

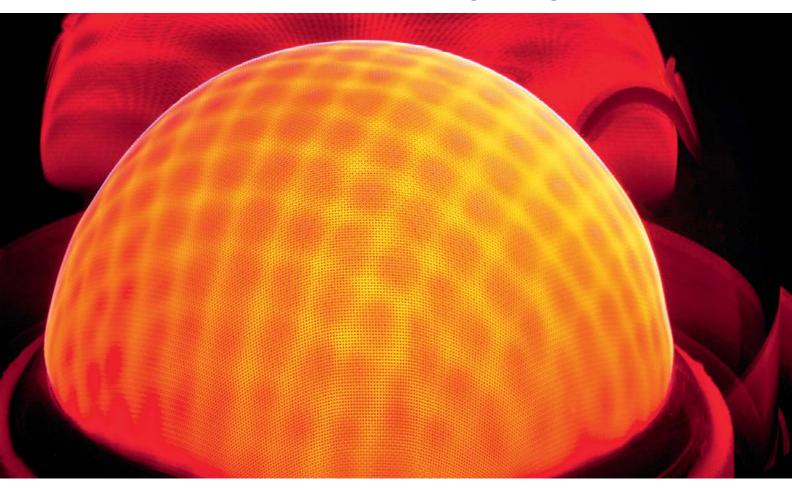
Heating with gas











# MESMANN





# Heating with gas – always a clean affair

On the following pages you will find extensive information about the various technologies available to you today to generate heat using natural gas in your house or apartment.

By using a condensing boiler to convert natural gas into heat, you are making an active contribution towards protecting the climate and the environment, thanks to the boiler's unbeatably high efficiency of 98 percent.

Our gas condensing boilers come with the future built in. Thanks to the Lambda Pro Control combustion controller, our gas condensing boilers adjust automatically to all gas types – including biogas mixtures. As a result we are able to meet the many varied demands made of heating equipment across our product range – to protect our finite resources.

The fact that no energy storage is necessary is also an argument in favour of a gas heating system – especially if you want to use the space for other purposes.

You can even use free solar energy as part of your new heating system! All boilers are designed for combination with Viessmann solar technology. Viessmann system technology guarantees that everything will fit together beautifully and work in harmony, putting you in control to meet your every demand.









# About this brochure

The Viessmann gas boiler range will fulfil your every demand for an efficient and economical heating system. This brochure contains information about our current boilers and plenty of other facts about accessories, service and finance packages.



## Saving energy and protecting the climate

Find out why it is worth modernising your heating system now, so you can make an active contribution towards protecting the climate and use less fossil fuel.

from page 6



# Gas condensing technology

The gas condensing boilers offer optimum energy utilisation with frugal consumption. This offers you maximum savings!

from page 14



## A perfect match – system technology

Viessmann system technology includes all the elements of a reliable heating system – from the Vitotronic control unit and Vitocell DHW cylinders to high grade solar technology for cost effective central heating backup, or photovoltaic modules for generating power.

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# Accessories – everything from a single source

You can trust Viessmann quality when it comes to accessories, too. Our Vitoset program includes a wide range of radiators, thermostatic valves, and much more.

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## Service covering every aspect of heating technology

Make the most of our trade partners. They will tell you all you need to know about tailor-made heating technology, subsidy opportunities and financial options, without obligation and free of charge.

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# Saving energy and protecting the climate

Viessmann is aware of its responsibility for the sustained protection of the environment. Our company philosophy and products have been constructed with this duty in mind.











"Nothing is so good that it cannot be improved". This motto is also reflected in our company principles. In its industry, Viessmann can rightfully claim to be the leader in quality and technology, and as such, aims to continually set new standards.

Of course, this applies in particular to the company's product range, which is consistently geared towards significantly lowering the consumption of fossil fuels and gradually replacing them with renewable sources of energy.

At around 40 percent, the heating market actually accounts for the largest proportion of energy consumption. The rest is shared by road haulage, personal transport and power generation, with 20 percent each. These are values that can also be applied approximately to other industrial countries. Ever-rising energy costs mean that the emphasis is on reducing the consumption of fossil fuels as quickly as possible.

# Condensing technology offers the greatest energy efficiency

Taking the overall investment and current energy prices into consideration, condensing technology is the most economical alternative. Viessmann gas condensing boilers convert up to 98 percent of the natural gas used into heat. At the same time, condensing technology is also futureproof, as biofuels such as bio natural gas can already be added, for example.

This is why you should invest today in advanced condensing technology. The savings you can make are considerable. Make an effective contribution towards the sustained protection of the climate by preventing unnecessary CO<sub>2</sub> emissions.

Viessmann has the right solution for you, too!

Viessmann offers energy efficient heating systems for oil, gas, solar, biomass and natural heat. The pictographs are designed to aid orientation when selecting a system.

# Did you know?

Good reasons for modernising your heating system and using efficient gas condensing technology.

In Germany alone, there are still around two million heating systems in use which are over 25 years old. Their owners are often completely unaware of how much money they are wasting unnecessarily on energy, which is pointlessly burned up and goes out of the chimney as unused heat. Furthermore, these old systems have an impact on the climate through unnecessary CO<sub>2</sub> emissions which contribute to global warming.

By promptly replacing these systems with highly efficient condensing boilers combined with solar technology, end users can cut down their energy usage by up to 25 percent. This would work out to be 10 percent of Germany's total energy consumption, with annual  $\mathrm{CO}_2$  emissions being reduced by 54 million tonnes at the same time.

Viessmann gas condensing boilers are prepared for the use of bio natural gas.

#### Central heating backup with solar power

The free energy from the sun is still not used enough for central heating backup and DHW heating. When modernising, you should consider combining your new heating system or boiler with a solar thermal system.

#### How to save with condensing technology

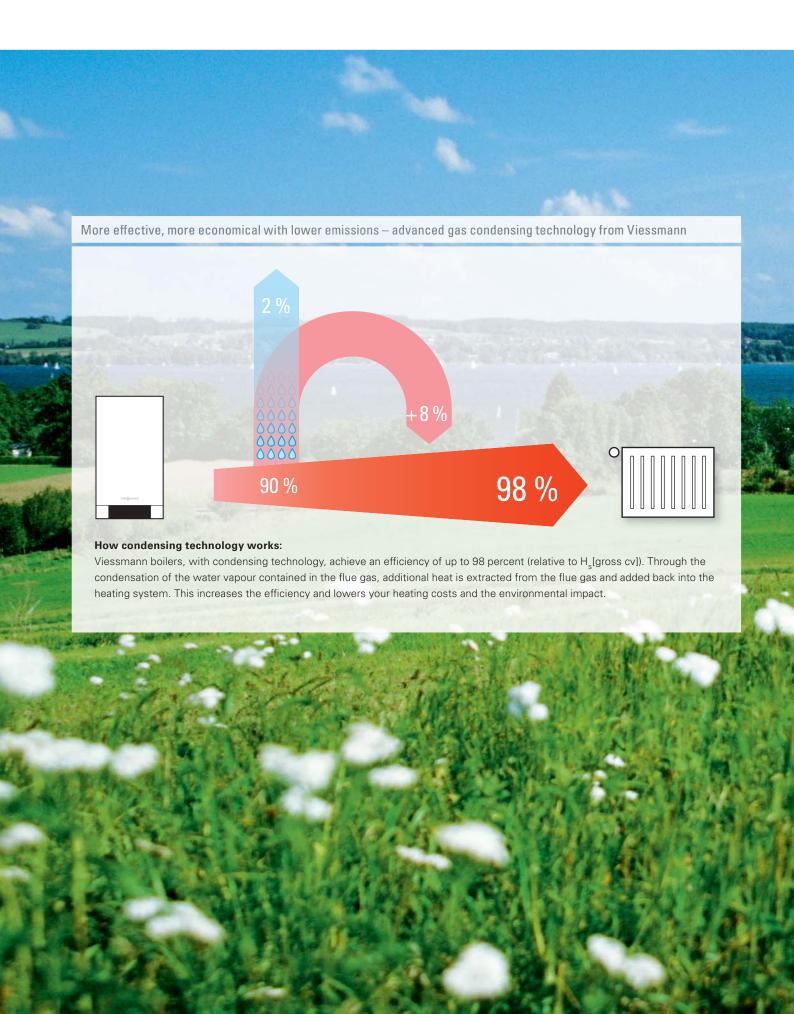
With condensing technology, not only is the heat from the combustion of gas utilised, but also the heat that would escape unused up the chimney with conventional heating technology.

Condensing boilers extract almost all of the heat contained in the flue gases and convert it into additional heating energy. To do this, Viessmann condensing boilers are equipped with stainless steel Inox-Radial heat exchangers, which cool the flue gases before they are routed into the stack, to the extent that the water vapour contained within them is deliberately condensed, and the additional heat released is transferred into the heating system.

With this technology, condensing boilers achieve a standard seasonal efficiency [to DIN] of up to 98 percent, and so are particularly energy efficient. This function not only saves valuable energy, but also protects the environment through significantly reduced  ${\rm CO}_2$  emissions.









# An investment that pays off

# Optimum heating output for any living space.

If you are planning a new build or modernisation project, you should factor in the right heating system for your requirements in plenty of time.

You can save a lot of money by calculating your actual demand before selecting the boiler. The range of small boilers includes gas condensing boilers with an output ranging from 1.9 to 105 kW. From a small flat to an entire apartment building, the Viessmann product range always offers the right solution.

## Heating economically

With efficient gas condensing technology from Viessmann, heating is particularly economical thanks to low investment costs and low consumption.

Furthermore, we recommend supplementing your new heating system with a solar thermal system for central heating backup and DHW provision. Thanks to Viessmann system technology, you can get everything from a single source.







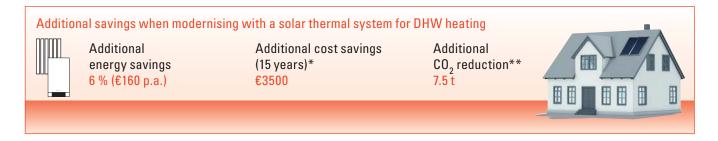


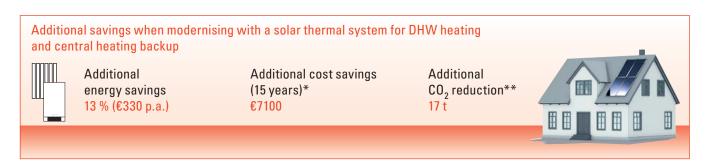


Start saving money straight away!

