



H<sub>2</sub>O Fireplace Inserts | Stove Inserts



# Fire and water...

...elements that have been part of our lives right from the start.

It was fire and water that made life, survival and the development of civilisation possible. At first sight they look like complete opposites, yet harnessed together they are the sensible way of using energy in the most efficient manner. Just as the heat at the earth's core creates hot springs and lakes, so the fire in the stove heats cold water from a storage tank via the heat exchanger incorporated in the fireplace insert. After heating, the hot water is sent back to the storage tank and can be used as a thermal energy source for radiators or underfloor heating, or for baths and showers.

**Intelligent utilisation, a high level of expertise and resolute pursuit of sustainable solutions are the key to developing an energy-efficient, environmentally friendly heating system.**

#### Impressive data:

- 25-80% hot water production
- 78-86% combustion efficiency
- CO<sub>2</sub> neutral

As well as heating the water, the fireplace insert also generates a pleasant radiant heat in the surrounding room, not to mention a cosy atmosphere.

#### Space problems with all that technology? No way!

Our fireplace inserts using H<sub>2</sub>O technology take up no more space in the room where they are installed than a conventional space heating or storage system.

#### Is it a worthwhile investment?

Obviously that depends on a number of factors. But if you have a sufficiently sized storage tank together with all the other main components of a modern central heating system, it is worth comparing it with a "normal" space heating fireplace. Perhaps not if you just consider one year, but certainly over the lifetime of the fireplace unit.

And, of course, the secondary benefits should not be underestimated, including the cosy, cheerful effect of the visible, enclosed and productive fire. What's more, it frees you from having to purchase expensive additional heating fuels.

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[H<sub>2</sub>O]

# Welcome to reality

Imagine your hot water coming from the stove.

Impossible, you may think.  
But SPARTHERM makes it possible.

Because hot water makes up a large part of our daily water consumption, the stove is a very useful resource. Advanced technology turns our boiler fireplace inserts into much more than just an additional energy source.

Everything you normally use hot water for can be done just the same with water-heating stoves. Whether it's a hot bath, a warm shower or perhaps the homely warmth of underfloor heating, you can always produce the hot water you need with our water-heating fireplace inserts.

At times like this when raw materials are becoming increasingly scarce, it's vital to make the best possible use of available energy sources. As the climate continues to change it's advisable to produce energy in as carbon-neutral a way as possible - from wood. In a context of rising energy prices, an economical heating system is almost essential.

**Using wood and SPARTHERM technology!**



Shower: 20 L/min – Water temperature 39° C		
Hours	Fuel feed quantity (wood)	Shower time
1	2.0 kg	8.4 min
2	4.0 kg	16.7 min
3	6.0 kg	25.1 min
4	8.0 kg	33.4 min
5	10.0 kg	41.8 min

## You could get all this from a Mini Z1 H<sub>2</sub>O

With 2.0 kg/h wood you can keep a 40 m<sup>2</sup> living room of a KfW\* 70 (German insulation standard) house at an internal temperature of 20° C with radiant heat from the fireplace.

In addition, with the water heat exchanger you can either:

- raise the water temperature of a 300 L storage tank from 40° C to 56.1° C, or
- shower for 8.4 minutes at a water temperature of 39° C, or
- draw 160 L of water at a temperature of 39° C to fill a bath.

Bathtub: 160 L – Water temperature 39° C		
Hours	Fuel feed quantity (wood)	Number of baths
1	2.0 kg	1.1
2	4.0 kg	2.2
3	6.0 kg	3.3
4	8.0 kg	4.4
5	10.0 kg	6.5

**All this from just 2.0 kg wood**

- store
- shower 39° C 8.4 min
- bath 39° C 160 L
- + 16.1° C



Storage tank: 300 L Water temperature 40° C			
Hours	Fuel feed quantity (wood)	Temperature	Δ/°C
1	2.0 kg	56.1° C *	16.1° C
2	4.0 kg	72.3° C *	32.3° C
3	6.0 kg	88.4° C *	48.4° C
4	8.0 kg	104.6° C *	64.6° C
5	10.0 kg	120.7° C *	80.7° C

\* Theoretical temperature of the storage tank assuming no water drawn and disregarding the safety technology of the heating system

Room temperature: 20° C; Outside temperature: -12° C			
Quantity of wood kg/h	Heated space		
	KfW 70 house (approx. 40 W/m <sup>2</sup> )	ENEV 2002 house (approx. 55 W/m <sup>2</sup> )	Houses built 1970-90 (approx. 100 W/m <sup>2</sup> )
1.5	≈ 30 m <sup>2</sup>	≈ 21 m <sup>2</sup>	≈ 12 m <sup>2</sup>
2.0	≈ 40 m <sup>2</sup>	≈ 29 m <sup>2</sup>	≈ 16 m <sup>2</sup>
3.0	≈ 60 m <sup>2</sup>	≈ 44 m <sup>2</sup>	≈ 24 m <sup>2</sup>

This is only an example. The calorific demand of each house must be calculated individually according to DIN EN 12831.

## Here's how it's done

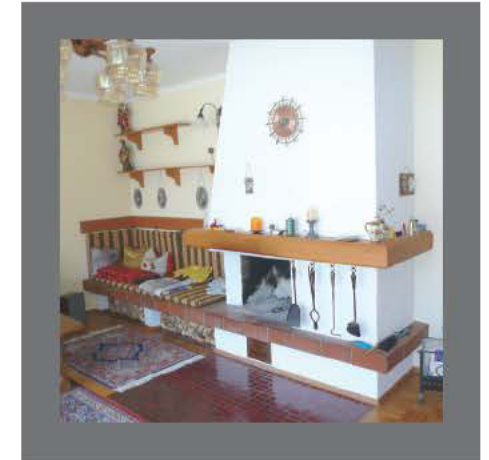
In the example shown here, a house built in the early 1970s was converted from a gas-fired boiler to a combined solution using solar power and wood-fired heating. The open fireplace in the living room was replaced by a Varia 1Vh H<sub>2</sub>O XL fireplace insert with a water heat exchanger. It still looks like a fireplace insert with a big glass window, but in terms of output it's a real power station.

