



EDM



be clean.
stay green

www.easymetal.com

easymetal

EDM

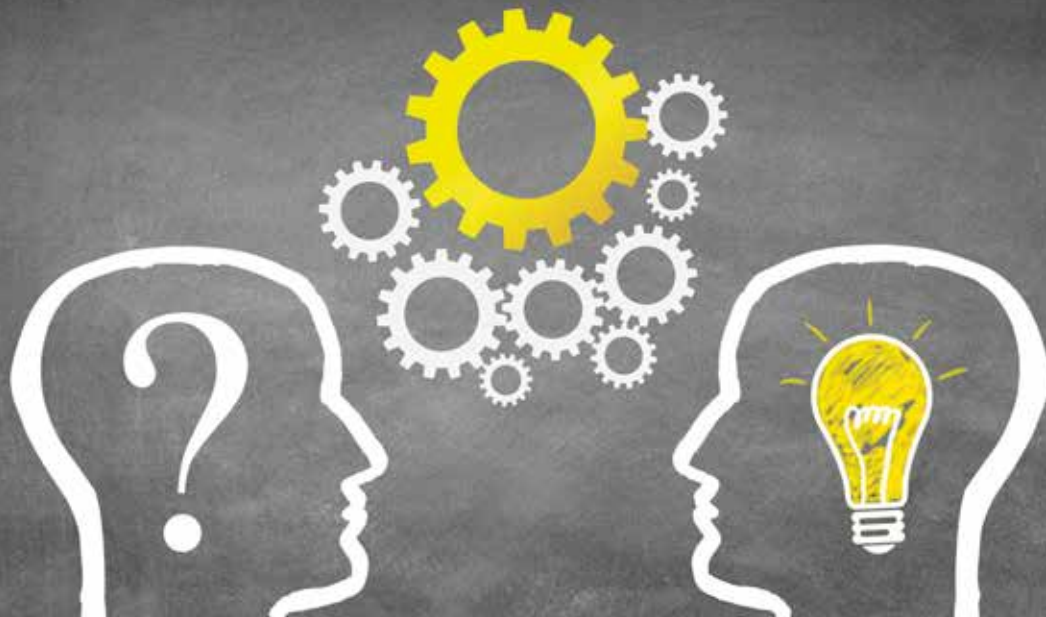


„Innovation is not just a question of ideas but an important step in the implementation process.

For this purpose, it is essential to have a team that consistently covers new ground with a lot of dedication and heart.

We stand for innovation, for change and still preserve our values such as reliability, fairness and transparency.

With the trust of our customers, we grow and thus accept the challenge of the future.“



„Technology leader“

We shape the future.

Since our foundation, we have been investing in promising research & development work to thus secure our lead.

In the foreground are tailor-made industry technologies, which often are developed in close cooperation with our customers. Many years of experience of our customers as well as economic aspects of each industry are the basis of these Technologies.

The company easymetal is represented on an international platform about more than 50 partners in 26 states. Leading companies from the fields of medical, aerospace, automotive and electronics / electricians have chosen us as a partner.

Thus, the question of location has been answered for us as an Austrian company.

Quality management.

For us, quality management means quality of products, quality of internal and external processes, quality of service and quality in environmental issues.

We operate with the knowledge that our products must work safely and efficiently for many years. Therefore, all our new developments undergo a rigorous testing process.

Industry 4.0

In the new age of Industry 4.0, we also focus on networking machines and products and place great emphasis on obtaining all relevant information from the treatment process in real time.

Our environmental balance sheet is your advantage.

Environmentally responsible action for us means a consistent and economical use of energy and raw materials as well as the prevention and reduction of waste. And this not only in our own production processes but also those of the customer.



„Years of experience“

You have an objective,
we have the solution.

Technical water requirements are highly individual and often more complex in nature.

To find the optimal water treatment requires a careful analysis of the raw water and a comprehensive solution competency.

Your competent partner.

Together with you, we develop all points of the task, calculate the required capacity and build a water treatment system according to your needs.

While doing so, we keep your investment and operating costs as well as the required reliability of your machines and systems in mind.

With our many years of experience, we assist and support you in all areas of water treatment products and Services.

Benefit from our expertise.



Water Analysis



Planning



Commissioning



Training



Repair &
Service

Fast. Reliable. Competent.

EDM



„We are not polluters“

Environmental expertise with a future

Being a pioneer in environmental protection is the goal we have set ourselves.

We deal responsibly and efficiently with energy and resources and are committed to sustainably protecting our environment.

In this respect, the E.KO IONISER® has already been awarded the Innovation Award for Environmental Protection.

Climate protection concerns us all

With the E.KO IONISER®, our biggest contribution is that we are able to significantly reduce the amount of hazardous waste produced at the customer's premises. So far, this has prevented 6.4 million litres or 6,400 truckloads of hazardous waste being produced across the EU.



This doesn't just happen as a matter of course. New mixed bed resin, in particular, uses a lot of resources. Not to mention the resulting waste management and the transport of dangerous goods.



With us on your side, you are on the environmentally-friendly side.

Responsible and lawful conduct is a fundamental requirement and forms the basis of trust that customers, business partners and the public place in us.



