

CENTRA

CENTRALIZED WATER

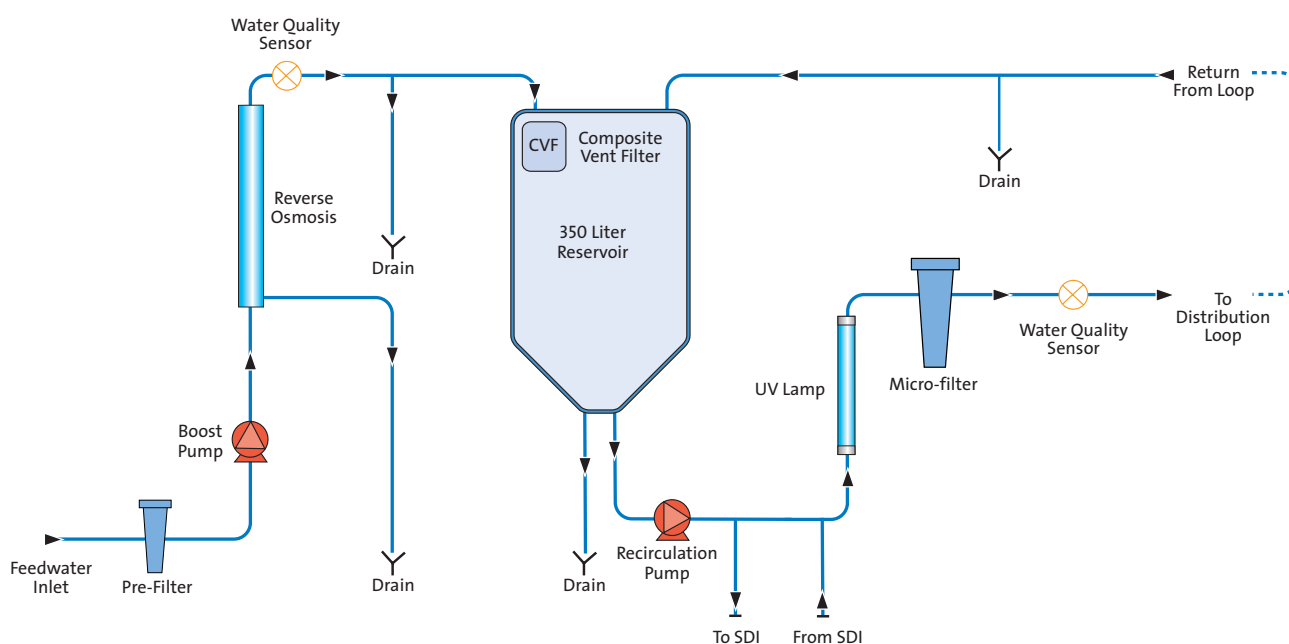


CENTRA[®]-R 200

The CENTRA has revolutionised the way that large volumes of pure water are produced, stored and distributed. Instead of a central lab system, comprising of an untidy grouping of components and pipework, you can now have just one integrated system box. The CENTRA-R 200 is a complete water purification, storage, control and distribution systems featuring a 200 liter per hour reverse osmosis module and 0.2 µm filter.

- The compact design provides more flexible installation options for new buildings and refurbishments. The CENTRA's small footprint means that it can be placed closer to the laboratory, avoiding the negative cost and design implications of long pipe work loops
- Reliable, continual supply of pure water using unique access controls, leak detection systems and full AV alarms with optional building management system (BMS) connectivity
- Optimized inorganic water quality through use of in-line purification technologies. Recirculated water is UV treated, filtered and (if fitted) can be improved through deionization
- 200 l/hr of purified water available at up to 30 l/min from a distribution loop. A wide range of water purities are possible from RO permeate up to 18.2 MΩ-cm Type I purity
- Low microbial counts achieved through vent filtration, spray-ball water distribution and smooth internal surface in the reservoir combined with UV oxidation and 0.2 µm filtration in the loop

Process Flow CENTRA-R 200



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Treated Water Specifications

Model	Voltage/freq.	R 200	R 200 HFV	R 200 HFR
Flowrate (exit from unit) - l/min (USG/min)	230/50 115/60	16 (4.2) 18 (4.8)	30 (8) 38 (10)	30 (8) 38 (10)
Daily usage - typical		Up to 5000 liters (1321 USG)	Up to 5000 liters (1321 USG)	Up to 5000 liters (1321 USG)
Daily usage - maximum		Up to 6000 liters (1585 USG)	Up to 6000 liters (1585 USG)	Up to 6000 liters (1585 USG)
Inorganics		Up to 18.2MΩ-cm ¹	Up to 18.2MΩ-cm ¹	Up to 18.2MΩ-cm ¹
TOC - typical		<10 ppb ²	<10 ppb ²	<10 ppb ²
Bacteria - typical		<5 CFU/ml ²	<5 CFU/ml ²	<5 CFU/ml ²
Particles		0.2 µm filtration	0.2 µm filtration	0.2 µm filtration

¹ Ion-exchange cylinder installed (Nuclear or Hypex grade). ² System to be installed following ELGA LabWater installation guidelines and regularly sanitized.

Dimensions and weights

Dimensions	Height 1820mm (71.7in), Width 730mm (28.75in), Depth 890mm (35in)
Shipping weight	178kg (392lb)
Operational weight	527kg (1162lb)

Feedwater Requirements

Source	Potable tap water as detailed below.		
	Note: It is essential that the feedwater be suitably conditioned. Please refer to the contaminants listed below and ensure that suitable pretreatment is included in the installation.		
Contaminant	Measure	Range	Pretreatment
Calcium	Ca ppm as CaCO ₃	<250	None ³
		>250	Softener or use very low RO recovery ³
Total chlorine	Cl ppm	<0.1	None
		0.1 to 0.5	20 inch carbon block
Silica	SiO ₂ ppm	>0.5	Cylinder of carbon sized correctly to obtain <0.1ppm
		<30	None
Fouling Index	FI	>30	20 inch cartridge depth filter
		<10	None
Iron/manganese	Fe/Mn ppm	10 - 20	20 inch cartridge depth filter
		>20	Back washable media filter with a minimum flow rate of 20 l/min
		<0.05	None
Organics	TOC ppm C	>0.05	20 inch cartridge depth filter ⁵
		>0.1	Back-washable pre-filter ⁵
		<2	None
Temperature		2 - 3	20 inch carbon block ⁴
		>3	Cylinder of carbon sized correctly for TOC demand ⁴
Flowrate (maximum requirement @15°C)		1 - 40°C (Recommended 15 - 25°C)	
Drain requirements (gravity fall with air gap)		20 l/min (5.3 GPM)	
Feedwater Pressure		45 l/min (12 GPM)	
		4 bar (60 psi) maximum, 2 bar (30 psi) minimum.	

³ Check LSI, increase frequency of acid cleaning. ⁴ Increase frequency of alkaline cleaning. ⁵ Increase frequency of acid cleaning.

Electrical Requirements

Mains input	230V ac, 50Hz, 115V ac, 60Hz
System control voltage	24V dc
Power consumption during recirculation	2000VA
Electrical protection rating	20 amps
Reservoir level connection for control of additional ELGA products	Jack Plug 3.5mm DIN plug 6 way
Noise level during recirculation	<70dBA

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