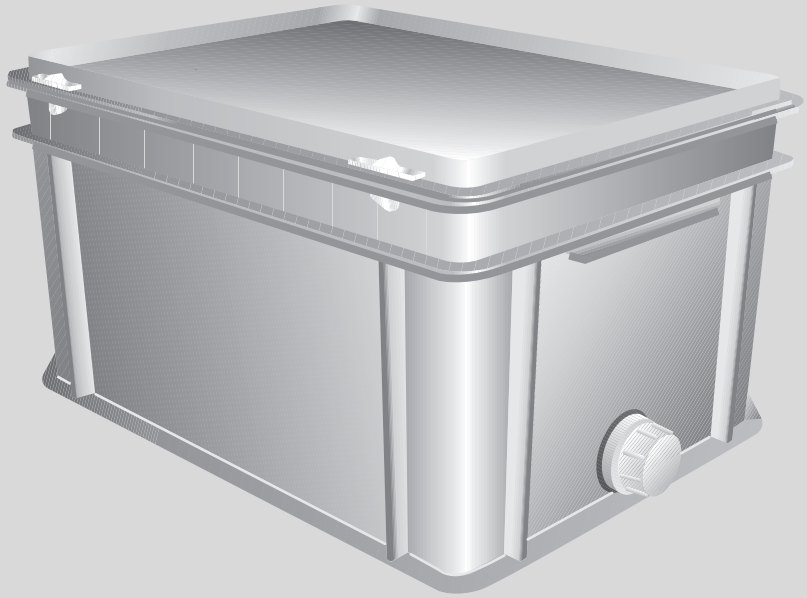
Installation and maintenance instructions for specialists

NE0.1 V3

Neutralization system



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Contents

1 Explanation of symbols and safety information

1.1 Explanation of symbols

Warnings

In warnings, signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimizing danger are not taken.

The following keywords are defined and can be used in this document:

DANGER

DANGER indicates that severe or life-threatening personal injury will occur.

WARNING

WARNING indicates that severe to life-threatening personal injury may occur.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor to moderate injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

Important Information

The info symbol indicates important information where there is no risk to people or property.

Additional symbols

Symbol	Explanation
▶	Sequence of steps
→	Cross-reference to another part of the document
•	Listing/list entry
–	Listing/list entry (2nd level)

Table 1

1.2 Safety instructions

⚠ Information for the target group

These installation instructions are intended for specialists in gas and water installations, heating and electrical engineering. The instructions in all manuals must be observed. Failure to observe these instructions may result in property damage, personal injury or even death.

- ▶ Read the installation, service and commissioning instructions (heat generators, heating controllers, pumps, etc.) before installation.
- ▶ Observe the safety and warning instructions.
- ▶ Observe national and regional regulations, technical rules and guidelines.
- ▶ Document the work performed.

⚠ Failure to observe the safety instructions can result in serious personal injury – including death – as well as damage to property and the environment.

- ▶ Make sure that the acceptance of the system is performed by the licensing authority.

- ▶ Perform cleaning and maintenance at least once a year. Check the entire system for proper functioning. Immediately correct any defects found.
- ▶ Inform the system operator in writing about the defect and the danger
- ▶ Read the safety instructions carefully before commissioning the system.
- ▶ Observe the installation and maintenance instructions for the condensing boiler.
- ▶ Observe the safety instructions of the neutralizing agent manufacturer.

⚠ Danger due to non-observance of own safety in emergencies, e.g. in the event of a fire

- ▶ Never put yourself in mortal danger. Your own safety always comes first.

⚠ Damage due to operating errors

Operating errors can lead to personal injury and/or damage to property.

- ▶ Make sure that only persons who are able to operate the device properly have access to it.
- ▶ Installation and commissioning as well as maintenance and servicing may only be performed by an authorized specialist company.

⚠ Setup

- ▶ The device may only be set up by an authorized specialist company.

⚠ Danger to life due to poisoning with exhaust gases

There is a danger to life if exhaust gas escapes.

- ▶ Make sure that exhaust pipes and gaskets are not damaged.

⚠ Inspection and maintenance

- ▶ **Customer recommendation:** Concluding a maintenance and inspection contract with annual inspection and needs-based maintenance with an authorized heating specialist.

⚠ Original spare parts

No liability shall be accepted for damage caused by spare parts not supplied by the manufacturer.

- ▶ Only use original spare parts and original accessories.

⚠ System damage due to frost

- ▶ If there is risk of frost, drain the water from the boiler, the storage tank, the pipes and all water-bearing components of the heating system. There is no risk of frost only when the entire system is dry.

