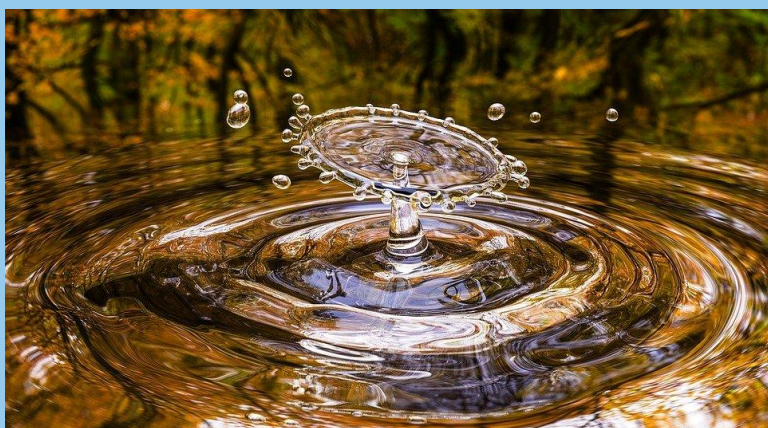


# neutrakon<sup>®</sup>

Corporate Brochure

Neutralization systems for the heating industry

sustainable



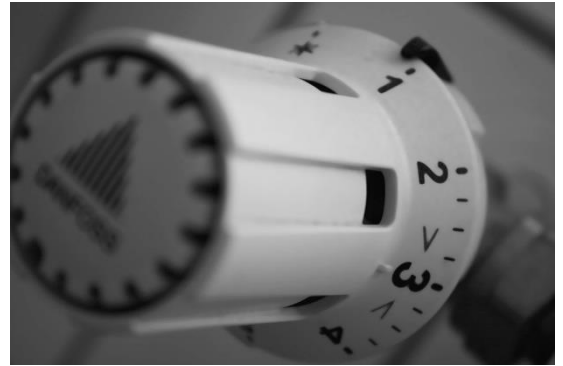
water

innovative



## Why the need for a neutralization system?

Condensing boilers cool the flue gas to utilize the condensation heat from water vapor present in the gas for additional heat generation. However, the presence of sulfur and other acidic components in the flue gas results in the formation of acidic condensate during this process.



When using a condensing boiler, acidic condensate is produced and needs to be disposed of. The presence of these acids poses a significant risk of unforeseeable damage to both private and public sewage pipes, resulting in costly repairs. Leaky sewage pipes can lead to the contamination of groundwater by mixing with wastewater.

For more than 35 years, Mommertz GmbH has been providing solutions for neutralizing acidic condensates. As a leading manufacturer in the industry, our Neutrakon neutralization systems are used globally. Our neutralization systems are characterized by their durability, high quality, and innovative design. As experts in exhaust gas neutralization, we offer our customers expert advice and find tailored solutions for their specific needs.

Source: Gutachten Nr. 21.0656.5.92  
des Materialprüfungsamtes  
Nordrhein-Westfalen vom 17.01.1995



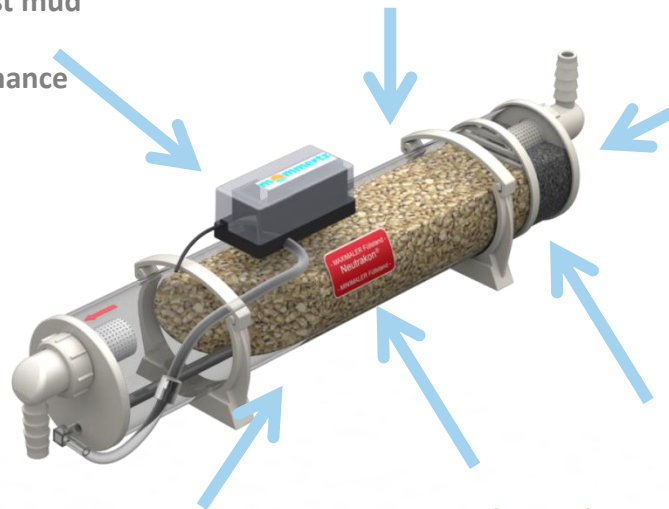
**Serious:** This pipe corrosion was caused by the discharge of synthetically produced condensates with pH 3 after 540 days of testing.

