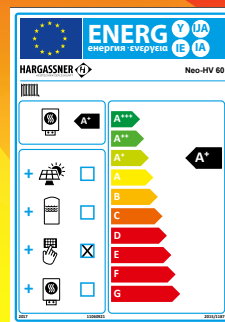


WOOD-LOG BOILER

1/2M & 1M GASIFICATION BOILER
& COMBI BOILER

HARGASSNER
BIOMASS HEATING TECHNOLOGY



NEO HV



Our vision is harmony between satisfied customers and the environment

In order to lower emission values in oil or gas reliant countries, Hargassner is endeavouring to make high-performance biomass heating technology available to everyone. The company currently exports to more than 31 countries. The most important markets are Germany, France, Switzerland, Spain, Italy, Belgium, the Netherlands and the UK. However, Scandinavia, Ukraine, Czech Republic, Bulgaria, Greece, Slovenia, Hungary, Japan, New Zealand and North America are growing markets, which are trying to reduce their CO₂ emissions as well. At this time, export represents 70% of our annual turnover. Numerous awards confirm that our philosophy is more than just lip-service.



Markus, Elisabeth & Anton and Anton Hargassner



Multiple tested and confirmed



- More than 36 years of experience
- We export to 31 countries worldwide
- Company premises: more than 3,6 hectares
- More than 110,000 satisfied customers
- International successful



Dynamic, team spirit, closeness to nature, family and success are image elements that characterise Hargassner. And they are precisely the values people associate with the members of Austria's ski jumping team. Hargassner became an official partner of the ÖSV ski jumping team in September 2018.

PROUD
PARTNER OF
**SKI
AUSTRIA**

CONTENT

- 4 – 5 Wood Log boilers
- 6 – 7 Heating with Wood Log
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- 10 Neo-MHV 30 – 45 kW **NEW**
- 11 1 M MV 35 – 49 kW
- 12 1/2 m SMART-HV 17 – 23 KW **NEW**
- 13 Combi boiler SMART-HV 17 – 23 & SMART-PK 17 – 32 **NEW**
- 14 – 15 Combi boiler Neo-HV 20 – 60 & Nano-PK 6 – 32
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WOOD LOG BOILER

NEO HV **NEW**

20 – 60 kW



NEO MHV

MHV 30 – 45 kW
MV 35 – 49 kW



Recommended by our customers



Single Family Home with Workshop

The customer is having his own forest, therefore it was predictable, to install a Wood Log boiler into his new family home. This is resulting in a tremendous price advantage on heating costs. The second buying-reason was the high comfort due to an automatic ignition. The Neo HV is heating the house and a separated workshop. A 3.000 L Accumulator Tank is installed to guarantee a very efficient heat supply of the floor-heating system.

WOOD LOG-PELLET SMART- / COMBI BOILER

SMART HV

NEW

Smart-HV 17 – 23 kW
Combi-Boiler Smart-HV & Smart-PK



COMBI BOILER

NEW

Neo-HV 20 – 60 & Nano-PK 6 – 32



Single Family Home

Family Pross decided for a combination of a 1/2m Wood Log boiler with a pellet boiler. This boiler unites the independence of Wood Log heating with the convenience of pellet heating. As a result our clients gains more convenience through a consistent and permanent heat output. "Both boilers work separately from each other, for us there is no compromise in efficient heating".

Main advantages of Wood Logs?

Wood Logs - the environmentally-friendly and CO₂-neutral local fuel.

To produce Wood Logs, wood from forests is needed. Latest wood processing machinery provide a simple and cost-effective production.

The main advantages of Wood Logs:

- Lower costs than oil or gas
- Crises-resistant, because locally sourced
- Short transportation
- Convenient, because of long refuelling intervals using accumulator tanks

Wood Logs are the logical renewable technology for heating compared to fossil fuels, electricity and heat pumps.

Annual savings:
Safe up to **€ 2.030** with a 30 kW boiler!

EXAMPLE: 30 KW BOILER

Wood Log : Oil/ Gas

Wood Log: Oil	Savings: ca. 2.030 €
Wood Log: Gas	Savings: ca. 1.790 €

Basis

Wood Log 65 Euro / rm *
Oil 0,73 Euro / l *
Gas 69 Euro / MWh *

* Last 10 year - average fuel price
Source: Statistics Austria, Energie Control, Pelletsverband, Biomasseverband, Landwirtschafts- und Arbeiterkammer Austria, etc.

Wood Log characteristics:

1/2 Meter Wood Log. EN ISO 17225-5:2014 Klasse A1-B, L50, D15, M20-M25

1 Meter Wood Log. EN ISO 17225-5:2014 Klasse A1-B, L100, D15, M20-M25



The origin of Wood Logs: Domestic forest



Logistics: From the forest to the end consumer



Production: Splitting



For the sake of the environment:

The end product: Wood Log in 1/2m or 1m length

Additional fuels:

Wood pellets

Pellets are made from 100% natural wood without any additives. Tons of wood waste materials are produced every day in wood-processing industries all over Europe.

The main advantages of wood pellets:

- Easy refuelling through blown pellet delivery
- Small storage volume

Pellets characteristics

(ÖNORM M 7135 / EN ISO 17225-2)

Heating value: 5 kWh/kg
Weight: 650 kg/m³
Ø / Length: 6 mm / ca. 5 - 40 mm
Water content: w < 10%
Primary energy efforts: 2-2,7%

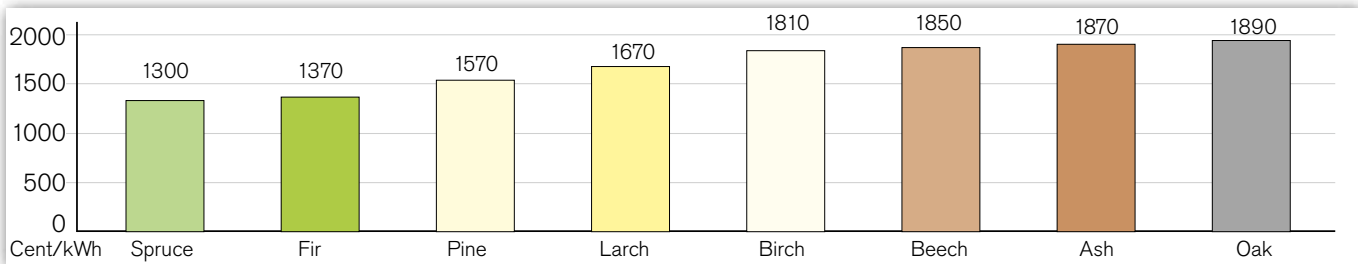


ENERGY PRICE COMPARISON



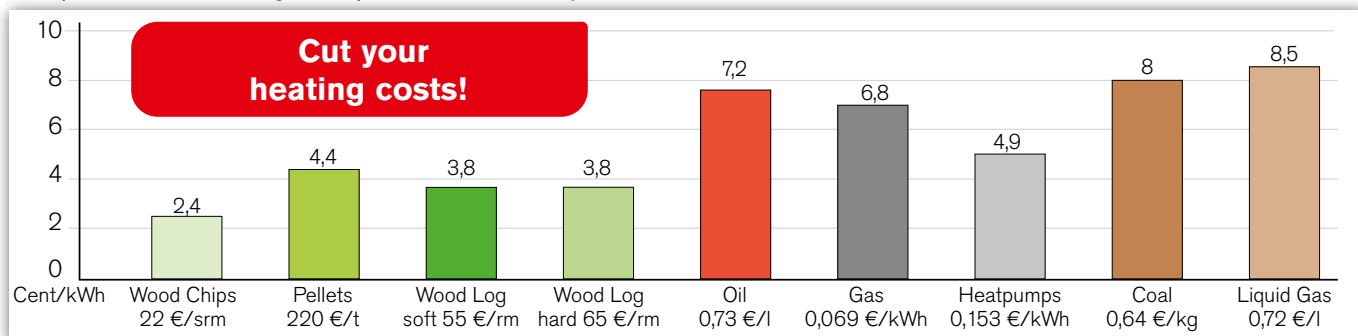
Calorific value of 1 m³ logs at 20% water content

Rule of thumb to calculate the annual Wood Log consumption: **kW x factor 1.1 = m³ Wood Logs**



The best alternatives for Oil & Gas – Annual savings*

Comparison if the average fuel price of the last 10 years is converted to cent/kWh



Accumulator volume: Boiler type

Which accumulator for which boiler? Depending on the used wood type.



