

# PELLET- HEATING

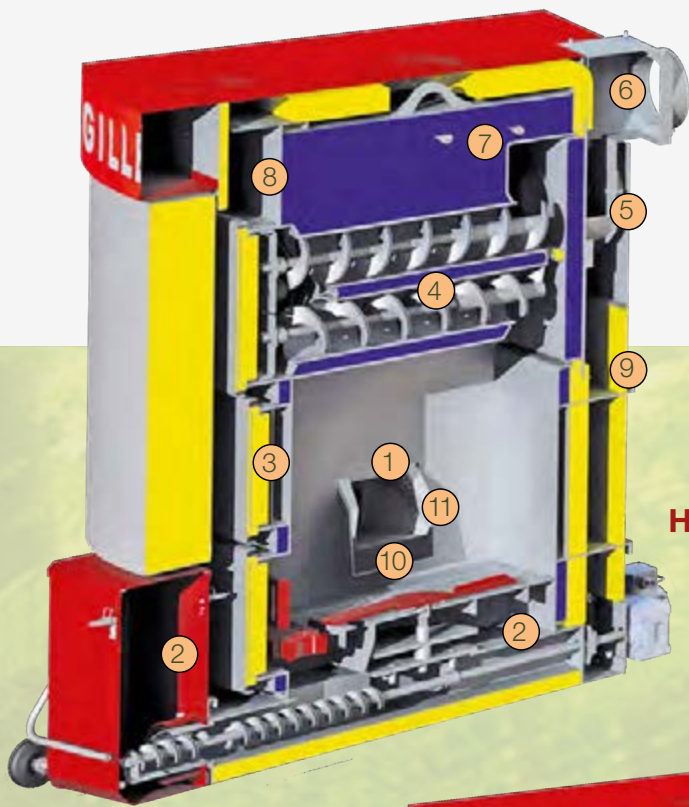


**GILLES**  
*Touch*

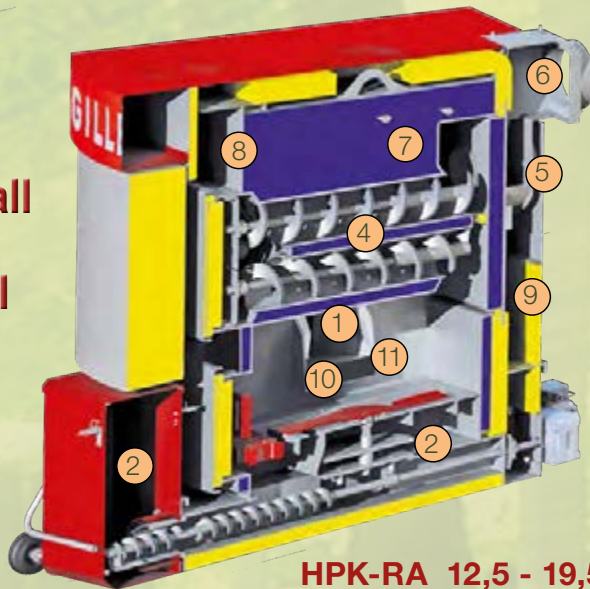
HPK-RA 12,5-160

# PELLET-HEATING

## Pellet-boiler



HPK-RA 15 - 160



HPK-RA 12,5 - 19,5

Efficiency of all systems in full and partial load operation more than 93,1%.

## HPK-RA 12,5 - 160

### PELLET BOILER HPK-RA

The high-performance boiler is produced as a stress-free welded construction. The heat insulated front door opens outwards. The cleaning of the boiler flue pass is performed fully automatically by means of a special drive via 6 mm worm screws.

The boiler is suitable for automatic combustion of pellets and also with no modification for log wood operation by an additional combustion chamber door and grate. Welded multiple-draught boiler in thick-walled boiler plate St. 360 (6 mm width), horizontal heat exchanger in seamless drawn thick-walled boiler pipes, 70 mm width external insulation, operational pressure max. 3 bar, incl. heat exchanger. Automatic ash discharge integrated in boiler base and rolling ash container. Suitable for combustion of pellets and industrial pellets Ö-Norm M7135 / DIN plus / EN 14961-2/ ENplus A1.

