

Fig. 1: Dosing system

Designated application

The DM-T dosing systems are designed for the dosing of GENO[®]-Chlor A in the drinking water sector. GENO[®]-Chlor A is used for the disinfection of treated water.

The effect of GENO[®]-Chlor A is based on its content of activated chlorine by which germs and bacteria are killed (also refer to the GENO[®]-Chlor A product data sheet. **Order no. 210 012**).

Please take the usual precautions when handling GENO[®]-Chlor A. When working with GENO[®]-Chlor A, wearing protective goggles and rubber gloves is mandatory, e. g. when filling the content of the disposable 20 l canister into the feed tank.

For drinking water treatment, a dosing volume of 1.0 mg of free chlorine per litre of water is taken as a basis for the dimensioning. From experience we can assume that a concentration of free chlorine of 0.1 up to 0.3 mg of chlorine per litre of water will establish in the drinking water to be disinfected (chlorine consumption).

Function

When water is withdrawn, a water meter measures the water volume flowing through and then - according to the pulse interval of the water meter - transmits the control pulses to the electronics of the dosing pump.

The electronic controls the dosing pump. Thanks to the volume-controlled dosing of the active agent, a constant drinking water quality can be ensured. The solution is either sucked directly from the disposable canisters DM-T 6 or DM-T 10 by means of a suction lance with integrated empty signal or in case of DM-T dosing systems, it is sucked from the feed tank by means of a suction lance.

In case of counter-pressures of > 1 bar and in case of fluctuating counter-pressures, a pressure maintaining valve ensures that the exact dosing rate is kept.

By means of the dosing pump, the sucked in chemical is delivered into the drinking water pipe via the dosing line and the dosing point with non-return valve.

The electric level monitoring visually indicates the required replacement of the canister by means of the yellow LED on the control electronics and automatically stops the operation of the pump, if required. As a pre-warning, the yellow LED is flashing and the pump continues dosing. In case of an empty tank, the LED is illuminated permanently and the dosing pump stops dosing.

Installation requirements



Warning! When using disinfection processes, the materials used on site must be checked for their resistance to chemicals and corrosion.

The installation site must be frost-proof and ensure the system's protection from chemicals, dyes, solvents and vapours. The ambient temperature should not exceed max. 30 °C.

For the power supply, a separate socket within a range of approx. 1.5 m from the dosing system is required.

According to DIN EN 1717, dosing systems used in drinking water treatment need to be secured by means of a system separator when they are connected to the public water supply.



Note: If very low withdrawal volumes and longer periods of standstill are to be expected for the use of the dosing pumps (e. g. in households with only 1 - 2 persons, holiday homes, etc.), the chlorine concentrations in the water may vary as a result. In order to minimise this effect, the pump should be installed as close to the dosing tank as possible. Ideally, the pump body is located on the same level as the upper edge of the suction lance.

Scope of supply

Dosing system consisting of:

Self-priming and continuously adjustable **membrane dosing pump**, self-deaerating against pressure, synchronous motor 230 V / 50/60 Hz, with connection options for empty signal,

GENODOS[®] dosing system DM-T 6, DM-T 10, DM-T 20, DM-T 30, DM-T 80, DM-T 100

external activation and voltage-free fault signal output.

GENODOS[®] pump GP-1/40
Order no. 118 200 4G

Contact water meter with pulse cable for GENODOS[®]-pump.
Order no. - Please inquire

Dosing group 2.70 made of PVC, incl. non-return valve.
Order no. 163 210

Pressure maintaining valve DHV4
10 bar, factory-set to 4 bar, hose id = 4, od = 6, G 5/8.
Order no. 163 089

Hose (PTFE) id= 4; od = 6
Order no. 163 607

DM-T 6 - DM-T 10

Suction lance for disposable canister 10/20 litres, made of PVC with integrated empty signal and pre-alarm, 465 mm long.
Order no. 118 510

DM-T 20 - DM-T 30

Dosing tank, complete, 60 l, and suction lance with empty signal, coloured black.
Order no. 163 286

DM-T 80 - DM-T 100

Dosing tank, complete, 200 l and suction lance with empty signal, coloured black.
Order no. 163 288

Accessories

Test kit for chlorine and pH value
Measuring range: Chlorine 0.1-1.5 mg/l, pH value 6.8-7.8
Order no. 170 105

