



HYDRACLEAR

PROCESS WATER LTD



Pure water goes way beyond
product quality

Hydra-Clear Process Water
2023 Brochure

Company Overview

Hydra-Clear Process Water:

Your Trusted Partner in Water Treatment.

At Hydra-Clear Process Water, we are dedicated to providing cutting-edge water treatment solutions designed to meet the unique needs of industries, businesses, and individuals. Our commitment to excellence, innovation, and environmental responsibility has made us a leader in the field of water treatment. With a history of excellence and a focus on the future, we are your trusted partner for all your water treatment needs.

Our Core Values

- **Quality:** We are proud to be ISO 9001, ISO 45001, and ISO 14001 accredited, reflecting our unwavering commitment to delivering the highest quality products and services.
- **Innovation:** Our dedicated research and development teams continually seek new technologies and solutions to stay at the forefront of the industry.
- **Environmental Responsibility:** We strive to minimise the environmental impact of our operations and products, ensuring sustainable water treatment solutions.
- **Customer-Centric Approach:** Our customer's satisfaction is at the heart of what we do. We work closely with our clients to tailor solutions that meet their unique requirements.
- **Predictive Maintenance:** Utilising advanced sensors, data analytics, and machine learning to predict when equipment or systems require maintenance, minimising downtime and reducing costs.

Comprehensive Product Range

Hydra-Clear Process Water offers a wide range of water treatment solutions, including reverse osmosis systems, water conditioning solutions, exchange cylinders, and more. Our product line-up is designed to address water quality challenges across various industries and applications.

Customisation and Quality Assurance

We understand that one size does not fit all. That's why we offer customisable solutions to meet your specific requirements. All our products adhere to stringent quality control measures, ensuring that every product that leaves our facility is of the highest quality.

State-of-the-Art Facilities

Our 4,000 square feet of manufacturing and testing facilities are equipped with the latest technology, allowing us to develop, create, and test products that meet the highest industry standards.

State-of-the-Art Test Station: Our cutting-edge test station ensures the rigorous quality testing and Factory Acceptance Testing (FAT) of all our manufactured systems. This allows us to deliver pre-commissioned units that are ready for seamless integration, saving you time and ensuring immediate functionality. Our testing station is a testament to our unwavering commitment to quality and precision. Equipped with advanced technology, it has the capability to simulate and maintain water quality to meet the stringent standards set by the FDA (U.S. Food and Drug Administration) and the US Pharmacopeia. With an astonishing water quality threshold of as low as 0.055 micro siemens (uS), our testing station ensures that every system we manufacture consistently produces water that adheres to the highest purity and safety standards, essential for critical applications in the pharmaceutical and food industries. This level of precision not only underscores our dedication to quality but also guarantees that our products are ready to meet the most demanding requirements, contributing to the success of our clients in their respective fields.

Commitment to Excellence

With a team of dedicated professionals and a wealth of industry knowledge, we have earned our reputation as a reliable and forward-thinking water treatment company. Our commitment to excellence extends to our customer support, ensuring that you receive the assistance you need at every step.

Hydra-Clear Process Water is more than just a water treatment company; we are your partner in delivering safe, clean, and sustainable water solutions. Contact us today to find out how our expertise can benefit your business or organisation.

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Organic Scavenging Systems: We offer advanced organic scavenging solutions that efficiently eliminate organic compounds and contaminants, ensuring that your water is safe and pure for consumption or industrial processes.

Water Softeners: Our water softening equipment helps reduce the hardness of water by removing minerals such as calcium and magnesium. This not only enhances the quality of the water but also prevents scale build-up in appliances and pipelines.

Manganese Dioxide Filters: Designed to target iron and manganese removal, our manganese dioxide filters play a vital role in treating borehole water or other sources with elevated iron and manganese levels, producing cleaner and safer water.

Sediment Filtration Equipment: Hydra-Clear sediment filtration equipment efficiently removes particulate matter, sand, and sediment from water, safeguarding downstream equipment and ensuring consistent water quality.



Model Number	Size	10	20	30	40	50	60	70
Service Flow	M3/h (min/ max)	10/20	20/40	30/60	40/80	50/100	60/180	70/210
Number of vessels	Qty	2	2	2	2 or 3	2 or 3	3	3
Connection	Size	DN50	DN65	DN65	DN65	DN80	DN100	DN100
Connections Available		Thread: BSPT, BSPF, NPT			Flange: PN16, ANSI 150			
Pressure min/ Max		1.5 Min 7.5 Max						
Elect Req		24 VAC, 110 VAC, 240 VAC				5 Amp		

Technical Summary: **Water Conditioner**

- **Model Numbers Available:** 100, 125, 150, 200, 250, 300, 350, 400.
- **Service Flow Rate:** The system can handle service flow rates ranging from 3.9 m3/hr (for model 100) to 14 m3/hr (for model 400). This indicates the volume of water it can treat per hour, highlighting its adaptability to various needs.
- **Softener Capacity at 300ppm:** The softener can treat water volumes from 16.6 m3 (for model 100) up to 66 m3 (for model 400) at a concentration of 300 parts per million (ppm) hardness. This gives an idea of its capacity in a standard condition.
- **Salt Consumption per Regeneration:** Depending on the model, salt consumption during the regeneration process ranges from 13 kg (for model 100) to 51 kg (for model 400). This metric provides insights into the operational costs and maintenance frequency.
- **Electrical Specifications:** The softener requires a 240 V AC, 50/60 Hz supply. An integrated transformer further converts this to 24 V AC, ensuring safe and efficient power conversion.
- **Pipe material options:** PVC, ABS and 304/316 Stainless

- **Power Rating:** The device operates at a power rating of 65 Watts. This denotes its energy efficiency and consumption rate.
- **Connection Size:** The input and output connection size for the water softener is standardized at 2" British Standard Pipe Thread (BSPT) Female. This ensures compatibility with standard plumbing systems.
- **Maximum Pressure:** The system can operate efficiently up to a maximum pressure of 7 Bars. This indicates the pressure under which the softener can function without compromising its performance or integrity.
- **Overall:** This water softener is a versatile and efficient solution designed to cater to varying water treatment needs. With different models available, it can accommodate a range of flow rates and softening capacities. Its technical specifications, including electrical requirements and connection sizes, make it suitable for standard industrial and commercial applications. The system's design ensures optimal performance while minimising salt consumption and power usage.

Benefits of using our water conditioning solutions

Our water conditioning solutions offer an unparalleled degree of customisation, ensuring that clients receive a tailored skid that perfectly matches their water purification needs. The flexibility of our system allows for a 'mix and match' approach to water treatment technologies, providing each client with the precise level of processed water required for their specific operations.

