

WOOD CHIP

HEATING




PLUS X AWARD®
achieved for:
High Quality
Ease of Use
Functionality
Ecology


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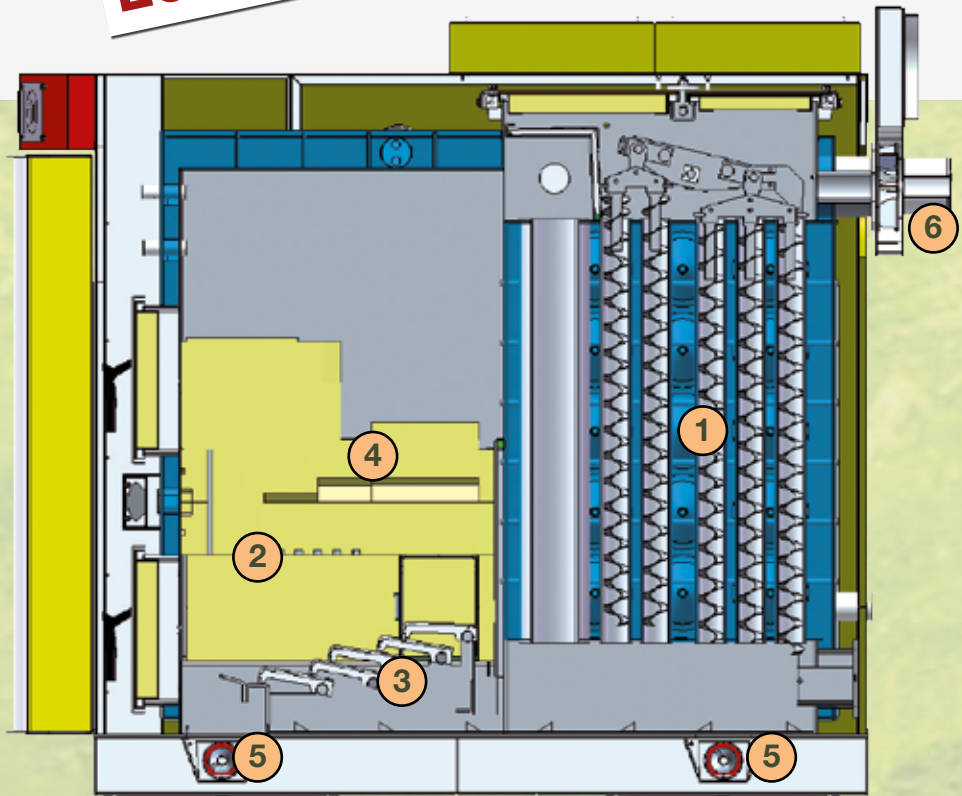
WOOD CHIP HEATING

HPK-VR 80, 98, 110

Low power consumption



Efficiency of all boiler models in part and full load up to 95,4%



HPK-VR 80, 98, 110

WOODCHIP BOILER HPK-VR

New highly efficient wood chip boiler with latest forward feeding grate technology. This high performance boiler shell is produced as a tension-free welded unit. The insulated front door opens fully to the side for maintenance and servicing. The cleaning of the heat exchanger is fully automatic. The generously proportioned combustion chamber is built out of industrial fire bricks and guarantees dwell time for the flue gases to give exceptionally clean combustion. Combustion is exactly controlled by one modulating flue gas fan, primary and secondary air dampers in conjunction with lambda probe, flue gas temperature and negative pressure control. Using only one modulating fan reduces complexity and electrical consumption.

Key points:

- Burning of less than ideal and clinker creating materials possible.
- For example: Wood chips with high water content, wood chips with a high bark and needle content, maize cores, oil seed rape straw and miscanthus, etc.
- Fully automatic heat exchanger cleaning and under grate ash discharge take place without stopping the boiler.
- Fully automatic ash discharge designed to cope with clinker that may form due to chosen fuel.
- High efficiency up to 95,4%
- The test figures surpass the high requirements of the eco-labelling "UZ37" from Austria and the Blue Angel eco label from Germany.

DESCRIPTION

- ① Heat exchanger with generously dimensioned tubes and automatic cleaning.
- ② High furnace completely fire clayed for the optimum burn of flue gasses.
- ③ Moving step grate with a big grate area out of fireproofed material and under grate ash discharge.
- ④ Exact control of the combustion air by dampers (Efficiency up to 95,4%).
- ⑤ Fully automatic grate and fly ash cleaning into two ash bins (both 70l).
- ⑥ Latest under pressure combustion technique by a highly efficient modulating flue gas fan.

