

Perfection of a Proven Concept



- 1) **LARGE FUEL FILLING SPACE:** 56cm deep to take 12cm logs, fuel capacity of 150 litres in the SH 20/30 models and 225 litres in the SH 40/50/60 models means that refuelling intervals kept to a maximum.
 - 2) **RE-LIGHT WITHOUT MATCHES** from high temperature-resistant fire bricks for optimal partial load operation and burn out with minimum ash accumulation.
 - 3) **INSULATED GLOW ZONE CHAMBER:** from high temperature-resistant fire bricks for optimal partial load operation and burn out with minimum ash accumulation.
 - 4) 5) **PRIMARY AND SECONDARY AIR ACTUATORS** with position feedback to control panel.
 - 6) **SIMPLE ASH REMOVAL** from the front, no side doors
- 7) **LAMBDA SENSOR:** The SH boiler uses a lambda probe to continuously monitor exhaust O₂ content, allowing automatic air induction adjustment and ensuring high efficiency for all kinds of wood (beech, spruce, poplar).
 - 8) **EASY CLEANING:** Cleaning the heat exchanger is the easiest of tasks, just pull the cleaning lever on the outside a couple of times (activates turbulators in the exchanger pipes).
 - 9) **CLEANING LEVER**
 - 10) **SILENT DRAFT FAN:** The boiler has a barely audible, variable speed exhaust fan with RPM feedback to the control panel. Low electrical power consumption of the motor (only 75W)
 - 11) **STEP-LESS ADJUSTMENT OF THE EXHAUST GAS TEMPERATURE** with exhaust gas temperature sensor for adapting to the existing chimney.
 - 12) **COMPLETE REGULATION** for boiler, accumulator tank, hot water tank and heating pumps. All functions can be monitored real time and adjusted as required on a four line easy-to-read display at the front door. Optionally weather-compensated temperature regulation for the heating circuits or control of solar collectors can be integrated to the boiler heat management system.
 - 13) **INSULATED FRONT DOOR**

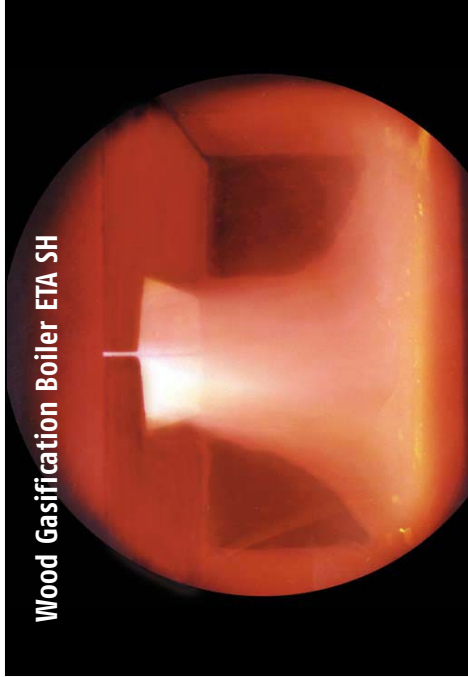


With the approval tests by the **BIT Wieselburg** (Austria) and the **TÜV South Germany** the ETA SH with lowest pollutant values and highest efficiency levels, qualified itself clearly as one of the best boilers in its class.



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Wood Gasification Boiler ETA SH



Regulated

Each ETA SH is delivered with a complete heat management system for boilers, accumulator tank, hot water tank and heating pumps.



There's no need to worry about complex electronics. Once the settings for the boiler have set up, information about its current status is given in the four-line text display panel. If you want to change the heating time settings, an easy-to-follow information text takes you through the procedure.

Better

For the first time ever it is now possible to burn all forms of wood in the same boiler: 1. Closest to nature (1.1. Ash, Spruce, Beech, Wood Briquettes or even waste company timber).

The ETA SH boiler can burn all of these woods efficiently while at the same time keeping it's emissions within the boundaries of the magical carbon monoxide (CO) limit of 10mg/MJ. This magical figure is achieved through the use of the lambda sensor; the probe measures the remaining oxygen in the boiler's exhaust gases continuously and then the electronic boiler control regulates the primary and secondary air induction to match so that the boiler is always operating at the optimum level of efficiency.

In addition this system also makes sure that not too much air enters the burning process, surplus air would draw heat from the boiler out in the chimney and thus reduce efficiency.

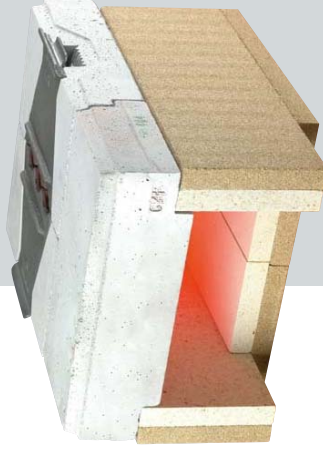
Steady

High efficiency is the sum of innumerable details. For example, the additional insulating door. Combustion air is drawn along the gap between the outer insulation door and inner fire doors. Thus the thermal radiation of the boiler doors is led back with the air into the boiler.

Glowing

Since no high excess of air cools the fire, as a result the fire in the ETA Glow Zone burns between 1000 and 1200°C. Conventional combustion chambers do not have the durability to withstand such heat. Therefore the ETA Glow Zone

Chamber is made from a stable high temperature ceramic material built up from several parts with expansion joints.



Easy

Refilling the ETA SH is a very easy task. It must only be filled with wood! Refilled wood ignites automatically with the remaining embers from the last firing phase. When the doors are closed the automatic heating operation begins.

Due to the large fuel chamber up to half-meter logs are possible, you only have to cut a piece or twice a day depending on temperature. A smoke suction device over the top door prevents either smoke or smell escaping from the boiler out in the room during refilling.

Due to a complete burn out of wood in the burning chamber (depending on the type of wood) it is only necessary to remove ashes only once every 1-2 weeks. With a short couple of pulls on the cleaning lever you shake the cleaning turbulators built into the heat exchanger pipes. A clean boiler operates with better efficiency.

Pleasantly

Indulge yourself and the boiler with an accumulator tank. Then the ETA heat management system holds warmth over night, in the morning you will have a warm house and hot water before having to refuel the boiler, you even have time to enjoy breakfast...



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