

RAPIDE STRATA™

Short Cycle Regeneration Ion Exchange Deionisation

Rapide Strata two-bed or three-bed units produce high purity water for a range of industrial applications. The unique design offers savings of up to 40% on operational and wastewater costs compared to conventional deionisation systems.

Flow rates from 2.5 to 60 m³/hr.

- Versions available according to American and European standards

Features & Benefits

- 3 models available, Rapide Strata, Rapide Strata+ and Rapide Strata+ Extended Regeneration in varying sizes
- Standard regeneration in 35-45 minutes: minimizes down time, enhances bacterial control, improves chemical usage efficiencies
- Control system PLC, Touch Screen HMI, Veolia Vision™ Ready: facilitate monitoring and operation
- Duplex operation mode for continuous water production: increased production capacity
- Continuous conductivity monitor with auto service shut-off and alarm: ensures water quality
- Continuous, intermittent or zero recirculation of water when tank reaches high point: operational flexibility
- Skid-mounted, standardised systems: short lead times, quick installation and start-up
- Variable frequency drive (VFD) on the pump on larger models (23/23+ to 60/60+)

Applications

- Pharmaceutical
- Beverage
- High and medium pressure boiler feed
- Surface finishing
- General industry

Rapide Strata+ Model

- Integrated polishing device (Hipol™)
- Eliminates need for separate post deionisation step
- Produces water exceeding Ph Eur and USP conductivity requirements

Extended Regeneration Option on Strata+ models

- Capable of producing water with <20 ppb of reactive silica; suitable for high and medium pressure boiler-feed
- Produces water of <0.1 µS/cm; polishing RO water

Related Services

Local aftermarket service and support teams offer preventive and corrective maintenance programs to ensure the long-term, efficient operation of installed equipment.



RAPIDE STRATA™ Short cycle regeneration deioniser

Equipment Performance

Model		Rapide Strata							Rapide Strata+						
		4	10	18	23	32	45	60	4+	10+	18+	23+	32+	45+	60+
Maximum Gross Flow*	m ³ /hr	4	10	18	23	32	45	60	4	10	18	23	32	45	60
Minimum Flow	m ³ /hr	2.5	6.5	14	12	16	20	30	2.5	6.5	14	12	16	20	30
Regeneration Time**	minutes	35-55	35-55	35-55	35-55	35-55	35-55	35-55	35-80	35-80	35-80	35-80	35-80	35-80	35-80
Maximum Waste Flow to Drain during Regeneration	m ³ /hr	3.8	9.5	17	22	30.5	43	57	9.8	9.5	17	22	30.5	43	57
Wastewater Volume per Regeneration***	m ³	0.8	1.7	30.	4.5	7	9.5	12.6	0.8	1.7	3.2	4.5	7	9.5	12.6
Bulked wastewater	pH	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-9
Chemical Usage per Regeneration****															
HCl (32%)	liters	6	15	27	41	57	78	100	6	15	27	41	57	78	100
NaOH (32%)	liters	5.6	13.9	24	38.2	54	64.3	78.2	5.6	13.9	24	38.2	54	64.3	78.2
Output per Regeneration (100 mg/l Total Anion load as CaCO ₃ , Inc CO ₂ & SiO ₂)	m ³	20.8	52	90	143	201	240	292	16.8	42	72	115	162	194	236
Pump motor power	kW	1.5	3	5.5	7.5	7.5	11	15	1.5	3	5.5	7.5	7.5	11	15

* The maximum available flow-rate depends on the TDS of the feed water and the number of regenerations per day.

** Standard regeneration for Rapide Strata+ takes 35 minutes for treated water with a conductivity of < 1µS/cm.

For a treated water with a conductivity of < 0,1 µS/cm and SiO₂ <20 ppb, regeneration time is 80 minutes.

***Wastewater volume depends on treated water quality.

****Chemical consumption is calculated for treated water with a conductivity of < 2µS/cm.

Equipment Dimensions

Model		4/4+	10/10+	18/18+	23	32	45	60	23+	32+	45+	60+
Height	mm	2075	2130	2230	3035	3035	3185	3185	3035	3035	3185	3185
Length	mm	1500	2000	2080	3000	3000	3600	3600	3500	3500	4500	4500
Width	mm	900	1100	1300	1900	1900	2100	2100	1900	1900	2100	2100
Recommended Headroom	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Approx. Service Weight	kg	650/700	1550/1620	1950/2050	3000	3800	6050	7240	3220	4030	6250	7450
Feed Inlet (uPVC Socket Union/Flange DN)*	-	DN40	DN50	DN80	DN80	DN100	DN100	DN125	DN80	DN100	DN100	DN125
Service Outlet (uPVC Socket Union/Flange DN)*	-	DN32	DN40	DN50	DN65	DN80	DN100	DN100	DN65	DN80	DN100	DN100
Regeneration Water Inlet (uPVC Socket Union/Flange DN)*	-	DN40	DN50	DN80	DN80	DN100	DN100	DN125	DN80	DN100	DN100	DN125
Drain (uPVC Socket Union/Flange DN)*	-	DN25	DN32	DN40	DN80	DN80	DN100	DN100	DN80	DN80	DN100	DN100

* Socket unions: for Rapide Strata models 4/4+ to 18/18+. Flanges: for Rapide Strata models 23/23+ to 60/60+.

Typical Treated Water Quality

	TDS (mg/l)	Conductivity (µS/cm)
Rapide Strata	<1	max. 5; average <2
Rapide Strata+	<0.2	1-0.1

Material Specifications

Resin Vessels	Glass Reinforced Plastic
Pipework	uPVC
Pump	316 stainless steel multistage centrifugal
Skid	Epoxy coated carbon steel
Control Valves	Air operated diaphragm valves or butterfly valves
Control Cabinet	Epoxy coated steel - IP54

Feed Water Requirements

Potable water free from organic contamination, chlorine and suspended solids.

Pressure

Unpressurised via local break tank, or max. 1.2 bar

Temperature

min. 5°C max. 30°C (to 40°C max on request)

TDS max. 500 mg/l

Conductivity max. 700 µS/cm

Electrical Supply Options

380/415V, 3 Phases, 50 HZ standard or adapted to customers requirements on request.

Air Supply

5,5 - 6,0 Bar, Instrument Quality, 10 liters per minute intermittent.

For higher flow rates, consult your local Veolia Water Technologies company contact, details below.

Visit our website: www.veoliawatertechnologies.com

In keeping with the progressive nature of the company, we reserve the right to amend details without notice.

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