HPK-RA 12,5-85 rolling ash container 43 l, HPK-RA 100-160 ash container 80 l.

## DESCRIPTION

- ① Pellet burner in highly heat-resistant steel for HPK-RA 12.5 – 45 or ceramic for HPK-RA 49 – 160
- ② Ash removal via ash agitator with special drive technology – ash compression resulting in long emptying intervals – rolling ash container
- ③ Combustion chamber door for log wood operation (no changeover required)
- ④ Horizontal pipe heat exchanger with automatic cleaning
- ⑤ Flue gas fan for optimal ignition process and permanent negative pressure in the boiler
- ⑥ Lambda probe for fuel detection and optimised, clean combustion process
- ⑦ Overheat protection
- ⑧ Welded multiple-draught boiler in 6 mm boiler plate
- ⑨ Shunt circuit with pump and mixing valve available
- ⑩ Primary air modulating variable
- ⑪ Secondary air modulating variable

GILLES HPK-RA	12,5	14,5	19,5		
Nominal load	12,5	14,5	19,5		
Length l (mm)	1165	1165	1165		
Width b (mm)	620	620	620		
Height h (mm)	1290	1290	1290		
Weight (kg)	421	421	421		
GILLES HPK-RA	15	20	25		
Nominal load	15	20	25		
Length l (mm)	1165	1165	1165		
Width b (mm)	620	620	620		
Height h (mm)	1485	1485	1485		
Weight (kg)	443	443	443		
GILLES HPK-RA	30	35	40	45	
Nominal load	30	35	40	45	
Length l (mm)	1430	1430	1430	1430	
Width b (mm)	765	765	765	765	
Height h (mm)	1445	1445	1445	1445	
Weight (kg)	724	724	724	724	
GILLES HPK-RA	49	59	75	85	
Nominal load	49	56	75	85	
Length l (mm)	1660	1660	1780	1780	
Width b (mm)	765	765	935	935	
Height h (mm)	1445	1445	1785	1785	
Weight (kg)	910	910	1570	1570	
GILLES HPK-RA	98	100	120	145	160
Nominal load	100	100	120	145	153
Length l (mm)	2155	2155	2155	2620	2620
Width b (mm)	935	935	935	935	935
Height h (mm)	1785	1785	1785	1785	1785
Weight (kg)	1963	1963	2463	2463	2463

