

# WOOD CHIP & PELLET BOILERS

68,000 – 6,800,000 BTU 20 – 2,000 kW

**HARGASSNER**  
BIOMASS HEATING TECHNOLOGY



- Fully automatic heating solution
- Eco-friendly & Co<sub>2</sub>-neutral
- High durability



[hargassner-northamerica.com](http://hargassner-northamerica.com)



## OUR VISION IS HARMONY BETWEEN SATISFIED CUSTOMERS AND THE ENVIRONMENT

The future of sustainable heating is focusing on CO<sup>2</sup> - neutral biomass heating solutions. Hargassner is developing and manufacturing Pellet-, Wood Chip- & Wood Log Boilers with main emphasis on:

- Maximum reduction of heating costs
- Maximum flexibility with remote control
- Maximum comfort for customers

Hargassner provides the technological advantage of its own development to all people worldwide.



Officially certified and approved by objective authorities







Family business – General managers: Markus & Anton Hargassner

**Hargassner has pioneered eco-friendly heating systems.**

- More than 37 years of experience
- We export to 31 countries worldwide
- More than 120,000 satisfied customers
- International successful

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# THE WORLD OF BIOMASS

"The delivery of pellets or wood chips **smells like christmas**", was the statement of one of our satisfied clients. It's the smell of wood, made of residual wood from domestic forests and wood from local mills.

## **Environmental impacts:**

The carbon that is released by pellet or Wood Chip Boilers is already in the active carbon cycle in form of trees. It is moving in this cycle and not producing new carbon that is emitted to the atmosphere compared to boilers that use fossil fuel.



## **REDUCE YOUR CARBON FOOTPRINT**

The carbon that is released by Pellet or Wood Chip Boilers is already in the active carbon cycle in form of trees. It is moving in this cycle and not producing new carbon that is emitted to the atmosphere.



## **SAVE MONEY**

Lower heating costs than oil or gas. Additionally you can get financial support through subsidies from your local government.



## **LOCAL ECONOMIC IMPACTS**

Heating with biomass has other positive impacts like: New jobs or a better supplying of the local foresters.





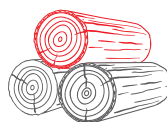
Treating nature with care and caution is part of our philosophy. Therefore, it is even more important for our future generations to choose the correct heating system and the right fuel. **From an ecological and economic perspective, heating with wood is the most natural raw material for this purpose.**

Through processing, wood chips can be produced very efficiently from wood waste, and pellets are made from the fine fraction. If you care about the environment and the future of our descendants, the fuel wood is the future of us all.



#### **REGIONAL**

Wood chips and pellets are a 100 % regional product made from residual wood from domestic forests and the sawmill industry.



#### **BIOMASS**

Canada produces actually 4 Mio tonnes of biomass per year and is exporting 3,8 Mio tonnes to the northern of Europe or Japan.



#### **CRISIS-RESISTANT**

Wood chips and pellets are crisis-resistant because they are a locally sourced fuel.



*GOOD FOR  
THE ENVIRONMENT  
AND NEXT GENERATIONS*









# THE ADVANTAGES OF WOOD CHIPS

## **Wood chips are the most inexpensive fuel for heating systems compared to fossil fuels.**

For the production of wood chips, residual wood from domestic forests and wood from the sawmill industry is used. This wood waste material should ideally be stored for one year in breezy and sunny conditions. In autumn, the wood can be chipped and stored.

Farmers and forest owners use wood chips for their own heat production, or supply wood to local companies or public buildings.



### **Advantages: Industry and public facilities**

- Cost-efficient fuel with maximum comfort
- Crisis-resistant: Local fuel
- Independent from oil and gas
- Delivery through regional partners
- Value creating in the local economy

### **Advantages: Forest-owners and farmers**

- Use of residual wood
- Additional income through selling wood chips
- Minimal workload through automatic chip production
- Maximum workload reduction through a fully automatic heating system



# WOOD CHIP BOILERS

All our products offer the latest **fully automatic biomass heating technology!**

**Lowest maintenance and long operational life** guaranteed. With the **remote control via phone or tablet** you may easily change settings on your boiler or see the current status.

**Triple fuel boilers:** Through a special combustion technology, it is possible to use wood chips, pellets and miscanthus as fuel. The customer is flexible and can adapt, depending on the individual situation.



**ECO HK**

70 – 120 kW || 238,000 – 408,000 BTU

**Especially suitable for:**

- Hotels / Gastronomy
- Public buildings



**ECO HK**

150 – 200 kW || 510,000 – 680,000 BTU

**Especially suitable for:**

- Public buildings
- Industrial and commercial use



**ECO HK**

250 – 330 kW || 850,000 – 1,122,000 BTU

**Especially suitable for:**

- Industrial and commercial use



## ECO HK

70 – 120 kW

238,000 – 408,000 BTU

Hargassner – latest wood chip heating technology for small to medium-scaled applications. Our boilers can handle wood chips, pellets and miscanthus easily. Especially designed for hotels / gastronomy, farmers and public buildings.

- Innovative integrated **Touch-control**
- Eco-RA - **Energy efficient** agitator system
- **Water-cooled combustion chamber**
- Energy savings of over 88% through an new **energy-saving ignition**



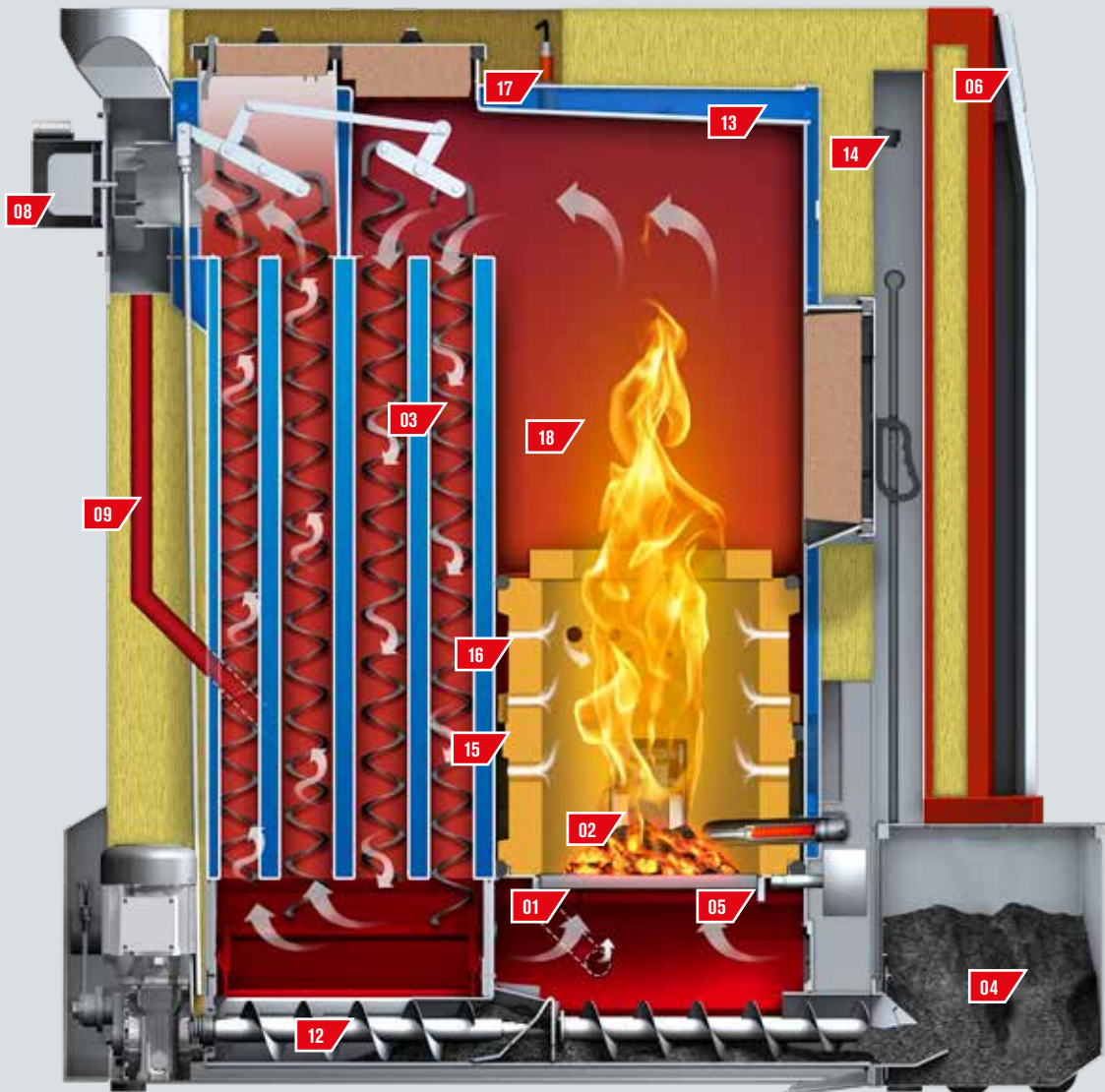
Efficiency up to 95% – Wood Chip Boilers

Get financial support through subsidies from your local government.



# WOOD CHIP / PELLET BOILER

## ECO-HK 70–120 kW



- 01 New grate system „Double-rotary grate“
- 02 Firebed levelling
- 03 Heat exchanger cleaning (also in the first pass)
- 04 Optional: Ash suction system for longer maintenance intervals
- 05 New ignition: 300 W, without fan
- 06 Innovative integrated Touch-control
- 07 Bicameral rotary valve in Z-design
- 08 Exhaust fan (EC-motor) with negative pressure monitoring
- 09 Recirculation included as standard
- 10 Optional: Integrated back end protection
- 11 Eco-RA - Energy-efficient agitator system
- 12 Patented ash extraction for fly and grate ash
- 13 No thermal discharge safety device necessary
- 14 Negative pressure monitoring
- 15 Water-cooled combustion chamber
- 16 Flame concentration jets out of high-end steel cast
- 17 Lambda sensor
- 18 Emergency operation with wood logs possible



## ECO HK

150 – 200 kW

510,000 – 680,000 BTU

Hargassner – latest wood chip heating technology for large-scaled applications. Our boilers can handle wood chips, pellets and miscanthus easily. Especially designed for public buildings, industry, commercial enterprises and district heating.

- **Energy saving** eco-extraction through 0.37 / 0.55 kW-Motor
- **Flame temperature control**
- **Triple fuel boiler** wood chips, pellets, miscanthus



