



Pellet boiler 10 - 60 kW





www.hdg-bavaria.com



ENERGY IN THE CYCLE OF NATURE

During growth, trees need CO₂, which they take from the air and store in wood and leaves. CO₂ is released when wood burns or decays. But only as much as the tree has extracted from the atmosphere in the course of its growth.

Anyone who heats with wood is therefore heating sustainably in the cycle of nature, i.e. the heating is CO₂ neutral. In German private households alone, almost 20 million tonnes of CO₂ are already being saved today.



HDG Managing Director Martin Ecker



Climate-friendly heating. With wood!

WHEN INNOVATIVE THINKING DETERMINES SUSTAINABLE ACTION

For more than 40 years, HDG has been dealing with the topic of heat from wood and renewable, non-fossil fuels. During this time, we have continuously developed our products and services – always oriented to the needs of the market and our customers.

We are a Bavarian family business and the expert for wood heating systems from Germany. HDG is proud to produce in the region and to be able to offer flexible solutions to its prospective customers. A total of over 100,000 satisfied customers speaks for itself.

HDG became so successful because people trust the central heating boilers from Lower Bavaria. The basis for this are mature and robust products, detailed and honest advice, individual support in planning and, last but not least, responsible action and human appreciation both internally and externally.

Martin Ecker Managing Director of HDG

FROM A FAMILY BUSINESS TO A MODERN FAMILY COMPANY

As a modern family company, we still rely on the values and ideals of the former family business.

Customer satisfaction and long term employees are a sign for us that decency and honesty, responsibility for employees and the homeland as well as solid products are still a valuable asset today.

EVA ACKERMANN

GROWN UP WITH HDG

SHAREHOLDER

1978 COMPANY FOUNDED BY KARL&THERESE ACKERMANN

MARTIN ECKER

WITH HDG SINCE 1996

MANAGEMENT

STEPHAN EBERL PLANNING WITH HDG SINCE **1992**

CLAUS ZIMMER TEAM LEADER DESIGN WITH HDG SINCE 2023

> CONNY WAGNER TEAM LEADER SERVICE WITH HDG SINCE **1994**

ROBERT KALTENHAUSER FINAL ASSEMBLY WITH HDG SINCE **1991**—

HOW WE ACT TODAY FOR THE FUTURE

Our central heating boilers comply with the strictest emission limits and are characterised by particularly high efficiency levels. Many have therefore been awarded the Innovation Prizes by the kwf and the Federal Republic of Germany.

For this reason, HDG wood heating systems also receive special government subsidies – in Germany, for example, via BAFA (Federal Office of Economics and Export Control) or within the framework of the Austrian Ecolabel.

However, just like the sustainability of our products, the protection of the climate, environment and nature in practice is also close to our hearts. HDG has been committed to this for many years.

GOGREEN mailing via DHL

ENERGY from 100 % local, environmentally friendly hydropower

GREEN IT Use of resource-saving information technology

ENVIRONMENTAL PACT OF BAVARIA for taking personal responsibility in environmental protection

We are supporters of **GEMEINWOHL-ÖKONOMIE** (greater good economics)













WHAT YOU NEED TO KNOW ABOUT HEATING WITH PELLETS

Everything taken into account. Everything made easy. HDG.

Heating with wood - from time immemorial the most cosy thing you can imagine. And those who heat with pellets can sit back and enjoy natural warmth.

This is ensured by the technology from HDG – the expert for wood heating systems.

Wood pellets ...

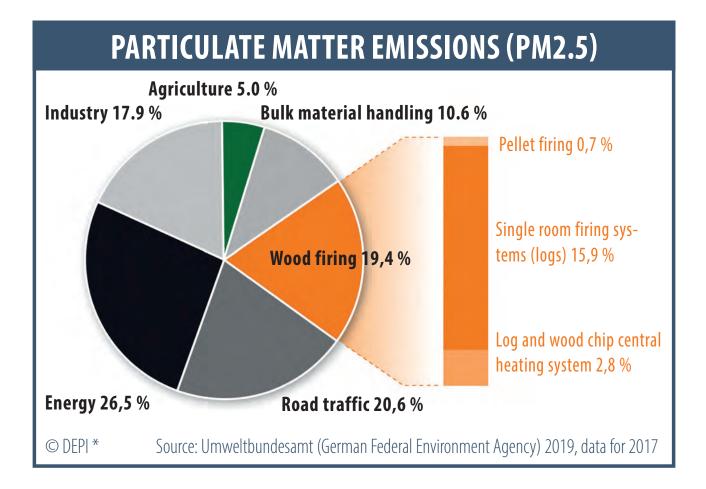
• can be conveniently delivered by tankers, just like heating oil