„The journey of our product develo

The idea and start of development of the E.KO IONISER®

Development of a new product to replace the deionising cartridges on the market.

Company foundation in Stockerau

Registration of the patent and testing the prototype.

Delivery already made to 3 countries



Additional expansion planned in Europe.

1995

1997-
1998

1999

2000

by the end of
2001

2004



1200



1500



KORROSTOP 1



E.KO IONISER® 1501



KORROSTOP 2

vements“

Move to the new company building



Production in the new facility.

20,000 E.KO IONISERS® shipped

The factory increasingly becomes too small.

Exports to more than 20 countries (> 40 retailers)

More than 60,000 E.KO IONISERS® shipped.

2006-
2007

2010

2012

2014

by the end of
2017

2019



EASYRO®



KORROSTOP3®



E.KO IONISER® 1503



KORROS4OP®

E.KO IONISER® 1502

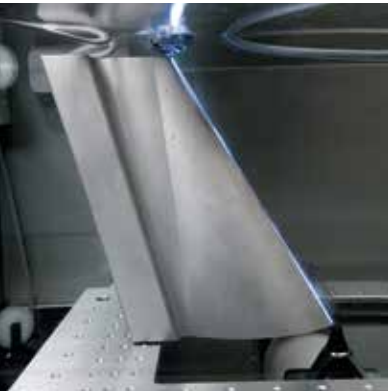
EDM



MAXIMUM = MAXIMUM
Optimal water quality
for maximum precision

NO DEPOSITS, NO CORROSION
Trouble-free operation
with highest steam purity

PERFECTLY PURE
Coating-ready rinses
Free of residues



„Custom solutions“



RELIABLY PURE
Optimal water quality
for reproducible results

PERFECT FORMULATION
Ultrapure water as a basis for cooling
lubricant emulsion preparations

INDIVIDUALLY OPTIMIZED
Economical and
fail-safe

CARE AND BRILLIANCE
Gentle on the paintwork
and leaves no residues



EDM
HEATING PLANTS
PART CLEANING
INDUSTRY
MEDICAL TECHNOLOGY
FOOD INDUSTRY
CARWASH

EDM

Standard applications
Aluminium
Copper, titanium
Polycrystalline diamonds (PCD)

EDM

Carbide
Copper, graphite, titanium
Cobalt materials
Sintered metal materials
Powder metallurgical steels



Ultrapure water
Process water
Boiled feed water



The background of the entire page is a blurred image of industrial machinery, likely a water filtration or deionization system, with various pipes, valves, and components in shades of blue and white.

E.KÜ
IGNISER®

„The benchmark
for demanding
customers to be
even better.“

Better. More reliable. Quicker.

That is how deionized water with low conductivity
and an optimal pH is generated today.



„Standard Applications“

E.KO IONISER® 1501

Everyone knows of it, almost everyone has one -
the E.KO IONISER® 1501.

The use of the E.KO IONISER® 1501 has proven itself already many
thousands of times and is considered the base for the best and constant
water quality in the field of EDM.

The ideal solution for standard applications.

This device shows its full strength when used within the scope of the standard applications. Here it scores with its wide range of usage Options.

EASYMETAL® 1501
Standard applications
Aluminium
Copper, titanium
Polycrystalline diamonds (PCD)

EDM



Hydraulic performance

Max. flow rate	40 l/min
Min. flow rate	1 l/min
Max. operating pressure	5 bar
Max. Input conductance	2500 $\mu\text{S}/\text{cm}^1$
Conductance	< 0,01 $\mu\text{S}/\text{cm}^1$
Permissible Input pH value	6,5-9,5

Dimensions

Weight	160 kg
Dimensions mm (L/W/H)	660/370/1150

Connections

EASY quick coupling	CPC 1/2"
---------------------	----------

Capacity

Equivalent mixed bed resin	approx. 200 liter
----------------------------	-------------------



„Solid to the core“

E.KO IONISER® 1502

The two equivalent systems E.KO IONISER® 1501 and 1502 perfectly complement their different application areas and are not interchangeable due to their various usage scopes.

The E.KO IONISER® 1502 was designed specifically for special applications in the carbide field.

Optimal solutions for special materials.

The many years of practical experience has shown that the E.KO IONISER® 1502 is the technically and economically optimal solution in terms of carbide.

E.KO IONISER® 1502
 Carbide
 Copper, graphite, titanium
 Cobalt materials
 Sintered metal materials
 Powder metallurgical steels

EDM



Hydraulic performance

Max. flow rate	40 l/min
Min. flow rate	1 l/min
Max. operating pressure	5 bar
Max. Input conductance	2500 µS/cm ¹
Conductance	< 0,01 µS/cm ¹
Permissible Input pH value	6,5-9,5

Dimensions

Weight	160 kg
Diemensions mm (L/W/H)	660/370/1150

Connections

EASY quick coupling	CPC 1/2"
---------------------	----------

Capacity

Equivalent mixed bed resin	approx. 200 liter
----------------------------	-------------------



„UPW - Ultra Pure Water“

E.KO IONISER® 1503

The E.KO IONISER® 1503 UPW (ultra pure water) has been specially developed for the smoothing of already treated water. In combination with our EASYRO® reverse osmosis equipment, we guarantee ultrapure water of the highest Quality.

