORTA N. 1)



a. Rimuovere i tappi di transito dal collegamento dell'ingresso dell'acqua.



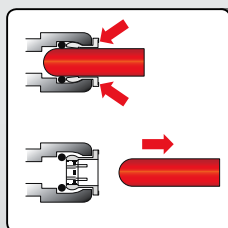
b. Usare il tubo fornito, spingere con fermezza l'estremità nel connettore dell'acqua in modo che risulti saldamente inserito.

## 3 COLLEGARE LO SCARICO (PORTA N. 3)

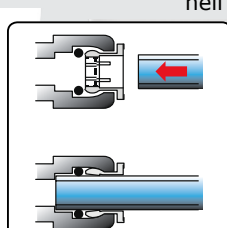


### ATTENZIONE!

Assicurarsi che il tubo di scarico non si trovi nell'acqua di scarico.

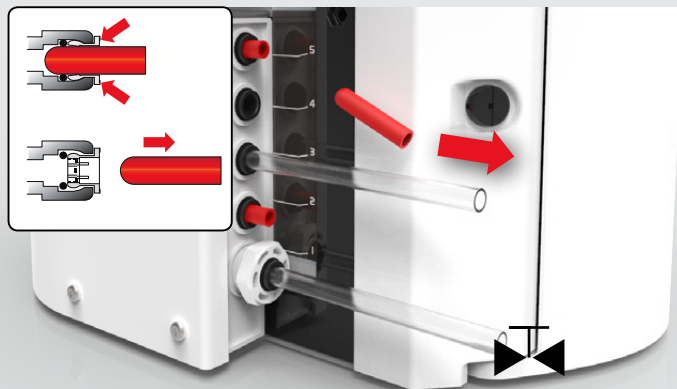


a. Rimuovere i tappi di transito dal collegamento di uscita dell'acqua.

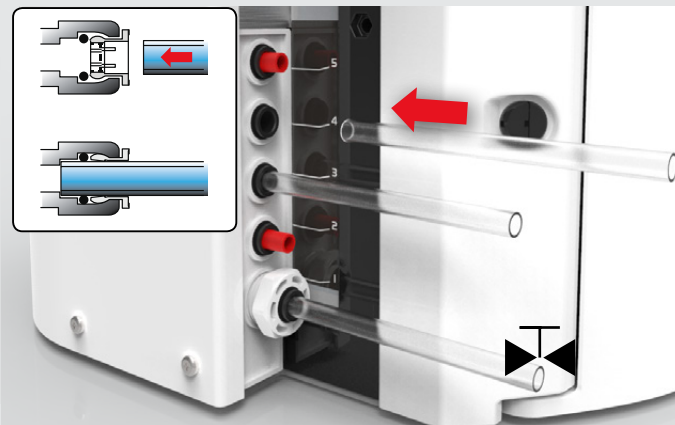


b. Usare il tubo fornito, spingere con fermezza l'estremità nel connettore dell'acqua in modo che risulti saldamente inserito.

## 4 COLLEGARE L'USCITA DELL'ACQUA DEPURATA (PORTA N.4)



a. Rimuovere i tappi di transito dal collegamento di uscita dell'acqua.



b. Usare il tubo fornito, spingere con fermezza l'estremità nel connettore dell'acqua in modo che risulti saldamente inserito.

**N.B Questo prodotto non è adatto all'utilizzo diretto con il distributore chorus.**

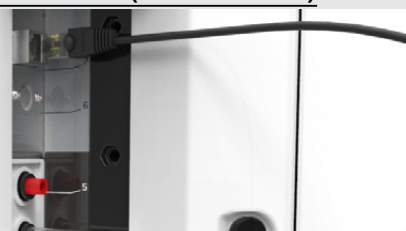
## 5 COLLEGAMENTI DEGLI STRUMENTI DI COMUNICAZIONE (PORTA N.7)



### AVVERTENZA!

USARE ESCLUSIVAMENTE IL CAVO PER GLI STRUMENTI DI COMUNICAZIONE FORNITO DA ELGA®, PER ULTERIORE ASSISTENZA FARE RIFERIMENTO AL MANUALE DELL'OPERATORE.

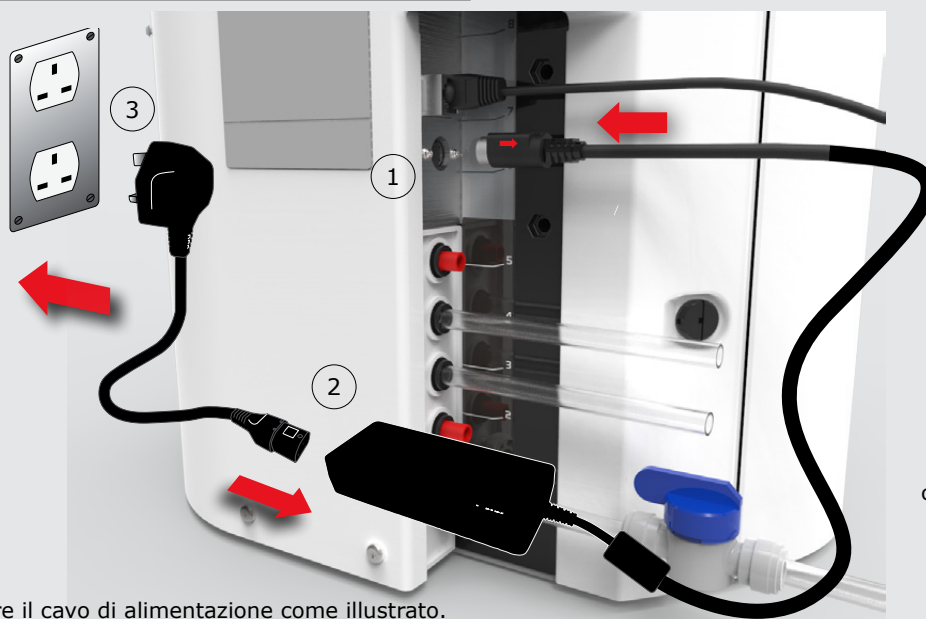
Port 7  
or  
Port 9



Reservoir J2 or J1

Vedere 'Reservoir Guida d'installazione'.

## 6 FORNIRE ELETTRICITÀ (PORTA N. 6)



a. Collegare il cavo di alimentazione come illustrato.

b. Usare esclusivamente l'alimentatore di corrente fornito con il Chorus. L'alimentatore di corrente deve essere messo a terra.



4

c. **PREMERE UNA VOLTA** per iniziare la modalità di messa in funzione. La spia rossa in basso lampeggerà fino a quando il ciclo non è terminato.

Circa 60 minuti



### AVVERTENZA!

USARE ESCLUSIVAMENTE LO STRUMENTO DI COLLEGAMENTO DELL'APPARECCHIO (CAVO DI RETE) E L'ALIMENTAZIONE DI CORRENTE A DISPOSIZIONE. L'UTILIZZO DELL'APPARECCHIO SECONDO UNA MODALITÀ NON SPECIFICATA DA ELGA POTRÀ COMPROMETTERE LA PROTEZIONE DA ESSO FORNITA. POSIZIONARE L'ALIMENTAZIONE DI CORRENTE IN MODO CHE NON POSSA VENIRE A CONTATTO CON ACQUA.



Gli specialisti del trattamento  
di laboratorio dell'acqua



PURELAB®  
Chorus





## Bem-vindo

Obrigado por ter comprado o Chorus 3. Antes de continuar leia as seguintes notas de saúde e de segurança.



### Saúde e segurança

Respeite as informações de segurança detalhadas nesta folha de instruções. Respeite as informações de segurança detalhadas nesta folha de instruções. O não cumprimento destas instruções poderá resultar em danos no equipamento, processos ou equipamento associado e também no ferimento ou na morte de pessoas.

#### 1. Electricidade



##### AVISO!

POSICIONE A FONTE DE ALIMENTAÇÃO DE FORMA A QUE ESTA NÃO ENTRE EM CONTACTO COM A ÁGUA.

#### 2. Preservativo residual



##### AVISO!

DURANTE O CICLO DE COLOCAÇÃO EM FUNCIONAMENTO, O PRESERVATIVO RESIDUAL É DESCARREGADO DO SISTEMA. A PEDIDO PODERÁ DISPONIBILIZAR-SE UM FOLHETO INFORMATIVO RELATIVO À SEGURANÇA.

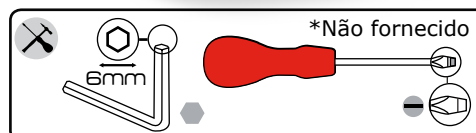
#### Controlo de Substâncias Perigosas para a Saúde (COSHH)

A pedido encontram-se disponíveis folhas de dados de segurança dos materiais.

ELGA® Labwater  
+44 (0) 203 567 7300  
E-mail: [info@elgalabwater.com](mailto:info@elgalabwater.com)

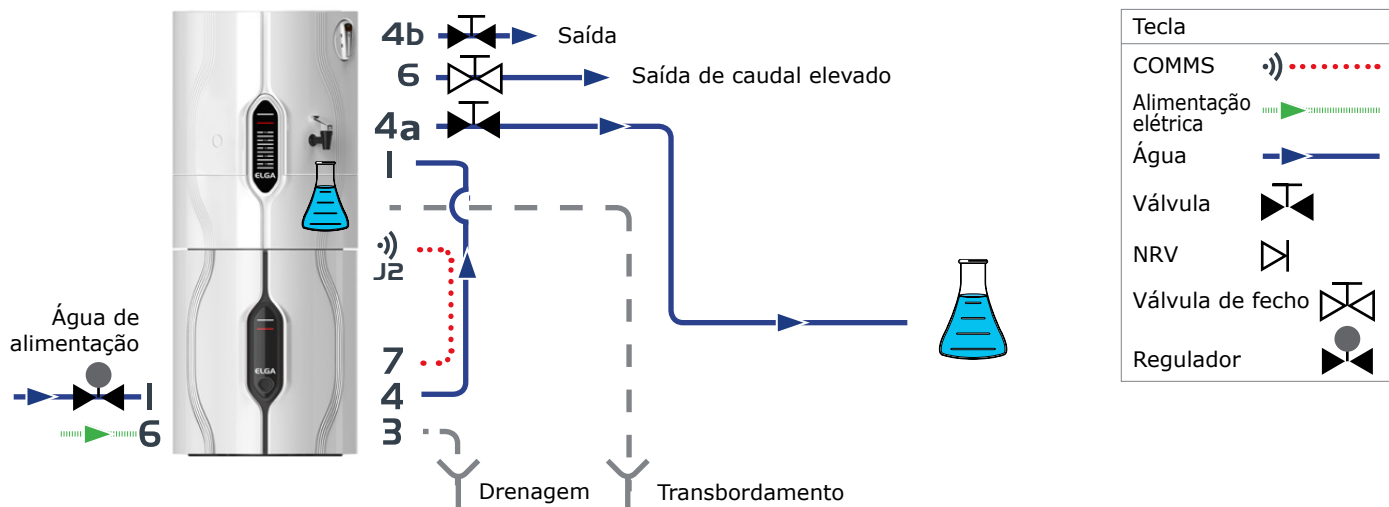
Fax: +44 (0) 203 567 7205  
Website: [www.elgalabwater.com](http://www.elgalabwater.com)

ELGA® é marca registada de águas de laboratório da Veolia Water PURELAB® é marca registada e tecnologia pertencente à ELGA® Labwater. Devido a uma política de melhoria contínua, reservamo-nos o direito de corrigir as especificações apresentadas neste guia. © 2017 ELGA® Labwater / VWS (UK) Ltd. Todos os direitos reservados.

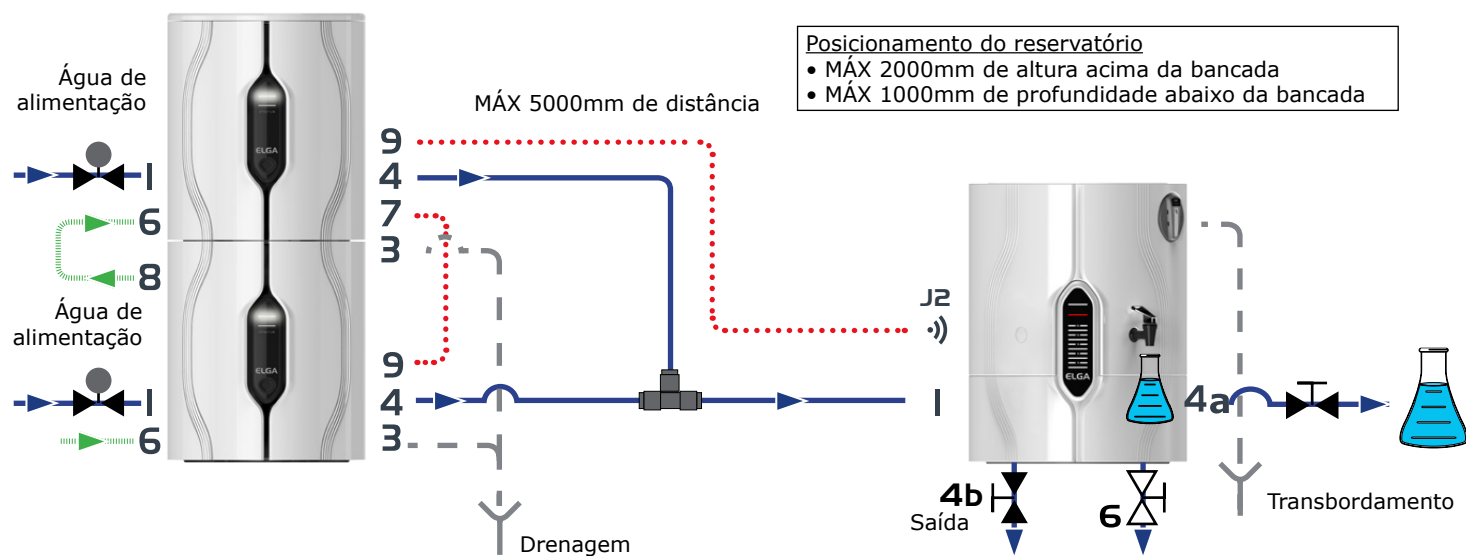


## CONFIGURAÇÃO DO SISTEMA

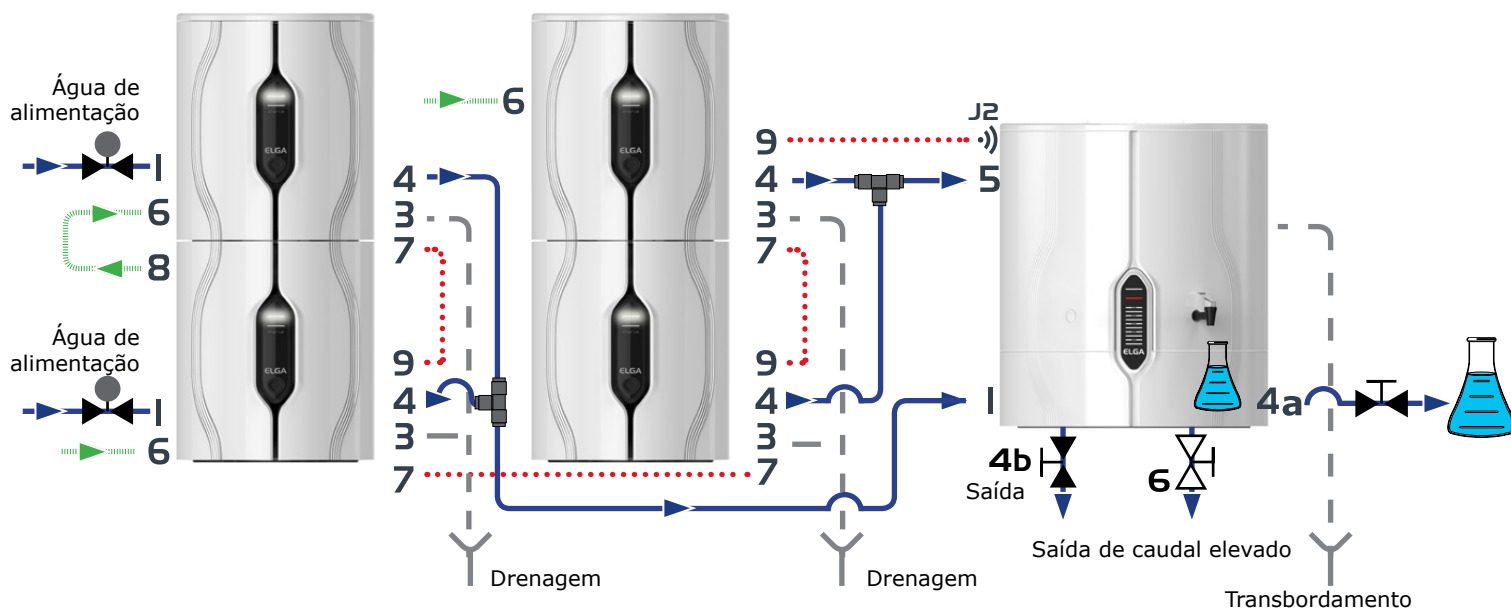
Primeiro exemplo: 1 X PURELAB® Chorus 3 RO  
1 X reservatório de 15L ou 30L



Segundo exemplo: 2 X PURELAB® Chorus 3 RO  
1 X reservatório de 60L



Terceiro exemplo: 4 X PURELAB® Chorus 3 RO  
1 X reservatório de 100L



Contacte as organizações de serviços locais para outras configurações.