By opting for our bespoke water conditioning skids, clients can reap a multitude of benefits:

1. **Enhanced Longevity:** Tailored water treatment effectively removes impurities and prevents scale and corrosion, significantly extending the lifespan of your machinery and reducing expenditures on maintenance and replacements.
2. **Optimised Energy:** Custom-conditioned water prevents scaling in heating systems, thereby enhancing energy efficiency and cutting down on energy bills.
3. **Minimised Interruptions:** Our tailored solutions result in cleaner water, which means fewer blockages and mechanical issues, thereby curtailing downtime and maintenance demands.
4. **Chemical Savings:** By precisely matching water conditioning to your needs, there's a diminished reliance on treatment chemicals, thus saving costs and lessening environmental footprint.
5. **Superior Integrity:** The exacting standards of water quality achieved with our skids translate to improved manufacturing quality, reducing the risk of product flaws and the costs tied to them.
6. **Regulatory Compliance:** Custom water conditioning ensures compliance with stringent water quality regulations, helping to avoid the financial penalties associated with non-compliance.
7. **Conservation of Water:** Our systems can be engineered to enhance water recycling and reuse, leading to significant water savings and sustainability.
8. **Boosted Efficacy:** With water precisely conditioned to your process needs, operational efficiency is optimised, fostering increased productivity and diminished wastage.
9. **Environmental Benefits:** Tailored water conditioning can lessen the environmental impact of your operations by reducing harmful discharges and aiding in compliance with environmental regulations.

In essence, our customisable water conditioning skids are more than just treatment units; they are an engineered solution crafted to ensure that every molecule of water meets your exact standards, supporting operational excellence and sustainability.



The HydraFIL Filtration System is the pinnacle of customisable filtration, designed from the ground up to be a fully custom skid-mounted solution tailored to the diverse needs of any industrial application. It's a modular powerhouse, facilitating the incorporation of various filtration techniques, including advanced self-cleaning, UV sterilisation and even chlorine dosing, all within a robust framework that can endure pressures of up to 30 Bar. This system is built with flexibility in mind, allowing for precise selection of filtration stages, cartridge numbers, and micron ratings to adeptly capture a spectrum of contaminants. Serving the specific demands of sectors from pharmaceuticals to food and beverage with precision, the HydraFIL Filtration System is a convergence of adaptability and reliability, ensuring optimal fluid purity and process integrity.

Key Features and Specifications:

Modular Skid Design: HydraFIL features an adaptable skid-mounted design, enabling the integration of a variety of filtration technologies to suit a range of contamination control needs. These bespoke systems can be equipped with single or multiple cartridge filters, each selected for its specific micron rating to capture a wide spectrum of impurities, from coarse debris to fine particulate matter.

Durable Construction: Crafted with premium materials, HydraFIL systems deliver sustained durability and reliable performance in the demanding conditions of industrial environments. Pre-assembled for immediate operation, these skids come with a plug-and-play setup and flanged connections for seamless integration into existing workflows.

Enhanced Purification Options: To further refine filtration capabilities, HydraFIL systems can incorporate advanced treatment options such as UV lamps for microbial control and chlorine dosing for chemical purification, offering an extra layer of protection against a broad array of contaminants.

Self-Cleaning Filters: HydraFIL is also innovating in the development of self-cleaning filters, reducing maintenance requirements, and ensuring continuous, efficient operation. This advanced feature enhances system longevity and process reliability by minimising manual intervention.

High-Pressure Tolerance: Recognising the need for robust performance under extreme conditions, HydraFIL introduces high-pressure filter housings that withstand pressures up to 30 Bar. This allows for safe and efficient filtration in high-pressure applications, ensuring system integrity and consistent filtration quality.



Flexible Flow Rates: The HydraFIL systems are designed to manage varying flow rates, making them versatile for a wide range of industrial applications from chemical processing to food and beverage, and pharmaceutical production.

Customisable Configurations: Each HydraFIL system can be customised to meet the unique demands of different industrial applications. Whether you need high throughput for large-scale operations or precise filtration for specialised processes, HydraFIL offers tailored configurations to match your specifications.

With a commitment to providing flexible and highly customisable skid-mounted filtration systems, the HydraFIL range is engineered to meet diverse industry standards and exceed operational expectations. The addition of advanced purification options, self-cleaning capabilities, and high-pressure resilience makes HydraFIL an indispensable solution for comprehensive process water management in any industry.

03 The Science What is **Reverse Osmosis**

Reverse Osmosis (RO) is a water purification process that removes impurities and contaminants from water by using a selective, semipermeable membrane. It operates on the principle of osmosis, where water molecules naturally move from an area of lower solute concentration to an area of higher solute concentration. In the case of RO, pressure is applied to force water through a specialised membrane, allowing only pure water molecules to pass while trapping and effectively filtering out minerals, salts, and other impurities.

The result is exceptionally clean and pure water that is free from various dissolved solids, chemicals, and even microorganisms. Reverse osmosis is a highly effective method for improving water quality, making it suitable for a wide range of applications, including drinking water purification, industrial processes, and various other uses where water purity is essential. RO systems are known for their efficiency and ability to produce high-quality water for both residential and commercial purposes.

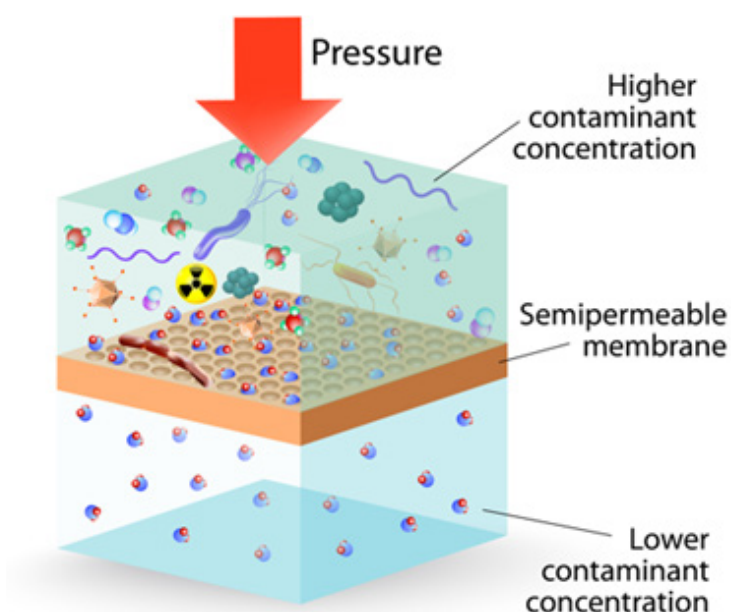
Key features and benefits of our reverse osmosis products.

Reverse osmosis (RO) offers several key benefits, making it a popular choice for water purification and treatment.

Here are the primary advantages of using RO systems:

- **High-Purity Water:** RO systems produce water of exceptional purity by removing dissolved minerals, salts, heavy metals, and various impurities. The result is clean, safe, and tasteless water.
- **Improved Taste and Odour:** RO significantly enhances the taste and odour of water by eliminating chlorine, sediments, and other contaminants that can affect its flavour and smell.
- **Removal of Harmful Substances:** RO removes potentially harmful substances such as lead, arsenic, nitrates, fluoride, and various organic chemicals, making the water safer to consume.
- **Microbial Reduction:** While not a replacement for disinfection, RO can effectively remove many microorganisms, providing an added layer of protection against bacteria and viruses.
- **Space and Energy Efficiency:** RO systems are compact and energy-efficient, making them suitable for both residential and commercial applications without significant energy consumption.
- **Customisation:** RO systems can be tailored to specific water treatment needs. This includes adjusting the level of filtration and membrane type to target contaminants.
- **Cost-Effective:** Over time, RO systems can be cost-effective, as they reduce the need for bottled water and extend the lifespan of appliances that use water, such as water heaters and dishwashers.