No matter which heat source you choose – you'll definitely save a lot of money! The examples below clearly show the options available to you with Viessmann gas condensing technology and the use of solar thermal systems from Viessmann:

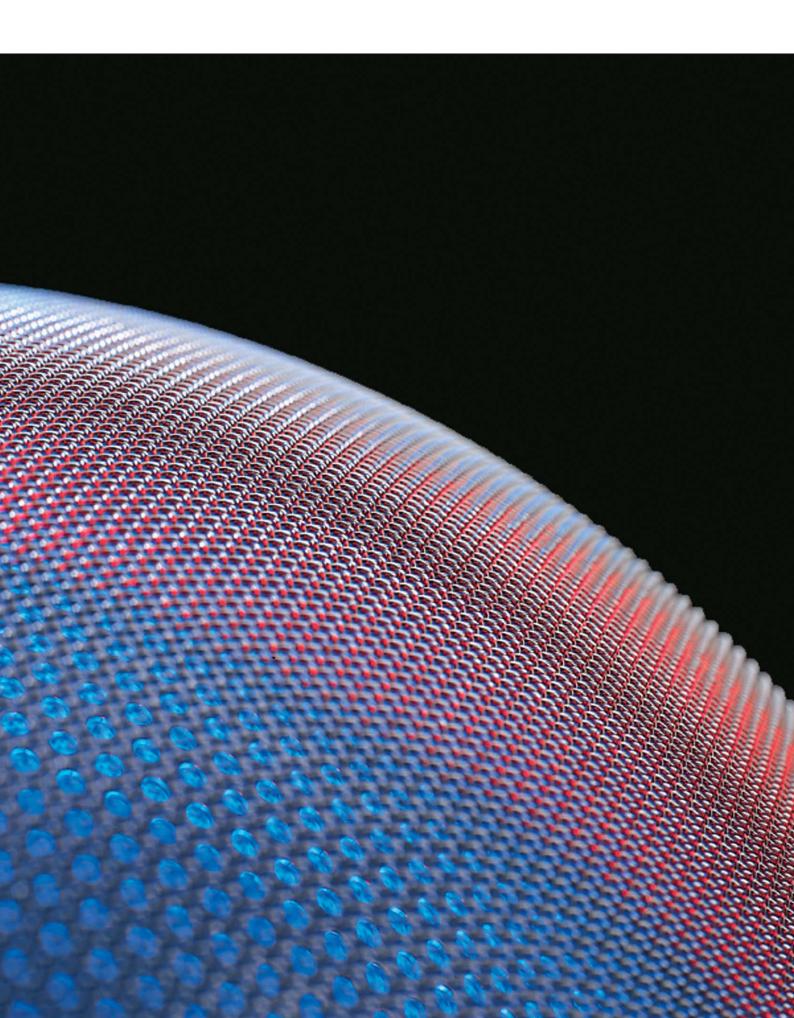






Rounded consumption and operating costs when using BDH and standard values (EID). Current information at www.viessmann.de. Basis for comparison: Building with 140  $\text{m}^2$ , built in 1980 (house + old boiler, 27 kW). Consumption costs: €2450 for 3400  $\text{m}^3$  gas. Energy price (average figures): Gas:  $\text{€}0.72/\text{m}^3$ .

- \* Savings on the cost of energy after 15 years, allowing a 5 percent rise in energy prices per year.
- \*\* Calculated over 15 years.









# Viessmann sets standards

Over the 90 plus years that Viessmann has been in business, the company has regularly set milestones in the development of the most advanced heating technology.

Viessmann has been a leader in the heating technology industry for decades. Through continual innovation, the efficiency achieved when converting energy into heat has been increased to the limit of that which is currently technically possible. At the same time, we have been able to drastically reduce the levels of energy consumption and CO<sub>2</sub> emissions of our boilers.

# Heating surfaces made from stainless steel

All Viessmann gas condensing boilers are now equipped with the stainless steel Inox-Radial heat exchanger. This indestructible technology brings with it an extremely high 98 percent efficiency and exceptionally safe and efficient operation during its long service life.

# The MatriX burner – a true milestone in heating technology

The stainless steel Inox-Radial heat exchanger in combination with the MatriX gas burner together ensure high energy efficiency and a high level of heating convenience for the long-term. Furthermore, this technology saves on heating costs and effectively minimises emissions. Thanks to the Lambda Pro Control combustion controller, Viessmann gas condensing boilers are already designed to meet future standards, as they can be fired with different gas types and partial mixtures of biogas.

#### Prize-winning design

At Viessmann, top technology and an attractive design make a harmonious combination. The company has received more than 40 significant design prizes from all over the world for its products in recent years. Viessmann boilers have been awarded the renowned red dot design award six times.



Viessmann wall mounted gas condensing boilers are characterised by their functional design.











You can either sit there thinking about how futureproof your heating system should be or you simply switch to the future right now.

With Viessmann gas condensing technology, the heating technology of tomorrow is already available today. It is one of the most economical and cleanest ways to generate heat. Through the condensation of the hot gases, latent heat is recovered which is normally lost by conventional boilers.

#### Always the right choice

By choosing a gas condensing boiler, you'll always be on the safe side. There are plenty of good reasons in its favour:

- Highly reliable
- Long service life
- Convenient DHW and central heating
- Cost savings through economical energy consumption
- Perfectly matching combination with solar technology



#### Vitodens 200-W

Wall mounted gas condensing boiler, system boiler: 4.8 to 105 kW, in cascades up to 840 kW, combi boiler: 6.5 to 35 kW

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#### Vitodens 222-W

Wall mounted gas condensing boiler with stainless steel primary store, 4.8 to 35 kW

Cylinder capacity: 46 litres

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## Vitodens 333-F

Gas condensing storage combi boiler with stainless steel primary store, 3.8 to 26 kW

Cylinder capacity: 100 litres

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# Vitodens 222-F

Gas condensing storage combi boiler with primary store or DHW cylinder with internal indirect coil, 4.8 to 35 kW

Cylinder capacity: 100 or 130 litres

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# Vitodens 343-F

Gas condensing storage combi boiler with stainless steel solar primary store, 3.8 to 19 kW

Cylinder capacity: 220 litres

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#### Vitodens 300-W

Vitocrossal 300

26 to 60 kW

Page 16

Gas condensing boiler

Wall mounted gas condensing boiler 1.9 to 35 kW

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#### Vitosolar 300-F

Gas condensing storage combi boiler for solar DHW heating and central heating backup With Vitodens 300-W: 3.8 to 35 kW, with Vitodens 200-W: 4.8 to 35 kW

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# **VITOCROSSAL 300**

Top technology – this gas condensing boiler will meet all your needs.

The Vitocrossal 300 is a leading product amongst floorstanding gas condensing boilers. The combination of the Inox-Crossal heat exchanger with the MatriX gas burner represents a milestone in Viessmann heating technology. Exceptional efficiency saves heating costs whilst minimising emissions.

Using a condensing boiler in new buildings is almost the standard, because boiler and heating system can be perfectly matched right from the start. A condensing boiler brings the most benefit when it is installed in heating systems with low system temperatures. Condensing technology can save up to 30 percent of heating costs, even in modernisation projects.

# Vitocrossal 300 26 to 60 kW

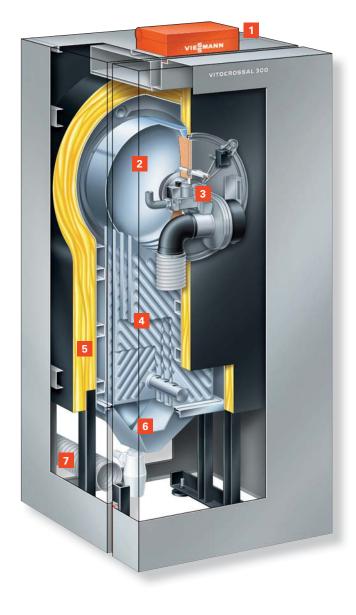


Inox-Crossal heat exchanger

The Vitocrossal 300 gas condensing boiler is the right solution for any application – including providing heating in apartment blocks, as well as in public and commercial buildings.

#### Advanced condensing technology

Its stainless steel Inox-Crossal heat exchanger offers the ideal pre-requisite for utilising condensing technology. The smooth stainless steel heat exchanger allows the condensate created by the condensing process to simply run off downwards. Combined with the smooth stainless steel surface, this creates a permanent self-cleaning effect, thus ensuring a permanently high utilisation of condensing technology, resulting in a longer service life whilst reducing maintenance effort.



# Intensive utilisation of the heating gases

With its vertical heat exchanger, the Vitocrossal 300 utilises the condensation energy in its heating gases particularly intensively. This results in efficiency of up to 98 percent.

#### Convenient Vitotronic control unit

Contractors and users benefit equally from the easy-to-use Vitotronic control unit. The structure of the control menu is logical and easy to understand and the unit is backlit, rich in contrast and easy to read. If in doubt, a help function informs users of the next steps to perform. The graphic user interface can also display heating curves and solar yield.

#### Intelligent combustion control

The proven MatriX gas burner with Lambda Pro Control combustion controller automatically adjusts itself to varying gas qualities and ensures a constantly high standard seasonal efficiency [to DIN] of 98 percent, both for natural gas and LPG.

#### Balanced flue operation up to 60 kW

Balanced flue operation is possible up to 60 kW heating output, which enables the flexible installation of the condensing boiler inside the building.

Furthermore, the Vitocrossal 300 is also available for larger heating requirements in an output range up to 142 kW.

## Vitocrossal 300

- Digital Vitotronic 200 control unit
- Water-cooled stainless steel combustion chamber
- Modulating MatriX gas burner and Lambda Pro Control combustion controller
- Inox-Crossal heat exchanger made from stainless steel
- Highly effective thermal insulation
- Flue gas collector with condensate drain pipe
- Ventilation air pipe for balanced flue operation



The Vitocrossal 300 in combination with the Vitocell 300-V DHW cylinder.



Vitotronic 200 control unit with clear user prompts.

# Take advantage of these benefits:

- Compact gas condensing boiler, from 26 to 60 kW
- Standard seasonal efficiency [to DIN] up to 98 % (H<sub>s</sub>[gross cv]) / 109 % (H<sub>i</sub>[net cv])
- Inox-Crossal heat exchanger made from stainless steel for an efficient utilisation of condensing technology
- Self-cleaning effect through smooth stainless steel surfaces
- Modulating MatriX gas burner with a wide modulation range down to 20 % for particularly quiet, economical and environmentally responsible operation
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Excellent controllability and reliable heat transfer through wide water galleries and high water content
- Easy-to-operate Vitotronic 200 control unit with plain text and graphic display
- Balanced or open flue operation
- A strong draught in the flue outlet enables long, balanced flues











# **VITODENS 300-W**

The top model amongst the Viessmann range of wall mounted gas condensing boilers. You'll love its efficient operation and compact dimensions!

