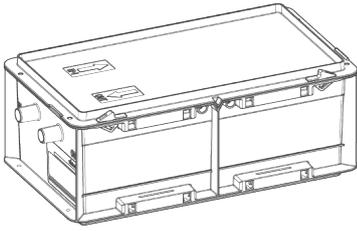
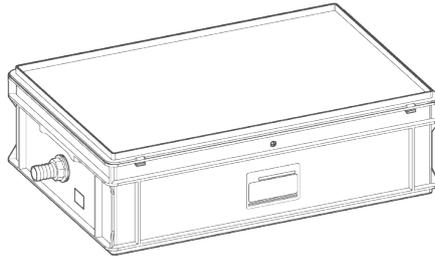


N-14/N-70



N-210



Neutralisation system GENO-Neutra N-14/N-70/N-210

Intended use

The neutralisation system GENO-Neutra N is suitable for the neutralisation (increase of the pH-value to > 6.5) of gas condensate originating from gas-fired heat generators (gas condensing boilers) and/or exhaust systems made of stainless steel, plastic, glass, graphite and ceramics according to work sheets DWA-A 251:2011 and DVGW VP 114 up to the specified capacity.

Possible applications

The neutralisation system GENO-Neutra N can be used for the neutralisation of condensate containing iron, manganese, aluminium and zinc particles. It is possible that the neutralisation granulate might clog and considerably impair the function of the neutralisation system. Suitability must be checked by own tests, if necessary, and regular cleaning of the neutralisation system with replacement of the granulate must be provided for.

In case of condensate containing a lot of dirt, we recommend installing an activated carbon filter upstream. This increases the service life of the filter material of the neutralisation system.

The neutralisation system can be equipped with an optional overflow warning switch (refer to Accessories). In the event of a malfunction, this alarm device must visibly indicate the alarm and, if necessary by switching off the heat generator, prevent the system from overflowing and causing consequential damage.

Function

The condensate flows unpressurised into the settling area of the neutralisation system.

The condensate is then distributed via the integrated dividers and flows through the neutralisation granulate.

The neutralisation granulate is thus solubilised and the condensate is neutralised.

Afterwards, the condensate flows to the drain.

In case of GENO-Neutra N-14/N-70, an overflow orifice allows the condensate to escape at a defined point if the condensate discharge is obstructed.

The amount of neutralisation granulate included in the scope of supply corresponds to the initial filling required for 12 months at maximum capacity (refer to Technical specifications).

The pH value of the discharged condensate can be checked by means of pH indicator strips.

Neutralisation granulate should be refilled before the pH value falls below 6.5.

Design

- Box with removable lid
- Settling area (in the inlet) for impurities
- Filling area with granulate filling
 - In case of N-210, the granulate filling can be adapted as needed to the boiler capacity

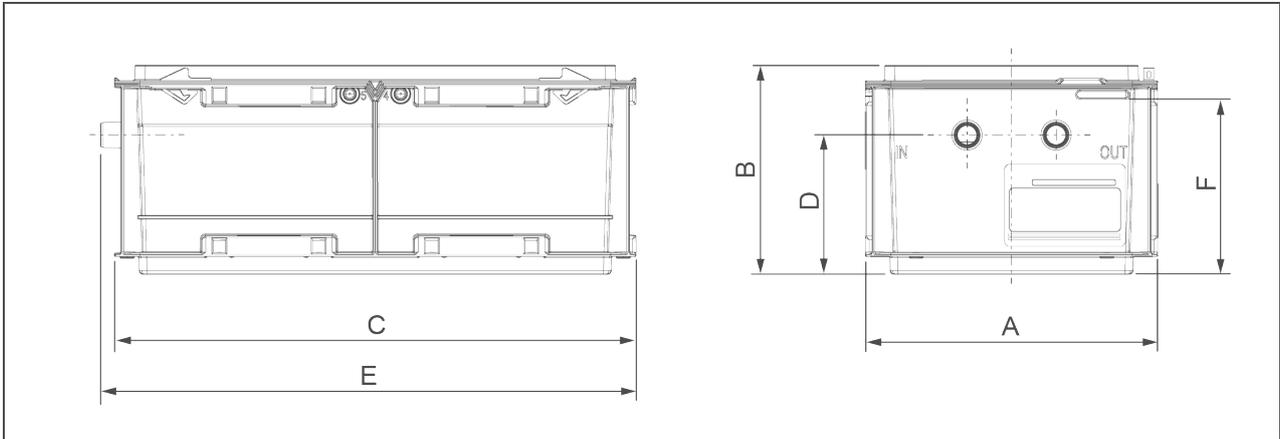
- In case of N-14, N-70 with overflow orifice above the outlet piece
- Condensate collection area (in the outlet)
- Hose connections with hose clamps for inlet and outlet (DN 20 for N-14, N-70 and DN 25 for N-210)

