

A breath of fresh air for pellets

# BioWIN

Wood pellet boiler

**Output Range: 35, 45, 60 kW**

**windhager**  
HEAT WITH VISION



**Wood pellets**

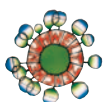
HOW DO YOU GET MORE HEAT  
OUT OF A FIRE?  
WITH A LITTLE FRESH AIR ...

A breath of fresh air is  
blowing in the heating world:

# One that will also pay off in the future.

For more than 90 years, the name Windhager has been inseparably linked with high quality boiler technology "Made in Austria". This is thanks to our wealth of experience which allows us to develop heating solutions which go that crucial extra step further. In the future, one of the challenges will be to make optimum use of available resources. The lower our consumption of these resources, the lower the financial cost and impact on our environment will be.

Windhager considers itself a visionary company that is steeped in tradition yet offers efficient and forward thinking solutions for all fuels and solar technology. So it's hardly surprising that Windhager are continuously looking out for a breath of fresh air for its wood pellet boilers. This explains why more than 35,000 Windhager customers throughout Europe benefit from the efficient and environmentally-friendly heat produced from pellets.







### **The Award-winning "Made in Austria" quality**

Windhager's innovative solutions make pellet heaters a particularly simple and economic choice for you and have vastly shaped the rapid development of this technology over the last few years. The countless awards bestowed on the company during this time are further evidence of the role it has played:

- 2003: "Success through research" for the PMX pellet boiler.
- 2004: Province of Salzburg Innovation Prize for Business for fully automated pellet feed.
- 2005: Province of Salzburg Innovation Prize for Business for the BioWIN pellet boiler.
- 2006: "Energy Genie" of the Austrian Ministry for the Environment for the FireWIN pellet boiler for the living room.
- 2006: Province of Salzburg Innovation Prize for Business for the FireWIN pellet boiler for the living room.
- 2008: International "Blue Angel" environmental symbol for the BioWIN and FireWIN pellet boilers.
- 2009: Austrian environmental symbol for the BioWIN and FireWIN pellet boilers.
- 2010: "Blue Angel" and Austrian environmental symbol awarded to the VarioWIN pellet boiler.
- 2010: VarioWIN nominated for state prize for energy and the environmental technology in the research and innovation category.
- 2010: "Energy Genie" of the Austrian Ministry for the Environment for the VarioWIN.



A woman with dark hair, smiling and looking towards the camera, is positioned in a field of tall, golden-brown grass. She is wearing a dark, textured jacket. The background is a soft, out-of-focus landscape with more grass and a pale sky. A solid red vertical bar is on the left side of the image.

**A breath of  
fresh air.**

**BioWIN**

## The future for wood pellets.

The BioWIN is the perfect wood pellet heating solution for the larger heating requirements. Windhager's extensively proven wood pellet heating technology has been adapted especially for the requirements of heating larger properties. Development focused on maximum fuel efficiencies, safety and ease of operation. Thanks to its compact design and unique flexible pellet storage solution, the BioWIN can be easily installed and integrated into any system.

### BioWIN – innovative technology that pays off:

#### HIGH LEVELS OF COMFORT, AND LOW MAINTENANCE.

- Fully automatic burner cleaning using patented, sliding grates.
- Large integrated ash box to provide long intervals before emptying (just 1 to 3 times per heating season).
- Unique flexible pellet feed system with up to eight suction probes.
- Easy to install with a compact footprint design (1.12 m<sup>2</sup>)

#### LOW OPERATING AND MAINTENANCE COST.

- Innovative combustion technology enables a metered and economical production of heat.
- Robust and highly durable stainless steel burner ensures low pellet consumption and high efficiency.