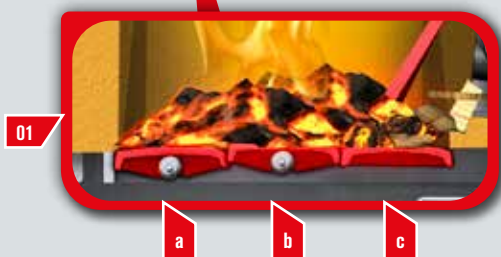
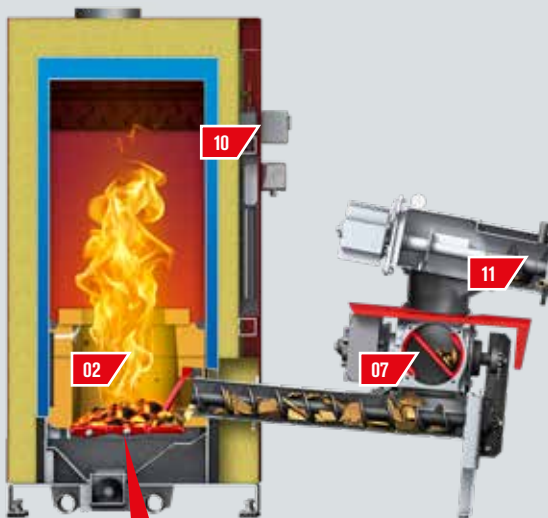
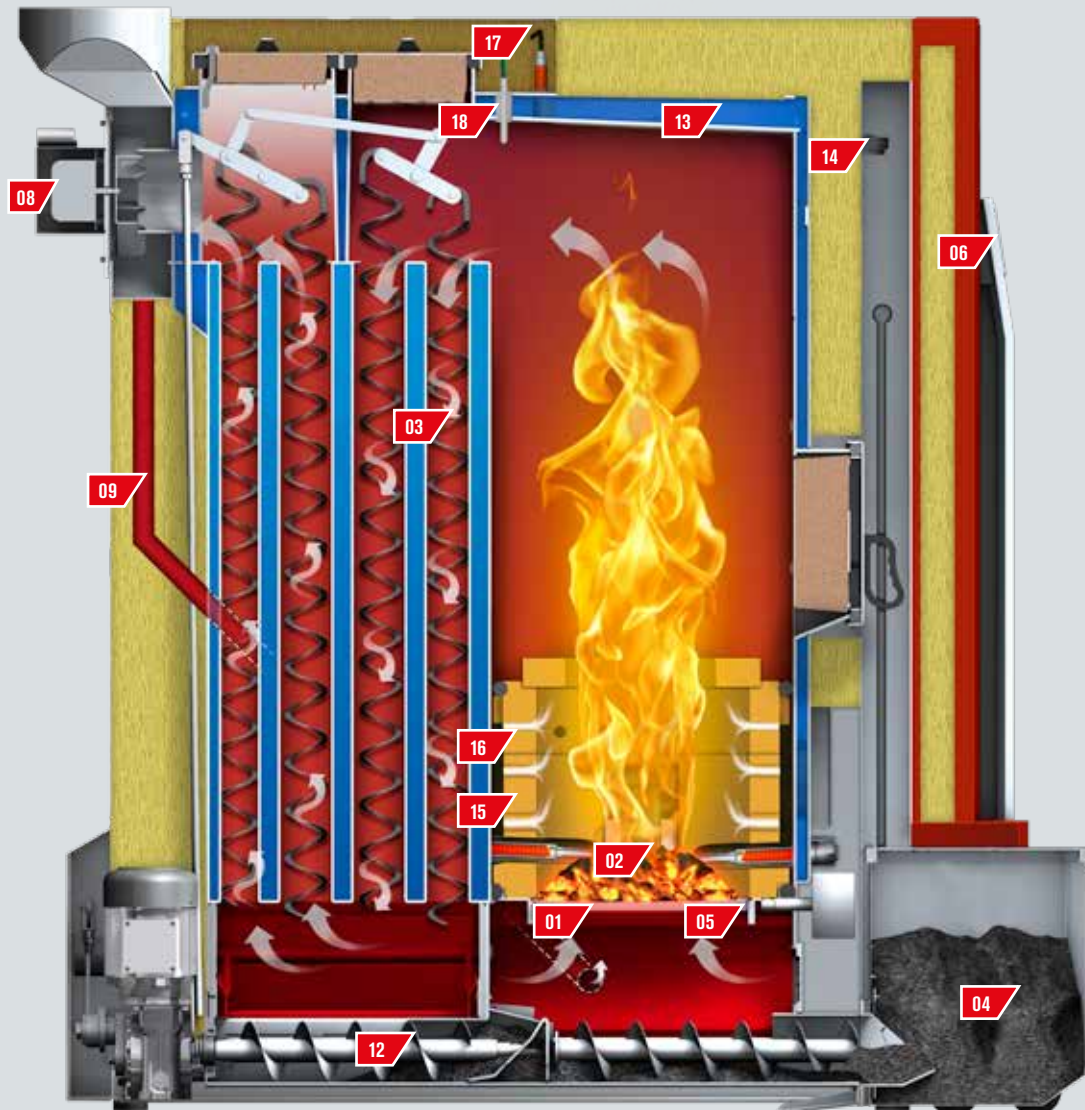
Efficiency up to 95% – Wood Chip Boilers

Get financial support through subsidies from your local government.



# WOOD CHIP / PELLET BOILER

## ECO-HK 150 – 200 kW



- 01** New double rotary grate
  - a) De-ash grate
  - b) Stoker grate
  - c) Fixed grate
- 02** Firebed levelling
- 03** Heat exchanger cleaning (also in 1. draught)
- 04** Large ash box (75 l)
- 05** New ignition: 2 x 300 W, without fan
- 06** Innovative integrated Touch-control
- 07** Bicameral-rotary valve in Z-shape (22cm)
- 08** Exhaust fan (EC-motor) with negative pressure monitoring
- 09** Flue gas recirculation - standard
- 10** Optional: Integrated back end protection
- 11** Eco-RA – Energy-efficient agitator system
- 12** Patented ash extraction for fly- and grate ash
- 13** No thermal discharge safety device necessary
- 14** Negative pressure monitoring
- 15** Fully refractory-lined combustion chamber
- 16** Flame concentration jets out of high-end refractory
- 17** Lambda sensor
- 18** Flame temperature monitoring



## ECO HK

250 – 330 kW

850,000 – 1,122,000 BTU

Hargassner – latest wood chip heating technology for large-scaled applications. Our boilers can handle wood chips, pellets and miscanthus easily. Especially designed for industrie and commerce.

- **Firebed level control** with Lambda sensor and automatic fuel quality detection
- **Permanent Power** – no burnout before de-ashing
- Latest combustion technology Eco-Control **for minimal dust emissions**
- With **Cascadecontrol** up to 6 boilers and **2 MW** possible!



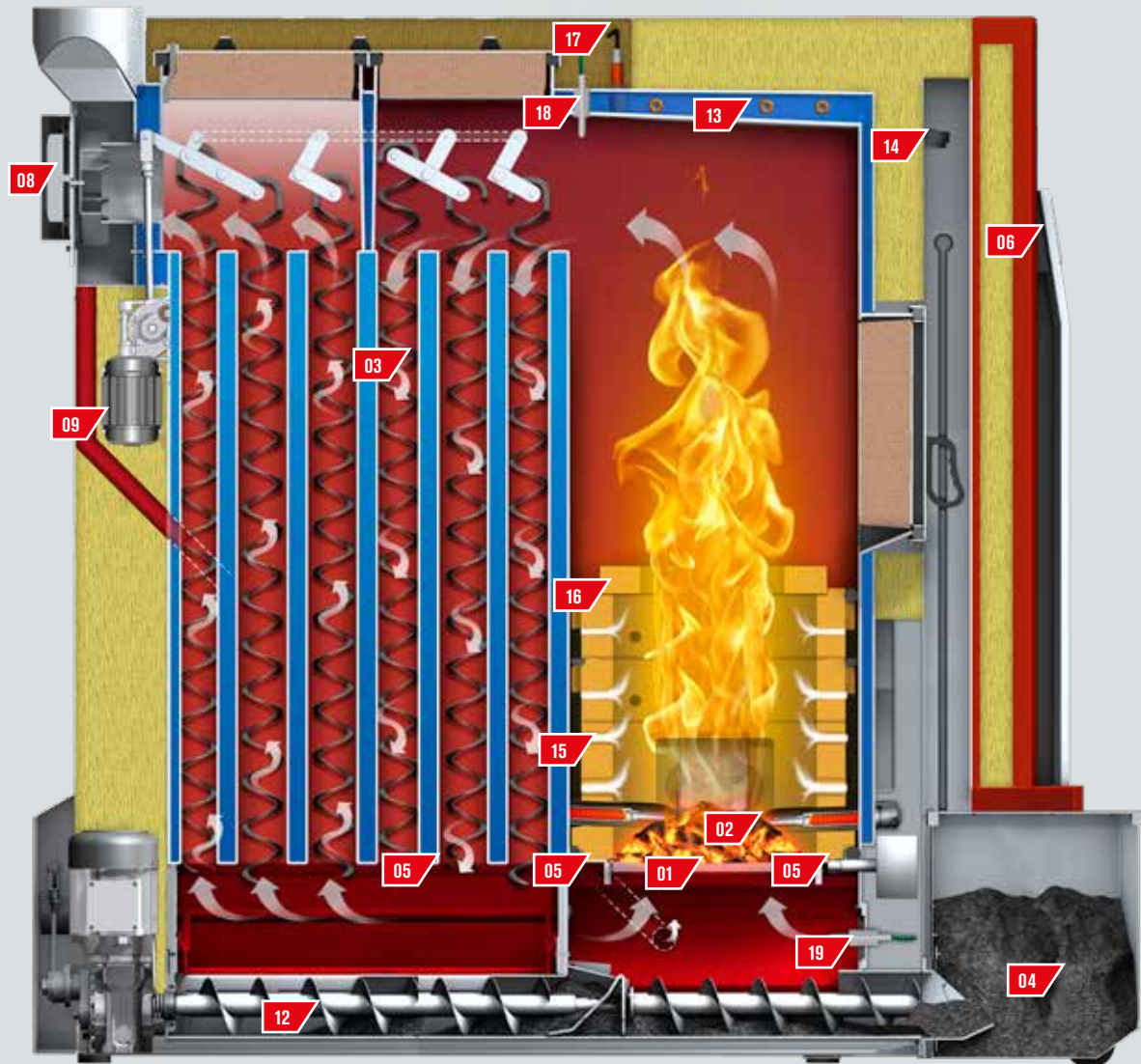
Efficiency up to 95% – Wood Chip Boilers

Get financial support through subsidies from your local government.



# WOOD CHIP / PELLET BOILER

## ECO-HK 250 – 330 kW



- 01** New double rotary grate
  - a) De-ash grate
  - b) 2x Stoker grate
  - c) Fixed grate
- 02** Firebed levelling
- 03** Heat exchanger cleaning (also in 1. draught)
- 04** Large ash box (75 l);  
Ash-Extracting 300 Liter ash-bin optional
- 05** New ignition: 2 x 300 W, without fan
- 06** Innovative integrated Touch-control
- 07** Bicameral-rotary valve in Z-shape (22cm)
- 08** Exhaust fan (EC-motor) with negative pressure monitoring
- 09** Flue gas recirculation - standard
- 10** Optional: Integrated back end protection
- 11** Eco-RA – Energy-efficient agitator system
- 12** Patented ash extraction for fly- and grate ash
- 13** No thermal discharge safety device necessary
- 14** Negative pressure monitoring
- 15** Fully refractory-lined combustion chamber
- 16** Flame concentration jets out of high-end refractory
- 17** Lambda sensor
- 18** Flame temperature monitoring
- 19** Crate-Temperature monitoring

## Advantages that make the **ECO**HK unique

For optimal  
hydraulic  
installation use  
**ACCUMULATOR**

### **Hargassner - Latest state of the art for wood-chip-technology**

Hargassner has long-term experience in biomass heating. This experience leads to the most advanced wood chip heating technology.

### **Energy-saving ECO-Operation**

#### **Speed controlled EC-exhaust fan with negative pressure monitoring**

Hargassner uses energy-efficient EC-Exhaust fans for the Eco-HK. The main advantage of this Green-Tech EC-technology is the significantly higher efficiency rate of up to 90%. This saves electrical energy. The negative pressure box consistently monitors perfect pressure conditions in the combustion chamber. Based on these data parameters, the Touchtronic controls the speed of the exhaust fan and holds the negative pressure at an optimum value. This concept guarantees a perfect combustion with lowest emissions and highest efficiency.

#### **Energy-saving Eco-RA**

Due to the very low driving power and the highly efficient and robust spur gear, the agitator is very energy-efficient and reduces customers' bills. Savings of up to 67% may be reached compared to conventional agitator systems. Because of the impressive gear box efficiency of over 90%, the traditional worm gear drive has quickly been replaced.







### Firebed monitoring & Lambda sensor control

Through the precise and contactless firebed-height monitoring system with sensors, the most effective combustion conditions depending on fuel quality are detected. It doesn't matter which fuel type is stored. Soft, hard, dry or damp wood chips – the control unit uses the Lambda sensor to detect the relevant calorific value and regulates the optimum fuel-air mixture. Your heating system is always working with the required 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.



### Fully refractory-lined combustion chamber with recirculation

The refractory combustion chamber guarantees high combustion temperatures through optimum heat storage (also at part-load), minimises the ignition procedure and reduces emissions. To reduce clinker in the ash, Hargassner offers flue gas recirculation, especially for very dry material and agricultural fuels. Every Eco-HK boiler features flue gas recirculation as standard. Due to the cooling of the firebed during combustion, the relatively low ash melting point of miscanthus or corn cobs can be reduced. The ash can be easily removed into the ash extraction auger.



### Perfect cleaning - increases efficiency

The newly-designed cleaning approach cleans ALL heat exchanger tubes at regular intervals and now also the 1. down draught (heat resistant material). The turbulators remove the fly ash from the pipes, which falls directly down into the ash extraction auger. The latest developed de-ash system cleans the boiler at regular intervals. The ash extraction auger transports the fly ash, as well as the grate ash, into the completely integrated ash box. During transportation the ash is crushed and compressed in the ash box. The result is easier cleaning and increased overall efficiency.



### Back-end protection

Integratable back-end protection for Wood Chip/Pellet Boilers for simultaneously charging an accumulator and to avoid condensation.



### Integrated Touch-Control

The new Lambda Touchtronic leaves nothing to be desired. The control system is characterised through its exceptional design and simple handling. Navigation is very sophisticated. You are able to recognise visually immediately the current status of the boiler, the accumulator and the HWS as well as all heating circuits. New optimised accumulator control with 3 sensors. New remote controls with LCD or Touch displays make it even easier to use.

### Advantages:

- Intuitive Touch Control
- Efficient Combustion Control
- Automatical Adaption on Weather-Changes
- Many Remote Control Possibilities (also via APP)
- Connection to Various SmartHome Solutions possible.

