

WOOD-LOG BOILER 1/2M & 1M GASIFICATION BOILER

HARGASSNER HEATING TECHNOLOGY FOR BIOMASS

& COMBI BOILER

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FOREWORD



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



CONTENT

- More than 34 years of experience
- We export to 31 countries worldwide
- Company premises: more than 3 hectares
- More than 90,000 satisfied customers
- International successful

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WOODLOG BOILER



Recommended by our customers



Single Family Home with Workshop

The customer is having his own forest, therefore it was predictable, to install a woodlog 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.

WOODLOG-PELLET COMBIBOILER





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".

SAVE HEATING COSTS

Main advantages of wood logs?

Wood logs - the environmentally-friendly and CO_o-neutral local fuel.

To produce wood logs, wood from forests is needed. Latest wood processing machinery provide a simple and costeffective 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 | | | | | | |
|-----------------------|----------------------|--|--|--|--|--|
| Woodlog : 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 / I * |
| Gas 69 Euro / MWh * |

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



* Last 10 vear - average fuel price

Austria, etc.

Source: Statistics Austria, Energie Con-

trol. Pelletsverband, Biomasseverband, Landwirtschafts- und Arbeiterkammer



Logistics: From the forest to the end consume

For the sake of the environment:

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 / Lenght: 6 mm / ca. 5 - 40 mm Water content: w < 10% Primary energy efforts: 2-2,7%



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

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.

| 1 🕋 | 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 |
|------------|---------------|-----------------|------------------|-----------------|----------------------|------------------|----------|----------|
| • | | Min. | Optimum | | | | | |
| | Neo-HV 20 -30 | | Min. | Optimum | | | | |
| | | | | Min. | Optimum | | | |
| | | | Min. | Optimum | | | | |
| | Neo-HV 40 -60 | | | Min. | Optimum | | | |
| | | | | | Min. | Optimum | | |
| Hard wood | | | | | Min. | Optimum | | |
| Mixed wood | MV 35 -49 | | | | | Min. | Optimum | |
| Soft wood | | | | | | | Min. | Optimum |

1/2 M GASIFICATION BOILER

NED) ну 20 – 60 kW

Hargassner has a very long experience with biomass heating technology - an advantage, especially needed for the **Hargassner Woodlog Gasification boiler Neo HV.** We reach the best results with our individual solutions in construction and combustion control of the boiler. **Heating with a woodlog 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 imporved, 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

| Excerpt 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 woodlogs 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" controlls 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.

NED HV PREMIUM

STAINLESS STEEL COMBUSTION CHAMBER



longest durability

COMBUSTION LIGHTNING



for easy and comfortable filling and cleaning of the combustion chamber

AUTOMATIC CERAMIC IGNITION



maximum comfort and optimal heat supply

COMFORT ASHBOX



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



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.

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!).

COMBI-BOILER NEO-HV 20-60 & NANO-PK 6-32 KW

Perfect heating with wood logs and pellets

PELLET-WOOD LOG COMBI-BOILER

Hargassner is a pioneer and well know 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 boilers 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 indepentent 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



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 fourpoint 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 startup 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 19

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1M WOOD LOG BOILER

M 35 – 49 kW

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





Without lateral refill shaft



With lateral refill shaft left or right



- 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 postcombustion 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

| Excerpt test reports MV 49 | | | | | | | |
|----------------------------|---------------------------|--------------|------|--|--|--|--|
| | Nominal heat output | Part load | | | | | |
| Power | kW | 47 | 39 | | | | |
| Efficiency | % | 90 | 92,6 | | | | |
| Carbon dioxide | % | 13,7 | 13,5 | | | | |
| Carbon monoxide | mg/MJ | 125 | 109 | | | | |
| Dust | mg/MJ | 8 | 15 | | | | |





Refractory-lined high performance combustion chamber

Through the combustion comb with injector nozzle (patented), the combustion gas is mixed with secondary air. As a result, an efficient and complete combustion process takes place. Through its special heat storage effect, highest combustion temperatures are guaranteed in the combustion chamber. This leads to high efficiency values through lowest post-combustion emissions. It doesn't matter which fuel type you have stored - softwood or hardwood logs, briquettes etc. - the control unit uses the Lambda sensor to detect the relevant calorific value and sets the primary and secondary air with separate motors (No. 5+6) Your heating system is always working with the needed heat output at optimum combustion values. This is how convenient controls will be in the future - constant manual adjustment of the system to the fuel is a thing of the past.