REVERSE OSMOSIS



- **Environmental Benefits:** Choosing RO over bottled water reduces plastic waste and the carbon footprint associated with manufacturing and transporting bottled water.
- **Consistent Water Quality:** RO systems provide consistent water quality, ensuring that you have access to clean and safe water every day.
- **Versatile Applications:** RO is used in a wide range of applications, including drinking water purification, pharmaceutical manufacturing, food and beverage processing, and more.
- **Independence from Public Water Supplies:** RO systems allow individuals and businesses to have control over the quality of their water supply, regardless of the source.
- **Longevity:** With proper maintenance, RO systems can have a long service life, providing reliable water purification for years.

Quality standards

All Hydra-Clear Process Water Reverse Osmosis (RO) systems adhere to the stringent UKCA and CE standards, ensuring their compliance with the highest quality and safety requirements. Our commitment to safety and quality is underscored by the inclusion of comprehensive Hazard and Operability Studies (HAZOP) and machinery risk assessments, which fully conform to PUWER (Provision and Use of Work Equipment Regulations). With Hydra-Clear RO systems, you can trust in both the exceptional water purification performance and the peace of mind that comes from our rigorous safety and compliance measures.

Our Reverse Osmosis Product Range

- **HydraJET**
 - HydraJET Lite
 - HydraJET
 - HydraJET ++
- **HydraCONOMY**
- **HydraCIP**
 - HydraCIP
 - HydraCIP Dual
 - HydraCIP DUAL Q
- **HydraCIP DUAL Q**
 - All HydraCIP Reverse Osmosis available in the following quality grades
 - Industrial
 - Food & Beverage
 - Pharmaceutical
 - **Validated RO**

Common water quality issues and problems that our solutions address.

Whether you need pre-treatment for RO, borehole water treatment, or river water treatment, our water conditioning solutions are tailored to meet your specific requirements. We take pride in delivering reliable and efficient systems that contribute to improved water quality, the protection of your equipment, and the success of your water treatment applications.

At Hydra-Clear Process Water, we specialise in the design and manufacture of water conditioning equipment that is expertly engineered to address a variety of water treatment needs. Our extensive range of conditioning solutions designed includes activated carbon filters, organic scavenging systems, water softeners, manganese dioxide filters, and sediment filtration equipment.



HydraJET RO 300LPH – 3000LPH

Presenting the HydraJET Range of Reverse Osmosis (R.O.) Systems – a brilliant fusion of cutting-edge technology and remarkable efficiency, marking its unique position in the UK market. Equipped with an integrated raw water break tank system, the HydraJET sets a new standard for water purification systems, featuring complete automation and promising extended membrane lifespan.

Key Features and Specifications:

Integrated Design: The HydraJET skilfully integrates a raw water break tank within a single frame, minimising its footprint and removing the need for additional expensive components.

Stainless Steel Construction: Designed for durability, it boasts a 304 Stainless Steel Frame, ensuring robustness and longevity of the system.

Autonomous Control: Prioritising user-friendly operation, the HydraJET R.O system provides Fully Autonomous Control for maximum convenience.

Flow Rates: 200 LPH up to 2500 LPH (*3000 LPH available on request) HydraJET LITE 300-900LPH / HydraJET 1000-3000LPH Single Frame Skid-Mounted System: Maximising efficiency and space, the system is built within a single frame skid-mounted system.

Quality Components: Equipped with high-performance membranes and premium quality pumps, reinforcing its dedication to quality and exceptional performance.

Full Instrumentation: This feature is included as standard, offering comprehensive visibility and control over system parameters.

Rejection & Recovery Rates: HydraJET outperforms industry benchmarks with an impressive 98% salt rejection rate and a high recovery rate. Specific model variants can offer enhanced recovery rates upon request.



Choice of PLC/ Ethernet Port Upgrade: Catering to your unique needs, HydraJET provides an optional upgrade for an additional ethernet port from the Siemens PLC.

HydraJET (++): Our innovative bolt-on softener unit that fits on both the HydraJET and HydraJET LITE to remove the (++) ions and improve the feed water quality prior to the RO – Both improving the quality of the permeate and increasing the longevity of the membranes.

The HydraJET R.O system is not only highly efficient but also versatile, meeting a variety of regulatory standards required in different sectors, from fully validated pharmaceutical systems to food and beverage hygienic standards, and industrial water treatment plants. Trust HydraJET to provide a solution that's adaptable, effective, and tailored to meet your specific water treatment needs.



Technical Data

HydraJET Lite

HydraJET

Flow	Final Quality	Operating Pressure	Electrical kW	Power Require	Amperage	Membranes Req	Feed Pressure Req	Recovery	Pipe connection
200	<20uS	8 Bar	1.1	240 VAC	16 Amp	HCULP 4040 X 1	>1.5 Bar	75%	1"/ 25mm
300	<20uS	8 Bar	1.1	240 VAC	16 Amp	HCULP 4040 X 2	>1.5 Bar	75%	1"/ 25mm
400	<20uS	6.5 Bar	1.1	240 VAC	16 Amp	HCULP 4040 X 3	>1.5 Bar	75%	1"/ 25mm
600	<20uS	8 Bar	1.1	240 VAC	16 Amp	HCULP 4040 X 3	>1.5 Bar	75%	1"/ 25mm

Pipe options: PVC, ABS & 301/216 Stainless

HydraJET and HydraJET++

(*3000 litres per hour is special request)

Flow	Final Quality	Operating Pressure @ 5°C	Electrical kW	Power Require	Amperage	Membranes Req	Feed Pressure Req	Recovery	Pipe connection
600	<20uS	8 Bar	2.2	240 VAC	16 Amp	HCULP 4040 X 3	>1.5 Bar	75%	1"/ 25mm
1000	<20uS	8 Bar	2.2	240 VAC	16 Amp	HCULP 4040 X 6	>1.5 Bar	75%	1"/ 25mm
1500	<20uS	8.2 Bar	2.2	240 VAC	16 Amp	HCULP 4040 X 9	>1.5 Bar	75%	1"/ 25mm
2000	<20uS	8.7 Bar	2.2	240 VAC	16 Amp	HCULP 4040 X 9	>1.5 Bar	75%	1"/ 25mm
2500	<20uS	9.2 Bar	2.2	240 VAC	16 Amp	HCULP 4040 X 12	>1.5 Bar	75%	1.25"/ 32mm

Pipe options: PVC, ABS & 304/316 Stainless

1. Product Line Overview:

The HydraJET series offers three variants of reverse osmosis systems: HydraJET Compact, HydraJET, and HydraJET ++.

2. Performance Metrics:

Permeate Flow Rate:

- HydraJET LITE : **200LPH - 600LPH**
- HydraJET : **600 LPH - 2500 LPH** (3000 LPH on special request)
- HydraJET (++) : **Bolt-On Softener Module (Optional)**

Max Conductivity: All three models offer a maximum conductivity of less than 25.

Min. Salt Rejection: All models have a minimum salt rejection rate of 98%, indicating a high efficiency in removing salts from the water.