**TÜV certified**

# PELLET-HEATING

# GILLES

## Pellet burner

### PELLET BURNER

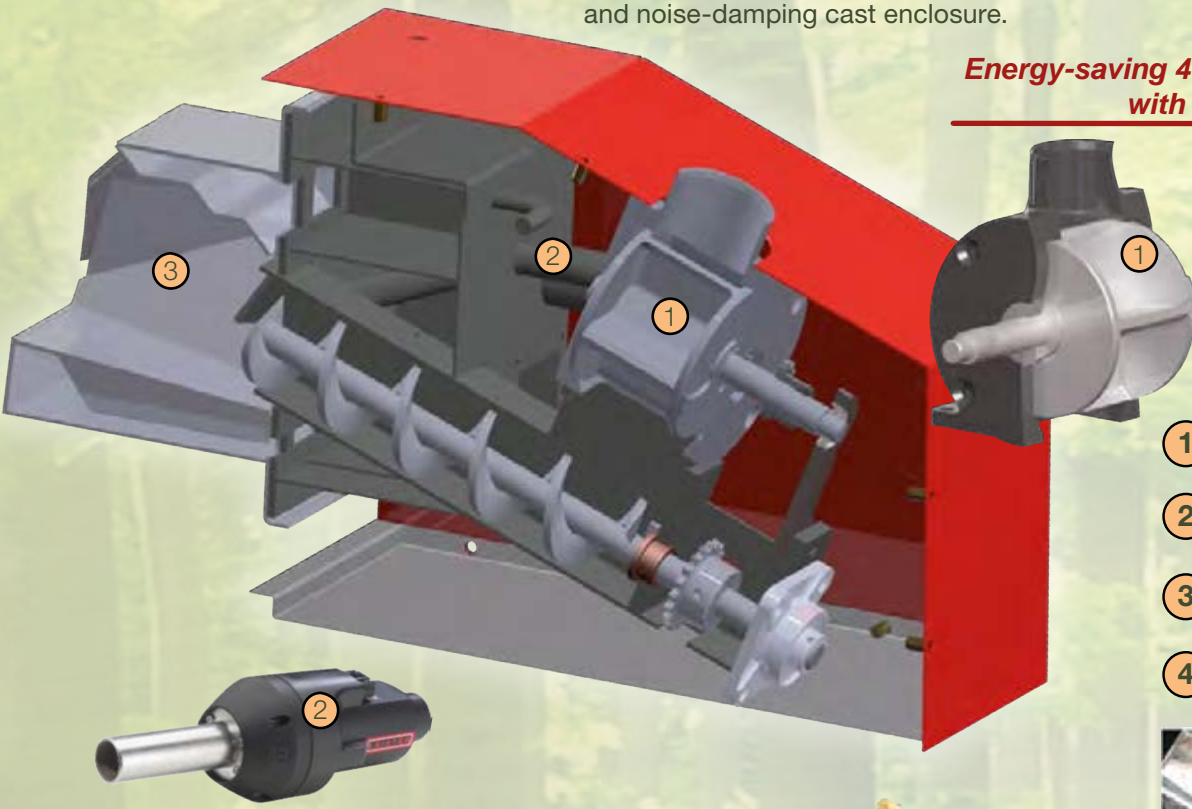
High combustion temperatures guaranteed in all performance ranges and the best possible use of your fuel. Well-designed air guidance is a precondition for highest quality of combustion. Years of experience, high-tech development, heat resistant materials guarantee clean combustion and long service life.

### CELL WHEEL

The multi-tested full-metal cell wheel reliably interrupts the boiler with the storage room and thus provides **100% protection against burnback**. The blades attached to the running wheel are slightly curved, which prevents noise generation and reduces compressive forces. From HPK-RA 75 these blades are running at an offset angle to the rotary axis to enhance the cutting action with a fixed cutting edge integrated in the stable and noise-damping cast enclosure.



**Energy-saving 4-chamber system with low running surface**



- ① CELL WHEEL
- ② IGNITION UNIT
- ③ PELLET BURNER
- ④ ASH AGITATOR



## GILLES special features

*Log wood heating without changeover!*

... you want to heat with log wood – no problem:  
Just put in wood – everything else is controlled completely automatically.  
(Emergency operation only)



Pellet flame in automatic mode

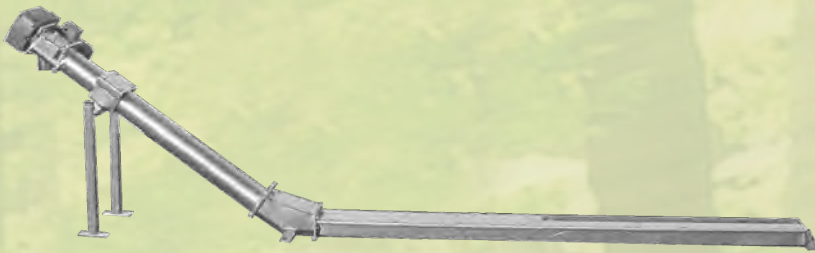
The ignition process by burning pellets takes as long as it takes for the deposited wood to burn well. The pellet stoking is then reduced to the minimum feed rate and only then activated by sensors after the log wood has combusted.