**Ia** EMPILHAMENTO MODULAR RESERVOIR ACIMA**AVISO!**

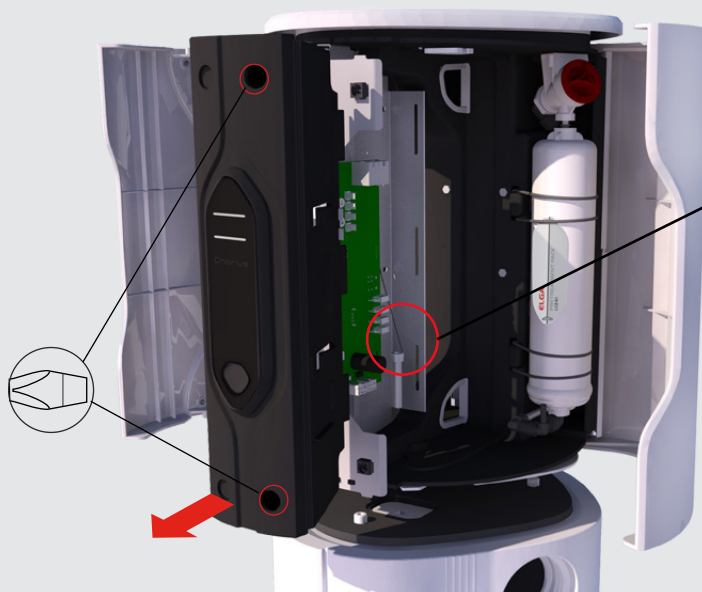
COLOQUE APENAS UM SISTEMA CHORUS POR CIMA OU POR BAIXO DO RESERVATÓRIO.



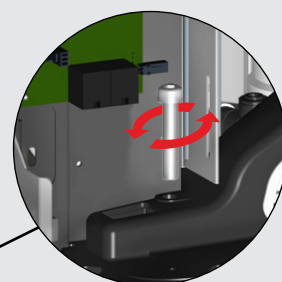
## 1b EMPILHAMENTO MODULAR RESERVOIR ABAIXO



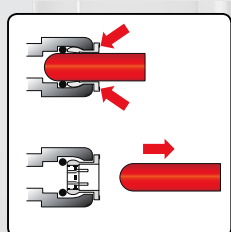
a. Aperte a placa do reservatório.



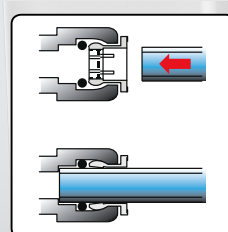
b. Coloque por cima do reservatório, alinhando-a cabeças dos parafusos. Aperte o parafuso de união.



## 2 LIGUE A ÁGUA (PORTA Nº. 1)



a. Remova os bujões de transporte da ligação de entrada da água.



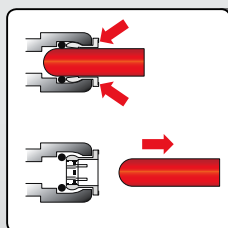
b. Usando o tubo fornecido, empurre firmemente uma das extremidades até ficar segura na ligação da água.

## 3 LIGUE A DRENAGEM (PORTA Nº. 3)

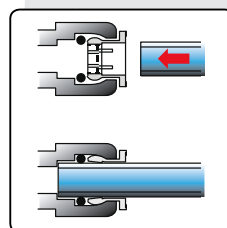


### CAUIDADO!

Confirme se o tubo de drenagem não está dentro da água residual.



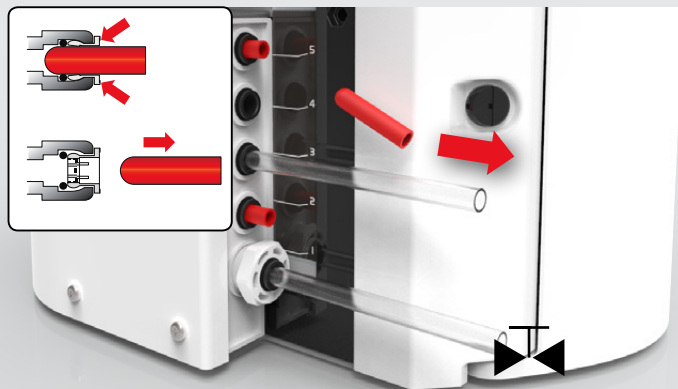
a. Remova os bujões de transporte da ligação de saída da água.



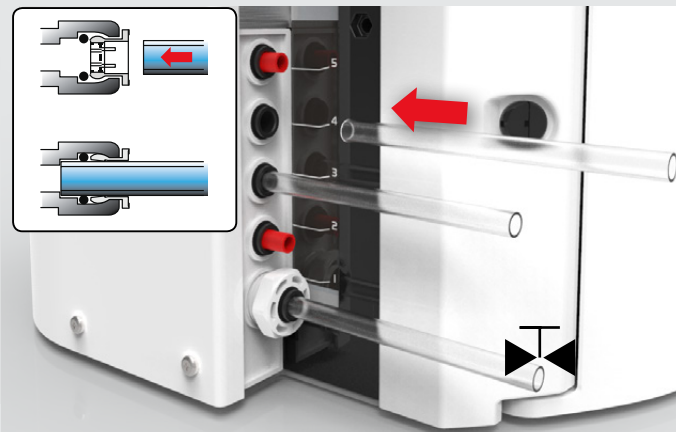
b. Usando o tubo fornecido, empurre firmemente uma das extremidades até ficar segura no conector da água.



## 4 LIGUE A SAÍDA DA ÁGUA PURIFICADA (PORTA Nº. 4)



a. Remova os bujões de transporte da ligação de saída da água.



b. Usando o tubo fornecido, empurre firmemente uma das extremidades até ficar segura no conector da água.

**NB Este produto não foi concebido para funcionar directamente com um distribuidor Chorus.**

## 5 LIGAÇÕES DE COMUNICAÇÃO (COMMS) (PORTA Nº. 7)



### AVISO!

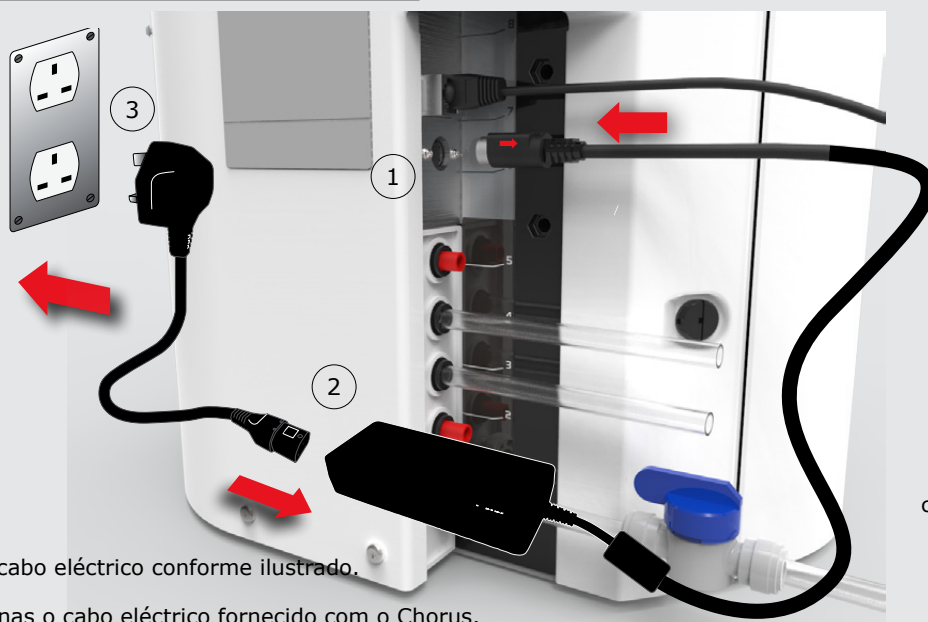
USE APENAS CABOS DE COMUNICAÇÃO FORNECIDOS PELA ELGA®, CONSULTE O MANUAL DO OPERADOR PARA MAIS INSTRUÇÕES.

Port 7  
or  
Port 9

Reservatório J2 or J1

Ver 'Reservatório Guia de instalação'.

## 6 LIGUE A ENERGIA (PORTA Nº. 6)



a. Ligue o cabo eléctrico conforme ilustrado.

b. Use apenas o cabo eléctrico fornecido com o Chorus. A fonte de alimentação deverá ter ligação à terra.



4

c. **PRIMA UMA VEZ** para iniciar o modo de colocação em funcionamento. A luz vermelha no fundo pisca até o ciclo terminar.

Aprox. 60 minutos



### AVISO!

USE APENAS O ACOPLADOR DO EQUIPAMENTO (CABO DE ALIMENTAÇÃO) E A FONTE DE ALIMENTAÇÃO FORNECIDOS. SE O EQUIPAMENTO FOR USADO DE MANEIRA NÃO ESPECIFICADA PELA ELGA®, A PROTECÇÃO GARANTIDA PELO EQUIPADO PODERÁ FICAR COMPROMETIDA. POSICIONE A FONTE DE ALIMENTAÇÃO DE FORMA A NÃO ENTRAR EM CONTACTO COM A ÁGUA.

# Os especialistas de água de laboratório

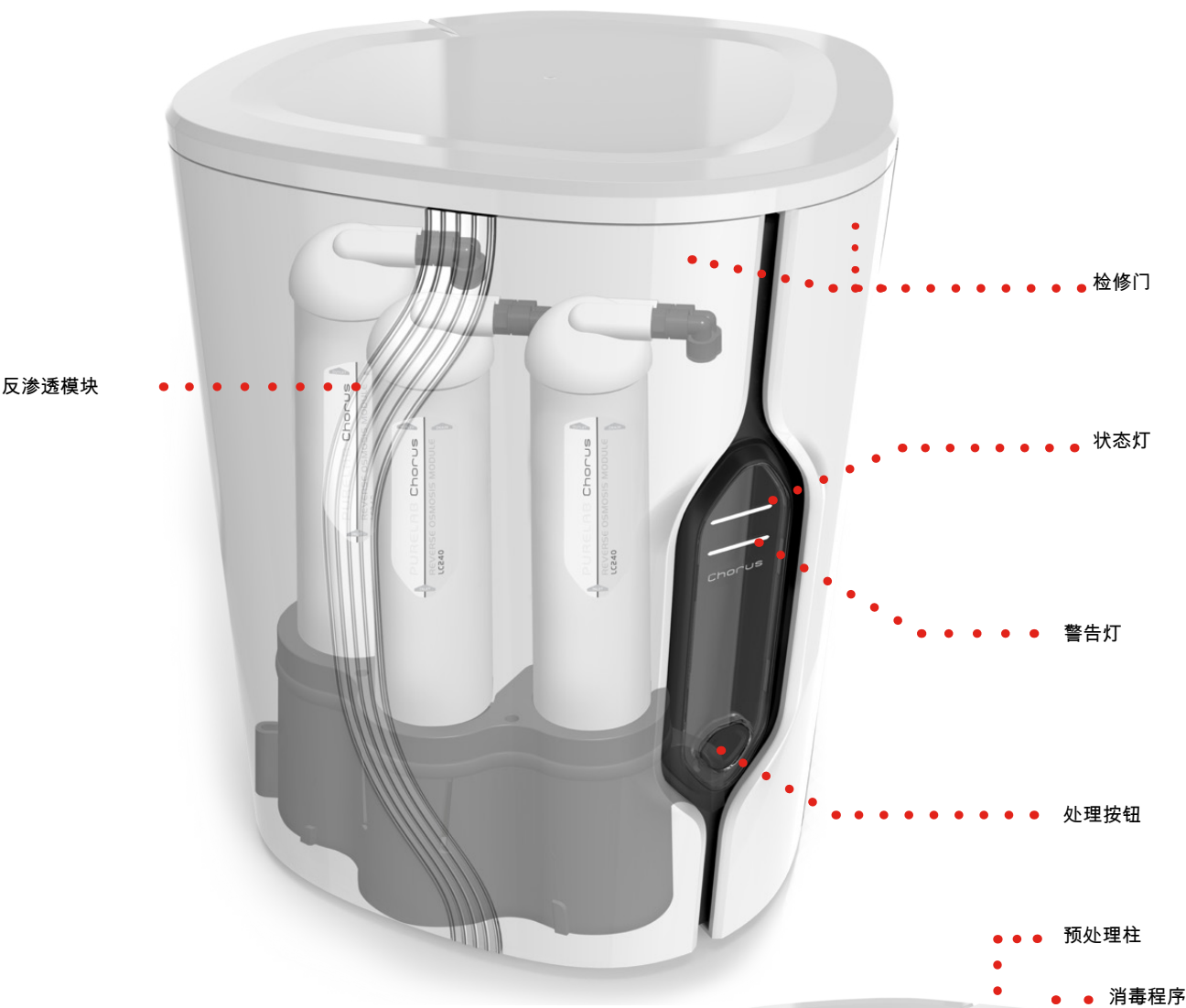


PURELAB®  
Chorus



欢迎

感谢您购买 Chorus 3。使用前请先阅读下面的“卫生与安全”说明。



卫生与安全

请遵守本说明书中详述的安全信息。  
请遵守本说明书中详述的安全信息。  
不遵守这些说明可导致设备、工艺和辅助设备的损坏以及人员伤亡。

1. 电气

 **警告！**  
电源应布置在接触不到水的地方。

2. 残留防腐剂

 **警告！**  
调试期间，系统中会有微量残留防腐剂冲出。  
如有要求可提供材料安全数据表。

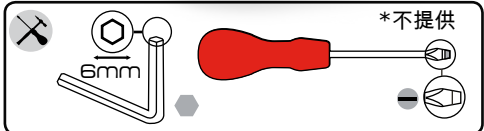
有害物质控制 (COSHH)