CO₂-neutral

INTERESTING FACTS

Calorific values: Wood pellets min. 4.9 kWh per kg Heating oil approx. 10.0 kWh per litre Natural gas approx. 10.0 kWh per m³ Rules of thumb: 1 litre heating oil or 1 m³ natural gas ≈ approx. 2 kg pellets 1 m³ pellets ≈ 650 kg pellets



Pellets provide clean and

low-emission heating!

Pellet central heating systems have low emissions because the fuel quantity and the combustion process are fully coordinated with each other. In addition, the standardised fuel supports low-pollution combustion.

* DEPI (Deutsches Pelletinstitut GmbH / German Pellet Institute) / DEPV (Deutscher Energieholz- und Pellet-Verband e.V. / German Energy Wood and Pellet Association, as of 01/2020)

HDG K10 / 15 / 21 / 26 / 33

The HDG K10-33 is a pellet boiler that is particularly economical - in all areas! The small footprint and ease of insertion make it particularly suitable for small boiler rooms and refurbishing. In addition, the efficient HDG Control and the low-cost operation distinguish this innovative central heating boiler.



due to very good and complete accessibility from the front

HDG K10/15/21/26/33



THE LITTLE POWERHOUSE IN ACTION

- ✓ Single-family homes
- ✓ Apartment buildings
- ✓ Gastronomy
- ✓ Municipal buildings

"HDG K, BECAUSE ...

only pellets came into question for our refurbishment! We are very happy and would opt for it again."

Gschwandtner family

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HDG K10-33 Der kleine Sparsame

Pelletke

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HDG K10-33 - SMALL AND ECONOMICAL

Easy insertion and assembly

- Also fits into narrow existing buildings due to split delivery
- Heaviest component only approx. 170 kg
- Easy insertion through any standard door
- Quick assembly without water-bearing connections
- Only a few components need to be installed



Space-saving and easily accessible

- Small footprint of only 0.75 m² and only 1.7 metres high
- Installation flush with the wall possible on three sides
- Flexible due to rotatable flue gas pipe upwards or backwards
- Easy maintenance due to very good accessibility from the front



ACCESSIBILITY

Fully automatic cleaning & comfortable ash removal

- High comfort due to automatic heat exchanger cleaning
- Automatic, reliable ash removal from the burner bowl even with changing fuel quality
- Large-volume ash container for approx. 4 tons of pellets
- On average, it must be emptied only once a year
- Comfortable ash removal due to mobile ash container (on request, standard with HDG K33)
- Alternative: Entry-level variant with internal ash pan (only for K10-26)



Best effectiveness and highest efficiencies

- Lowest emission values far below the legal requirements
- Very good behaviour in partial load mode without accumulator due to the most precise air control with speed-controlled flue gas fan



Very quiet and power-saving

- Particularly energy efficient in power consumption (HDG K10 only 28 watts in normal operation)
- Silent, power-saving ignition element (robust, free of wear and maintenance)

Cleverly regulated with HDG Control

- Intelligent heating and system control HDG Control with touch display
- Read all information and make settings for the entire heating system
- Optional: HDG Control with web visualisation for access from anywhere via smartphone, tablet and PC
- New: free myHDG app for iOS and Android (in conjunction with HDG Control with web visualisation)



NEW! MYHDG ALSO AS AN APP

Quick and easy: Use all the functions of myHDG conveniently in our free app for iOS and Android.

