

## Neutralisation system GENO-Neutra KW35/KW65

### Intended use

The neutralisation system GENO-Neutra KW 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 KW 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.

### 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.

Via the condensate collection area, the condensate then flows to the drain.

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.

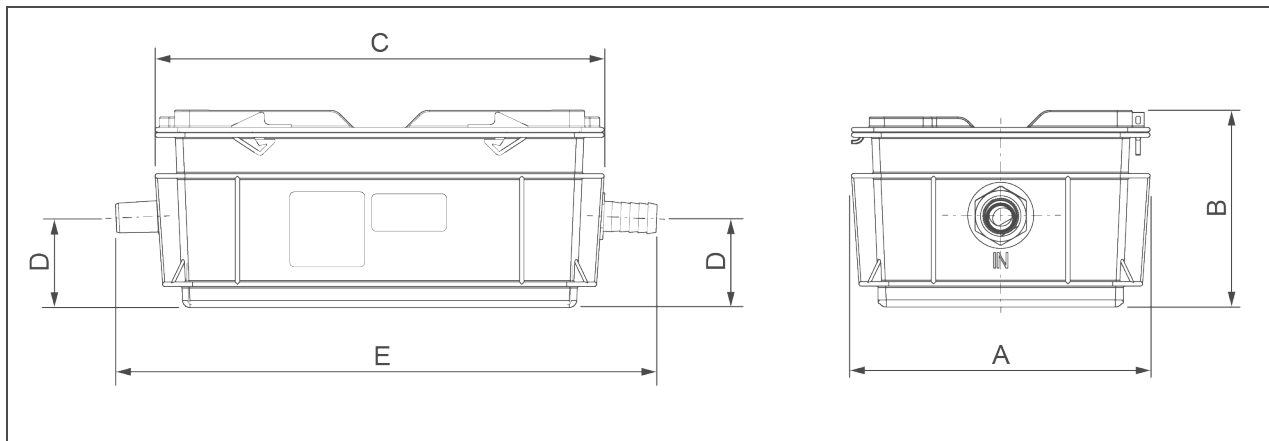
### Design

- Box with removable lid
- Settling area (in the inlet) for impurities
- Filling area with granulate filling
- Condensate collection area (in the outlet)
- Hose connections with hose clamps for inlet and outlet (DN 20)

### Scope of supply

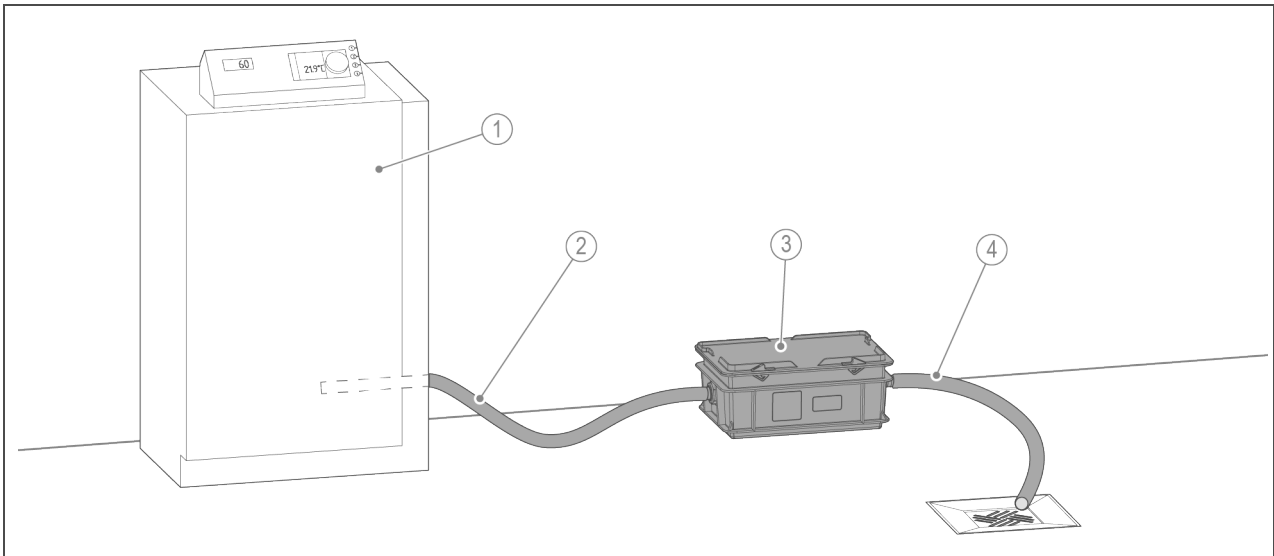
- Neutralisation system GENO-Neutra KW as compact system (partially assembled)
- 2 Dividers
- 2 Corrugated hoses of approx. 2 m in length (DN 20)
- 3 Hose clamps (20–32)
- Angle-type inlet connection DN 20 with locknut and seal
- Outlet hose connection DN 20 with locknut and seal
- 1 Pack of pH indicator strips
- Neutralisation granulate GENO-Neutralit Hz
  - 2.5 kg for KW35
  - 3.3 kg for KW65
- Operation manual

