


RAPIDE STRATA™ MK3

Ion Exchange Deionisation for Process Water

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
18 m³/h



FEATURES & BENEFITS

- 2 models available, Rapide Strata and Rapide Strata+ in varying sizes
- Standard regeneration in 35-80 minutes: minimizes down time, enhances bacterial control, improves chemical usage efficiencies
- Control system PLC, Touch Screen HMI, Veolia AQUAVISTA™ Ready: facilitate monitoring and operation
- Duplex operation mode for continuous water production: increased production capacity
- Continuous conductivity monitor with auto service shutoff 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



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 after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.





Equipment Performance

Model		Rapide™ Strata			Rapide™ Strata+		
		4	10	18	4+	10+	18+
Maximum Gross Flow*	m³/hr	4	10	18	4	10	18
Minimum Flow	m³/hr	2	5	9	2	5	9
Regeneration Time**	minutes	35	35	35	35 - 45**	35 - 45**	35 - 45**
Maximum Flow to Drain during Regeneration	m³/hr	2.5	6.5	11.5	2.5	6.5	11.5
Effluent Volume per Regeneration*	m³	0.7	1.5	2.7	0.7	1.5	2.7
Chemical Usage per Regeneration**							
HCl (32%)	litres	6.2	15.4	27.8	6.2	15.4	27.8
NaOH (32%)	litres	5.8	14.5	26.1	5.8	14.5	26.1
Bulked Effluent	pH	6 - 9	6 - 9	6 - 9	6 - 9	6 - 9	6 - 9
Output per Regeneration (100 mg/l Total Anion load as CaCO ₃ Inc CO ₂ & SiO ₂)	m³	20.4	51.6	93.6	16.8	42	75.6
Power Consumption - Max.	kW	1.5	3	5.5	1.5	3	5.5

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

** Standard regeneration for Rapide Strata+ takes 35 minutes for treated water with a conductivity of < 1uS/cm. For a treated water with a conductivity of < 0.1uS/cm and SiO₂ < 20ppb, regeneration time is 80 minutes. Chemical consumption is calculated for treated water with a conductivity of < 2uS/cm.

Equipment Dimensions

Model		4	10	18	4+	10+	18+
Height	mm	2075	2130	2230	2075	2130	2230
Depth	mm	900	1100	1300	900	1100	1300
Width	mm	1500	2000	2080	1500	2000	2080
Recommended Headroom	mm	1000	1000	1000	1000	1000	1000
Approx. Service Weight	kg	650	1550	1950	680	1580	2000
Feed Inlet (uPVC Socket Union)		DN40	DN50	DN80	DN40	DN50	DN80
Service Outlet (uPVC Socket Union)		DN32	DN40	DN50	DN32	DN40	DN50
Regeneration Water Inlet (uPVC Socket Union)		DN40	DN50	DN80	DN40	DN50	DN80
Drain (uPVC Socket Union)		DN25	DN32	DN40	DN25	DN32	DN40

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	Composite plastic
Pipework	PVC-U
Pump	316 stainless steel multistage centrifugal
Skid	Epoxy coated mild steel
Control Valves	Air operated diaphragm valves
Control Cabinet	Epoxy coated steel to 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 35°C max on request)

TDS max. 500 mg/l

Conductivity max. 700 µS/cm

Electrical Supply Options

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

Air Supply

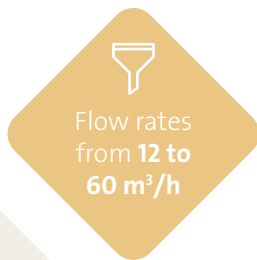
5.5 - 6.0 Bar, Instrument Quality, 5 litres per minute intermittent

RAPIDE STRATA™ MK4

Short Cycle Regeneration Ion Exchange Deionisation for Process Water

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.

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 35-80 minutes: minimizes down time, enhances bacterial control, improves chemical usage efficiencies
- Control system PLC, Touch Screen HMI, Veolia AQUAVISTA™ 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

+ OPTIONS

- Automatic isolating valves on diluted chemical feed lines
- Pressure gauges in addition to pressure transmitters
- Multipurpose water pump non return valve
- Feed water manual isolating valve
- Resin trap strainer on deionized water outlet

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 after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.





Equipment Performance

Model		Rapide Strata™				Rapide Strata™+			
		23	32	45	60	23+	32+	45+	60+
Maximum Gross Flow*	m ³ /hr	23	32	45	60	23	32	45	60
Minimum Flow	m ³ /hr	12	16	20	30	12	16	20	30
Regeneration Time**	min	35-55	35-55	35-55	35-55	35-80	35-80	35-80	35-80
Waste Flow to Drain during Regeneration (Approx.)	m ³ /hr	22	30.5	43	57	22	30.5	43	57
Wastewater Volume per Regeneration***	m ³	4.5	7	9.5	12.6	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
Chemical Usage per Regeneration****									
HCl (32%)	liters	41	57	78	100	41	57	78	100
NaOH (32%)	liters	38.2	54	64.3	78.2	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	143	201	240	292	115	162	194	236
Pump motor power	kW	7.5	7.5	11	15	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 < 0,1µS/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		23	32	45	60	23+	32+	45+	60+
Height	mm	3035	3035	3185	3185	3035	3035	3185	3185
Length	mm	3000	3000	3600	3600	3500	3500	4500	4500
Width	mm	1900	1900	2100	2100	1900	1900	2100	2100
Recommended Headroom	mm	1000	1000	1000	1000	1000	1000	1000	1000
Approx. Service Weight	kg	3000	3800	6050	7240	3220	4030	6250	7450
Feed Inlet (uPVC Socket Union/Flange DN)*	-	DN80	DN100	DN100	DN125	DN80	DN100	DN100	DN125
Service Outlet (uPVC Socket Union/Flange DN)*	-	DN65	DN80	DN100	DN100	DN65	DN80	DN100	DN100
Regeneration Water Inlet (uPVC Socket Union/Flange DN)*	-	DN80	DN100	DN100	DN125	DN80	DN100	DN100	DN125
Drain (uPVC Socket Union/Flange DN)*	-	DN80	DN80	DN100	DN100	DN80	DN80	DN100	DN100

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

Typical Treated Water Quality

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

Rapide Strata 23: 3x220-277V 50/60 HZ IEC

Rapide Strata 32 to 60: 3x380-480V 50/60 HZ IEC

Air Supply

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