如有要求可提供材料安全数据表。

ELGA® Labwater  
+44 (0) 203 567 7300  
电子邮件: info@elgalabwater.com

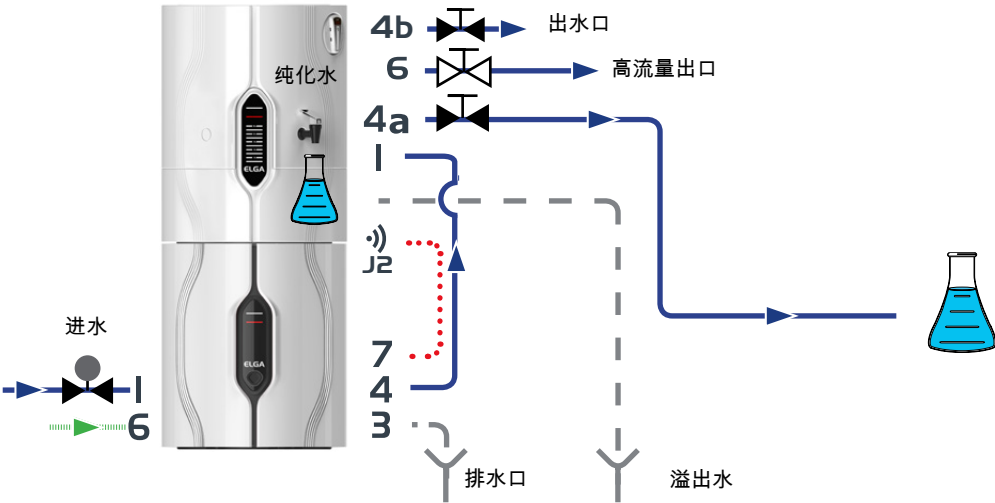
传真: +44 (0) 203 567 7205  
网址: www.elgalabwater.com

ELGA® 是威立雅水务技术的全球性实验室用水品牌。  
PURELAB® 是 ELGA Labwater 的商标和技术。为奉行持续改进的政策，  
公司保留对本指南所列规格作出修改的权利。  
© 2017 ELGA® Labwater / VWS (英国) 有限公司。保留所有权利。

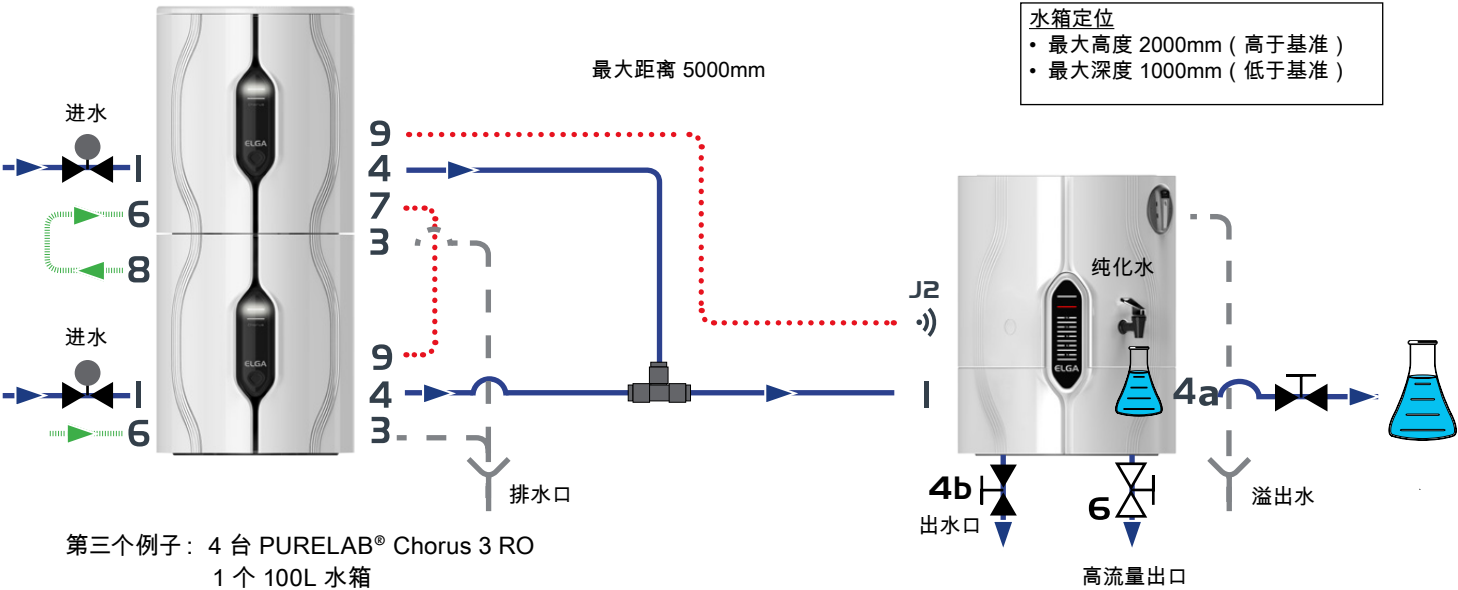


系统配置

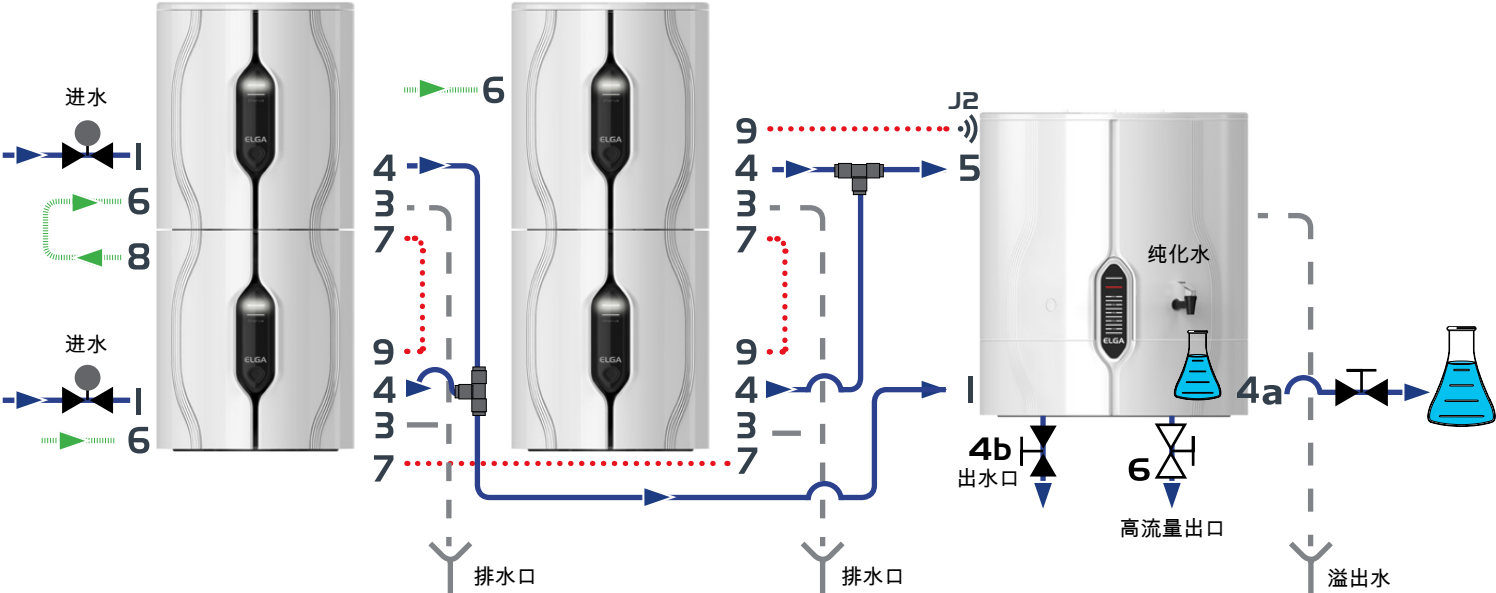
示例一： 1 台 PURELAB® Chorus 3 RO  
1 个 15L - 30L 水箱



示例二： 1 台 PURELAB® Chorus 3 RO  
1 个 60L 水箱



第三个例子： 4 台 PURELAB® Chorus 3 RO  
1 个 100L 水箱



如需进一步配置请联系当地服务组织



## Ia 模块化堆叠 对水库的顶端



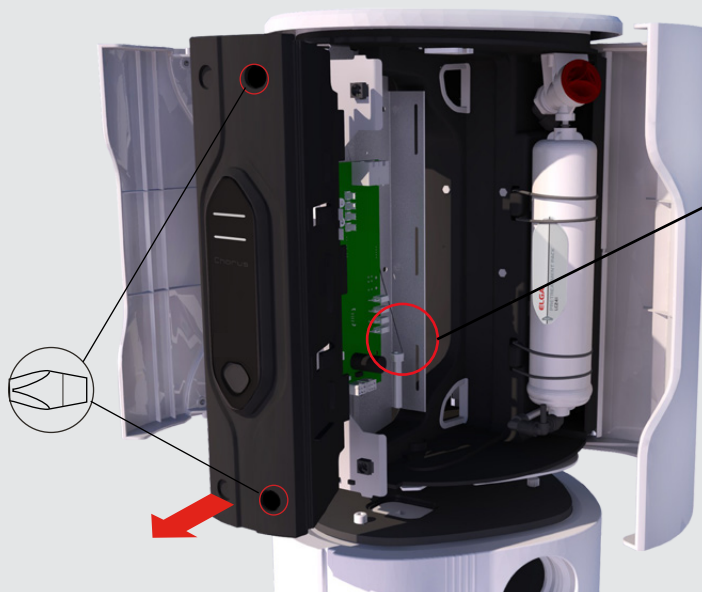
警告！

只能放一个 CHORUS 系统在水箱顶部或下面。

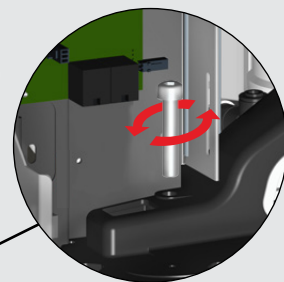
## 1b 模块化堆叠 下方的储



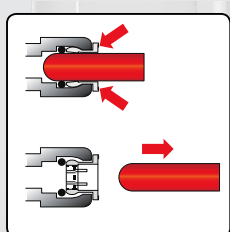
a. 用螺丝拧紧水箱板。



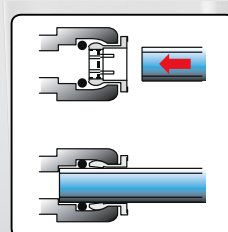
b. 放在水箱顶部，与螺栓头对齐。拧入连接螺栓。



## 2 连接供水 (端口 1)



a. 拔下进水接头上的运输塞。

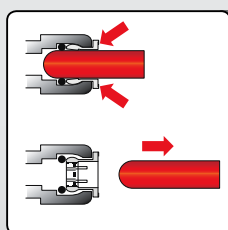


b. 使用所提供的管，用力将一端紧紧地推入水接头。

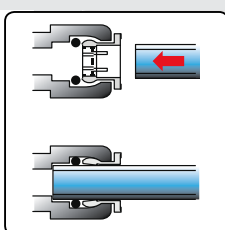
## 3 连接排水 (端口 3)



小心！  
确保排水管不在废水中。

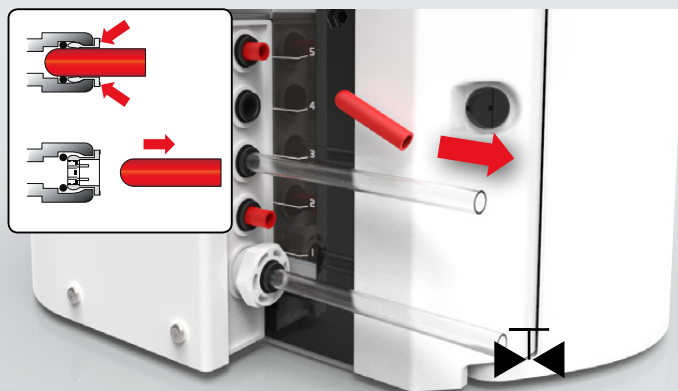


a. 拔出出水接头上的运输塞。

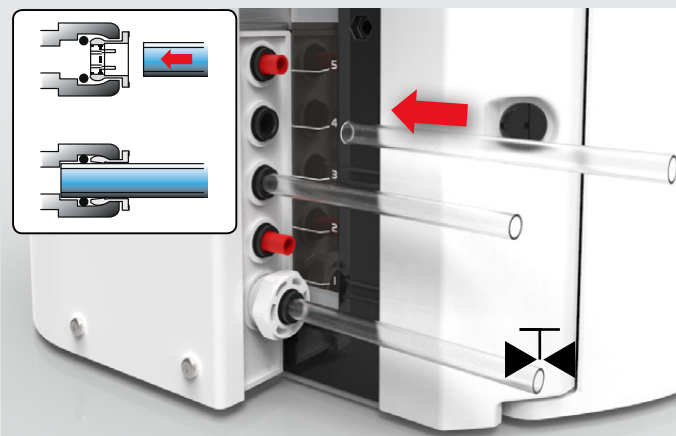


b. 使用所提供的管，用力将一端紧紧地推入水接头。

## 4 连接纯水出口 (端口 4)



a. 拔下水接头上的运输塞。



b. 使用所提供的管, 用力将一端紧紧地推入水接头。

注意, 本产品不适合直接与 **chorus** 纯水机一起使用。

## 5 COMMS 连接 (端口 7)



警告!