## Product characteristics

**Innovative booster technology**  
Protection against mud accumulation  
Reduced maintenance

**Closed System**  
Flooding not possible

**Wall and floor fixtures:**  
easy installation



**Crystal clear casing:**  
Functional control is always possible,  
easy detection of maintenance necessity

**Activated carbon pre-filter:**  
Protection of granules when using oil-fired condensing boilers

**Neutralising granules:**  
Granules specifically developed for Neutrakon®

**Unique on the market**  
Certified function of 1 year or 2000h by DVGW

**Protect your pipes and help protect the environment!**

## Why is Booster Technology necessary?

By using swirling inlet air, the sediments on the granules can be reduced, and the neutralization performance is improved. The lower the pH value of the condensate, the more metal ions are released from the heating system's metal compound. While these ions are not visible in the condensate, they will drop out and adhere to the granules as the pH value increases.

Ferrous materials, cast or stainless steel can cause reddish-brown sediments, while aluminum in the boiler can cause white-greyish sediments on the granules. Over time, these sediments can clog the interspaces and impede the flow of condensate through the granules. As a result, the condensate may run above the granules, particularly at the edges of the neutralization area, and no neutralization will occur.

Booster Technology addresses these issues and ensures efficient condensate flow through the granules by preventing sediment build-up.



Neutralization system Neutrakon for acidic condensates from gas condensing boilers

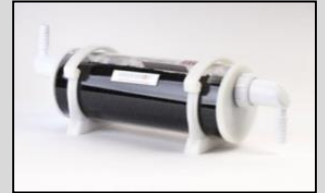
GAS



Product: Neutrakon® 01/25  
Performance: up to 35 kW  
Granules: 2,6 kg  
Dimension: 250 mm x120 mm



Product: Neutrakon® 02/50  
Performance: up to 65 kW  
Granules: 3,5 kg  
Dimension: 330 mm x120 mm



Product: Neutrakon® 03/150  
Performance: up to 150 kW  
Granules: 7,5 kg  
Dimension: 660 mm x120 mm



Product: Neutrakon® 04/300  
Performance: up to 300 kW  
Granules: 10,5 kg  
Dimension: 1000mm x120 mm



In combination with activated coal pre-filter suitable for oil condensing boilers.

Neutralization system Neutrakon for acidic condensates from oil condensing boilers

OEL



Product: Neutrakon® 05BGN  
Performance: up to 70 kW Alu, 150 kW stainless steel  
Granules: 4,5 kg  
Dimension: 520 mm x120 mm



Product: Neutrakon® 05/PG  
Performance: up to 55 kW  
Granules: 4,5 kg  
Dimension: 520 mm x120 mm

Neutralization system Neutrakon for acidic condensates from gas condensing boilers

Premium Line – specifically for aluminium heat exchangers

GAS



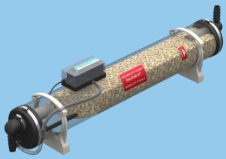
Product: Neutrakon® N35  
Performance: up to 35 kW  
Granules: 4,1 kg  
Dimension: 430 mm x120 mm



Product: Neutrakon® 55  
Performance: up to 55 kW  
Granules: 8,1 kg  
Dimension: 510 mm x120 mm



Product: Neutrakon® N650B  
Performance: up to 650 kW  
Granules: 18 kg  
Dimension: 1000 mm x150 mm



Product: Neutrakon® 170B  
Performance: up to 170 kW  
Granules: 7,4 kg  
Dimension: 660 mm x120 mm



Product: Neutrakon® N300B  
Performance: up to 300 kW  
Granules: 10,8 kg  
Dimension: 1000mm x120 mm



Product: Neutrakon® N1000B  
Performance: up to 1000 kW  
Granules: 20 kg  
Dimension: 1000 mm x150 mm

Maintenance lid - maintenance made easy!



Easy



Uncomplicated



Done!

Neutralization system Neutrakon Pro for acidic condensates  
For high scale plants

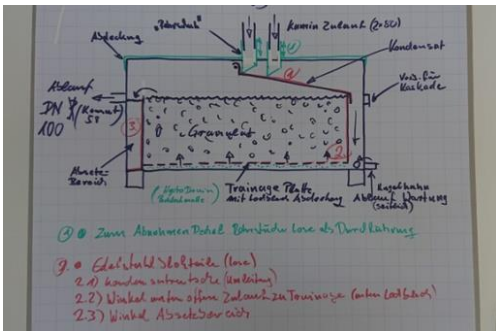


Neutrakon Pro SN90

- Up to 11 MW output
- High temperature resistant stainless steel
- 2 inlets for multientry use
- Easy maintenance granule baskets



Custom made solutions – answering to our clients requirements



Neutrakon Pro HD200

- Up to 25 MW output
- Up to 5000l/h capacity
- Suited for heavy duty use
- Condensate slide for perfect condensate distribution
- maintenance valve



Prototyping



Final product

Neutralization system Neutrakon Pro for acidic condensates for high scale plants



Neutrakon Pro 20

- For high-performance CHPs and systems up to 3 MW
- Incorporated settling tank with activated carbon in front of the neutralization filter for long granule service life and effective neutralization function
- Features an innovative booster pump
- Has a sweeping design with a neutral coloring that can adapt to any professional environment.



