

PURITE

Purite Product Guide

Healthcare

WATER PURIFICATION SYSTEMS



A single source for water treatment

Purite is a leading water management specialist, delivering high performance water purification systems, water treatment chemicals, consultancy and technical training for hospitals and healthcare providers. With more than 40 years of experience in the healthcare and life sciences sectors, we have the specialised skills and extensive knowledge required to meet the specific needs of all healthcare organisations.

Our trusted, proven water purification systems and high quality, specialist water treatment support ensures we offer a complete service for all your water needs; whether it be for sterile services for hospitals and dental clinics, endoscope reprocessing, renal dialysis for wards, satellite clinics or home dialysis, or in research and pathology laboratories. We understand that patient safety and compliance with regulations are of paramount importance and we can help you overcome the legislative challenges faced in the healthcare sector every day through our dedicated water treatment solutions.

All installations have different requirements, which is why we work closely with our customers and contractors to ensure we install systems that provide optimum levels of performance, functionality and reliability. This philosophy means that not only do we meet your exact requirements, we also ensure compliance with the most demanding healthcare patient, safety and environmental regulations and directives.

Ultimately, we offer one of the largest ranges of products and systems, chemicals, training and support services from a single source for exceptional levels of water quality, safety and hygiene.

We give you the right solution for your water requirements, which means you can focus on delivering what is important – the best patient care





What our customers say

The engineer's attention to detail & getting the job right always stands out, he has always been supportive knowing what we have to do and in light of patient's lives being totally dependent on medical equipment and water treatment primarily so. Excellent service across the board.

East Kent Hospitals University, NHS Foundation Trust

We've used Purite in our decontamination department for over ten years and also have a long-standing service agreement with the company. The equipment has always been extremely reliable, while the level of service and technical support has been exceptionally high. Just as importantly, the team at Purite works closely with us to ensure that we are able to maintain a vital service to other hospital departments.

Key to this is the stability of their team, with their service engineers and support staff having an in-depth knowledge of our systems, the way we work and the challenges that we face on a daily basis, enabling them to offer fresh ideas to improve the performance and extend the operating life of our water purification systems. Purite has become a valued partner and is integral to our ongoing success.