Recovery on Request: 75 for all models.

Operating Pressure: Operating pressure is standardized at 80 for each variant.

Element and Membrane Specifications:

- **Life Expectancy:** Each variant can last up to 3/4 years.
- **Type:** All models utilise the HL ULP400 membrane element.
- **Pipe Material:** Available in PVC / ABS materials, with optional 304 / 316 L variants upon request.

Electrical Specifications:

- **Voltage:** The HydraJET Compact operates on a 240V ON ELECTRIC VERSION, while both HydraJET and HydraJET ++ operate at 240 V AC.
- **Motor Power:** All three systems use a 2.2 kW motor.

Connection Specifications:

- **Feedwater Connection:** 1" BSP for the Compact version, 2" BSP for the other two.
- **Concentrate Connection:** All models feature a 1" BSP connection.
- **Permeate Connection:** 1/2" BSP for all variants.
- **Pressure Ranges:** Each system can handle a minimum feedwater pressure of 2.4 bar and a maximum of 4.3 bar.

3. Application Suitability:

The HydraJET series is versatile, with applicability across:

- **Pharmaceutical:** All three models are suitable.
- **Food & Beverage:** Again, all models are appropriate.
- **Industrial:** All models can be employed in industrial settings.

4. Customization and Efficiency:

Each RO unit in the HydraJET series is bespoke built according to the specific feed water of each location. This customisation ensures optimal electrical efficiency tailored to the exact needs of the application.



05

HydraCONOMY RO

3000LPH – 10000LPH

Presenting the HydraCONOMY Range of Reverse Osmosis (R.O.) Systems – a harmonious blend of economical design and advanced technology, setting a unique precedent in the UK market. With variable flow rates and skid-mounted design, the HydraCONOMY provides a perfect balance of affordability, convenience, and superior water purification performance.

Key Features and Specifications:

Integrated Design: The HydraCONOMY ingeniously combines all essential components within a single skid-mounted frame, optimising space usage and eliminating the necessity for additional costly equipment.

Stainless Steel Construction: The system features a 304 Stainless Steel Frame, ensuring not just robustness and longevity, but also the ability to endure rigorous industrial conditions.

Autonomous Control: The HydraCONOMY R.O system is designed with a user-friendly interface, offering fully autonomous control for easy operation and maintenance.

Variable Flow Rates: Catering to diverse water treatment needs, the HydraCONOMY offers flexible operational capabilities with variable flow rates ranging from 3m³ to 10m³.

Quality Components: Equipped with premium high-performance membranes and top-quality pumps, the HydraCONOMY highlights its commitment to superior performance and quality, even at an affordable price point.

Full Instrumentation: This feature comes standard, providing comprehensive visibility and control over system parameters, thus ensuring optimal performance and longevity of the system.

Rejection & Recovery Rates: The HydraCONOMY surpasses industry benchmarks with impressive salt rejection and recovery rates, ensuring efficient and effective water treatment.



Technical Data

HydraCONOMY

Flow	Final Quality	Operating Pressure @ 5°C	Electrical kW	Power Required	Amperage	Membranes Req	Feed Pressure Req	Recovery	Pipe connection
3000	<20uS	6.5 Bar	3	240 VAC	16 Amp	HCULP 8040 X 3	> 1.5 Bar	75%	1.5"/ 40 mm
4500	<20uS	7.5 Bar	3	240 VAC	16 Amp	HCULP 8040 X 4	> 1.5 Bar	75%	1.5"/ 40 mm
6000	<20uS	6.0 Bar	5.5	415 VAC	32 Amp	HCULP 8040 X 6	> 1.5 Bar	75%	2"/ 50mm
7500	<20uS	7.5 Bar	7.5	415 VAC	32 Amp	HCULP 8040 X 9	> 1.5 Bar	75%	2"/ 50mm
10000	<20uS	8.5 Bar	7.5	415 VAC	32 Amp	HCULP 8040 X 9	> 1.5 Bar	75%	2"/ 50mm



Technical Summary: **Reverse Osmosis (RO) System Suitability**

Suitable Applications:

- **Food & Beverage:** This RO system is optimised for use in the food and beverage industry, ensuring pure and safe water essential for maintaining product quality and safety.
- **Industrial:** Apart from food & beverage applications, the system is also designed for industrial water purification needs. This encompasses a range of applications, from process water to waste treatment, indicating the system's versatility in handling various water qualities and demands.

The RO system is specifically tailored for both the food & beverage and industrial sectors. Its design and functionalities are catered to meet the unique water treatment requirements of these industries, ensuring efficient and effective water purification processes.



HydraCIP RO

5000LPH – 50000LPH (Higher Flows on Request)

- **HydraCIP** - High Performance, Industrial Excellence: Meet the industry standard with HydraCIP Standard. It's the epitome of high-performance industrial reverse osmosis, ensuring top-notch water quality for your operations.
- **HydraCIP DUAL** - Double the Power, Double the Reliability: HydraCIP DUAL is your powerhouse solution. With two streams at its disposal, it offers duty/duty functionality for maximum output or duty/standby for ultimate redundancy protection. Get the job done without compromise.
- **HydraCIP ULTRA-Q** - Ultra Low Conductivity: Experience innovation with HydraCIP ULTRA-Q. Its unique two-pass membrane configuration delivers ultra-low conductivity water without relying on harsh chemicals. It's the eco-friendly, efficient choice for water quality perfection.



The HydraCIP Systems represent advanced engineering and

automated efficiency. These systems come with an integrated Clean-in-Place (C.I.P) system and offer remarkable salt rejection rates and recovery rates. Key features include:

- Integrated design for space efficiency.
- Stainless steel construction for durability.
- Autonomous control, including a Fully Autonomous C.I.P.
- Huge industrial flow rates to meet diverse needs.
- High-quality components and full instrumentation.
- Exceptional rejection and recovery rates.

HydraCIP caters to a wide range of industries, providing flexible, efficient, and customisable water treatment solutions.



Technical Data

HydraCIP

Flow LPH	Final Quality	Operating Pressure @ 5°C	Electrical kW	Power Required	Amperage	Membranes Req	Feed Pressure Req	Recovery	Pipe connection
5000	<20uS	8.5 Bar	5.5	415 VAC	16 Amp	HCULP 8040 X 6	>1.5 Bar	75%	2"/ 50mm
7500	<20uS	8.5 Bar	7.5	415 VAC	16 Amp	HCULP 8040 X 9	>1.5 Bar	75%	2"/ 50mm
10000	<20uS	10 Bar	8	415 VAC	32 Amp	HCULP 8040 X 9	>1.5 Bar	75%	2"/ 50mm
15000	<20uS	12.5 Bar	10	415 VAC	64 Amp	HCULP 8040 X 12	>1.5 Bar	75%	2.5"/ 65mm
20000	<20uS	16.5 Bar	15	415 VAC	64 Amp	HCULP 8040 X 16	>1.5 Bar	75%	3"/ 80mm

Higher Flow Rates: Up to 50,000 LPH on request

HydraCIP Dual

(2 independent streams)

