

# Data Sheet

## Demineralisation

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Demineralisation Plants. Exemplary design for raw water 5...30 °C, primary pressure 2...6 bar, residual conductivity in the demin water < 0.5 µS/cm. Regeneration with hydrochloric acid and caustic soda.

Consisting of cation exchanger, degasser, anion exchanger. Designed as duplex plant. Filter vessels made of GFK (up to Ø1074 mm) or coated steel. Valves as individually actuated diaphragm valves (up to DN 50) or butterfly valves (starting DN 65).

Accessories: Resin strainer with pressure switches. Degasser with fan and booster pumps. Residual conductivity meter for triggering regeneration. Day tanks for acid and lye. Switch and control cabinet.

Further Accessories: Raw water tank with booster pumps for system interruption. Storage tanks for acid and lye. Neutralisation plant for regeneration effluent. Mixed bed filter for fine purification.

Flow capacity, max.	4,0 m³/h	6,0 m³/h	10,0 m³/h	15,0 m³/h	22,0 m³/h	30,0 m³/h	34,0 m³/h	24,0 m³/h	31,0 m³/h	38,0 m³/h	47,0 m³/h	56,0 m³/h	76,0 m³/h	99,0 m³/h	126,0 m³/h	150,0 m³/h	
Flow capacity, min.	0,5 m³/h	0,8 m³/h	1,3 m³/h	1,9 m³/h	3,0 m³/h	4,3 m³/h	6,0 m³/h	5,0 m³/h	6,0 m³/h	8,0 m³/h	9,0 m³/h	11,0 m³/h	15,0 m³/h	20,0 m³/h	25,0 m³/h	40,0 m³/h	
Cation capacity as Na+	115 mol	173 mol	288 mol	431 mol	690 mol	978 mol	1035 mol	1590 mol	2054 mol	2518 mol	2981 mol	3578 mol	4903 mol	6426 mol	8149 mol	8500 mol	
Anion capacity as Cl-	46 mol	69 mol	115 mol	172 mol	276 mol	391 mol	585 mol	618 mol	813 mol	1008 mol	1203 mol	1463 mol	1983 mol	2600 mol	3315 mol	3400 mol	
HCl 30% per regeneration	20 kg	30 kg	50 kg	75 kg	120 kg	170 kg	180 kg	222 kg	287 kg	352 kg	417 kg	501 kg	686 kg	899 kg	1140 kg	1250,0 m³	
NaOH 45% per regeneration	25 kg	38 kg	60 kg	85 kg	113 kg	153 kg	100 kg	96 kg	129 kg	163 kg	242 kg	293 kg	349 kg	495 kg	647 kg	750 kg	
Effluent per regeneration	2,7 m³	3,4 m³	3,8 m³	3,7 m³	4,2 m³	4,3 m³	5,0 m³	35,2 m³	44,7 m³	8,5 m³	11,1 m³	13,7 m³	16,3 m³	19,7 m³	26,8 m³	30,0 m³	
<b>Filter Vessel</b>																	
Diameter	360 mm	410 mm	552 mm	616 mm	768 mm	924 mm	1074 mm	800 mm	900 mm	1000 mm	1100 mm	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	
Vessel height / cyl. height	1620 mm	1630 mm	1542 mm	1767 mm	1960 mm	2005 mm	2005 mm	3000 mm	3000 mm	3000 mm	3000 mm	3000 mm	3000 mm	3000 mm	3000 mm	3000 mm	
Total Height	1750 mm	1750 mm	1782 mm	2015 mm	2315 mm	2360 mm	2450 mm	3900 mm	4000 mm	4100 mm	4200 mm	4300 mm	4600 mm	4800 mm	4900 mm	5200 mm	
Total volume	142 l	187 l	310 l	450 l	710 l	1020 l	1240 l	1470 l	1865 l	2308 l	2798 l	3335 l	4550 l	5954 l	7546 l	9000 l	
