

Fig. 1: Euro-system separation device GENO®-G5

Designated application

The Euro-system separation device GENO®-G5 is a safety device to protect the drinking water network from liquids up to and including hazard class 5, according to DIN EN 1717 and DIN 1988 part 4. Complying with these standards, the system offers the highest class of protection and reliably prevents back-flow, back-pressure and back-suction of modified drinking water into the drinking water network.

The system is designed for "indirect connection", consisting of a safety device "free outlet, DIN EN 13077, family A, type B, DN 20" and a pressure booster system with frequency-controlled pressure controller.

The system is particularly suited for use in the dental sector supplying dental treatment units. To complement the system, we recommend an optional flushing device (please refer to accessories). For easy retrofitting, the connections and the waste water discharge are already integrated in the system.

In order to decouple the system inlet and outlet from the pipe network, we recommend using the connection set for the GENO®-G5 as flexible connections (refer to accessories)

For automatic disinfection, we recommend installing a GENODOS® dosing system type DM-B downstream of the device.

Function

Via a special float valve with "free outlet", the water flows into the feed tank. The volume-proportional make-up water feed with flow limiter to a large extent prevents the entry of air into the water. The feed tank is dirt-proof, as it does not feature any orifices at the top or on the side.

The pressure booster system is frequency-controlled via a pressure sensor and keeps the set pressure relatively stable. In addition, the pressure expansion vessel moderates pressure fluctuations in case of major changes in the flow rate and reduces the switching frequency in case only small amounts are withdrawn. The float switch protects the pump from running dry. The flow limiter on the outlet side prevents the withdrawal volume from exceeding the make-up water volume and thus avoids supply interruptions caused by an activation of the dry-run protection.

LEDs at the pump controller inform on power supply, operation mode and alarm status. Furthermore, a voltage-free fault signal output (NCC) is available.

When the power supply is switched on, the optional flushing device flushes the stagnating water to the drain. The duration of the flushing process can be set in a range of 1 - 100 seconds at the potentiometer.

In dental practices, an automatic flushing process can thus be initiated after periods of standstill, i. g. over night, after the weekend or holidays.

In other fields of application, the flushing may, for example, be activated by means of a timer provided by others on site.

Design

Euro-system separation device GENO®-G5 as compact system, ready for connection, on aluminium profile rack and with adjustable feet made of rubber.

Unrestrained, free outlet, EN 13077, family A, type B, DN 20 consisting of feed tank with make-up water feed, overflow and draining valve with waste water discharge conforming to standards. Dirt-proof feed tank (as there are no orifices at the top or side).

Pressure booster system consisting of pressure controller with frequency-controlled pump, dry-run protection, fault signal output, non-return valve, pressure gauge, pressure sensor, flow limiter, flow-through pressure expansion vessel (8 litres), sampling valve with waste water discharge as well as connections and waste water discharge for the optional flushing device.

Water inlet and outlet with shut-off valves, female thread ¾". Waste water outlet as HT pipe connection DN 50 with water-free odour and vermin barrier for direct connection to the on-site drain.

Power supply by means of a shock-proof mains cable (2 m).

Scope of supply

Euro-system separation device GENO®-G5 as compact system, with operation manual. Delivered on a wooden palette 800 x 600 mm.

Euro-system separation device GENO®-G5

Accessories

Flushing device for GENO®-G5

Solenoid valve with electronic timer pulser and 1.5 m shock-proof mains cable with adapter.

Order no. 134 805

Connection set for GENO®-G5

2 corrugated stainless steel pipes (800 mm) with seals and connection pieces, male thread ¾"

Order no. 134 810

Installation requirements

Please observe local installation directives, general guidelines (e. g. WVU, EVU, VDE, DIN, DVGW resp. ÖVGW or SVGW) and the system's technical specifications.

The installation site must be accessible for maintenance work, flood and frost-proof and ensure the system's protection from chemicals, dyes, solvents and vapours. The system must not be operated in a dusty environment or if acids resp. corrosive or potentially explosive gases are present.

The installation site should be cool, if possible. In a warm environment, large differences in the temperature of the incoming cold drinking water and the environment may, subject to the humidity of the air, cause the formation of condensed water and dripping from the surfaces of the system components.

The system should be installed in pipes of the same dimensions as the nominal diameters of the system. A fine filter has to be installed directly upstream of the device and shut-off valves have to be provided in the on-site installation in the inlet and outlet from the device.

A socket and if needed, a second socket for the optional flushing device is required to supply of the Euro-system separation device GENO®-G5 with power (e. g. if the pump's fault signal output is being analysed in case of a power failure).