- Hard wood
- Mixed wood
- Soft wood

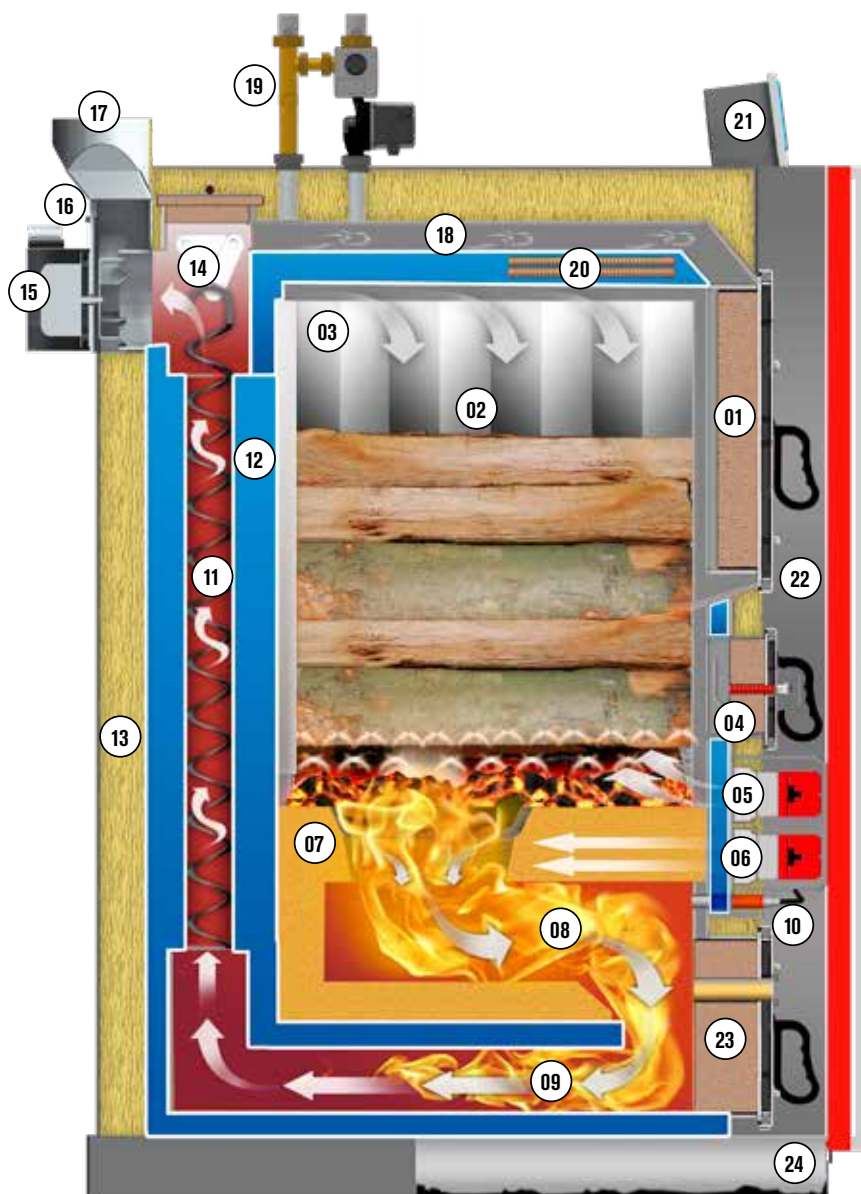
Boiler type	1500 2 x 825	2000 2 x 1000	2600 3 x 825	2 x 1500 3 x 1000	4000 2 x 2000	2 x 2600	3 x 2000
Neo-HV 20 -30	Min.	Optimum					
		Min.	Optimum	Min.	Optimum		
Neo-HV 40 -60		Min.	Optimum				
			Min.	Optimum	Min.	Optimum	
MV 35 -49				Min.	Optimum		
					Min.	Optimum	Min. Optimum

1/2 M GASIFICATION BOILER

NEO HV 20 – 60 kW

Hargassner has a very long experience with biomass heating technology - an advantage, especially needed for the **Hargassner Wood Log Gasification boiler Neo HV**. We reach the best results with our individual solutions in construction and combustion control of the boiler. **Heating with a Wood Log boiler is more comfortable than ever.**

- **New Combustion Control:** Optimized Combustion for various types of wood and drying status
- **Optimized Air Flow:** Optimized primary air flow, controlled ignition air flow
- **Improved Steel Inlets:** Conical Design - Wood Slopping improved, Stainless Steel Version on request
- **Integrated EC Exhaust Fan:** Energy Efficient and more rotation, turnable exhaust fan on request
- **Automatic Ceramic Ignition (on request):** highest quality for long durability
- **Ash Box:** with leads and new measurements - no dort on the floor



LEGEND

- 01 Large refill door
- 02 Large log-filling volume for 1/2m logs
- 03 Hot steel lining - prevents tar creation
- 04 Lighting door with auto ignition
- 05 Primary air motor
- 06 Secondary air motor
- 07 Refractory-lined combustion chamber
- 08 High-temperature post-combustion zone
- 09 Ash separation zone
- 10 Lambda sensor
- 11 Turbulators
- 12 Heat exchanger
- 13 High-quality insulation
- 14 Automatic heat exchanger cleaning
- 15 Speed controlled exhaust fan
- 16 Flue gas sensor
- 17 Flue pipe vertically, left or right
- 18 Smolder gas vent
- 19 Back end protection with mixing valve
- 20 Calorifiers for thermal discharge safety device
- 21 Lambda-Touch-Tronic
- 22 Insulated outside door
- 23 Easy cleaning from the front
- 24 Ash tray

Summary test report Neo-HV 20			
		Nominal heat output	Part load
Power	kW	25,4	12,2
Efficiency	%	93,7	92,8
Nitrogen oxides	mg/MJ	76	68
Carbon monoxide	mg/MJ	24	30
Dust	mg/MJ	6	7



High Performance Combustion Chamber with refractory stones for optimized burnout

The combustion chamber with high performance refractory stones ensures combustion on high temperature (also in part-load mode). No matter if your Wood Logs are hard, soft or mixed with briquettes - the control panel detects with the lambda sensor the relevant calorific value and controls the optimal primary and secondary air with two additional control-motors. Your combustion will always work optimal - automatically!



Automatic Heat Exchanger Cleaning (standard in all boilers)

It's history to clean the heat exchanger manually. The patented and automatic heat exchanger cleaning is doing the work for your - and reduces your operating expense.



Control „Lambda-Touch-Tronic“

The unique boiler control unit with touch screen offers the most modern user-comfort and controls the whole combustion process. Furthermore, all heating circuits are regulated by outside-temperature control and the HWT is controlled with a temperature-difference-regulation.

Electrical Controlled Exhaust Fan

Depending on the power demand, the „Lambda Touch Tronic“ controls the rotation of the exhaust fan. This guarantees an optimal combustion with lowest possible flue gas temperatures and highest efficiency. The EC Motor is extremely energy saving and is reducing operational costs. Additionally a turnable version of the flue pipe connection is available and can be mounted up, left & right on the side.

NEO HV PREMIUM

STAINLESS STEEL COMBUSTION CHAMBER



longest durability

AUTOMATIC CERAMIC IGNITION



maximum comfort and optimal heat supply



Back End Protection

The return flow temperature is increased through a return-flow mixing valve mounted on the boiler and distributing the heat to the heat circuits or accumulator.

COMBUSTION LIGHTNING



for easy and comfortable filling and cleaning of the combustion chamber

COMFORT ASHBOX



a special cover with an integrated handle for quick and clean ash disposal

Comfortable Filling

The generous filling door enables a comfortable filling of the combustion chamber (166 / 222 lt). The length of the Wood Logs can be up to 600 mm. The optimized combustion chamber ensures an efficient burnout without resulting tar. A specific suction channel for low temperature carbonisation gas ensures clean & safe reloading of the boiler!

Simple Cleaning

Easily accessible from front - just wipe the ash in the below positioned ashbox (also the lambda sensor is now reachable on the front side!).