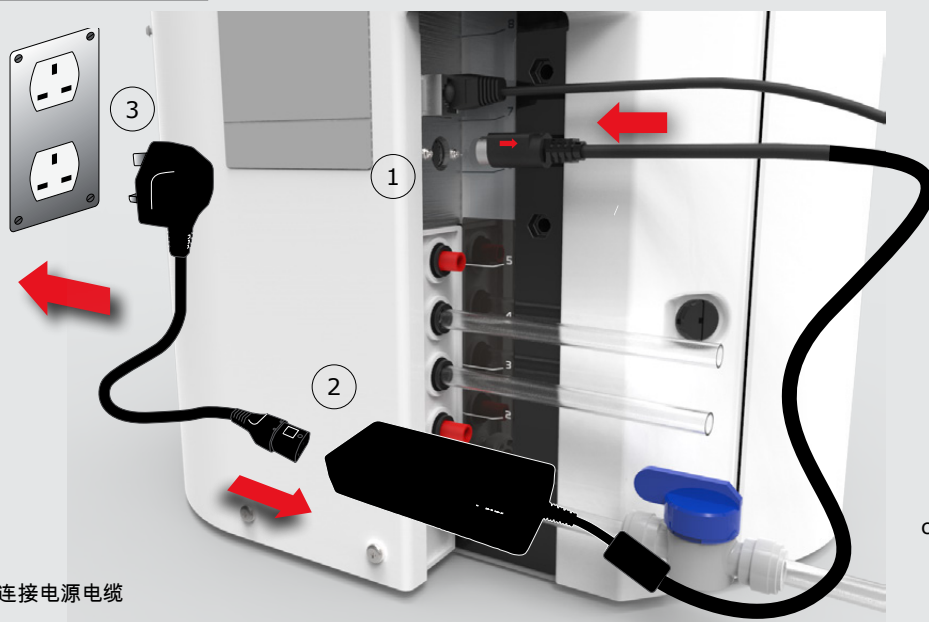
只能使用 ELGA® 提供的 COMMS 电缆, 参见操作手册了解更多指南。

端口7  
要么  
端口9

水库J2或J1

见“水库”  
安装指南’。

## 6 连接电源 (端口 6)



a. 如图所示连接电源电缆

b. 只能使用 Chorus 随附的电源。  
电源必须接地。



c. 按下一次  
启动调试模式。  
底部的红灯将持续闪烁直到  
循环结束。

大约 60 分钟



警告!

只能使用随设备提供的耦合器 (电源线) 和电源。如果不按照 ELGA® 指定的方法使用设备, 则设备提供的保护可能受到影响。  
电源应布置在接触不到水的地方。



# 快速使用指南



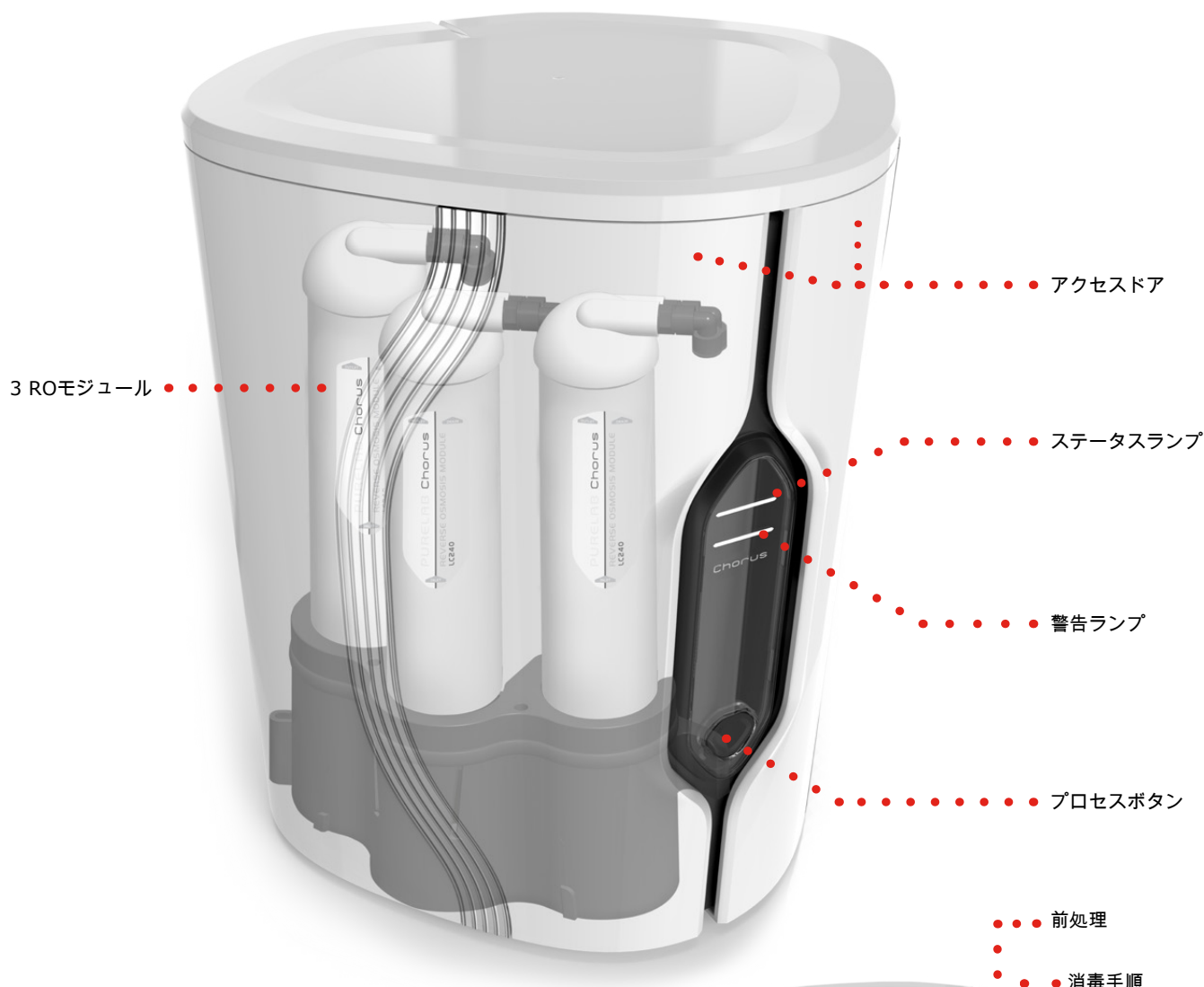
PURELAB®  
Chorus





## ようこそ

Chorus 3をご購入いただきありがとうございます。ご使用前に、以下の健康と安全についての注意をお読みください。



## 健康と安全

この手順シートに詳しく示されている安全情報に従ってください。  
この手順シートに詳しく示されている安全情報に従ってください。  
これらの手順に従わないと、機器、プロセス、関連する機器を損傷させたり、ケガや死亡事故が発生することがあります。

## 1. 電力



**警告！**  
電源は、水に触れない位置に配置してください。

## 2. 残留防腐剤



**警告！**  
試運転サイクル中に残留防腐剤がシステムから排出されます。ご要望により製品安全データシートを提供いたします。

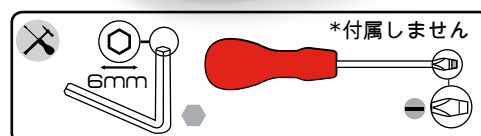
## 健康有害物質管理規則 (COSHH)

製品安全データシートはご要望に応じて提供いたします。

ELGA® Labwater  
+44 (0) 203 567 7300  
Email: info@elgalabwater.com

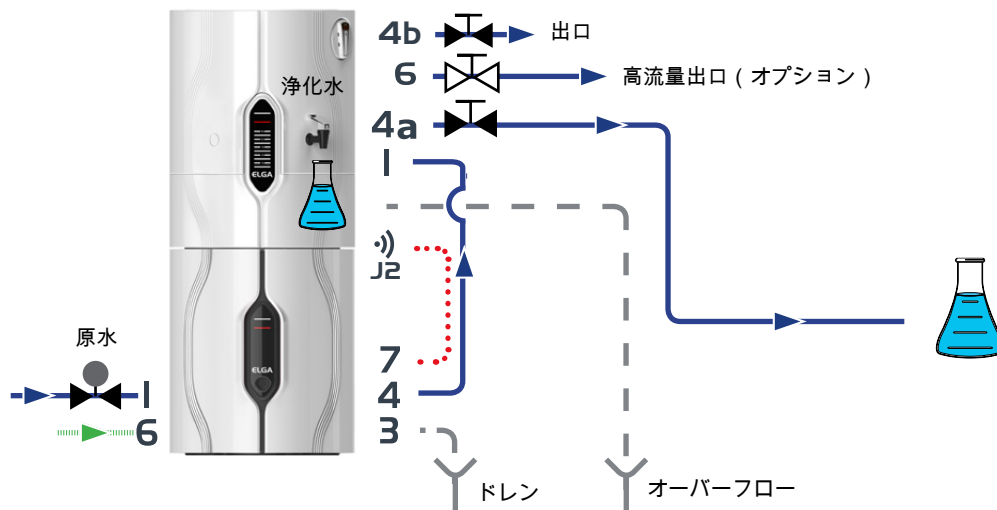
ファックス: +44 (0) 203 567 7205  
ウェブサイト: www.elgalabwater.com

ELGA®は、Veolia Waterの世界的なラボウォーターのブランド名です。  
PURELAB®は、ELGA® Labwaterの商標および技術です。当社は継続的に製品の改善に努めており、本書に記載されている仕様を変更する権利を有します。  
© 2017 ELGA® Labwater / VWS (UK) Ltd. All rights reserved.



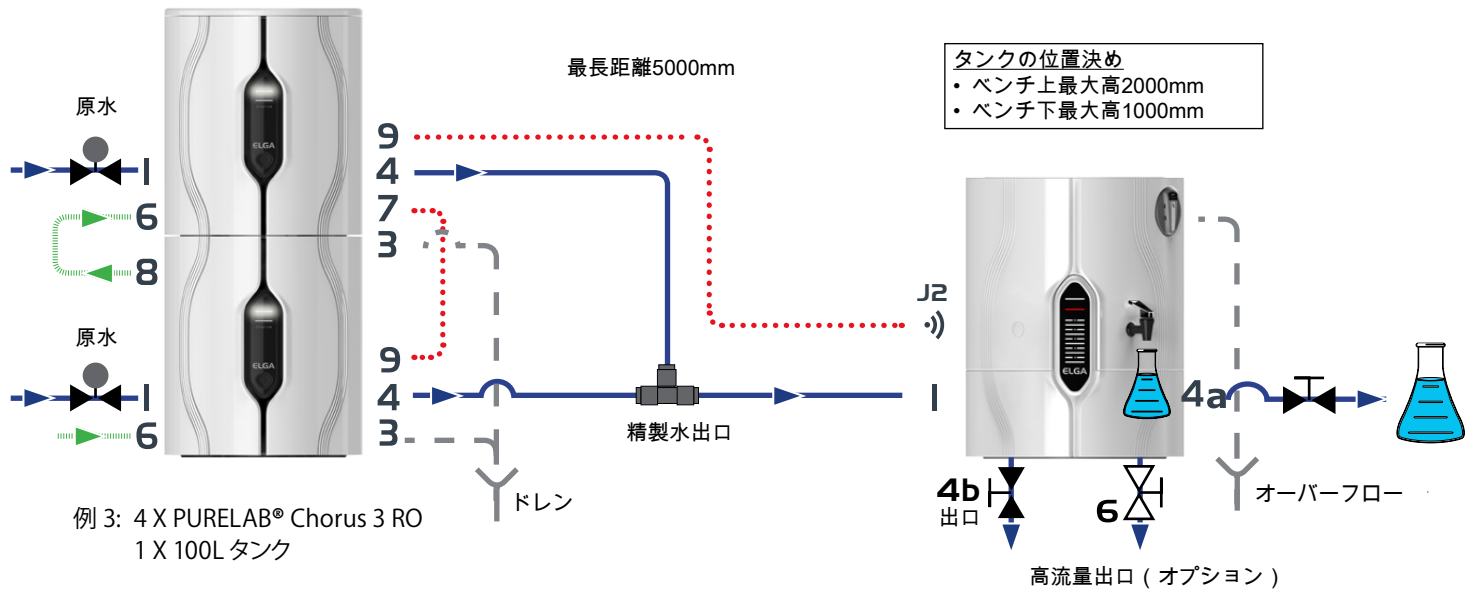
## システム構成

例 1: 1 X PURELAB® Chorus 3 RO  
1 X 15L タンク

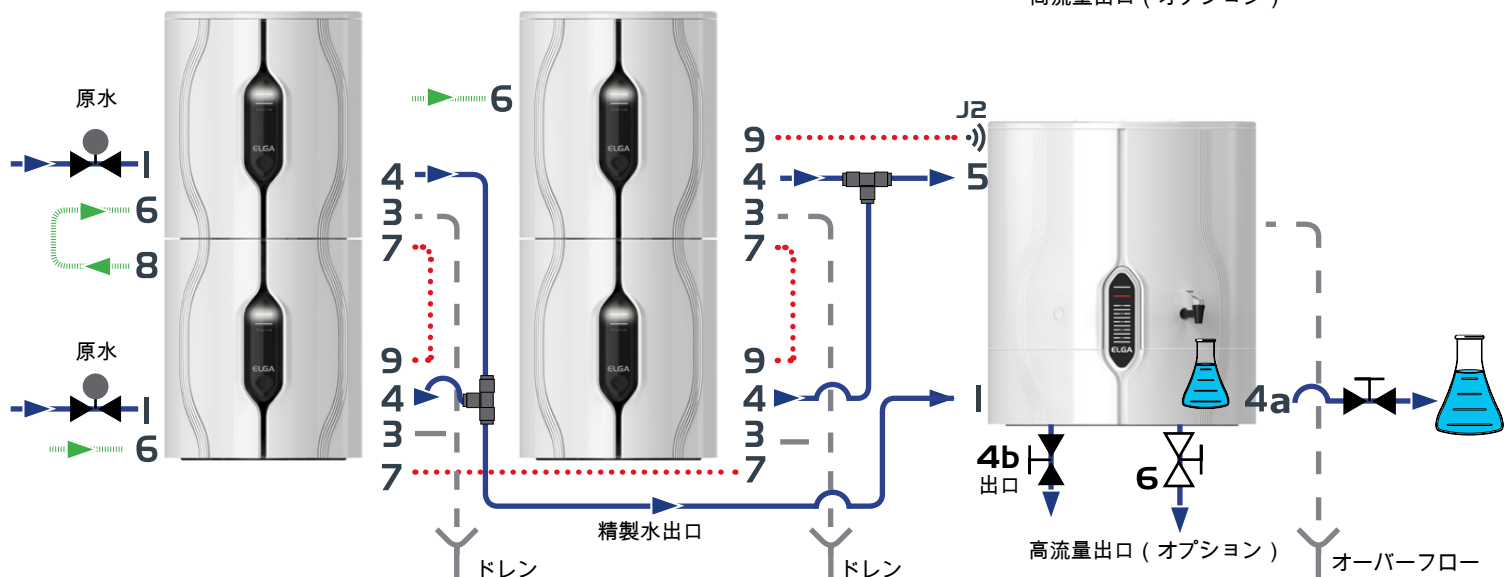


| キー    |       |
|-------|-------|
| COMMS | ..... |
| 電源    | ..... |
| 水     | ..... |
| バルブ   | ..... |
| NRV   | ..... |
| 停止バルブ | ..... |
| 調整器   | ..... |