# PELLET-HEATING

## Pellet transport systems

### STANDARD AUGER

Pellets auger with oil immersed helical gear motor, multiple bearings and support feet for stability. Auger channel for conveying the pellets with progressive auger flights. After the system starts, the augers convey the pellets from the store room towards the boiler into the cell wheel on the pellet burner. The layout of the auger ensures smooth and trouble-free fuel transport.



**KINKED AUGER**



**RISING AUGER**

### SPIRAL AUGER

The flexible Gilles conveyor is made of hardened steel and distinguishes itself by its particularly high tensile strength and spring force. This makes it possible to transport pellets – horizontally, vertically or in curves – up to 30 metres max. length.



## Pellet day hopper & suction system



The day hopper for manual feeding or suction system with a storage volume of 130 kg. Filling with 10 or 15kg bags of pellets if needed is possible.

4 m in height difference and up to 20 m distance between the boiler and fuel store are no obstacle for the GILLES suction system.

### Integrated control

The new day hopper and suction system now has an integrated control panel which saves space and ensures ease of control. Please find more information about the Gilles Touch control on the following pages.

## GILLES Pellet Box



	Volume	Qty stored	Height	Approx. dimensions
GPB 17	3,1 m <sup>3</sup> -5,2m <sup>3</sup>	2,1t - 3,2 t	208 - 278 cm	170 x 170 cm
GPB 21	4,5 m <sup>3</sup> -7,5m <sup>3</sup>	2,8t - 4,7 t	208 - 278 cm	210 x 210 cm
GPB 17/29	5,7 m <sup>3</sup> -8,3m <sup>3</sup>	3,6t - 5,4 t	218 - 278 cm	170 x 290 cm
GPB 21/29	6,6 m <sup>3</sup> -10,2m <sup>3</sup>	3,8t - 6,1 t	218 - 278 cm	210 x 290 cm
GPB 25	7,3 m <sup>3</sup> -11,0m <sup>3</sup>	4,8t - 6,7 t	208 - 278 cm	250 x 250 cm
GPB 29	9,6 m <sup>3</sup> -14,1m <sup>3</sup>	6,0t - 9,0 t	218 - 278 cm	290 x 290 cm

If no pellet storage room is available or you do not want to adapt one, the Gilles Pellet Box is the ideal and cost-effective solution. The flexible silo made of high-performance synthetic fabric can store up to 9 tons of pellets in a compact manner.

# 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

### Optional:

- Automatic error message notification via SMS



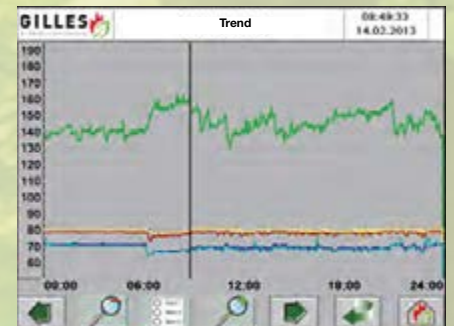
**Programming and updates possible via USB stick**



- ▶ Boiler & stoker status displayed
- ▶ Status display => which components are currently active
- ▶ All important settings can be seen on the main screen, such as temperatures, O<sub>2</sub> 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