1/2 M & 1M WOOD LOG BOILER

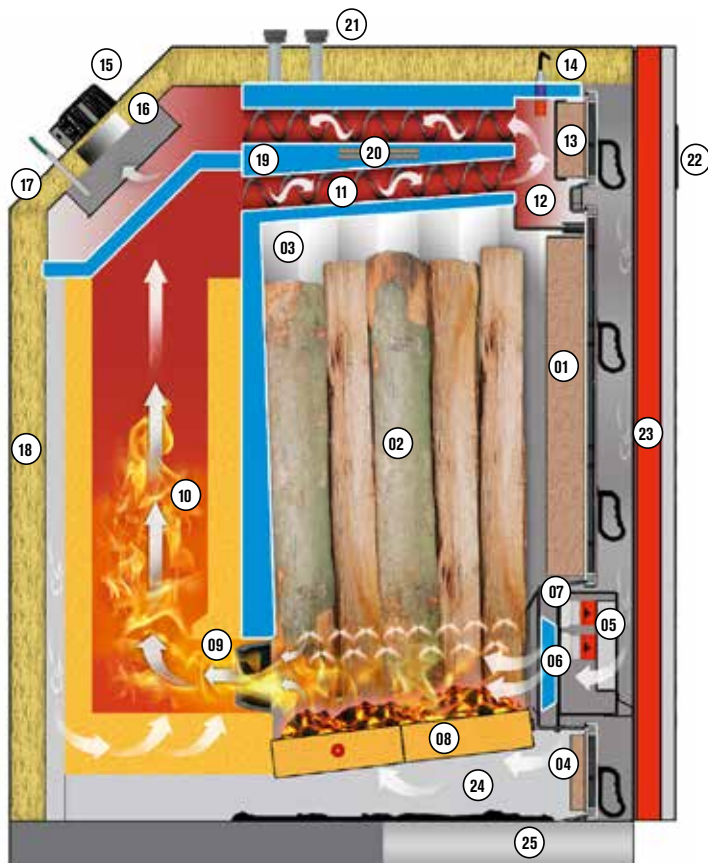
NEO MHV

FOR 1/2M AND 1 M WOOD LOGS

30 – 45 kW

The new Neo-MHV Wood Log boiler offers an extremely large filling volume and smallest measurements. Now it is possible to heat in small boiler rooms 1-meter Wood Logs. This new technology makes it possible to realise even small energy outputs despite the use of 1-meter boilers. The ideal use of the new Neo-MHV is for customers who want to heat ½ meter Wood Logs with an extremely large filling volume or 1-meter Wood Logs.

- for 1/2m and 1m Wood Logs
- small space requirements
- 300l filling volume
- simple installation
- perfect combustion
- control with **Lambda-Touch-Tronic**
- Combustion light (standard)
- **Automatic ignition (standard)**
- Integrated Backend-protection (optional)
- Full refractory-lined high-performance combustion chamber
- Speed controlled „energy-saving“ exhaust fan
- **Large refill-door 500x320 mm**



NEW



Efficiency class

A+

Efficiency up to
91,7%
Woodlog-Boilers

5 YEARS
WARRANTY
see warranty card

EXPLANATION

- 01 Large refill door
- 02 Large log-filling volume for ½-m- and 1-m-logs
- 03 Steel lining
- 04 Ash cleaning door
- 05 EC controlled pressure blower
- 06 Primary air motor
- 07 Secondary air motor
- 08 Automatic Ignition
- 09 Combustion comb
- 10 High-temperature post-combustion zone
- 11 Turbulators
- 12 Smolder gas vent
- 13 Cleaning door
- 14 Lambda-Touch-Tronic
- 15 Speed-controlled exhaust fan
- 16 Flue pipe vertically, left or right
- 17 Flue gas sensor
- 18 High-quality insulation
- 19 Heat exchanger
- 20 Calorifiers for thermal discharge safety device
- 21 Back end protection with mixing valve
- 22 Lambda-Touch-Tronic
- 23 Insulated outside door
- 24 Ash disposal area
- 25 Ash tray (optional)



1/2 M & 1M WOOD LOG BOILER

MV 55 – 110 kW

On request

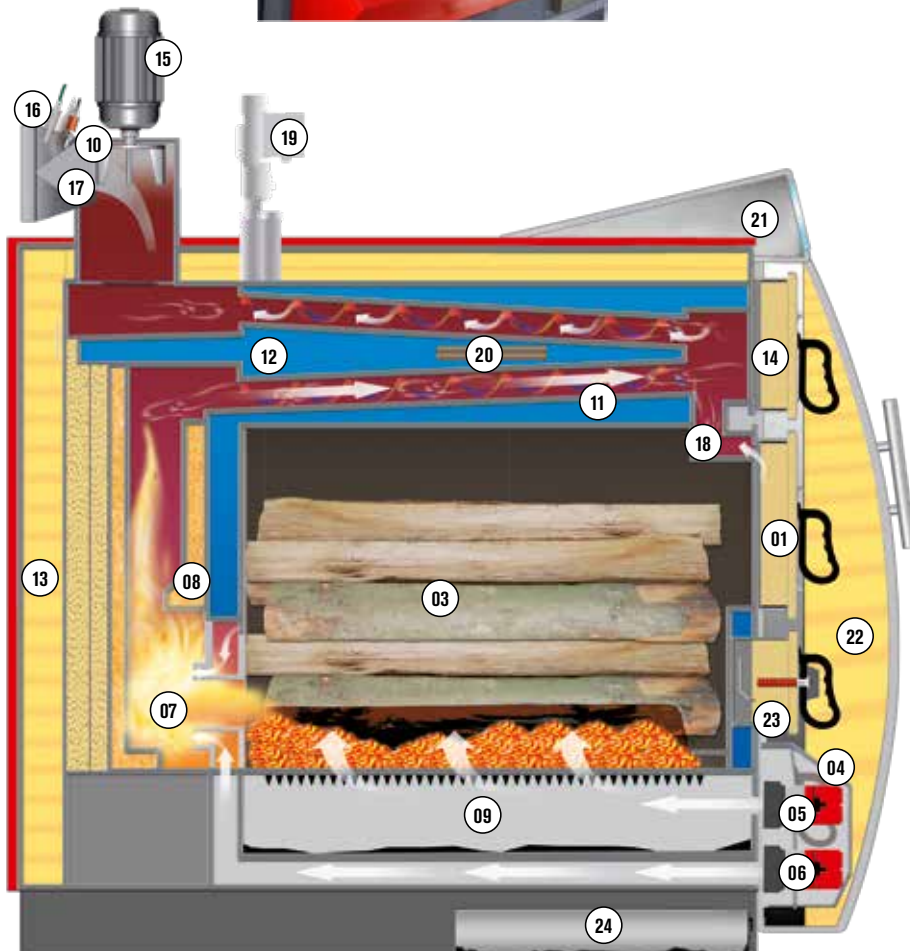
Hargassner has a very long experience with biomass heating technology - an advantage, especially needed for the Hargassner Wood Log Gasification boiler Neo HV. We reach the best results with our individual solutions in construction and combustion control of the boiler. Heating with a Wood Log boiler is more comfortable than ever.

- **Auto Ignition**
- Speed controlled exhaust fan
- Back end protection / heat control
- **Lambda-Touch-Tronic**
- Efficient Insulation
- Full refractory-lined combustion chamber
- Back end protection / heat control
- Lambda sensor with automatic fuel-quality detection



Efficiency class

A+



EXPLANATION

- 01 Large refill door
- 02 Large log-filling volume for 1 m logs
- 03 Hot steel lining - prevents tar creating
- 04 Lighting door with auto ignition
- 05 Primary air motor
- 06 Secondary air motor
- 07 Refractory-lined combustion chamber
- 08 High-temperature post-combustion zone
- 09 Ash separation zone
- 10 Lambda sensor
- 11 Turbulators
- 12 Heat exchanger
- 13 High-quality insulation
- 14 Automatic heat exchanger cleaning
- 15 Speed-controlled exhaust fan
- 16 Flue gas sensor
- 17 Flue pipe vertically, left or right
- 18 Smolder gas vent
- 19 Back end protection with mixing valve
- 20 Calorifiers for thermal discharge safety device
- 21 Lambda-Touch-Tronic
- 22 Insulated outside door
- 23 Easy cleaning from the front
- 24 Ash tray

1/2M WOOD LOG BOILER

SMART HV 17 – 23 kW

The new Smart-HV impresses with its compact size, its functionality and of course with its perfect price-to-performance ratio. It has a filling space for 1/2 metre stacks perfectly matched to its performance. The ingenious gasification technology comes from its big brother - the Neo-HV. Its new easy to use touch display gives it a special appeal. The areas of application range from fairly low output requirements such as in single-family homes and small residential units through to use as a combination module.

