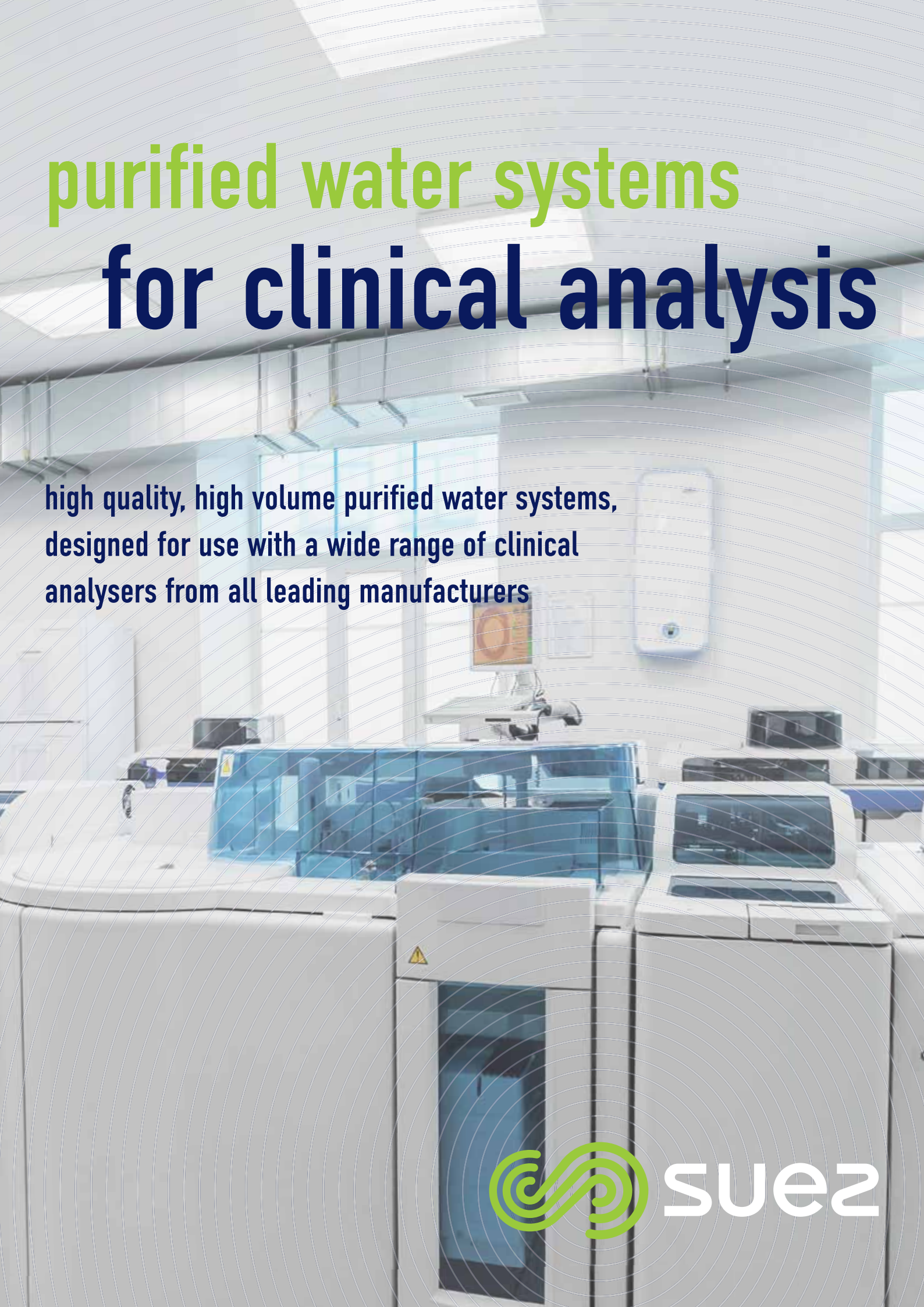
purified water systems for clinical analysis

high quality, high volume purified water systems, designed for use with a wide range of clinical analysers from all leading manufacturers



suez

purified water systems for clinical analysis

Our range of advanced water purification systems ensure the highest quality feed for clinical analysers and offer:

- A reliable, uninterrupted supply
- Precisely controlled levels of purity
- Simple operation
- Low operating costs
- Full duty standby configuration
- Emergency bypass system

Every system is engineered to the highest standards, conforming to ISO9001, and has been developed using proven water purification technologies, linked to advanced control, monitoring and diagnostic systems, in compact, self-contained units.