HPK-VR	80	98	110
Nominal Load	80	98	110
Length l (mm)	2200	2200	2200
Width b (mm)	950	950	950
Height h (mm)	1700	1700	1700
Weight (kg)	2150	2150	2150

Flue pipe connection ø 250

WOOD CHIP HEATING

GILLES

TÜV certified

- ① **Helical gear motor** (high efficiency, low power consumption)
- ② **Connection point sprinkler valve**
- ③ **Ripping hook**
- ④ **Start-up cushioning and vibration reduction**



- ⑤ **Auger channel**
- ⑥ **Transport auger** (continuously welded auger flights, robust auger)
- ⑦ **Cell wheel** (100% burn back protection)



WOOD CHIP HEATING

WOOD CHIP TRANSPORT SYSTEMS

- 1 Drive motor with oil immersed helical gear and start-up cushioning, vibration reduction, high efficiency, low power consumption
- 2 Robust auger with progressive flights suitable for wood chips up to G50/P45 Ö-NORM M7133
- 3 Double hinged arm system for optimal clearing of the wood chip storage room
- 4 Ripping hook
- 5 The helical gear box with shaft lip seal, high efficiency



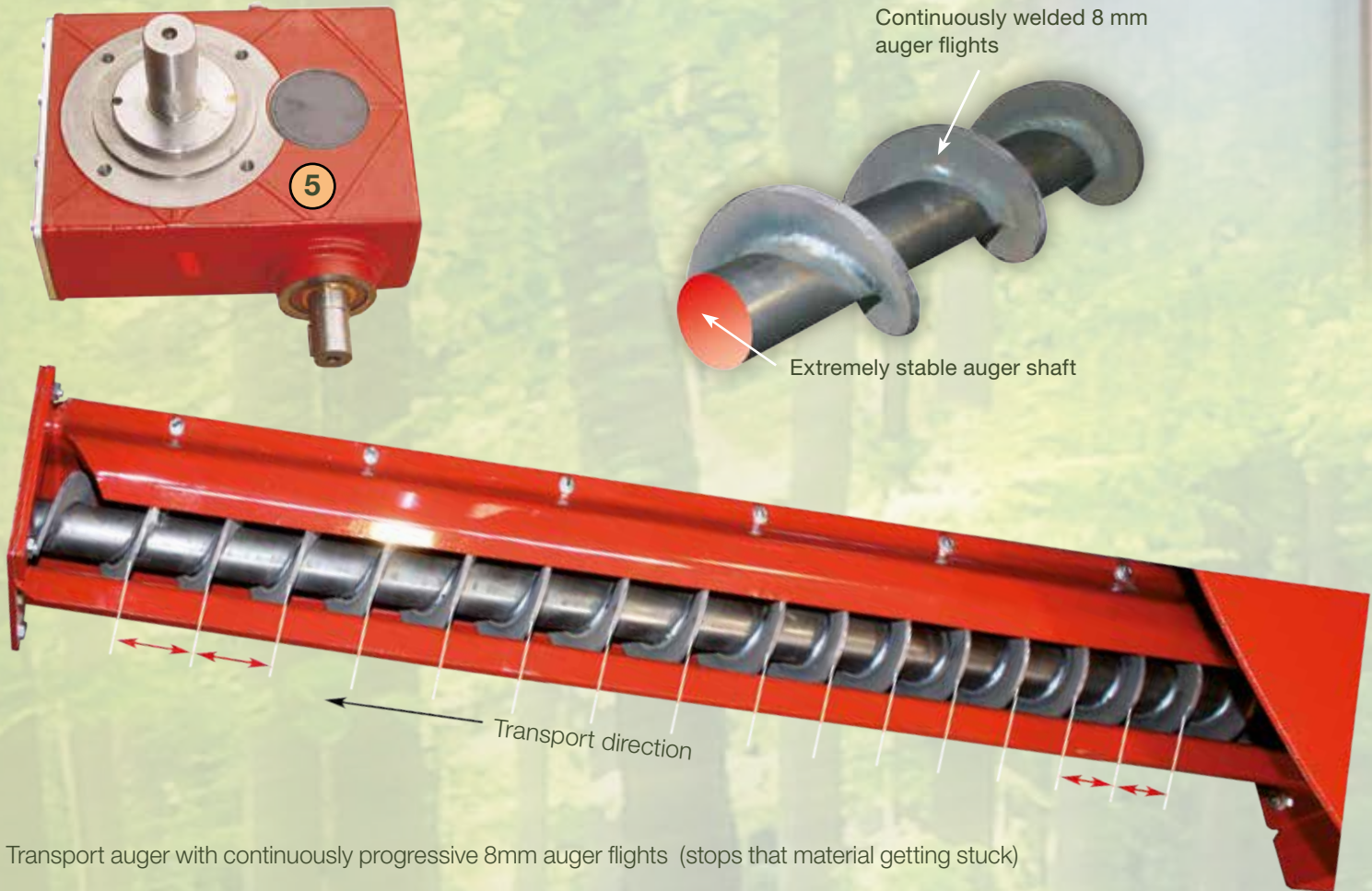
Ripping hook

prevents blockages in that larger wood chips are automatically pushed down to then be cut in the cell wheel.