- Output range from 17 – 23 kW
- **Optimum filling space size for 1/2 metre stacks**
- Sophisticated wood gasification technology
- Easy stoking through large stoking door
- Smoke-free top-up thanks to carbonisation gas extraction
- Full refractory-lined high-performance combustion chamber
- Speed controlled "energy-saving" exhaust fan
- Automatic primary and secondary air control
- Easy de-ashing into the ash box at the bottom
- Includes set of cleaning tools
- **Easy to use touch display**
- **Latest combustion controller for highest efficiency and lowest emissions**
- Return & accumulator control

NEW

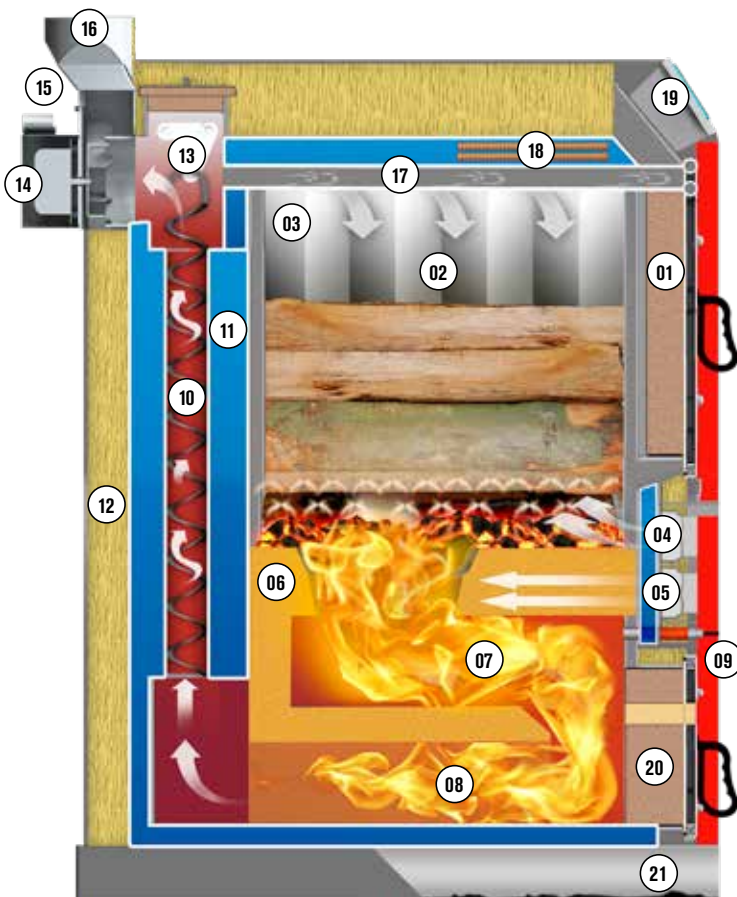


Efficiency class

A+

Efficiency up to
94%
Woodlog-Boiler

5 YEARS
WARRANTY
with warranty card



EXPLANATION

- 01 Large refill door
- 02 Optimum filling space for 1/2 metre stacks
- 03 Hot steel lining - prevents tar creation
- 04 Primary air motor
- 05 Secondary air motor
- 06 High-quality, massive refractory-lined combustion chamber
- 07 High-temperature post-combustion zone
- 08 Ash separation zone
- 09 Lambda sensor
- 10 Turbulators
- 11 Heat exchanger
- 12 High-quality insulation
- 13 Manual heat exchanger cleaning system
- 14 EC-speed controlled exhaust fan
- 15 Flue gas sensor
- 16 Flue pipe top
- 17 Top smolder gas vent
- 18 Calorifiers for thermal discharge safety device
- 19 "Smart-Touch" control
- 20 Easy cleaning from the front
- 21 Ash tray

SMART LINE

Wood Log & Pellet Combi-Boiler

Hargassner has many years of experience in biomass heating technology - a head start in know-how that has been put to use for years in the Neo-HV & Nano-PK Wood Log-pellet combination. **What's new now are the Combi solutions with Smart-HV and Smart-PK.**

Highest system efficiencies and maximum comfort are achieved by the perfect combustion technology of both boilers and the arrangement with two separate heat exchangers.

- **Perfect heating with Wood Logs and pellets**
- Highest controllability **and maximum efficiency**
- Fuel supply security for the future
- Two separate, efficient heat exchanger systems for just one chimney
- Fully automatic switch over
- Individual installation possibilities
- Perfect price-to-performance ratio



Energy efficiency class

A+

Pellet Smart-PK

The new Smart-PK impresses with its contemporary design, compact size, functionality and of course with its perfect price-performance ratio. This pellet boiler has a filling space for bag filling perfectly matched to its performance.

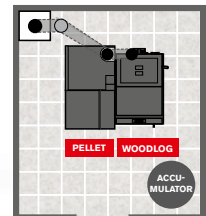
- Automatic sliding grate and ash drawer with compacting system
- Pellet day hopper with cover, top grid and integrated fill level indicator (268 lt / 174 kg)
- Easy filling from bags of pellets
- Latest combustion controller for highest efficiency and lowest emissions



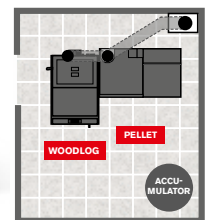
DIFFERENT MODELS



Pellet left, Wood Log right



Wood Log left, Pellet right



Also available as **Combi** with the tried and tested Hargassner **Neo-HV** or **Nano-PK**.

Hargassner Smart-Touch

Hargassner Smart-Touch is characterised by its exceptional design and simple handling. It controls the entire heating system from fuel transport up to optimum combustion. The combination with an accumulator allows the boiler to always run in the optimum performance range, which provides the customer with maximum heating comfort. You can adjust various settings easily and comfortably on the touch display.



Perfect heating with Wood Logs and pellets

**PELLET-
WOOD LOG
COMBI-BOILER**

Hargassner is a pioneer and well known for vast experience. An excellent design and high quality construction provides the best functionality and optimal performance, resulting in high customer satisfaction and a long boiler lifetime.

Due to the unique level of convenience (Auto ignition, auto Cleaning) and two separated combustion systems, the Hargassner Wood Log boiler reaches highest efficiency levels.

- **Perfect heating with Wood Logs and pellets**
- Highest controllability **and maximum efficiency**
- Ensure fuel supply in the future
- High incentives possible due to two separated systems
- Two separated, efficient heat exchanger systems for one chimney only
- Fully automatic switch over
- Individual installation possibilities



Unique convenience and highest efficiency

You fill the Wood Log boiler with logs, start-up material and insert a sheet of paper into the lighting door. Your Combi-boiler extracts the energy from the accumulator first. If more heat is required, the Wood Log boiler is ignited fully automatically and loads the accumulator and delivers heat to the house. If the Wood Log boiler is not prepared, the pellet boiler takes over. At the next refuelling interval the boiler switches over automatically.

Two separated heat exchanger systems for highest efficiency:

Because both systems work 100% independently from each other, no compromises have to be made. High-efficient heat exchangers for the individual fuel and best heat distribution result in highest efficiency.

Fuel supply security for the future

You can also decide for only a Wood Log boiler or a pellet boiler - and invest in the complementary product later. You can retrofit to a Combi-version at any time. You are fully independent in the future.

Complete control through a modern Touch screen

The all new Lambda-Touch-Tronic leaves no desires unfulfilled. The control system is characterised through its exceptionally design and simple handling. Sophisticated navigation is now a thing of the past. You visually recognise immediately the current status of the boiler, the accumulator and the HWS as well as all heating circuits. Even more ease of use may be reached through new remote controls with LCD- or Touch displays.

Both boilers are state-of-the-art products, including:

- Fully refractory-lined high performance combustion chamber for optimum post-combustion
- Lambda sensor with fuel quality detection



NANO PK PELLETBOILER

Fully refractory-lined high performance combustion chamber

Refractory stones are the best material available in terms of heat storage, function and durability: The high combustion chamber temperature at full- and partial load contributes to a complete combustion, high efficiency and lowest emission values.

Autom. ash box level indication

Once the ash box is full, you are reminded on the display to empty it. When the warning appears the remaining space lasts for one more week. There should be no overfilling of the box and the boiler stays clean for years. This is Hargassner-Pellet-heating convenience!

Weekly storage or air transport up to 20m

The Hargassner pellet vacuum turbine sucks the pellets into the hopper; either from an extracting auger, a single, double, three or four-point vacuum feeding system, or a bag silo. A hose length up to 20m makes it easy to overcome architectural barriers and handle complex boiler and storage room combinations.

From the hopper into the double rotary valve

A constant amount of pellets fall through the double rotary valve and the stoker auger transports the pellets into the refractory-lined combustion chamber.