Depending on the incoming water, the EASYRO® reverse osmosis system lowers conductivity to 10-50 $\mu\text{s}/\text{cm}^1$.
With the E.KO IONISER® 1503 as subsequent smoothing, we guarantee a conductivity of up to 0.01 $\mu\text{s}/\text{cm}^1$ (TREF25).

Typ 1 - Standard

Dissolved inorganic ions are easily removed.

The resistance after treatment is 18.2 MΩ (at 25 °C) with a TOC value of <1 ppb.

EASYMETAL 1503
 Ultrapure water
 Process water
 Boiler feed water



Hydraulic performance

Max. flow rate	40 l/min
Min. flow rate	1 l/min
Max. operating pressure	5 bar
Max. Input conductance	2500 μS/cm ¹
Conductance	< 0,01 μS/cm ¹
Permissible Input pH value	6,5-9,5

Dimensions

Weight	160 kg
Dimensions mm (L/W/H)	660/370/1150

Connections

EASY quick coupling	CPC 1/2"
---------------------	----------

Capacity

Equivalent mixed bed resin	approx. 200 liter
----------------------------	-------------------



„Convincingly simple“

Economic environmental management.

The E.KO IONISER® fully replaces the mixed bed resin, which makes it one of the most ecological solutions in the area of process water treatment.

No media or chemicals are needed for the cycle.
Its environmentally friendly technology eliminates every year about 1,000,000 liters of toxic waste in Europe alone.

The E.KO IONISER® is the most environmentally friendly system on the market among comparable products.

We make your life easier.

With the E.KO IONISER®, you save not only the high cost of additives and the disposal cost for hazardous waste.

A significant reject reduction is guaranteed as well due to the reliably high quality of the water.



Delivered - Docked - Finished

Our on demand and non-bureaucratic leasing concept eliminates investment costs as well as all annoying disposal costs and disposal work for you. You work with a top device that you totally can rely on.

The E.KO IONISER® is an affordable must-have for anybody appreciating cost-savings not only in the investment phase.

EDM



„You are looking to connect“

CONNECT4

Our CONNECT4 components provide compatible connectivity for every area of application.

The new CONNECT4 connection kit is compatible with all standard wire EDM machines.

We only use industry standard components.

1 kit for all eventualities.

The new CONNECT4 connection kit contains all the components you need to connect the E.KO IONISER® without any additional attachments.



Perfect initial equipment.

Together with the KORROSTOP4.0® measuring device, the CONNECT4 connection kit is the ideal combination for your initial equipment.



Just one movement.

Plug-and-play with EASY quick couplings.

Switching old with new is done in the blink of an eye even during operation.



KORROS40P

KORROS4OP[®]

Visualization of the water quality.

„The right partner
for intelligent
solutions.“

Easier. More efficient. More networked.

The latest communication interfaces enable seamless
integration into your processes.

EDM



„Everything under control“

KORROS4OP®

Visualization of the water quality.



Ongoing analysis of the water quality is essential for consistent product quality, process optimisation and improved safety.

The KORROSTOP4.0® is a reliable and precise measuring device that stands out thanks to the latest technology. It can be adapted to all machine manufacturers and can be fully integrated into your existing corporate IT system with its large number of communication channels. We only support highly secure standards.

A high level of flexibility and easy of use.

Choose between analogue or digital displays.

With just a quick glance, you will have a permanent and simple overview of the measurement values thanks to the colour coding of the measurement range.

The bar display in the traffic light system makes it easier to obtain a quick overview.

The device is easy to operate via the touchscreen or push-turn control.



Transfer data to database or cloud storage mediums.

We work with well-known cloud service providers for flexible and user-friendly data transmission.

You can find all the relevant manuals, dashboard profiles and updates for your use in the GitHub Repositories.





ABS housing

- Attractive appearance
- High degree of stability and shock-resistant
- Particularly scratch resistant

User Manual

Slot for a USB drive with user manual

Compatible with all EDM machines

- With no additional attachments needed
- Built-in dirt trap



Industry 4.0

State-of-the-art technology

- Dynamic measurement intervals with digital or analogue measurement representation
- The most up-to-date communication channels for your process optimisation

Push-turn control

Operation via a touchscreen or easily accessible via push-turn control

SD card slot

- SD card slot
Recording of all real time data
- USB-B Interface
- Reset Button



- Plug-and-play with EASY quick couplings
- Can be replaced quickly and easily even during operation



Intelligent management.



- Easy to use and quick access to information via the traffic light system
- Conductive value output
Conductive value input
KORROSTOP (water quality) in %
Water temperature
Flow rate in l/min.
- 24-hour historical data storage
- Data can be transferred in real time to a database or the cloud
- Controlling external devices is possible, e.g. Warning lights etc. or for process optimisation

Communication is everything.

- Query options (logs) via LAN / PC / Wi-Fi / USB
- LAN / PC built-in web server and evaluation software
- Wi-Fi direct for mobile devices
- Data transfer via USB / LAN / Wi-Fi
- Can be built into existing company IT systems, e.g. via REST services or MQTT
- Cloud connection optional



Interfaces

Micro USB-B

LAN

Wi-Fi

Requirements SD card

SDSC

128 MB

Power supply

100-240 V AC 50/60 Hz 0,3 A

5,2 V 2000 mA

Intelligent connection.