e Pla

App Store





App: myHDG



FUEL

Pellets

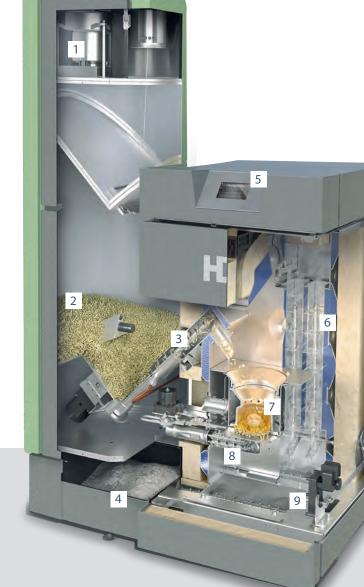
A

В

HDG

ЮG

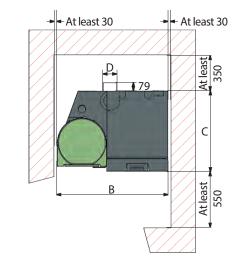
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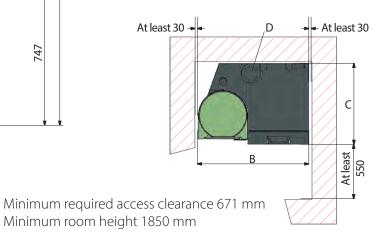


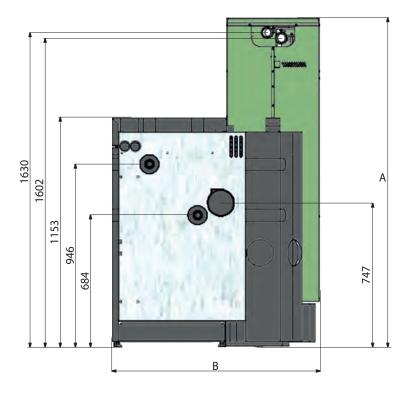
- **C** HDG
- 1 **Pellet vacuum system** (optional), suction distances up to 25 m possible
- 2 Pellet container with 71 kg filling volume (A) Alternatively manual filling with daily **B** or weekly container (C) (107 or 200 kg filling volume)
- 3 **Stoker auger** with exact fuel metering with water extinguishing system as reburn safety device
- 4 Large-volume ash container (on request / standard for K33) with space for the ash of approx. four tons of pellets - on average only needs to be emptied once a year

- 5 HDG Control the Intelligent heating and system controller for the complete heating system
- 6 Fully automatic cleaning of all heat exchanger surfaces
- 7 Stainless steel burner bowl the heart of precise combustion with particularly good emission values (far below the legal requirements)
- 8 Automatic ignition with energy-saving, robust and wear-free incandescent elements
- 9 Fully automatic ash removal mechanism for the complete ash produced









Dimen-Designation HDG K10/15 HDG K21/26/33 sion Daily Weekly Vacuum Weekly Vacuum Daily (in mm) container delivery container container delivery container system system А Height of boiler incl. container 1453 1705 1470 1453 1705 1470 В Overall width of boiler 1075 1075 1422 1075 1075 1422 С Boiler depth excluding flue gas connecting 710 710 710 780 780 780 pipe D Flue gas pipe diameter (top and rear pos-130 130 130 130 130 130 sible)

Type of system		HDG K10	HDG K15	HDG K21	HDG K26	HDG K33
Nominal thermal power	kW	9.9	15	21	25.9	32.5
Output range	kW	3.0-9.9	4.3-15	6.3-21	7.6–25.9	9.8-32.5
Flue gas mass flow	kg/s	0.0058	0.0085	0.0118	0.0146	0.0180
Water capacity	1	39	39	47	47	47
Max. permissible operating overpressure	bar	3	3	3	3	3
Required flue draught	Pa	5	5	5	5	5
Permissible flow temperature (for accumulator operation)	°C	60-75 (85)	60-75 (85)	60-75 (85)	60-75 (85)	60-75 (85)
Weight	kg	261	261	283	283	283
Boiler energy efficiency class		A+	A+	A+	A+	A+
Boiler + controller energy efficiency class (class VI)		A+	A+	A++	A++	A++

HDG K35 / 45 / 60

The HDG K35-60 also covers large heating requirements with ease. This makes it the optimal pellet solution for larger properties - from apartment buildings to public facilities. In addition to a space-saving footprint of only 1.12 m², it combines ease of installation (split delivery) with quiet operation, maximum efficiency and the innovative HDG Control system.



EASY, AUTOMATIC ASH DISPOSAL thanks to integrated central ash removal system

EASY MAINTENANCE due to very good accessibility from the front



THE LITTLE POWERHOUSE IN ACTION

- ✓ Single-family homes
- ✓ Apartment buildings
- ✓ Hotels and gastronomy
- ✓ Municipalities / Business

"HDG K, BECAUSE ...

maximum fail-safety was particularly important for us. Our double system consisting of two HDG K60 pellet boilers meets this requirement profile perfectly – and at an affordable price."