Scope of supply

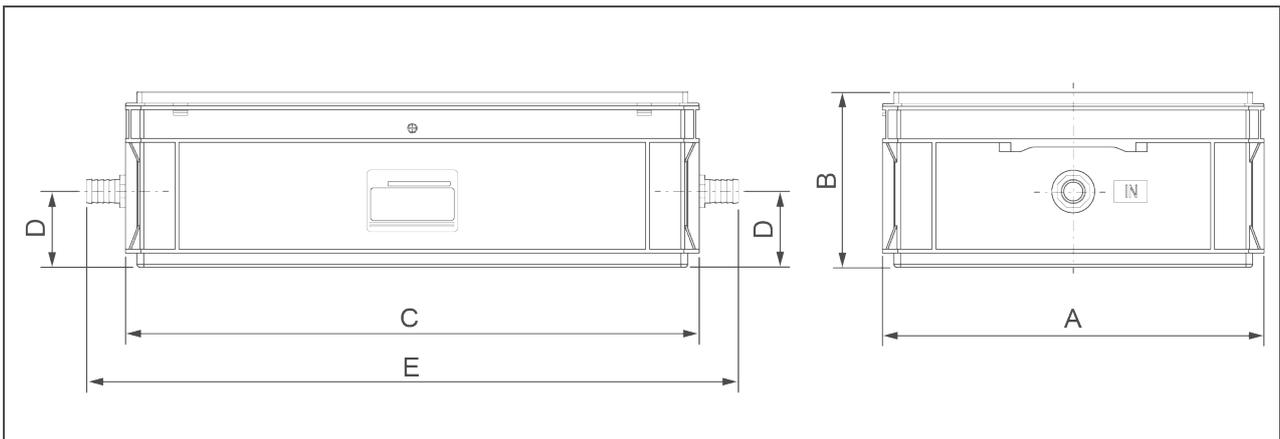
- Neutralisation system GENO-Neutra N as compact system (partially assembled)
- Hose, 5 m in length (DN 20 for N-14 and N-70)
- Hose, 5 m in length (DN 25 for N-210)
- 2 Plug-in plates (for N-210 only)
- Inlet hose connection DN 20 with union nut and seal (for N-210 only)
- 3 Hose clamps (20–32)
- 1 Pack of pH indicator strips
- Neutralisation granulate GENO-Neutralit Hz
 - 3 kg for N-14
 - 8 kg for N-70
 - 24 kg for N-210
- Operation manual