2 freely configurable switch outputs enable secure and uninterrupted operation.

Conditions and faults in the system are monitored in an optimal manner and contribute to your process optimisation.

EDM



EASYRO® 600

High performance membranes

Hydraulic output (24hr)
up to 9600 liters

EASYRO® 300

High performance membranes

Hydraulic output (24hr)
up to 4800 liters

EASYRO® 150

High performance membranes

Hydraulic output (24hr)
up to 2400 liters





EASYRO[®]

„Tailor-made solutions
for individual
requirements.“

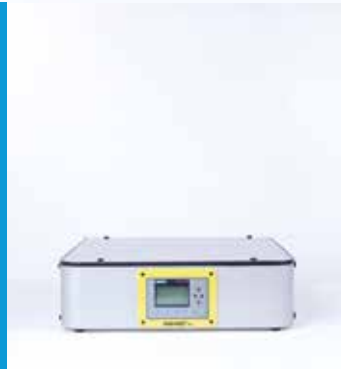
More powerful. Compacter. More flexible.

Enormous filter capacities do not always require elaborate construction methods and high costs.



„True greatness is in the details“

EASYRO® 150



EASYRO® 300



Aluminium housing

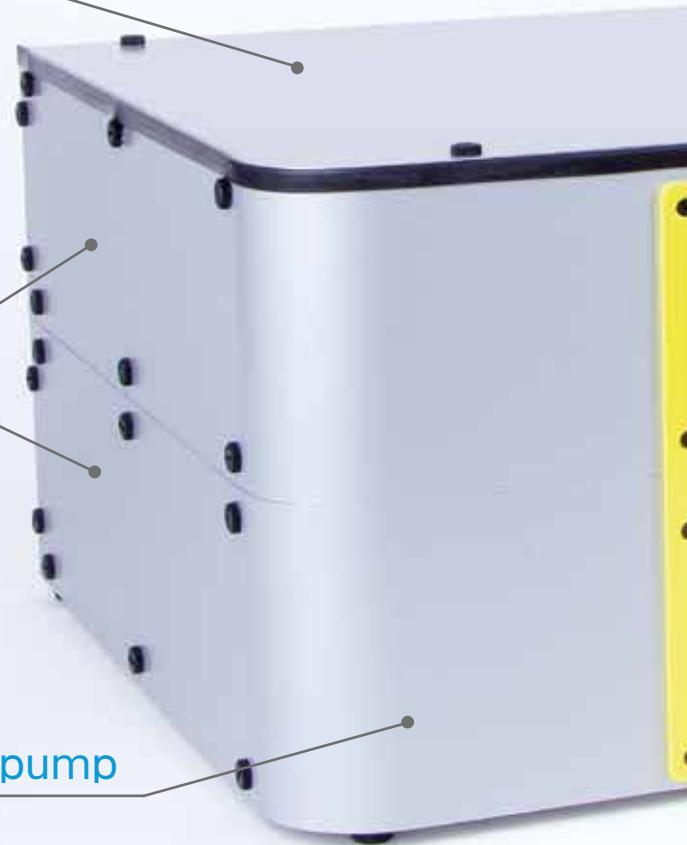
Closed aluminum anodized housing

Modular design

Flexible sizes depending on the needed water quantities. Due to the practical modular design, EASYRO® easily can be expanded at any time.

High pressure pump

Quiet, thermally decoupled pump



Industry 4.0

Siemens LOGO! 8

EASYRO® 600



- Fully automatic monitoring and control of the system
- Display of operating status, alerts, alarms, messages
- Clear text display
- Data logging function

Low-pressure high performance membrane

- State of the art energy efficient membrane technology
- Permanent usable high-performance membrane
- Automatically controlled backwashing and rinsing cycles
- Filtration efficiency 95-99 %





Water outlet 1 with mixture

- Mixture for desired conductivity, adjustable from 2-400 $\mu\text{s}/\text{cm}^1$ but no discarding
- Conductivity measurement temp. compensated measuring range 2-400 $\mu\text{s}/\text{cm}^1$

Pure water outlet 2 with rejection

- Max. permissible output conductance adjustable from 2-400 $\mu\text{s}/\text{cm}^1$

Discarding:

If the actually produced conductivity of the permeate is above the preset value, discarding is carried out until the desired preset conductivity is achieved again.

- Drain valve made of stainless steel
- Conductivity measurement temp. compensated measuring range 2-400 $\mu\text{s}/\text{cm}^1$



EASYNET / ETHERNET

- Standard Ethernet Connector
- Webservice
- Master/Slave Connector (Redundant system)
- Optional webservice

Water inlet

Inlet $\frac{3}{4}$ " OT inlet valve with dirt trap

Level control* connection

Connection for Level probe



* only for level-controlled systems in conjunction with a storage tank

Waste water outlet

Outlet JG 10/DN 20

Mixture adjustment screw

To set the desired conductivity for water outlet 1

230 V AC/50 Hz





„Industry 4.0“

Networked and mobile communication in real-time.

Simple handling and real-time communication via Ethernet characterize the Siemens LOGO! 8.