Powerful granules type GS and GN with its unique Anti-Algin function

Profit from Neutrakon long year know-how

No clogging of neutralisation unit

Product ergonomics result of long year expertise

neutrakon®

Several lab tests conducted with real operation simulation

## About us

# neutrakon®

neutralisation of acidic condensates

## The Neutralization Specialists

A well-coordinated and motivated team

Develop, produce and distribute more than 100 different Neutrakon variations



Innovative :

- Anti Algin granules
- Invention of booster technology
- PG granules
- GN granules
- Maintenance lid
- Certified
- Own lab with more than 120 tests

High and quality  
100% delivery on time  
0,7% complaint rate



Every year Neutrakon neutralization systems neutralize **7.229.899.560** litres of acidic condensates – protecting sewage pipes and plants from corrosive acids



*Calculation based on units sold last 10 years*

## Fun Fact

Each hour **825.331** litres  
of acidic condensates are neutralized....

...or

**2 swimming pools per hour**

(20 m x 10 m x 2 m)



## Milestones

# neutrakon®

neutralisation of acidic condensates

**2021**

Introduction of Neutrakon Pro for high scale plants

**2017**

Certification of Premium Line (2000 hours)

**2010**

Introduction of the easy maintenance lid

**2007**

Invention of the revolutionary booster technology

**1992**

Move to current company site

**2020**

Distinction as TOP 100 Innovator

**2016**

Market introduction of N1000 (up to 1 MW)

**2010**

Increase of production capacity by new hall

**2006**

Power granules

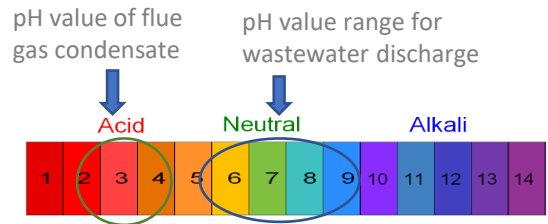
**1986**

Founding of company by Mr. Josef Mommertz





Acid can lead to corrosion on non-acid-resistant materials or fittings – this can then lead to pipe fray and, in the worst case, a burst pipe.



The enormous increase in efficient condensing boiler technology also increases the amount of condensate produced every year. At the same time, domestic water consumption is reduced, so acid flows through the sewers without sufficient wastewater mixing. For this reason alone, neutralization is recommended for environmental reasons alone in order to reduce pollution in the wastewater.



## Neutralisation concerns us all

### Benefits Neutralisation:

- ✓ Environmental protection
- ✓ Protection of water
- ✓ No contamination of ground waters
- ✓ No damage to private/public pipes
- ✓ Preservation of value
- ✓ Compliance with local authorities
- ✓ Safe side in case of doubt
- ✓ By increasing household system efficiency, tendency for reduction regarding mixing with household waters

### Benefits for installers:

- ✓ Service from a single source
- ✓ Comprehensive customer consultation from „A to Z“ regarding all heating issues
- ✓ Additional revenues (Material & Labour) in new heating equipment, but also for yearly maintenance (1x yearly)
- ✓ Additional customer contact (generation of follow-up revenues)
- ✓ Meets the legal requirements (Installer is responsible for the proper application/installing)
- ✓ Easy and flexible installation