例 2: 2 X PURELAB® Chorus 3 RO  
1 X 60L タンク

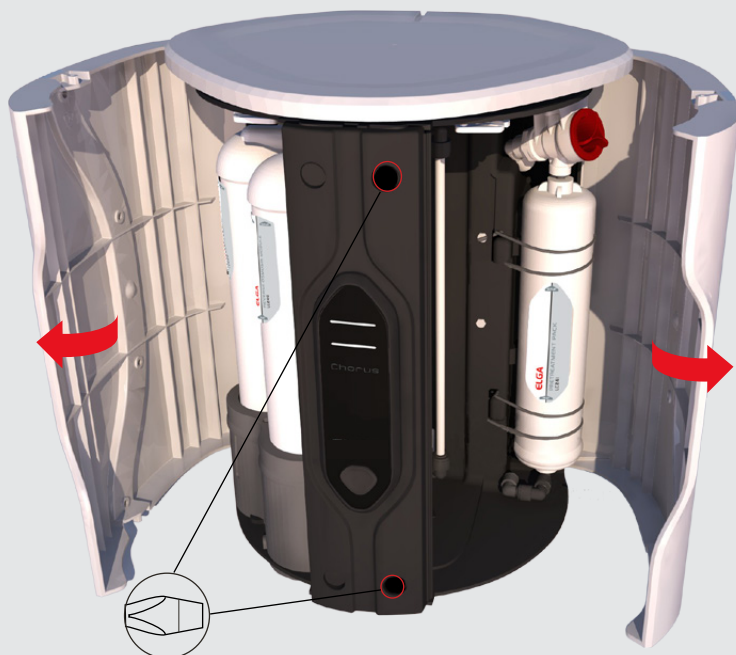


例 3: 4 X PURELAB® Chorus 3 RO  
1 X 100L タンク

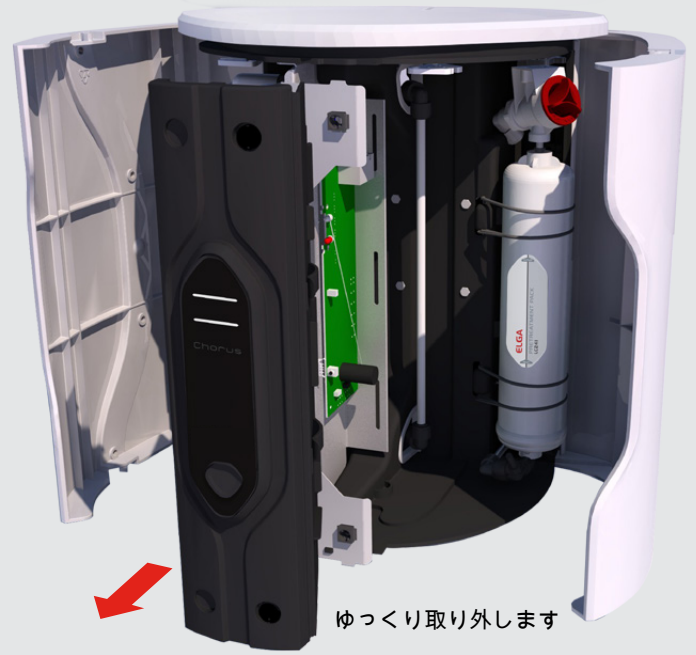


その他の構成については、お近くのサービス業者にお問い合わせください。

## 1a モジュールの積み重ね 貯水池上記

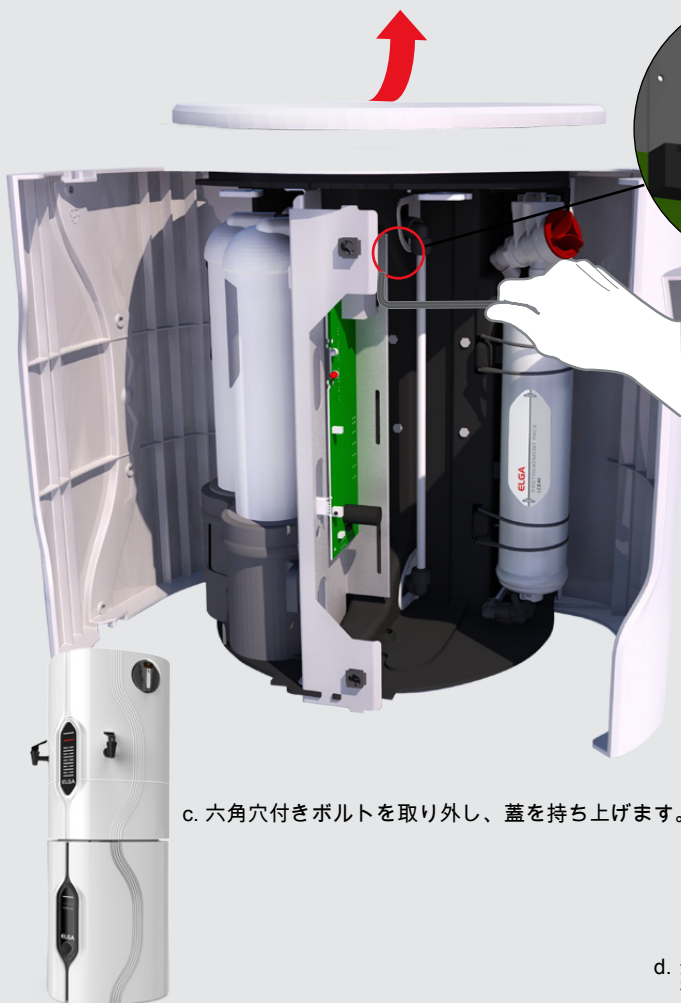


a. 扉を開いて、止め具を1/4回転 緩めます。

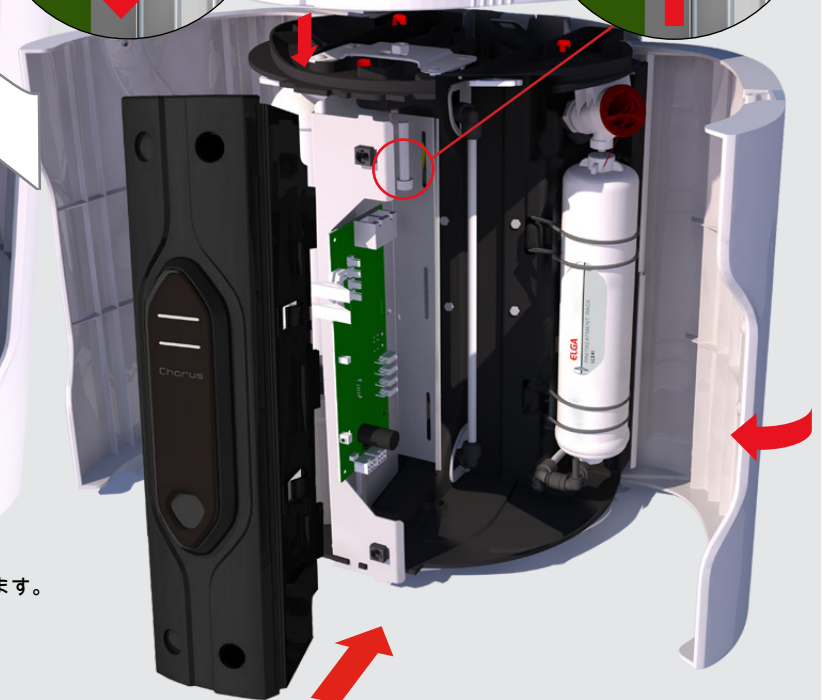
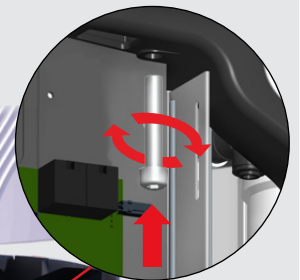
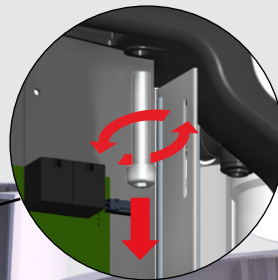


ゆっくり取り外します

b. 前面パネルを取り外し、蓋のボルトを 六角レンチで緩めます。  
( 6mm AF X FXBOYR301716 )



c. 六角穴付きボルトを取り外し、蓋を持ち上げます。



d. タンクを上置き、3つの点を 合わせます。六角穴付き ボルトを 締めてから、前面パネルを交換します。



警告！

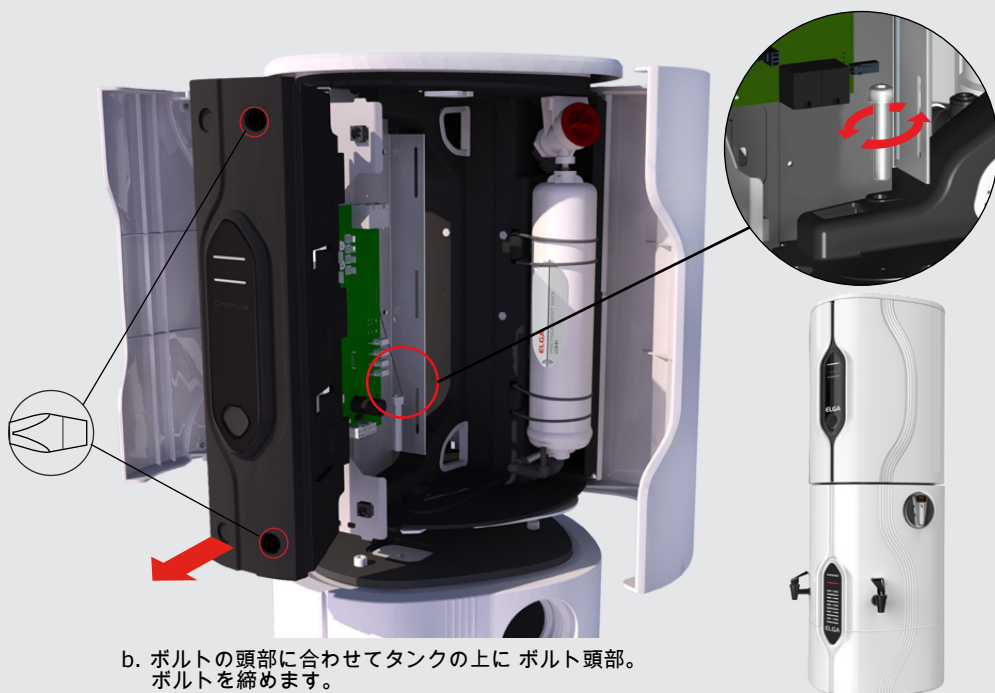
タンクの上または下に置けるChorusシステムは1台のみとなります。



## 1b モジュールの積み重ね

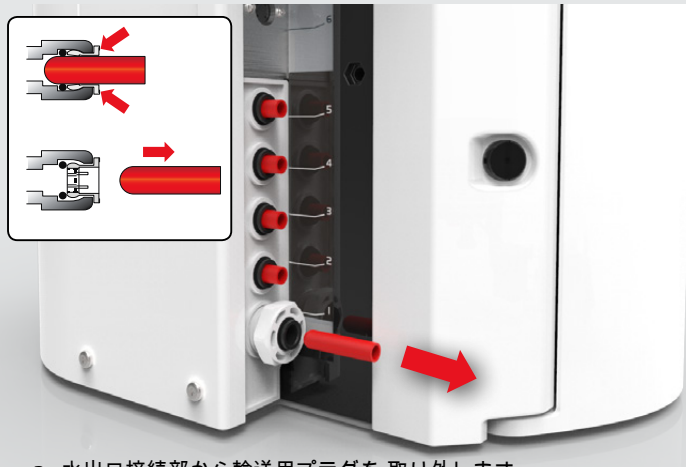


a. タンクプレートをネジ止めします。

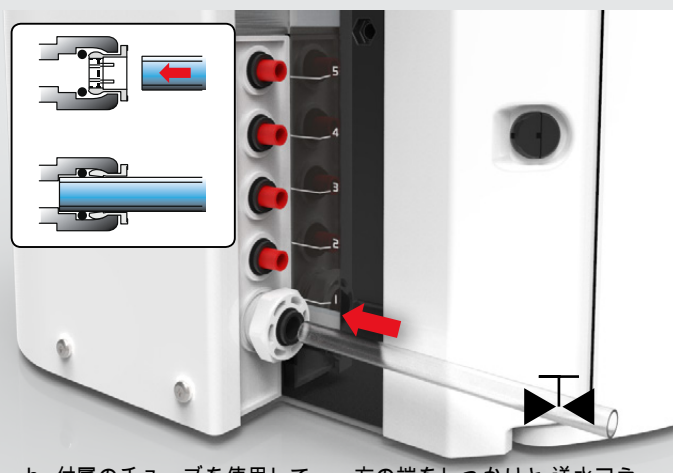


b. ボルトの頭部に合わせてタンクの上に ボルト頭部。ボルトを締めます。

## 2 水道への接続 (ポートNo.1)

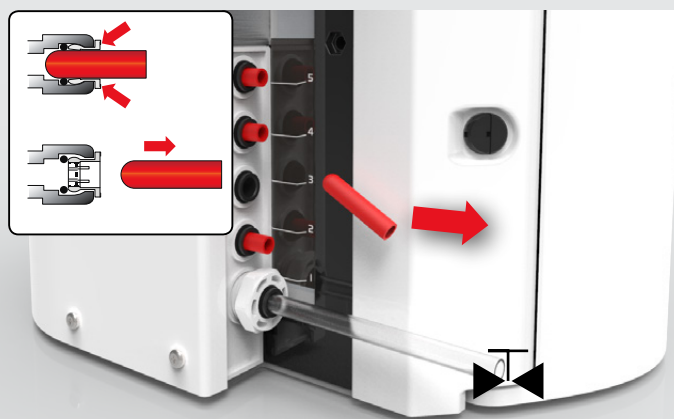


a. 水出口接続部から輸送用プラグを取り外します。

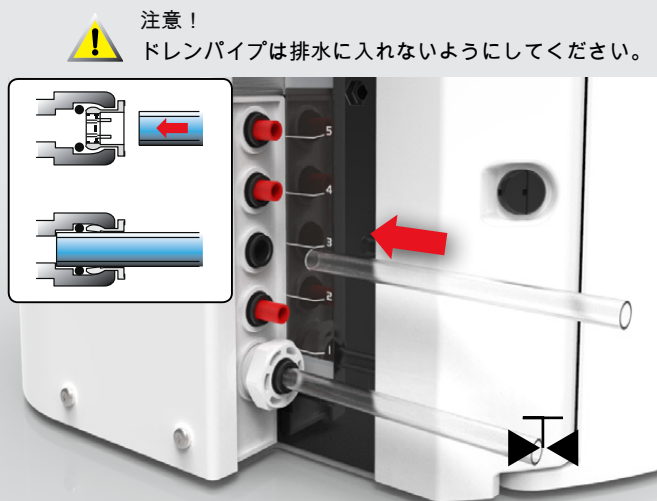


b. 付属のチューブを使用して、一方の端をしっかりと 送水コネクタに押し込みます。

## 3 ドレンへの接続 (ポートNO.3)



a. 水出口接続部から輸送用プラグを取り外します。



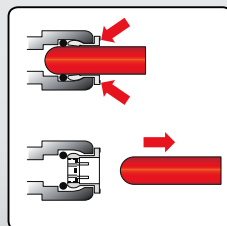
b. 付属のチューブを使用して、一方の端をしっかりと 送水コネクタに押し込みます。