The integrated Web Server enables the monitoring and control via Wi-Fi* and via Internet. Of course, this is password protected and compatible with all popular browsers. The LOGO! 8 can be operated via PC, smartphone or tablet. SMS communication** for alerting and remote control via mobile phone.

* Wi-Fi module required, ** GSM module required

Intelligent management.

Password-protected programming of operating procedures and operational parameters. Operator function via password on different levels, limit value for LF error and LF pre-warning, exceeding limit value threshold, permeate conductivity. All sensors and valves are operated with 24 VDC.

Well informed.

Warnings and information such as discarding mode, filter replacement, diaphragm check, etc. are indicated with orange backlight.

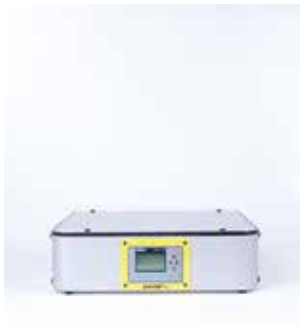
Respond as soon as possible.

The optical alarm messages highlighted in red allow for an immediate response to errors in the process flow. This includes lack of pressure, motor temperature, level probe check, leaks, etc.





Performance data



EASYRO[®] 150

High performance membranes

Hydraulic output (24hr)
up to 2400 liters



EASYRO[®] 300

High performance membranes

Hydraulic output (24hr)
up to 4800 liters



EASYRO[®] 600




High performance membranes

Hydraulic output (24hr)
up to 9600 liters

EASYRO® 150

EASYRO® 300

EASYRO® 600

			
Elektrical connection			
Power consumption	250 W	250 W	600 W
Voltage	230V AC/50 Hz	230V AC/50 Hz	230V AC/50 Hz
Noise level	> 60 dB(A)	> 60 dB(A)	> 60 dB(A)
Fusing	10 A	12 A	16 A

Water connection			
Minimum flow	10 l/min	15 l/min	20 l/min
Input pressure	2-6 bar	2-6 bar	2-6 bar
Device connection	¾" OT	¾" OT	¾" OT
Wastewater connection	JG 10/DN 20	JG 10/DN 20	JG 10/DN 20
Pump outlet	1" OT	1" OT	1" OT

Hydraulic performance			
Output (24 hr)*	2400 l	4800 l	9600 l
Pump capacity**	3400 l/h	3400 l/h	3400 l/h
Pump outlet pressure**	4 bar	4 bar	4 bar
Monitoring min./max.	incl.	incl.	incl.

* Depending on raw water quality and temperature




** Technical data, see data sheet of pump



EASYRO® 150

EASYRO® 300

EASYRO® 600

System data			
Desalination rate min.	95 %	95 %	95 %
Desalination rate max. in combination with polisher***	99,99 %	99,99 %	99,99 %
Wastewater**** min.	35 %	35 %	35 %
Outlets	2 x JG 10	2 x JG 10	2 x JG 10
Outlet 1	Pure water fix		
Outlet 2	Adjustable 0-400 µs/cm ¹		
Weight, empty	approx. 18 kg	approx. 25 kg	approx. 50 kg
Dimensions mm (L/W/H)	450/490/147	450/490/284	450/490/558

*** up to 0,01 µs/cm¹

**** Depending on raw water quality and membrane service life

Filtration efficiency of the EASYRO® reverse osmosis system

The following table shows what percentage of substances and pollutants possibly present in the water are removed by the high-tech filter membranes of the EASYRO® system.

Micro organisms	%
Heterotrophic bacteria	> 99
Coliform bacteria/E.Coli	> 99

Organic substances	%
Hydrogen compounds	
Heptane/octane/decane, etc.	> 98
Benzene/toluene/xylene/ethylbenzene, etc.	> 99
Diesel oil	> 99
Poly-aromatic hydrocarbons	
PAH (polycyclic aromatic hydrocarbons)	> 99
Chlorinated hydrogens	
Residues arising from the chlorination of water	> 99
Trihalomethanes (THM)	
Trichloromethane	> 60
Bromodichloromethane	> 99
Di-/Tribromomethane	> 99
Pesticides & decomposition products	
PCB (polychlorinated diphenyle)	> 99

Inorganic substances	%
Turbidity	> 99
Color number	> 99
Cations/metals	
Sodium	> 96
Potassium	> 97
Calcium (hardness)	> 99
Aluminium	> 99
Iron	> 99
Manganese	> 99
Heavy metals	
Copper	> 99
Lead	> 99
Zinc	> 99
Mercury	> 99
Cadmium	> 99
Chrome	> 98
Nickel	> 99
Anions	
Fluoride	> 99
Chloride	> 98
Nitrate	> 97
Sulphate	> 97



„Twice the performance“

High availability through redundancy.

The redundancy principle is the most common procedure to prevent the failure of important components.

These additional resources provide for:

- Increased failure prevention = reliability and reduction of failure probability of components critical for production.
- The increase of operating reliability by ensuring uninterrupted operation.

Master and Slave

The system consists of 2 working systems (master + slave). One system is the designated master and takes over the main control.

Alternately, only one system at a time is active.

Fig. 1

The master (system A) is working. The slave (system B) is in „Stand by“ mode waiting for its signal.