Your investment in the Vitodens 300-W will only take a few years to pay for itself - simply through the annual savings you'll make on natural gas. Our boiler consumes less because of its high efficiency compared to an older type of boiler. The Vitodens 300-W incorporates the most up to date technology. Thanks to advanced assemblies, this wall mounted gas condensing boiler is extremely compact and can be installed even in small recesses. Side clearances for maintenance are not required, since all connections are easily accessible from the front. This makes it ideally suited to modernisation projects. In new build, the space it would have taken up can be used for other purposes.

## The future proof condensing boiler

The Vitodens 300-W can be installed almost anywhere. It operates particularly quietly, making it suitable for use in the hallway or kitchen.

Highly efficient condensing technology is designed for use with all types of natural gas. The Vitodens 300-W is futureproof, because its intelligent Lambda Pro Control combustion controller automatically adapts the combustion to changing gas qualities and operating conditions.

An advanced heating system should include innovative solar technology to utilise the free energy from the sun. At Viessmann, we offer you a system for this which is optimally matched to the Vitodens 300-W.

#### Powerful and efficient

With output stages from 1.9 to 35 kW, simply select the most suitable gas condensing boiler for your living space in a detached or two-family house. The modulating MatriX gas burner ensures high operational reliability and low emissions.

## **Economical power consumption**

Alongside its extremely low gas consumption, the Vitodens 300-W wall mounted gas condensing boiler also consumes only a modest amount of power, as its variable speed HE pump reduces power consumption by 70 percent compared to conventional pumps.



Outstanding quality you can rely on: In the July issue of "test" magazine, nine gas condensing boiler and solar cylinder combinations were tested. Their final verdict – with an overall grade of "Good" (1.7), the Vitodens 300-W and the Vitocell 100-W solar cylinder were clear test winners.



MatriX gas burner for extremely clean combustion.

#### Highly efficient heat exchanger

The corrosion-resistant stainless steel Inox-Radial heat exchanger lies at the core of the wall mounted Vitodens 300-W gas condensing boiler. It converts the energy deployed into heat, practically without losses, and with a high degree of efficiency. The efficiency is a practically unbeatable 98 percent. This extremely economical usage of valuable natural gas also causes fewer CO<sub>2</sub> emissions. This means that with the Vitodens 300-W, you can make your personal contribution towards actively protecting the climate.

The structure of the heating surfaces together with the condensation have a self-cleaning effect that prevents deposits through use and contributes to the boiler's long service life. Longer maintenance intervals and therefore lower service costs protect your wallet.



#### Large water capacity

The Vitodens 300-W holds a large amount of water and is therefore well suited to the most varied heating systems. Major demand fluctuations cause it no difficulties at all.

#### Intelligent combustion control

All Vitodens 300-W models are now equipped with the automatic Lambda Pro Control combustion controller. Even if the gas composition fluctuates, the efficiency remains consistently high. Also, if the gas type is changed, i.e. through admixing biogas, it is not necessary to change the nozzle. The Lambda Pro Control combustion controller automatically adjusts the boiler to suit the new conditions.

Thanks to the Lambda Pro Control combustion controller, the flue gas inspection intervals have now been extended to 3 years [in Germany]. That saves on costs. The extension of the inspection intervals were enabled by the new Sweeping and Inspection Ordinance [Germany].

# Economical, quiet and with clean combustion

The variable speed HE pump in the Vitodens 300-W reduces power consumption by more than 70 percent compared to conventional pumps. The low fan speed ensures low combustion noise, whilst constantly low emissions make an important contribution to sustainable climate protection.

# Integral diagnostic system

The Vitodens 300-W is equipped with the SMART (Self Monitoring And Reporting Technology) diagnostic system that reports deviations from the permissible operating conditions and issues plain text messages in plenty of time. This enables easy maintenance and service scheduling, prevents failures and reduces unnecessary repair costs.

#### Vitodens 300-W

- Inox-Radial heat exchanger made from stainless steel
- MatriX gas burner and Lambda Pro Control combustion controller
- High efficiency pump
- Vitotronic control unit



The compact Vitodens 300-W wall mounted gas condensing boiler doesn't need to hide, as it looks good anywhere.



Inox-Radial heat exchanger made from stainless steel.

#### Take advantage of these benefits:

- Wall mounted gas condensing boiler (system boiler), 1.9 to 35 kW
- Standard seasonal efficiency [to DIN]: 98 % (H<sub>s</sub>[gross cv])/109 % (H<sub>i</sub>[net cv])
- Wide modulation ratio of 1:5
- Large water content; low cycling frequency, even when little heat is drawn off
- Durable and efficient through the Inox-Radial heat exchanger
- MatriX gas burner with long service life thanks to stainless steel MatriX gauze resistant to high temperature loads
- Easy-to-use Vitotronic control unit with plain text and graphic display
- The programming unit in the control unit can also be fitted on a wall mounting base
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Energy saving high efficiency pump (compliant with Energy Label A)
- SMART: Preventative maintenance message high appliance availability; services can be scheduled
- Quiet operation through low fan speed
- Test winner with the "Stiftung Warentest" [German Consumer Association] 07/2010









# VITODENS 222-W VITODENS 200-W

The Vitodens 222-W and 200-W gas condensing boilers are effective and affordable solutions for small and large heat demands.

#### Vitodens 222-W - compact and convenient

The Vitodens 222-W gas condensing storage combi boiler is ideally suited to apartments and detached houses. It can be easily installed in a recess in your bathroom or wall mounted in a utility room, where it won't look out of place above the worktop, washing machine or dryer.

The level of DHW convenience provided by the Vitodens 222-W is particularly impressive. This gas condensing boiler has an integral stainless steel primary store with a 46 litre capacity. Whilst hot water is being drawn, this volume is comparable to a separate 150 litre DHW cylinder.

## Vitodens 200-W - lastingly efficient

Stainless steel is the only choice where economy and a long service life are required. For this reason, the Vitodens 200-W is equipped with a stainless steel Inox-Radial heat exchanger which offers the required reliability and ensures permanently high condensing efficiency.

# Available as a central heating or combi boiler

The Vitodens 200-W wall mounted gas condensing boiler is optionally available as a system boiler with separate DHW provision, or as a combi boiler with an output of up to 35 kW and an integral instantaneous water heater. This ensures DHW and central heating are available in the smallest of spaces.

#### Extremely easy to service

Even in terms of maintenance and service, you'll save plenty of time with these two gas condensing boilers. All components are accessible from the front, making a side clearance for servicing unnecessary.

Last, but not least, all system components, such as the primary store, heating water expansion vessel, pumps and safety valves are fully fitted at the factory.



Inox-Radial heat exchanger

# Vitodens 222-W – Condensing storage combi boiler with integral stainless steel primary store

With the Vitodens 222-W, Viessmann offers a particularly space saving, wall mounted, gas condensing storage combi boiler for high DHW demand. The heat cell is comprised of the proven stainless steel Inox-Radial heat exchanger, the modulating MatriX cylinder burner and the automatic Lambda Pro Control combustion controller. It is particularly recommended for installation in new build, and will easily fit in, even where space is tight.

#### How the primary store works

In comparison to a conventional DHW cylinder, a primary store works with significantly less water content to provide the same volume of hot water. The water heated to the required temperature in the heat exchanger (instantaneous water heater) continually charges the primary store and is, therefore, immediately available for further drawings. Temperature sensors ensure that the preset temperature is reached and maintained.

Where necessary, the MatriX cylinder burner in the Vitodens 222-W starts automatically and ensures the required water temperature is reached. This principle particularly brings to bear when filling a bathtub or having a long shower.

# Vitodens 200-W – Efficient and attractive – with a price to match

With the Vitodens 200-W, Viessmann offers a wall mounted gas condensing boiler with an exemplary price/performance ratio, excellent heating and DHW convenience, compact dimensions and a timeless, elegant design.

#### Up to 98 percent efficiency

The Vitodens 200-W wall mounted gas condensing boiler consumes less energy because it also utilises the heat in the flue gases. This results in an efficiency of up to 98 percent. It's clear that this will reduce your heating costs and benefit the environment.

#### Robust burner with a long service life

The MatriX cylinder burner, developed and manufactured in-house, is characterised by a long service life thanks to its stainless steel MatriX gauze. The integral Lambda Pro Control automatically adapts the combustion to changing gas types. This ensures consistently high energy efficiency and offers security for the future in liberalised gas markets and where admixtures of biogas will be used.

Thanks to the Lambda Pro Control combustion controller, the flue gas inspection intervals have now been extended to 3 years [in Germany]. That saves on costs. The extension of the inspection intervals were enabled by the new Sweeping and Inspection Ordinance [Germany].





Vitodens 222-W Vitodens 200-W

- Stainless steel Inox-Radial heat exchanger
- MatriX cylinder burner
- Vitotronic control unit
- Expansion vessel
- Stainless steel plate heat exchanger (combi boiler)
- Stainless steel primary store inside the Vitodens 222-W



The Vitodens 200-W is compact and can even be installed in recesses. Clearance to side walls is not necessary, as all components are accessible from the front.

## Take advantage of these benefits:

- Standard seasonal efficiency [to DIN] up to 98 % (H<sub>s</sub>[gross cv])/109 % (H<sub>i</sub>[net cv])
- Durable and efficient through the Inox-Radial heat exchanger
- Modulating MatriX cylinder burner with a long service life thanks to stainless steel MatriX gauze – resistant to high temperature loads
- Easy-to-use Vitotronic control unit with plain text and graphic display
- The programming unit in the control unit can also be fitted on a wall mounting base
- As option with power saving HE pump (compliant with Energy Label A)
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Quiet operation through low fan speed

## The added bonus of the Vitodens 222-W

- Particularly space-efficient gas condensing storage combi boiler with integral stainless steel primary store
- High level of DHW convenience with immediate availability
- High continuous output of hot water through cylinder heating
- All system components, such as primary store, expansion vessel (on the heating side), pumps and safety valves are fully fitted

#### The added bonus of the Vitodens 200-W

- Exemplary price/performance ratio
- Compact dimensions, only 450 mm wide (4.8 to 35 kW)
- Available either as a combi or system boiler

## The added bonus of the combi boiler

■ High level of DHW convenience through standby function

#### The boiler bonus

- Affordable and space-efficient solution, even for a high heat demand (up to 105 kW)
- Cascade control with up to four boilers up to 420 kW











# **VITODENS 333-F**

Combine the benefits of the Vitodens 300-W with the high level of DHW convenience afforded by a separate DHW cylinder in one compact floorstanding appliance.