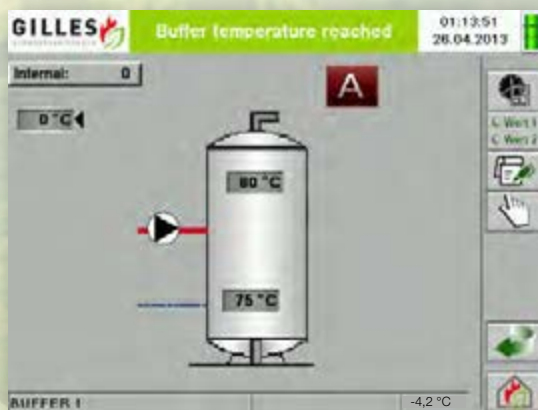
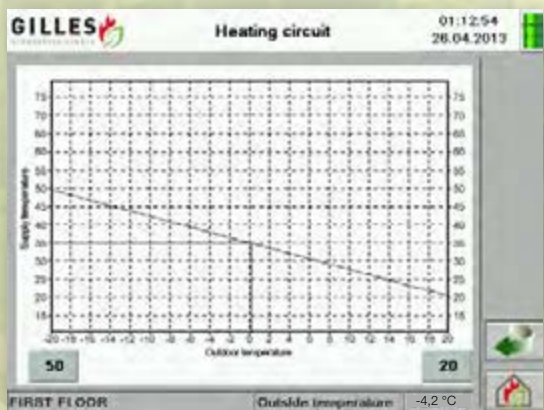
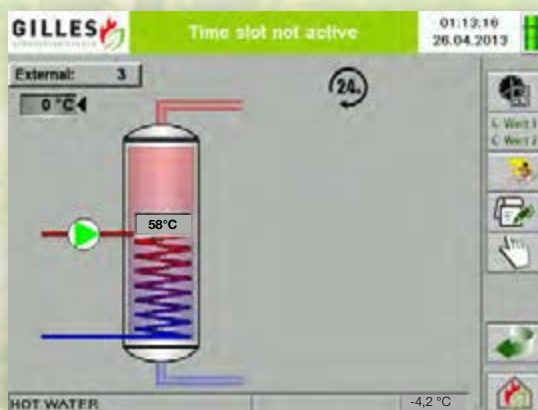
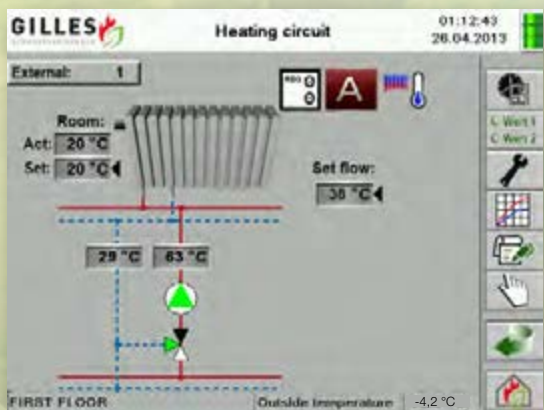
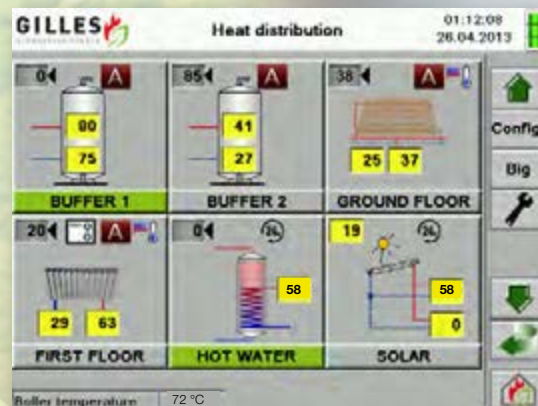
# HEATING CONTROL SYSTEM



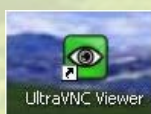
## with integrated heating circuit control

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.

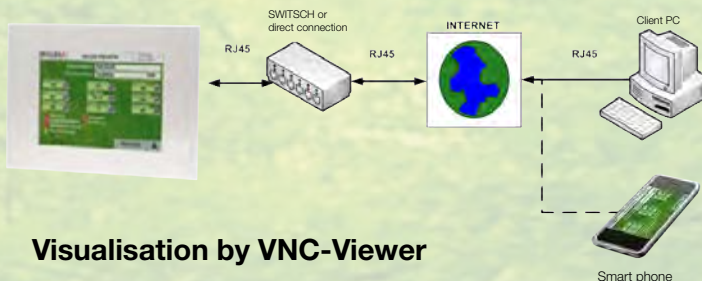
**The result of these innovations is optimal comfort with absolute control and lower heating costs.**



### Visualisation link / GSM-Visualisation



Communication via smart phone app



### Visualisation by VNC-Viewer

# PELLET HEATING



# GILLES

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