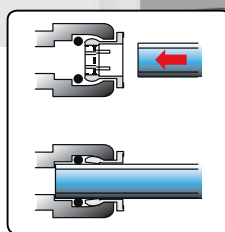
注意！  
ドレンパイプは排水に入れないようにしてください。



## 4 純水出口の接続 (ポートNO.4)



a. 水出口接続部から輸送用プラグを取り外します。



b. 付属のチューブを使用して、一方の端をしっかりと送水コネクタに押し込みます。

**N.B** この製品は、Chorusディスペンサーでの直接操作には対応していません。

## 5 通信接続 (ポート7)



警告！

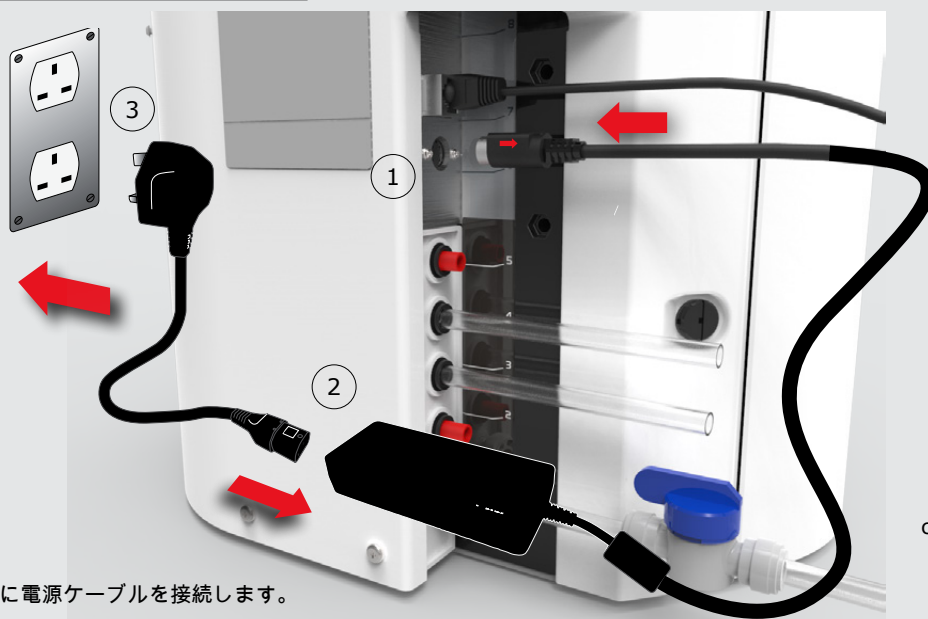
ELGA®が提供する通信ケーブルのみを使用してください。  
詳細については取扱説明書を参照してください。

ポート7  
または  
ポート9

貯水池J2またはJ1

「貯水池」を参照  
インストールガイド  
を参照してください。

## 6 電源の接続 (NO.6ポート)



a. 図のように電源ケーブルを接続します。

b. Chorus付属の電源のみ使用してください。  
電源は接地する必要があります。



4

c. 1回押して  
試運転モードを開始します。  
サイクルが終了するまで、  
下部の赤いランプが点滅します。

約60分



警告！

付属の電源接続器（電源ケーブル）と電源を使用してください。ELGA®が指定した以外の方法でこの装置を使用した場合には、この装置による保護機能を損なう可能性があります。  
電源は、水に触れない位置に配置してください。

# ラボの水技術者



PURELAB®  
Chorus



## Tablet of contents

|     |                                                   |                |
|-----|---------------------------------------------------|----------------|
| 1.  | <b>Introduction</b>                               | <b>Page 1</b>  |
| 1.1 | Health & Safety                                   | Page 1         |
| 1.2 | Product Range                                     | Page 1         |
| 1.3 | Use of this Manual                                | Page 1         |
| 1.4 | Installation                                      | Page 1         |
| 1.5 | System Configuration                              | Page 1         |
| 1.6 | Environment                                       | Page 1         |
| 1.7 | Commissioning                                     | Page 1         |
| 1.8 | Customer Support                                  | Page 1         |
| 2.  | <b>Your Guide to Chorus</b>                       | <b>Page 2</b>  |
| 3.  | <b>Maintenance</b>                                | <b>Page 3</b>  |
| 3.1 | Cleaning the inlet filter assembly                | Page 3         |
| 3.2 | Replacing the Pre-treatment pack                  | Page 4         |
| 3.3 | Replacing the RO Reverse osmosis module           | Page 5         |
| 3.4 | Replacing the Composite vent filter               | Page 6         |
| 4.  | <b>Self Help Guidelines</b>                       | Page 6         |
| 5.  | Sanitisation Procedure                            | Page 7 - 8     |
| 6.  | <b>Health &amp; Safety notes</b>                  | <b>Page 9</b>  |
| 6.1 | Environment                                       | Page 9         |
| 6.2 | Electricity                                       | Page 9         |
| 6.3 | Residual Biostat                                  | Page 9         |
| 6.4 | Control Of Substances Hazardous to Health (COSHH) | Page 9         |
| 7.  | <b>Technical Specifications</b>                   | <b>Page 10</b> |
| 8.  | <b>Customized Operation</b>                       | <b>Page 11</b> |
| 8.1 | USB Ticket Printing                               | Page 11        |
| 9.  | <b>Warranty / Conditions</b>                      | <b>Page 12</b> |

## Copyright Note

The information contained in this document is the property of VWS (UK) Ltd, trading as ELGA® LabWater, and is supplied without liability for errors or omissions.

No part of this document may be reproduced or used except as authorized by contract or other written permission from VWS (UK) Ltd. The copyright and all restrictions on reproducing and use apply to all media in which this information may be placed.

VWS (UK) Ltd. Pursue a policy of continual product improvement and reserve the right to alter without notice the specification, design, price or conditions of supply of any product or service.

© VWS (UK) Ltd. 2017 - All rights reserved.

ELGA® and PURELAB® Are registered trademarks of VWS (UK) Ltd.

## Copyright Note

Effersan™ is a registered trademark of Activon Inc.

## **INTRODUCTION**

### **1.1 Health & Safety**

Please ensure you read the Health & Safety notes in Section 6.

### **1.2 Product Range**

This Operator manual has been prepared for Chorus product models:

- PURELAB® Chorus Part No. RO310XXM2
- PURELAB® Chorus Part No. RO320XXM2
- PURELAB® Chorus Part No. RO330XXM2
- PURELAB® Chorus Part No. RO310BPM2
- PURELAB® Chorus Part No. RO320BPM2
- PURELAB® Chorus Part No. RO330BPM2

### **1.3 Use of this Manual**

This manual guides you through the operation and maintenance of the Chorus allowing you to obtain a guaranteed supply of purified water to meet your requirements.

### **1.4 Installation**

Chorus is supplied with a Quick Start Guide.

Quick Start Guide shows you how to install and commission the Chorus.  
See Quick Start Guide for typical configurations.

### **1.5 System Configuration**

Maximum system size 4 x Chorus 3 RO + Reservoir.  
See Quick Start Guide for typical configurations.

### **1.6 Environment**

The Chorus unit should be installed on a flat, level surface, in a clean, dry environment.  
The unit can also be wall mounted using the purpose designed wall mounting kit against a vertical wall capable of supporting the combined weight of the unit and mounting kit.



#### **WARNING!**

NOT TO BE USED IN FUME EXTRACTION ENCLOSURES.

### **1.7 Commissioning**

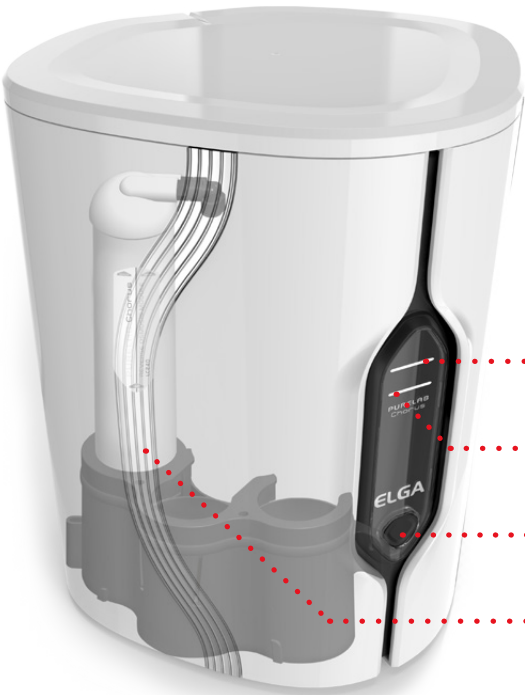
Chorus is supplied in a preset commissioning mode which must be completed before purified water can be dispensed. Refer to Self Help Guidelines, section 4 Process Button.

### **1.8 Customer Support**

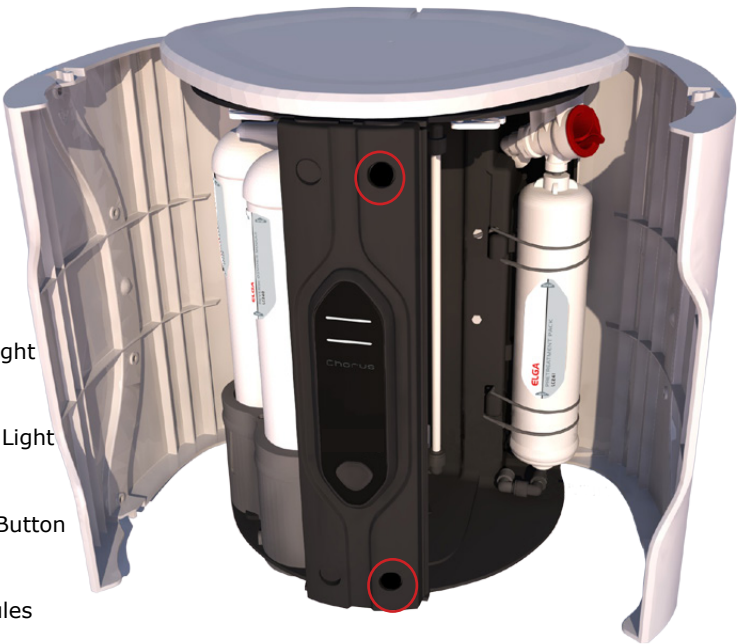
If you need help with your Chorus, please call your local ELGA® representative. For the address of the nearest ELGA® LabWater Sales and Service office visit the country list on our website.  
[www.elgalabwater.com](http://www.elgalabwater.com) or contact ELGA® Lab-Water at: Email: [techsupport@elgalabwater.com](mailto:techsupport@elgalabwater.com)



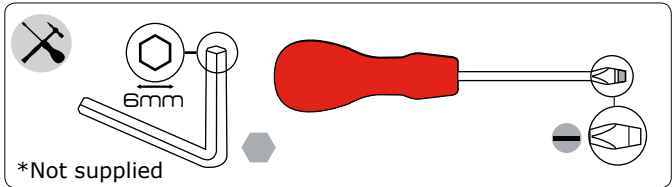
2 YOUR GUIDE TO THE CHORUS



- Status Light
- Warning Light
- Process Button
- RO Modules

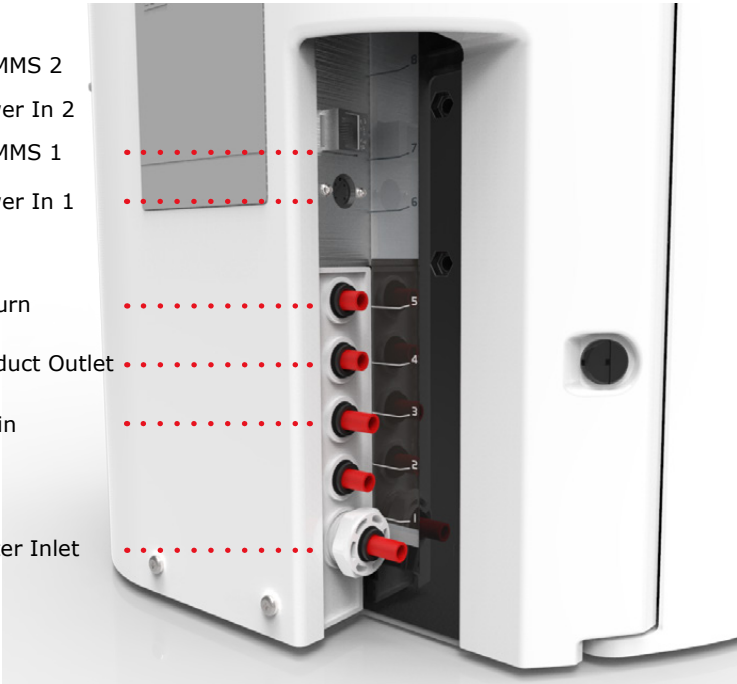


Use a slotted screw driver to release quarter turn slots on Chorus.



- Sanitization Port
- Pre-treatment Pack

- 9. COMMS 2
- 8. Power In 2
- 7. COMMS 1
- 6. Power In 1
- 5. Return
- 4. Product Outlet
- 3. Drain
- 1. Water Inlet



## 3 MAINTENANCE



### WARNING!

An approved supplier or distributor should carry out any maintenance work not included in this manual.

### Note

Note: Disposal of all end-of-life consumable items should be in accordance with local statutory regulations.

### 3.1 Cleaning the Inlet Filter Assembly

Follow the instructions below.

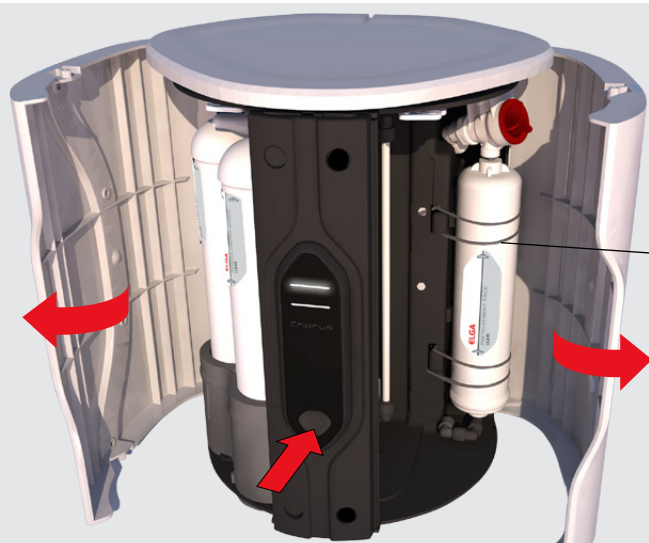
\*Not supplied

1. Isolate the electrical supply.      2. Turn off water supply, remove inlet pipe.

3. Unscrew the inlet filter and remove the mesh filter.      4. Reconnect the water and power supply. Replace or clean and re-assemble.

### 3.2 Replacing the Pre-treatment Pack LC241

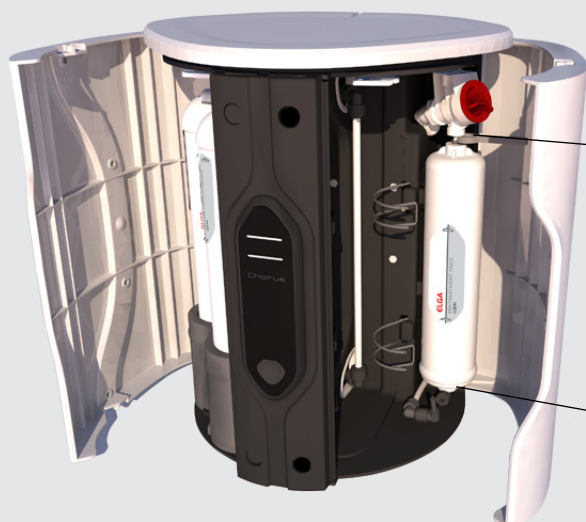
Follow the instructions below.