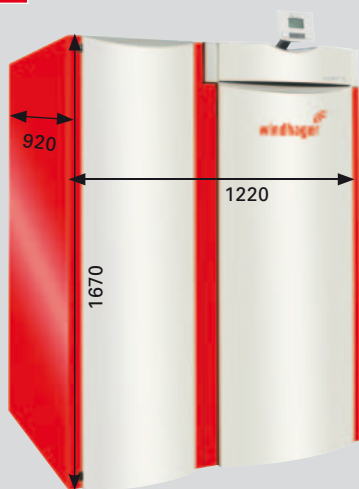
#### EFFICIENT AND RELIABLE.

- Thermal controlled combustion maintaining efficient and clean long term operation.
- Double ignition element and long-life stainless steel burner for reliability.
- Full guarantee available for up to 5 years.





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## 1 Incredibly compact for its output.

A footprint of just 1.12 m<sup>2</sup> is enough for not just the heat exchanger, but also all the fully automated integrated functions, boiler storage hopper and the generously sized ash box. You won't find a more compact design.

### Main advantages:

- Small footprint for its class.
- Simple installation.

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## 2 Long periods between cleaning intervals thanks to the fully-automatic heating surface cleaning and ash removal functions.

## 3 Large, integrated ash box.

The ash generated is automatically conveyed to the ash box integrated within the boiler footprint via two augers. The ash box is large enough that it only has to be emptied up to 3 times per heating season.

### Main advantages:

- Integrated ash container within the footprint of boiler.
- Long periods between emptying as the ash container can hold the ash from up to 8 tonnes of pellets.

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## 4 Long-life double ignition element ensures high operational safety and low maintenance.

## 5 Patented sliding ash grate.

The BioWIN features an innovative cleaning mechanism with two robust grates that slide in opposite directions to provide a clean burner bowl. This is activated roughly every six hours. This ensures all of the residue left from the combustion process to be fully removed.

### Main advantages:

- Complete burning of fuel and low build-up of ash deposits.
- Low maintenance, long periods between cleaning intervals.
- Ash is removed simultaneously as pellets are drawn in from the bulk fuel hopper allowing for long and continuous burner running.

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## 6 Large boiler reserve hopper of approximately 130 kg of wood pellets enables long, uninterrupted burning phases.