Resin content strongly acidic	100 l	150 l	250 l	375 l	600 l	850 l	900 l	600 l	775 l	950 l	1125 l	1350 l	1850 l	2425 l	3075 l	3400 l	
Resin content weakly acidic								600 l	775 l	950 l	1125 l	1350 l	1850 l	2425 l	3075 l	3400 l	
Resin content strongly alkaline	100 l	150 l	250 l	375 l	600 l	850 l	900 l	475 l	625 l	775 l	925 l	1125 l	1525 l	2000 l	2550 l	3400 l	
Resin content weakly alkaline								475 l	625 l	775 l	925 l	1125 l	1525 l	2000 l	2550 l	3400 l	
Connection	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 80	DN 65	DN 80	DN 80	DN 100	DN 100	DN 125	DN 150	DN 150	DN 200	
<b>Degasser</b>																	
Diameter degasser	400 mm	475 mm	630 mm	720 mm	720 mm	800 mm	800 mm	720 mm	800 mm	950 mm	1200 mm	1200 mm	1400 mm	1600 mm	1800 mm	2000 mm	
Diameter tank	800 mm	950 mm	1200 mm	2500 mm	2500 mm	2500 mm	2500 mm	1400 mm	1600 mm	1750 mm	1900 mm	1900 mm	2150 mm	2400 mm	2600 mm	2800 mm	
Total height	3300 mm	4125 mm	4125 mm	4125 mm	4125 mm	4125 mm	4125 mm	4125 mm	4125 mm	4125 mm	4400 mm	4400 mm	4950 mm	4950 mm	5400 mm	5600 mm	
Air requirement	210 m³/h	380 m³/h	530 m³/h	750 m³/h	980 m³/h	1210 m³/h	1210 m³/h	980 m³/h	1244 m³/h	1539 m³/h	1865 m³/h	2223 m³/h	3033 m³/h	3969 m³/h	5030 m³/h	5500 m³/h	
at backpressure	11 mbar	12 mbar	14 mbar	15 mbar	15 mbar	11 mbar	11 mbar	10 mbar	12 mbar	14 mbar	15 mbar	15 mbar	15 mbar	15 mbar	15 mbar	15 mbar	
Fan power	0,16 kW	0,32 kW	0,52 kW	0,78 kW	1,02 kW	0,92 kW	0,92 kW	0,68 kW	1,04 kW	1,50 kW	1,94 kW	2,32 kW	3,16 kW	4,13 kW	5,24 kW	7 mm	
Flow capacity pump	4,0 m³/h	6,0 m³/h	10,0 m³/h	15 m³/h	22 m³/h	30 m³/h	30 m³/h	24 m³/h	31 m³/h	38 m³/h	47 m³/h	56 m³/h	76 m³/h	99 m³/h	126 m³/h	150 m³/h	
at backpressure	4,7 bar	4,6 bar	4,8 bar	5,5 bar	5,1 bar	4,4 bar	4,4 bar	5,0 bar	4,3 bar	4,3 bar	5,1 bar	4,8 bar	4,7 bar	6,0 bar	4,3 bar	4,0 bar	
Pump power	0,8 kW	1,1 kW	3,0 kW	5,5 kW	5,5 kW	5,5 kW	5,5 kW	5,5 kW	5,5 kW	7,5 kW	11,0 kW	11,0 kW	15,0 kW	22,0 kW	22,0 kW	27,5 kW	
<b>Dimensions and weight, total plant</b>																	
Total length	4201 mm	4351 mm	4601 mm	4802 mm	4802 mm	5002 mm	5500 mm	6800 mm	7000 mm	7150 mm	7300 mm	7300 mm	7550 mm	8800 mm	9000 mm	9500 mm	
Total width	1801 mm	1801 mm	1801 mm	1801 mm	1801 mm	1801 mm	2000 mm	1800 mm	1800 mm	1800 mm	1800 mm	1800 mm	1800 mm	1800 mm	1800 mm	2000 mm	
Total height	3550 mm	3375 mm	4375 mm	4375 mm	4375 mm	4375 mm	4375 mm	4375 mm	4375 mm	4650 mm	4650 mm	4650 mm	5200 mm	5200 mm	5650 mm	6000 mm	
Empty weight, approx.	300 kg	450 kg	750 kg	1125 kg	1800 kg	2550 kg	2700 kg	1800 kg	2325 kg	2850 kg	3375 kg	4050 kg	5550 kg	7275 kg	9225 kg	13600 kg	
Operating weight, approx.	500 kg	750 kg	1250 kg	1875 kg	3000 kg	4250 kg	4500 kg	3000 kg	3875 kg	4750 kg	5625 kg	6750 kg	9250 kg	12125 kg	15375 kg	23800 kg	