WOOD LOG GASIFICATION BOILER



Control "Lambda-Touch-Tronic"

Unique boiler control with touch-screen for increased ease of use. This system controls the complete combustion process, the back end protection and the loading of the accumulator. Furthermore, all heat circuits and hot water circuits are regulated on an outside temperature basis.



Automatic Heat exchanger cleaning system

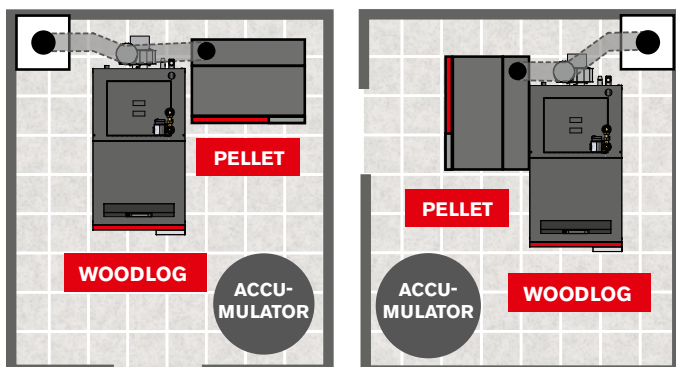
Gone are the days when you had to clean the boiler! The all new patented automatic boiler cleaning system manages the heat exchanger cleaning. As a result you enjoy more convenience and the boiler runs more efficiently!



Auto Ignition available

The lighting door is equipped with an automatic ignition for summer or transitional periods. Just fill up the boiler with Wood Logs and small start-up material. Insert a sheet of paper into the lighting door; then, depending on your heat demand, the boiler ignites fully automatically. This is the future! During winter the boiler is able to maintain the firebed for hours (sleep mode). This makes refilling easy, after longer hours of operation.

DIFFERENT MODELS



Wood Log left, Pellet right

Wood Log right, Pellet left

All technical data - see page 23

Sit back and relax – your heating system is doing the work for you



The Lambda-Touchtronic has a userfriendly touch screen. The system controls the complete combustion process, the back end protection and the loading of the accumulator. Furthermore, all heating circuits and hot water circuits may be regulated. The control works according to external conditions, recognising the changes in conditions as soon as they occur and adjusting the boiler output accordingly. Maximum comfort guaranteed!

Hot water tank

It is only necessary to set the desired hot water tank temperature and charging time. Your control unit will take care of the remaining steps automatically.

Hargassner guarantees 24 hours hot-domestic-water. Beside of regular loading schedules of the Hot Water Tank, a „**minimum-boiler-loading**“ ensures the supply of your hot domestic water needs.



Further advantage is the HWT priority control. Means, if a HWT is being loaded, it is ensured that heating-circuits are not reduced permanently and room temperature would cool down.

Lay back and enjoy your warm home.

Control of the heating circuits

The Lambda-Touchtronic may control several independent heating circuits. The client is able to define different settings in detail; e.g. indoor room temperature on all heating circuits, depending on time of day and outside temperature.



Hargassner's 3G day/night reduction mode enables the client to set 3 thresholds. One mode for 'Heating during the day', one for 'Reduction during the day' and one for 'Reduction during the night'. As a result, the heating system only operates if necessary. This saves energy without sacrificing comfort.

Through the ingenious residual heat use programme, the remaining energy in the boiler is used efficiently after the shutdown of the boiler.



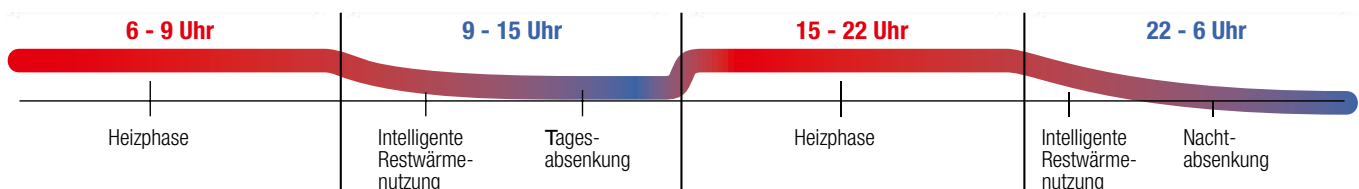
Boiler before starting: Display of Lambda Touchtronic shows a not-heated boiler. HWT and Accumulator are cold - not loaded



Boiler in Full-Load: Display shows a working boiler. HWT and Accumulator are being loaded already. Heating Circuits ensure required temperature in each living-area.



Boiler in Part-Load: Boiler is only working with half-power. Boiler and Accumulator are loaded already. Heating Circuits ensure required temperature in each living-area.



**Heating time 1:
6 a.m. – 9 a.m.**

Outside it is -7°C, so considerably less than the threshold value of +16°C - the heating switches on.

**Day-reduced temperature:
9 a.m. – 3 p.m.**

Outside temperature increases to -1°C considerably less than the day time reduced temperature threshold of +8°C. Heating day-reduced temperature operation.

**Heating time 2:
3 p.m. – 10 p.m.**

The outside temperature climbs to +1°C; so considerably less than the threshold value of +16°C. The heating remains switched on.

**Night-reduced temperature:
10 p.m. - 6 a.m.**

The temperature cools to -2°C, so above the threshold value for the night-reduced temperature of -5°C. The heating switches off.

CONTROL ACCESSORIES

The mobile remote control for your heating system!

You want to change settings on your boiler or see the current status - without going to your boiler room? No problem! The all new remote controls. Easy, self-explaining and perfectly visualised!



LCD FR35 Backlight: With this LCD-remote control you can see all important temperatures on a digital screen. You can set the room temperature and/or day-reduced or heating operation. The FR35 can be connected with or without room-temperature dependence. A warning light is integrated to inform the client about the status of the heating system.



Radio version for LCD FR35: Same function as described above - but radio version with transmitter and receiver.



Touch remote control FR 40: Set the room temperature, change heating status, change heating temperatures and times. All functions of the boiler are controllable from your living room.



Analog FR25: This remote control measures the actual internal temperature, and can also apply corrections to the control unit. You can use the temperature controller to adjust the room temperature up or down. With or without room-temperature dependence. A warning light is integrated to inform the client about the status of the heating system.

Touch accessories

Hargassner offer a wide range of Touch accessories. This contains the extension of heat circuits and furthermore remote controls to increase customer convenience.



NEW:
Control board B

Control board A/B: This control board is to extend the control by 1 heat circuit and 1 HWT. The board may be integrated in the boiler or the extension module HKM. Also in the HKR - additional control boards can be installed. (Sensors must be ordered separately)



Additional control board F: This control board is to control 1 district heating line with regulated flow temperature. It controls the district heating pump, its mixer and incl. a temp. sensor



Additional control board PF: This control board is to control two additional buffer sensors. By this way, the control unit of the boiler can control 5 buffer sensors (especially interesting large buffers).



Control board D: for differential control of a separate heat source and one accumulator or hot water storage. This differential controller can be used for an external boiler (Log, Oil, Gas, etc.) as well as for a solar system in single circuit or double circuit operation. The control of the pumps is constant (no speed control with PWM). Incl. 1 HWS-sensor and 1 Solar sensor (temp. resistant)



Control board E: for controlling a substation flushing valve (no sensors required).



Extension module HKM with or without Touch: This module is used to add 2 additional heating circuits and 1 additional hot water tank (including circulation pump), controlled via touch display. Additionally, an external heating circuit or a centralised accumulator and several HKM may be installed.



Heat circuit controller HKR with Touch Display: Control unit based on atmospheric conditions for 2 mixing valve controlled heating- and 1 hot water tank circuits with DHW-circulation pump; **1 accumulator or external boiler, 1 external HC, 1 long-distance heating or accumulator pump, extension to a max. of 16 HKR's.** An extension with a max. of 2 HKM's, ZSP-A allows additional 8 HC and 5 HWT circuits.



Overvoltage protection

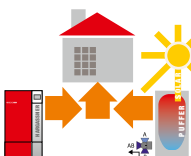
If the CAN-Bus modules are in two different buildings - the overvoltage protection guarantees a potential equalisation.



Housing with/without main switch:

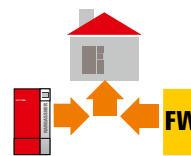
If no space is available in the boiler control cabinet when using several additional boards, then a universal expansion module can be used. Housings are available either with and without main switch or with a housing + main switch + three-phase current board.