From the illustrated sequence you can see that the cost of a stove solution with a water heat exchanger involves minimal extra expenditure and it can be incorporated invisibly into the existing system.

Thus, with careful planning, installation can be carried out just as quickly and cleanly as if you had chosen a conventional solution.



1970s 3-family dwelling.



Open fireplace in the living room.



Demolition of the open fireplace and flue.



Plastering of the bare brick wall after reconstruction is completed.



Holes drilled through the basement ceiling for the separate combustion connection and the flow and return pipes.



Fireplace insert awaiting installation in the living room.



Fireplace insert pipework for the water connections and alignment of the flue gas connecting pipe outlet.



It's in its final position, the connections line up with the pre-drilled holes and the insert can be aligned.



The flow and return pipes are laid in an opening in the basement ceiling and connected up to the fireplace insert.



Now the stove fitter is 'setting' the heating chamber.



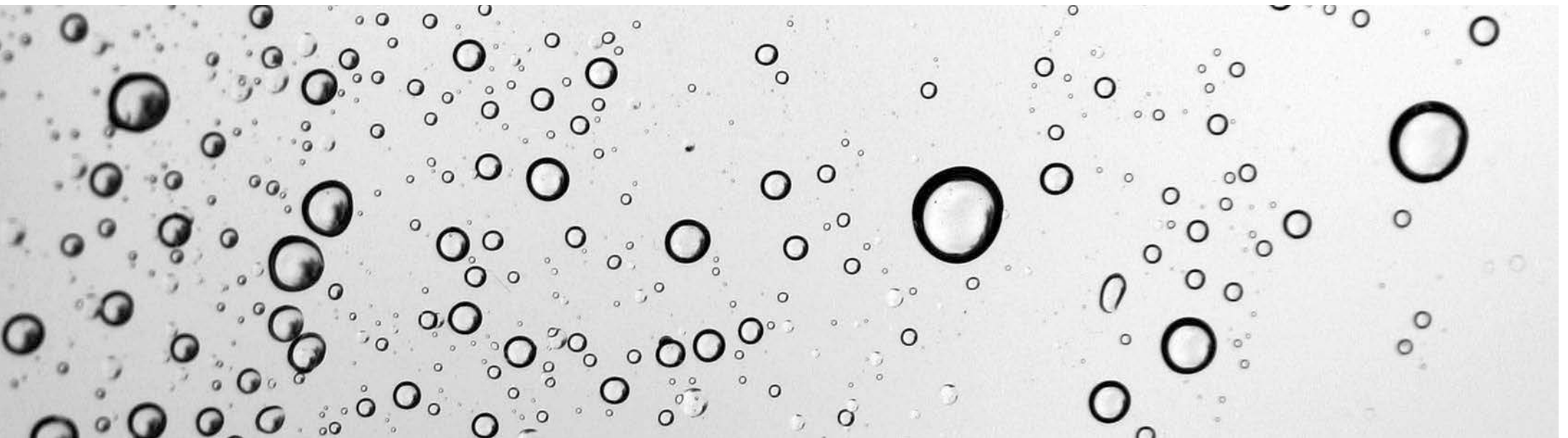
The flue gas connecting pipe has been connected up and now the fireplace insert is bricked in.



The plastered overlay is carefully skimmed and inspected.



The finished fireplace with its new look.



## Good planning is simply better

Until quite recently, home heating systems were simple to plan and it was just a matter of choosing a fuel and a burner. Nowadays though, due to rising energy prices and increasing environmental awareness, single solutions are rarely considered. Very often now you have a combination of different heating systems, always individually matched to your particular circumstances, the location of the building and the architectural style.

Depending on whether your boiler fireplace insert, your Aquabox or your tiled stove insert is used for heating water or as backup heating only, different heat generation and distribution solutions have to be considered. The actual calorific demand of the building is also an important factor.

You should set out your requirements and ideas clearly to the stove fitter and the heating installer. The specialists will then put together a solution for you that exactly matches your habits and lifestyle.

### **It may be necessary to determine your home's calorific demand**

- You need to know your home's heat demand at peak times as well as on average in order to decide exactly what you require. In Germany, this is done by working out the heat demand according to EN 12831 on the basis of the living area. The required quantities of wood per day and per year can be calculated from this value.

### **Which appliance is best for you?**

- Again, it's a personal decision, as it depends on the building material and dimensions as well as on your daily routines and lifestyle. To get exactly the right solution for your particular requirements it's essential to have a wide and varied choice when balancing up the space heating to hot water ratio, and that's what SPARTHERM provides.

### **Regulation and control to help protect the environment?**

- The higher the calorific demand, the more important it is to have electronic combustion control. An electronic controller boosts efficiency, permits sustainable combustion economy and increases the convenience by saving time on stoking.

- Saves fuel



# S-Thermatik or S-Thermatik Pro combustion controller: Simple, intelligent and easy to operate

The controller which regulates the air flow for the combustion process and thus guarantees clean combustion and a perfect fire. Available as an option for any boiler fireplace insert.

## Automatic operation

- Automatic detection of ignition status or end of combustion via the integrated flue gas temperature sensor and door contact.

## Manual operation

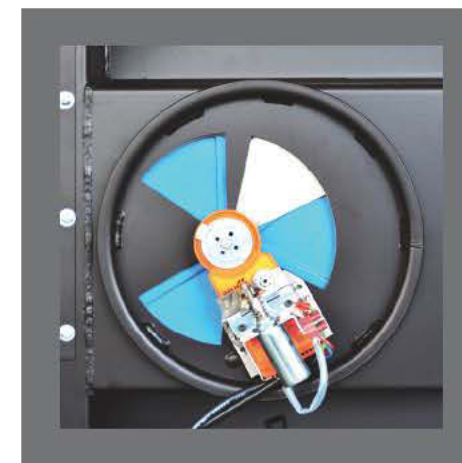
- In manual mode the air can be adjusted via the touch keys on the display.