### Z-shaped bicameral valve

A z-shaped rotary valve designed especially for wood chip

- 100 % burn-back safety
- depth of chamber 22 cm for extra long wood pieces
- with hardened cutting edges
- smooth operation
- little effort

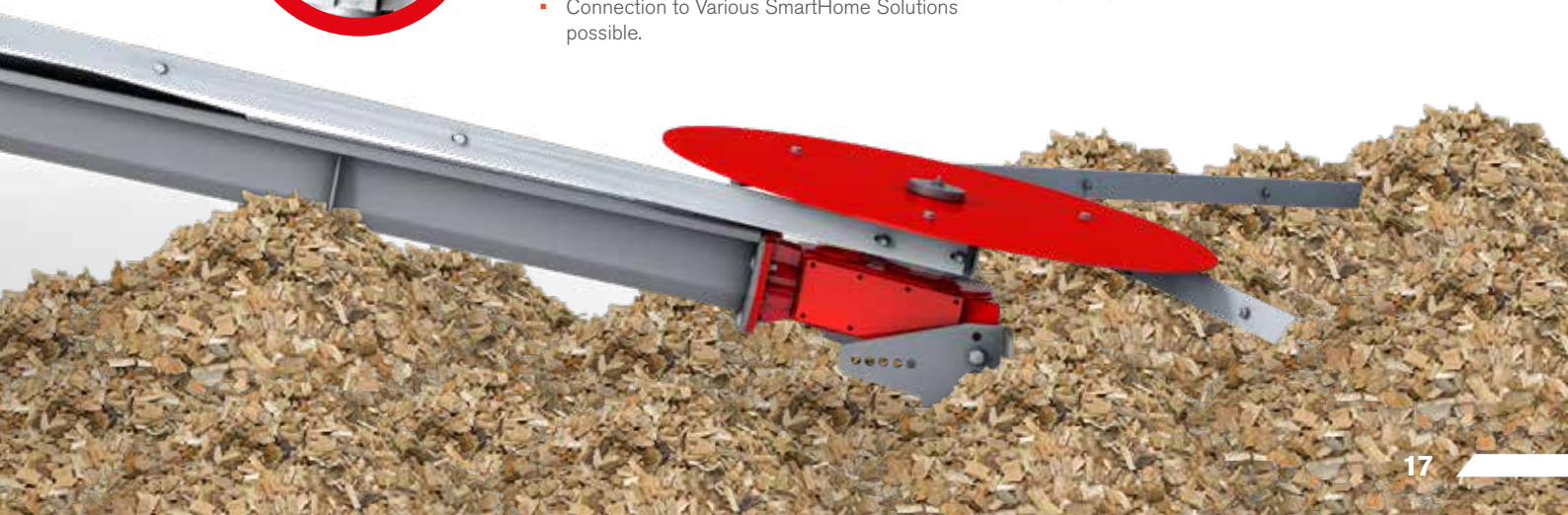


### Comfortable operation with different fuels

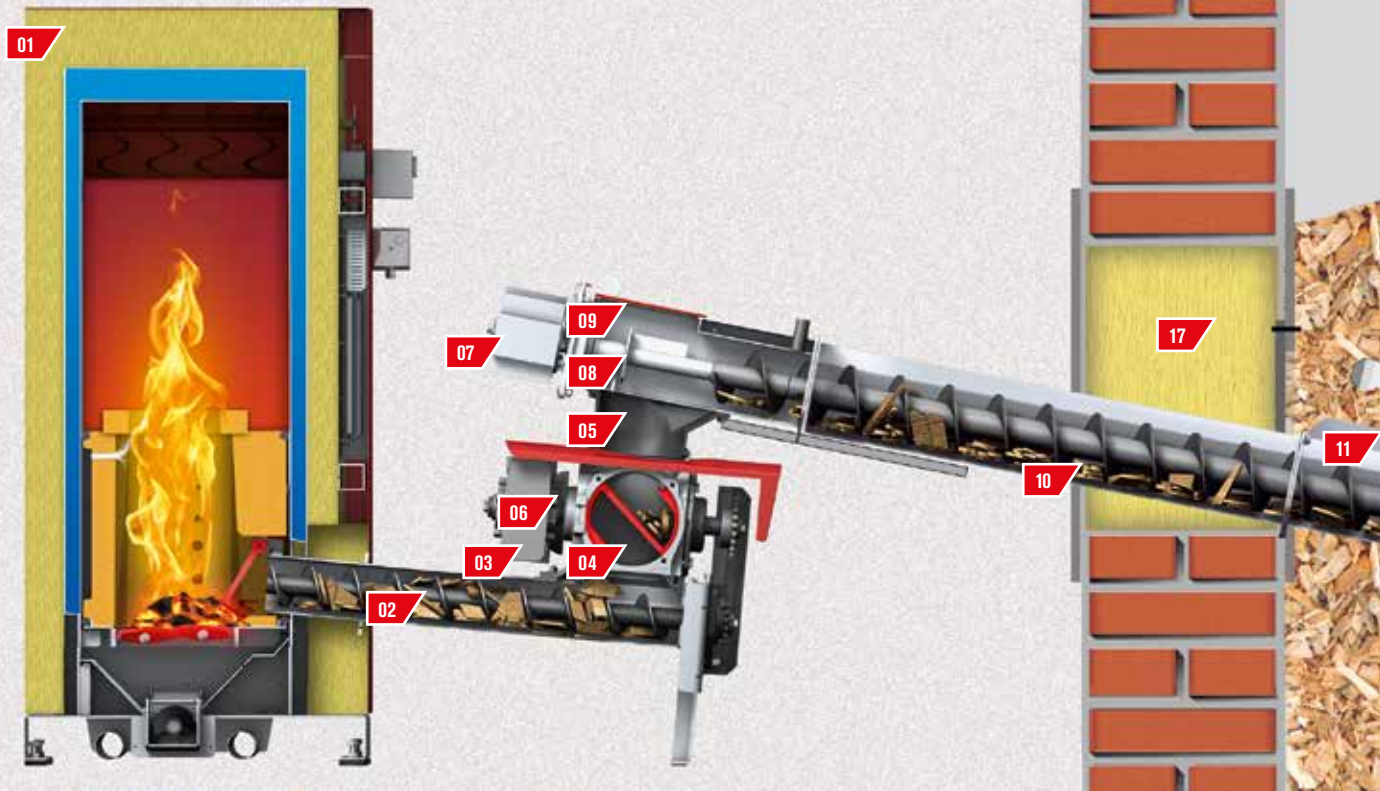
The grate consists of two consecutive and stepped grates which can move independently. As a result, wood chips and pellets, as well as other agricultural fuels, can be burned efficiently.

During combustion the **grates are moved accurately** to ensure a homogeneous firebed. If regular wood chips are used, only the **rear de-ash grate** opens. The ash falls down and the embers remain.

If the boiler is completely cold, a full cleaning process is executed prior to start. **Both grates open**, the cold ash and all foreign objects like stones, nails, etc. fall down.



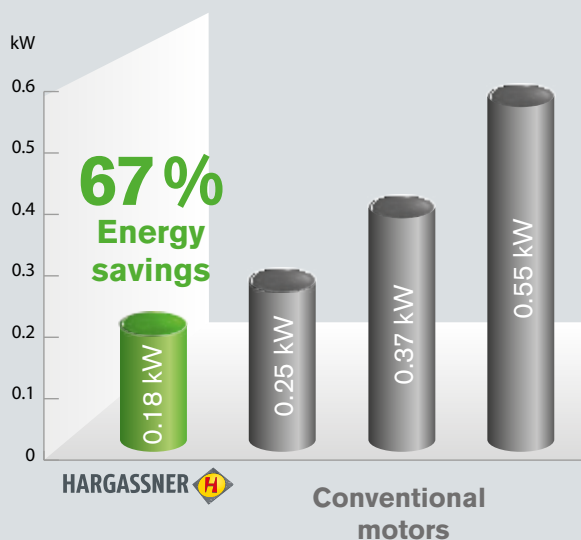
# EFFICIENT AGITATION SYSTEM



## Unique advantages at a glance

Due to the very low driving power and the highly efficient and robust spur gear, the ECO-RA agitator is very energy-efficient and reduces the customer's energy costs. Savings of up to 67% may be reached compared to conventional agitator systems. This impressive gear box with an efficiency of over 90%, has replaced the traditional worm gear. The modular design ensures easy handling of the auger, trough and removable covers.

**Lowest energy consumption**  
Up to 67 % energy savings



### 01 Boiler

### 02 Stoker auger

### 03 Stoker auger - temperatur monitoring

### 04 Z-shaped bicameral rotary valve



- The Z-shaped rotary valve is designed specially for wood chip
- Depth of chamber 18 cm for extra long wood pieces
- 100% burn-back safety
- simple replacement
- little effort
- with hardened cutting edges

### 05 Ball coupling

- flexible tilt and rotation angle
- max flexibility for planning and installation

### 06 Stoker motor, auger and rotary valve

### 07 Room agitator with motor and extraction auger

### 08 Breaker box

- forces long or bulky wood chips downwards
- increased operational safety

### 09 Safety lid with auger reverse function

### 10 Modular system



removable covers

- Planning flexibility
- Auger extension from 400 to 2000 mm
- Easy transport and assembly
- Faster and cost-effective maintenance
- Exchange of single auger parts possible





**Gear box efficiency over 90%**

**Lowest installation height  
max. storage-use**

**11 New wood chip inlet blade**



- optimum material supply
- more material in the auger shaft
- efficient storage room emptying
- less force needed
- less wear and tear

**15 Patented no load disc**



- disc remains unmoved until springs are under the disc
- half effort
- no hollow

**PATENTED**

RA 450 and RA 500

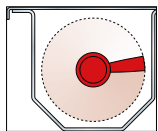
**16 Eco-RA extraction system**



- extremely robust
- durable
- failsafe
- maintenance-free

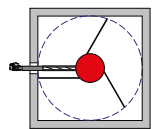
Robust spur gear with efficient 1:16 or 1:25 transmission

**12 New conveying shaft and auger**

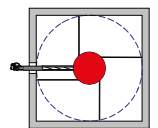


- generous dimensions
- no stagnation of material
- suitable for wood chips G50
- progressive tapered extraction auger
- shaft profile gets largerschachts

**13 Special spring blade layout**



- up to Ø 4m = 3 blade system
- power-saving gear ratio 1:16



- Ø 4.5 to 5 m = 4 blade system
- power-saving gear ratio 1:25



**Spur gear**

- low friction loss
- high efficiency

**14 Patented spring agitator system with no-load disc**



**Solid construction**

- extremely robust
- durable
- failsafe
- maintenance-free

**17 Storage room service door**

**18 No sloping floor required**

- Impurity separation
- Cost saving



# REFERENCES ECO-HK



## COMMERCIAL

We have decided for a Hargassner boiler, because we wanted to have the most efficient and also cost-saving heating system. Hargassner supplied an Eco-HK 100 including one Accumulator with 3,000 L.

- Eco-HK 100 kW
- Wood chip storage room included, 70 cbm
- 3,000 l accumulator



## CARPENTRY

When purchasing the heating unit, it was extremely important to us that we could recycle our own wood waste and thus, on the one hand, make our operation more sustainable. On the other hand, we wanted to do without buying in heating material and avoid long transport routes. For this reason, the Eco-HK from Hargassner, which can be filled with 3 different fuels, was the perfect boiler for our company.

- Eco-HK 100 kW
- Storage room for homemade briquettes included, 100 cbm
- 2x 1,500 l accumulator







## HIGH SCHOOL

For us, it was important to have a cheap heating solution. With the two Eco-HK 200, we supply the whole school area including offices, classrooms, Storage, cafeteria and gyms with heat. Hargassner is a guarantee for a smooth operation! We purchase also the fuel in our region - to ensure a local value-chain!

- Eco-HK 2 x 200 kW
- Double heating module
- Wood chip storage room included, 100 cbm
- 10,000 l accumulator



## COMMERCIAL

With the boiler, the whole company is being heated as well as a neighbour-building through a distance line. An Accumulator with 8.000 Liter is being used. Filling of the storage is done directly with a chipper. So the customer can concentrate on his daily business - while the boiler is working autonomously.

- Eco-HK 6 x 200 kW  
output volume 1,2 MW
- Wood chip storage room included, 260 cbm



**HARGASSNER**



TECHNOLOGIE DE CHAUFFAGE LA BIOMASSE

en ligne

Zone chauff 1  
heizi1



25°



30.0°

-

-2.5°

+

Confort

☀ CONFORT





# ANYWHERE & ANYTIME

## Remote control via Phone or Tablet



**Internet-Gateway:** required for App and Web-Service. The internet gateway establishes a safe TLS-encrypted connection between the Hargassner boiler control to the Internet router. Only with that a safe 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)



# THE ADVANTAGES OF PELLETS

## **Pellets are an environmentally-friendly and CO<sub>2</sub> neutral fuel from your local area.**

The sustainable and careful handling of our environment is a basic requirement. An essential component is choosing the right heating system. Ecological, economic and ideal reasons speak for heating with wood - the oldest and most natural fuel. Wood supplies us with wood chips and sawdust results in the popular heating material pellets.