Installation, operation and maintenance are straight forward, with the option for systems to be customised to meet the specific requirements of each clinical analyser manufacturer.

Each water purification system complies with the latest water quality standards, including ASTM, CLRW and CLSI. Depending on specification, systems are capable of producing water quality to 18.2MΩ-cm, with bacterial levels less than 1cfu/ml and the rejection of ions down to 0.01mg/l.

uses of clinical grade water in analysers

Poor water quality not only affects the tests themselves but also the general operation of the analyser and the reliability of the test results.

Water is used in virtually all of the processes within clinical analysers:

- Washing reaction cuvettes
- Feeding wash stations for probes and stirrer paddles
- Diluting reagents, samples and detergents
- Incubator baths
- As an interface between syringe and sample

effects of impurities in the water

The analyser specification lists four key types of impurity in pure water – ions, particulates, organics and bacteria.

All will impact on analyser performance, either by direct interference with the chemistry of the tests, or indirectly by introducing errors in the measurements.

Scaling can also be a factor that affects analyser performance and can increase maintenance costs.

total peace of mind

High purity water has always been a critical element in clinical diagnostics. Advances in analyser technology, with increasing automation, are now placing even greater demands on purified water systems.

That's why the latest generation of Purite systems from SUEZ have been designed to offer the optimum combination of quality, reliability and simplicity, with low operating costs and outstanding customer support from our global network of offices and distribution partners.