## Hand operation

- Control of primary and secondary air by hand ('cold hand').



Combustion air control open



Combustion air control closed

## Special features of the S-Thermatik

- The air supply is controlled automatically by the integral air regulator in the fireplace insert.
- Intelligent primary and secondary air distribution to the firebox – not simply restricting the total combustion air flow via a damper in the air intake.
- Specific combustion parameters are programmed for the fireplace insert. One-off selection of the fireplace insert when programming the device guarantees pinpoint air adjustment for combustion.
- If there is a power failure, the air controller can be operated manually by means of the air adjustment lever.
- Access to all the control components via the firebox. S-Thermatik Pro: graphic display with touch screen and a number of additional functions.

## S-Thermatik displays



S-Thermatik



S-Thermatik Pro VA curved



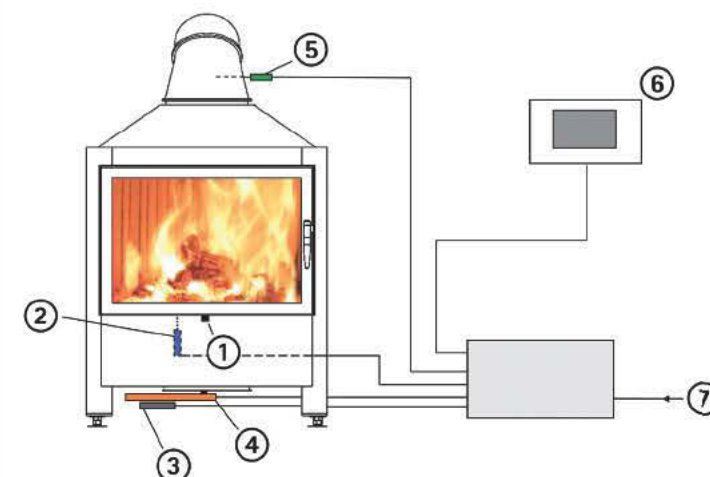
S-Thermatik Pro steel



S-Thermatik Pro white



S-Thermatik Pro black



### S-Thermatik Pro connection diagram

- 1) Air adjustment lever
- 2) Door contact switch
- 3) Magnetic coupling
- 4) Servomotor
- 5) Temperature sensor
- 6) Control unit with display
- 7) 230 V AC mains connection distribution box



# Aquabox –

The magic box.

The most impressive feature of the Aquabox is its adaptability for use with various fireplace inserts of different dimensions.

Our Aquaboxes work similarly to water-jacket fireplace inserts. Heat is extracted from the rising flue gases in a water heat exchanger and fed to the storage tank to relieve the heating system.

You can therefore boost your hot water production, relieve your central heating system or heat additional rooms.

**Aquaboxes are available in 2 sizes with different water capacities.**

Aquaboxes can be fitted almost anywhere and the benefits are obvious: they reduce electricity, oil or gas consumption and also cut energy bills.

Varia 2Lh H<sub>2</sub>O

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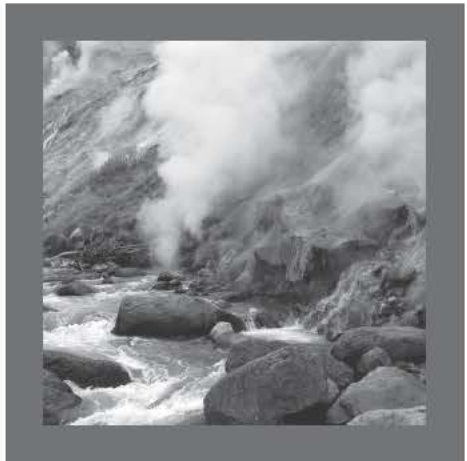
**BOX**  
SMALL

10.5 L Capacity



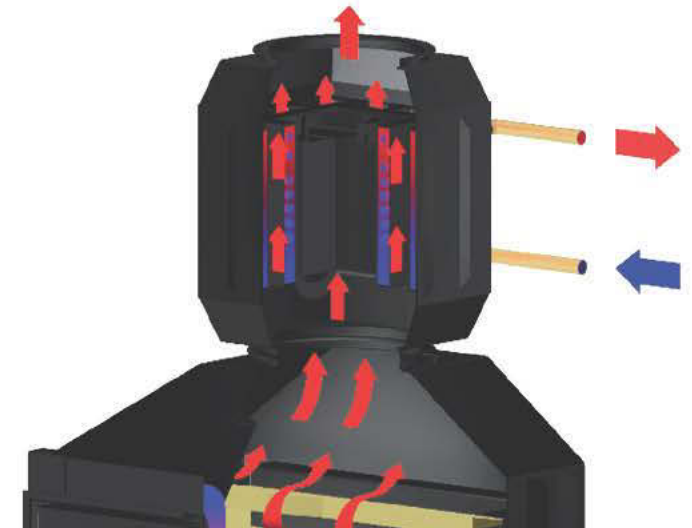
**BOX**  
LARGE

13.5 L Capacity



## The benefits to you:


- Compatible with various fireplace inserts of different shapes and sizes (certified by the German DIBt under no. Z-43.31-198)
- Hot water output efficiency approx. 25-40% of the nominal heat output of the selected fireplace
- Easy to service: no need for additional cleaning or inspection openings
- Can be cleaned through the combustion chamber
- Minimal space requirements
- Environmentally friendly
- Reduces your energy bill
- Output range up to 7.5 kW




# Aquabox Compatibility

## Which box fits which insert?

The two Aquabox models differ in their water capacity and compatibility with the various fireplace models. Possible combinations are shown below.