## Technical specifications I



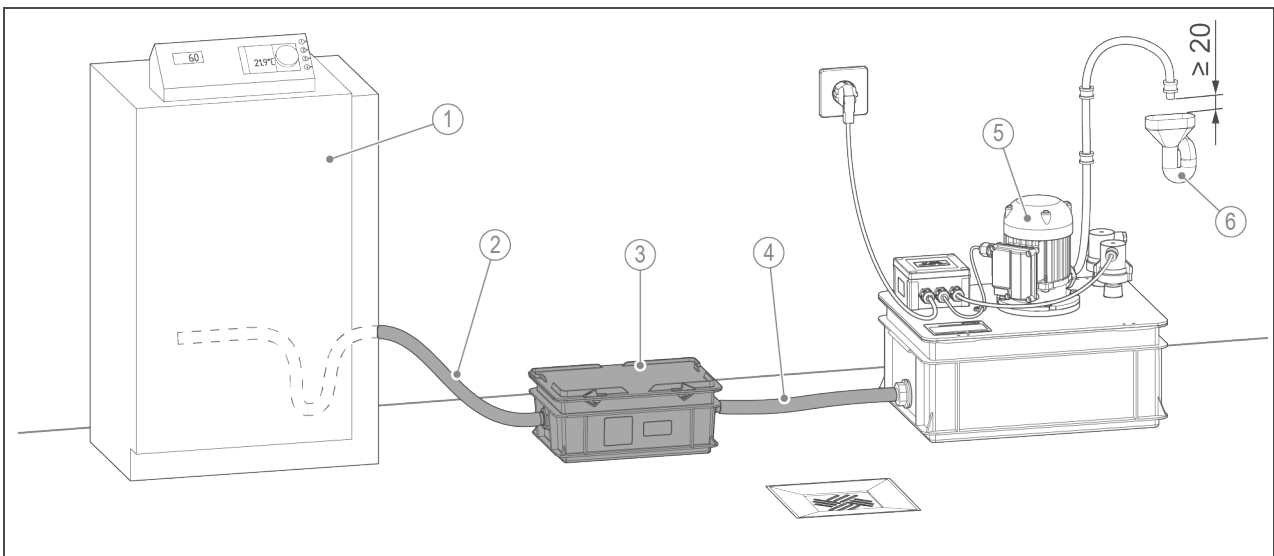
Dimensions and weights		KW35	KW65
A	Width	mm	200
B	Height	mm	131
C	Length	mm	300
D	Connection height of inlet and outlet	mm	61
E	Total length with connections	mm	361
Operating weight		kg	~ 6.2
Empty weight		kg	~ 5.0
<b>Connection data</b>		<b>KW35</b>	<b>KW65</b>
Nominal connection diameter of inlet and outlet		DN 20	
Drain connection		≥ DN 40	
<b>Performance data</b>		<b>KW35</b>	<b>KW65</b>
Fuel/process (generation of condensate)		gas/condensing technology	
Neutralisation capacity	l/h	≤ 4.9	≤ 9.1
at 0.14 l/kWh, this corresponds to a boiler capacity of	kW	≤ 35	≤ 65
<b>Filling volumes and consumption data</b>		<b>KW35</b>	<b>KW65</b>
Neutralisation granulate GENO-Neutralit Hz	kg	2.5	3.3
Service life in case of standard condensate as per DVGW VP 114, pH 3		12 months	
Neutralisable condensate volume	m <sup>3</sup>	10.3	13.7
This corresponds to hours of full use of the boiler	bVH	2100	1500
Service life in case of standard condensate, but at least pH 3.2		12 months	
Neutralisable condensate volume	m <sup>3</sup>	16.7	21.9
This corresponds to hours of full use of the boiler	bVH	3400	2400
<b>General data</b>		<b>KW35</b>	<b>KW65</b>
Condensate temperature	°C	5 – 60	
Ambient temperature	°C	5 – 40	
DVGW registration number		DG-4586CT0346	
<b>Order no.</b>		<b>410 335</b>	<b>410 345</b>

### Installation example I



Item	Designation	Item	Designation
1	Heat generator	2	Inlet hose (with backwater loop)
3	Neutralisation system GENO-Neutra KW35/KW65	4	Outlet hose

### Installation example II



Item	Designation	Item	Designation
1	Heat generator	2	Inlet hose
3	Neutralisation system GENO-Neutra KW35/KW65	4	Connecting hose
5	Waste water lifting system AH-300	6	Drain connection

## Product Data Sheet

Neutralisation system GENO-Neutra  
KW35/KW65

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### 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 ( $\leq 40\text{ °C}$ )
- 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

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

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 KW35 Order no. 410 810

1 Bag of GENO-Neutralit Hz, 2.5 kg

#### Maintenance kit for GENO-Neutra KW65 Order no. 410 830

1 Bag of GENO-Neutralit Hz, 3.3 kg

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### Contact

Grünbeck Wasseraufbereitung GmbH  
Josef-Grünbeck-Str. 1  
89420 Hoechstädt  
GERMANY

☎ +49 9074 41-0

☎ +49 9074 41-100

✉ info@gruenbeck.com  
www.gruenbeck.com