Combined Flow LPH	Final Quality	Operating Pressure @ 5°C	Electrical kW total	Power Required total	Amperage	Membranes Req per stream	Feed Pressure Req	Recovery	Pipe connection
10000	<20uS	8.5 Bar	11	415 VAC	32 Amp	HCULP 8040 X 6	>1.5 Bar	75%	2"/ 50mm
20000	<20uS	8.5 Bar	15	415 VAC	32 Amp	HCULP 8040 X 9	>1.5 Bar	75%	2.5"/ 65mm
30000	<20uS	10 Bar	15	415 VAC	32 Amp	HCULP 8040 X 9	>1.5 Bar	75%	3"/ 80mm
40000	<20uS	12.5 Bar	22	415 VAC	64 Amp	HCULP 8040 X 12	>1.5 Bar	75%	3"/ 80mm
50000	<20uS	16.5 Bar	40	415 VAC	100 Amp	HCULP 8040 X 16	>1.5 Bar	75%	4"/ 100mm

HydraCIP DUAL ULTRA-Q :

The HydraCIP Dual Q system epitomises the cutting-edge of reverse osmosis (RO) technology, offering a twin-pass process meticulously tailored to each customer's unique specifications. This innovative RO system is designed to achieve superior purity levels by allowing the permeate from the first set of membranes to undergo a second pass through an additional set of membranes, effectively doubling the filtration efficacy.

1. Pharmaceutical: The RO system is available for pharmaceutical applications, indicating its capability to produce high-purity water that meets stringent quality standards required in the pharmaceutical industry.

2. Food & Beverage: The system can also cater to the food and beverage sector. This system can provide water that is safe for consumption and can be used in various food processing activities.

3. Industrial: The RO system is also available for industrial use. This denotes its adaptability to handle large volumes and possibly more challenging water conditions typically associated with industrial environments.

Power and Customisation: The power and performance of each RO unit depend on the customer's specific feed water. Furthermore, each unit is bespoke built, indicating that the system is customised for the unique requirements of each location or application.

The HydraCIP offers tailored solutions for pharmaceutical, food & beverage, and industrial sectors, emphasising its versatility. Additionally, its bespoke construction based on individual water feeds showcases a customer-centric approach, ensuring optimal performance for specific needs.

Introducing our state-of-the-art Ion Exchange Vessel with an integrated Wall-Mounted Control Plate: a game-changer in water treatment technology and user interface efficiency. This innovative system elevates the traditional ion exchange process to new heights, offering a superior solution for removing contaminants and enhancing water quality through a seamless, user-focused experience.

- Wall-Mounted Control Plate:** The centrepiece of this advanced system is the wall-mounted control plate, designed to put comprehensive management at your fingertips. It offers a high level of control and monitoring, allowing you to track the performance of the ion exchange process in real-time. This interactive display and control unit is not just an addition; it's a revolution in how you interact with water treatment technology, providing clear, accessible data and controls that can be managed with the touch of a button.
- Ion Exchange Precision:** The core of our system lies in its precision ion exchange capabilities. Harnessing the power of high-grade ion exchange resins packed into robust exchange cylinders, our vessel is finely tuned to target and remove unwanted ions such as calcium, magnesium, and heavy metals, replacing them with benign alternatives like sodium. This ion exchange vessel is an expert in water softening, deionisation, and purification, delivering consistently high-quality water.
- Efficient Exchange Cylinders:** Our exchange cylinders are the workhorses of the ion exchange process. They offer a practical and efficient method to integrate ion exchange into your water treatment system. With the added benefit of being easily regenerated or replaced, these cylinders are a reliable and sustainable choice for ongoing water quality management.
- Enhanced Usability and Mobility:** With mobility in mind, the skid-mounted design and wheels ensure that the ion exchange vessel can be effortlessly relocated and manoeuvred, vastly reducing the effort and potential for strain associated with handling traditional units. This feature is invaluable in dynamic commercial, industrial, and pharmaceutical environments where space and accessibility are at a premium.
- Exceptional Capacity and Design:** Our vessels boast an exceptional capacity, ready to handle high flow demands with minimal downtime. The thoughtful design ensures that even with their impressive capacity, they maintain a space-efficient footprint that respects the premium on operational space, easily fitting through standard doorways for installation and relocation.
- Streamlined Ordering with QR System:** To top it off, the integrated Quick Response (QR) ordering system on the wall-mounted control plate makes resin replacement as simple as scanning a code. This user-friendly approach is designed to make maintenance straightforward, ensuring that your system continues to operate at peak performance with minimal hassle.



Include QR code for consumables order

In summary, our Ion Exchange Vessel with Wall-Mounted Control Plate is more than just a piece of equipment; it's a comprehensive solution that brings together advanced ion exchange technology and user-centric design to ensure optimal water quality with unparalleled ease of use. This system is set to become an essential component in facilities that value precision, control, and efficiency in their water treatment processes.

HydraXCHANGE

Key Features :

Enhanced Mobility: The skid-based exchange cylinder is equipped with wheels, allowing it to be effortlessly pushed and manoeuvred. This mobility feature significantly reduces the physical strain and manual effort typically required when handling conventional exchange cylinders.

Exceptional Capacity: Our skids boast a remarkable capacity, providing up to five times the volume of the largest competitor vessels. With a holding capacity of up to 500 Litres of mixed bed ion exchange resin, they can accommodate high-flow applications while minimising downtime for resin replacement.

Space-Efficient Design: The skids are thoughtfully designed to fit through a standard pedestrian door, ensuring ease of transportation and installation in various settings. This compact design maximises flexibility and accessibility.

Quick and Easy Ordering: Our skids are equipped with a user-friendly Quick Response (QR) ordering system. This streamlined ordering process simplifies resin replacement, allowing you to effortlessly request and receive the resin you need for your specific water treatment requirements.



Control Panel

Technical Data

Capacity in m3*

HYDRA X-Change Data

uS	TDS Equivalent	15	25	35	65	75	100	115	130	150	175	200	250
1	0.64	501	835	1169	2170	2504	3339	3840	4341	5009	5843	6678	8348
5	3.2	100	167	234	434	501	668	768	868	1002	1169	1336	1670
10	6.4	50	83	117	217	250	334	384	434	501	584	668	835
20	12.8	25	42	58	109	125	167	192	217	250	292	334	417
50	32	10	17	23	43	50	67	77	87	100	117	134	167
100	64	5	8	12	22	25	33	38	43	50	58	67	83
150	96	3	6	8	14	17	22	26	29	33	39	45	56
200	128	3	4	6	11	13	17	19	22	25	29	33	42
250	160	2	3	5	9	10	13	15	17	20	23	27	33
300	192	2	3	4	7	8	11	13	14	17	19	22	28
400	256	1	2	3	5	6	8	10	11	13	15	17	21
500	320	1	2	2	4	5	7	8	9	10	12	13	17
1000	640	1	1	1	2	3	3	4	4	5	6	7	8
Maximum Flow l/hr		450	750	1050	1950	2250	3000	3450	3900	4500	5250	6000	7500
Minimum Flow l/hr		30	50	70	130	150	200	230	260	300	350	400	500

*Based on incoming NaCl uS equivalent

Capacity Range: The vessels' capacities are assessed based on the volume they can handle, indicated in cubic meters (m³). The models cover an extensive range, with capacities from as low as 1 m³ for the smallest units to as high as 1000 m³ for the largest installations. This wide range indicates a broad applicability to both smaller-scale operations possibly relevant for laboratory or localized treatment, and large-scale industrial applications.