Pellets are made of 100% natural wood without any additives. Tonnes of wood waste materials are produced every day in wood-processing industries all over Europe. Therefore, pellets are an outstanding fuel for heating systems compared to fossil fuels like oil, electricity or heat pumps.



### **Major advantages of pellets**

- Crisis-resistant: Local fuel
- Short transport routes
- Simple filling of storage: Either by pellet-nags or pellet fuel truck
- Dust-Free and odourless refilling
- Low space-requirements for storage
- Efficient and eco-friendly Pellet Boiler



# PELLET BOILERS

All our products offer the latest **fully automatic biomass heating technology!**

**Lowest maintenance and long operational life** guaranteed. With the **remote control via phone or tablet** you may easily change settings on your boiler or see the current status.

**Triple fuel boilers:** Through a special combustion technology, it is possible to use wood chips, pellets and miscanthus as fuel. The customer is flexible and can adapt, depending on the individual situation.

We offer a large product range starting with **32 kW up to 2 MW as a cascade solution.**



**SMART PK**  
32 kW || 108,800 BTU

**Especially suitable for:**

- Weekend cottage
- Small living units



**NANO PK**  
32 kW || 108,800 BTU

**Especially suitable for:**

- Single-Family-Home
- Multi-Family-Home



**ECO PK**  
70 – 120 kW || 238,000 – 408,000 BTU

**Especially suitable for:**

- Gastronomy, Hotels
- Industry
- District-Heating



**ECO PK**  
150 – 200 kW || 510,000 – 680,000 BTU

**Especially suitable for:**

- Gastronomy, Hotels
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**ECO PK**  
250 – 330 kW || 850,000 – 1,122,000 BTU

**Especially suitable for:**

- Gastronomy, Hotels
- Industry
- District-Heating



## SMART PK

32 kW  
108,800 BTU

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. The ingenious combustion technology comes from its big brother - the Nano-PK. It has a new easy to use touch display and is equipped with a manual cleaning device and an ash box.

- **Energy saving** ignition with just 300 W
- **Compact design**, possible to place onto 3 walls
- Latest combustion controller for **highest efficiency and lowest dust emissions**



Efficiency up to 96% – Pellet Boilers

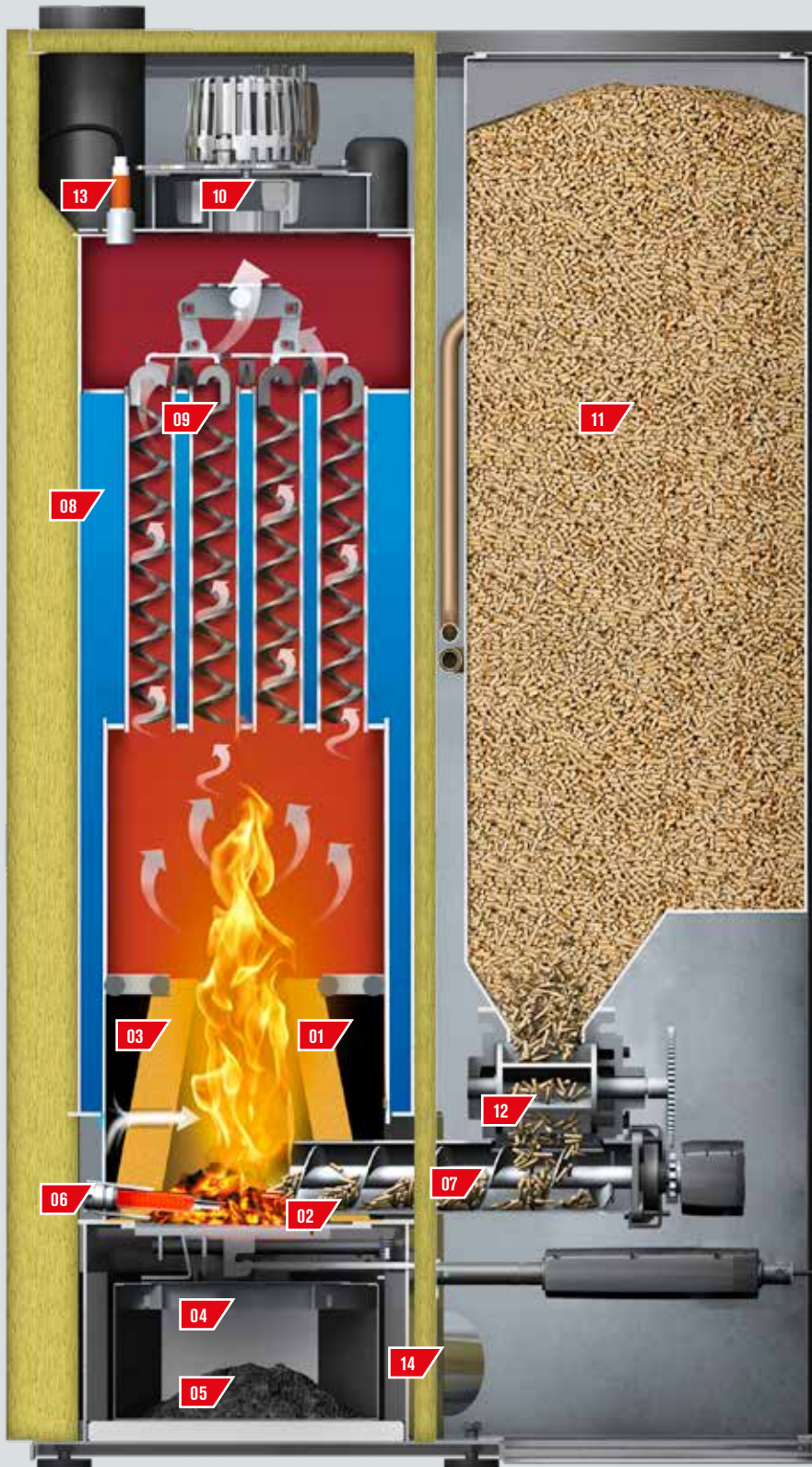
For optimal hydraulic installation use ACCUMULATOR

Get financial support through subsidies from your local government.



# PELLET BOILER

## Smart-PK 32 kW



### 01 Fully refractory-lined combustion chamber

The high combustion chamber temperature at full and partial load contributes to high combustion efficiency and low emission values. The lambda sensor regulates exactly the right quantity of fuel in every output range according to the pellet quality.

### 02 Sliding grate

### 03 Secondary air stream with inlet openings

### 04 Primary air

### 05 Ash bin with compression system and fill level display

A distributor mechanism on the sliding grate fills the box to the last corner, whereas the control unit indicates the empty interval

### 06 Autom. ignition

### 07 Stoker auger

### 08 Heat exchanger

### Low-temperature Pellet boiler

Boiler flow temperature, from 38°C to 75°C - with constant 95% efficiency! Only the required energy is being generated.

### 09 Turbulators with manual heat exchanger cleaning system

### 10 Exhaust fan

### 11 Pellet day hopper

The day hopper is filled manually with bags of pellets - controlled by filling level indicator. Constant supply of pellets with a rotary valve - 100% burn-back protection.

### 12 Metering cell wheel rotary valve

### 13 Lambda sensor standard

### 14 Air connection RLU / RLA



## NANO PK

32 kW  
108,800 BTU

Hargassner – latest automatic pellets heating technology for medium-scaled applications. Especially designed for single- and double-family-homes.

- **Space requirement** (approx. 0,69 m<sup>2</sup>)
- **Compact design**, Installation up against 3 walls
- **Fully automatic technology**, automatic cleaning, de-ashing and fuel transport



Efficiency up to 95% – Pellet Boilers

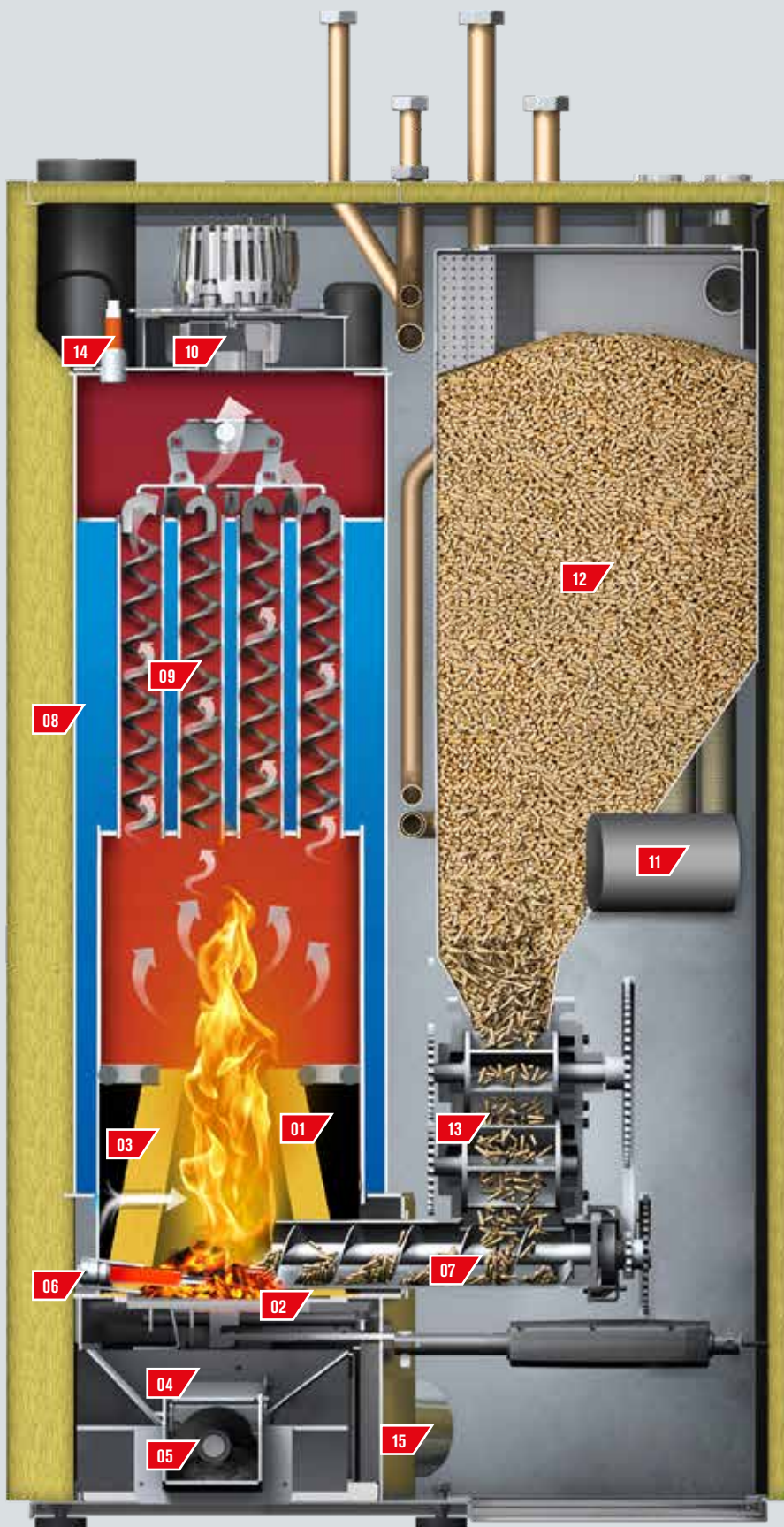
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# PELLET BOILER

## NANO-PK 32 kW



- 01 Fully refractory-lined combustion chamber**  
The high combustion chamber temperature at full and partial load contributes to high combustion efficiency and low emission values. The lambda sensor regulates exactly the right quantity of fuel in every output range according to the pellet quality.
- 02 Sliding grate**
- 03 Secondary air stream with inlet openings**
- 04 Primary air**
- 05 Ash box**  
with compaction system and filling level indicator  
The high combustion chamber temperature at full and partial load contributes to high combustion efficiency and low emission values. The lambda sensor regulates exactly the right quantity of fuel in every output range according to the pellet quality.
- 06 Autom. ignition**
- 07 Stoker auger**
- 08 Heat exchanger**  
Pellets Low temperature boiler  
Boiler flow temperature, from 38°C to 75°C - with constant 95% efficiency! Only the required energy is being generated.
- 09 Turbulators with automatic heat exchanger cleaning**
- 10 Exhaust fan**
- 11 Pellet-Vacuum turbine**
- 12 Pellet day hopper**  
with pellet consumption indicator  
If the minimum stock level is reached, a Warning message on the display (remote control, mobile phone, tablet) will be displayed.
- 13 Double rotary valve**  
The pellet suction turbine sucks pellets automatically from the storage in a distance of 20m into the day storage. The double rotary valve with a pressure compensation represents a 100% burn back protection.
- 14 Lambda sensor standard**
- 15 Air connection independent (RLU) / dependent (RLA)**

# ADVANTAGES NANO-PK

## These advantages make the **NANO**PK unique

We use high-quality energy sources that ideally suite for single-family homeowners, thanks to the low storage volume of pellets therefore do not have to do without the crisis-proof heating with domestic wood. If you are environmentally friendly and forward thinking heat, the excellent heating technology of the Nano-PK is the right choice.