Dosing group 2.72 made of PVC, incl. non-return valve and ball valve.
Order no. 163 220

Also refer to technical information "Accessories for GENODOS[®]-pumps"
Order no. 118 950

Technical specifications/Dimensions	GENODOS® dosing system					
	DM-T 6	DM-T 10	DM-T 20	DM-T 30	DM-T 80	DM-T 100
Connection data						
Nominal connection diameter	R 1" DN 25	R 1¼" DN 32	R 1½" DN 40	R 2" DN 50	DN 80	DN 100
Operating range* [m³/h]	6	10	20	30	80	100
Electrical data	230 V / 50/60 Hz / 18/21 VA					
Performance data						
Pressure loss at max. flow [bar]	0.5	0.5	0.8	0.8	0.6	0.8
Nominal pressure (PN) [bar]	10					
Dimensions and weights						
Installation length of water meter with screw connections [mm]	276	280	312	356	-	-
Installation length of water meter without screw connections [mm]	190	190	190	240	-	-
Installation length of water meter with flange connection [mm]	-	-	-	-	310	310
D Space required [mm]	-	-	450	450	545	545
E Space required [mm]	-	-	620	620	1010	1010
F Space required [mm]	-	-	1000	1000	1400	1400
GENODOS®-pump						
GENODOS®-pump	118 40 4G					
Pulse interval of water meter [l/pulse]	0.33	0.5	0.93	1.33	3.80	3.80
Tank volume [l]	20	20	60	60	200	200
Ambient data						
Water temperature [°C]	30					
Ambient temperature [°C]	30					
Order no.	163 140	163 150	163 160	163 170	163 180	163 190

The GENODOS®-pump is factory-set to pulse division T and under seal.

* In case of low water withdrawal, fluctuating chlorine concentrations may result. If this is to be expected, we recommend installing a DM-B dosing system.

Installation of dosing systems DM-T 6 / DM-T 100

Fig.11.1: Installation drawing
DM-T 6 - DM-T 10

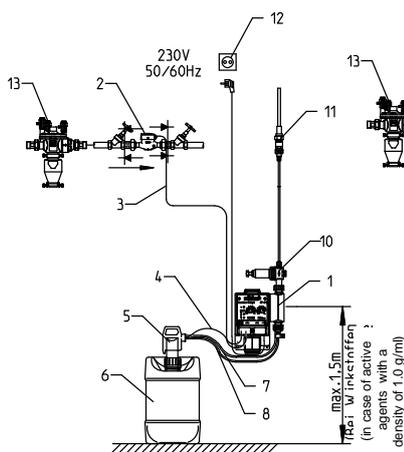


Fig.11.2: Installation drawing
DM-T 20 - DM-T 30

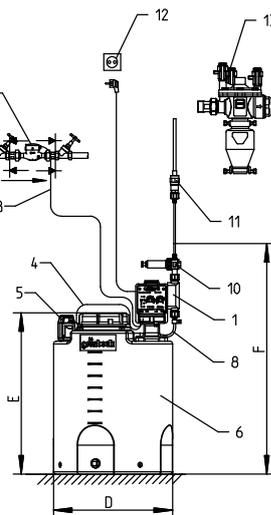
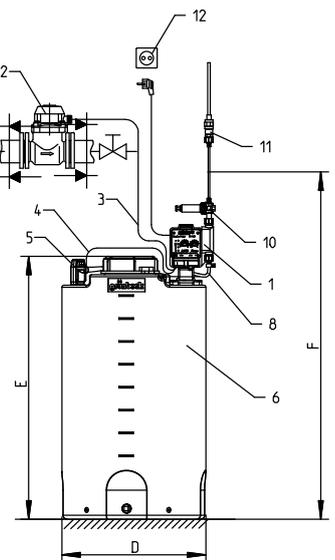


Fig.11.3: Installation drawing
DM-T 80 - DM-T 100



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|---------------------------|-----------------------------------------------------|
| 1. GENODOS®-pump | 8. Suction line |
| 2. Contact water meter | 9. Connections for overflow valve resp. water inlet |
| 3. Activation cable | 10. Pressure maintaining valve |
| 4. Cable for empty signal | 11. Dosing group |
| 5. Suction lance | 12. Power supply 230 V~ / 50 Hz |
| 6. Dosing tank | 13. System separator |
| 7. Return line | |