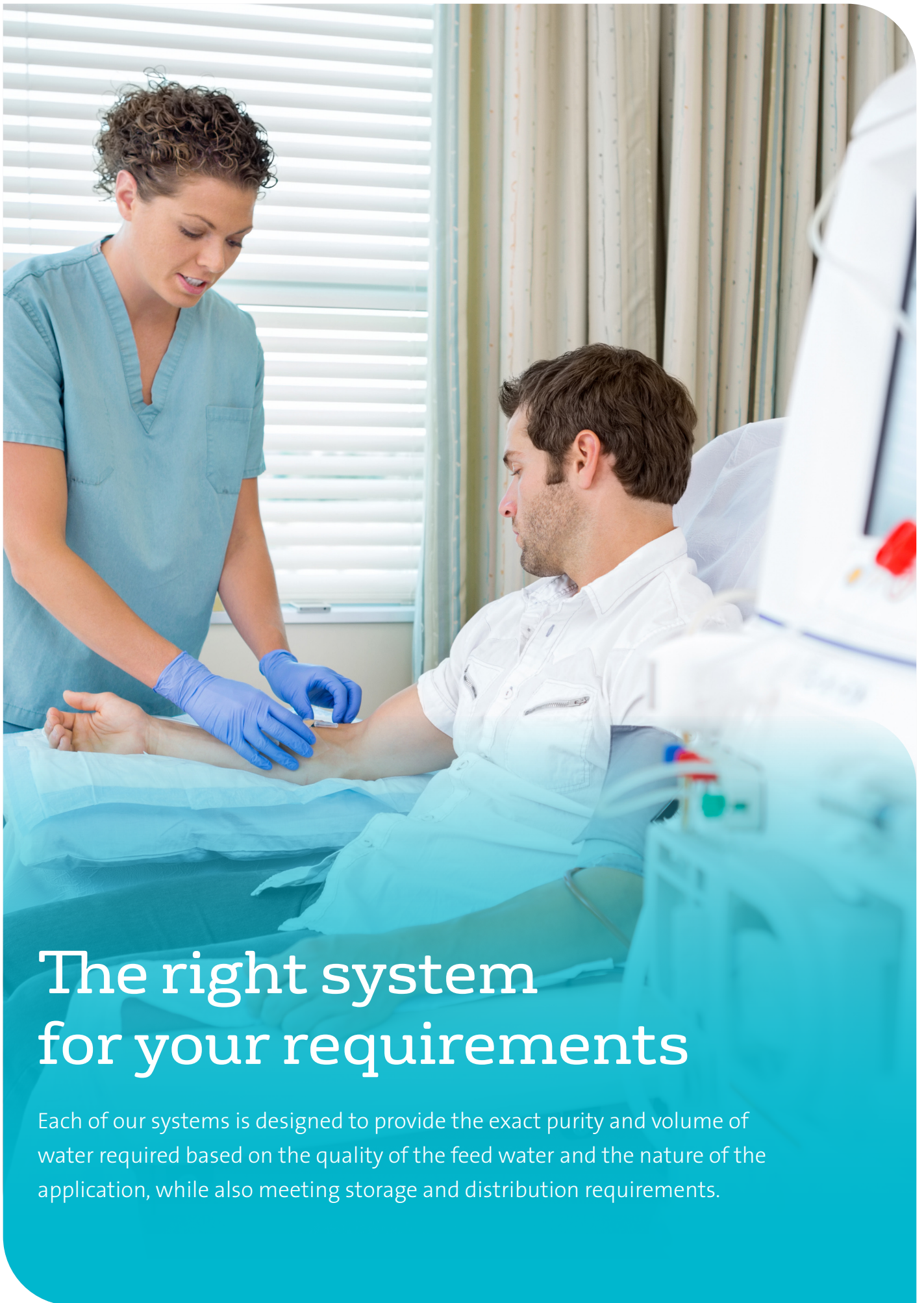
Senior Endoscopy Technician, Medway NHS Foundation Trust

Purite has supplied RO systems for our Endoscopy, SSD and Dental departments. These are critical systems that have a direct impact on our service delivery and, potentially, patient safety; that's why we also have a comprehensive maintenance and emergency call-out contract in place with the company.

There are important advantages of working with the team at Purite. For example, they have the technical expertise, knowledge and skilled engineers that ensure our water purification systems are always available; they also provide valuable external resources to our small in-house team, allowing us to focus on other equally critical areas of our operation. Overall, Purite has consistently been one of the best suppliers that we've worked with over a number of years. I'd have no hesitation in recommending them.

Specialist Engineering Manager, Estates Department, Newcastle upon Tyne Hospitals, NHS Foundation Trust





The right system for your requirements

Each of our systems is designed to provide the exact purity and volume of water required based on the quality of the feed water and the nature of the application, while also meeting storage and distribution requirements.

Central RO Renal Central RO

Our central reverse osmosis units provide an innovative, high quality water purification system for haemodialysis and haemodiafiltration. The flexibility and strength of design ensures that the range meets your exact dialysis requirements, now and in the future.

The range provides a unique set of benefits which ensure unrivalled ease of operation and performance. All of our models are CE & MDR Compliant as Class IIb Medical Devices.

Standard features:

- Flow range capability 500 l/h to 4500 l/h
- Two Stage Reverse Osmosis (Double Pass)
- Dead zone free design allows a complete heat disinfection
- Waste water generation according to water quality
- Permeate recirculation from the loop
- Second RO stage completely waste water free
- Rugged, durable stainless steel piping
- Heat disinfection - time intervals selectable according to site requirements
- Leakage detection system for RO units with distribution ring main
- Overtemperature and overpressure protection for the loop.