Stefan Hild

HDG K35-60 - LARGE AND ECONOMICAL

Easy insertion and assembly

- Also fits into narrow existing buildings due to split delivery
- Quick assembly without water-bearing connections only a few components

Space-saving and easily accessible

- Small footprint of only 1.12 m²
- Very good and complete accessibility from the front
- Particularly easy maintenance thanks to the very large combustion chamber door

Fully automatic cleaning & comfortable ash removal

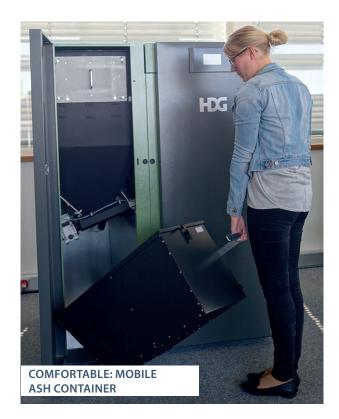
- High comfort due to automatic heat exchanger cleaning
- Automatic, reliable ash removal from the burner bowl even with changing fuel quality
- Integrated central ash removal system
- Large volume, mobile ash container
- On average, it must be emptied only 1 to 3 times a year

Best effectiveness and highest efficiencies

- Lowest emission values far below the legal requirements
- Very good behaviour in partial load mode due to the most precise air control with speed-controlled flue gas fan

Very quiet and power-saving

- Particularly energy efficient in power consumption (only 103 watts in normal operation)
- Silent, power-saving ignition element (robust, free of wear and maintenance)





Cleverly regulated with HDG Control

- Intelligent heating and system control HDG Control with touch display
- Read all information and make settings for the entire heating system
- Optional: HDG Control with web visualisation for access from anywhere via smartphone, tablet and PC
- New: free myHDG app for iOS and Android (in conjunction with HDG Control with web visualisation)



NEW! MYHDG ALSO AS AN APP

Quick and easy: Use all the functions of myHDG conveniently in our free app for iOS and Android.







HDG offers an extensive product range of pellet boilers in the higher power range:

- HDG Compact from 50 to 200 kW
- HDG M from 175 to 800 kW

More detailed information can be found at: www.hdg-bavaria.com

For increased power requirements, HDG heating systems can be combined with each other in a cascade configuration. The advantages of a cascade solution are, for example, the high power range, maximum operational reliability and demand-oriented heat supply, especially when energy requirements fluctuate.

Using the HDG accumulator management system, the installed boilers are alternately assigned the role of lead boiler. If the output of this boiler is insufficient or if it is not available, the next boiler starts automatically. Due to the completely autonomous operation of both boilers, the failure of one boiler has no effect on the operation of the second boiler.







FUEL Pellets



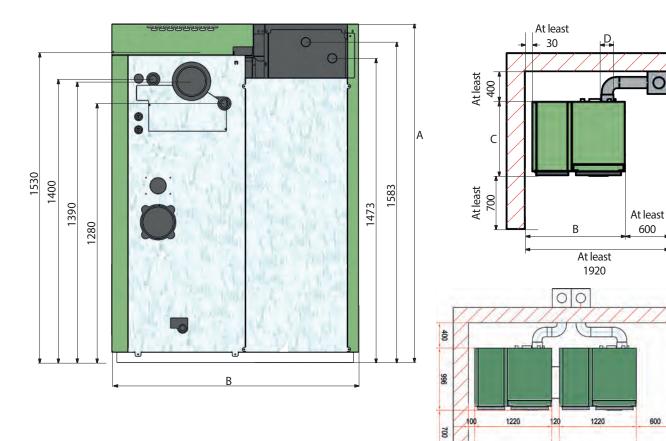
- **1 Pellet vacuum system** with external vacuum fan, suction distances up to 25 m possible
- 2 Pellet container with 135 kg filling volume
- **Stoker auger** with exact fuel metering with rotary feeder as reburn safety device
- **4** Large-volume ash container with space for the ash of approx. eight tons of pellets on average only needs to be emptied 1 to 3 times a year
- 5 HDG Control the Intelligent heating and system controller for the complete heating system