# Reliable. Efficient. Flexible.

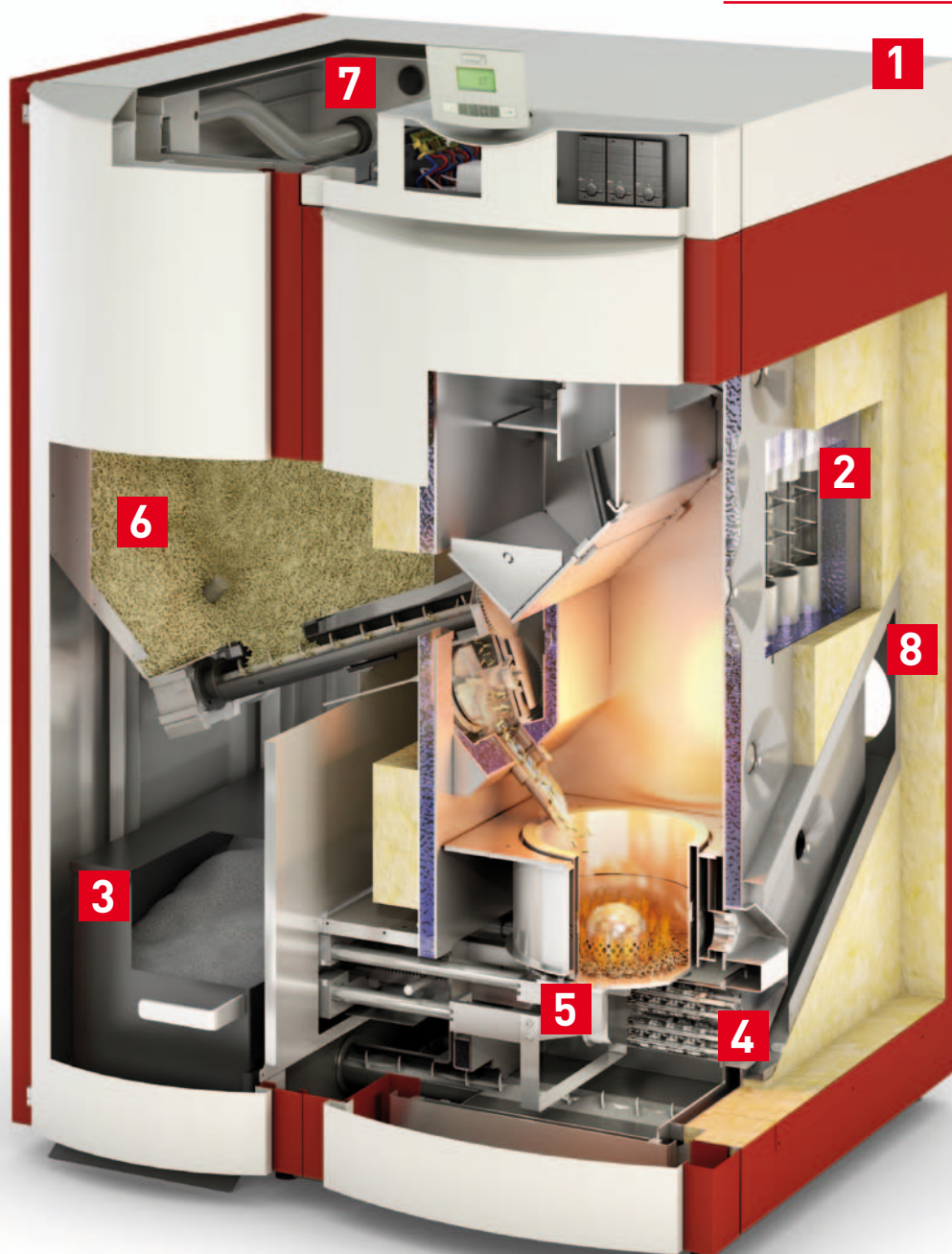
## 7 Unique pellet feed.

A new, patented, fully automatic feed system ensures pellets are always supplied.

### Main advantages:

- Storage rooms with inclined surfaces are not required, therefore storage space of fuel is not lost.
- Up to eight suction probes within the bulk storage hopper make the system incredibly reliable.
- Totally maintenance free system.
- Complete automatic function with 'suck and purge' operation.

## 8 Option to install with room sealed combustion air intake.



# The optimum pellet storage option.

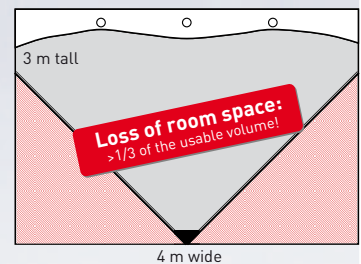
## THE FULLY AUTOMATIC PELLET FEED.

To provide a continuous supply of pellets, Windhager offers a patented, fully automatic feed, system consisting of a 'changeover unit' and up to eight suction probes.

