



DEMI water

Demineralization

In the demineralization plant, the salts in the raw water are dissolved and reduced to an acceptable level.

The unit consists of one cylinder with a strong acid cat ion resin followed by a cylinder with a strong alkaline anion resin. These resin beds are regenerated with hydrochloric acid and sodium hydroxide, respectively.

When passing through the cylinders, the dissolved salts in the water are exchanged with hydrogen and hydroxide, forming water.

When the unit is exhausted, it is regenerated with hydrochloric acid and sodium hydroxide.

Regeneration

The programmed regeneration is initiated and consists in both cylinders of the following cycles: Backwash, draw of acid or sodium hydroxide and rinse.

The regeneration programme can be adapted individually, proportional to the quality of the raw water and the working conditions of the plant.

Acid and sodium hydroxide are drawn from the delivered storage tanks of polyethylene.

The acid and alkaline drain water from the plant are optionally led to a neutralisation plant.

Duration of a regeneration is approx. 2 hours.



Semiautomatic unit

The basic unit is a complete semiautomatic quality controlled 2-cylinder plant mounted on a frame.

It comprises:

- two filter vessels with ion exchange material
- internal piping of PVC with conductive pilot cell on the outlet water and manual valves
- regeneration vessels
- a buffer vessel with level sensors for accumulation of the produced demineralised water.
- for DMS 62-F: active carbon filtration

Concentration of raw water

To obtain longevity of the mediums, the below max. concentrations in the raw water must not be exceeded:

Fe	=	0.2 mg/l
Cl	=	250 mg/l
Mg	=	0.05 mg/l
NVOC	=	4 mgC/l
Min. pressure of raw water during operation	=	2.5 bar

DATA for DMS 41/41-F

Max. rating at pressure drop 3.4 bar	.....m ³ /h	.....3
Free chlorine	.....mg/l	..... < 0.01
Supply pressure	.....bar	.....3-4
Water supply	.....m ³ /h	.....4.0
Water temperature	.....°C	.....10
TDS (salinity)	.....mg/l	.....500
SiO ₂ , max.	.....mg/l	.....25
Hardness	.....°dH	.....20

DATA for DMS 61/61-F

Max. rating at pressure drop 3.2 bar	.....m ³ /h	.....3
Free chlorine	.....mg/l	..... < 0.01
Supply pressure	.....bar	.....3-4
Water supply	.....m ³ /h	.....4.0
Water temperature	.....°C	.....10
TDS (salinity)	.....mg/l	.....500
SiO ₂ , max.	.....mg/l	.....25
Hardness	.....°dH	.....20

DATA for DMS 361/361-F

Max. rating at pressure drop 3.5 bar	.....m ³ /h	.....3
Free chlorine	.....mg/l	..... < 0.01
Supply pressure	.....bar	.....3-4
Water supply	.....m ³ /h	.....5.0
Water temperature	.....°C	.....10
TDS (salinity)	.....mg/l	.....500
SiO ₂ , max.	.....mg/l	.....25
Hardness	.....°dH	.....20

DATA for DMS 601/601-F

Max. rating at pressure drop 4.0 bar	.....m ³ /h	.....4
Free chlorine	.....mg/l	..... < 0.01
Supply pressure	.....bar	.....3-4
Water supply	.....m ³ /h	.....5.0
Water temperature	.....°C	.....10
TDS (salinity)	.....mg/l	.....500
SiO ₂ , max.	.....mg/l	.....25
Hardness	.....°dH	.....20

HIGHLIGHTS

- Dissolve and reduce salt in water
- Resin beds regenerate
- Short regeneration time
- Ion exchanging system