6 Fully automatic cleaning of all heat exchanger surfaces

7 Stainless steel burner bowl – the heart of precise combustion with particularly good emission values (far below the legal requirements)

- 8 Automatic ignition with two energy-saving, robust and wear-free incandescent elements
- 9 Fully automatic ash removal mechanism for the complete ash produced

3260



Minimum access clearance (WxHxD):780x1790x975 mmMinimum ceiling height:1900 mm

Dimension (in mm)	Designation	HDG K35/45/60
A	Height of boiler incl. container	1673
В	Overall width of boiler	1220
С	Boiler depth excluding flue gas connecting pipe	975
D	Flue pipe diameter	150

Type of system		HDG K35	HDG K45	HDG K60
Nominal thermal power	kW	35	45	60
Output range	kW	10.5-35	13.5-45	18—60
Flue gas mass flow	kg/s	0.0200	0.0240	0.0310
Water capacity	I.	120	120	120
Max. permissible operating overpressure	bar	3	3	3
Required flue draught	Ра	5	5	5
Permissible flow temperature (for accumulator operation)	°C	85	85	85
Weight	kg	695	700	720
Energy efficiency class of boiler		A+	A+	A+
Boiler + controller energy efficiency class (class VI)		A+	A++	A++

FROM THE FUEL STORE TO THE BOILER

Handling a pellet heating system is really convenient – also when it comes to storing the small pressed wood pellets. Regardless of the structural conditions, a pellet heating system can be easily realised thanks to HDG's flexible delivery technology – and perfectly tailored to individual needs.

Pellets are conveniently blown into the storage room. The pellet vacuum system transports the pellets over a distance of up to 25 m from the pellet store to the intermediate container of the boiler. From there, the boiler helps itself to the fuel.

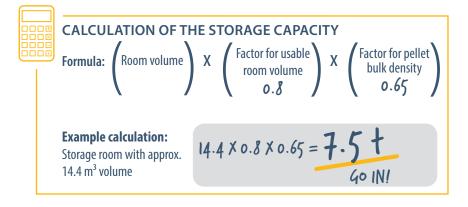


Dimensioning the storage room correctly

For small pellet heating systems, the storage room should be designed to hold at least a **complete year's supply** of pellets. The size of the required storage room **depends on the heat demand of the building**. To avoid having to refuel in colder winters, a safety factor of 1.2 is applied.

Due to the distance from the injection nozzles to the ceiling and the flow properties of the pellet fill, the volume of a store can never be fully utilised. When converting the heating system from oil to pellets, the pellet demand can be **derived from the previous oil consumption**.

Recommended storage sizes for pellet heating systems depending on heat demand							
Heat demand per year	8,000 kWh	15,000 kWh	30,000 kWh	100,000 kWh			
Heating oil consumption in the year to date	1,000	1,875	3,750	12,500			
Annual demand of pellets	2,000 kg	3,750 kg	7,500 kg	25,000 kg			
Required storage volume	3.6 m ³	6.8 m ³	13.5 m ³	45 m ³			

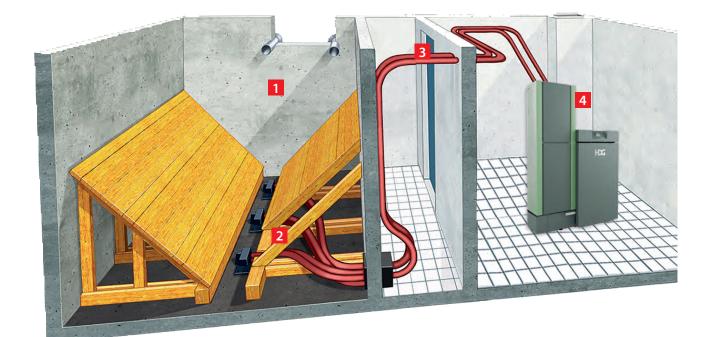


PELLET SUCTION PROBES

Pellet suction probes are the most common storage system. Here, individual rooms are used completely. The advantages are the possibility of cost-cutting own work and the very good utilisation of space.

In the **entry-level variant, a suction probe** similar to a hoover nozzle is connected directly to the pellet vacuum system of the boiler. This is a favourable variant especially for small boiler outputs.