Fig. 2

The master passes the signal to the slave. The slave (system B) starts to work. While the slave works (system A), the master is now in the „Stand by“ mode.

ETHERNET (master/slave connector) in the rear of the system is used to connect the two pendulum systems with one another.

Bonus Feature.

To cover any dispensing peaks, the pendulum system provides an optimal Feature.

While in dual mode, both units (A + B) work simultaneously as one unit. This means twice the power is available to you.

Fig. 1

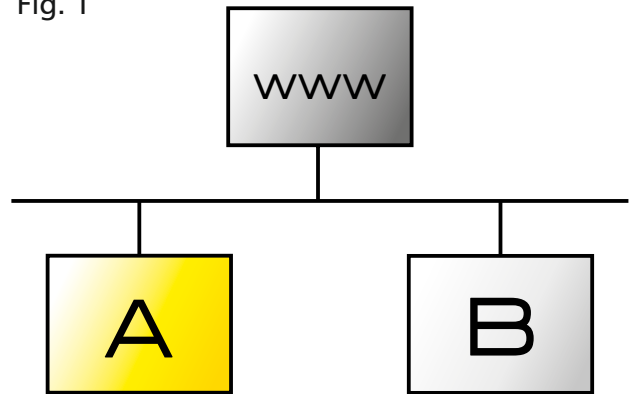
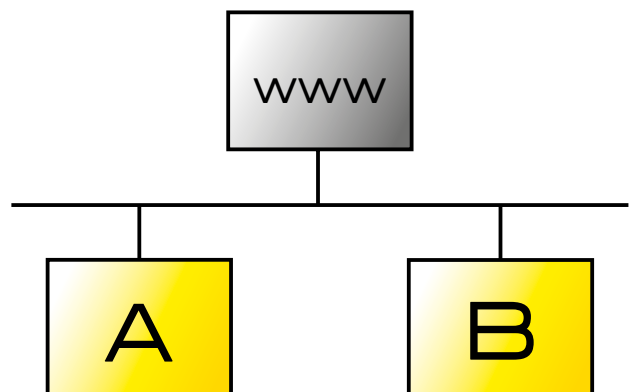
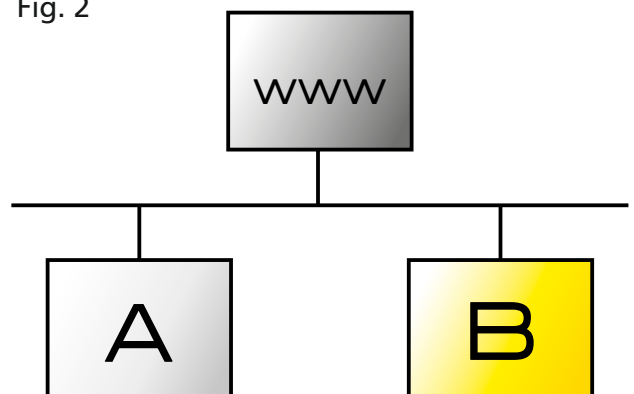


Fig. 2





„Tank systems“

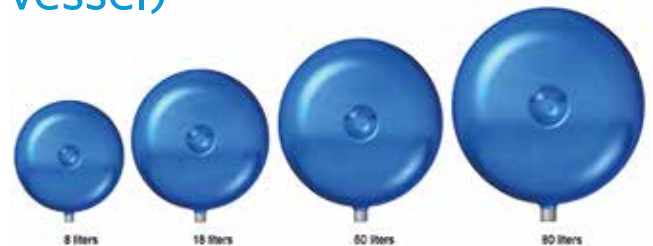
Tank systems

Depending on whether you want a pressure-controlled water treatment system in combination with a diaphragm boiler or rather a pressureless system with a reservoir -

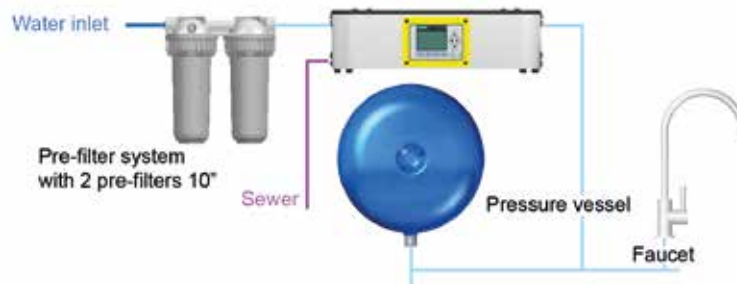
we deliver the optimal solution for your needs.

Diaphragm tank (Pressure vessel)

For small and very small amounts of treated water, we recommend one of our diaphragm boilers with a nominal volume of 8 to 80 liters.