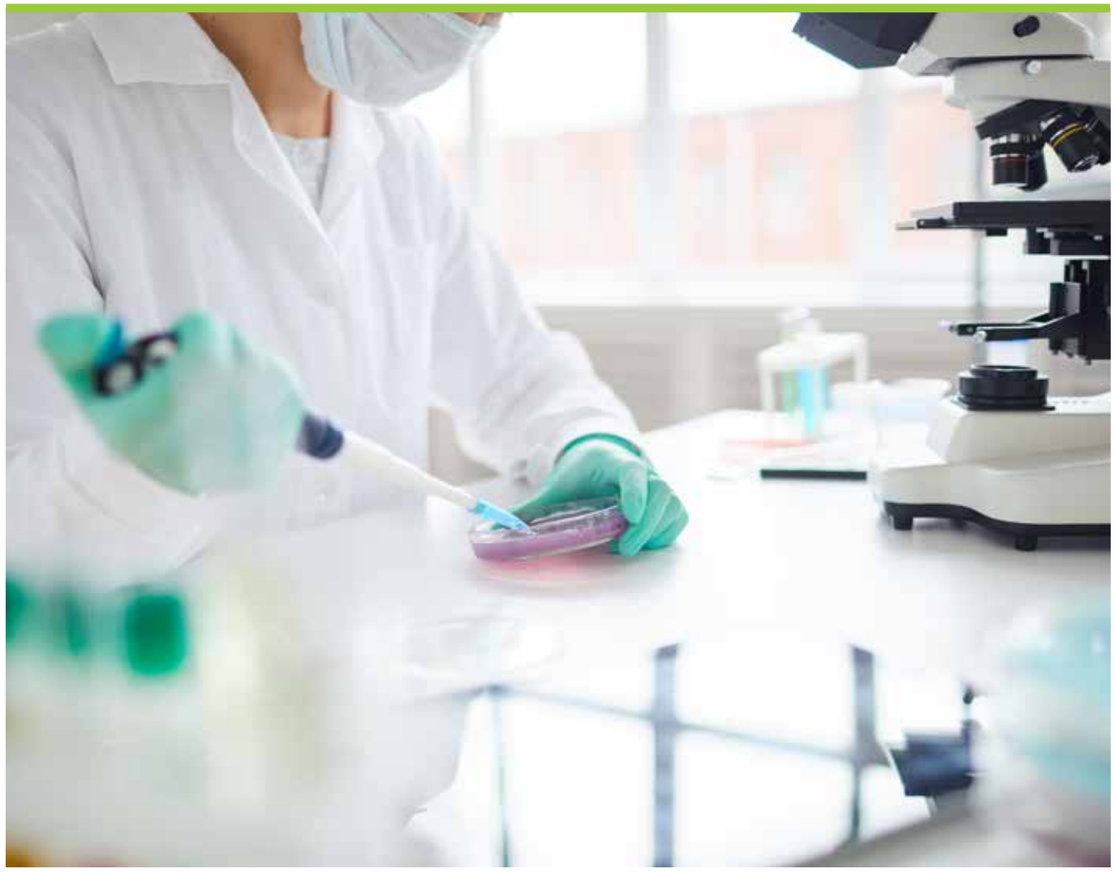
your partner for water purification

Our range of water purification systems has been developed to meet the demanding needs of scientist and chemists working in laboratories around the world.

They are also designed to meet the specific requirements of the different manufacturers of clinical analysers, offering an independent system that uses proven and reliable technology to deliver guaranteed levels of water quality.

We work closely with your business to ensure that each water purification system matches your precise specification and the needs of your customers. We can even customise or adapt our equipment to meet individual requirements or to facilitate new product development.

Throughout, we provide technical and commercial support, with commissioning, training, service and spares being available through our network of water purification and scientific experts in over 50 countries worldwide.



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.

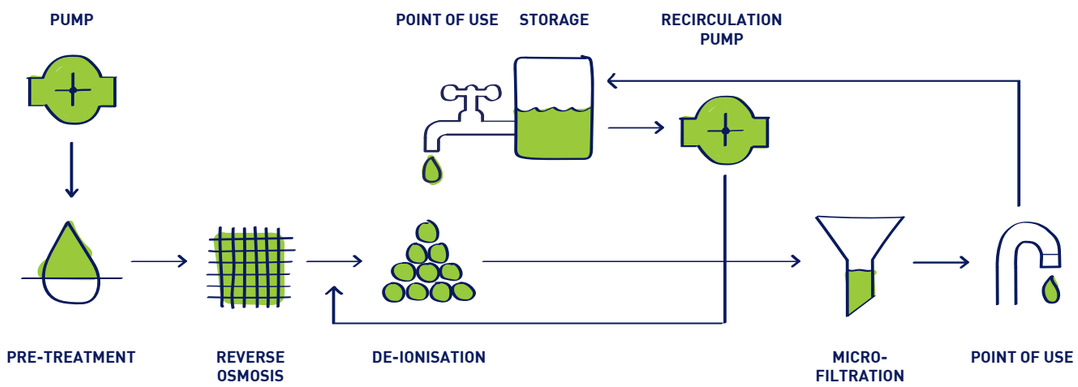
purite hpa 30 clinical analyser feed

The Purite HPA 30 is a compact unit designed to produce a consistent supply of >10MΩ.cm water for feed to all manufacturers clinical and chemistry analysers. Our Purite range of water purification systems are compact, robust, simple to use and easy to maintain.

Additional 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
- WiFi enabled for remote monitoring and operation
- 8mm pressurised outlet for direct connection to analyser.

purite hpa 30 process flow



purite hpa 30 specifications

Unit Specification	
Width (mm)	440
Depth (mm)	560
Height (mm)	750
Max shipping weight (kg)	41
Max working weight (kg)	59
Installation requirements	
Power	Single Phase, 110-230V, +/- 10%, 50/60 Hz
Feed water	Potable
Maximum TDS (ppm)	1000
Minimum inlet pressure - psi (bar)	30 (2.1)
Maximum inlet pressure - psi (bar)	90 (6.2)
Feed water temperature	1-35ºC
Make up outputs*	
@ 10ºC (l/hr)	30
@ 25ºC (l/hr)	48

* Outputs based on a feed water pressure of 4 bar

System Specification	
Pure water storage	20 litre storage tank as standard (External 50 & 100 litre tanks available)
Display panel	LCD – Colour touch screen
Pre-treatment cartridge	✓
Reverse osmosis	✓
Deionisation cartridge	✓
Internal filtration	Microfiltration
Recirculation pump	✓