Purite Integra E Range

For hospital sterile services and endoscopy units

The Purite Integra E range uses proven Reverse Osmosis technology in conjunction with dechlorination and particle filtration as part of the first stage of the purification process. The purified water from this first stage is stored in an integral stainless-steel tank before being circulated via a ring main. To maintain microbiological control of the system, the circulating water is continually purified by passing it through a 0.2-micron filter and then irradiated with ultra-violet light at a germicidal wavelength of 254nm.

Available in three versions:

- Purite Integra E^H is for hard feedwater,
- Purite Integra E^S for is for softened feedwater and
- Purite Integra E⁺ offers additional functionality of automatic hot water sanitisation cycle (Heatsan).

Standard features:

Water purification units compliant to HTM 01-06 / ISO 15883, providing a standard of water quality for use for applications including endoscope reprocessors, washer disinfectors and other decontamination applications.

- Completely self-contained in a robust housing that is easy to clean, maintain and transport
- Minimal installation and commissioning
- Integral, fully drainable 250 litre, stainless steel storage tank
- Integral raw water break tank with backflow protection
- BMS Alarm output connection
- Panel mounted, backlit, LCD display
- Data logging of critical parameters
- Semi-automatic membrane cleaning cycle
- Hygienic, sanitisable, stainless steel bio-sample valve on outlet
- Auto ringmain flush available for temperature control
- Leak detection system incorporated.



Purite Integra E⁺

The Purite Integra E⁺ utilises the same platform as the Integra E^S and benefits from an enhanced thermal sanitisation feature (user settings include options to pre-program a sanitisation schedule or sanitise on demand).



Purite Integra HP Clinical analyser feed

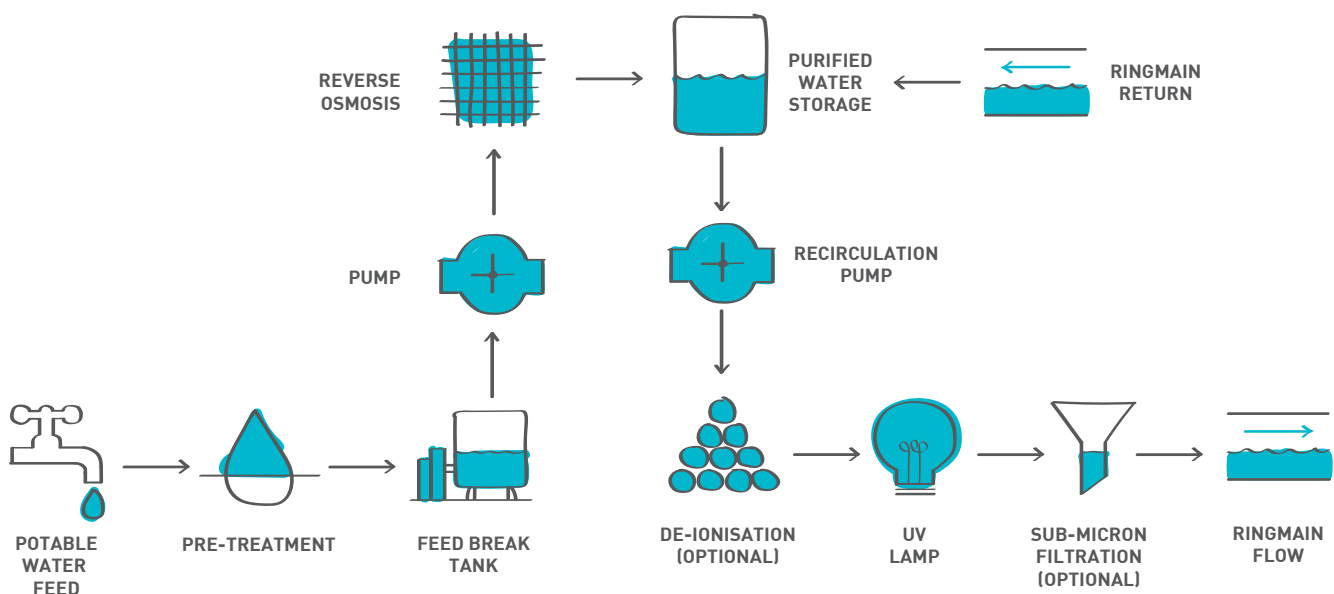
Our Integra HP systems are ideal for laboratories requiring greater daily volumes of purified water with several points of use. The Integra HP systems deliver laboratory grade RO water, deionised water, or UPW produced at 120 to 190 litres per hour (@10°C). It is also available with optional carbon dioxide, membrane degassing and bacterial filtration technology.