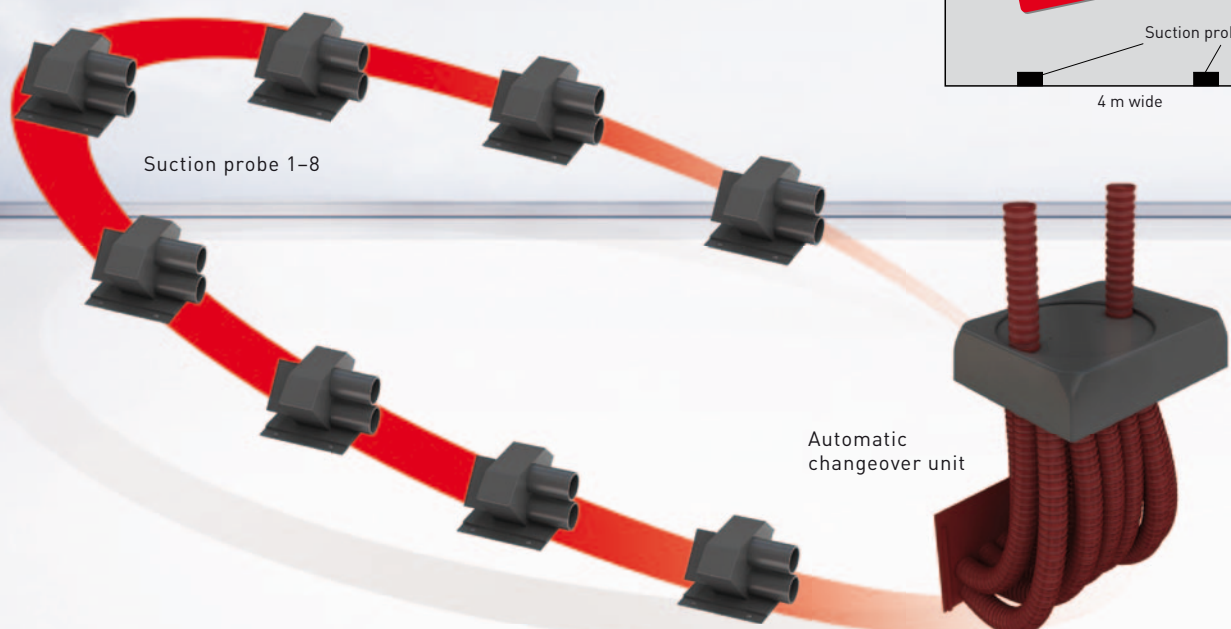
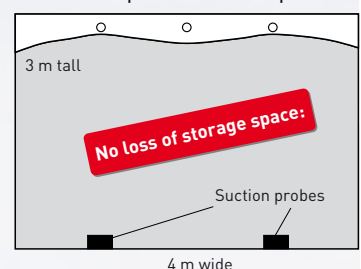
### Main advantages:

- 8 probes will replace the need for sloping sides within the bulk storage hopper and therefore prevent large amounts of storage space being lost (see right).
- Up to 8 suction probes make the system incredibly reliable.
- The siting of the bulk storage hopper is independent and flexible in relation to the boiler room.
- Totally maintenance-free system.
- No moving parts and no electrical cables necessary in the storage room.
- Function check: "Rinsing" and if necessary "Changing over".
- If necessary, the pellet store can be split into two zones.

Example of store with sloping sides:



Example of new changeover unit with up to 8 suction probes:







**THE RIGHT SIZE AND DESIGN.**

Ideally the storage room would be sufficient to hold enough fuel needed for one year. This will depend on the building profile and heat demands.



# The BioWIN can be turned into a system solution at any time.

If you want to use heat energy efficiently, you need more than just an effectively functioning boiler. All other system components such as the hot water cylinders, buffer solutions, other heat generators (wood, solar) and the control system play an important role here too. Windhager supplies everything you need from one source, giving you the peace of mind that everything integrates and is perfectly coordinated. As a result, the BioWIN can easily be combined with other heat generators to provide a bespoke solution to suit your needs.



## MES<sup>PLUS</sup> Modular Energy System.

MES<sup>PLUS</sup> handles all the heating system's heat management. It controls and optimises heat production and distribution matched precisely to requirements. Its modular design ensures the heating system can be expanded at any time.