### Small, compact design

Ideal for small installation- or boiler rooms and for houses with medium-low heating demand. Possible to place onto 3 walls, No additional space for maintenance works necessary! This unit may be placed to the wall with the backside and also with both sides. No storage room required! (depending on local regulations)

**Space requirement: 0.69 m<sup>2</sup> (Nano-PK 32)**



### Easy and fast transport

The boiler is fully clad and may be transported in one piece. For complex installation areas, the boiler may be easily disassembled.



### Integrated hydraulic module

The heat circuit-/HWS pump, the accumulator loading pump/circulation pump and all other piping is easy to access and ready to plug integrated in the boiler. You can choose 3 different hydraulic versions.

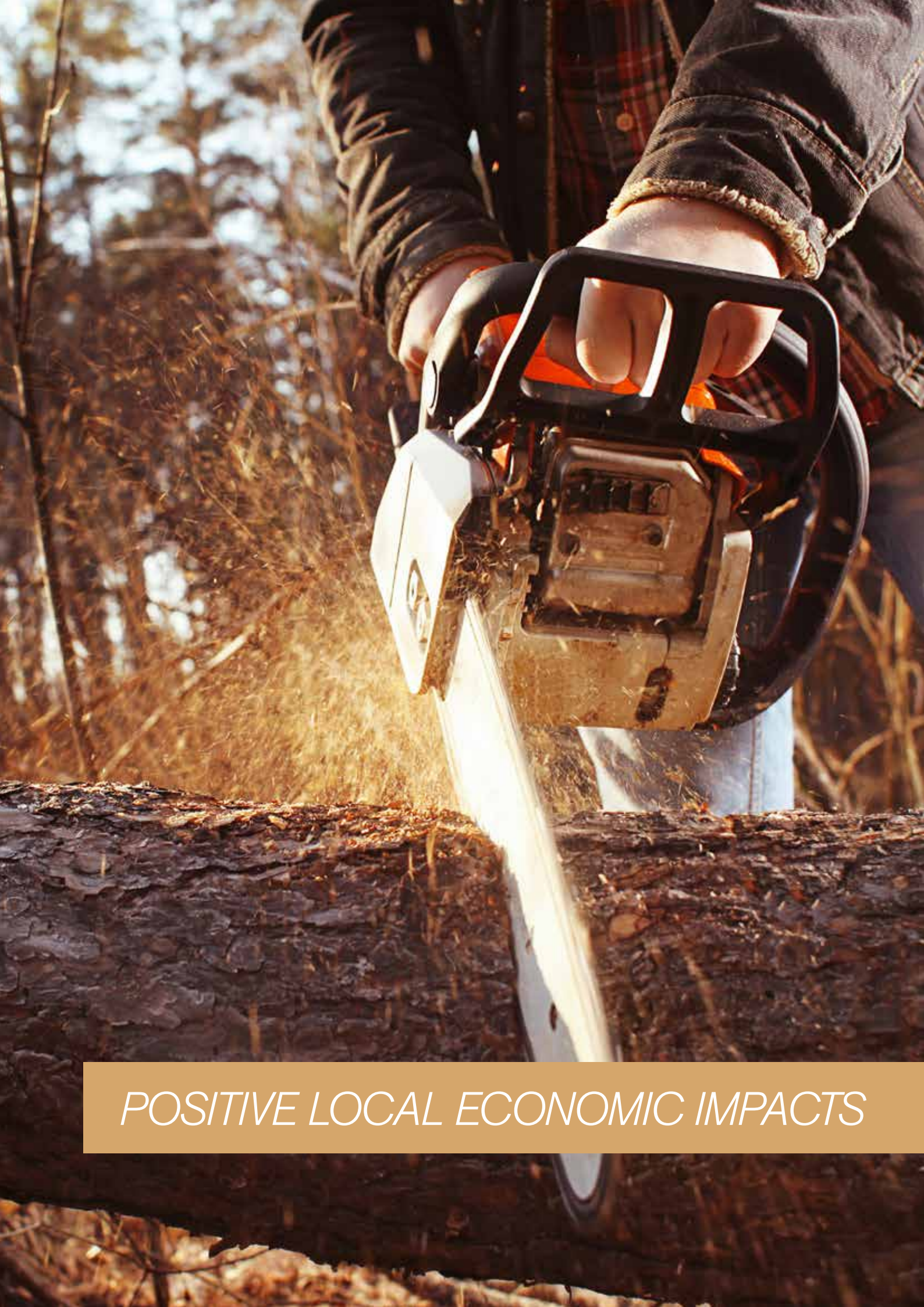


### Maintenance openings only from front and from top

All components of the boiler are designed, to be reached from front. With the slogan: „Small is good – but it must be service-friendly!“

**air-independent operation possible**





*POSITIVE LOCAL ECONOMIC IMPACTS*





## ECO PK

70 – 120 kW

238,000 – 408,000 BTU

This high-temperature Pellet Boiler from Hargassner is equipped with the latest heating technology in the larger capacity range. This boiler series is particularly suitable for residential buildings, restaurants or public buildings.

- Cost-effective due to **eco-mode**
- **Energy efficient** agitator system
- **Flame concentration jets** out of high-end steel



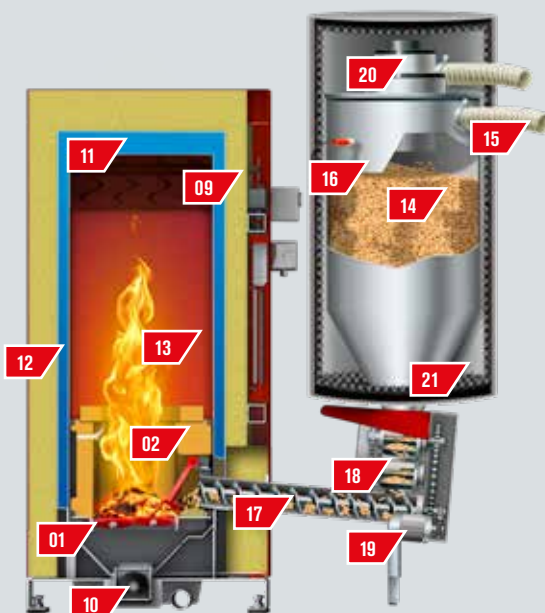
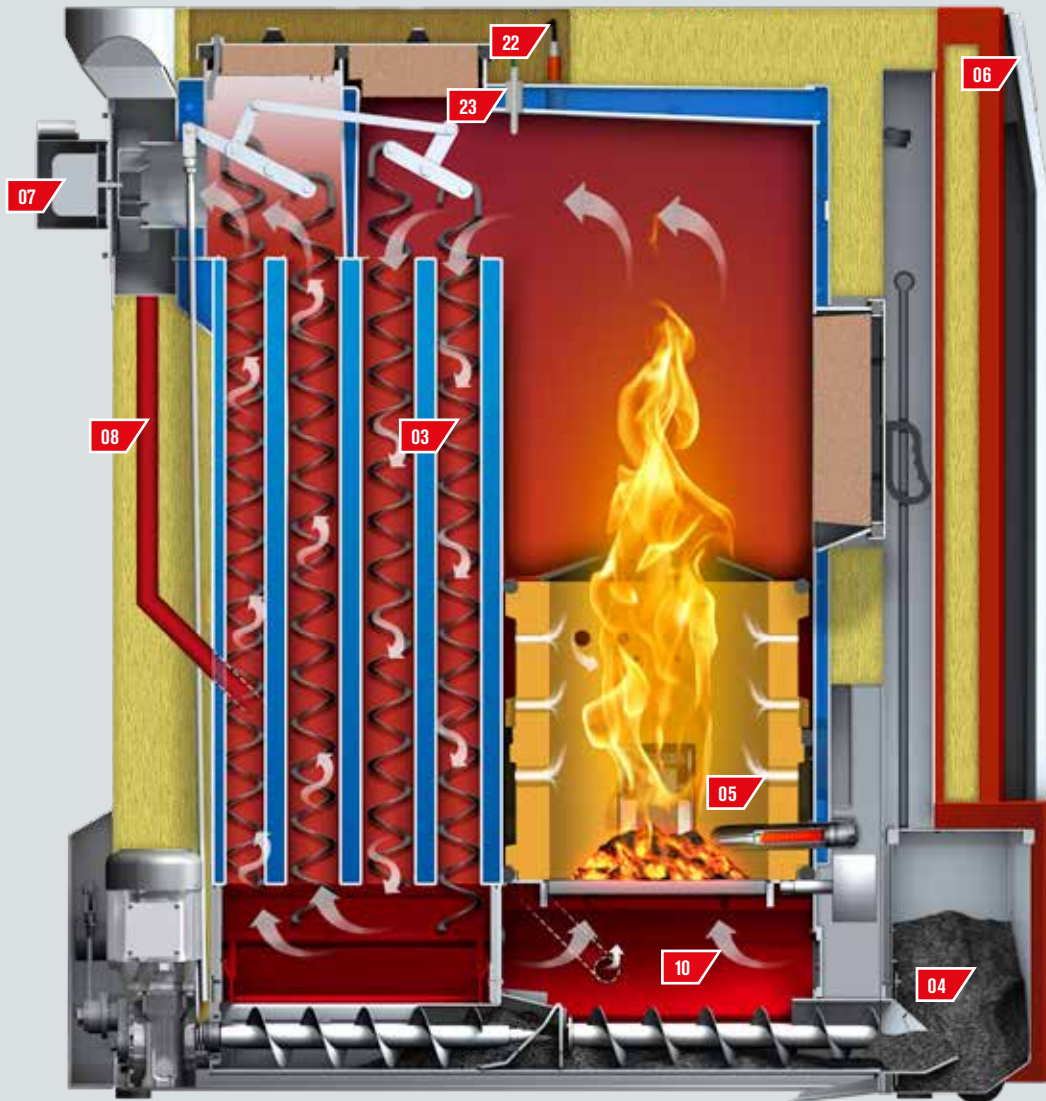
Efficiency up to 95% – Pellet Boilers

Get financial support through subsidies from your local government.



# PELLET BOILER

## ECO-PK 70 – 120 kW



- 01 New grate system „Double rotary step grate“
- 02 Firebed levelling
- 03 Heat exchanger cleaning (also in 1. draught)
- 04 Ash suction system for longer maintenance intervals, optional
- 05 New ignition: 300 W, without fan
- 06 Innovative integrated Touch control
- 07 Exhaust fan (EC-motor) with negative pressure monitoring
- 08 Recirculation - standard
- 09 Optional: Integrated back end protection
- 10 Patented ash extraction for fly and grate ash
- 11 No thermal discharge safety device necessary
- 12 Combustion chamber fully integrated in heat exchanger
- 13 Flame concentration jets out of high-end steel cast
- 14 Cyclone Pellet Storage
- 15 Closed suction system - maintenance-free, without filter
- 16 Fuel indicator
- 17 Stoker auger
- 18 Double-rotary valve with pressure balance
- 19 Drive unit
- 20 Pellet Vacuum turbine
- 21 Acoustic insulation
- 22 Lambda sensor
- 23 Flame temperature monitoring



## ECO PK

150 – 200 kW

510,000 – 680,000 BTU

This high-temperature Pellet Boiler from Hargassner is equipped with the latest heating technology in the larger capacity range. This boiler series is particularly suitable for residential buildings, restaurants or public buildings.

- **300 Watt-ignition** with optimised ignition-surveillance
- **Flame temperature control**
- New grate system: **double rotary grate**
- **Pellet suction possible during combustion**



with Cascadecontrol  
up to 6 boilers and 2 MW possible!