The **HDG pellet tube converter** is a system with three or eight suction probes. Using the junction, the probes are used alternately to suck the pellets out of the fuel storage room. This enables the fuel store to be emptied evenly. The probes can be placed freely. This allows installation in practically any existing room. Since many suction probes improve space utilisation, a sloping floor is often not necessary.





The HDG pellet suction system

- 1 The pellets are conveniently blown in.
- 2 You can use a basement room as a pellet store, but we also offer other options (see pages 22-23).
- **3** The vacuum system transports the pellets over a distance of up to 25 metres by means of suction hoses.
- 4 The pellets find their way into the intermediate container next to the central heating boiler. From there, the boiler helps itself to the fuel.



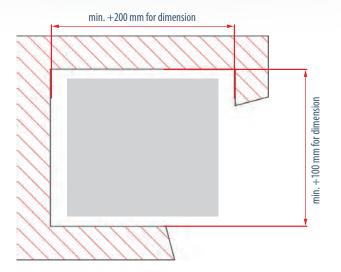


THE PELLET FABRIC SILO

is a **prefabricated pellet store** that can be **installed with particularly low planning and installation times**. The silo is made of a flexible, tear-resistant and dust-tight material. The pellets flow directly to the extraction point of the vacuum system via the metal cone.

If no extra storage room is available, a silo can **also be set up directly next to the boiler**. Due to the avoided wall contact, the **use of more humid rooms** is also possible.

The pellet fabric silo is available in various basic sizes. Height adjustment is **flexible for installation in the basement**.



	Туре	Fill quantity m ³	Stock quantity t	Height mm	Dimension mm
HDG pellet fabric silo box	12/12	1.7–2.6	1.1-1.7	1800-2500	1200 x 1200
	17/17	3.2-5.4	2.1-3.5	1800-2500	1700 x 1700
	21/21	4.4-7.7	2.8-5.0	1800-2500	2100 x 2100
	25/25	6.4–10.9	4.2-7.0	1800-2500	2500 x 2500
	29/29	9.4–14.1	6.1–9.2	1900-2500	2900 x 2900
	17/29	5.6-8.3	3.6-5.4	1900-2500	1700 x 2900
	21/29	6.6-10.2	4.3-6.6	1900-2500	2100 x 2900

STORAGE

THE PELLET MOLE

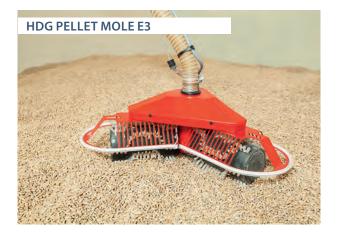
is also a system for **individually created storage rooms**. The mole's suction head moves **over the surface of the stored pellets** and independently removes the pellets in layers from the top.

The mole is particularly convincing due to its **fast in**stallation time. Sloping floors can also be dispensed with in most cases.



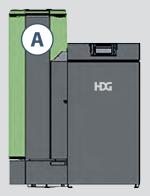
PELLET MOLE CLASSIC:

The entry-level model is **optimally suited for square storage rooms** with an ideal size of **2.5 m** × **2.5 m** storage space. This makes it particularly interesting in the small power range.



PELLET MOLE E3:

Due to the installed rollers, the mole E3 has a much larger action range. Pellet stores **up to 100 m³ and a surface area of 36 m²** can be easily emptied by it. The pellet mole E3 also scores with its **particularly quick installation**.





THE HAND FILLING In the basic version of the HDG K10-33, the container can also be filled by hand.

Manual hand filling is carried out with:

- Daily container (A) (107 kg filling volume)
- Weekly container (B) (200 kg filling volume)



HDG CONTROL

The HDG Control is the intelligent control centre of your entire heating system. The intuitive control has a user-friendly, robust touch display that can even be operated with gloves. The design of the control system and the operation are clearly and comprehensibly structured. The wide range of functions can be individually adapted.

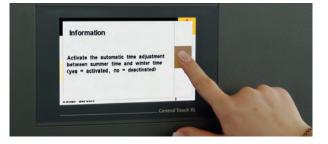


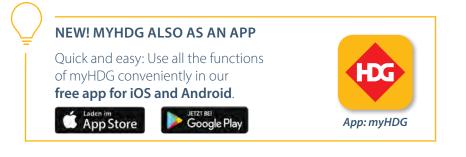
VERSATILE FUNCTIONS

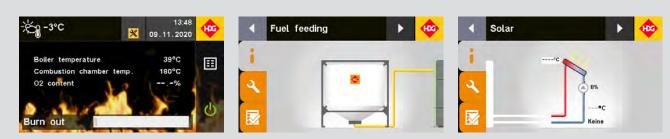
The combustion and output control of the boiler is carried out with the help of the flue gas temperature sensor and the combustion chamber temperature sensor. In addition, the HDG Control also controls the complete heating system: accumulator, external heat source, heating circuits, network pumps, domestic hot water tank, solar system.