Technical specifications I

GENO-Neutra N-14/N-70



GENO-Neutra N-210

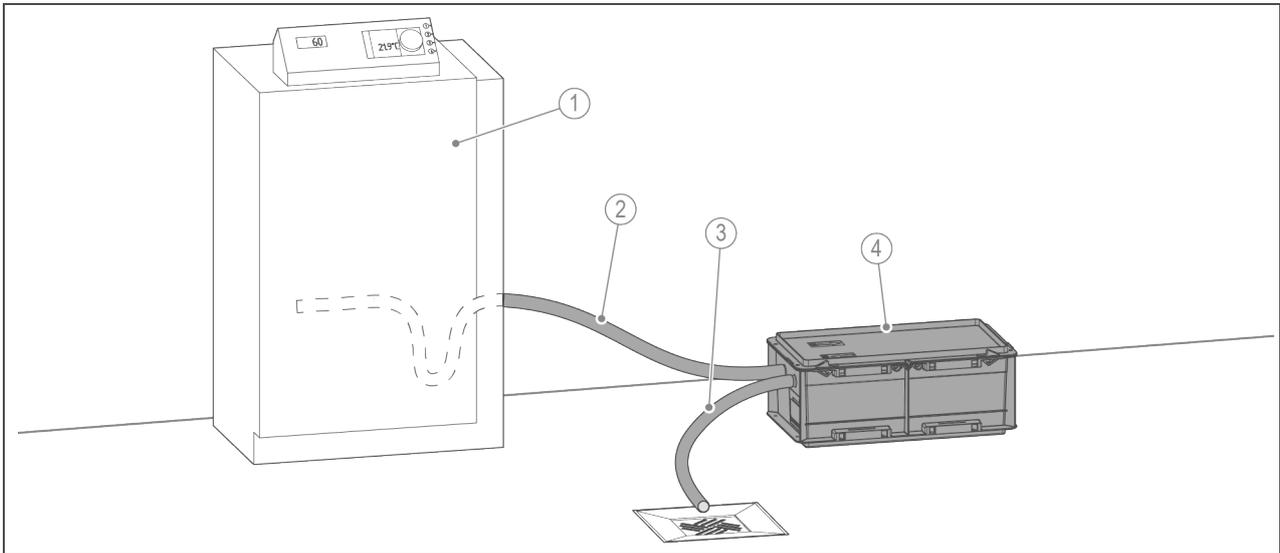


Dimensions and weights		N-14	N-70	N-210
A	Width	mm	230	400
B	Height	mm	165	185
C	Length	mm	410	600
D	Connection height of inlet and outlet	mm	110	80
E	Total length with connections	mm	421	680
F	Height Overflow/lower edge	mm	140	–
Operating weight		kg	~ 12	~ 15
Empty weight		kg	~ 7	~ 12
				~ 45
				~ 33

Technical specifications II

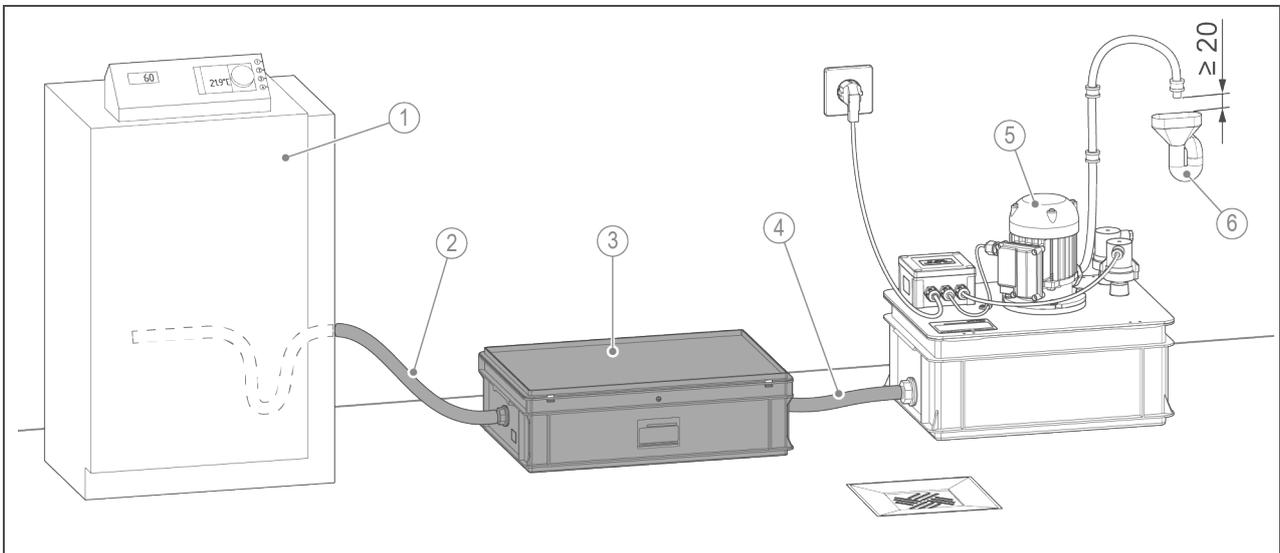
Connection data		N-14	N-70	N-210
Nominal connection diameter of inlet and outlet		DN 20		DN 25
Drain connection		≥ DN 40		
Performance data		N-14	N-70	N-210
Fuel/process (generation of condensate)		gas/condensing technology		
Neutralisation capacity	l/h	≤ 14	≤ 70	≤ 210
at 0.14 l/kWh, this corresponds to a boiler capacity of		kW	≤ 100	≤ 500
			≤ 1500	
Filling volumes and consumption data		N-14	N-70	N-210
Neutralisation granulate GENO-Neutralit Hz	kg	3.0	8.0	24.0
Service life in case of standard condensate as per DVGW VP 114, pH 3		12 months		
Neutralisable condensate volume	m ³	16	63	190
This corresponds to hours of full use of the boiler		bVH	1100	900
			900	
Service life in case of standard condensate, but at least pH 3.2		12 months		
Neutralisable condensate volume	m ³	25	105	315
This corresponds to hours of full of the boiler		bVH	1800	1500
			1500	
General data		N-14	N-70	N-210
Condensate temperature	°C	5 – 60		
Ambient temperature	°C	5 – 40		
DVGW registration number		DG-4586CM0231		
Order no.		410 440	410 450	410 320