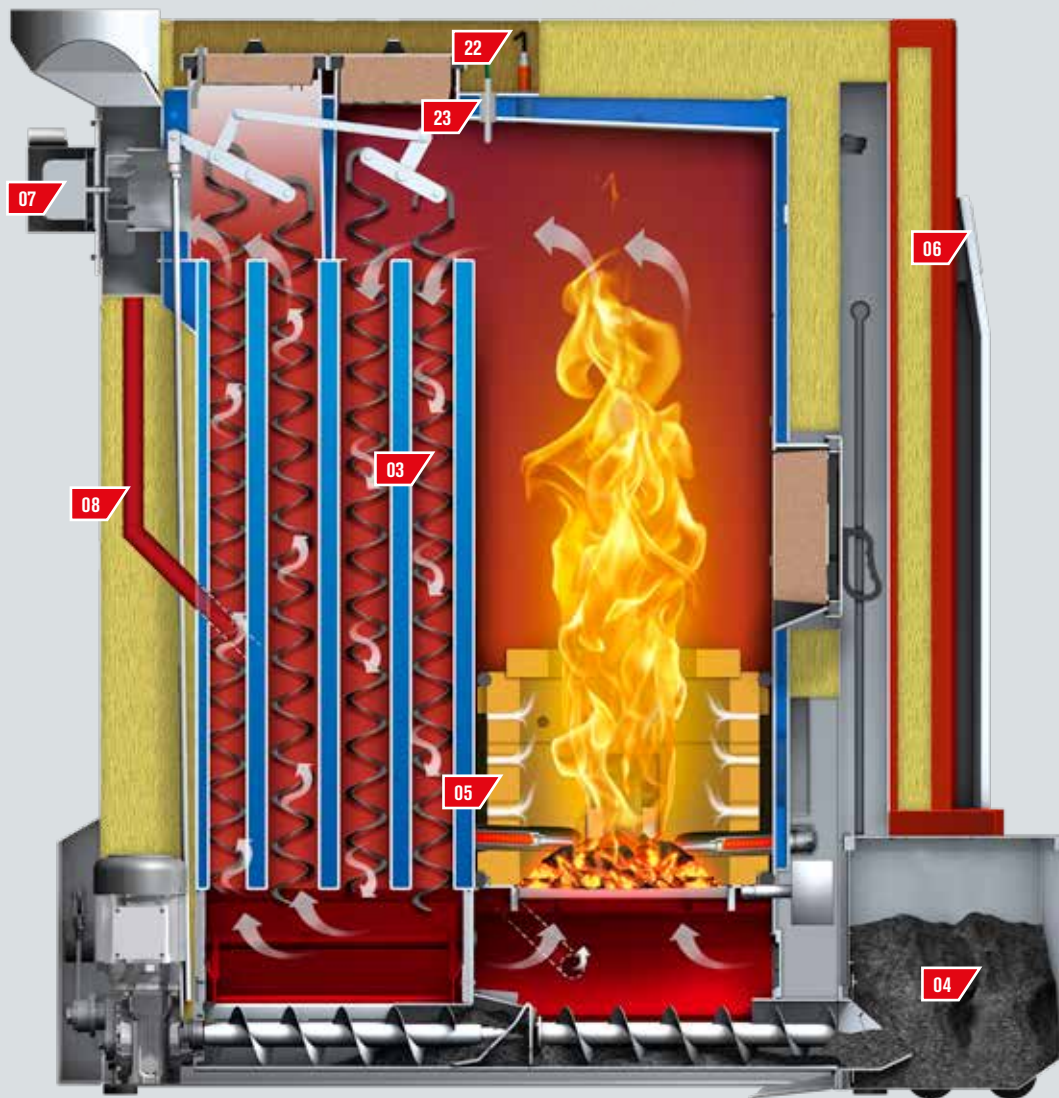
Efficiency up to 95% – Pellet Boilers

Get financial support through subsidies  
from your local government.



# PELLET BOILER

## ECO-PK 150 – 200 kW



- 01 New double rotary grate
  - a) De-ash grate
  - b) Stoker grate
  - c) Fixed grate
- 02 Firebed levelling
- 03 Heat exchanger cleaning (also in 1. draught)
- 04 Large ash box (75 l)
- 05 New ignition: 2 x 300 W, without fan
- 06 Innovative integrated Touch-control
- 07 Exhaust fan (EC-motor) with negative pressure monitoring
- 08 Recirculation - standard
- 09 Optional: Integrated back end protection
- 10 Patented ash extraction for fly and grate ash
- 11 No thermal discharge safety device
- 12 Combustion chamber fully integrated in heat exchanger
- 13 Flame concentration jets out of high-end steel cast
- 14 Cyclone Pellet Storage
- 15 Closed suction system - maintenance-free, without filter
- 16 Fuel indicator
- 17 Stoker auger
- 18 Bicameral-rotary valve with pressure balance
- 19 Drive unit
- 20 Pellet Vacuum turbine
- 21 Acoustic insulation
- 22 Lambda sensor
- 23 Flame temperature monitoring



## ECO PK

250 – 330 kW

850,000 – 1,122,000 BTU

This high-temperature Pellet Boiler from Hargassner is equipped with the latest heating technology in the larger capacity range. This boiler series is particularly suitable for residential buildings, restaurants or public buildings.

- **Firebed level control** with Lambda sensor and automatic fuel quality detection
- **Permanent Power** – no burnout before de-ashing
- Latest combustion technology Eco-Control **for minimal dust emissions**



with Cascadecontrol  
up to 6 boilers and 2 MW possible!

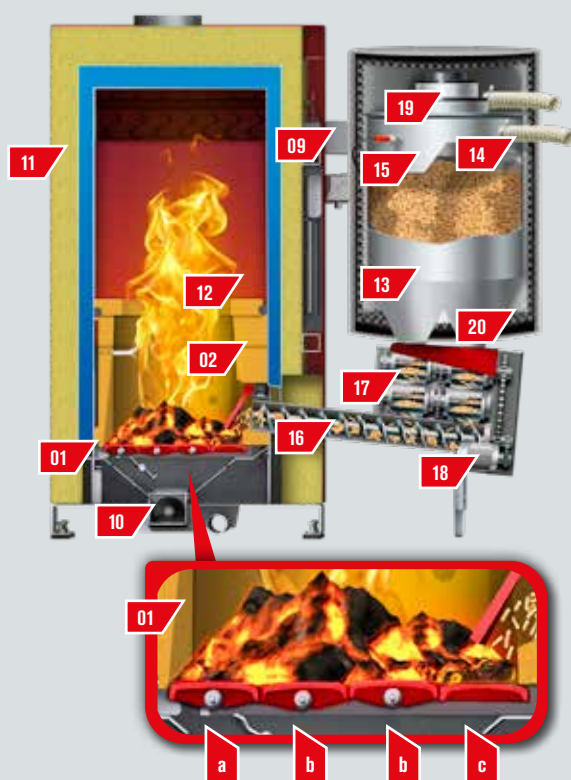
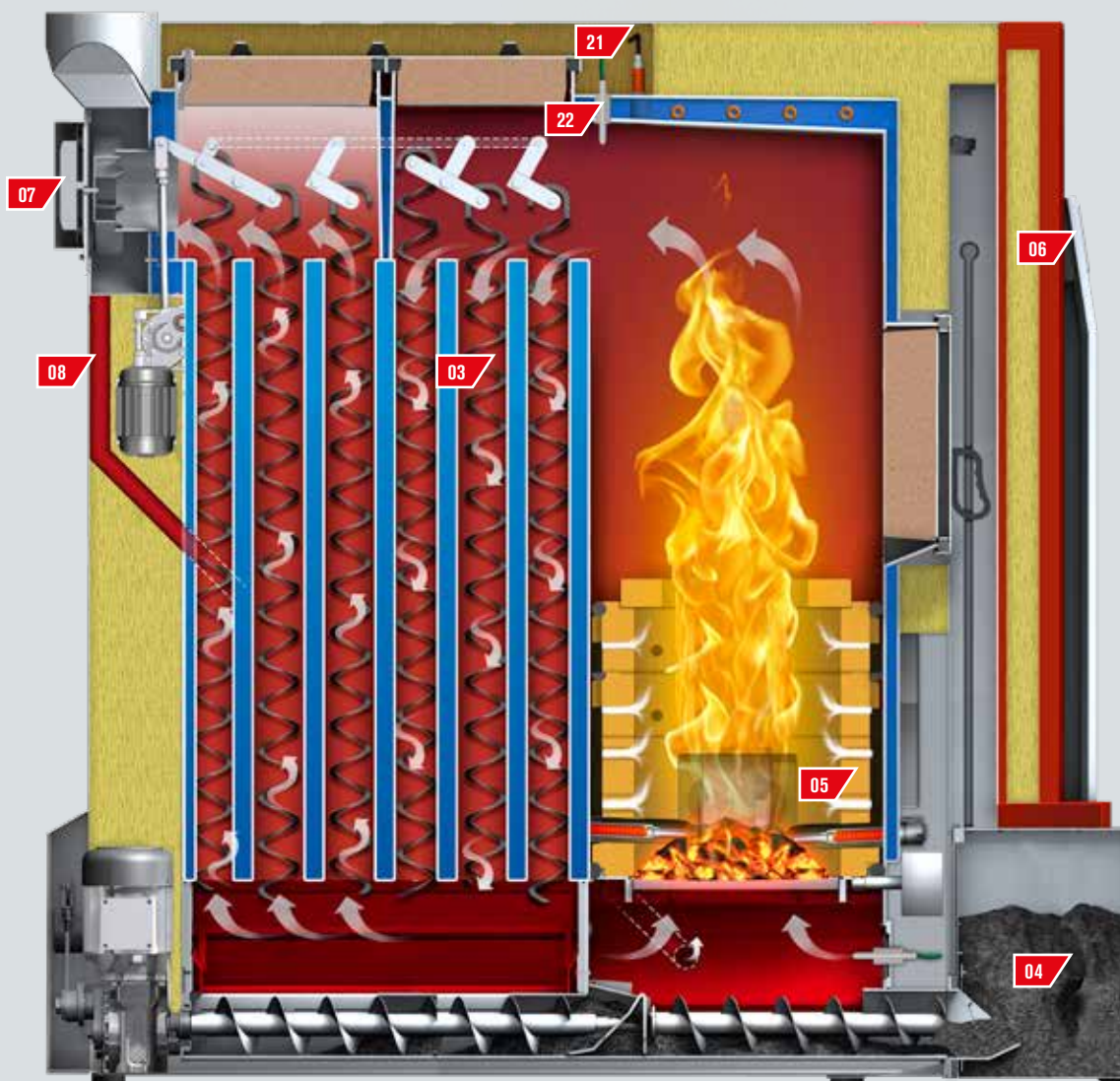
Efficiency up to 95% – Pellet Boilers

Get financial support through subsidies  
from your local government.



# PELLET BOILER

## ECO-PK 250 – 330 kW



- 01 New double rotary grate  
a) De-ash grate  
b) 2x Stoker grate  
c) Fixed grate
- 02 Firebed levelling
- 03 Heat exchanger cleaning (also in 1. draught)
- 04 Large ash box (75 l)
- 05 New ignition: 2 x 300 W, without fan
- 06 Innovative integrated Touch-control
- 07 Exhaust fan (EC-motor) with negative pressure monitoring
- 08 Recirculation - standard
- 09 Optional: Integrated back end protection
- 10 Patented ash extraction for fly and grate ash
- 11 Combustion chamber fully integrated in heat exchanger
- 12 Flame concentration jets out of high-end steel cast
- 13 Cyclone Pellet Storage
- 14 Closed suction system - maintenance-free, without filter
- 15 Fuel indicator
- 16 Stoker auger
- 17 Rotary valve with pressure balance
- 18 Drive unit
- 19 Pellet Vacuum turbine
- 20 Acoustic insulation
- 21 Lambda sensor
- 22 Flame temperature monitoring

## These advantages make the **ECO-PK** unique

For optimal  
hydraulic  
installation use  
**ACCUMULATOR**

### Hargassner - state-of-the-art pellet heating technology for all power ranges

Hargassner has many years of experience in the field of biomass heating technology - a know-how leading edge in the field of biomass heating technology Hargassner Pellet Boilers bring a huge technology boost. Both in the design area as well as in the control conception provide the best ideas and solutions for the most efficient heating systems.

### Energy-saving **ECO**-Operation

#### Speed-controlled EC exhaust fan with negative pressure monitoring

For the ECO-PK Hargassner uses energy-efficient EC exhaust fans. The main advantage of this GreenTech EC technology is the significantly higher efficiency rate of up to 90%. This saves energy and electricity. The negative-pressure unit constantly measures the pressure conditions in the combustion chamber. The Lambda Touchtronic uses this data to control the speed of the draught fan, thus keeping the negative pressure at an ideal level. This concept ensures combustion with minimal exhaust gas temperatures and therefore maximum efficiency.



Eco-PK 70 – 120 kW

## Unique double rotary grate

### Eco-PK 70 – 120

The grate consists of two consecutive and stepped grates which can move independently. As a result pellets can be burned efficiently.



If regular pellets are used, only the **rear de-ash grate** opens. The ash falls down and the embers remain.