Treated Water Specification	
Inorganics	> 10MΩ.cm
pH*	Neutral
Bacteria	< 1cfu/ml
Organics – TOC (ppb)	< 20
Particles	< 0.1µm
Pressurised outlet (8mm)	Up to 2l/min @ 2.3-2.5 bar

* pH of stored water may decrease due to absorption of free carbon dioxide

our purite integra range:

Our Purite Integra range is ideal for analyser demands of over 30 l/hr. Our Purite Integra HP IT and GP systems deliver up to 190 l/hr, while our Purite Integra 200E system is a low energy, self-contained unit utilising the latest low energy reverse osmosis membranes and edi technology.

The Purite Integra HP IT and GP are compact water purification and distribution units. Fully integrated they incorporate reverse osmosis, deionisation, bacterial filtration and UV technology, with internal or external storage and a distribution pump.

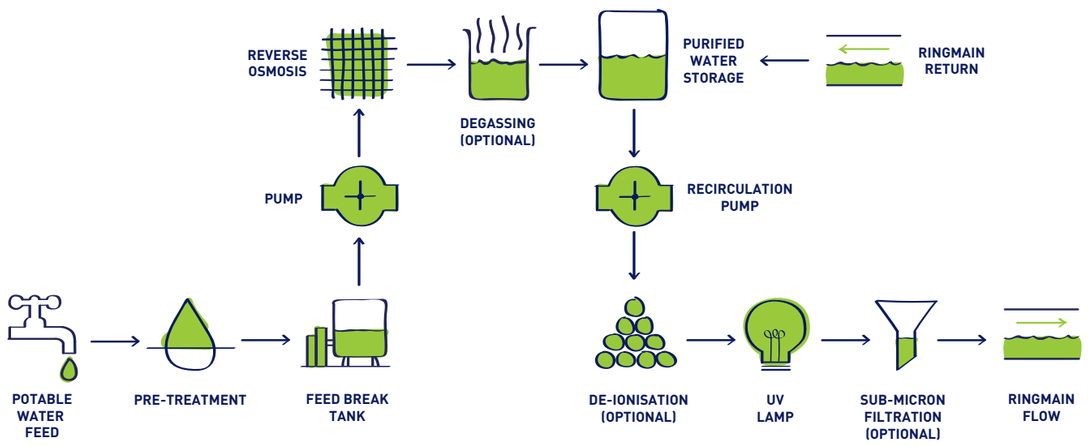
purite integra hp it

The Purite Integra HP IT is a compact water purification and distribution unit. Fully integrated, it incorporates reverse osmosis and ultra violet radiation technology, with storage and a distribution pump. It is also available with optional carbon dioxide, membrane degassing and bacterial filtration technology.

Additional features

- Produces 120 or 190 l/hr (requires softened feed)
- Option of Integral 50 litre or external 300 litre purified water storage tank
- Optional carbon dioxide membrane degasser to enhance deioniser capacity
- Range of polishing deioniser options to meet all purity requirements and standards
- Full colour LCD touch screen display for ease of operation
- Low energy recirculation pump to conserve energy during periods of low demand
- Cat5 compliant break tank to comply with water regulations
- Optional manual by-pass to provide continuity of service in an emergency.