 10.5 L Capacity	
Mini	Mini R1V/R1Vh Mini Z1 Mini 2L/2R Mini 2LRh Mini S/Sh
Speedy	Speedy 1V/1Vh Speedy M/Mh Speedy K/Kh Speedy MR/MRh Speedy MR/MRh S Speedy R/Rh
Varia	Varia 2L/2R-55 (h)
(W x D x H) in mm	362 x 362 x 465
Working pressure	up to 3 bar
Weight without water	51 kg

The small Aquabox can be used instead of the large

 13.5 L Capacity	
Varia	Varia 1V/1Vh Varia 1V/1Vh S Varia 2L/2R Varia 2L/2R S Varia 2Lh/2Rh Varia 2Lh/2Rh S Varia 2LRh/2RRh Varia 2LRh/2RRh S Varia 2L/2R 55 Varia 2L/2R 55h Varia M-60h Varia M-80h Varia M-100h Varia Sh Varia Ah Varia ASh Varia ASh 2L/2R Varia Bh Varia Bh S
(W x D x H) in mm	362 x 362 x 545
Working pressure	up to 3 bar
Weight without water	65 kg

# DIBT Certification

## What does it mean for you?

Our products are approved by the German Construction Supervision Authority, DIBT. This is an important quality feature and guarantees safe operation. Even if this regulation is not valid for your country, you have the benefit of knowing that our appliances are tested by an independent organisation.

We recommend that you always use certified products.

In Germany, the NBR Building Rules Lists provide information on which standards apply to building products. There are three different types of products:

- Regulated building products comply with the technical provisions of the Building Rules List or deviate only slightly from them.
- Unregulated building products deviate considerably from the technical provisions of the Building Rules List, or there are no technical building regulations or generally recognised rules of the art for them.
- Other building products are not included in the Building Rules List, although there are generally recognised rules of the art for them.

Manufacturers must demonstrate the suitability of unregulated building products and designs. This can be done by means of DIBt certification.

Certification is performed exclusively by the German Institute for Building Technology in Berlin (DIBt), a jointly established federal and regional institute.

- DIBt certification is revocable and is granted for a specific period, generally five years.
- DIBt certification renders individual tests unnecessary. Architects and owners can plan and build creatively, innovatively and at a reasonable cost without the delays and uncertainties an individual agreement may involve.

Testing is simply safer and saves time and money.

# Large window, proven technology – abundant water storage

Boiler fireplace inserts in the  
Varia H<sub>2</sub>O range.

Varia H<sub>2</sub>O fireplace inserts are real power stations attractively packaged as beautiful fireplaces. Exclusive design is combined with innovative water technology and despite a large firebox door their hot water production is highly efficient.

The water heat exchanger with thermal discharge safety valve and patented internal gravity circulation protects against possible water hammer or overheating in the event of a power failure. Safety which you do not see but which is always working for you – a comforting feeling.

## The benefits to you:

- High hot water production of 50 – 73%
- Large 67 x 51 cm glass window
- Concealed safety features
- Optional automatic combustion control thanks to S-Thermatik and S-Thermatik Pro
- High ecological benefit without compromising the appearance
- Automatic bypass flap

Varia 1Vh H<sub>2</sub>O

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Varia 1V H<sub>2</sub>O XL  
with S-Thermatik Pro  
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Varia 1Vh H<sub>2</sub>O  
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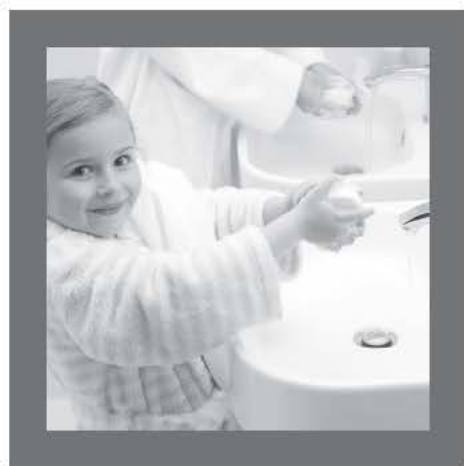




Varia A-FDh H<sub>2</sub>O  
with S-Air and S-Thermitik Pro  
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Varia Ah H<sub>2</sub>O  
with S-Thermitik Pro  
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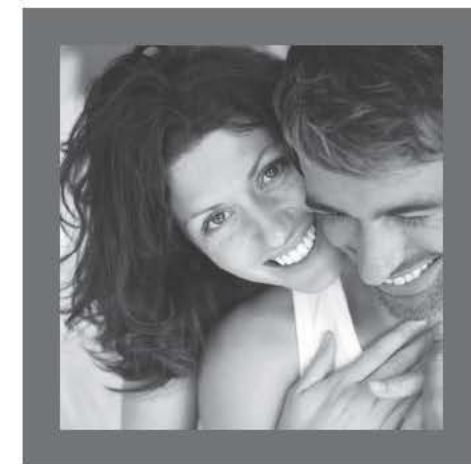