MES<sup>PLUS</sup>  
User module

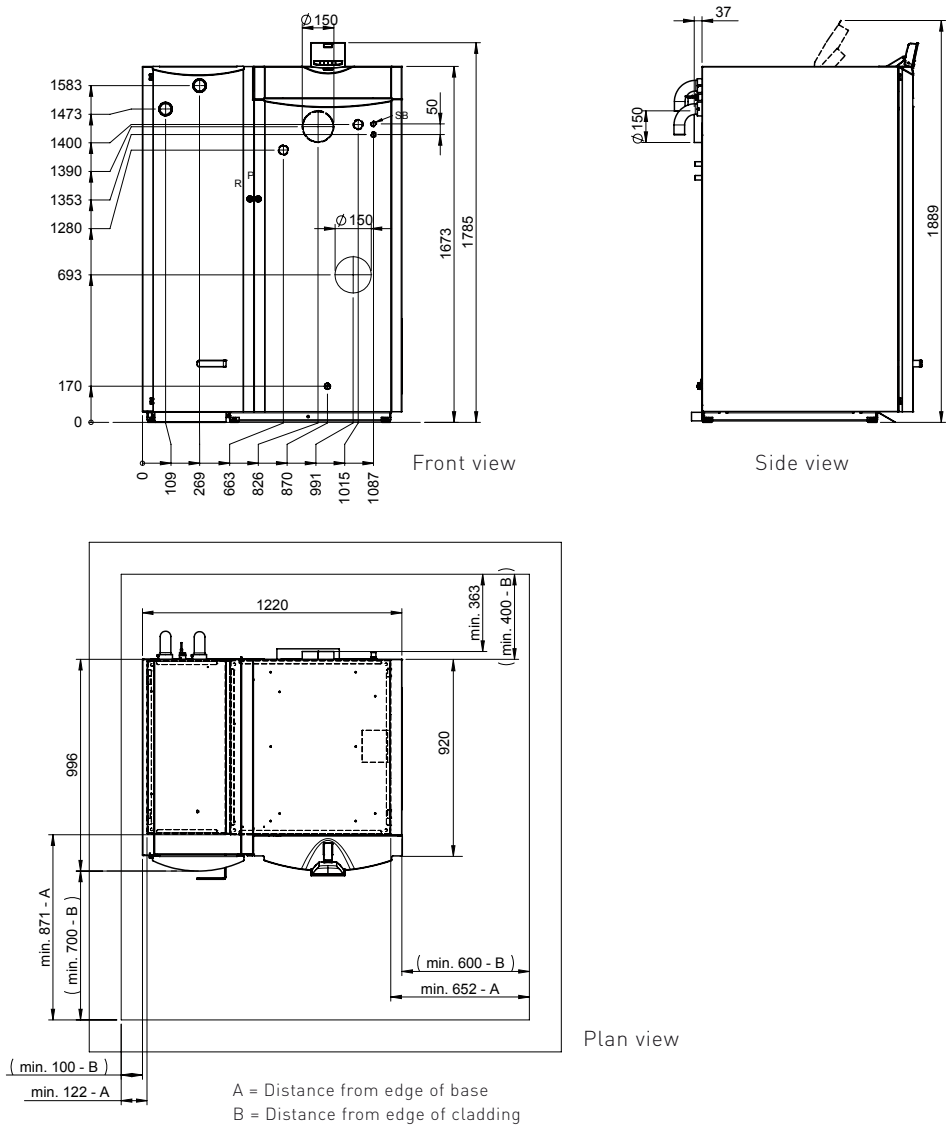


MES<sup>PLUS</sup>  
Temperature controller



# Warmth when you need it.

## DIMENSIONAL SKETCHES AND TECHNICAL DATA – BioWIN



### Technical data

Type		BioWIN 350	BioWIN 450	BioWIN 600
Nominal thermal output range	kW	10.4 – 35	13.5 – 45	18.0 – 60
Boiler weight	kg	730	730	740
Boiler water volume	l	120	120	120
Boiler temperature control range	°C	60 – 85	60 – 85	60 – 85
Dimensions W x D x H	mm	1220 x 920 x 1.670	1220 x 920 x 1.670	1220 x 920 x 1.670
Flue connection	mm	150	150	150
Heating connection	inches	5/4	5/4	5/4
Power consumption at nominal load	W	103	122	156
Power consumption at part load	W	43	53	63

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