purite integra hp it process flow



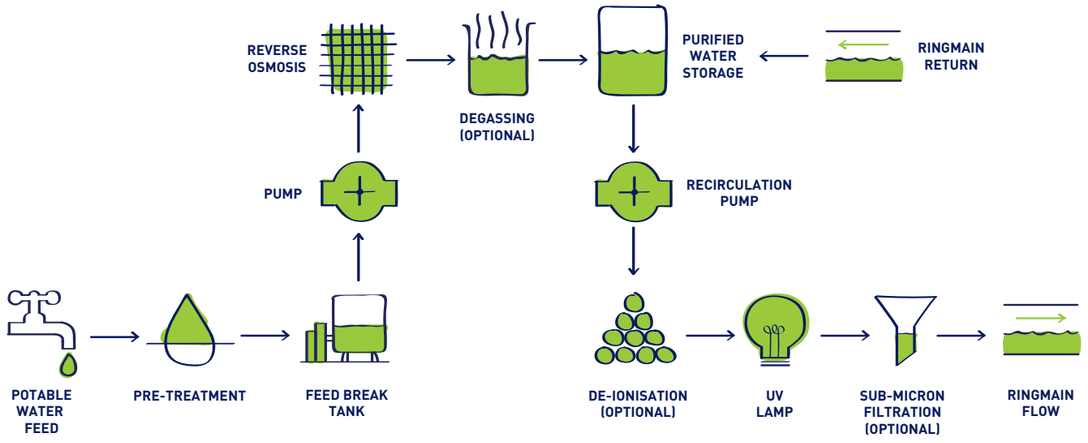
purite integra hp gp

The Purite Integra HP GP is a compact water purification and distribution unit. Fully integrated, it incorporates reverse osmosis and ultra violet radiation technology, with storage and a distribution pump. It is also available with optional carbon dioxide, membrane degassing and bacterial filtration technology.

Additional features

- Produces 120 or 190 l/hr (requires softened feed)
- External 300 litre purified water storage tank
- Optional carbon dioxide membrane degasser to enhance deioniser capacity
- Range of polishing deioniser options to meet all purity requirements and standards
- Full colour LCD touch screen display for ease of operation
- Low energy recirculation pump to conserve energy during periods of low demand
- Cat5 compliant break tank to comply with water regulations
- Optional manual by-pass to provide continuity of service in an emergency.

purite integra hp gp process flow



purite integra 200e

The Purite Integra 200E water purification unit provides high quality water for laboratories, utilising the latest low energy reverse osmosis membranes and electro-deionisation technology.

Configured and tested before delivery to ensure minimal installation time, the fully integrated and user friendly Integra 200E offers laboratories optimum efficiency and flexibility in water purification production.

Variable speed pumps ensure laboratories are able to minimise their energy consumption, while category 5 backflow prevention technology offers protection to the mains supply.

Additional features

- Self-contained, fully bunded, "plug and play" package designed to reduce installation and service times
- Efficiently delivers highly purified water; make-up flow rate of 200 l/hr
- Utilises reverse osmosis, electro-deionisation, ultra-violet irradiation and bacterial microfiltration
- Standby mode and variable speed pumps to minimise power consumption and running costs during periods of low demand
- LCD touch screen with password controlled menu access
- Automatic alarm notification system monitoring leakage and quality of water
- Compact, fully bunded, stainless steel skid package with anti-vibration mounts
- Category 5 backflow prevention to protect mains supply
- Automated chemical cleaning program
- Optional water storage available, 350, 500 and 1000 litres.

purite integra range specifications

unit specifications

	Integra Model				
	HP IT	HP GP *	200E		
			200E - 350	200E - 500	200E - 1000
Width (mm)	890	1110	1500	1850	2600
Depth (mm)	500	604	2020	2020	2020
Height (mm)	840	1842	1020	1020	1020
Max shipping weight (kg)	95	134	340	350	370
Max working weight (kg)	140	467	767	917	1417
Installation requirements					
Power	Single Phase, 230V, +/- 10%, 50 Hz **		Single Phase, 230V, +/- 10%, 50 Hz		
Feed water	Potable	Softened	Softened		
Maximum TDS (ppm)	1000		< 1000ppm		
Minimum inlet pressure - psi (bar)	30 (2.1)		30 (2.1)		
Maximum inlet pressure - psi (bar)	90 (6.2)		90 (6.2)		
Feedwater temperature	1-30ºC		10 - 25ºC		
Flowrate	400l/hr (min)		400 l/hr		
Free chlorine	Must be dechlorinated				