Additional functions



Accumulator- & Solar logic (standard)

The PSP-Logic with 3 SENSORS and part load control revolutionizes the current accumulator control. This guarantees long boiler run times, less start-up cycles and maximum plant efficiency. For peak loads a forced loading cycle can be activated. Solar buffer logic: First the hot water stored in the tank from solar-energy is used, before the biomass boiler fires up using automatic ignition.



External heat control

If desired, an additional external boiler, e.g. pellet, oil or gas boiler, may be integrated. The change over between the two boilers occurs fully automatically.

Remote control via Phone or Tablet



Internet-Gateway required for App and Web-Service. The internet gateway establishes a save SSL-encrypted connection between the Hargassner boiler control to the Internet - router. Only with that a save access to your heating system is possible.



Web Solution: With the Hargassner Web-Service the installer may set the heating system ONLINE - via Login. (Requirement: Internet gateway)



App: With the all new Hargassner APP you may easily change heating times, temperatures and operation modes and receive information regarding the current boiler status. Important information can be sent via email or push notification to your mobile. You know at any time the status of your boiler. (Requirements: Internet - Gateway; Smart phone with Android or IOS)



SMS: With this tool you can have your heating under control even when you are not at home. Faults are automatically sent to your mobile and you can issue commands to the controller, e.g. switch the heating circuits on or off or set new temperatures, all from your mobile with complete reliability!

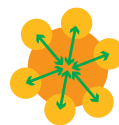


Smart Home Solutions

Hargassner offers interfaces for all major smart home solutions. Efficient energy control and heat distribution in your house is on a new level. Smart home compatibility is the perfect opportunity for an even more efficient energy control. Save energy and costs. Enjoy convenience and safety. Electrical device, heating and lights are connected to one centralised control. Via internet you are able to look at your home - also if you are on the way!



LOXONE: Integrate your Hargassner boiler to your Loxone SmartHome. Appropriate boiler control based on Loxone single room control. Loxone enables the configuration and control of each single room - according to your demand.



Mod Bus: With the MOD-BUS interface /TCP the boiler can be integrated into a building management system or can be connected to a visualisation software.



KNX: Connection to a KNX-house automation. Interface between boiler (LAN) and KNX-Bus -> Bus coupler.



Heat meter: with M-Bus interface. Connection of heat meter 403 from Kamstrup to the Hargassner Touch-Tronic. You can read the consumed energy on your Hargassner display or via APP, WEB or other smart home technologies.

HYDRAULIC ACCESSORIES

ACCESSORIES
ACCUMULATOR SYSTEMS
HYDRAULIC COMPONENTS

HARGASSNER
HARGASSNER ZÜRICH



Hydraulic accessories

Hargassner offers hydraulic components specially designed for its boilers. The Hargassner district heating sub-station is a compact unit for the indirect district heating supply of buildings. The operator has the advantage that he can read all necessary data such as heat consumption etc. from the boiler control system or on the web. Further details can be found in the „Accessories“ brochure or at www.hargassner.at.



Substations ÜGS 15 / 30 / 50 / 75 / 100

The new Hargassner substation unit is especially designed for indirect heating of external buildings. The main advantage for the client is that all necessary information from the cascade controller, WEB, APP, heat meter can be read. Additionally this unit is equipped with the same control concept as the boiler - commissioning, control is very easy and not different.



Fresh water station with PWM high-efficiency pumps

The Hargassner fresh hot water station is used for demand-driven hot domestic water heating using the flow-through principle in conjunction with an accumulator tank for existing and new Hargassner Wood Chip, Pellet or Wood Log boilers. The station replaces the storage of hot domestic water in an additional accumulator and thus offers a high level of protection against Legionella by avoiding stagnation water.



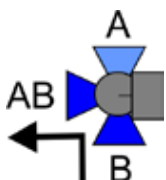
Heat circuit groups

The Hargassner heat circuit groups are available in the sizes DN 25 and DN 32 and in the version with and without a mixer motor. Furthermore, two different distributors are available for each dimension (DN 25/32) for 2 or 3 heat circuit groups. Mounting is on the wall or with the accumulator mounting plate directly on the accumulator.



WMZ Heat meter

MULTICAL® 403 is a static heat meter based on ultrasound. It consists of one calculator, one flow sensor and two temperature sensors and is designed for metering heat. The heat meter is calibrated and is easy to install and has a temperature range of 2-180°C and a flow calculation from qp 1.5m³/h to 15 m³/h.



Fast loading valve

During the start-up of the Wood Log boiler, the accumulator volume is reduced through the fast loading valve. As a result, rooms are heated up faster.



Back End Protection

Serves as an automatic back end protection with simultaneously loading the accumulator. The pre-assembled and fully insulated back end protection device, which incorporates the return temperature mixing valve with motor and high-efficient accumulator loading pump is quickly and easily mounted.



Stainless steel flue pipes

Hargassner offers special stainless steel flue pipes for Wood Log boilers.



OekoTube-Inside

The OekoTube-Inside is an electrostatic fine dust separator, which is recognised by Bafa as an approved method to reduce the fine dust content. The separator is suitable for Hargassner wood chips, pellets and piece wood boilers up to 100 kW.

NEW

ACCUMULATORS

ENERGY-efficiency category

C



NEW

Accumulator P: This accumulator without return spread sheet can be combined with all Hargassner accumulators. The integrated sensor strip allow easy and flexible installation. Complete with fiber fleece insulation, hard cover and sleeve insulation.



Layered Accumulator SP: The design of these layered accumulators matches optimally to the Hargassner control and hydraulic systems. A particular advantage is the integrated return spread sheet plate which guarantees exact temperature stratification during loading and unloading. The integrated sensor strips allow setup-specific exact sensor positioning and thus optimize the control processes. High-quality fleece insulation, socket insulation etc.



Hygienic Accumulator HSP: Impressing with its integrated return spread sheet, variable sensor positioning and hygienic domestic water preparation. The generously dimensioned stainless steel corrugated tube bundle enables legionella-free domestic hot water heating with a high hot water output. The regular movements of the flexible corrugated stainless steel pipe provide optimum protection against calcification. High-quality fleece insulation, socket insulation etc.



Solar Accumulator SP SW 1+2 & Solar Hygienic Accumulator HSP SW 1+2:

This solar accumulator matches optimally to the Hargassner control and hydraulic systems. In addition to its integrated return spread sheet and variable sensor positioning, it impresses with its efficient solar heat exchanger. It is available with bottom (SW1) or bottom & top (SW2) solar heat exchanger. High-quality fleece insulation, socket insulation etc.

TECHNICAL DATA ACCUMULATOR P		P-825	P-1000	P-1500
Accumulator Volume	Liter	825	1000	1500
Diameter Ø without insulation	mm	750	790	990
Diameter Ø with insulation	mm	950	990	1230
Height without insulation	mm	1910	2020	2090
Height with insulation	mm	1980	2090	2160

Technical Details see brochure „Accessoires - Accumulators and Hydraulic-components“

TECHNICAL DATA ACCUMULATOR TANK SP		NEW										NEW	
		SP 500	SP 650	SP 825	SP 1000	SP 1200	SP 1500	SP 2000	SP 2200	SP 2600	SP 3000	SP 4000	SP 5000
Accumulator Volume	Liter	476	647	825	1000	1200	1500	2000	2200	2600	3000	4000	5000
Diameter Ø without insulation	mm	650	750	750	790	990	990	1100	1100	1250	1250	1600	1600
Diameter Ø with insulation	mm	850	950	950	990	1230	1230	1340	1340	1490	1490	1840	1840
Height without insulation	mm	1650	1680	1910	2020	1740	2090	2250	2550	2320	2620	2260	2760
Height with insulation	mm	1720	1750	1980	2090	1810	2160	2320	2620	2410	2730	2330	2895
Weight without insulation	kg	78	92	103	114	139	162	215	228	288	352	437	576

TECHNICAL DATA HYGIENIC ACCUMULATOR HSP		HSP 500	HSP 650	HSP 825	HSP 1000	HSP 1200	HSP 1500	HSP 2000
Accumulator Volume	Liter	500	650	825	1000	1200	1500	2000
Diameter Ø without insulation	mm	650	750	750	790	990	990	1100
Diameter Ø with insulation	mm	850	950	950	990	1230	1230	1340
Height without insulation	mm	1630	1660	1910	2020	1740	2090	2250
Height with insulation	mm	1700	1730	1980	2090	1810	2160	2320

Hot water tank WS 300 & 500 & Solar WS 300-S & 500-S

The Hargassner hot water storages WS 300 and WS 500 have perfectly dimensioned heat exchanger surfaces and are especially designed for the combination with Hargassner biomass boilers. The hot water solar tank WS300-S and WS500-S are equipped with additional smooth pipe heat exchanger for solar.