With the Vitodens 333-F, you're doing everything right. It is suitable for both modernisation projects and new build. This floorstanding gas condensing boiler will win you over with its reliable operation and integral 100 litre stainless steel primary store.

#### DHW convenience included

The Vitodens 333-F is an ideal combination of efficient gas condensing technology and reliable DHW provision. Exceptional operational reliability and a long service life are the hallmarks of this storage combi boiler. Alongside its economical consumption of natural gas, maintenance costs are also kept to a minimum.

In the output range up to 26 kW, the Vitodens 333-F covers a broad spectrum of applications – from apartments to detached and two-family houses.

#### Compact design; fully fitted

The footprint of the Vitodens 333-F is no larger than that of a domestic fridge-freezer. This condensing boiler is fully fitted at the factory, which significantly reduces the installation time. You'll particularly appreciate this when you see that the loss of heating and DHW convenience during the modernisation phase can be reduced to a minimum.



MatriX gas burner

#### Compact and efficient

The Vitodens 333-F is a powerful gas condensing storage combi boiler. The stainless steel primary store with its 100 litre capacity safeguards a high level of DHW convenience. It meets the most stringent demands for hygiene. Its homogeneous surface retains its characteristics and maintains its perfectly hygienic and acid-resistant properties, even after many years in use.

The proven MatriX gas burner with Lambda Pro Control combustion controller automatically adjusts itself to varying gas qualities and ensures a constantly high standard seasonal efficiency [to DIN] of 98 percent.

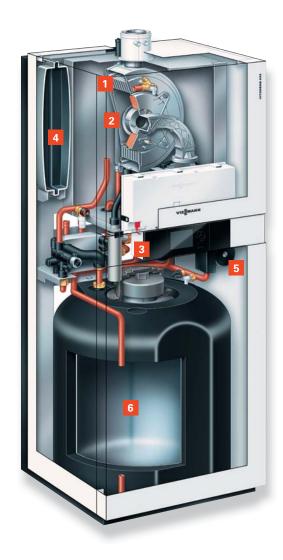
Thanks to the Lambda Pro Control combustion controller, the flue gas inspection intervals have now been extended to 3 years [in Germany]. That saves on costs. The extension of the inspection intervals were enabled by the new Sweeping and Inspection Ordinance [Germany].

#### Easy-to-operate Vitotronic control unit

The Vitotronic control unit offers an intuitive operation. The easily legible backlit monochrome display is 70 percent larger than that on comparable devices. In addition, it can display graphics enabling it to show heating curves as well. If in doubt, help with the next steps is available at the push of a button.

#### Power saving HE pump

Compared to conventional pumps, the new variable speed HE pump consumes up to 70 percent less power and consequently complies with Energy Label A.



#### Vitodens 333-F

- Inox-Radial heat exchanger
- MatriX gas burner and Lambda Pro Control combustion controller
- Vitotronic control unit
- Expansion vessel
- High efficiency pump
- 6 Stainless steel primary store



Hot water included – the Vitodens 333-F.



Vitotronic 200 control unit – clear indication of switching times.

#### Take advantage of these benefits:

- Gas condensing storage combi boiler with integral stainless steel primary store,
   3.8 to 26 kW
- Standard seasonal efficiency [to DIN]: 98 % (H<sub>s</sub>[gross cv])/109 %(H<sub>i</sub>[net cv])
- Durable and efficient through the Inox-Radial heat exchanger
- MatriX gas burner with long service life thanks to stainless steel MatriX gauze resistant to high temperature loads
- Stainless steel primary store with 100 litre capacity
- Energy saving high efficiency pump (compliant with Energy Label A)
- Easy-to-use Vitotronic control unit with plain text and graphic display
- The programming unit in the control unit can also be fitted on a wall mounting base
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Universal connection sets for individual installation flush with the wall
- DHW expansion vessel and DHW circulation pump can be integrated inside the appliance
- Assembly kit with dimensions and design to match those of the appliance enables the control of mixed heating circuits









# **VITODENS 222-F**

The floorstanding condensing storage combi boilers, with enamelled primary store or DHW cylinder with internal indirect coil, boast a high level of DHW output and the convenience of intuitive appliance adjustments.

Who says that you can't put your new heating centre in the kitchen? With the new floorstanding Vitodens 222-F condensing storage combi boiler, that's not a problem. It fits in perfectly amongst your kitchen furniture, where it neatly blends in and works extremely economically, particularly if equipped with a variable speed HE pump.

We produce the MatriX cylinder burner and stainless steel Inox Radial heat exchanger ourselves.

#### Low gas consumption

The Vitodens 222-F offers permanently low gas consumption and, with the Lambda Pro Control combustion controller, it ensures high operational reliability.

#### **Easy installation**

With its connection sets and wall standing design, this storage combi boiler offers a particularly wide range of applications. It is largely pre-assembled and can be quickly installed. And thanks to the large number of standard components to be found in other condensing storage combi boilers from Viessmann, your heating contractor can carry out all necessary maintenance and service work quickly and inexpensively.



MatriX cylinder burner

#### Affordable and space efficient

The gas condensing storage combi boiler Vitodens 222-F is designed specifically for modernising heating systems and as a replacement for older gas boilers with cylinder below. The enamelled primary store with 100 or 130 litre capacity ensures a high degree of DHW convenience. For hard water areas, a version using an enamelled DHW cylinder with 130 litre capacity with an indirect internal coil is available as an alternative.

Like all storage combi boilers, the Vitodens 222-F gas condensing storage combi boiler takes up little space: width and depth correspond to standard kitchen unit dimensions. The proven MatriX cylinder burner with Lambda Pro Control combustion controller automatically adjusts itself to varying gas qualities and ensures a constantly high standard seasonal efficiency [to DIN] of 98 percent.

Vitodens 222-F with enamelled DHW cylinder with indirect coil for hard water areas.



Vitodens 222-F with enamelled primary store.

#### Intelligent combustion control

The Vitodens 222-F, in any size, is now equipped with the automatic Lambda Pro Control combustion controller. Even if the gas composition fluctuates, the efficiency remains consistently high. Also, if the gas type is changed, i.e. through admixing biogas, it is not necessary to change the nozzle. The Lambda Pro Control combustion controller automatically adjusts the boiler to suit the new conditions.

Thanks to the Lambda Pro Control combustion controller, the flue gas inspection intervals have now been extended to 3 years [in Germany]. That saves on costs. The extension of the inspection intervals were enabled by the new Sweeping and Inspection Ordinance [Germany].

#### **Convenient Vitotronic control unit**

Contractors and users benefit equally from the easy-to-use Vitotronic control unit, as the structure of the control menu is logical and easy to understand and the unit is backlit, rich in contrast and easy to read. If in doubt, a help function informs users of the next steps to perform.

The graphical user interface is also designed to display heating curves. If required, the programming unit can be installed anywhere on a wall mounted base up to the five metres (cable length) away from the heating centre.

#### Vitodens 222-F

- Inox-Radial heat exchanger
- MatriX cylinder burner and Lambda Pro Control combustion controller
- 3 Vitotronic control unit
- Expansion vessel
- High efficiency pump
- Enamelled DHW cylinder with internal indirect coil
- Enamelled primary store



The Vitodens 222-F fits perfectly into the space of a standard kitchen unit.



Vitotronic 200 control unit – easy operation thanks to user prompts and graphic display, such as of the heating curves.

#### Take advantage of these benefits:

- Gas condensing storage combi boiler with integral enamelled primary store or DHW cylinder with internal indirect coil, 4.8 to 35 kW or 4.8 to 26 kW
- Standard seasonal efficiency [to DIN]: 98 % (H<sub>s</sub>[gross cv])/109 % (H<sub>i</sub>[net cv])
- Enamelled primary store with 100 litre capacity (35 kW: 130 litres), enamelled DHW cylinder with internal indirect coil and 130 litre capacity
- Durable and efficient through the Inox-Radial heat exchanger
- Modulating MatriX cylinder burner with a long service life thanks to stainless steel MatriX gauze – resistant to high temperature loads
- Easy-to-use Vitotronic control unit with plain text and graphic display
- The programming unit in the control unit can also be fitted on a wall mounting base
- As option with power saving HE pump (compliant with Energy Label A)
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Universal connection sets for individual installation flush with the wall
- No lateral service clearance required
- DHW expansion vessel and DHW circulation pump can be integrated inside the appliance
- Assembly kit with dimensions and design to match those of the appliance enables the control of mixed heating circuits











### **VITODENS 343-F**

Ready-to-connect storage combi boiler with integral solar DHW heating.

For modern heating with condensing and solar technology in detached houses, the Vitodens 343-F is an extremely energy efficient, environmentally responsible and advanced heating system.

With a floor area of just 0.4 square metres, this all-in-one solution takes up only a very small amount of space, and so can fit into any recess. Furthermore, all components for installation and maintenance are accessible from the front. And last, but not least, the Vitodens 343-F gas condensing boiler is both quiet as a whisper and highly efficient.

The Vitodens 343-F storage combi boiler offers energy efficient condensing technology, high performance DHW heating via a primary store system and ready-to-connect solar preparation in a single casing.

### Futureproof through solar integration

The Vitodens 343-F is fully prepared for combination with Vitosol solar collectors, either now or in the future. The control module for regulating the solar thermal system is already integrated; the solar yield is displayed graphically by the device. All functions are matched to one another and have been factory tested.



Inox-Radial heat exchanger

### High heating and DHW convenience including solar integration

The Vitodens 343-F gas condensing storage combi boiler is specifically designed for new build and for modernising detached houses. The Vitodens 343-F is equipped as standard for the direct connection of a solar thermal system. The appliance, for installation tight against the wall, offers high DHW convenience, as the dual mode stainless steel DHW cylinder features a capacity of 220 litres. Compared to the predecessor model, this compact appliance can be split for easier handling. In addition, weight was significantly reduced.

### Easy-to-operate Vitotronic control unit

The Vitotronic control unit features selfexplanatory user prompts. If in doubt, help

Vitodens 343-F

I Inox-Radial heat exchanger

MatriX gas burner and Lambda Pro Control combustion controller

Vitotronic control unit

Expansion vessel

High efficiency pumps

Stainless steel
DHW cylinder with solar indirect coil

Solar circuit fill valve

with the next input is available at the push of a button. The graphic interface will also display heating curves and solar yield. The control module for regulating the solar thermal system is already integrated. An easily accessible interface for the connection of the collector temperature sensor is available.