- 2 massive hinged arms make working up to 6 m diameter possible
- Incl. pressure disc, gear motor and pre-tensioning device
- Robust auger shaft
- Continuously welded progressive pitch auger flights
- Large dimension auger channel
- Wood chips up to G50/P45, industrial wood chips, briquettes, etc.

WOOD CHIP HEATING

WOOD CHIP TRANSPORT SYSTEMS



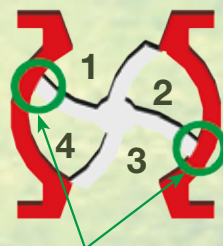
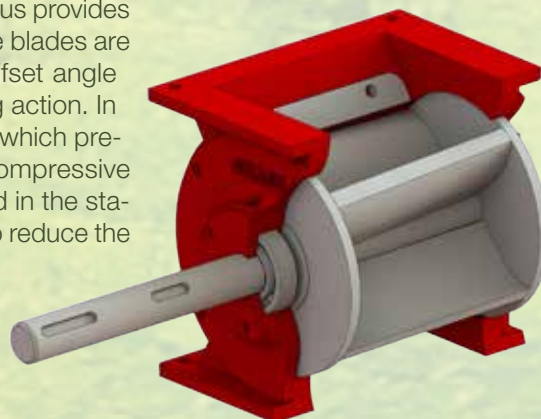
Transport auger with continuously progressive 8mm auger flights (stops that material getting stuck)

GILLES special features

Gilles Cell wheel

The multi-tested full-metal cell wheel reliably interrupts the boiler from the fuel store and thus provides 100% protection against burn back. The blades are attached to the running wheel at an offset angle to the rotary axis to enhance the cutting action. In addition, the blades are slightly curved, which prevents noise generation and reduces compressive forces. A fixed cutting edge is integrated in the stable and noise-damping cast enclosure to reduce the size of longer pieces of material.

*100% protection against burn back
Proven on thousands installations*



Energy-saving 4-chamber system with low running surface



IBS proved.

HEATING CONTROL SYSTEM

Intelligent control

GILLES Touch

✓ Higher efficiency

✓ Energy saving

(Energy efficient control of the electrical components)

✓ Smooth control of the drives

(Components: Ignition fan, 3 way diverting valve, transport system)

Benefits:

- ▶ Settings for different fuels
- ▶ Modulation of the boiler
- ▶ Convenient setting and alteration of all heating functions via smart phone, tablet or PC/Mac
- ▶ Automatic error message notification via e-mail
- ▶ Remote monitoring of the boiler via internet
- ▶ Graph record of all heating parameters on the internal memory
- ▶ Modular design (expandable)
- ▶ Robust design of switch cabinet
- ▶ Cascade control
- ▶ Password protected
- ▶ Modbus and/or BAC-Net compatible
- ▶ Enabling of external heat source
- ▶ Recording of all operation parameters via USB stick



Programming and updates possible via USB stick



Optional:

- Automatic error message notification via SMS



- ▶ Boiler & stoker status displayed
- ▶ Status display => which components are currently active
- ▶ All important settings can be seen on the main screen, such as temperatures, O₂ value, fans, etc.



- ▶ Display of the actual values and the set points
- ▶ All fans performances visible



- ▶ Trend logging over 6 months with USB Stick
- ▶ Trend log exportable to USB stick
- ▶ All values displayed on the controller can be recorded and saved