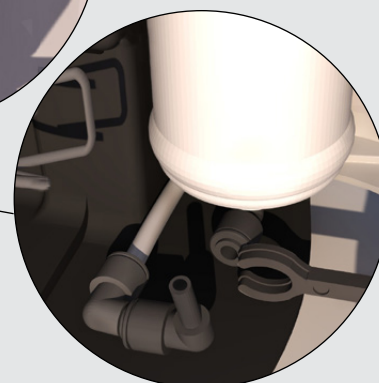
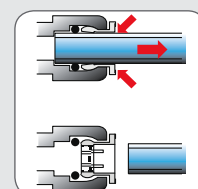
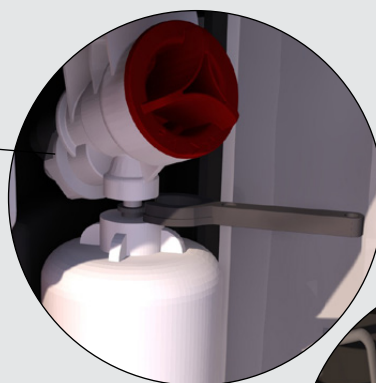
1. Process button off.



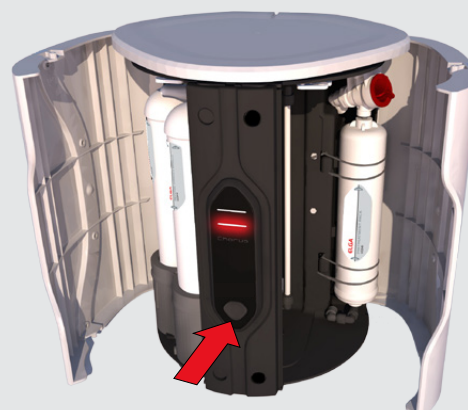
2. Unclip Pre-treatment cartridge LC241.



3. Disconnect and remove Pre-treatment cartridge.



4. Remove transit plugs and insert new Pre-treatment cartridge.



**WARNING!**

MODULES WILL REQUIRE COMMISSIONING PRIOR TO USE.

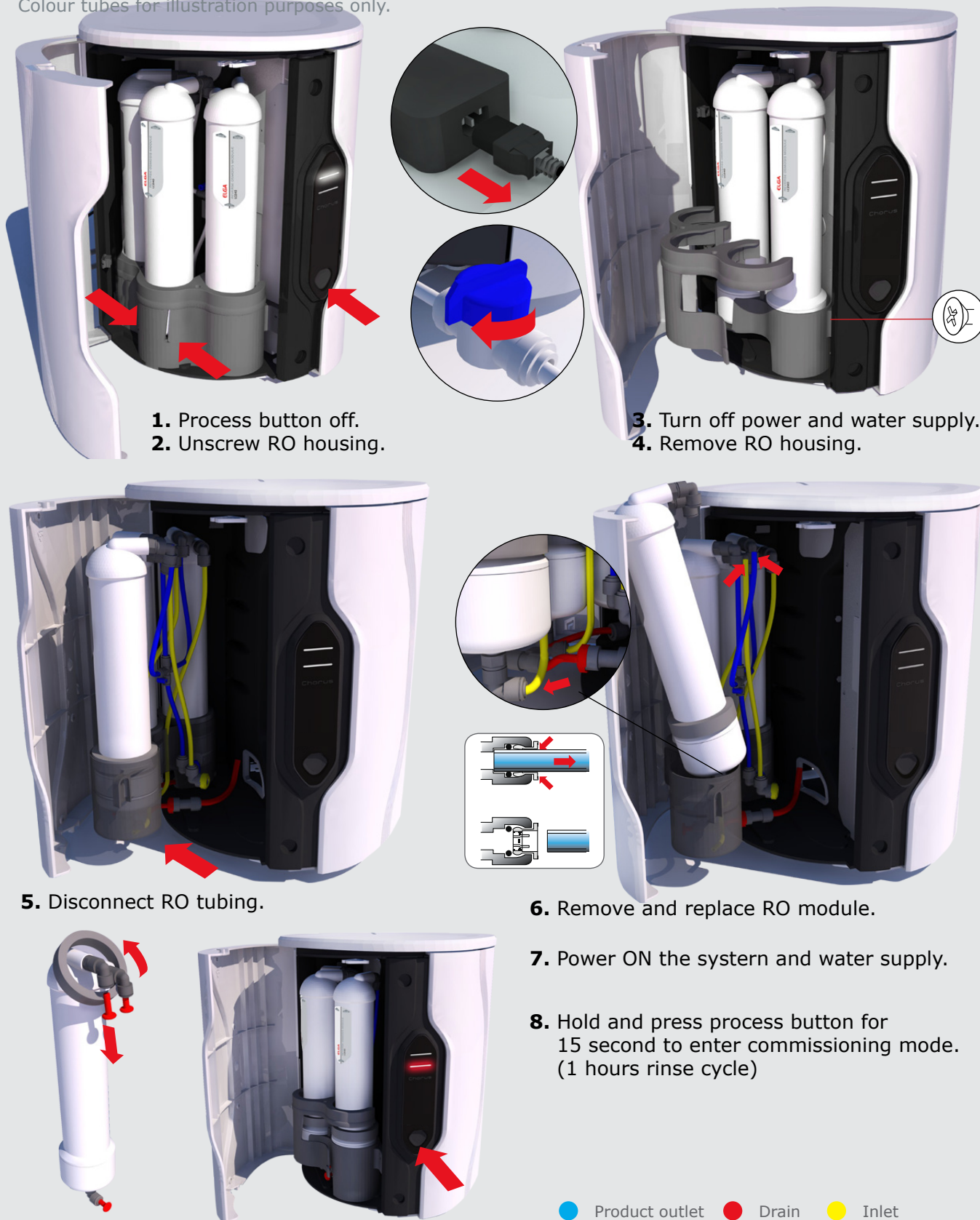


### 3.3 Replacing the Reverse Osmosis Module LC240

Follow the instructions below.

Chorus is fitted with Reverse Osmosis (RO) modules. The RO Modules may need replacing if the permeate water purity or flow rate is not adequate and does not meet predicted or previous performance.

Colour tubes for illustration purposes only.



#### WARNING!

ALL NEW RO MODULES ARE FILLED WITH A PRESERVATIVE SOLUTION TO PREVENT BACTERIAL CONTAMINATION DURING STORAGE. THE RO MODULES WILL THEREFORE REQUIRE RINSING PRIOR TO USE.



### 3.4 Replacing the Composite Vent Filter LC216

Follow the instructions below.



## 4 SELF HELP GUIDELINES

### Display Lights

|          |             |                                                      |
|----------|-------------|------------------------------------------------------|
| Constant | White       | Signifying water purity, unit is operating correctly |
| Blinking | White       | Consumables are nearing the end of useful life       |
| Constant | Red         | System needs immediate attention                     |
| Blinking | Red         | System in clean cycle (Sanitization / Commissioning) |
| Blinking | Red / White | Software update                                      |



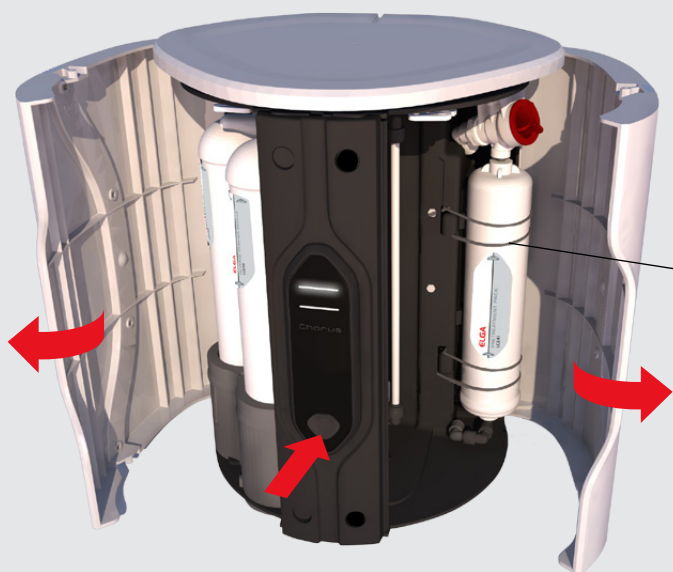
### Process Button Operation

|                                                |                                      |                                                                                                                                                                                                        |
|------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Press<br>(At any time)                         | Start/Stop Modules process           | Start and stops modules process                                                                                                                                                                        |
| Press and hold for 15 seconds<br>(At any time) | Enter / Exit Commissioning Procedure | To enter or exit commissioning mode / sanitization procedure. Press process button for fifteen seconds this will enter commissioning mode. Press once at anytime to pause / resume commissioning mode. |
| Press Once<br>(At any time)                    | Load firmware from USB Flash devices | Automatically loads system firmware from USB flash device. Re-start on completion.                                                                                                                     |

### Default Alarm Settings

|                                    |                                                                                                                                                                                                                                                                                                   |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Set Temperature Alarm              | Set default values from firmware file. Adjustable set point using application service module. Service module is an engineers tool, only an engineer can adjust the settings. Select to either 30°C, 35°C, 40°C. Default 35°C.                                                                     |
| Set Water Purity Alarm<br>Chorus 3 | Set default values from firmware file. Adjustable set point using application service module. Conductivity 20 - 100Ms/cm, Default 50 Ms/cm. Default Alarm point 15.0MΩ.cm.                                                                                                                        |
| Over fill Protection Alarm         | Feature activates drain valve if water level is greater than maximum and stops water entering the system to prevent a flood. When alarm is active: V2 energised. If alarm for 5mins, stop module process. Enter refill cycle on overflow alarm deactivation. Alarm status removed (Reservoir 95%) |

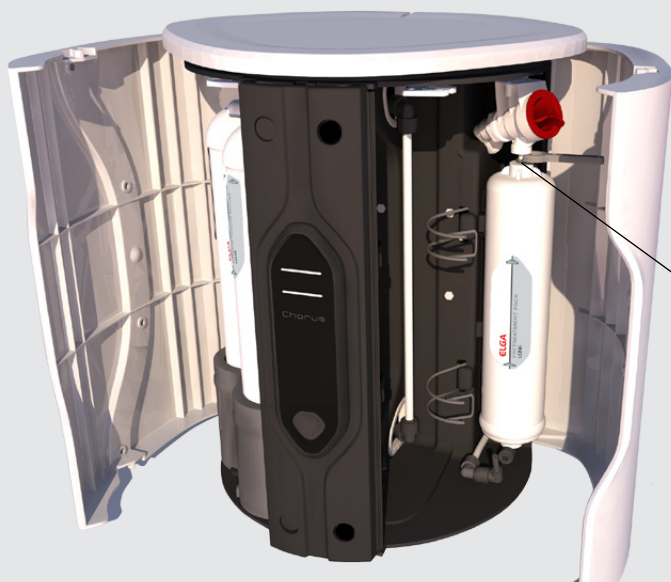
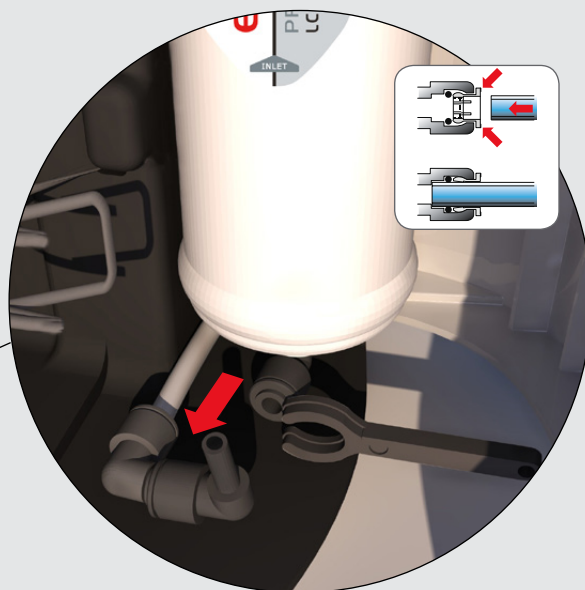
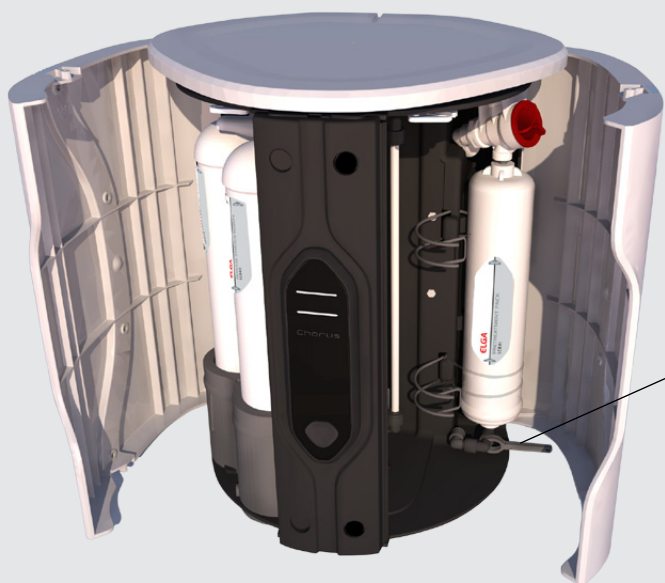
## 5 SANITISATION PROCEDURE



**1.** Process button off



**2.** Change Pre-treatment cartridge LC241. (Optional)



**3.** Insert a new LC241 and dispose of the old pack.



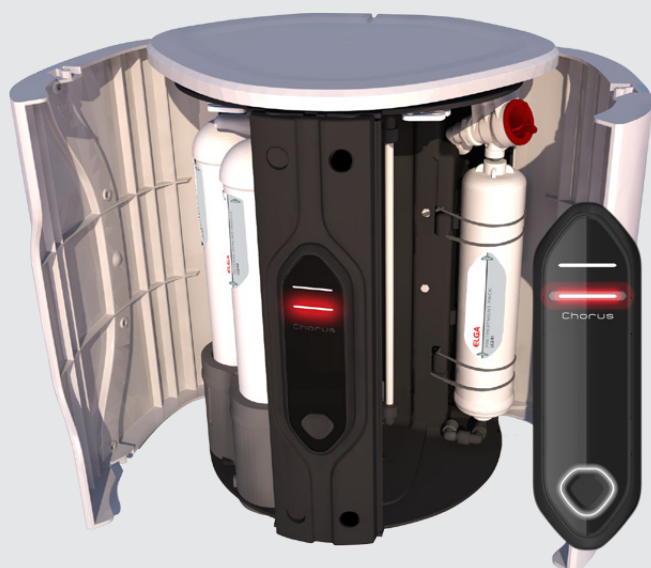


- 4.** Add CT1 or Effersan tablet to the sanitisation port.

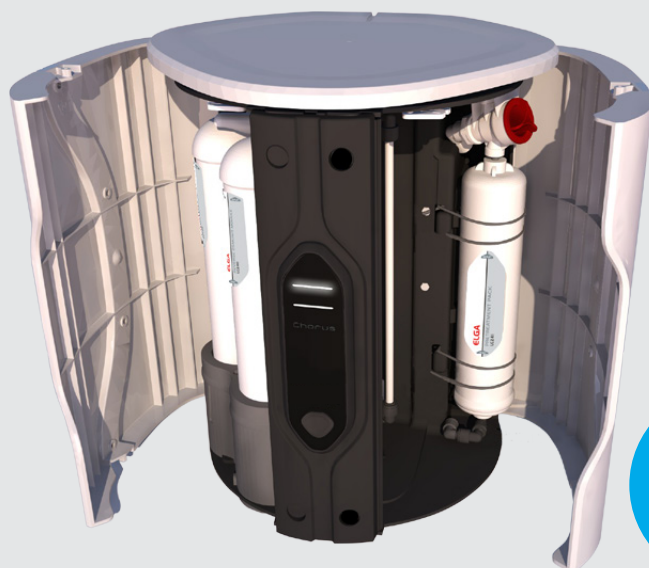
Chlorine Tablets:

CT1 Chlorine tablets or EfferSan™ multi-purpose disinfecting tablets are required to successfully complete this procedure.  
(United States EPA Approved EfferSan™ Tablets)

EfferSan™ are not supplied and must be sourced from your local ELGA® LabWater distributor. Refer to the EfferSan™ label for additional information and follow all applicable directions for use on the manufacturers label in conjunction with the following instructions.