Ignition

The lighting door is equipped with an automatic ignition for summer or transitional periods. Just fill up the boiler with wood logs and small startup 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.

In order to use the energy obtained to its full potential, we use turbulators to force the heated air into an elongated spiral flow path as near as possible to the heat exchanger.



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.

Easy Refill

The large filling door (500 x 320mm) ensures easy refilling of large log-filling volume (380 lt). Log lengths up to 1050mm can be inserted. During active refill, when the boiler is running, an overhead smolder, as vent sucks the flue gas back into the flue pipe. Clean and efficient!



Back End Protection / Heat Control

The return temperature is kept high through a fully insulated, directly mounted back end protection device.



Efficient Insulation!

The boiler is encased in a highly-effective "Overall-Insulation" That means, as well as the outside frame and combustion doors being insulated, the boiler base and special design elements are now also insulated.



Lateral Refill Door (left or right hinged)

The large filling door (1045 x 280mm) allows easy and convenient refilling with 1m wood logs, wood waste materials, wood chips or briquettes from the side.

Easy Cleaning

All maintenance parts are accessible from the front side. Easy ash removal from the front into the ash tray below.

Speed Controlled Exhaust fan

Depending on the heat demand, the "Lambda-Touch-Tronic" controls the speed of the exhaust fan. This concept ensures combustion with minimal exhaust gas temperatures and therefore maximum efficiency. The connection of the flue pipe to the chimney can exit vertically or horizontally.



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-domesticwater. Beside of regular loading schedules of the Hot Water Tank, a **"minimum-boilerloading"** 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 $+8^{\circ}$ C. Heating day-reduced temperature operation.

Heating time 2: 3 p.m. – 10 p.m.

The outside temperature climbs to $+1^{\circ}$ C; so considerably less than the threshold value of $+16^{\circ}$ 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.



Additional control board A: This control board is to control 1 heat circuit and 1 HWS. The board may be integrated in the boiler, the extension module HKM or the heat circuit controller HKR.



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.



Additional control board F: This control board is to control 1 district heating line with regulated flow temperature. It controles the district herating 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 contol 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).



Heating circuit controller HKR with Touch: Control unit based on atmospheric conditions with Touch control for 2 mixing valve-controlled heating circuits and 1 hot water tank circuit with circulation pump; 1 accumulator or external boiler, 1 external heating circuit, 1 long-distance heating or accumulator pump. Extension with max. 2 HKM

(max. 8 HKR). SD-card Slot and data logging. ergibt insgesamt 6 Heizkreise und 3 Boilerkreise.



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.

SMART HOME

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.



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)



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



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 singe room control. Loxone enables the configuration and control of each single room - according to your demand.



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



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.



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.

LAYERED ACCUMULATOR

Layered accumulators SP

This accumulator is especially designed for Hargassner Hydraulic- & Control systems. The integrated stratification sheet has one major advantage: It guarantees a perfect layering during the loading and unloading cycle. The integrated sensor strip enables a perfect sensor positioning for an optimum operation. High-end fleece insulation and socket insulation, etc.

Efficiency class C

Hygienic-Accumulator HSP

Through the integrated return spreading sheet, the variable sensor positioning and the hygienic drinking water heating process, this accumulator guarantees efficient usage. The generous-dimensioned corrugated stainless steel pipe guarantees a legionella-proof DHW-heating. The continuous flow principle results in a high hot water output. A constant movement of the flexible stainless steel pipe guarantees a perfect calcification protection. High-end fleece insulation and socket insulation, etc.