A 5 metre long connecting cable enables the removable programming unit of the Vitotronic control unit to be mounted almost anywhere in a convenient position inside a wall mounting base.

### Intelligent combustion control

The Vitodens 343-F, in any size, is now equipped with the automatic Lambda Pro Control combustion controller. Even if the gas composition fluctuates, the efficiency remains consistently high. Also, if the gas type is changed, i.e. through admixing biogas, it is not necessary to change the nozzle. The Lambda Pro Control combustion controller automatically adjusts the boiler to suit the new conditions.

Thanks to the Lambda Pro Control combustion controller, the flue gas inspection intervals have now been extended to 3 years [in Germany]. That saves on costs. The extension of the inspection intervals were enabled by the new Sweeping and Inspection Ordinance [Germany].

### Pumps with up to 70 percent lower power consumption

These variable speed HE pumps for heating and solar circuits consume up to 70 percent less power than conventional pumps.

Consequently, the heating and solar circuit pumps of the Vitodens 343-F comply with the requirements of Energy Label A.

### Stainless steel DHW cylinder

DHW cylinders made from corrosion-resistant stainless steel, meet the most stringent hygiene standards. Stainless steel is used in kitchens, laboratories, hospitals and the food processing industry for good reason, because it offers excellent hygienic properties. Its homogeneous surface retains its hygienic properties even after many years of use.



For modern heating with condensing and solar technology in detached houses, the Vitodens 343-F is an extremely energy efficient, environmentally responsible and advanced heating system.



Vitotronic 200 control unit – easy operation thanks to simple navigation and graphic display, e.g. for indicating the solar yield.

### Take advantage of these benefits:

- Gas condensing storage combi boiler with integral solar DHW heating, 3.8 to 19 kW
- Standard seasonal efficiency [to DIN]: 98 % (H<sub>s</sub>[gross cv])/109 % (H<sub>i</sub>[net cv])
- Durable and efficient through the Inox-Radial heat exchanger
- MatriX gas burner with long service life thanks to stainless steel MatriX gauze resistant to high temperature loads
- High DHW convenience through stainless steel DHW cylinder with 220 litre capacity and solar indirect coil
- Energy efficient HE pumps for heating and solar circuits (compliant with Energy Label A) in conjunction with a solar thermal system
- Easy-to-use control unit with plain text and graphic display
- The programming unit in the control unit can also be fitted on a wall mounting base
- Lambda Pro Control combustion controller for all gas types saves on costs through an extension of the inspection interval to 3 years
- Universal connection sets for individual installation flush with the wall
- Splits for easier handling
- Solar coverage for DHW heating: > 60 %

For the specification, see pages 44/45











### VITOSOLAR 300-F

Powerful and compact heating centre including solar operation — with a wall mounted gas condensing boiler.

The footprint of the Vitosolar 300-F heating centre covers little more than 1.5 square metres, enabling the complete dual mode system to be installed in the space of an older gas boiler with either a DHW cylinder below or on top.

The powerful Vitosolar 300-F Unit for central heating backup and DHW heating includes a 750 litre combi cylinder and a Vitodens 300-W or a Vitodens 200-W wall mounted gas condensing boiler.

The high grade thermal insulation and the visually appealing casing makes the Vitosolar 300-F heating centre an attractive addition to any utility room, for example in a new build without cellar.



Inox-Radial heat exchanger

### Eligible for subsidies and frugal too

Operating this system in conjunction with Vitosol solar collectors for central heating backup meets the requirements of the Renewable Energies Heat Act [Germany] and the Renewable Heat Act, Baden-Württemberg. This investment may attract public subsidies. For current information, see the subsidy database at www.viessmann.de.

Compared to conventional pumps, the variable speed circulation pumps (Energy Label A) for the heating and solar circuit consume up to 70 percent less power.

### Easy to install and everything you need

The Vitosolar 300-F is factory-prepared for a straightforward and quick installation. The mounting panel is already pre-assembled with heating circuit distributor, solar circuit components, thermally insulated pipework and shut-off valves. A provision for linking in a DHW circulation pipe has also been made. Connecting a second heating circuit distributor is as possible as the linking in of a second heat source, such as a wood boiler, for example. All connections can be routed out of the appliance to the right or left, subject to the space available.



### Vitosolar 300-F

- Multi mode heating water buffer cylinder
- 2 Wall mounted gas condensing boiler
- Corrugated stainless steel pipe for DHW heating
- Vitotronic 200 control unit
- 5 Solar indirect coil
- 6 Divicon heating circuit distributor
- Solar circuit components
- 8 Connections on the system side



Vitosolar 300-F gas condensing storage combi boiler for solar DHW heating and central heating backup.



Vitotronic 200 control unit display

### Take advantage of these benefits:

- 750 litre combi cylinder for solar central heating backup with fitted boiler
- Combination with Vitodens 300-W or Vitodens 200-W wall mounted gas condensing boiler
- Convenient Vitotronic 200 control unit for operating the entire energy centre, including the solar thermal system
- Energy efficient circulation pumps for solar and heating circuits (Energy Label A)
- Compact dimensions ideal for new build and modernisation
- Uniform high grade design
- Meets statutory requirements in accordance with the Renewable Energies
   Heat Act and the Renewable Heat Act [Germany]
- Option to connect additional heat sources (e.g. solid fuel boiler)

For the specification, see pages 44/45



### Vitocrossal 300\* gas condensing boiler

Rated heating output (50/30 °C)	kW	5.2 – 26	7 – 35	12 – 45	12 – 60
Rated heating output (80/60 °C)	kW	4.7 – 23.5	6.3 – 31.7	10.9 – 40.8	10.9 – 54.3
Dimensions		60.4	60.4	001	001
Length Width	mm mm	684 660	684 660	801 660	801 660
Height	mm	1562	1562	1562	1562
Weight	kg	122	125	155	160
Boiler water content	litres	51	49	86	82

<sup>\*</sup> Available up to 142 kW; specification at www.viessmann.de



### Vitodens 300-W wall mounted gas condensing boiler

Rated heating output (50/30 °C	) kW	3.8 – 13	3.8 – 19	5.2 – 26	7.0 – 35
Rated heating output (80/60 °C	) kW	3.5 – 11.8*	3.5 – 17.2	4.7 – 23.7	6.4 – 32
Dimensions					
Length	mm	360	360	380	380
Width	mm	450	450	480	480
Height	mm	850	850	850	850
Weight	kg	50	50	48	50
Heat exchanger capacity	litres	3.8	3.8	5.0	5.6

<sup>\* 16</sup> kW for DHW heating



### Vitodens 200-W wall mounted gas condensing boiler

Type Gas combi boiler						
Rated heating output (50/30 °C)	kW	6.5 – 26	8.8 – 35			
Rated heating output (80/60 °C)	kW	5.9 – 23.7*	8 – 31.7**			
Dimensions						
Length	mm	360	360			
Width	mm	450	450			
Height	mm	850	850			
Weight	kg	46	48			
Heat exchanger capacity	litres	2.4	2.8			

<sup>\* 29.3</sup> kW for DHW heating \*\* 35 kW for DHW heating

Туре		Gas boile	r					
Rated heating output (50/30 °C) k	:W	4.8 – 19	6.5 – 26	8.8 – 35	17 – 45	17-60	30-80	30-105
Rated heating output (80/60 °C) k	W	4.3 – 17.2	5.9 – 23.7	8 – 31.7	15.4 – 40.7	15.4 – 54.4	27 – 72.6	27 – 95.6
Dimensions								
Length	nm	360	360	360	380	380	530	530
Width	nm	450	450	450	480	480	480	480
Height	nm	850	850	850	850	850	850	850
Weight k	g	41	43	47	65	65	83	83
Heat exchanger capacity	itres	1.8	2.4	2.8	7.0	7.0	12.8	12.8



### Vitodens 222-W wall mounted gas condensing boiler

Rated heating output (50/30 °C)	kW	4.8 – 19	6.5 – 26	8.8 – 35
Rated heating output (80/60 °C)	kW	4.3 – 17.2	5.9 – 23.7*	8 – 31.7**
Dimensions				
Length	mm	480	480	480
Width	mm	600	600	600
Height	mm	900	900	900
Weight	kg	60	63	67
Heat exchanger capacity	litres	1.8	2.4	2.8
DHW primary store	litres	46	46	46

<sup>\* 29.3</sup> kW for DHW heating \*\* 35 kW for DHW heating









### Vitodens 333-F gas condensing storage combi boiler

Rated heating output (50/30 °C	kW	3.8 – 13	3.8 – 19	5.2 – 26
Rated heating output (80/60 °C	kW	3.5 – 11.8*	3.5 – 17.2	4.7 – 23.7
<b>Dimensions</b> Length x width x height	mm		595 x 600 x 1425	
Weight	kg	110	110	113
Heat exchanger capacity	litres	3.8	3.8	5.0
Stainless steel primary store	litres	100	100	100

<sup>\* 16</sup> kW for DHW heating



### Vitodens 222-F gas condensing storage combi boiler

Туре		FS2B	FS2B	FS2B	FR2B	FR2B
Rated heating output (50/30 °C)	kW	4.8 – 19	6.5 – 26	8.8 – 35	4.8 – 19	6.5 – 26
Rated heating output (80/60 °C)	kW	4.3 – 17.2	5.9 – 23.7*	8 – 31.7**	4.3 – 17.2	5.9 – 23.7
<b>Dimensions</b> Length Width Height	mm mm mm	595 600 1425	595 600 1425	595 600 1625	595 600 1625	595 600 1625
Weight	kg	129	132	141	139	142
Heat exchanger capacity	litres	1.8	2.4	2.8	1.8	2.4
Primary store	litres	100	100	130	-	-
DHW cylinder with internal indirect coils	litres	-	-	-	130	130

<sup>\* 29.3</sup> kW for DHW heating



Vitodens 343-F gas condensing storage combi boiler

Rated heating output (50/30 °C)	kW	3.8 – 13	3.8 – 19
Rated heating output (80/60 °C)	kW	3.5 – 11.8*	3.5 – 17.2
<b>Dimensions</b> Length x width x height	mm	595 x 600	x 2075**
Weight	kg	162**	162**
Heat exchanger capacity	litres	3.8	3.8
Stainless steel primary store with solar indirect coil	litres	220	220