TDS (Total Dissolved Solids) Performance: Each vessel's capacity to handle Total Dissolved Solids (TDS), substances dissolved within water that need to be removed during purification, varies with the TDS concentration, measured here as microsiemens (µS) per TDS equivalent. The system appears highly efficient at lower TDS levels, with higher capacities available. As expected, at higher TDS concentrations, the capacity of each vessel decreases, indicating the increasing burden of harder-to-remove dissolved substances.

Maximum and Minimum Flow Rates: The flow rate, indicating how much liquid can pass through the vessel per hour, ranges from 30 liters per hour at the lowest to a substantial 7500 liters per hour at the highest. Such a range suggests these vessels can be employed in diverse operational contexts, from continuous high-volume processing to more intermittent or lower-volume usage, with consistent performance.

Scalability and Efficiency: Larger units are generally more efficient in terms of capacity per TDS equivalent, indicating that these systems are scalable. They maintain or increase efficiency as they grow in size, which is critical for industrial applications where both space and energy usage are key concerns.

Versatility Across Conditions: The vessels demonstrate a robust versatility, maintaining operational efficacy across a spectrum of conditions, from low to high TDS environments. This adaptability is crucial for real-world applications where input water quality can be highly variable.

Performance Indicator Based on NaCl: It's noted that the measurements are based on an incoming sodium chloride (NaCl) concentration. This standardisation is common as it allows for the comparison of ion exchange performance under a consistent condition, given that the behavior of ions can differ based on the substances involved.

In summary, the HYDRA X-Change series showcases a versatile and scalable solution for water treatment applications requiring ion exchange technology. They offer a wide range of operational capacities, can handle varying levels of water quality, and maintain efficiency at different scales of operation, making them suitable for a diverse set of industrial, commercial, or high-purity applications.



HYDRACLEAR
PROCESS WATER LTD

✓ Services



Containerised Solutions

In the realm of rapid, efficient, and adaptive water purification, our containerised water treatment plants stand out as a revolutionary solution engineered from standard ISO shipping containers. These mobile units exemplify innovation in water technology, offering highly customisable configurations to meet diverse purification requirements, whether for humanitarian relief or industrial application.

Constructed within either 20ft or 40ft shipping containers, these plants are not just robust but also flexible and space efficient. Given their origin, they inherently resist harsh environmental conditions, providing reliable performance even in disaster-stricken or remote areas. Their modular nature means they can be easily transported to areas that traditional water treatment facilities cannot reach, addressing urgent needs for potable water during crisis situations or operational demands in novel locations.

One of the most significant advantages of our containerised systems is their 'plug-and-play' capability. Every unit undergoes a rigorous Factory Acceptance Testing (FAT) protocol to ensure its operation is faultless from the moment of installation. This pre-testing phase eliminates the extensive commissioning periods typical of traditional water treatment setups, enabling immediate functionality upon deployment.



These systems are far from one-size-fits-all, offering a variety of treatment modules including cartridge filtration, water softening, reverse osmosis, deionisation, and even comprehensive desalination. This versatility ensures the provision of water that meets specific quality standards necessary for different applications – from industrial processes requiring ultra-pure water to providing safe, clean drinking water in emergency response scenarios.

For industrial clients, we recognise that space can be a scarce commodity. Our containerised solutions are designed with a vertical stacking capability, minimising their spatial footprint without compromising operational efficiency. This innovative approach allows for the conservation of valuable space in crowded industrial environments, ensuring that even facilities with limited real estate can access top-tier water treatment services.

Beyond their structural and functional benefits, these containerised water treatment plants are a cost-effective alternative to constructing new infrastructure or overhauling existing plant rooms. They save time and resources, mitigating the need for complex, on-site construction, or renovations. This efficiency extends to ongoing operations, with these self-contained units requiring minimal maintenance compared to their traditional counterparts.

In addition to providing state-of-the-art technology, our approach is highly collaborative. We engage in thorough consultations and site assessments to understand the unique challenges and needs of each client. This partnership ensures the delivery of a bespoke water treatment solution that reflects specific operational, environmental, and regulatory requirements.



Pay as You Flow On Demand Water

Hydra-Clear can offer you our bespoke Process water rental service that operates on a simple yet innovative principle: You pay for the water you use, by the cubic metre (m³), and nothing more.

How does it work? It all begins with a comprehensive understanding of your water needs. Whether you require a specific volume or a particular water quality, our team of experts will carry out an in-depth analysis of your unique requirements.

Once we have a clear picture of your needs, we take the next step: installing the right water purification plant at your site. We have an extensive range of high-tech, efficient water purification systems designed to produce the highest quality demineralised water.

Whether your operations demand a small-scale setup or a large, industrial-grade plant, we have you covered. The size and complexity of the plant will be tailored to your specific requirements, ensuring that the water you get is of the desired quality and quantity.

And the best part? We take care of everything – from delivery, installation, and commissioning of the plant, to providing all the consumables it needs to function. We also carry out regular maintenance and servicing, ensuring that your plant is always in the best possible condition and delivering optimal performance.

With our unique model, you are in full control of your costs. Say goodbye to fixed contracts and hello to our flexible, usage-based pricing. Pay only for what you use, and enjoy the benefits of a reliable, hassle-free water supply that doesn't drain your budget.



Start your journey towards better water management, increased efficiency, and substantial cost savings today.

✓ Components

10 HydraUV

Introducing the Hydra-UV Stainless Steel Water UV Lamp with Intelligent Control and Intensity Monitoring!

Product Description: The Hydra-UV is a cutting-edge water treatment solution designed to enhance the quality and safety of your water supply. Crafted with precision in stainless steel, this UV lamp leverages the power of ultraviolet (UV) light to purify water, ensuring that your water is consistently clean, clear, and free from harmful microorganisms.

Key Benefits:

Efficient Water Purification: The Hydra-UV employs UV-C light technology to target and deactivate bacteria, viruses, and other microorganisms that can contaminate your water. It's a chemical-free, eco-friendly solution for water purification.

Intelligent Control: This product comes with intelligent control features, allowing you to customize the UV intensity to suit your specific water treatment needs. Whether it's for residential use or an industrial application, you have full control.

Intensity Monitoring: The built-in intensity monitoring system continuously assesses the UV lamp's effectiveness, ensuring that your water remains pure and safe. You can rest easy knowing your water quality is consistently monitored.

Stainless Steel Durability: Crafted from high-quality stainless steel, the Hydra-UV is built to last. It can withstand harsh environmental conditions and is resistant to corrosion, ensuring a long lifespan.

Cost-Effective: By choosing the Hydra-UV, you can significantly reduce the need for costly and environmentally harmful chemical disinfection methods. This translates to cost savings and a reduced carbon footprint.

Low Maintenance: With minimal moving parts and self-monitoring capabilities, this product is low maintenance. Say goodbye to complex upkeep routines.

Safety Assurance: The Hydra-UV guarantees safe water for our customers' products, or industrial processes. It's a dependable safeguard against waterborne diseases and contamination.