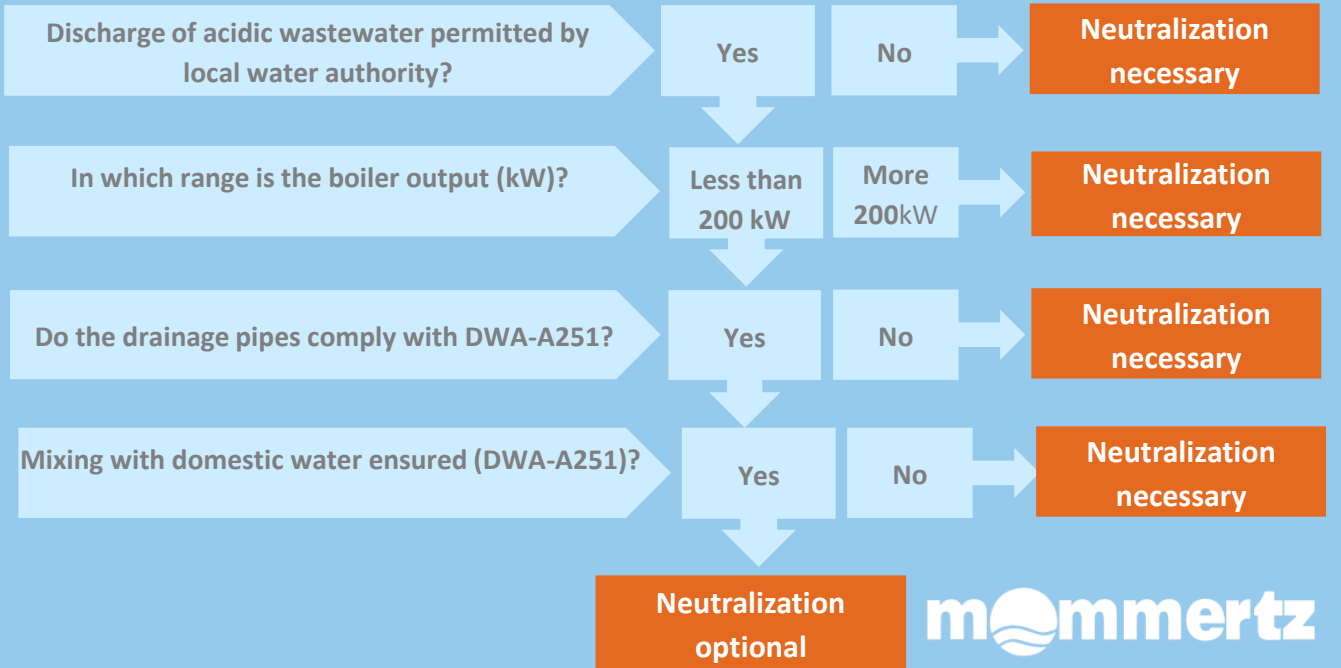
### Benefits for user/customer:

- ✓ Meets the legal requirements
- ✓ Protection of pipes from damages and corrosion
- ✓ Environmental protection
- ✓ Variable mounting possibilities of neutralisation units
- ✓ Easy handling
- ✓ Easy maintenance / visual control

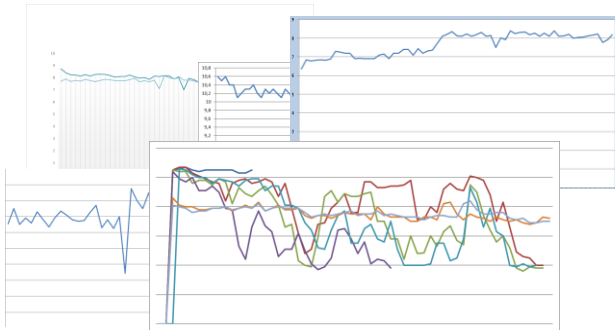
### Did you know , that....

- ... the Berlin underground water system is as long as from Berlin to Beijing?
- ...the Berlin underground water system is 68 years old, on average?
- ...on about 90% of all households there is need for action/ corrective measures?
- ...the german sewage system is 1,1 Million km long?
- ...cement and stoneware are the most used materials?
- ... in big cities with over 250.000 inhabitants more than 40 % of the sewage system is older than 50 years?

## When is a neutralization system required according to German DWA-ATV 251?



Our products –shape, size, form und type of granules used - undergo a full inhouse scrutiny...



...that ultimately leads to getting the certification stamp, issued by the DVGW – German Technical and Scientific Association for Gas and Water, according to the testing norm VP114.



<b>BDH</b> Federation of German Heating Industry	Revenue worldwide <b>21.9 billion €</b> +14.7 %	Products and Systems
Employees worldwide <b>87,000</b> +7.1 %	R&D worldwide <b>854 million €</b> +6.5 %	<ul style="list-style-type: none"> <li>Calc. oil and wood systems</li> <li>Heat pumps</li> <li>Water treatment systems and microfilters</li> <li>Heat distribution and control systems</li> <li>Ventilation systems</li> <li>Air conditioning</li> <li>Heat systems</li> <li>CHP/act cells</li> <li>Storage tanks and tank systems</li> <li>Large boilers and burners up to 10 MW</li> <li>Digital heating</li> </ul>
Members <b>121</b> companies and 2 associations	Market share Germany approx. <b>90 %</b>	
	Market share Europe approx. <b>60 %</b>	

Mommertz GmbH is proud to be a long time member of the German Heating Association (BDH – Bundesverband der deutschen Heizungsindustrie).

**Yesterday, today and tomorrow**

We want to be an active part in creating a better world for us, for our forefathers and for our children.



## References

neutrakon®  
neutralisiert saure Kondensate



-weishaupt-



**BOSCH**



Buderus



brilon



Kreiskliniken  
Günzburg Krumbach

SIEMENS  
energy



## TOP 100 Innovator in 2020



mommertz

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■ ■ ■ Made in Germany



Mitglied der  
**DWA**  
Klare Konzepte. Saubere Umwelt.