Efficiency class

Solar-layered SP-SW 1+2 and

Solar-hygienic-layered Accumulator HSP-SW 1+2

This accumulator is especially designed for Hargassner Hydraulic- & Control systems. Besides the integrated return spread sheet and the variable sensor positioning; this accumulator convinces through the highly efficient solar heat exchanger. Available with bottom solar heat exchanger (SW1) or bottom and top solar heat exchanger. (SW2) High-end fleece insulation and socket insulation, etc.



| Techn. Data SP & SP SW 1+2 | | SP 350 | SP 500 | SP 650 | SP 825 | SP 1000 | SP 1200 | SP 1500 | SP 2000 | SP 2200 | SP 2600 | SP 4000 |
|-------------------------------|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Accumulator volume | Litre | 395 | 500 | 650 | 825 | 1000 | 1200 | 1500 | 2000 | 2200 | 2600 | 4000 |
| Diameter ø without insulation | mm | 650 | 650 | 750 | 750 | 790 | 990 | 990 | 1100 | 1100 | 1250 | 1600 |
| Diameter ø with insulation | mm | 850 | 850 | 950 | 950 | 990 | 1230 | 1230 | 1340 | 1340 | 1490 | 1840 |
| Height without insulation | mm | 1380 | 1630 | 1660 | 1910 | 2020 | 1740 | 2090 | 2250 | 2550 | 2320 | 2250 |
| Height without insulation | mm | 1470 | 1720 | 1750 | 2000 | 2110 | 1830 | 2180 | 2340 | 2640 | 2410 | 2340 |

| Techn. Data HSP & HSP SW | 1+2 | HSP 500 | HSP 650 | HSP 825 | HSP 1000 | HSP 1200 | HSP 1500 | HSP 2000 |
|-------------------------------|-------|---------|---------|---------|----------|----------|----------|----------|
| Accumulator volume | Litre | 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 without insulation | mm | 1720 | 1750 | 2000 | 2110 | 1830 | 2180 | 2340 |

Max, operating pressure 3 bar, max, temperature 95°C, max, drinking water pressure 6 bar, 6/4" up to 2000l, 2" to 4000l,

Accumulator for Fresh Water Station FWS

Hargassner offers various FWS with 35 or 50 liters as well as the perfect adapted accumulator with piping and mounting plate. There are two different accumulator sizes available with 825 Liter and 1000 Liter volume. For mounting the FWS on the wall, you can install a normal Hargassner Accumulator next to it.



ACCESSORIES Fast loading valve



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During the start-up of the wood log boiler, the accumulator volume is reduced through the fast loading valve. As a result, rooms



Hargassner offers special stainless steel flue pipes for wood log boilers.



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.



are heated up faster.















TECHNICAL DATA

| Technical Data | 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 | 12.3-24.7 | 16-32 | 20-40 | 22-49 | 22-58 | | |
| Efficiency Full load / Partial load | % | 91.5 / 95.7 | 91.8 / 95.4 | 92.1 / 95.1 | 92.4 / 94.9 | 90.1 / 94.9 | | |
| Fuel heat output - full load | kW | 27 | 34.9 | 43.4 | 53 | 64.4 | | |
| Flue pipe diameter | mm | 150 | 150 | 150 | 150 | 150 | | |
| Filling volume | Litre | 166 | 166 | 222 | 222 | 222 | | |
| Filling room depth | mm | 600 | 600 | 600 | 600 | 600 | | |
| Filling door (H x W) | mm | 402x356 | 402x356 | 402x356 | 402x356 | 402x356 | | |
| Water content | Litre | 137 | 137 | 166 | 166 | 166 | | |
| Waterside resistance ∆T 10 / 20 [K] | mbar | 20.5 / 5.4 | 36 / 9.3 | 80 / 23.4 | 90.9 / 23.4 | 100 / 23.4 | | |
| Flow/Return (RAG) | Inches | 6/4" (1") | 6/4" (1") | 6/4" (5/4") | 6/4" (5/4") | 6/4" (5/4") | | |
| Weight | kg | 650 | 650 | 760 | 760 | 760 | | |
| H/W/D | mm | 1630 x 64 | 14 x 1335 | 16 | 690 x 744 x 133 | 5 | | |
| Transporting dimensions: | W mm | 644 | 644 | 744 | 744 | 744 | | |
| disassembled | Tmm | 1135 | 1135 | 1135 | 1135 | 1135 | | |
| Boiler-Label | Classe | A+ | A+ | A+ | A+ | A+ | | |
| Composite label incl. control | Classe | A+ | A+ | A+ | A++ | A++ | | |
| Jax operation temperature 95°C | Max on | orating proceure | 3 har Electrica | L connection 23 | | 13 Δ | | |