Invest in the Hydra-UV Stainless Steel Water UV Lamp with Intelligent Control and Intensity Monitoring today and experience the many advantages of UV water treatment. Enjoy peace of mind knowing that your water is consistently pure, free from harmful microorganisms, and environmentally friendly. Choose quality, choose safety—choose the Hydra-UV!





Hydra Turbine Flow Meter

Presenting the HydraTURBINE: Your Ultimate Solution for Precise Flow Measurement

Product Description: The HydraTURBINE is an advanced turbine flow meter designed to provide you with accurate and reliable flow measurement, tailored to meet the diverse needs of various industries. Constructed with precision in hygienic stainless steel, this meter offers both pulse and analogue outputs for comprehensive flow data.



Key Benefits:

Accurate Flow Measurement: The HydraTURBINE is engineered to deliver precise flow data, ensuring that you have a clear understanding of the fluid dynamics within your system. It's ideal for a wide range of applications, from food and beverage to industrial processes.

Pulse and Analog Outputs: This versatile flow meter provides both pulse and analogue outputs, giving you flexibility in data collection and integration with your control systems. Whether you need real-time data or recorded measurements, the HydraTURBINE has you covered.

Hygienic Stainless Steel: The body of the meter is crafted from hygienic stainless steel, making it suitable for use in applications where cleanliness and sanitation are paramount. It resists corrosion and is easy to clean, ensuring that your processes maintain the highest standards of hygiene.

High Flow Rates: The HydraTURBINE is capable of measuring flow rates of up to 100m³/hr, making it suitable for a wide range of applications, including large-scale industrial processes where high flow rates are essential.

Easy Installation: With its user-friendly design and simple installation process, the HydraTURBINE ensures minimal downtime and a hassle-free setup. You can have it up and running quickly, saving time and resources.

Low Maintenance: This flow meter is designed with minimal moving parts, reducing the need for frequent maintenance. It's a reliable solution that keeps your operation running smoothly.

Versatility: The HydraTURBINE is adaptable to various industries and applications, such as monitoring water treatment, chemical processing, and the pharmaceutical sector. Its versatility makes it an essential tool for numerous processes.

Invest in the HydraTURBINE and gain access to unparalleled flow measurement precision. With its durable hygienic stainless-steel construction, pulse and analogue outputs, and capability to handle high flow rates, it's the solution you can rely on for efficient and accurate flow monitoring. Ensure optimal performance and product quality with the HydraTURBINE at the heart of your operation.

✓ Consumables

12 Hydra-Clear Premium RO Membranes

ULP-8040

Experience advanced water purification with our 8-inch Hydra-Clear Reverse Osmosis Membrane, tailored for feed water with salinity levels under 1500ppm.

This high-performance membrane is integral to multiple applications, encompassing residential water systems, pure water processing, industrial operations, and food

manufacturing sectors, to name a few.

Our ULP-8040HF membrane features an expansive 440 ft² (40.9 m²) active area, accompanied by a 28-mil concentrate channel spacer. Tested under stringent conditions (1500 mg/L NaCl, 25°C, pH 7.5-8, 150 psi (1.03 MPa) pressure, 15% recovery), it achieves a permeate flow of 12,500 GPD (47.3 m³/d). Notably, it assures a steady 99.50% rejection rate, not falling below 99.40%. It's pertinent to mention that individual membrane elements may exhibit a permeate flow variance of ±15%.

For sustained efficacy and longevity, operating conditions include a maximum pressure of 600 psi (4.14 MPa), a ceiling temperature of 45°C for feed water, and an upper limit of 5.0 for the SDI15. Feed water flow shouldn't exceed 17 m³/h, and free chlorine levels must be under 0.1 mg/L. Continuous operation demands a feed water pH between 3 and 10, adjustable to 1-13 for chemical cleanings, and pressure drop per membrane element shouldn't exceed 15 psi (0.1 MPa).

ULP-4040

The 4-inch Hydra-Clear Reverse Osmosis Membranes redefine efficiency in desalinating municipal and groundwater sources. Designed for versatility, these membranes cater to various needs, from household water systems to demanding industrial environments, ensuring consistent quality and dependability.

Key features include:

- **Versatility:** Excellently suited for municipal and groundwater desalination, handling salinity up to 1500ppm.
- **Applications:** Extensive use in residential dual water systems, pure water production, various industrial sectors, and food processing industries.

Both the 8-inch and 4-inch Hydra-Clear RO membranes underscore our commitment to delivering unparalleled water purification technology. They're crafted for superior performance, broad applicability, and robust reliability, addressing a spectrum of desalination needs with precision.



Size : (8-inch)



Size : (4-inch)

13 Hydrochloric Acid

Hydrochloric acid, a strong inorganic acid, plays a crucial role in various industrial processes, including water treatment in deionisation (DI) plants. It offers several important uses in DI plants and water treatment applications, ensuring efficient operation and high-quality output.

Regeneration of ion exchangers is a key application of hydrochloric acid in DI plants. Cation exchange is widely employed to remove ions like Na^+ and Ca^{2+} from aqueous solutions, producing demineralised water. During the regeneration process, hydrochloric acid is used to rinse the cations from the ion exchange resins, allowing them to resume their ion removal capabilities and ensuring the optimal performance of the DI system.



pH control and neutralisation are additional applications of hydrochloric acid in DI plants. It is utilised to regulate the acidity (pH) of solutions, ensuring that the desired pH range is maintained during the water treatment process. By neutralizing alkaline solutions, hydrochloric acid helps achieve the desired pH balance, enhancing the effectiveness of subsequent treatment steps.

In DI plants, hydrochloric acid is also utilized for cleaning and maintenance purposes. It can be employed to dissolve and remove scale or mineral deposits that may accumulate on equipment, pipes, or membranes. Regular cleaning with hydrochloric acid helps to maintain the efficiency and longevity of the DI system, ensuring optimal performance. While hydrochloric acid has various applications in DI plants, it is important to handle it with care due to its hazardous nature. Proper safety protocols should be followed to ensure the well-being of personnel and to prevent damage to equipment or the environment.

Overall, hydrochloric acid is an essential component in DI plants, contributing to the regeneration of ion exchange resins, pH control, and cleaning processes. Its proper usage ensures the production of high-quality, demineralized water for a wide range of applications in industries such as pharmaceuticals, electronics, and power generation.

14 Caustic Soda

Industrial Caustic soda, also known as sodium hydroxide, is an essential alkali used in a myriad of industrial processes, including the regeneration of ion exchangers in deionisation (DI) plants. Its role in DI plants and water treatment applications is critical for maintaining efficient operation and high-quality output.

In the context of DI plants, a key application of caustic soda is the regeneration of anion exchangers. The process of anion exchange, implemented to extract ions like Cl^- and SO_4^- from water solutions, is a vital step in producing demineralised water. During the regeneration stage, caustic soda is used to flush out the anions from the ion exchange resins, reactivating their ion removal capabilities and ensuring the DI system's optimal performance.



Furthermore, caustic soda serves an important function in pH control and neutralisation within DI plants. It is employed to manage the acidity (pH) of solutions, making sure that the desired pH range is achieved and maintained throughout the water treatment process. By neutralising overly acidic solutions, caustic soda assists in reaching the ideal pH balance, thereby enhancing the effectiveness of subsequent treatment steps.