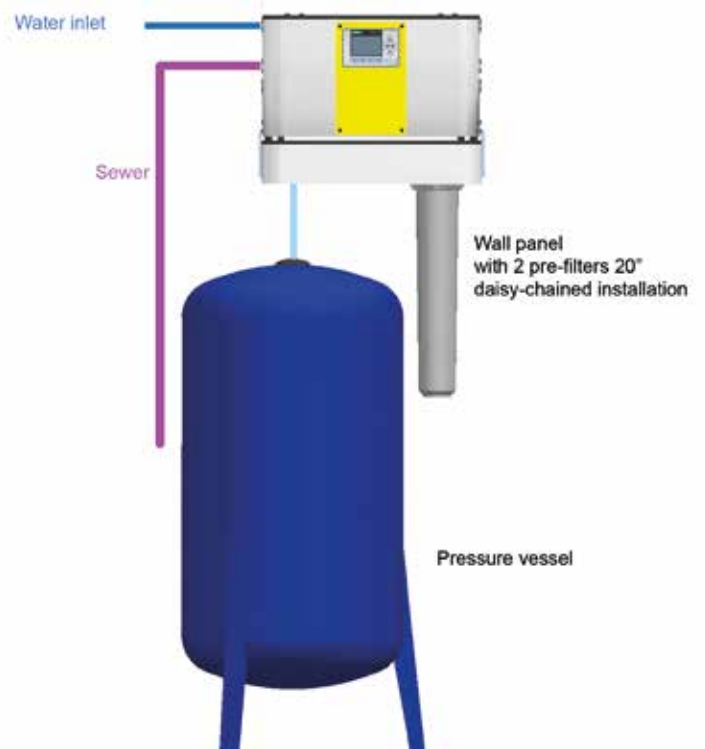


These pressure tanks are especially suitable for use in laboratories to supply dishwashers. They are compact enough to be mounted to the wall in a base cupboard.



Pressure tank with pads

As a pressure tank with pads, the diaphragm boilers with a nominal volume of 200 or 300 liters provide a larger volume of water.

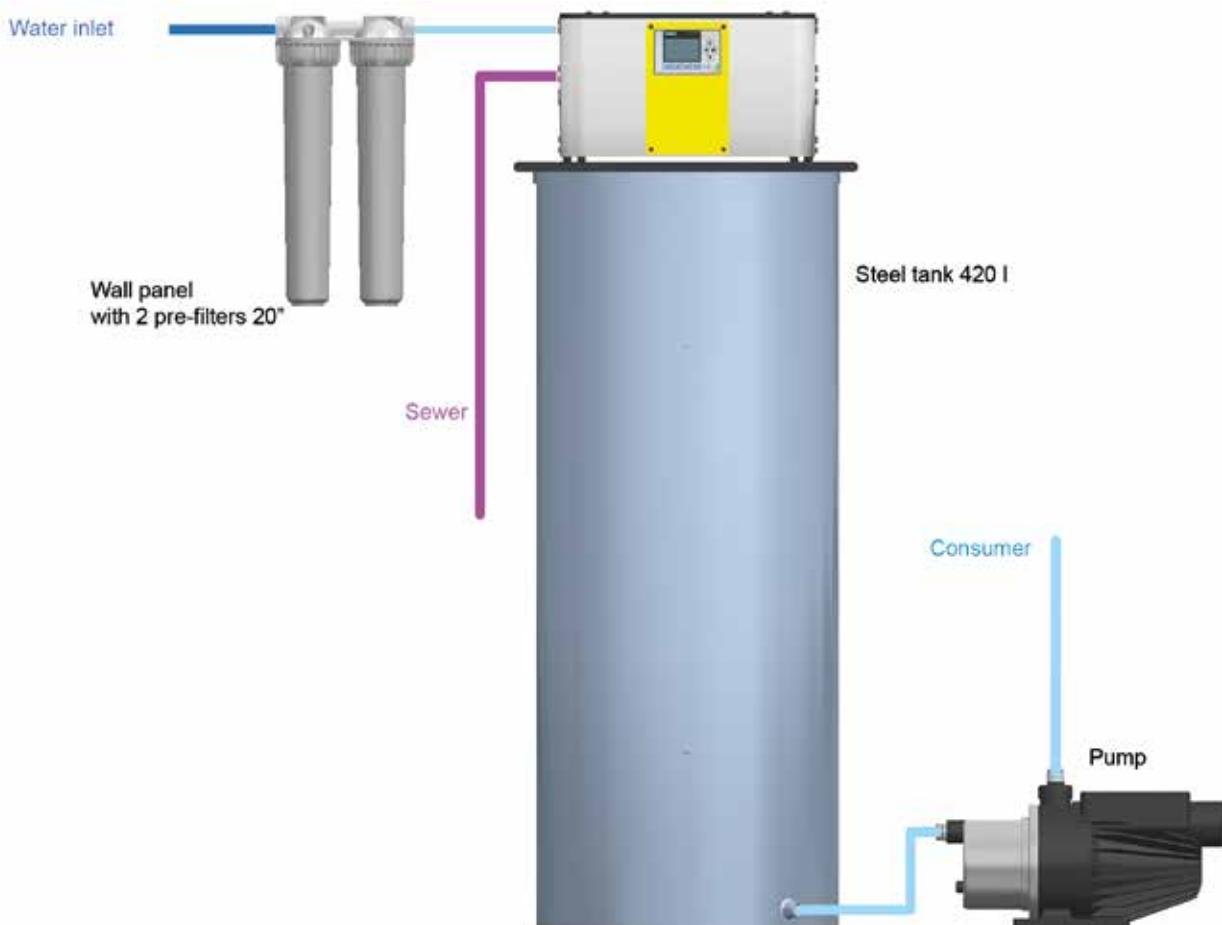




Pressureless stainless steel tank

The pressureless 420 liter stainless steel tank is considered the base tank in drinking water treatment. All metallic parts in contact with water are made from stainless steel.