- made of enamelled sheet steel
- incl. magnesium protective anode
- Cleaning flange DN110, also for finned tube heat exchangers or electric heating
- Threaded electric immersion heater ET 6/4"

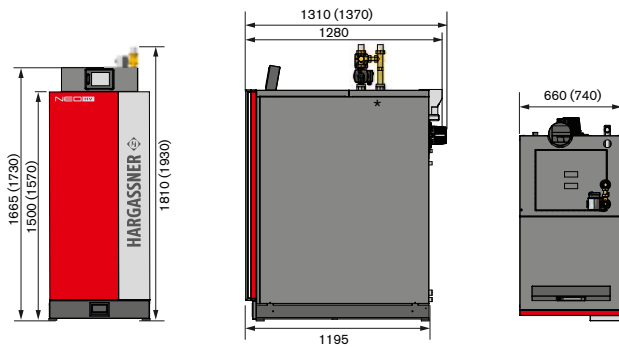
ENERGY-efficiency category

C



TECHNICAL DATA

Neo-HV 20-60 kW



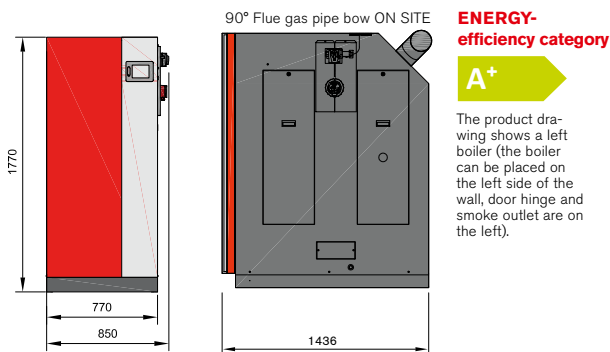
ENERGY-efficiency category

A⁺

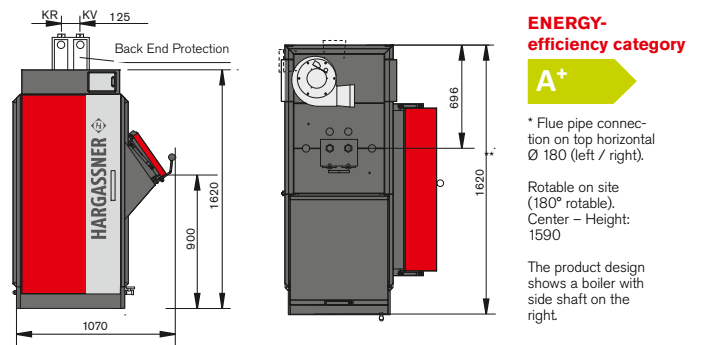
* Flue pipe connection on top. Rotable exhaust fan (left / right) available.

Dimensions in () apply to Neo-HV 40-60

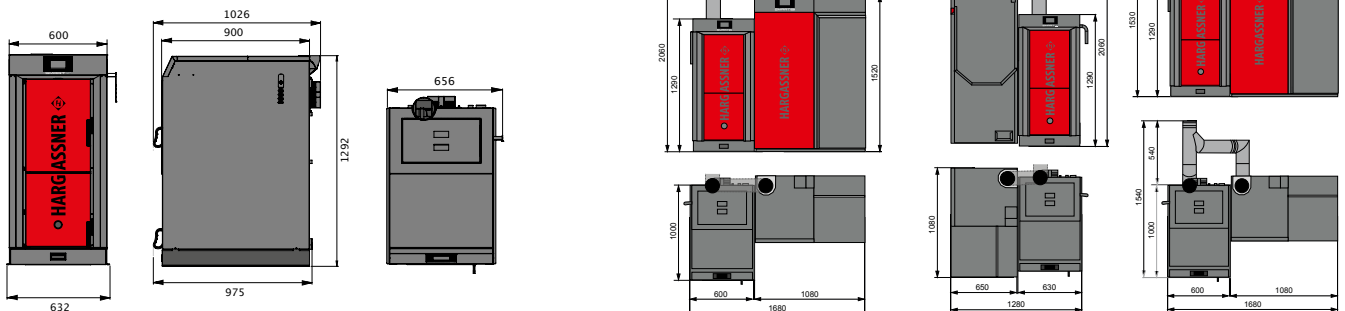
Neo-MHV 30-45 kW



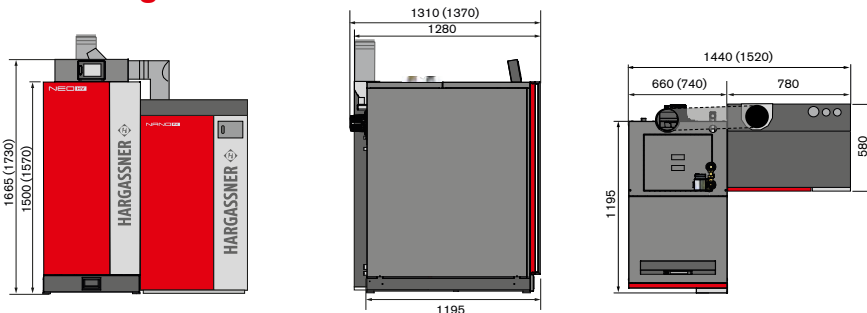
MV 35-49 kW



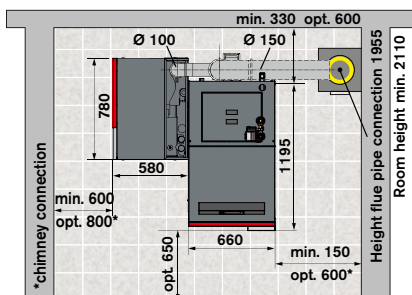
Smart-HV 17-23 kW & Smart-Combi Boiler



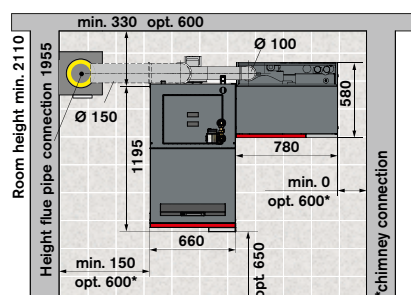
Wood Log - Pellet - Combi-Boiler



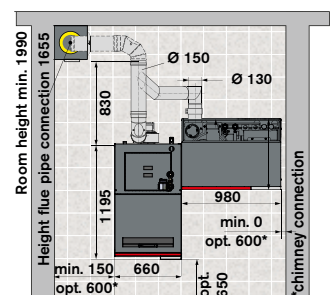
Neo-HV 20-30 with Nano-PK 6-15 left



Neo-HV 20-30 with Nano-PK 6-15 right



Neo-HV 20-30 with Nano-PK 20-32 right, RR horizontal



Wood Log Boiler Neo-HV 1/2 m

	Unit	Neo-HV 20	Neo-HV 30	Neo-HV 40	Neo-HV 50	Neo-HV 60
Power range	kW	12,7 - 25,4	15 - 30	22 - 44	25 - 50	30 - 60
Efficiency Full load / Partial load	%	93,7 - 92,8	93,3 - 92,8	94,0 - 94,4	94,2 - 95,4	92,8 - 95,4
Fuel heat output - full load	kW	26,8	32	47	53,3	64
Flue pipe diameter	mm	150	150	150	150	150
Filling volume	Liter	166	166	222	222	222
Filling room depth	mm	600	600	600	600	600
Filling door (H x W)	mm	402 x 356	402 x 356	402 x 356	402 x 356	402 x 356
Water content	Liter	137	137	166	166	166
Waterside resistance ΔT 10 / 20 [K]	mbar	-	-	-	-	-
Flow/Return (RAG)	Inches	6/4" (1")	6/4" (1")	6/4" (1")	6/4" (1")	6/4" (1")
Weight	kg	700	700	810	810	810
H / W / D	mm	1665 x 660 x 1310			1730 x 740 x 1370	
Transporting dimensions:	W mm	660	660	740	740	740
disassembled	D mm	1195	1195	1195	1195	1195
Boiler-Label	Classe	A+	A+	A+	A+	A+
Composite label incl. control	Classe	A+	A+	A+	A+	A+

* A left-hinged door (without lateral shaft) is standard, but the door is reversible

Max. operation temperature 95°C, Max. operating pressure 3 bar, Electrical connection 230 V AC, 50 Hz, 13 A