Standard features:

- Produces 120 or 190 l/hr
- Option of integral 50 litre or external 300 litre purified water storage tank
- Range of polishing deioniser options to meet all purity requirements and standards
- Full colour LCD touch screen display for ease of operation
- Energy saving intelligent stand-by mode
- Includes air gap between inlet & outlet for backflow prevention (UK CAT5 Class air gap compliant with water Regulations)
- WiFi enabled for remote monitoring & operation.



Purite Integra HP process flow



Purite HPA30 Clinical analyser feed

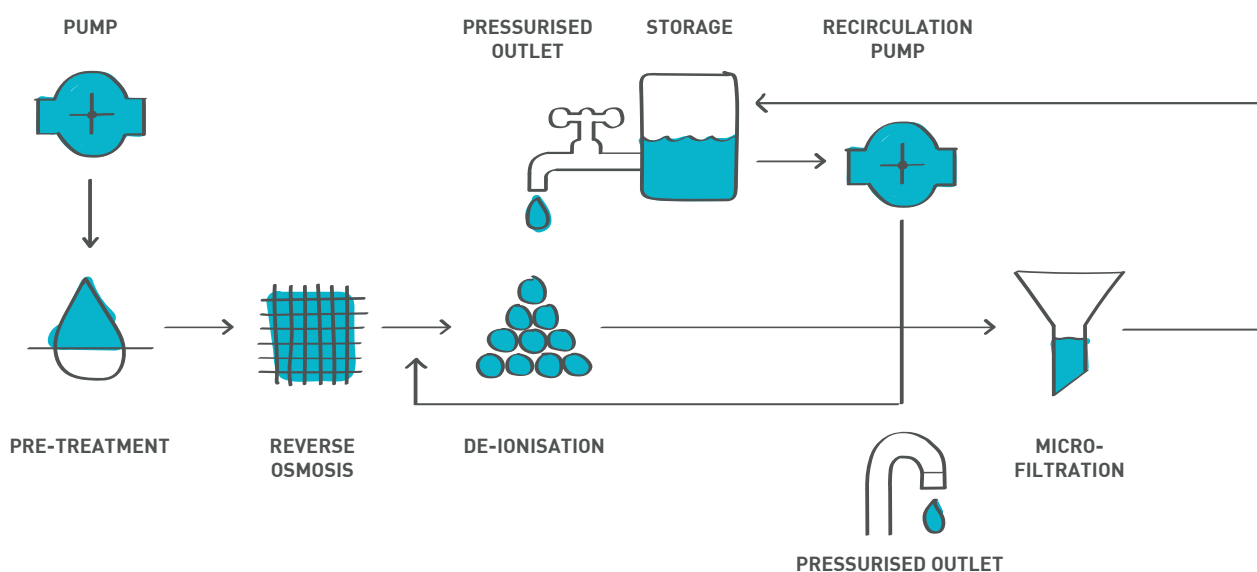
The Purite HPA 30 is compact, simple to operate and maintain, complete with an integral 20 litre storage tank as standard. Compatible for supply to all analyser manufacturers.

Standard features:

- Guaranteed > 10MΩ.cm water quality
- Remote Display Pod (Optional)
- Energy saving intelligent stand-by mode
- Manual dispense from storage tank
- Colour touch screen display with process graphics
- Water quality parameters, MΩ.cm, °C, flowrate displayed
- Internal microfiltration
- Make-up production rate of 30 litres per hour (@10°C)
- 20, 50 and 100 litre storage options
- Can be bench, under bench or wall mounted
- 8mm pressurised outlet for direct connection to analyser
- WiFi enabled for remote monitoring and operation.