Engineering and design  
in perfect harmony



Varia 2Lh H<sub>2</sub>O  
with S-Air

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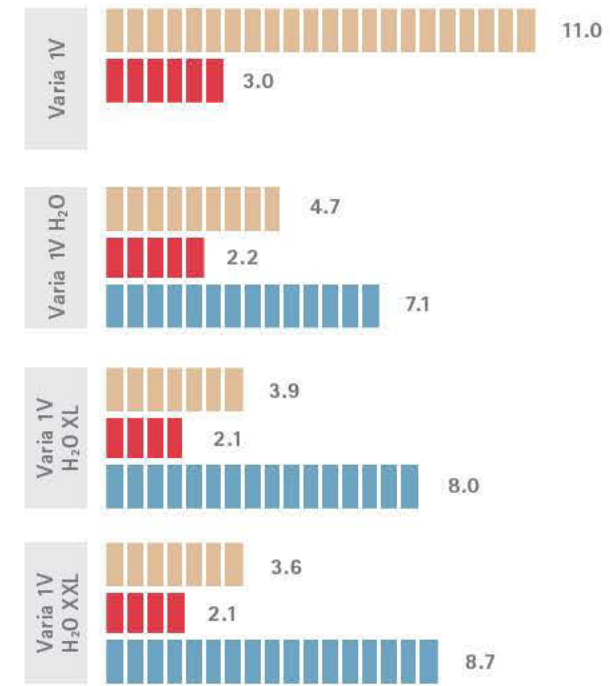
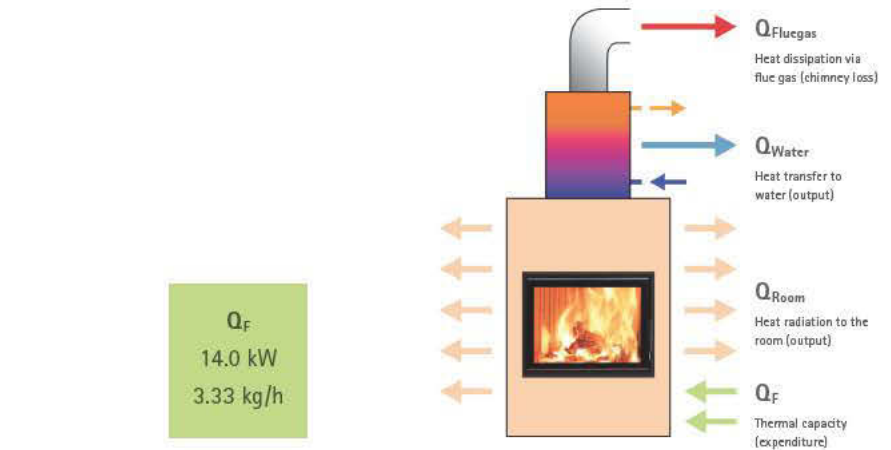
Technical data

	Varia 1V/1Vh [H <sub>2</sub> O]	Varia 1V/1Vh [H <sub>2</sub> O] XL	Varia 1V/1Vh [H <sub>2</sub> O] XXL	
Output	Nominal output	11.0 kW	12.0 kW	21.7 kW
	Water heating capacity	6.0 kW	8.5 kW	15.0 kW
	Efficiency	> 84 %	> 85 %	> 85 %
	Hot water production	~ 55 %	~ 70 %	~ 69 %
	Dust	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>
	Average flue gas temperature at the flue outlet connector	250° C	235° C	240° C
	Min. draught with nominal output	12 Pa	12 Pa	12 Pa
	Flue gas mass flow	10.4 g/s	10.8 g/s	14.8 g/s
	Weight (without water)	~ 318 kg	300 / 330 kg	~ 332 kg
	Water content	~ 32 L	~ 32 L	~ 32 L
Wood feed	Hot water output			
	3 kg	5.8 kW	7.5 kW	7.7 kW
	4 kg	7.8 kW	10.0 kW	10.3 kW
	5 kg	9.7 kW	12.5 kW	12.9 kW

Information	Door closure	Hinged / elevating door		
	Separate combustion air connection	yes - optional	yes - optional	yes - optional
	Possible flue gas pipe connection direction	← / ↑	← / ↑	← / ↑
	Firebox Lining	Sandwich - Fireclay, Eboris Fusion	Sandwich - Fireclay, Eboris Fusion	Fireclay, Eboris 1300
	recom. storage tank capacity	> 500 L	> 500 L	> 750 L
	Max. operating pressure	3.0 bar	3.0 bar	3.0 bar
Compliance with standards	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BlmSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BlmSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BlmSchV	

Dimensions	Overall height	1268 / 1408 mm	1268 / 1408 mm	1268 / 1408 mm
	Overall width	800 / 801 mm	800 / 801 mm	886 / 886 mm
	Overall depth	564 / 595 mm	564 / 595 mm	621 / 652 mm
	Door height	512 / 513 mm	512 / 513 mm	512 / 513 mm
	Door width	675 / 745 mm	675 / 745 mm	675 / 745 mm
	Flue outlet	Ø 180 mm	Ø 200 mm	Ø 200 mm

Hot water output Varia series at a glance



Note: Varia 1V H<sub>2</sub>O XL and Varia 1V H<sub>2</sub>O XXL are also available in RLU (for room airsealed operation). However, these versions do not have an automatic bypass flap and have different capacity values.

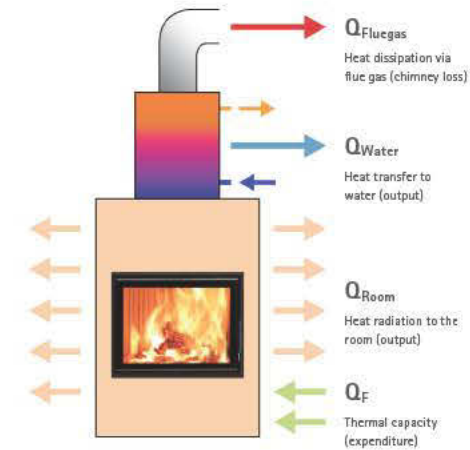
## Technical data

**Varia Ah (H<sub>2</sub>O)**      **Varia A-FDh (H<sub>2</sub>O)**      **Varia 2Lh/2Rh (H<sub>2</sub>O)**      **Varia 2L/2R 55h (H<sub>2</sub>O)**

Output	Nominal output	14.0 kW	15.0 kW	14.7 kW	12.0 kW
	Water heating capacity	9.8 kW	9.0 kW	8.4 kW	7.2 kW
	Efficiency	> 86 %	> 85 %	> 80 %	> 85 %
	Hot water production	~ 70 %	~ 60 %	~ 57 %	~ 60 %
	Dust	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>
	Average flue gas temperature at the flue outlet connector	~ 230 °C	~ 210 °C	285 °C	215 °C
	Min. draught with nominal output	12 Pa	12 Pa	12 Pa	12 Pa
	Flue gas mass flow	8.0 g/s	12.2 g/s	10.8 g/s	7.4 g/s
	Weight (without water)	~ 320 kg	~ 395 kg	380 kg	~ 204 kg
	Water content	~ 32 l	~ 32 l	~ 40 l	~ 29 l
Wood feed	Hot water output				
3 kg	7.6 kW	6.4 kW	5.7 kW	6.4 kW	
4 kg	10.1 kW	8.6 kW	7.7 kW	8.5 kW	
5 kg	12.6 kW	10.7 kW	9.6 kW	10.6 kW	