Caustic soda is also utilised for cleaning and maintenance tasks in DI plants. It has the capacity to dissolve and remove organic matter or biofilm that can accumulate on equipment, pipes, or membranes. Regular cleaning with caustic soda contributes to maintaining the efficiency and longevity of the DI system, thus assuring optimal performance. While caustic soda holds various benefits for DI plants, it is crucial to handle it with caution due to its corrosive nature. Appropriate safety protocols must be implemented to protect personnel, equipment, and the environment. Caustic soda is a vital component in DI plants, contributing to the regeneration of ion exchange resins, pH control, and cleaning processes. Its proper usage ensures the production of high-quality, demineralised water for a wide range of applications across industries such as pharmaceuticals, electronics, and power generation.

15 Deionised Water (1000L)

Hydra-Clear Deionised Water – Available in 1000L IBC

Experience the epitome of purity with Hydra-Clear Deionised Water, meticulously crafted using our bespoke RO plant and expert knowledge in the field of water filtration.

Our process is governed by rigorous quality control protocols, offering you a reliable solution for your deionised water needs.

We offer Standard Grade Deionised Water in 1000-litre IBC's, meticulously engineered to fulfil the stringent standards of both the European Pharmacopoeia (EP) and United States Pharmacopoeia (USP), maintaining a conductivity level of <1.3 micro siemens consistently.



Additional Details: Our products and systems are engineered to achieve unparalleled water purity standards:

- EP / USP grade standard: Conductivity of less than 1.3 micro siemens/cm, Nitrates of less than 0.2 ppm, Heavy Metals of less than 0.1 ppm among other stringent specifications.

The globally recognised grades of Deionised water, known as EP and USP, are invaluable across various applications including product testing, analytical tasks, and manufacturing. Numerous companies mandate the use of EP and USP water in their operations to maintain a predetermined quality level, especially in scenarios where unwanted trace elements or minerals could alter the outcomes.

Support

16

Service & Maintenance Plans

At Hydra-Clear, we take pride in delivering exceptional maintenance services for process water & effluent treatment plants. Our goal is to ensure these crucial facilities operate at peak efficiency with minimal downtime. Our approach is backed by cutting-edge Computerised Maintenance Management System (CMMS) software, which allows us to plan maintenance schedules, respond promptly to breakdowns, and analyse plant data effectively. With our seamless work order allocation through a single app, we streamline operations and provide real-time monitoring.

Why Choose Hydra-Clear for Your Water Treatment Plant Service Needs?

Engineering Excellence: Our service model is grounded in modern engineering methods, customised into personalised maintenance plans. These techniques, borrowed from large-scale manufacturing engineering departments, are tailored to meet your water treatment facility's unique requirements, enhancing both operational efficiency and reliability.

Customer-Centric Approach: We are committed to surpassing industry standards in service delivery. Our innovative practices go beyond traditional service models, delivering exceptional results that significantly reduce breakdowns and mitigate production losses.



Our Comprehensive Maintenance Plans

We offer flexible maintenance plans with 12, 24, and 48-hour engineer response times for callouts, addressing the diverse needs of our clients. Each plan is meticulously crafted to ensure your water treatment plant receives the necessary attention for optimal functionality.

Discover What Our CMMS Brings to the Table

Scheduled Visits: Our CMMS schedules regular visits by our skilled engineers to inspect, maintain, and optimise your plant's performance. These visits are documented and easily accessible through an online portal, providing transparency and quick access to maintenance records.

Electronic Engineer Reports: Following inspections, our engineers provide detailed electronic reports, outlining your plant's condition, performed maintenance, and recommendations for further action.

Proactive Preventative Maintenance (PPM)

Certificates: Our innovative PPM certificates underscore our proactive approach to maintaining the health and efficiency of your water treatment plant.

Calibration Certificates: We supply standard calibration certificates, validating equipment accuracy and performance, ensuring compliance with regulatory and operational standards.

Cloud Based File Storage: Our software can host a wide array of files for your plant from images and user manuals to standard operating procedures to ensure a comprehensive and consistent level of care and diligence in the work carried out.

Comprehensive Water Treatment Plant Maintenance Services

At Hydra-Clear, we go above and beyond to ensure the smooth operation of your water treatment plant. In addition to our core services, we offer a range of specialised solutions to meet your unique needs. Here's a closer look at the additional services we provide:

QR CODE FAULT REPORTING



Scan Here!

1. Hydra-Clear Membrane Services - Recovery and Replacement

Membranes are critical components of water treatment systems. Our membrane services include both recovery and replacement, allowing you to maximise the lifespan of your membranes and maintain consistent water quality.

2. Critical Spares Packages

Unexpected equipment failures can lead to costly downtime. Our critical spares packages ensure that you have essential replacement parts on hand, minimising the impact of unplanned breakdowns and reducing production losses.

3. Annual Filtration and Consumables Packages

Our annual filtration and consumables packages provide you with a hassle-free way to procure essential supplies. By bundling these items, you not only simplify your procurement process but also enjoy cost savings.

4. Water Sampling

Regular water sampling is crucial for monitoring water quality and compliance. We offer comprehensive water sampling services, helping you identify potential issues early and maintain regulatory compliance.

5. Instrument Calibration

Precise measurements are essential in water treatment processes. Our instrument calibration services ensure that your equipment provides accurate readings, contributing to consistent and reliable performance.



6. Disinfection and Sanitisation Services

Cleanliness and safety are paramount in water treatment facilities. Our disinfection and sanitisation services help you maintain a hygienic environment, preventing contamination and ensuring the safety of your staff and end-users.

7. Equipment Validation

Equipment validation is crucial for confirming that your systems meet industry standards and regulations. We provide comprehensive equipment validation services to ensure compliance and optimal performance.

8. Hydra-Clear Pay As You Flow - Process Filtration and Water Treatment Equipment

In situations where you require temporary process filtration or water treatment equipment, our Hydra-Clear rental hire service offers a cost-effective and efficient solution. You can quickly address urgent requirements without the need for long-term investments.

With Hydra-Clear's comprehensive range of additional services, you can enhance the efficiency, reliability, and compliance of your water treatment plant. Our tailored solutions and industry expertise ensure that your facility operates at its best, minimising disruptions and maximising productivity.





Contact us today to learn more about how our additional services can benefit your water treatment plant or to discuss custom solutions that meet your specific requirements.

Hydra-Clear Process Water is your trusted partner in water engineering. Our range of water treatment solutions is designed to meet your specific needs, ensuring reliable, efficient, and cost-effective operations. With a commitment to excellence, innovation, and sustainability, we're here to solve your water-related challenges and provide outstanding bespoke water engineering knowledge.


CONTACT US

 5 Grosvenor Grange, Woolston,
Warrington, Wa1 4SF, United Kingdom

 0800 999 6770

 enquiries@hydra-clear.com

 www.hydra-clear.com

 [/company/hydra-clear/](https://www.linkedin.com/company/hydra-clear/)

 [/hydraclearprocesswater](https://www.instagram.com/hydraclearprocesswater)



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