NO QUESTIONS LEFT UNANSWERED

If questions arise despite intuitive operation, the description of the respective parameter can be called up directly via the help button. Leafing through and searching in the printed documentation is no longer necessary.







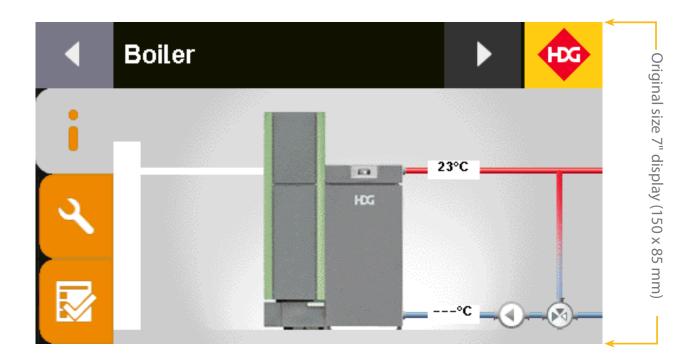
Clear presentation of the most important data of the system at a glance

Easy-to-understand, graphical overview even for complex installations

Integration of further heat sources such as solar systems or oil/gas boilers

HDG CONTROL WEB VISUALISATION - THE LARGE DISPLAY WITH WEB ACCESS

The HDG Control is available with web visualisation on request. Thanks to the web server integrated in the display, the heating system can also be accessed on the move using a smartphone, PC or tablet. In addition, an enlarged 7" display is included here instead of the standard 4.3" display. HDG Control thus offers full access to the heating system in addition to even better readability.



THE HEATING SYSTEM IN YOUR POCKET

Bring the heating system onto the screen mouse click or simply change settings by touch on a smartphone or tablet? With myHDG, this can be done quickly and easily at any time.

- Quick set-up of web access via the free communication portal myHDG
- New: free myHDG app for iOS and Android
- The system fully under control thanks to simple, graphic display
- Same operation structure as on the HDG central heating boiler
- Query and change all parameters, e.g. operating status, temperature, etc.
- Messages are conveniently sent by e-mail
- With myHDG you can also manage several systems with just one access
- Maximum data protection: all data remain only on your system. The transmission takes place securely via HTTPS.





HDG CONTROL HDG Hydraulic Systems - Individual planning for your system

HDG plans the right system for your individual requirements. A hydraulic diagram with a suitable terminal plan is provided for each system for easy installation. For commissioning, the number of the diagram is sufficient to configure the controller accordingly. The following illustration shows the possible basic equipment for a touch control unit. Extensions are possible at any time.

Accumulator

- Individual systems with and without accumulator
- Control of up to two accumulator systems
- Fast installation due to HDG stratified tank module



Heating circuits

- Control of up to six heating circuits
- Outdoor temperature controlled with different operating modes and individual week programs (normal, day, night, party, holiday, off)
- Various room control units / room sensors depending on the requirements for controlling the living room temperature



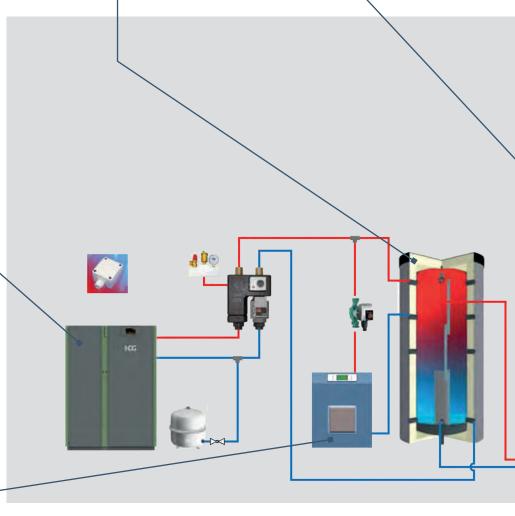
Efficient combustion control

- The HDG Control controls the complete combustion of the pellet boiler
- Determination of the optimum air volume via combustion chamber and flue gas temperature sensors and control via flue gas fan
- This results in optimum efficiency and best possible fuel utilisation even with changing fuels