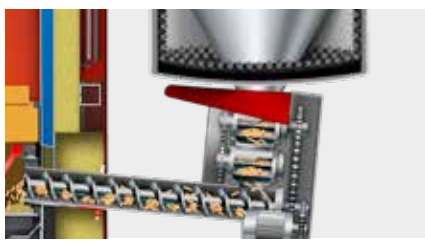
If the boiler is completely cold a full cleaning process is executed prior to start. **Both grates** open, the cold ash and all foreign objects like stones, nails, etc, fall down. The „**Breaker Function**“ of the grate forces clinker down into the ash auger.





### Perfect cleaning - increased efficiency!

A new developed cleaning concept is cleaning ALL Heat-Exchanger pipes regularly. NEW - also the first pipe! The sharp edges of the turbulators help to get rid of fly-ash directly through the ash-auger. Our new developed de-ashing system is cleaning the boiler regularly. Only ONE ash-auger (patent pending) transports fly-ash as well as normal ash from combustion into the fully-integrated ashbox. The ash is being shrunk and compressed on the way to the ashbox. Maximum cleaning comfort and highest efficiency are the result!



### From the hopper into the double rotary valve

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 of up to 20 m makes it easy to overcome architectural barriers and handle complex boiler and storage room combinations. To turn off the vacuum turbine after refilling the hopper, a level detector is integrated. A constant amount of pellets falls through the double rotary valve and the stoker auger transports the pellets into the refractory-lined combustion chamber.



### Firebed monitoring & Lambda sensor

Through the exact and contact-free firebed-height monitoring system with sensors, the most effective combustion conditions (dependent on fuel quality) is detected. Your heating system is always working with the required heat output at optimum combustion values. It doesn't matter which type of fuel is stored - wood chips soft, hard, dry or damp - the control unit uses the lambda sensor to detect the relevant calorific value and regulates the optimum fuel air mixture. This is how convenient controls work today - constant manual adjustment of the system to the fuel is a thing of the past.



### Fully refractory-lined high performance combustion chamber with integrated back end protection

The refractory combustion chamber guarantees high combustion temperatures through optimum heat storage (also at part-load), which minimises the ignition procedure and reduces emissions. To reduce ash-clinkering of very dry fuel ECO-HK each has installed a flue-gas recirculation. Ash can be disposed easily and completely automatically.



### Integrated Touch-Control

The all new Lambda Touchtronic leaves nothing to be desired. The control system is characterised through its exceptional design and simple handling. Navigation is very sophisticated. You are able to recognise visually immediately the current status of the boiler, the accumulator and the HWS as well as all heating circuits. New optimised accumulator control with 3 sensors. New remote controls with LCD or Touch displays make it even easier to use.

### Advantages:

- Intuitive touch control
- Efficient combustion control
- Automatical adaption on weather-changings
- Many remote control possibilities (also via APP)
- Connection to various SmartHome solutions possible.



### Back-end protection

Integratable back-end protection for wood chip/pellet heaters for simultaneously charging an accumulator and to avoid condensation.



# REFERENCES ECO-PK



## COMMERCIAL

We have decided for a Hargassner boiler, because we wanted to have the most efficient and also cost-saving heating system. Hargassner supplied an Nano-PK 32 including a water storage.

- Nano-PK 32 kW
- Water storage



## WINERY

The Smart-PK Pellet boiler was the best solution for us concerning the compact size and the functionality! It's perfect price-performance ratio convinced us at last. The boiler is easily filled from bags of pellets.

- Smart-PK 32
- 2,000 l accumulator
- Heating room in the cellar





## RESIDENTIAL HOME

With those two boilers, the whole residential complex is heated. Through the cascade solution it is possible to adapt optimally the entire power requirement to the season. The operational safety and the storage capacity are doubled.

- 2 x Eco-PK 70 kW
- 2 x 2,000 l accumulators
- 4 Bag Silos GWTS



## HOTEL

The whole hotel complex is heated by 4 Eco-PK 200 kW. The storage room for pellets is in a heating module. 4 accumulators with 4,000 l each are being used.

- Eco-PK 4 x 200 kW
- Heating module
- 4 x 4,000 l accumulator





# SIT BACK AND RELAX



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!





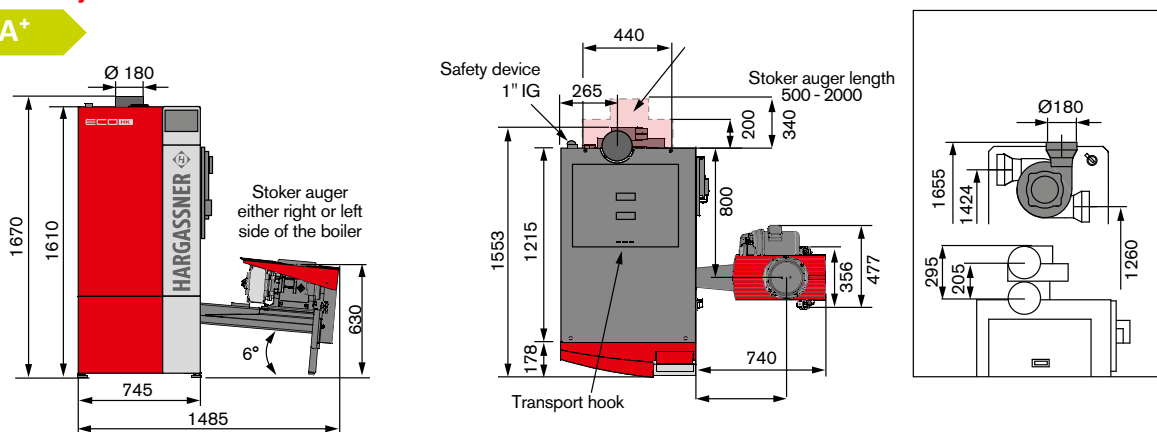


# TECHNICAL DATA

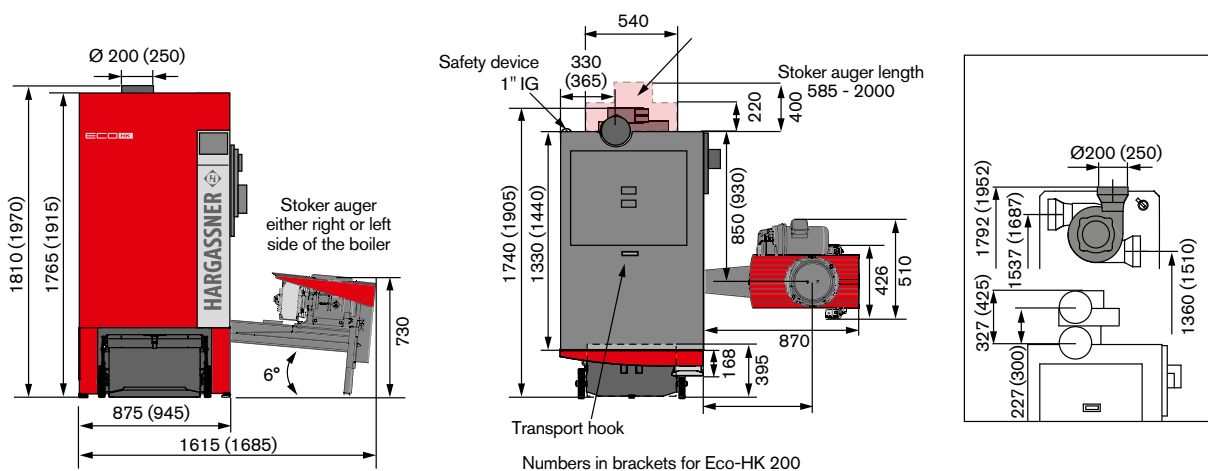
## Efficiency Class

A+

### Eco-HK 70 – 120

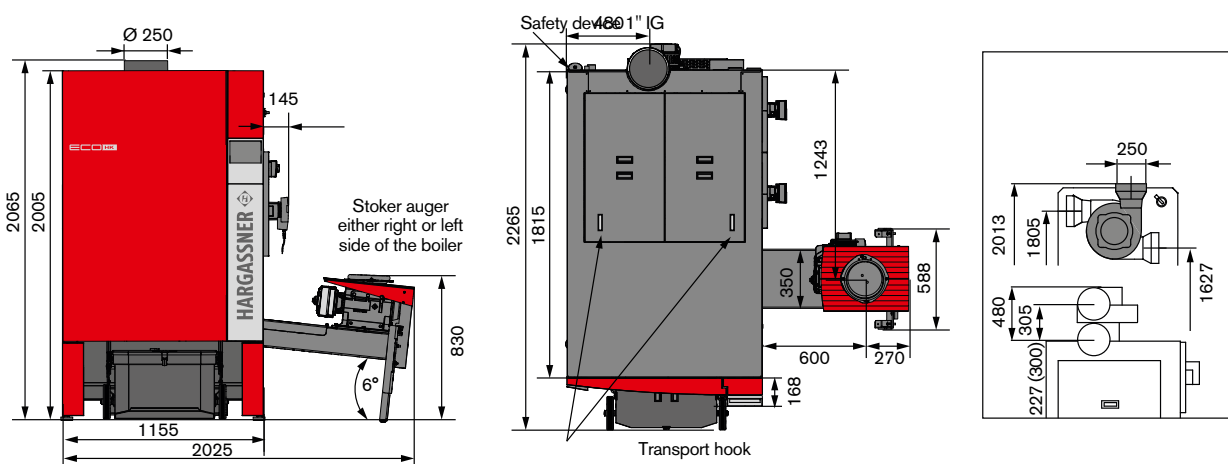


### Eco-HK 150 – 200



Numbers in brackets for Eco-HK 200

### Eco-HK 250 – 330

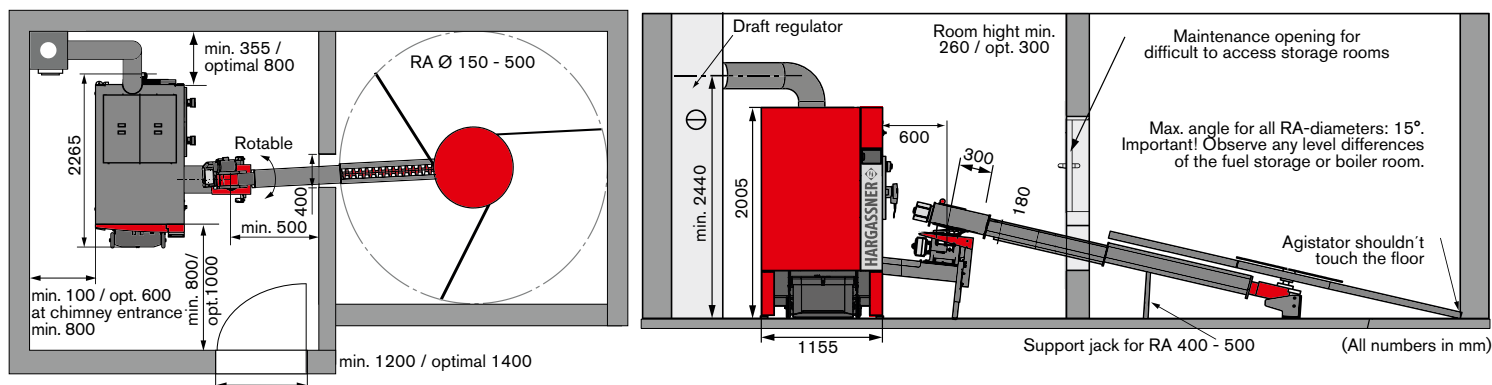
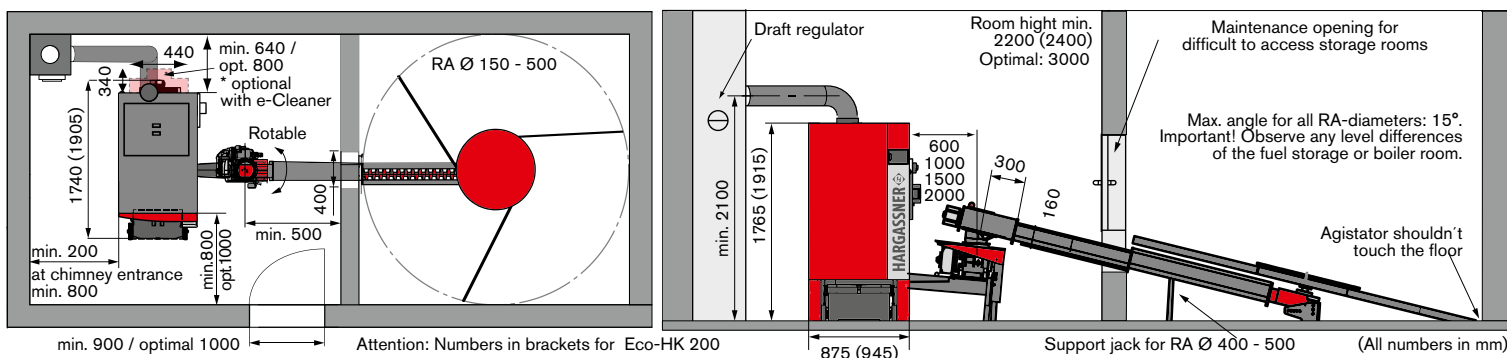
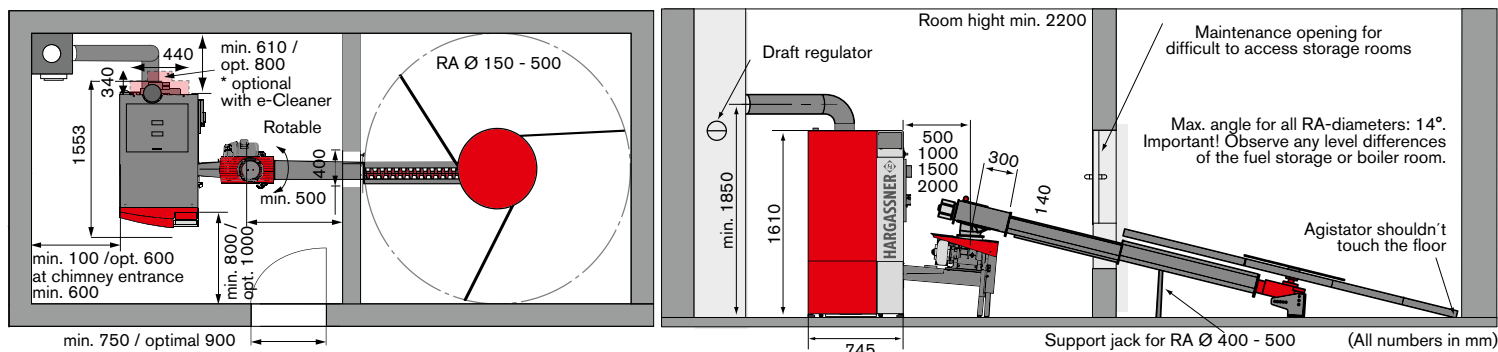