<sup>\* 16</sup> kW for DHW heating

<sup>\*\*</sup> Vitodens 343-F can be split



### Vitosolar 300-F gas condensing storage combi boiler

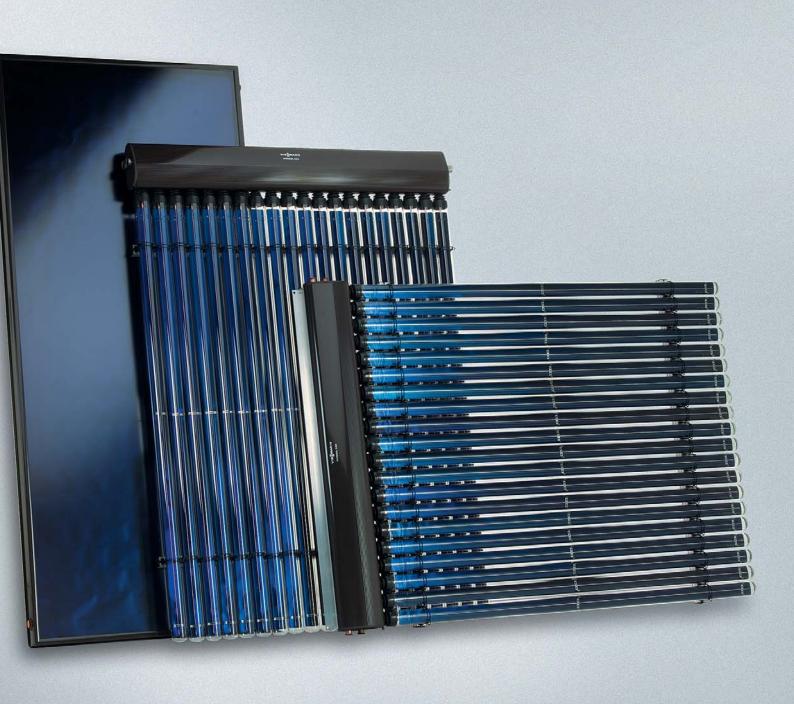
	With Vit	odens 300	-W	With Vitodens 200-W			
Rated heating output (50/30 °C) kW	3.8 – 13	3.8 – 19	5.2 – 26	7 – 35	4.8 – 19	6.5 – 26	8.8 – 35
Rated heating output (80/60 °C) kW	3.5 – 11.8	3.5 – 17.2	4.7 – 23.7	6.4 – 32	4.3 – 17.2	5.9 – 23.7	8 – 31.7
Dimensions							

Length x width x height mm 1550 x 990 x 1875\*

Weight	kg	347	348	346	348	341	343	345
Combi cylinder capacity	litres	750	750	750	750	750	750	750

<sup>\*</sup> Details refer to appliance height without flue outlet

<sup>\*\* 35</sup> kW for DHW heating

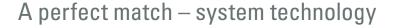












The convenient controls and perfectly matching Viessmann system technology offer you maximum reliability, flexibility and efficiency.

"The whole is greater than the sum of its parts." In accordance with this philosophy, Viessmann does not simply supply individual heating equipment components that correspond to the high Viessmann standards for quality, reliability and effectiveness. Rather, all products are part of a matching total concept, where all components complement one another. Only the perfect interaction of system-integral components draws out the maximum potential of our innovative leading technology.

Viessmann system technology includes everything that makes a reliable and economical heating system: from the Vitotronic control unit with wireless remote control, powerful Vitocell DHW cylinders for the highest DHW convenience, right up to high grade solar thermal systems for cost effective central heating backup.



### Solar thermal and photovoltaics

Free solar energy – find out more about our solar thermal systems for DHW heating, central heating backup and power generation.

Page 48



### **Domestic hot water**

DHW convenience for every demand. With the Vitocell range of cylinders from Viessmann, you have an enormous choice and maximum scope when designing your heating system.

Page 52



### **Control unit**

Clear, convenient, intelligent – the Vitotronic offers you perfect functionality for fast and precise control over your heating system.

Page 54



### **Data communication**

Do you know about Vitocom? It's the ideal solution for monitoring a heating system, and exchanging data easily and conveniently from a different location.

Page 56



Tube collectors can be installed anywhere

### Solar thermal – free solar energy

Extend your new gas boiler with the right solar technology. Then you'll save twice as much precious heating energy.

A new heating centre and a solar thermal system go hand in hand – perfectly. There are good reasons for this. In the summer, almost the entire energy demand for DHW heating can be covered by solar collectors. In spring and autumn, this system can also backup your central heating system. This means in a new house, you can save up to 35 percent of the total heating energy required.

Calculated over the year, 60 percent of energy can be saved on DHW heating alone. This is because solar energy is free, and even daylight is converted into heat by the collector when the sun is not shining directly onto the roof.

### The principle is quite simple

To capture solar rays and then utilise them efficiently sounds more difficult than it is. Of course, a great deal of innovative technology and experience are required. Solar thermal systems "collect" solar energy in the flatplate or tube collectors. In these, a heat transfer medium is heated by insolation and routed into a DHW cylinder. There, the heat is transferred via an indirect coil to the domestic hot water to be heated, or to the heating circuit. Thereafter, the cooled liquid is returned to the collector, and the cycle begins again. The boiler provides reheating if there is insufficient insolation, e.g. in winter.







The Vitosol range offers solar collectors for every aspiration and every budget. Installation on the roof or wall opens up a variety of design options.

### Flat-plate and tube collectors

The Vitosol 200-F flat-plate collector is distinguished by its high quality, lasting operational reliability and high efficiency. With its extremely translucent anti-reflex glass and highly selectively coated copper absorber, the high performance Vitosol 300-F flat-plate collector utilises intensive solar radiation particularly efficiently.

The Vitosol 200-T vacuum tube collector is characterised by its particularly effective thermal insulation and high efficiency resulting from its Sol-titanium coating. It can be installed anywhere.

The Vitosl 300-T meets the highest demands. This top quality, high performance collector is designed around the heat pipe principle.

### Generate your own power with Vitovolt

The Vitovolt 200 photovoltaic modules generate electrical energy right in the solar cell. This power is exported straight to the public grid via an inverter.

### Benefit from public subsidies

Your Viessmann trade partner is well-informed about current subsidy programmes and will give you the most important contact details to obtain information and application forms.

Or simply take a look on the internet: www.viessmann.de/foerderprogramme.



The Vitosol 200-F flat-plate collector features frost and hail-proof safety glass, as well as corrosion-resistant components made from stainless steel and aluminium. The frames are available on request in any RAL colour.



The Vitosol 300-T and Vitosol 200-T vacuum tube collectors are marked out by their superior reliability and long service life



Vitovolt photovoltaic modules from Viessmann also provide a high level of power generation in partially shaded areas.





Outstanding quality you can rely on. More information at www test de



- Vitovolt photovoltaic modules
- Vitosol solar collectors
- DC isolator
- Inverter
- **5** Consumption and feed-in meters
- 6 Main fuse/MCB

- Public grid
- Condensing heating system with multi mode combi cylinder for DHW heating and central heating backup
- Solar-Divicon pump station









## DHW heating and central heating backup with solar energy

Solar thermal systems are ideally suited for DHW heating and central heating backup. As a result of the freely available solar energy, you can save on the use of fossil fuels. What's more, investments in solar thermal energy pay back in just a few years.

You basically have the option of using solar energy for DHW heating and central heating backup. The savings on oil or gas are considerable, as you will be able to reduce your energy consumption, required to heat DHW for the daily demand, by 60 percent. If you combine the heating of DHW and central heating water, considering DHW and central heating together, you will save around 35 percent of the total energy required – every year.

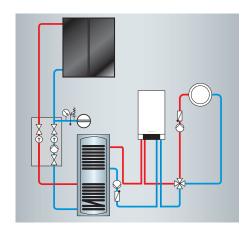
### Solar thermal system with dual mode DHW cylinder

The dual mode DHW cylinder is key to this type of system. When there is sufficient insolation, the heat transfer medium in the solar thermal system heats up the water in the DHW cylinder via the lower indirect coil.

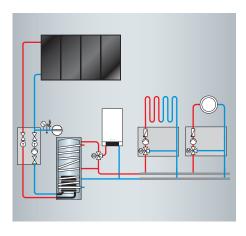
When the temperature drops through water being drawn off, such as for a bath or shower, the boiler will start if required to provide additional heating via the second circuit.

### Solar thermal system for DHW heating and central heating backup

The heat transfer medium heated in the solar collectors can be used for backup heating of the heating water, as well as for DHW heating. For this, the heating circuit, via a heat exchanger, uses the water in the solar cylinder that is continuously heated by the solar collectors. The control unit checks whether the required room temperature can be achieved. If the temperature is below the set value, the boiler will also start.



Solar DHW heating



With Viessmann, the entire heating and solar technology comes from a single source. All components are perfectly matched.

Solar DHW heating and central heating backup



The Vitocell range from Viessmann offers the right DHW cylinder for every demand and each cylinder is perfectly matched to the respective gas boiler or solar thermal system.

### DHW convenience for every demand

With the Vitocell DHW cylinders, we offer you the convenient solution to supplying your household with hot water – the perfect extension to your new gas boiler.

The demand for hot water is different in every household. One factor is the number of residents and another is their bathing and showering habits. For example, several people in one household frequently go to work and school at the same time, so lots of hot water needs to be continuously available for the shower in a short space of time.

Those who prefer a bath will also want to have enough hot water to fill the tub. After all, the DHW cylinder should also provide

sufficient water if, in an apartment block for example, hot water is drawn from more than one outlet at the same time.

Vitocell DHW cylinders fulfil these requirements in every respect and can also meet every aspiration where equipment levels are concerned. In all instances, the installation of a solar thermal system is recommended to save energy and heat the water without cost.









In the Vitocell cylinder range, you'll find exactly the right DHW cylinder for your requirements. Subject to DHW demand and installation options, select a floorstanding DHW cylinder, or a cylinder for installation adjacent to or below the boiler.

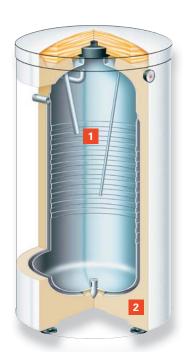
### Hygienic DHW provision

The quality of the inner surface of the DHW cylinder is crucial to providing DHW hygienically. For this reason, Viessmann relies on two high quality materials, the first being a Ceraprotect enamel coating for safe, lasting protection against corrosion for the Vitocell 100 range. Secondly, stainless steel acts as the "guardian angel" of the Vitocell 300 range, satisfying the highest hygienic requirements.