Wood Log Boiler MV 35 - 49 kW & Neo-MHV 30 - 45 kW

	Unit	MV 35 SR / SL	MV 49 SR / SL	Neo-MHV 30	Neo-MHV 35	Neo-MHV 40	Neo-MHV 45	
Power range	kW	39	39-47	30	35	40	45	
Efficiency Full load / Partial load	%	92,6/-	90 / 92,6					
Fuel heat output - full load	kW	42,1	52,2					
Flue pipe diameter	mm	180	180	150	150	150	150	
Filling volume	Liter	380	380	300	300	300	300	
Filling room depth	mm	1100	1100	550 / 1080				
Filling door (H x W)	mm	402x356 (1045x280)			755 x 502			
Water content	Liter	210	210	150	150	150	150	
Waterside resistance ΔT 10 / 20 [K]	mbar	50,4 / 15	68,6 / 19,7					
Flow/Return (RAG)	Inches	5/4"	5/4"					
Weight	kg	1310	1310	1030	1030	1030	1030	
H / W / D	mm	1620 x 1070 x 1820			1770 x 850 x 1440			
Transporting dimensions:	W mm	960	960					
disassembled	D mm	1800	1800					
Boiler-Label	Classe	A+	A+	A+	A+	A+	A+	
Composite label incl. control	Classe	A+	A+	A+	A+	A+	A+	

* A left-hinged door (without lateral shaft) is standard, but the door is reversible ** Lateral refill shaft SR=right (front door hinge left), SL= left (front door hinge right)

Max. operation temperature 95°C, Max. operating pressure 3 bar, Electrical connection 230 V AC, 50 Hz, 13 A

Wood Log SMART-HV 1/2 m

	Unit			
Power range	kW	17	15 - 20	15 - 23
Flue pipe diameter	mm	130	130	130
Filling volume	Liter	102	102	102
Filling room depth	mm	560	560	560
Filling door (H x W)	mm	455 x 340	455 x 340	455 x 340
Water content	Liter	72	72	72
Weight	kg	400	400	400
H / W / D	mm	1290 x 600 x 900		
Transporting dimensions:	mm	1292 x 632 x 1026		
Chimney connection height / opt.	mm	1550 / 2000		
Composite label incl. control	Classe	A+	A+	A+

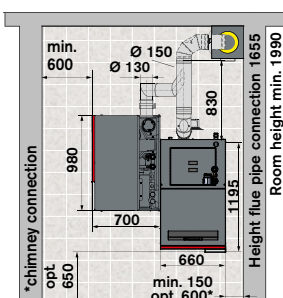
Smart-HV/PK Combi-Boiler

	Unit	Smart-HV & PK
Nominal heating output	kW	17 - 32
Boiler height:	mm	1290 / 1520
Boiler width:	mm	650 / 1080
Boiler depth:	mm	975 / 650
Boiler depth:	mm	600 / 930
Flue pipe diameter	mm	130 / 130
Flow/Return (RAG)	Inches	6/4" / 5/4"
Water content	Liter	72 / 42
Weight	kg	400 / 290
Chimney connection height / opt.	mm	2060 / 1530
Boiler-Label	Classe	A+ / A+
Composite label incl. control	Classe	A+

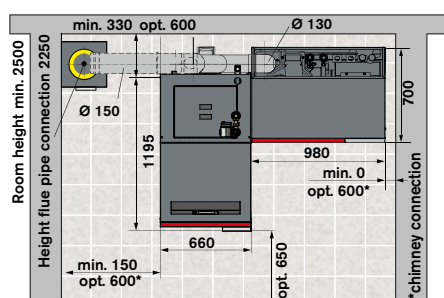
Neo-HV 20-60 kW & Nano-PK 6-32 kW Combi-Boiler

	Unit	Neo-HV 20-30 & Nano-PK 15	Neo-HV 20-30 & Nano-PK 20-32	Neo-HV 40-60 & Nano-PK 20-32
Nominal heating output	kW	25,4 / 4,5-15	25,4 / 20-32	60 / 20-32
Boiler height:	mm	1665 / 1350	1665 / 1550	1730 / 1550
Boiler width:	mm	660 / 780	660 / 980	740 / 980
Boiler depth:	mm	1310 / 580	1310 / 700	1370 / 700
Transporting dimensions:	mm	660 / 580	660 / 580	1690 x 740 x 1135
Flue pipe diameter	mm	150 / 100	150 / 130	150 / 130
Flow/Return (RAG)	Inches	6/4" / 1"	6/4" / 5/4"	6/4" / 5/4"
Water content	Liter	137 / 24	137 / 42	166 / 42
Weight	kg	700 / 220	700 / 350	810 / 350
Min. draught	Pa	5	5	5
Boiler label Neo-HV/Nano-PK	Classe	A+ / A+	A+ / A+	A+ / A+
Composite label incl. control	Classe	A+	A+	A+

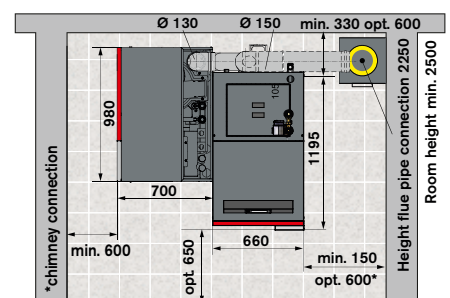
Neo-HV 20-30 with Nano-PK 20-32 left, RR horizontal



Neo-HV 20-30 with Nano-PK 20-32 right, RR vertical



Neo-HV 20-30 with Nano-PK 20-32 left, RR vertical





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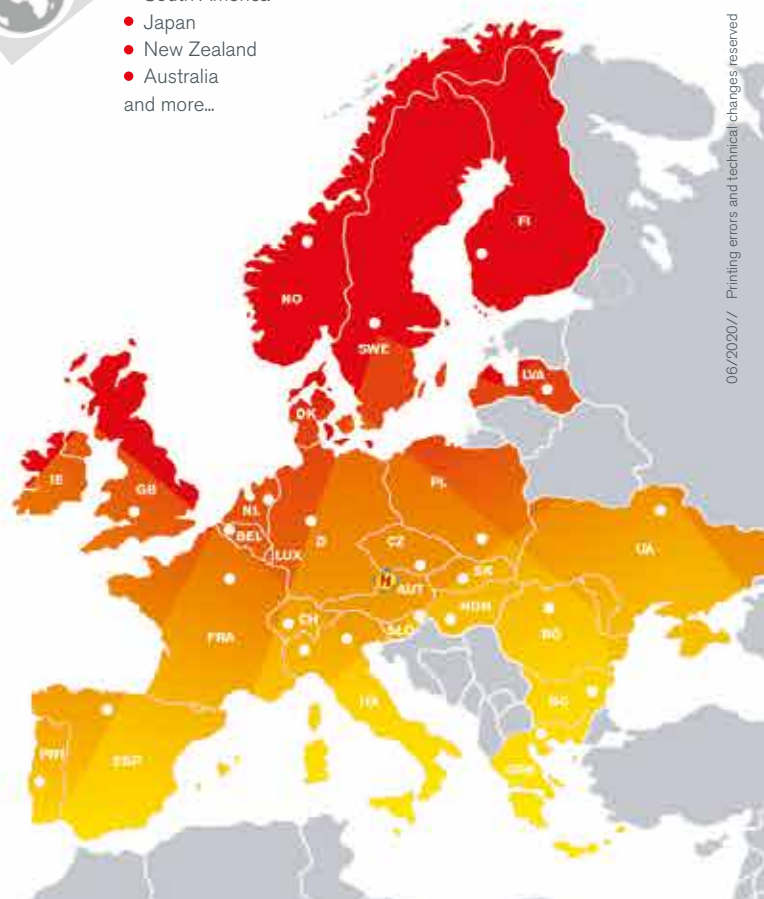
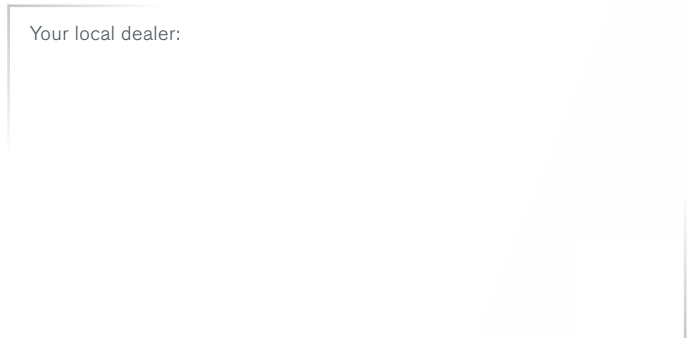
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