GILLES Touch Remote access

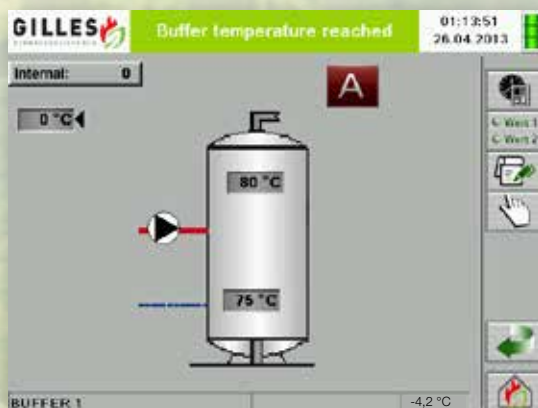
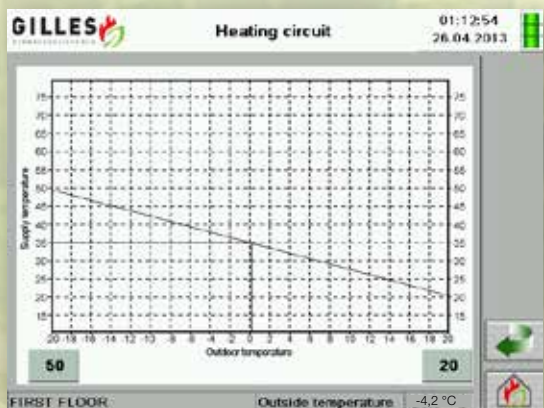
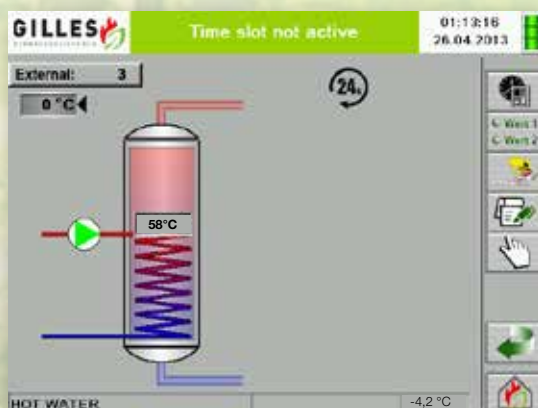
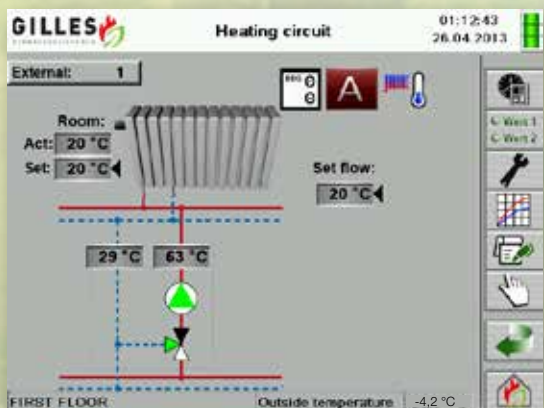
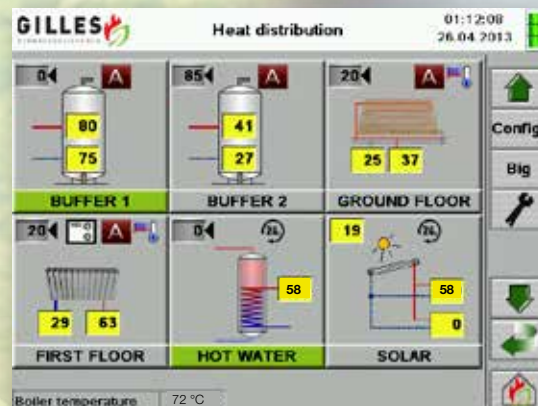
HEATING CONTROL SYSTEM



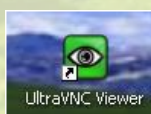
with integrated heating circuit control

Previously it was only possible to regulate the heating circuits with the room control unit. Now it's possible to control it with the Gilles touch control panel. You can regulate the heating times, room temperatures and all important parameters easily with the Gilles touch control panel. In addition you are able to change your settings with your smart phone and tablet computer.

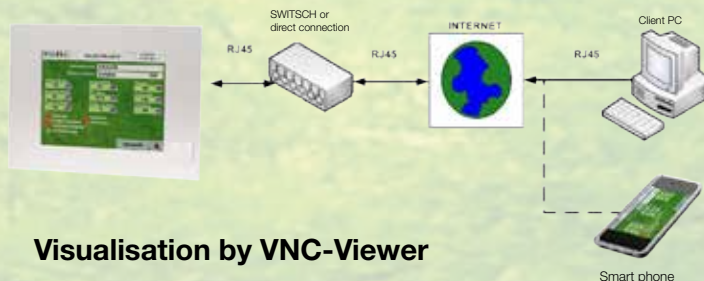
The result of these innovations is optimal comfort with absolute control and lower heating costs.



Visualisation link / GSM-Visualisation



Communication via smart phone app



Visualisation by VNC-Viewer

Smart phone

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GILLES

...thousands of satisfied... **GILLES** customers!



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