External heat source

- Control of an external heat source (e.g. oil/gas boiler or electric heater)
- Heat source is possible on accumulator in base or peak load function or directly to the consumers as emergency load boiler
- Individual week programs for setting release times



Network pump

- Control of up to two network pumps for local heating networks
- Only active when heat is requested by the consumer
- Up to twelve different control variants possible

Solar thermal system

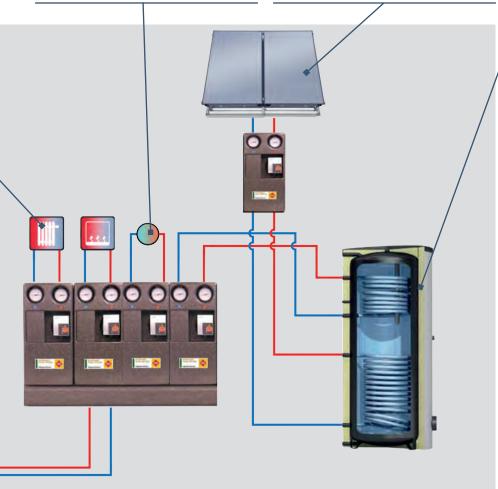
- Control of a solar thermal system with a maximum of three zones
- Versatile with up to 20 variants possible on domestic hot water tank and/or accumulator (heating support)
- High efficiency due to speed control of the solar pump by means of PWM signal
- Alternative integration of PV sys-



Domestic hot water preparation

- Control of up to two external domestic hot water tanks
- Versatile thanks to individual week programs
- Safe due to Legionella protection and domestic hot water priority
- Alternatively, domestic hot water preparation also possible directly integrated into the accumulator or externally via fresh water station

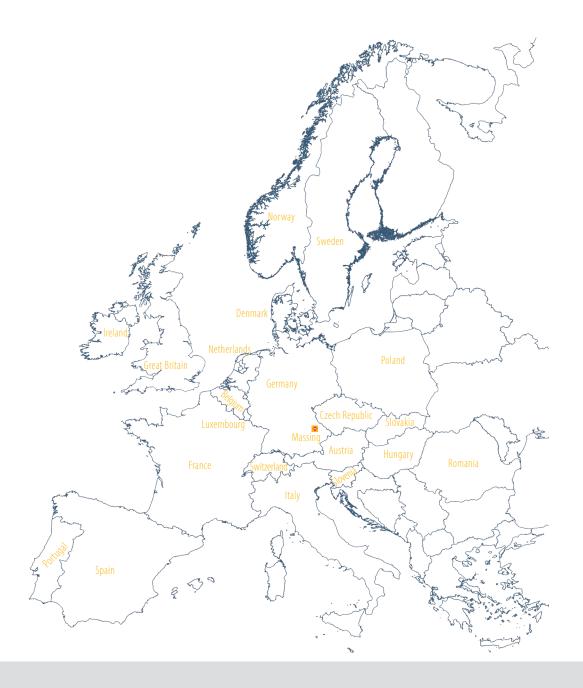




Ready for expansion

- If the range of functions of an HDG Control is not sufficient, it can be easily extended
- HDG stand-alone solutions have the same display as HDG central heating boilers – this means that they can be used specifically as an extension or, for example, in local heating networks for the control of the connected buildings
- The HDG Control Touch XL with web access is also available for stand-alone solutions









HDG Bavaria GmbH Heizsysteme für Holz Siemensstraße 22 D-84323 Massing

Tel +49(0)8724/897-0 Fax +49(0)8724/897-888-100 info@hdg-bavaria.com

Invented wood boilers for every application from 10 to 800 kW

- Log boiler
- Wood chip boiler
- Pellet boiler
- Combination boiler for logs / oil or for logs / pellet
- HDG buffer storage and system components



To protect our environment, we only use paints that do not contain mineral oils. Picture material: CARMEN eV, DEPI, Fotolia, Schellinger KG Technical changes and errors excepted. | Version 211130 | Item no. 998000327

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