Purite HPA 30 process flow



Healthcare range specifications

Unit specifications

	Purite HPA 30	Integra E ^S	Integra E ^H	Integra E ⁺	HP IT	HP GP *
Width (mm)	440	1000		1000	890	1110
Depth (mm)	560	750		750	500	604
Height (mm)	750	1800		1800	840	1842
Max shipping weight (kg)	41	310		372	95	134
Max working weight (kg)	59	550		622	140	467
Installation requirements						
Power	110/230V 50-60Hz +/- 10%	230V/50Hz +/- 10%		400V +/- 10%+N+E, 50Hz, 3ph	Single Phase, 230V +/- 10%, 50-60 Hz	
Feed water	Potable	Softened	Potable	Softened	Potable	Softened
Maximum TDS (ppm)	1000	1000		1000	1000	
Minimum inlet pressure - psi (bar)	30 (2.1)	30 (2)		43.5 (3)	30 (2.1)	
Maximum inlet pressure - psi (bar)	90 (6.2)	90 (6)		87 (6)	90 (6.2)	
Feedwater temperature	1 - 35°C	1 - 30°C		1 - 30°C	1 - 35°C	
Feedwater flowrate (litres/hour)	-	1000		1000	400 (Minimum)	
Free chlorine	< 0.1 ppm	< 0.1 ppm		< 0.1 ppm	< 0.1 ppm	

* Complete with plinth and 300 litre tan

System specifications

	Purite HPA 30	Integra E ^S	Integra E ^H	Integra E ⁺	HP IT	HP GP
Pure water storage	20 litre storage tank as standard *	Up to 250 litres		Up to 250 litres	50 litres	300 litres
Display panel - LCD colour touch screen	✓	✓		✓	✓	
Pre-treatment cartridge	✓	-		-	-	
Pre-treatment	-	✓		✓	5µm pre-filter	
Reverse osmosis - low energy membranes	✓	✓		✓	✓	
Deionisation cartridge	✓	-		-	-	
Deionisation	-	✓		✓	Optional cylinders	
Micro filtration	✓	✓		✓	Optional 0.2µm	
Loop heat sanitisation	-	-		✓	-	
UV lamp	-	✓		✓	✓	
Purified water make-up flow rate @ 10°C	30 l/hr	600 l/hr	225 l/hr	600 l/hr	120 or 190 l/hr	
Purified water distribution	✓	✓		✓	✓	✓
TOC reduction	-	-		-	Optional **	
Recirculation pump	✓	✓		✓	✓	

* External 50 & 100 litre tanks available

** 10, 15, 18MΩ.cm polishing deionisation packs available including activated carbon for TOC reduction

Treated water specifications

	Purite HPA 30	Integra E ^S	Integra E ^H	Integra E ⁺	HP IT	HP GP
Inorganics *	> 10MΩ.cm	> 10MΩ.cm		> 10MΩ.cm	18.2MΩ.cm	
pH	Neutral	Neutral		Neutral	Neutral	
Conductivity from RO	< 30µS/cm	< 30µS/cm		< 30µS/cm	< 30µS/cm ***	
Bacteria	< 1cfu/ml	-		-	< 1cfu/ml **	
Organics – TOC (ppb)	< 20ppb	-		-	< 30ppb	
Particles	< 0.1µm	-		-	< 0.2µm **	
Endotoxins	-	-		< 0.25EU/ml	-	
Dispense modes	Tank & pressurised feed	Pressurised outlet		Pressurised outlet	Pressurised outlet	
Dispense flow rate/Pressurised outlet (8mm)	Up to 2l/min @ 2.3-2.5 bar	-		-	Up to 4l/min @ 3 bar	

* For enhanced inorganic and organic quality the unit can be fitted with either 10, 15 or 18MΩ.cm polishing deionisers packs.