- 5.** Press and hold process button for 15 seconds to enter procedure. (commissioning)



- 6.** System will rinse for 60 mins.

- 7.** After 60 mins system automatically enters normal operation.



## 6 HEALTH & SAFETY NOTES



### **WARNING!**

WARNINGS ARE GIVEN WHERE FAILURE TO OBSERVE THE INSTRUCTIONS COULD RESULT IN INJURY OR FATALITY.



### **CAUTION!**

Cautions are given where failure to observe the instructions could result in damage to the equipment, associated equipment and processes.

### 6.1 Environment



### **CAUTION!**

Clean dry indoor. Temp 5-40°C. Humidity max 80% non-condensing.  
Failure to follow the environmental specification could result in damage to the system.  
The Chorus is not designed for use in fume cupboards where chemicals could damage the system.



### **WARNING!**

ALL NEW RO MODULES ARE FILLED WITH A PRESERVATIVE SOLUTION TO PREVENT BACTERIAL CONTAMINATION DURING STORAGE.  
THE RO MODULES WILL THEREFORE REQUIRE RINSING PRIOR TO USE.

### 6.2 Electricity

The appliance coupler (mains lead ) or power supply connected to the rear of the unit can be removed to isolate the power supply. If access to this is restricted then it is recommended that access to the supply socket is easily available to disconnect the electrical supply.



### **WARNING!**

ONLY USE THE APPLIANCE COUPLER (MAINS LEAD ) AND POWER SUPPLY PROVIDED.  
THE USE OF THESE WILL ENSURE ADEQUATE EARTH PROTECTION IS PROVIDED.

IF THE EQUIPMENT IS USED IN A MANNER NOT SPECIFIED BY ELGA, THE PROTECTION PROVIDED BY THE EQUIPMENT MAY BE IMPAIRED.

POSITION THE POWER SUPPLY SO THAT IT CANNOT COME INTO CONTACT WITH WATER



### **WARNING!**

ALWAYS ENSURE THAT THE ELECTRICAL POWER SUPPLY IS ISOLATED BEFORE WORKING INSIDE CHORUS.

### 6.3 Residual Preservative



### **WARNING!**

DURING THE COMMISSIONING CYCLE TRACE RESIDUAL PRESERVATIVE IS FLUSHED FROM THE SYSTEM.  
A MATERIAL DATA SHEET IS AVAILABLE UPON REQUEST.

### 6.4 Control of Substance Hazardous to Health (COSHH)

Material safety data sheets are available upon request.



## 7 TECHNICAL SPECIFICATIONS

### Purified Water Specification

| Model                                               | Chorus 3<br>RO310BPM2   | Chorus 3<br>RO320BPM2   | Chorus 3<br>RO330BPM2   | Chorus 3<br>RO310XXM2   | Chorus 3<br>RO320XXM2   | Chorus 3<br>RO330XXM2   |
|-----------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Make-up rate @15°C<br>(*4bar feed)                  | 10 l/hr                 | 20 l/hr                 | 30 l/h                  | 10 l/hr *               | 20 l/h *                | 30 l/h *                |
| Delivery flow rate -<br>maximum                     | 240L/24h                | 480L/24h                | 720L/24h                | 240L/24h                | 480L/24h                | 780L/24h                |
| Inorganic Rejection                                 | >95%<br>Rejection       | >95%<br>Rejection       | >95%<br>Rejection       | >95%<br>Rejection       | >95%<br>Rejection       | >95%<br>Rejection       |
| Organics (TOC) - Typical                            | <100ppb                 | <100ppb                 | <100ppb                 | <100ppb                 | <100ppb                 | <100ppb                 |
| Organics (MW >200 Dalton)                           | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       |
| Bacteria - Typical                                  | <5 CFU/ml               | <5 CFU/ml               | <5 CFU/ml               | <5 CFU/ml               | <5 CFU/ml               | <5 CFU/ml               |
| Bacterial Endotoxin                                 | <0.25EU/ml              | <0.25EU/ml              | <0.25EU/ml              | <0.25EU/ml              | <0.25EU/ml              | <0.25EU/ml              |
| Particles                                           | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       | >99%<br>Rejection       |
| Feed Water Specification                            |                         |                         |                         |                         |                         |                         |
| Source Quality                                      | Potable mains<br>supply | Potable mains<br>supply | Potable mains<br>supply | Potable mains<br>supply | Potable mains<br>supply | Potable mains<br>supply |
| Fouling Index-Maximum                               | 10                      | 10                      | 10                      | 10                      | 10                      | 10                      |
| TDS-Maximum                                         | 1000ppm                 | 1000ppm                 | 1000ppm                 | 1000ppm                 | 1000ppm                 | 1000ppm                 |
| Conductivity                                        | <1400µS/cm              | <1400µS/cm              | <1400µS/cm              | <1400µS/cm              | <1400µS/cm              | <1400µS/cm              |
| Free/total Chlorine-Maximum                         | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  |
| Chloramine - Maximum                                | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  | 0.5ppm                  |
| Heavy Metals-Maximum<br>(Fe/Mn)                     | 0.05ppm                 | 0.05ppm                 | 0.05ppm                 | 0.05ppm                 | 0.05ppm                 | 0.05ppm                 |
| Silica-Maximum                                      | 30ppm                   | 30ppm                   | 30ppm                   | 30ppm                   | 30ppm                   | 30ppm                   |
| Temperature                                         | 1-35°C                  | 1-35°C                  | 1-35°C                  | 1-35°C                  | 1-35°C                  | 1-35°C                  |
| Flowrate (max requirement<br>@ 15°C)                | 89l/h                   | 100l/h                  | 103/h                   | 89l/h                   | 100l/h                  | 103/h                   |
| Drain requirements                                  | 80l/h                   | 80l/h                   | 80l/h                   | 80l/h                   | 80l/h                   | 80l/h                   |
| Maximum feed pressure<br>(w/o internal Boost pump)  |                         |                         |                         | 6.0bar<br>(90psi)       | 6.0bar<br>(90psi)       | 6.0bar<br>(90psi)       |
| Minimum feed pressure<br>(w/o internal Boost pump)  |                         |                         |                         | 4.0bar<br>(60psi)       | 4.0bar<br>(60psi)       | 4.0bar<br>(60psi)       |
| Maximum feed pressure<br>(with internal Boost pump) | 2.0bar<br>(30psi)       | 2.0bar<br>(30psi)       | 2.0bar<br>(30psi)       |                         |                         |                         |
| Minimum feed pressure<br>(with internal Boost pump) | 0.5bar<br>(7.5psi)      | 0.5bar<br>(7.5psi)      | 0.5bar<br>(7.5psi)      |                         |                         |                         |

### Connections

|                         |                    |
|-------------------------|--------------------|
| Inlet                   | 8mm (5/16) OD tube |
| Reservoir Overflow      | 8mm (5/16) OD tube |
| Drain (RO Concentrate)  | 8mm (5/16) OD tube |
| Reservoir               | 8mm (5/16) OD tube |
| Outlet (RO Concentrate) | 8mm (5/16) OD tube |

## Electrical Requirements

| Model                           | Chorus 3<br>RO310BPM2   | Chorus 3<br>RO320BPM2   | Chorus 3<br>RO330BPM2   | Chorus 3<br>RO310XXM2   | Chorus 3<br>RO320XXM2   | Chorus 3<br>RO330XXM2   |
|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Mains Input                     | 100-240 Vac<br>50-60 Hz | 100-240 Vac<br>50-60 Hz | 100-240 Vac<br>50-60 Hz | 100-240 Vac<br>50-60 Hz | 100-240 Vac<br>50-60 Hz | 100-240 Vac<br>50-60 Hz |
| System control voltage          | 24V dc                  | 24V dc                  | 24V dc                  | 24V dc                  | 24V dc                  | 24V dc                  |
| Power consumption (peak demand) | 60VA                    | 60VA                    | 60VA                    | 46VA                    | 46VA                    | 46VA                    |
| Reservoir Level Connection      | RJ45                    | RJ45                    | RJ45                    | RJ45                    | RJ45                    | RJ45                    |
| Noise level                     | <45dBA                  | <45dBA                  | <45dBA                  | <45dBA                  | <45dBA                  | <45dBA                  |

## Dimensions & Weight

| Model            | Chorus 3<br>RO310BPM2 | Chorus 3<br>RO320BPM2 | Chorus 3<br>RO330BPM2 | Chorus 3<br>RO310XXM2 | Chorus 3<br>RO320XXM2 | Chorus 3<br>RO330XXM2 |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Height           | 435mm                 | 435mm                 | 435mm                 | 435mm                 | 435mm                 | 435mm                 |
| Width            | 375mm                 | 375mm                 | 375mm                 | 375mm                 | 375mm                 | 375mm                 |
| Depth            | 340mm                 | 340mm                 | 340mm                 | 340mm                 | 340mm                 | 340mm                 |
| Supply Weight    | 17kg(37lb)            | 18kg(40lb)            | 19kg(42lb)            | 15kg(33lb)            | 16kg(35lb)            | 17kg(37lb)            |
| Operating Weight | 18kg(40lb)            | 19kg(42lb)            | 20kg(44lb)            | 16kg(35lb)            | 17kg(37lb)            | 18kg(40lb)            |
| Installation     | Bench/Wall/<br>Floor  | Bench/Wall/<br>Floor  | Bench/Wall/<br>Floor  | Bench/Wall/<br>Floor  | Bench/Wall/<br>Floor  | Bench/Wall/<br>Floor  |

Dependent on feed water as part of our policy of continual improvement we reserve the right to alter the specifications given in this document.

## Consumables

| Part No.  | Description           | Typical Service Life * | Max. Shelf Life |
|-----------|-----------------------|------------------------|-----------------|
| LC241     | Pre-treatment Pack    | 6 Months               | 2 years         |
| LC216     | Composite Vent Filter | 6 Months               | 2 years         |
| Effersan™ | Tablets               | >8 Months              | >8 Months       |
| CT1       | Tablets               | 1 per 6 Months         | 2 years         |

\*Service life is an estimate only, and will depend on the application and feed water quality.  
Please take care to ensure your order is the correct consumable items.

## 8 CUSTOMIZED OPERATION

It's possible to customize your Chorus by downloading additional features and changing your current settings. To find out more, please visit [www.elgalabwater.com/customize](http://www.elgalabwater.com/customize)

**8.1 USB Data Logging** To download technical data, please follow instructions.



**CAUTION!**

USE A BLANK USB.

1. Insert blank USB and press the process button.
2. To stop recording data remove USB.

ELGA® LabWater is a trading name of VWS (UK) Ltd. General Limited Warranty

VWS (UK) Ltd. warrants the products manufactured by it against defects in materials and workmanship when used in accordance with applicable instructions for a period of one year from the date of shipment for the products. VWS (UK) Ltd. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

The warranty provided herein and the data, specifications and descriptions of the VWS (UK) Ltd. products appearing in VWS (UK) Ltd. published catalogues and product literature may not be altered except by express written agreement signed by an officer of VWS (UK) Ltd. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorized and, if given, should not be relied upon.

In the event of a breach of the foregoing warranty, VWS (UK) Ltd. sole obligation shall be to repair or replace, at its option, any product or part thereof that proves to be defective in materials or workmanship within the warranty period, provided the customer notifies VWS (UK) Ltd. promptly of any such defect. The exclusive remedy provided herein shall not be deemed to have failed of its essential purpose so long as VWS (UK) Ltd. is willing and able to repair or replace any nonconforming VWS (UK) Ltd. product or part. VWS (UK) shall not be liable for consequential, incidental, special or any other indirect damages resulting from economic loss or property damage sustained by any customer from the use of its products.

#### VWS (UK) Ltd. Warranty

VWS (UK) Ltd. warrants the water systems manufactured by it, BUT EXCLUDING MEMBRANES AND PURIFICATION PACKS, against defects in materials and workmanship when used in accordance with the applicable instructions and within the operating conditions specified for the systems for a period of one year from the earlier of:

the date of installation, or the 120th day following the date of shipment.

VWS (UK) LTD. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The warranty provided herein and the data, specifications and descriptions of the VWS (UK) Ltd. systems appearing in VWS (UK) Ltd. published catalogues and product literature may not be altered except by express written agreement signed by an officer VWS (UK) Ltd. Representations, oral or written, which are inconsistent with this warranty or such publications are not authorised and, if given, should not be relied upon.

In the event of a breach of the foregoing warranty, VWS (UK) Ltd. sole obligation shall be to repair or replace, at its option, any product or part thereof that proves to be defective in materials or workmanship within the warranty period, provided the customer notifies VWS (UK) Ltd. promptly of any such defect. The cost of labour for the first ninety (90) days of the above warranty period is included in the warranty; thereafter, labour cost shall be at the customer's expense. The exclusive remedy provided herein shall not be deemed to have failed of its essential purpose so long as VWS (UK) Ltd. is willing and able to repair or replace any nonconforming VWS (UK) Ltd. system or component part. VWS (UK) Ltd. shall not be liable for consequential, incidental, special or any other indirect damages resulting from economic loss or property damage sustained by any customer from the use of its process systems.

Products or components manufactured by companies other than VWS (UK) Ltd. or its affiliates

("Non - VWS (UK) Ltd. products") are covered by the warranty, if any, extended by the Product manufacturer. VWS (UK) Ltd. hereby assigns to the purchaser any such warranty; however VWS (UK) LTD. EXPRESSLY DISCLAIMS ANY WARRANTY WHETHER EXPRESSED OR IMPLIED, THAT THE NON - VWS (UK) Ltd. PRODUCTS ARE MERCHANTABILITY OR FIT FOR A PARTICULAR PURPOSE.

#### NOTICE

VWS (UK) Ltd. is constantly striving to improve its products and services. Consequently, the information in this document is subject to change without notice and should not be construed as a commitment by VWS (UK) Ltd.

Also VWS (UK) Ltd. assumes no responsibility for any errors that may appear in this document. This manual is believed to be complete and accurate at the time of publication. In no event shall VWS (UK) Ltd. be liable for incidental or consequential damages in connection with or arising from the use of this manual.

VWS (UK) Ltd. warrants its products against defects in materials and workmanship as described in the Warranty statement on the preceding pages.

# The Labwater Specialists

ELGA is the global laboratory water brand name of Veolia. The information contained in this document is the property of VWS (UK) Ltd, trading as ELGA LabWater, and is supplied without liability for errors or omissions. © VWS (UK) Ltd.  
2017 - All right reserved. ELGA®, PURELAB®, ADEPT® Labpure® and PureSure® are registered trademarks of VWS (UK) Ltd.