A drain connection (at least DN 50) must be available, which is able to discharge the maximum inlet volume in case of a malfunction. The installation room must have a floor drain. If no floor drain is available, a corresponding water stop device has to be installed.

Technical specifications		Euro-system separation device GENO®-G5	
Connection data			
Nominal connection diameter	[DN]	20 (R ¾" fem. thread)	
Waste water outlet - HT pipe	[DN]	50	
Power supply		230 V / 50 Hz / 1.1 kW	
Protection		IP 55	
Performance data			
Nominal inlet pressure (PN)	[bar]	10	
Inlet flow pressure	[bar]	1 - 6	
Design of the safety device		Free outlet, DIN EN 13077, Family A, Type B, DN 20	
Protection acc. to DIN EN 1717, DIN 1988 part 4		Liquid category resp. hazard class 5	
Setting pressure of pressure booster pump	[bar]	4	
Nominal capacity	[m³/h]	2	
Consumption data of the optional flushing device			
Flushing water volume	[l/min]	14	
Adjustable flushing duration	[sec]	1 - 100	
Dimensions and weights			
Dimensions (w x d x h)	[mm]	800 x 399 x 889 (885-900) ¹⁾	
Height of water inlet	[mm]	689	
Height water outlet to consumer	[mm]	482	
Height of waste water outlet	[mm]	160	
Waste water outlet - direction of connection		left (can either be turned to the right, to the back or to the front)	
Min. clearance on the left side of the device	[mm]	200 ²⁾	
Clearance above device (for maintenance purposes)	[mm]	500	
Operating weight, approx.	[kg]	78	
Empty weight	[kg]	46	
Shipping weight	[kg]	54	
Test certificate/Certification mark			
DVGW registration number		AS-0398BS0294	
Ambient data			
Water temperature	[°C]	5 - 35	
Ambient temperature	[°C]	5 - 40	
Order no.		134100	

¹⁾ The rubber feet are adjustable in order to compensate for uneven floors.

²⁾ A clearance of at least 200 mm needs to be respected for the flexible connection of the inlet and outlet and to ensure the proper cooling of the pump.

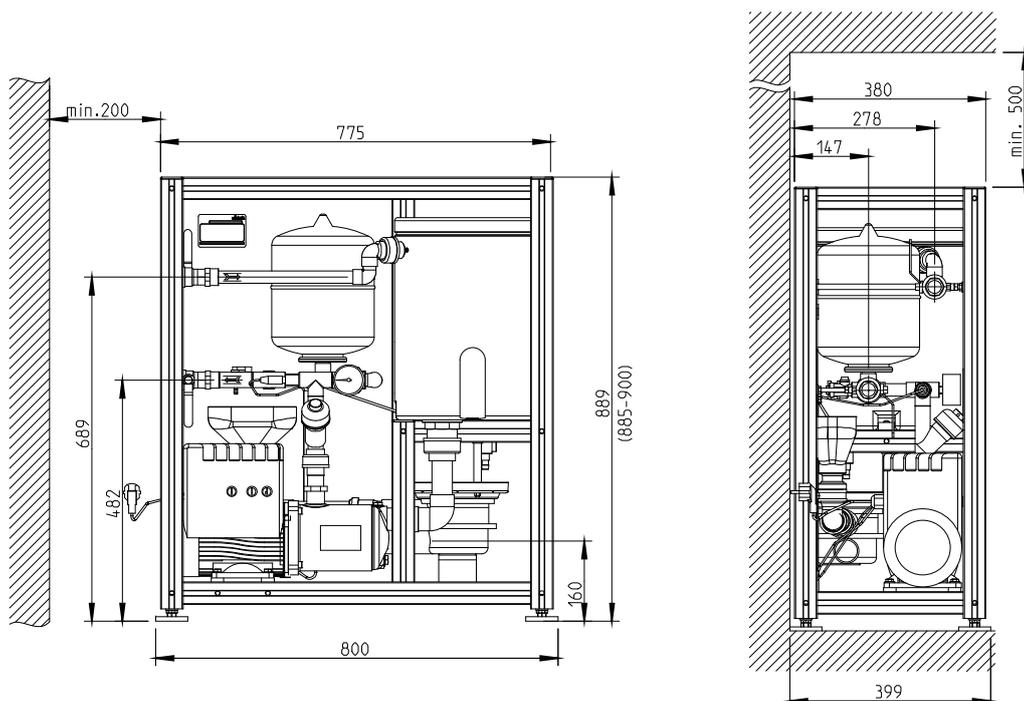


Fig. 2: Dimensional drawing