** With optional 0.2µm bacterial filter

*** With optional deionisation cylinder






About Veolia Group

Veolia group aims to be the benchmark company for ecological transformation. In 2022, with nearly **220,000 employees** worldwide, the Group designs and provides game-changing solutions that are both useful and practical for **water, waste, and energy management**. Through its three complementary business activities, Veolia helps **to develop access to resources, preserve available resources, and replenish them**.

In 2022, the Veolia group provided **111 million inhabitants** with drinking water and **97 million** with sanitation, produced **44 terawatt hours** and recovered **61 million tonnes** of waste.

Group Key Figures

3 businesses activity: Water, Waste, Energy	€42,885 million in revenue, in 2022	Nearly 220,000 employees worldwide, in 2022
 <p>111 million people supplied with drinking water</p> <p>4,130 drinking water production plants managed</p> <p>3,506 wastewater treatment plants managed</p> <p>97 million people connected to wastewater systems</p> <p><i>(2022 Key Figures)</i></p>	 <p>533,759 business clients</p> <p>61 million metric tons of treated waste</p> <p>823 waste processing facilities operated</p> <p>46 million people provided with collection services on behalf of municipalities</p> <p><i>(2022 Key Figures)</i></p>	 <p>46,922 thermal installations managed</p> <p>680 heating and cooling networks managed</p> <p>44 million MWh produced</p> <p>2,716 industrial sites managed</p> <p><i>(2022 Key Figures)</i></p>

Our approach - multifaceted performance

We elevate our ambition by committing to **multifaceted performance**. That means we focus equally on the various types of performance, including financial performance, commercial performance, social performance, societal performance and environmental performance, all of which complement one another and form a virtuous circle.

Veolia has publicly committed to 18 tangible performance indicators, based on and linked to the **UN 17 Sustainable Goals (SDG)**. Veolia plays a Part in all at different levels and has a direct impact on 13 of them which is integral to our **multifaceted performance** and cover the five types of performance. The fulfilment of the objectives will be regularly audited and evaluated by a third-party organization.

- **5 stakeholders:** Employees, Clients, Shareholders, Society, Planet.
- **5 commitments:** they express the dimensions according to which Veolia's performance must be evaluated & specify for each the course set by the Group by taking up the key axes of the text.
- **18 performance objectives:** they specify the Group's action priorities by dimension; they cover the text of the purpose and allow all the Business Units to commit to a common approach to implement this purpose close to the field.



Compliance with legislation and regulations

Helping you to take a proactive approach

Patient safety is at the top of the agenda in the healthcare sector, and guidance from expert authorities on how to guarantee this will ensure best practice, optimum performance, organisational integrity and staff peace of mind.

The legislation surrounding water in healthcare settings can often be confusing, and demands lengthy and in-depth consideration to ensure complete compliance.

We can help you to adopt a proactive approach to regulatory compliance with our expert consultancy services, advice and testing, which are backed by years of proven experience. In addition, all of our technologies and products meet the latest quality standards

Certifications and accreditations

- ISO 9001 (Quality)
- ISO 14001 (Environment)
- ISO 45001 (Occupational Health & Safety)
- SSIP - SAFEcontractor Gold
- Alcumus SAFEcontractor.

Company memberships

- Institute of Healthcare Estates and Estate Management (IHEEM)
- UK Trade Association for Instrumentation, Control, Automation (GAMBICA)
- Alcumus SAFEcontractor
- British Standards Institute (BSI)
- Reset Compliance.



PURITE

Get in touch

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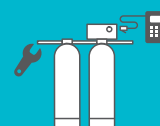
Design



Build



Install



Maintain

Founded over 40 years ago, the Purite brand has a long and proud heritage leading the way in water pre-treatment and process. We are now part of Veolia, one of the world's largest manufacturers and suppliers of specialist water treatment technologies, products and services.

Errors and Omissions excluded. Purite reserves the right to change the specification in accordance with our program of continual improvement.