Instructing the customer

- ▶ Instruct the customer on how the device works and how to operate it.
- ▶ Inform the customer that they are not allowed to carry out any modifications or repairs.
- ▶ Advise the customer that children may not be in the vicinity of the heating system without adult supervision.
- ▶ Technical documents provided to the customer.

2 Product Description

2.1 Intended use

The neutralization system is suitable for neutralizing condensate from municipal, natural gas and liquid gas operated boilers.

The neutralization system may only be used to neutralize condensate from gas condensing boilers.

The neutralization system achieves a pH value that allows the condensate to be discharged into the public sewer system.

Neutralization of condensate up to approx. 800 kW nominal power is possible.

For the neutralization system, a floor drain for the neutralized condensate must be provided.

The municipal regulations must be observed for discharging condensate into public sewer systems. If condensate is to be neutralized, the pH value must be brought into a non-hazardous, preferably alkaline, range.

2.2 Scope of delivery

- Neutralization system
- Neutralizing agent: Granulate

3 Technical data

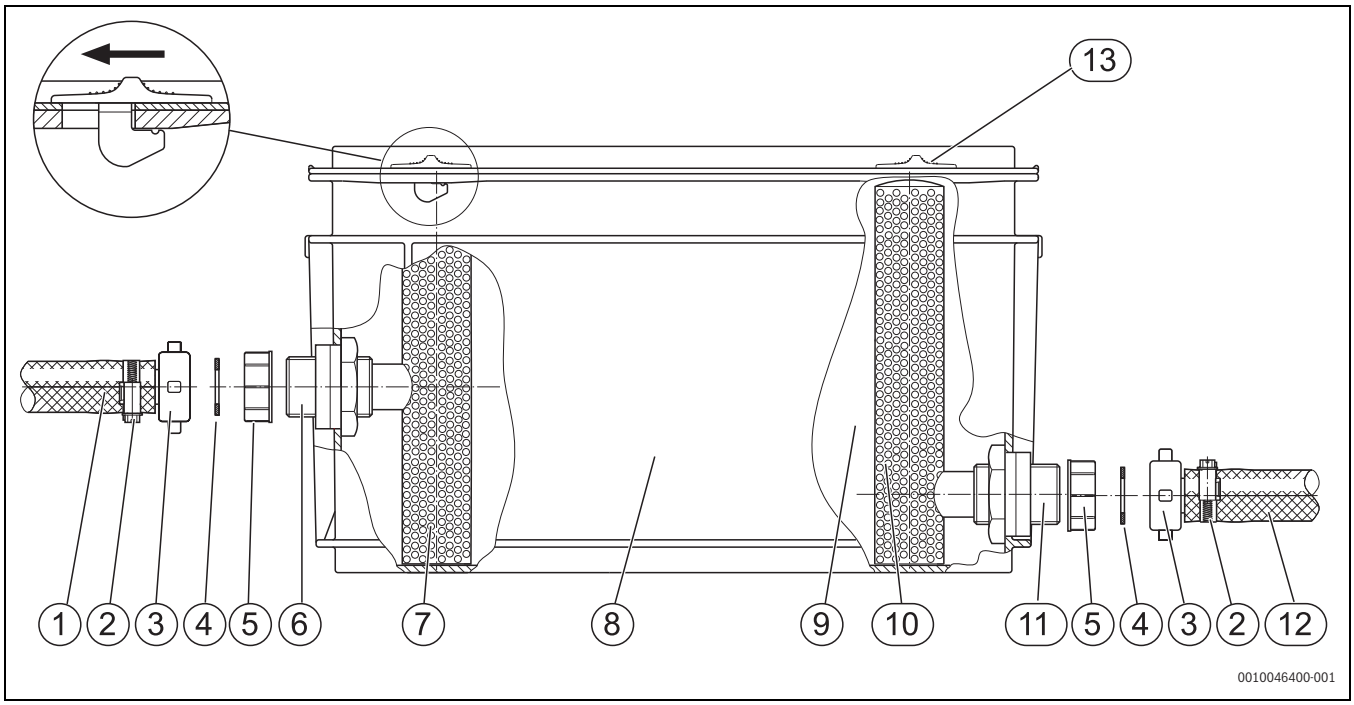

Fig. 1 Design and dimensions

[1] Drain hose, DN 19 × 2.5 m long
[2] Hose clamp, Ø 20 × 32 mm
[3] Straight hose nozzle DN 19 with union nut (G 1)
[4] Flat gasket, Ø 30 × 19 × 2 mm
[5] Protective cap
[6] Drain nozzle (G 1)
[7] Filter tube outlet
[8] Neutralization box with cover
[9] Neutralizing agent 10 kg Gialit-MG grain II
[10] Filter tube inlet
[11] Inlet nozzle (G 1)
[12] Inlet hose, DN 19 × 1.0 m long
[13] Locking slider for housing cover

	Unit	
Dimensions (L × B × H)	mm	400 × 300 × 220
Empty weight	kg	15

Table 2 Technical data

No electrical connection is required for the neutralization system.