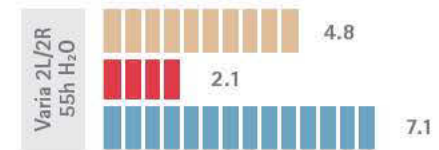
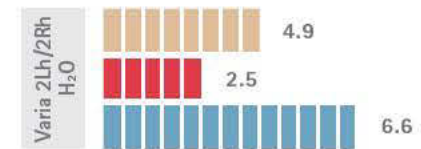
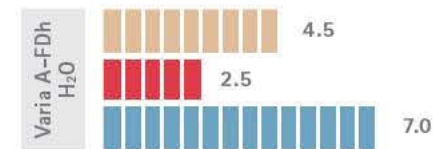
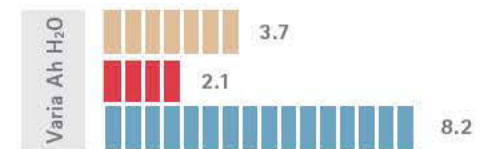
## Hot water output Varia series at a glance



$Q_{\text{F}}$   
14.0 kW  
3.33 kg/h

Information	Door closure	Hinged			
	Separate combustion air connection	yes – optional	yes – optional	yes – optional	150 mm
	Possible flue gas pipe connection direction	← / ↑	↑	← / ↑	← / ↑
	Firebox Lining	Sandwich – Fireclay, Eboris Fusion	Vermiculite	Fireclay, Eboris 1300	Sandwich – Fireclay, Eboris Fusion
	Recom. storage tank capacity	> 500 L	> 500 L	> 500 L	> 300 L
	Max. operating pressure	3.0 bar	3.0 bar	3.0 bar	3.0 bar
	Compliance with standards	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV

Dimensions	Overall height	1594 mm	1287 mm	1427/1547 mm	1425 mm
	Overall width	1089 mm	1014 mm	728 mm	639 mm
	Overall depth	629 mm	600 mm	587 mm	506 mm
	Door height	438 mm	438 mm	512/572 mm	512 mm
	Door width	955 mm	881 mm	685/465 mm	583/391 mm
	Flue outlet	ø 200 mm	ø 200 mm	ø 200 mm	ø 180 mm



# Varia Ah H<sub>2</sub>O and Varia A-FDh H<sub>2</sub>O

Now wide-screen format, single sided or alternatively as H<sub>2</sub>O fireplace insert, double sided.

Large 'wide screen format' glass window for maximum view of the fire. The Varia A-FDh H<sub>2</sub>O model offers this on both sides and is ideal as a room divider.



Varia A-FDh H<sub>2</sub>O  
with S-Thermitik Pro

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Varia Ah H<sub>2</sub>O



Varia A-FDh H<sub>2</sub>O



## The benefits to you:

- Despite the large window, 60% to 70% hot water is produced
- Maximum effectiveness with over 80% efficiency
- Double glazing and infrared coating
- Maximum environmental compatibility with all the comfort of a real fire

# Minimal dimensions, maximum hot water

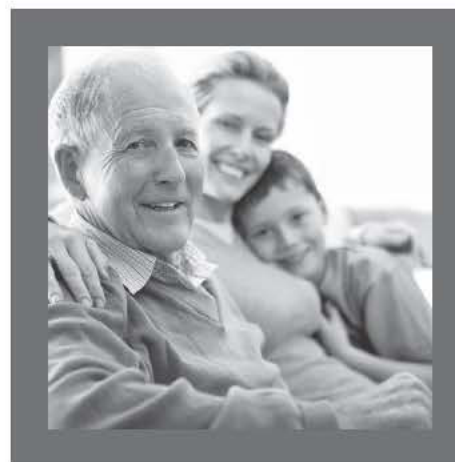
Mini Z1 H<sub>2</sub>O boiler fireplace inserts –  
they're effective.

With our MINIs, economy is what counts above all else. Obviously an attractive, visible fire is important, but the larger the window the greater the heat loss. Therefore, for everyone for whom hot water output is the most important consideration, our MINIs which provide the maximum hot water are the right choice.

The MINI with a 7 kW nominal heat output is designed for passive home owners requiring very little calorific power to heat the room where the stove is installed. Therefore, double glazing and a special reflective coating ensure that the energy remains in the combustion chamber. The heat dissipated into the living area is kept to a minimum.

## The benefits to you:

- Maximum economy with 78% or 80% hot water production
- Maximum effectiveness with over 85% efficiency
- Double glazing and infrared coating
- Maximum environmental compatibility with all the comfort of a real fire
- Bimetallic start-up flap



Mini Z1 H<sub>2</sub>O

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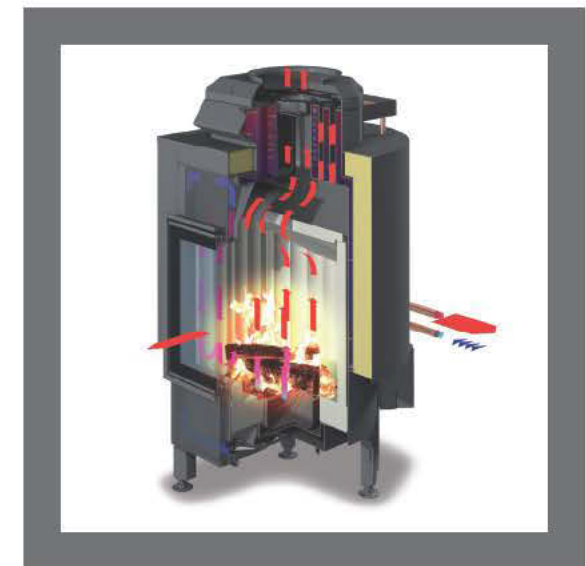


## This is how it works

Mini Z1 H<sub>2</sub>O XL fireplace insert.