The indirect coils inside Vitocell DHW cylinders reach right down to the cylinder floor. This enables them to heat the entire water content and make particularly economical use of the full cylinder capacity.

### Vitocell 300 made of stainless steel

Vitocell 300 DHW cylinders made from corrosion-resistant stainless steel meet some of the most stringent hygiene standards. Stainless steel is used in kitchens, laboratories, hospitals and the food processing industry for good reason, because it offers excellent hygienic properties.





If the boiler is mounted on the wall, the space below can be used for a Vitocell DHW cylinder.

Its homogeneous stainless steel surface retains its hygienic properties even after many years in use.

### Vitocell 100 with Ceraprotect enamel coating

Vitocell 100 with Ceraprotect enamel coating meets all requirements for convenient, economic DHW heating and is amongst the top selling enamelled DHW cylinders. The Ceraprotect enamel coating provides the DHW cylinder with secure and lasting protection against corrosion.

### Take advantage of these benefits:

- Vitocell 300 made from stainless steel. Capacities: 130 to 500 litres
- Dual mode and multi mode DHW cylinders for the integration of solar thermal systems for DHW heating and central heating backup
- Vitocell 100 with Ceraprotect enamel coating. Capacities: 80 to 1000 litres
- Internal indirect coils stretching right to the cylinder floor heat up the entire water content
- Low heat losses through highly effective thermal insulation

### Vitocell 300-W

- High-grade stainless steel cylinder
- Low heat losses through highly effective thermal insulation



Vitotronic control unit for wall mounted gas condensing boilers and gas condensing storage combi boilers.



### **DESIGN PLUS**

The Vitotronic control units have already been awarded a design prize.

The floorstanding Vitocrossal 300 gas condensing boiler is also equipped with the Vitotronic 200 control unit for weather-compensated operation.







### $\triangleleft$

### Vitotronic – everything perfectly under control

With the digital Vitotronic control unit, operating your Viessmann boiler is as simple as making a phone call.

### Vitotronic - technology that thinks for you

Vitotronic control units provide you with every opportunity for really convenient heating, regulated to suit you personally. Once adjusted to your needs, the Vitotronic runs many functions automatically and saves a great deal of energy. Individual adjustments are simplified by the clear operator interface with backlit keys and large display showing plain text messages.

### Options for the future

The Vitotronic control unit is designed to accommodate future modifications. Whether you want to build an extension in the near future, or extend your heating system with a solar thermal system, the Vitotronic will always keep up with the times.

### Saving energy made easy

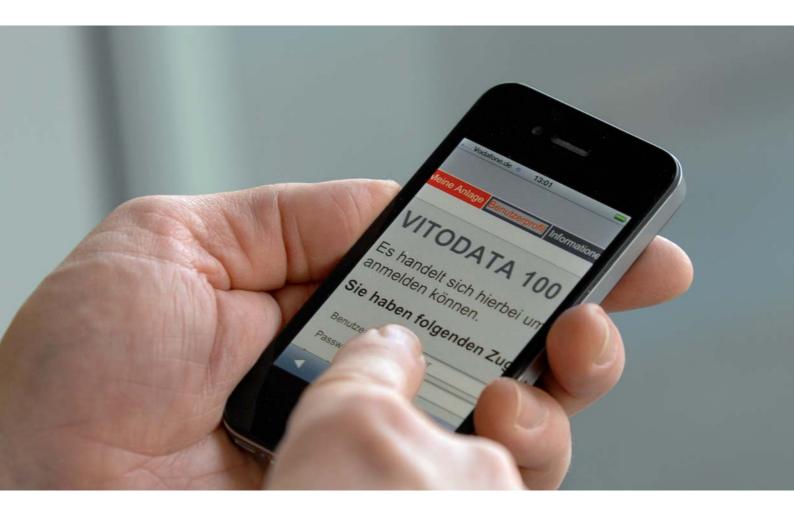
The Vitotronic automatically changes over between winter and summertime, and responds to outside temperature fluctuations as a weather-compensated control unit. All convenience functions, such as the party button which cancels the energy saving night setback, and the economy and holiday programs, can be called up quickly and easily at the touch of a button, either on the boiler itself, or by using the optional remote control from your living space, which has an identical user interface.



The Vitotrol 300 is a convenient remote control unit to control your boiler from any room in your apartment or home.

Overview	Vitotronic 100	Vitotronic 200
Response to changes in room temperature		-
Response to changes in outside temperature	-	-
Options for central heating and DHW heating	-	-
Options for central heating only	*	
Automatic summer/wintertime changeover	-	-
Party key (extends heating mode)	*	
Economy key (short-term temperature setback)	*	-
Holiday program (long-term temperature setback)	*	
Small display with symbols	•	-
Large plain text display	-	•
Energy saving functions	-	-

<sup>\*</sup> Only in conjunction with separate Vitotrol 100 clock thermostat (in the living space)



### Everything under control – from wherever you are

Make use of the particularly convenient TeleControl program from Viessmann to regulate your heating system. Naturally wireless and digital.

Viessmann TeleControl offers an efficient solution for all heating systems, every type of energy and all applications. With Vitocom, Vitodata and Vitohome, our heating systems can be comprehensively remotely monitored and operated.

You communicate directly with the digital Vitotronic control unit, which can be matched to your individual requirements. This increases convenience, improves security and additionally saves energy. By means of remote diagnosis, your heating contractor can ensure reliable heating operation.







#### Vitocom 100

Vitocom 100 is the easy way to remotely monitor and control your boiler via your mobile phone. This remote control is ideal for detached and two-family houses. It's also suitable for holiday and weekend homes that are not occupied all the time. On your way there, start up the heating system via your mobile and set the required temperature. It could hardly be any simpler or more economical.

#### Vitocom 200

If you want to combine the highest levels of convenience and security, the Vitocom 200 is the right solution. This attractively-priced version offers ideal conditions for comprehensive data communication – perfect for private homes and smaller commercial buildings, such as workshops or clinics. To operate the independent remote control unit, you will need a standard PC or a smartphone.

### Vitohome 300

Vitohome 300 is the ideal solution for centralised home automation. Set the precise temperature for every room, and heat only where necessary and required. In combination with an advanced condensing boiler, this means you can save even more energy and money.

Vitohome 300 is easy right from the start. Components communicate by wireless signals, making it ideal for retrofitting, as no wiring is required.

The heating system does not require any expensive conversions either. The Vitohome 300 fits perfectly anywhere a Vitotrol 300 can be connected to the boiler.

The system is based on the European KNX communication standard. This enables additional functions to be added with ease – even at a later stage. Your electrical wholesaler will offer you matching devices, such as window contacts, smoke detectors or controls for lighting and blinds. They offer optional simulation of a presence, and panic circuits. The result is not just improved convenience, but also a higher level of security.



Vitohome 300 – the simple and convenient centralised domestic automation system controls the temperature curve in every room subject to demand, thus saving considerably on heating costs.





### Vitoset – everything from a single source

Expansion vessels, pipework, pumps, filters and valves – Vitoset offers you all the accessories you need for your Viessmann heating system.

With the Vitoset range, Viessmann provides you with all the components required for a domestic heating system, from a single source. This means that you can benefit from the fact that everything matches and can be combined into a single homogeneous system that meets your individual requirements. What's more, your ideas can be implemented swiftly and safely, as all the parts are made available quickly and directly to your Viessmann heating contractor and are of the highest quality.

Something that all components of the extensive range of accessories from Viessmann share is the use of high grade, tested materials and perfect manufacture – this ensures that they provide truly safe and reliable solutions.

Vitoset – this is innovative technology, where all components interact perfectly. Ask your Viessmann heating contractor to visit you on site. They will be happy to advise you about the many application options using Vitoset.

### **Product range**

### Heat generation

- Expansion vessels for sealed unvented heating systems
- Safety equipment and hydraulic accessories
- Small water softening systems
- Single and twin wall stainless steel flue system

### **DHW** heating

- Drinking water filter
- Expansion vessels for DHW installations
- DHW circulation pumps
- Diaphragm safety valves for sealed unvented DHW cylinders
- Residential and local heating network transfer stations

### **Heat distribution**

- Valves
- Heating mixers
- Circulation pumps

### Heat transfer

- Universal, flat panel and bathroom radiators, plus specific accessories
- Ultra-low temperature radiators
- Radiator accessories
- Underfloor heating systems



Vitoset offers you all the components you need to modernise your heating system.

## System accessories from Viessmann — complete heating systems from a single source

The Vitoset range offers you products from a single source to operate your heating system in complete safety.

Every Vitoset product meets the high quality demands you have come to expect from Viessmann. So when installing your new heating system, don't settle for anything less. The accessories range is ideally matched to the heating system. Here is an overview:

### Universal radiators

You can recognise the quality of these radiators by their high grade, long lasting paint finish. Thanks to their neutral finish in white RAL 9016, our universal, high heating output radiators will blend easily into any room. On request, all universal radiators can also be supplied in special colours. The radiators are easy to clean. For thorough cleaning, simply remove the top grille.







#### **Panel radiators**

Their brilliant, completely smooth design makes flat panel radiators an exceptionally aesthetic design feature, which is subtle yet effective. The technical concept behind them is optimised for the demands of energy efficient heating. The resistant, plastic-coated surface is easy to clean and gleams in white RAL 9016.

#### **Bathroom radiators**

The innovative bathroom radiators with their slender pipe elements look elegant, light and blend into any bathroom. A variety of designs will help you to make your bathroom stylish, and will keep your towels nice and warm.

Alongside their connection to the heating system, the bathroom radiators can also be operated electrically – a heater rod can provide the necessary heating output. It's even possible to combine both technologies, i.e. the central heating connection for the heating season, and the heater rod for cooler summer days, when you want to take away that early morning chill in your bathroom.

### Thermostatic valves

Not all thermostats are the same. The use of high grade materials and precise temperature selection give Viessmann controllers the edge. Last, but not least, it is their stylish design that lends your rooms that little extra touch.



Beautifully finished and pleasing to the eye: Vitoset bathroom radiators come in many different shapes and sizes. They also make a stylish design statement.



Greater convenience: Viessmann thermostatic valves enable exact temperature selection and are characterised by a design that is both elegant and functional.









### With our trade partners, you're in good hands

For Viessmann, proximity to trade partners is the basis of the company's success. You, too, can benefit from their expertise when you choose a new Viessmann gas boiler.

You can receive advice and have access to sales, installation and customer service exclusively via Viessmann trade partners, who are trained regularly by the company, and have in-depth knowledge of its products.