With a diameter of 600 mm and a height of 1515 mm, it can be placed in even the smallest corner and offers a shelf for placing an EASYRO® system on top.

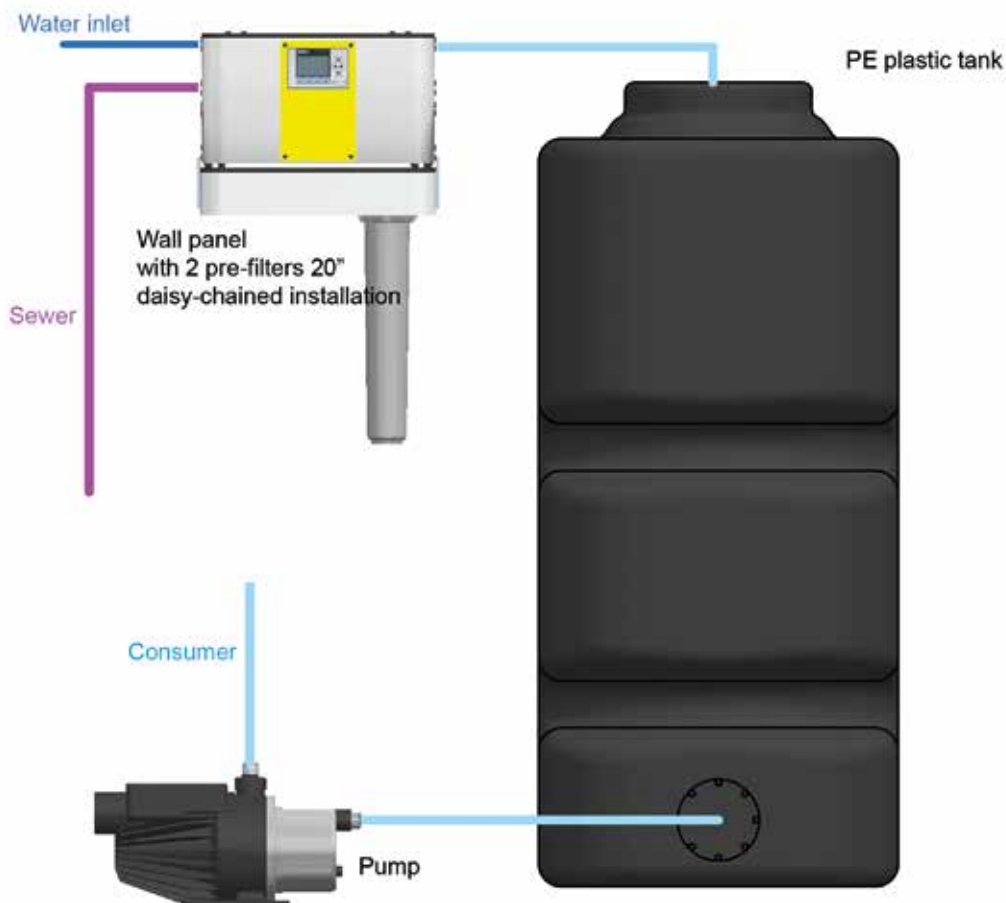


Plastic tank HD-PE

Supply tank with larger volumes are needed in industry and gastronomy. The pressureless and foodgrade plastic tanks are available with volumes of 1000, 2000 or 3000 liters.

They can be used as base tanks as well as supplementary tanks and can be linked with one another. This saves costs when requiring large volumes of water.

All HD-PE plastic tanks have a manhole cover and as base tanks feature a fill level indicator as well.





„Grundfos pumps“



Pump systems

We only offer pump systems of our partner Grundfos due to the high demands for topnotch quality in the various application areas.

Grundfos pumps represent operational reliability, quiet cycles, and a long service life. They guarantee low-maintenance operation. Depending on your needs and requirements, standard central water systems or vario pumps for constant pressure are configured.



„Accessoires“

Pre-filter & Co

We gladly assist you in configuring your optimal water treatment system.

We also try to help when it comes to selecting the right accessories that are not part of our product range.



Wall mounting systems

The practical wall mounting panel was designed as the optimal installation option for our EASYRO® water treatment system. The pre-filters can be attached directly onto the underside of the wall panel to save space.



Pre-filter systems

We offer a broad range of pre-filters and filter accessories.

Our product range includes wraparound filters in various fineness grades, hardness stabilizers, activated charcoal filters, various polisher granulates, etc..

Depending on the quality of the raw water and the treated water specifications, the necessary components are configured to achieve an optimal result. The filter housings and the various filter inserts are 10" or 20" in size depending on the EASYRO® system dimension or the raw water quality.

UVC immersion lamp system

The UVC immersion lamp system is used to disinfect drinking water. It reduces pathogens and pathogenic germs by 99 percent. The UV bactericidal process is purely physical, leaves no odor or taste behind, and runs trouble-free without residues. No chemicals are added.

UVC disinfection inside of the tank is recommended in conjunction with a pressureless tank system.



easymetal

EDM



easymetal

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