Installation example I



Item	Designation	Item	Designation
1	Heat generator	2	Inlet hose
3	Outlet hose	4	Neutralisation system GENO-Neutra N-14/N-70

Installation example II



Item	Designation	Item	Designation
1	Heat generator	2	Inlet hose
3	Neutralisation system GENO-Neutra N-210	4	Connecting hose
5	Waste water lifting system AH-300	6	Drain connection

Requirements for the installation site

Obey the local installation directives, general guidelines and technical specifications.

- Protection from frost, severe heat exposure and direct sunlight
- Protection from high radiation temperatures in the immediate vicinity (≤ 40 °C)
- Protection from chemicals, dyes, solvents and their vapours
- Access for maintenance work (take note of space required)
- Sufficiently illuminated as well as aerated and ventilated
- Horizontal installation surface with sufficient load-bearing capacity to support the operating weight of the product

Water installation

- Inlet hose with downward slope and siphon in heat generator
 - Alternatively with backwater loop
- Outlet hose with a downward slope to the floor drain
- Floor drain or an alarm device which, in the event of a malfunction, visibly indicates the alarm and switches off the heat generator, if necessary
- Waste water lifting system in case the drain connection is located at a higher level
- Drain connection \geq DN 40 with possibility of backflow-free discharge of the condensate

Accessories

Waste water lifting system AH-300 Order no. 420 150

Lifting system for condensates originating from neutralisation systems of gas- or oil-fired condensing boilers as well as non-neutralised gas condensates $>$ pH 3, clear water or slightly polluted industrial water

Overflow warning switch for GENO-Neutra Order no. 410 680

Level switch with voltage-free changeover contact for generating a fault signal, for installation in the lid of the box

GENO-alarm delay relay Order no. 410 285

To execute a delayed shutdown of the boiler after an alarm signal has been triggered. With voltage-free fault signal output as normally open contact or changeover contact.

The alarm delay can only be used in combination with the overflow warning switch.

Hose DN 20 (5 m) Order no. 410 764e

For covering distances of up to 5 m on the inlet and outlet side

Hose DN 25 (5 m) Order no. 410 774e

For covering distances of up to 5 m on the inlet and outlet side

Consumables

pH indicator strips Order no. 170 173

3 pieces to determine pH 4.5 - 10.0

GENO-Neutralit Hz (8 kg) Order no. 410 011

Refill pack for neutralisation

Maintenance kit for GENO-Neutra N-14 Order no. 410 801

Maintenance kit for GENO-Neutra N-70 Order no. 410 802

Maintenance kit for GENO-Neutra N-210 Order no. 410 803

Contact

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