4 Installation

CAUTION

Damage to the neutralization system due to improper use!

- ▶ Do not stand on the housing.
- ▶ Do not put any load on the hoses to avoid tearing out the connection threads.

CAUTION

System damage due to corrosion!

- ▶ Condensate-carrying on-site lines and connecting pieces must be made of plastic or stainless steel (e.g. from the exhaust gas line to the boiler or to the neutralization system).

4.1 Setting up neutralization system

Position the neutralization system so that no air bubbles remain in the inlet and drain hoses and no condensation back-up occurs in the gas condensing boiler.

- ▶ Set up the neutralization system horizontally in the vicinity of the boiler.

The condensate outlet on the boiler [A] must be larger than 110 mm.

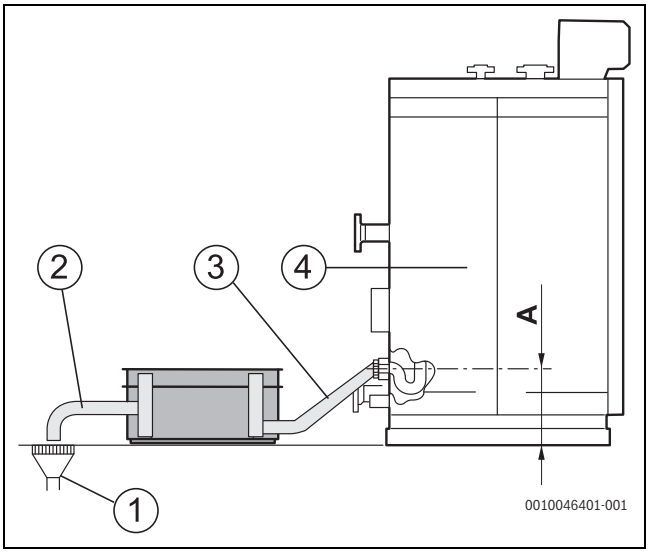

Fig. 2 Setting up neutralization system

[1] Floor drain
[2] Drain hose
[3] Inlet hose
[4] Gas condensing boiler

A Condensate outlet, maximum height 110 mm

4.2 Assembling neutralization system

- ▶ Remove the container cover from the neutralization box.
- ▶ Unscrew the yellow protective caps from the nozzles.
- ▶ Shorten the inlet hose to the desired length and insert the hose nozzle with union nut.
- ▶ Screw the inlet hose with inserted seal to the inlet nozzle.
- ▶ Connect the other end of the inlet hose to the condensate drain of the boiler.

Observe the installation and maintenance instructions of the corresponding gas condensing boiler.

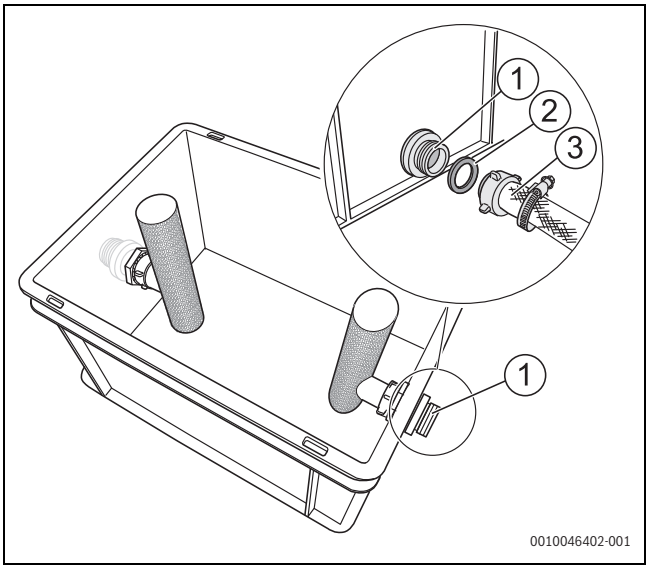

Fig. 3 Fitting hoses

[1] Inlet nozzle
[2] Flat gasket
[3] Hose nozzle DN 19 with union nut G 1

- ▶ Shorten the pre-assembled drain hose to the desired length and screw it in place.
- ▶ Secure both hoses with hose clamps.

The end of the drain hose must be clearly visible in order to be able to check the function of the neutralization system at any time.

5 Start-up procedure

WARNING

Danger to life due to exhaust gas leakage!

If the neutralization system is not filled, exhaust gas may escape from the boiler siphon.