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

| Technical Data | Wood Log Boiler MV | | | | | | |
|--|--------------------|-------------|-------------|--------------------|--------------------|--|--|
| | Unit | MV 35 | MV 49 | MV 35 SR / SL | MV 49 SR / SL | | |
| Power range | kW | 39 | 39-47 | 39 | 39-47 | | |
| Efficiency Full load / Partial load | % | 92,6/- | 90 / 92,6 | 92,6/- | 90 / 92,6 | | |
| Fuel heat output - full load | kW | 42,1 | 52,2 | 42,1 | 52,2 | | |
| Flue pipe diameter | mm | 180 | 180 | 180 | 180 | | |
| Filling volume | Litre | 340 | 340 | 380 | 380 | | |
| Filling room depth | mm | 1100 | 1100 | 1100 | 1100 | | |
| Filling door | mm | 310x500 (-) | 310x500 (-) | 402x356 (1045x280) | 402x356 (1045x280) | | |
| Water content | Litre | 210 | 210 | 210 | 210 | | |
| Waterside resistance ∆T 10 / 20 [K] | mbar | 50,4 / 15 | 68,6 / 19,7 | 50,4 / 15 | 68,6 / 19,7 | | |
| Flow/Return (RAG) | Inches | 5/4" | 5/4" | 5/4" | 5/4" | | |
| Weight | kg | 1160 | 1160 | 1310 | 1310 | | |
| H/W/D | mm | 1620 x 73 | 30 x 1820 | 1620 x 10 | 70 x 1820 | | |
| Transporting dimensions: | W mm | 735 | 735 | 960 | 960 | | |
| disassembled | T mm | 1800 | 1800 | 1800 | 1800 | | |
| Boiler-Label | Classe | A+ | A+ | A+ | A+ | | |
| Composite label incl. control | Classe | A+ | A+ | A+ | A+ | | |



Room height min. 2500

Ø 150

1195

660

| Eatoriar on a share or e right (none door hingo long) oz - lote (none door hingo right) | | | | | | | | | | | |
|---|--------|-----------------------------|------------------------------|------------------------------|--|--|--|--|--|--|--|
| Technical Data | | Wood Log-Pellet Combiboiler | | | | | | | | | |
| | 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 | | | | | | | |
| Transport dimensions H / W / D | mm | 660 / 580 | 660 / 580 | 1690 x 740 x 1135 | | | | | | | |
| Flue pipe diameter | mm | 150 / 100 | 150 / 130 | 150 / 130 | | | | | | | |
| Connection Flow and return | Inches | 6/4" / 1" | 6/4" / 5/4" | 6/4" / 5/4" | | | | | | | |
| Water content | Litre | 137 / 24 | 137 / 42 | 166 / 42 | | | | | | | |
| Weight | kg | 700 / 220 | 700 / 350 | 810 / 350 | | | | | | | |
| Min. draught | Pa | 5 | 5 | 5 | | | | | | | |
| Boiler-Label HV/Nano-PK | Classe | A+ / A+ | A+ / A+ | A+ / A+ | | | | | | | |
| Composite label incl. control | Classe | A+ | A+ | A++ | | | | | | | |

Installation examples with one flue pipe set (optionally) Neo-HV 20-30 with Nano-PK 6–15 right







Max. operation temperature 95°C, Max. operating pressure 3 bar, Electrical connection 230 V AC, 50 Hz, 13 A Neo-HV 20–30 with Nano-PK 20–32 right, Flue pipe vertical Neo-HV 20–30 with Nano-PK 20-32 right, Flue pipe hor.

Height flue pipe connection 1655

min

min.

600

980

opt. 650

*chimney connection

Т

opt. 600*

A

W

830

1195

660 150

Ø 150 130

ø

700

Ø 150

Ø 130

980

opt. 650

-30 with Nano-PK 20-32 left, Flue pipe hor.

830

660

min. 150 opt. 600*

min. 0 opt. 600* connection

*chimney

1655

pipe connection

flue

Height

19

Room height min. 1990





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



Rotable on site (180° rotable). Center - Height: 1590



700

980

min. 0 opt. 600*





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Further Information and Contact: **www.hargassner.at**

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