* Complete with plinth and 300 litre tank ** 110v 60Hz available as an option

system specification

	Integra Model				
	HP IT	HP GP	200E		
			200E - 350	200E - 500	200E - 1000
Pure water storage	50 litre	300 litre	Up to 350 litres	Up to 500 litres	Up to 1000 litres
Display panel	LCD - Colour touch screen		LCD - Colour touch screen		
Pre-treatment	5µm pre-filter				
Reverse osmosis	Low energy membranes				
Deionisation	Various cylinder options		EDI module		
Micro filtration	Optional 0.2µm		0.2µm filter		
UV lamp	254nm		Bactericidal 254nm		
Purified water make-up flow rate @ 10˚C	120 or 190 l/hr		200 l/hr		
Purified water distribution	Up to 270 l/hr and a max of 3 bar	240 l/hr and a max of 3 bar	Up to 2m³/hr and a maximum of 90 psi (6.2 bar)		
Carbon dioxide degassing	Optional		Hollow fibre membrane as standard		
TOC reduction	Optional *		✓		

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

treated water specification

	Integra Model				
	HP IT	HP GP	200E		
			200E - 350	200E - 500	200E - 1000
Conductivity	< 30µs/cm to 18.2MΩ-cm *		up to 15MΩ-cm		
Bacteria	< 1cfu/ml **		< 1cfu/ml		
Organics – TOC (ppb)	< 30ppb		< 500ppb as C		
Particles	< 0.2µm **		< 0.2µm		
Endotoxins	-		-		

* with optional deionisation cylinder
** with optional 0.2µm bacterial filter

24/7 service

Total lifetime support is a vital element in the services that we provide to all our customers, from a small laboratory with a single benchtop unit, to a major healthcare or industrial organisation with multiple systems or a complex high volume water purification plant.

Our customer support services include system design and build, installation and commissioning, plus 24/7 long-term maintenance contracts to optimise efficiency and minimise through-life costs.

We also hold extensive stocks of consumables and spare or replacement parts that are available as and when required.

Our team of experienced and regionally based engineers provide dedicated applications and support - both by phone and onsite - including consultancy, trouble-shooting and product training.

global support

We are part of SUEZ, a world leader in water and waste resources management.

Being part of a wider infrastructure gives us access to an extensive network of global resources, plus the people that possess the experience, skills and knowledge that make our business better.

We offer dedicated resources through a comprehensive network of over 50 distribution channels, encompassing North America, Asia, Europe, Africa and Australasia.

Our complete and innovative range is supported by an approved local distributor, ensuring a secure and cost-effective service, a supply of critical equipment and ultimately – peace of mind.

Every day we turn this to our customers' advantage, delivering ideas, solutions and support that improve water quality, system performance and return on investment.

about SUEZ

SUEZ is an organisation with more than 150 years of experience in water treatment and waste management. SUEZ specialises in securing and recovering resources to provide proven solutions that enable its customers to address resource management challenges.

70
countries

80,000
employees

323,000
industrial and business customers

65,000,000
people benefiting from sanitation services

92,000,000
people supplied with drinking water

10,000,000
people supplied with drinking water from desalinated seawater

14,000,000
tonnes of waste recovered

74,000,000
euros invested in resource-focused R&D

5,138
GWh of energy generated from waste each year around the world

resource revolution

At the heart of SUEZ's ethos is the Resource Revolution, which aims to overcome the challenges presented by the increasing scarcity of natural resources.

the revolution is:

circular

because it aims to regenerate resources that are essential to life and the future according to the principles of the circular economy.

concrete

because it involves tangible and innovative actions to secure resources.

collaborative

because it engages everyone who contributes, each at their own level, to better manage and secure resources for the future.

SUEZ is working to promote innovative technologies and thinking to save for future generations. For example, it calls on the world to embrace change in our water consumption habits, rethink mass waste-creating production methods and develop sustainable societies. In particular, SUEZ can help hospitals and life sciences facilities to meet their specific corporate social responsibility policy targets through audit and consultancy services.

memberships

SUEZ is a member of:

- Institute of Healthcare Estates and Estate Management (IHEEM)
- Central Sterilising Club (CSC)
- Association of Renal Technicians (ART)
- Laboratory and Export body (GAMBICA)
- British Association for Chemical Specialities (BACS)
- SAFEcontractor
- Water Management Society (WMS) (employees only as non-corporate)
- Commissioning Services Association (CSA)

accreditations

SUEZ is a accredited to:

- IOSH Approved Centre
- ISO 9001
- ISO 13485
- ISO 14001
- ISO 45001
- SAFEcontractor
- BuildCert

contact

Water Purification Systems

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