- ▶ To prevent exhaust gas leakage: Before commissioning, pour approx. 10 liters of water into the inspection opening of the exhaust gas collector.

5.1 Fill in neutralizing agent

CAUTION

Risk of injury due to contact with the neutralizing agent!

- ▶ Observe the safety instructions of the neutralizing agent manufacturer.
- ▶ Pour in the neutralizing agent carefully to avoid dust formation.
- ▶ In case of contact with eyes: Rinse eyes immediately with water.

- ▶ Carefully pour the neutralizing agent into the neutralization box.
- ▶ Cover the filter tubes evenly with neutralizing agent.

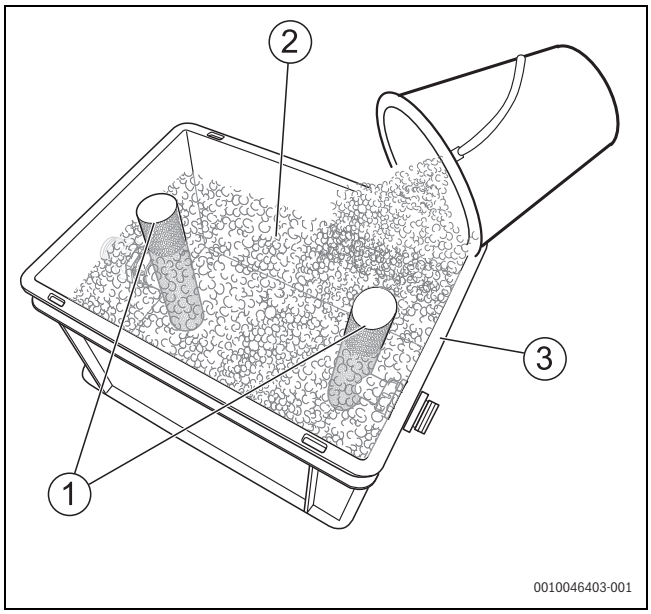

Fig. 4 Fill in neutralizing agent

[1] Filter tubes
[2] Neutralizing agent
[3] Neutralization box

- ▶ Replace the container cover.
- ▶ Pour approx. 10 liters of water into the inspection opening of the exhaust gas collector. The neutralization system is filled and exhaust gas leakage from the boiler siphon is prevented. The inspection opening of the exhaust gas collector is located on the rear side of the boiler.

Observe the installation and maintenance instructions of the corresponding gas condensing boiler.

6 Inspection and maintenance

CAUTION

Risk of injury due to contact with the neutralizing agent!

- ▶ Observe the safety instructions of the neutralizing agent manufacturer.
- ▶ Pour in the neutralizing agent carefully to avoid dust formation.
- ▶ In case of contact with eyes: Rinse eyes immediately with water.

6.1 Performing inspection

The neutralization system must be inspected at least once a year and maintained as required.

As the amount of condensed water may vary after the first commissioning of the heating system, the neutralization system must be checked at least once a year.

- ▶ Check the pH value. To do this, wet the pH indicator strips with condensate draining from the drain hose.
  - – If the pH value is below 6.5: Perform maintenance and completely replenish the granulate.
- ▶ Check whether sufficient neutralizing agent has been filled in.
- ▶ Check the granulate.
  - – If the granulate is dirty or lumpy: Perform maintenance and completely replenish the granulate.
  - – If there is not enough granulate: Refill granulate.
- ▶ Check the neutralization box for leaks.

6.2 Performing maintenance

As-needed maintenance includes cleaning the container and replenishing the granulate.

The neutralizing agent is ecologically safe. Unused material as well as residues can be disposed of with household waste without further requirements.

- ▶ Disconnect the heating system from the power supply.
- ▶ Remove the housing cover of the neutralization system.
- ▶ Remove the neutralizing agent from the tray with a shovel or the like and dispose of it in the household waste.
- ▶ Remove the inlet and drain hoses from the container.
- ▶ Clean the neutralization box (rinse with tap water).
- ▶ Screw the inlet and drain hoses to the container.
- ▶ Refill the neutralization system according to chapter 5.1 "Fill in neutralizing agent".

7 Environmental protection and disposal

Environmental protection is one of the fundamental company policies of the Bosch Group.
Quality of products, efficiency and environmental protection are equally important objectives for us. Environmental protection laws and regulations are strictly adhered to.
To protect the environment, we use the best possible technology and materials taking into account economic points of view.

Packaging method

For the packaging, we participate in the country-specific recycling systems, which guarantee optimal recycling.
All packaging materials used are environmentally-friendly and recyclable.

Old appliances

Old appliances contain valuable materials that can be recycled.
The components are easy to separate. Plastics are identified. This allows the various assemblies to be sorted and recycled or disposed of.

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