Mini Z1 H<sub>2</sub>O

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Technical data

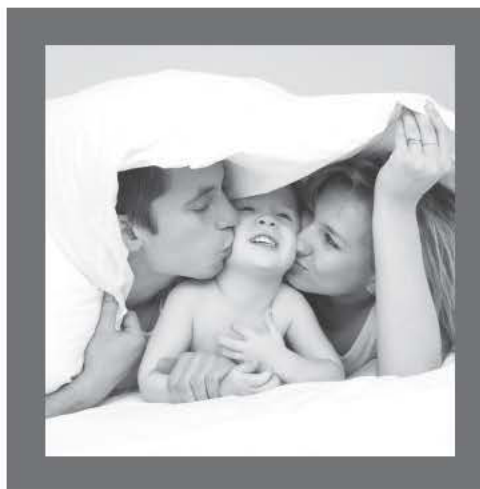
**Mini**  
[H<sub>2</sub>O]

**Mini**  
[H<sub>2</sub>O]XL

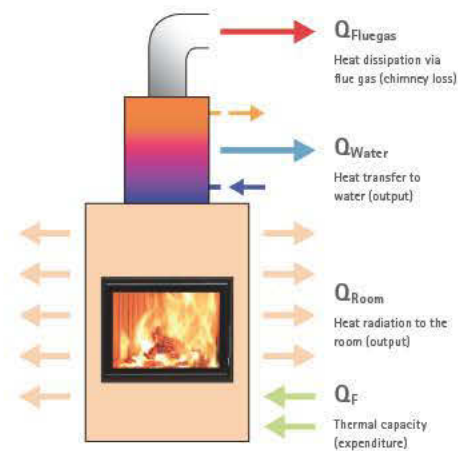
Output	Nominal output	7.0 kW	10.0 kW
	Water heating capacity	5.5 kW	8.0 kW
	Efficiency	> 80 %	> 80 %
	Hot water production	78 %	80 %
	Dust	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>
	Average flue gas temperature at the flue outlet connector	~ 235° C	~ 245° C
	Min. draught with nominal output	> 12 Pa	> 12 Pa
	Flue gas mass flow	6.0 g/s	7.5 g/s
	Weight (without water)	235/260 kg	235/260 kg
	Water content	~ 25 L	~ 25 L
Wood feed	Hot water output		
2 kg	5.2 kW	5.4 kW	
3 kg	7.9 kW	8.1 kW	
4 kg	10.5 kW	10.8 kW	

Information	Door closure	Hinged / elevating door	
	Separate combustion air connection	yes - optional	yes - optional
	Possible flue gas pipe connection direction	← / ↑	← / ↑
	Firebox Lining	Vermiculite	Vermiculite
	Recom. storage tank capacity	> 300 L	> 500 L
	Max. operating pressure	3.0 bar	3.0 bar
	Compliance with standards	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV

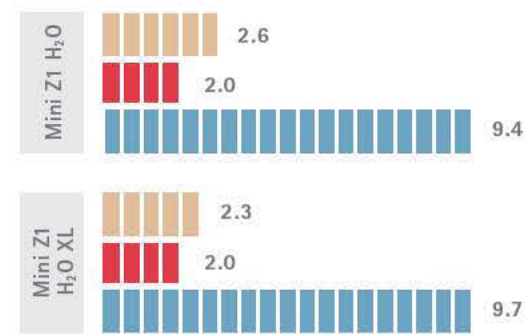
Dimensions	Overall height	1612 mm	1612 mm
	Overall width	646 mm	646 mm
	Overall depth	597 mm	643 mm
	Door height	510 mm	510 mm
	Door width	445 mm	445 mm
	Flue outlet	ø 180 mm	ø 180 mm



Hot water output  
Mini series at a glance



**Q<sub>F</sub>**  
14.0 kW  
3.33 kg/h



Note: Mini Z1 H<sub>2</sub>O and Mini Z1 H<sub>2</sub>O XL are also available in RLU (for room air sealed operation). However, these versions do not have an automatic bypass flap and have different capacity values.

# Modern tradition

## Nova/Renova hot water miracle workers.

It's not necessarily all in the name. Until quite recently a stove in Germany was likely to be tiled. As well as being part of the name [Kachelofen = tiled stove], the tiles were also the storage medium. Tiles, or stove tiles, have thermal capacity\* to store thermal energy and use it to heat the surrounding space, even for some time after the fire has gone out.

Today, the term stove applies generically both to traditional tiled stoves and also to various more recent developments that work on the same principle, with an efficient fireplace insert, higher capacity storage media and more complex energy utilisation.

### The benefits to you:

- Hot water production 51%-64%
- Renovation of old hot air stoves with modern snug-fitting alternatives
- Variable release of energy to the storage medium in downstream chimney flues/ceramic or to the heating system
- Modern home heating systems with the appearance of a bygone classic
- Bimetallic start-up flap
- Two post-combustion levels

\*The thermal capacity indicates how much thermal energy a body can store in relation to the temperature change.







## Nova and Renova stove heating inserts

**classic**

Wood is burned as economically and efficiently as possible in a fireplace insert. The heat radiated through the window is emitted directly into the room. The hot flue gases are not sent directly to the chimney but, according to individual requirements, either:

- the downstream ceramic/steel exchanger and storage channel surfaces store the heat in order to release it to the room later as radiant heat, or
- they raise the temperature of the hot water in a storage tank for distribution and use in various rooms via radiators or underfloor heating, thus relieving the heating system

There are two variants:

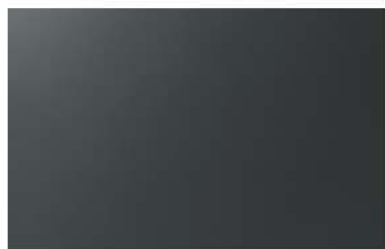
### **nova**

The Nova stove heating insert is designed for use when installing a new heating system. With its hot water production of 64% and its double glazing it is ideal for generating as little heat as possible in the surrounding room with maximum backup heating if necessary, but naturally only when you decide that the radiation temperature in the room is comfortable and adequate.