## Eco-HK 70-220 kW

	Unit	Eco-HK 70	Eco-HK 120	Eco-HK 150	Eco-HK 200	Eco-HK 250	Eco-HK 300	Eco-HK 330
Power range	KW	21-70	36-120	44-149	59-199	75-250	90-300	99-330
Efficiency Full load / Partial load	%	94,6 / 95,3	93,3 / 95,4	93,4 / 93,1	94,7 / 97,4	94,5 / 97,2	94,4 / 96,9	94,3 / 96,8
Fuel heat output - full load	KW	74,5	127,2	159,5	213,7	266	317	349,9
Flue pipe diameter	mm	180	200	250	250	250	250	250
Water content	l	180	253	360	360	570	570	570
Boiler temp. range	°C	75-78	75-78	75-78	75-78	75-78	75-78	75-78
BEP necessary	°C	58	58	58	58	58	58	58
Water-side resistance ΔT 10 / 20 [K]	mbar	57,1 / 14,6	160,7/40,9	184,6/49,0	227 / 63	228	296	356
Flow/Return	inch	6/4"	6/4"	2" / 2"	2,5" / "	2,5"	2,5"	2,5"
Weight / Day hopper	kg	865 / 100	890 / 100	1190 / 150	1320 / 150	2150 / 200	2150 / 200	2150 / 200
H / W / D	mm	1610 x 745 x 1553		1765x875x1740	1915x945x1905		2005 x 1155 x 2138	
Transport dimensions H / W / D	mm	1670 x 745 x 1335		1810x875x1435	1970x945x1595		2065 x 1150 x 1970	
Boiler label	class	A+	-	-	-	-	-	-
Composite label incl. control	class	A+	-	-	-	-	-	-



# WOOD CHIP BOILER

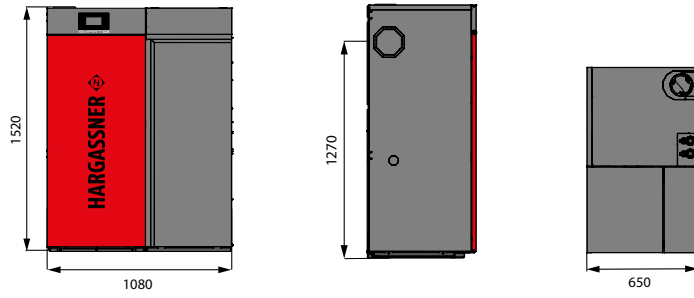


## WOOD CHIP CHARACTERISTICS (ÖNORM 7133 / EN ISO 17225-4)

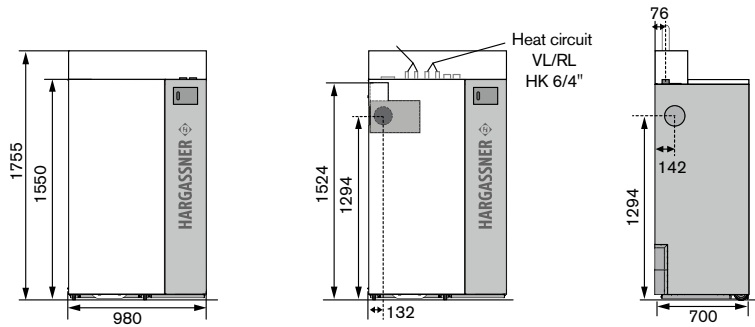
	ÖNorm 7135	EN 17225-2 – Klasse A1
Heating value		4 kWh/kg bei 25% W
Weight		200-250 kg/m <sup>3</sup>
Height	G30-G50	P16 S-P31 S; (Klasse A1-A2)
Water content	W20-W35	M 20 (Klasse A1-A2)
Primary energy efforts: < 2,0%		

# TECHNICAL DATA

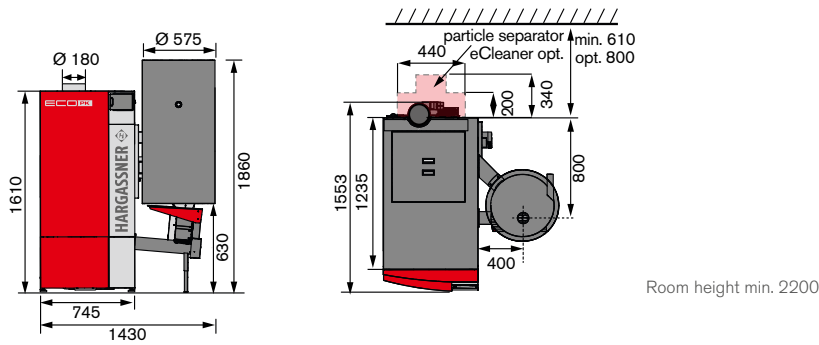
## Smart-PK 32 kW



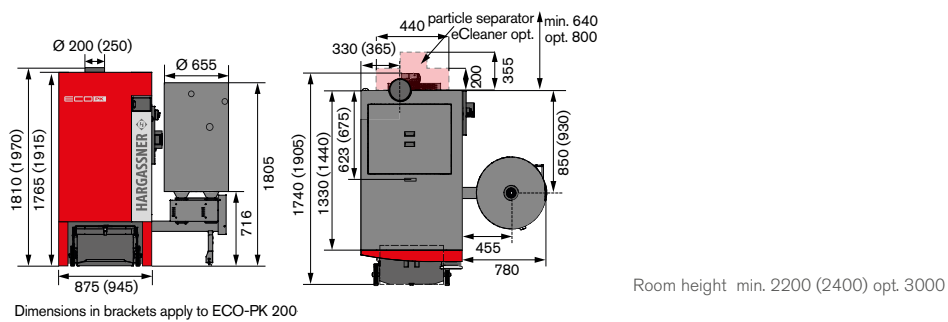
## Nano-PK 32 kW



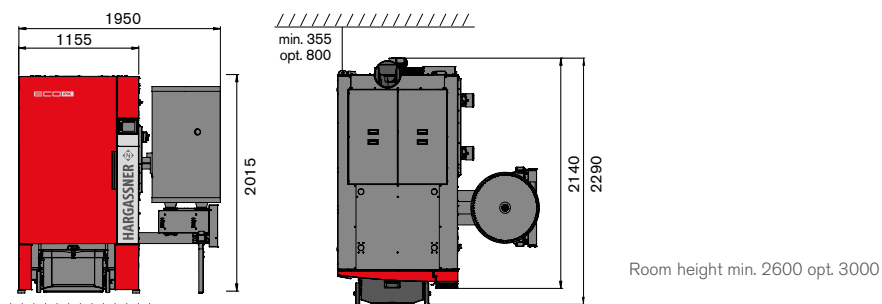
## Eco-PK 70-120 kW



## Eco-PK 150 - 200 kW



## Eco-PK 250-330 kW





# PELLET BOILER

Smart-PK 32 kW		
		Smart-PK 32
Power range	kW	9,6 - 32
Efficiency (at nominal heat output)	%	95,3 - 95,8
Nominal heat output	kW	33,6
Flue pipe diameter	mm	130
Day hopper	kg	174
Amount of water in heat exchanger	l	42
Water-side resistance $\Delta T 10 / 20$ [K]	mbar	29 - 16
Flow / Return flow	inch	5/4
Dimensions H x W x D	mm	1520 x 1080 x 650
Weight	kg	290
Transporting dimensions H x B x T	mm	1520 x 573 x 575
Transporting weight	kg	180
Chimney connection height / opt.	mm	1295 / 2000
Boiler inspection label incl. control	Class	A+

Nano-PK 32 kW		
		Nano-PK 32
Power range	kW	9,6 - 32
Efficiency (at nominal heat output)	%	94,7
Nominal heat output	kW	33,7
Flue pipe diameter	mm	130
Central air Connection	mm	75
Amount of water in heat exchanger	Liter	42
Boiler temperature range	°C	(38) 48 - 78
Back end protection temperature		lt. Heizungsschema
Water-side resistance $\Delta T 10 / 20$ [K]	mbar	45 / 16
Flow / Return flow	inch	5 / 4 "
Weight	kg	370
Dimensions H x W x D	mm	1550 x 980 x 700
Transporting dimensions H x B x T	mm	
Boiler-Label	Class	A+
Boiler inspection label incl. control	Class	A+

Eco-PK 70-330 kW								
		Eco-PK 70	Eco-PK 120	Eco-PK 150	Eco-PK 200	Eco-PK 250	Eco-PK 300	Eco-PK 330
Power range	kW	21-70	36-120	44-149	59-199	75-250	90-300	99-330
Efficiency Full load / Partial load	%	94,6/95,3	93,3/95,4	93,4/93,1	94,7/97,4	94,5/97,2	94,4/96,9	94,3/96,8
Fuel heat output - full load	kW	74,5	127,2	159,5	213,7	266	317	349,9
Flue pipe diameter	mm	180		200	250	250		
Water content	Liter	180		253	360	570		
Boiler temp. range	°C	75-78	75-78	75-78	75-78	75-78	75-78	75-78
BEP necessary	°C	58	58	58	58	58	58	58
Water-side resistance $\Delta T 10 / 20$ [K]	mbar	57/14,6	160,7/40,9	184,6/49,0	227/63	228	296	356
Flow/Return	inch	6/4"	6/4"	2" / 2"	2,5" / "	2,5"	2,5"	2,5"
Weight / Day hopper	kg	865 / 100	890 / 100	1190 / 150	1320 / 150	2150 / 200	2150 / 200	2150 / 200
H / W / D	mm	1610 x 745 x 1553		1765x875x1740	1915x945x1905	2005 x 1155 x 2138		
Transport dimensions H / W / D	mm	1670 x 745 x 1335		1810x875x1435	1970x945x1595	2065 x 1150 x 1970		
Boiler label	Class	A+	-	-	-	-	-	-
Composite label incl. control	Class	A+	-	-	-	-	-	-

PELLET CHARACTERISTICS (EN ISO 17225-2, ÖNORM 7135)		
	ÖNorm 7135	EN 17225-2 – Klasse A1
Heating value	> 18 MJ/kg = 5 kWh/kg	16,5 ≤ O ≤ 19 MJ/kg = 5 kWh/kg
Weight	650 kg/m <sup>3</sup>	> 650 kg/m <sup>3</sup>
Diameter	6 mm	≤ 6 ± 1,0 mm
Length	5 – 40 mm	3,15 ≤ L ≤ 40 mm (99%), L ≤ 45mm (1%)
Water content	w < 10 %	w ≤ 10 %
Dust content	≤ 1 %	≤ 1 %
Ash content	< 0,5 %	≤ 0,7 %

Primary energy efforts 2,7 % of energy output



Your Expert for **PELLET- | WOOD LOG- | WOOD CHIP-BOILER**

[hargassner-northamerica.com](http://hargassner-northamerica.com)

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