Take advantage of the comprehensive service you can expect from your heating contractor.

### Some examples of the service we provide:

- Free, no-obligation and individual advice, even on site
- Clear calculation of heating cost savings after the modernisation of your heating system, even in combination with solar collectors
- Calculation of the payback period, after which the new gas boiler will have paid for itself through energy savings
- Calculation of the actual heating and DHW demand for your household or property
- In consultation with the flue gas inspector, checking the chimney for suitability for the new boiler, and whether legal requirements are met
- Information about the economical combination of a new heating system with solar thermal systems for central heating backup and DHW heating
- Up to date information about government programmes, which could subsidise your new gas heating system and solar thermal system
- Support when applying for subsidies

#### www.viessmann.de

Of course, you can always go online to www.viessmann.de to find out more. There, you'll always find the most up to date information, and gain an initial overview before your first discussion with your heating contractor.

Click through the interactive guide to select the most suitable Viessmann product for your requirements. Furthermore, we'll keep you updated about subsidy programmes that are sometimes launched at short notice at www.viessmann.de/foerderprogramme.











## Attractive finance — invest now and save on heating costs immediately

In cooperation with CreditPlus bank, we offer particularly affordable terms for the purchase of your new heating system. Take full advantage of the attractive Viessmann finance options.

With the Viessmann financial model, you can start saving straight away, and turn your plans into reality. The unbureaucratic, fast and reliable process makes your modernisation project easier, and your financial planning remain flexible. The special advantage to you is that with these low-cost terms and conditions, you generally save much more on heating costs than you spend on finance.

Please note: The finance application must be made before the heating system is purchased. Retrospective finance agreements are not possible. Detailed information regarding the Viessmann financial model can be obtained from your heating contractor on site. Or visit our website at www.viessmann.de for further details.



Your local Viessmann heating contractor will be happy to provide you with full details on site, including information about low-cost finance options for your new heating system, which we offer in cooperation with CreditPlus bank.



### Terms and conditions to shout about

Viessmann and CreditPlus bank are now supporting modernisation projects with an affordable finance package: just 3.99 percent\* effective APR.



Viessmann online offers detailed information about products, subsidy opportunities and services.

### Always there for you

As a globally active family business, Viessmann is involved in constant dialogue with its trade partners and system users.

Viessmann contacts are local, professional and enthusiastic points of reference for investors, property developers and system users, and are always pleased to offer the necessary support for all questions relating to heating systems and modernisation. In personal consultations, the best solutions for an efficient heating system are sought from the Viessmann comprehensive range.

### Viessmann online

A great deal of further information on Viessmann products and services can be found at www.viessmann.de.













### Quick help via the internet

Do you have questions about Viessmann products or on the subject of heating? At www.viessmann.de, you can find comprehensive information round the clock on all Viessmann heating systems and their output levels, a technical lexicon and much more.



### **Subsidy programmes**

For current information about subsidies that are available to you when you choose an environmentally responsible heating system from Viessmann, see www.viessmann.de.

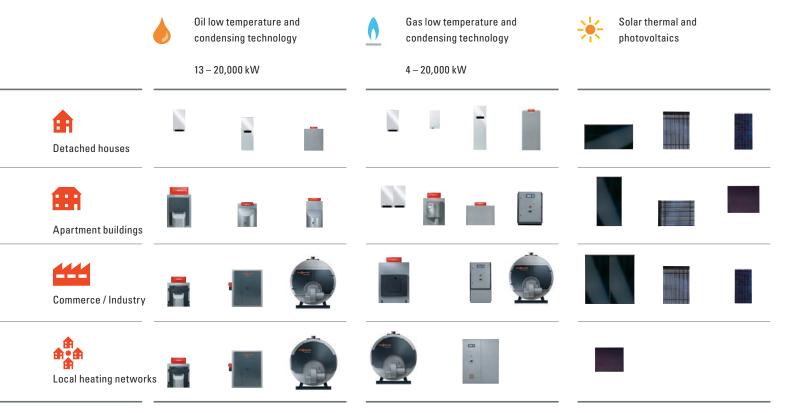
Furthermore, you can obtain individual professional advice from all Viessmann sales offices or directly from your heating contractor.



### Your local contact

It is extremely easy to find local Viessmann contractors using the quick search function at www.viessmann.de.

Simply click on "Partner vor Ort" to show contractors in your local area.



### Individual solutions with efficient systems

### Comprehensive range of products and services from Viessmann

The comprehensive range of products and services from Viessmann offers individual solutions with efficient systems for all applications and all energy sources. As an environmental pioneer, the company has, for decades, been supplying particularly efficient and clean heating systems for oil and gas, as well as solar thermal systems and heat sources for sustainable fuels and heat pumps.

The comprehensive range from Viessmann offers top technology and sets new benchmarks. With its high energy efficiency, this range helps to save heating costs and is always the right choice where ecology is concerned.

### Individual and efficient

Viessmann offers the right heating system for any demand – wall mounted or floorstanding, in individual combinations – all are futureproof and economical. And whether for detached houses or two-family homes, large residential buildings, commercial/industrial use or for local heating networks; for modernising existing properties or new build – they are always the right choice.











Wood combustion technology, CHP and biogas production



Heat pumps for brine, water and air

1.5 - 2000 kW

Air conditioning technology

System components

4 – 13,000 kW

















































The comprehensive range from Viessmann: Individual solutions with efficient systems for all energy sources and application areas.

### Key players

The Viessmann Group sets the technological pace for the heating industry. This is what the name Viessmann and the names of the Group subsidiaries represent, as they are founded on the same pioneering spirit and power of innovation.

The company offers the following:

- Condensing technology for oil and gas
- Solar thermal systems
- Heat pumps
- Wood combustion systems
- Combined heat and power
- Biogas plants
- Air conditioning technology
- System components
- Services

Viessmann is extremely highly specialised in all these market segments, yet at the same time the company has a crucial advantage over specialist suppliers: Viessmann understands heating technology as a systematic whole and offers unbiased advice on technology and fuel type. This guarantees the best solution for every application.

Viessmann Group











BIOFERM

Schmack &

Carbotech



Detached houses



Apartment buildings



Commerce / Industry



Local heating networks



Oil low temperature and condensing technology 13 – 20,000 kW



Architect-designed house, Bad Füssing, Germany



Residential development Zi Wei Garden Xi'an, China



Ameco A380 Hangar, Beijing, China



European Parliament, Strasbourg, France



Gas low temperature and condensing technology  $4-20,000\;\text{kW}$ 



Detached house, Kevelaer, Germany



"Wohnoase" residential complex in Regensburg, Germany



Porsche, Leipzig, Germany



European Parliament, Brussels, Belgium



Solar thermal and photovoltaics



Heliotrop, Freiburg, Germany



HafenCity, Hamburg, Germany



City of tomorrow, Malmö, Sweden



The Palm Jumeirah, Dubai



Wood combustion technology, CHP and biogas production 4-13,000 kW



Detached house, Wiesloch, Germany



Hotel Lagorai, Cavalese, Italy



Brunstad Conference Centre, Norway



Monastery, St. Ottilien, Germany



Heat pumps for brine, water and air 1.5 – 2000 kW



Loftcube Regional Garden Show, Neu-Ulm, Germany



Studio flats, Brandenburg, Germany



University library, Bamberg, Germany



Residential estate, Pfäffikon, Switzerland







## Futureproof heating technology for all requirements

Energy consumption worldwide has doubled since 1970 and will triple by 2030. The result: The fossil fuels, oil and gas, are dwindling, energy prices are on the rise and excessive  ${\rm CO}_2$  emissions continue to affect our environment. Energy efficiency is a must if we want our future to be secure.

In almost every industrial nation, supplying heat to residential and commercial buildings accounts for the largest share of energy consumption – consequently it also offers the greatest savings potential. Advanced efficient heating systems from Viessmann are in use around the world, not only in many private households, but also in numerous major international projects, where they make a sizeable contribution to the efficient use of energy resources.

In these projects, Viessmann again and again faces up to the most varied challenges to supply efficient heating technology by offering innovative solutions – in historical listed buildings as well as in modern industrial complexes and the large-scale residential and industrial arena.



City of tomorrow, Malmö, Sweden









### Viessmann – climate of innovation

The Viessmann brand promise is a concise expression of all that the company hopes to achieve. It is our key brand message and, together with our brand label, an identifying feature all around the world. The "climate of innovation" is three-dimensional: It is a commitment to a culture of innovation. It is a promise of high product utilisation and, at the same time, an obligation to protect the environment.

### Comprehensive range for all energy sources

Viessmann is one of the leading international manufacturers of heating systems, providing individual solutions with efficient systems based on its comprehensive range for all application areas and energy sources. As an environmental pioneer, the company has, for decades, been supplying particularly efficient and clean heating systems.

### **Acting sustainably**

For Viessmann, taking responsibility means acting sustainably. This means bringing ecology, economy and social responsibility into harmony with each other, whilst ensuring that current needs are satisfied without compromising the quality of life of future generations.

### **Efficiency Plus**

With the "Efficiency Plus" sustainability project, Viessmann demonstrates at its own site in Allendorf that the political goals set for 2020 with regard to climate and energy can already be achieved today with commercially available technology.

This projects stands for:

- Climate protection
- Efficiency with resources
- and securing the company site

As a result, the site now saves 40 percent on fossil fuels and  ${\rm CO_2}$  emissions have been reduced by one third.

# ♠ ♣ ₩ ♠ ₩ Effizienz



Viessmann won the German Sustainability Award 2009 for its commitment to climate protection and efficient use of resources.



For the particularly efficient utilisation of energy by the innovative heat recovery centre at the company's headquarters in Allendorf/Eder, Viessmann was presented with the Energy Efficiency Award 2010.

### Viessmann Werke GmbH & Co. KG

### Company details

Established in: 1917Employees: 9400

Group turnover: €1.7 billionExport share: 56 percent

- Manufacturing and plant construction in ten countries with 22 companies in Germany, France, USA, Italy, Canada, Poland, Hungary, Austria, Switzerland
- Sales representation in 74 countries with 32 wholly owned subsidiaries
- 120 sales offices worldwide
- 3 service companies

### Performance spectrum

- Condensing technology for oil and gas
- Solar thermal systems
- Heat pumps
- Wood combustion systems
- Combined heat and power generation
- Biogas systems
- Air conditioning technology
- System components
- Services

The comprehensive range of products and services covers the entire spectrum.

Output levels range from 2 kilowatt to over 20 megawatt.



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Your heating contractor:

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