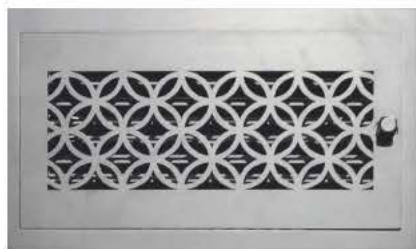
### **renova**

The name 'Renova' suggests renovation and that's intentional. This is a replacement unit for existing stoves. Its dimensions make replacing an existing space-heating stove extremely straightforward.

# Nova and Renova front screens



N 1.0 or R 1.0



N 1.1 or R 1.1



N 1.2 or R 1.2



Nova N 2.0 or R 2.0



Nova N 3.0 or R 3.0

A supporting frame or niche frame may already exist that can be used for a refurbishment project with our Renova insert. Special front screens for combination with the existing frame are available in a modern design for such situations.

Row	Number	Installation	Function	Appearance	Surface	Dimensions (W x H x D)
R	1.0	Insert	without convection	Plain	Standard/black Stainless steel	480 x 835 x 15 mm
R	1.1	Insert	Convection/ Inspection	Circle pattern	Standard/black Stainless steel	480 x 835 x 15 mm
R	1.2	Insert	Convection/ Inspection	Fern pattern	Standard/black Stainless steel	480 x 835 x 15 mm
R	2.0	Insert	Revision	Shape	Standard/black Stainless steel	480 x 835 x 15 mm
R	3.0	Insert	Revision	Plain	Standard/black	480 x 835 x 8 mm

In a new installation the Nova fireplace insert can be installed either with or without a screen. Here these screens are placed in front of the installation wall.

Row	Number	Installation	Function	Appearance	Surface	Dimensions (W x H x D)
N	1.0	Front	without convection	Plain	Standard/black Stainless steel	570 x 1130 x 15 mm
N	1.1	Front	Convection/ Inspection	Circle pattern	Standard/black Stainless steel	570 x 1130 x 15 mm
N	1.2	Front	Convection/ Inspection	Fern pattern	Standard/black Stainless steel	570 x 1130 x 15 mm
N	2.0	Front	Convection/ Inspection	Shape	Standard/black Stainless steel	570 x 1130 x 15 mm
N	3.0	Front	Convection/ Inspection	Plain	Standard/black	570 x 1130 x 15 mm

Note: front screen dimensions are shown in the technical data sheets on our homepage [www.spartherm.com](http://www.spartherm.com)



## Technical data

**nova**  
E H<sub>2</sub>O

**renova**  
A H<sub>2</sub>O

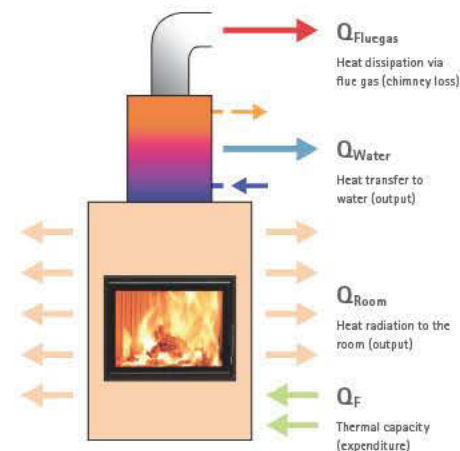
Output	nova E H <sub>2</sub> O	renova A H <sub>2</sub> O
Nominal output	14.0 kW**	13.4 kW**
Water heating capacity	9.0 kW	6.9 kW
Efficiency	> 80 %	> 80 %
Hot water production	64 %	51 %
Dust	< 40 mg/m <sup>3</sup>	< 40 mg/m <sup>3</sup>
Average flue gas temperature at the appliance connection (before the additional heating unit)	340° C	362° C**
Average flue gas temperature at the appliance connection (after the additional heating unit)	166° C**	165° C**
Average flue gas temperature at the connection (after the water heat exchanger)	193° C	-
Min. draught with nominal output	12 Pa	12 Pa
Flue gas mass flow	12.7 g/s	12.8 g/s
Weight (without water)	290 kg	200 kg
Water content	~ 44 L	~ 30 L

Information	Hinged	Hinged
Door closure	Hinged	Hinged
Separate combustion air connection	yes – optional	yes – optional
Possible flue gas pipe connection direction	← / ↑ / →	↑*
Firebox Lining	Fireclay, Eboris 1300	Fireclay, Eboris 1300
Recom. storage tank capacity	> 500 L	> 400 L
Max. operating pressure	3.0 bar	3.0 bar
Compliance with standards	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV	DIN EN 13229, DIN plus, 15A, 1st + 2nd level BImSchV

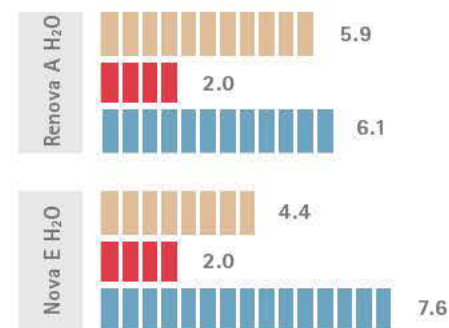
Dimensions	nova E H <sub>2</sub> O	renova A H <sub>2</sub> O
Overall height	1214 mm	1032 mm
Overall width	480 mm	425 mm
Overall depth	755 mm	675 mm
Door height	450 mm	450 mm
Door width	445 mm	390 mm
Flue outlet	ø 180 mm	ø 180 mm



## Hot water output Classic series at a glance



$Q_F$   
14.0 kW  
3.33 kg/h



# Fiery passion





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Maschweg 38 · D-49324 Melle · Tel. +49 5422/94 41-0 · Fax +49 5422/94 41-14  
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