

Assembly Instructions  
**Combustion chamber for FHG/S3 Turbo**

(from year 1995)



**Translation of the original German installation instructions for technicians**

Read and follow the instructions and safety informations!

Technical changes, typographical errors and omissions reserved!

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## 1 General

### ⚠ WARNING

**When touching hot surfaces:**

***Severe burns are possible on hot surfaces and the flue gas pipe!***

When work is carried out on the boiler:

- Shut down the boiler according to procedure ("Off" operating status) and allow it to cool down
- Protective gloves must usually be worn for work on the boiler, and it should only be operated using the handles provided
- Insulate the flue gas pipes and do not touch them during operation.

Ensure that operators have the protective equipment specified by accident prevention regulations.



- For transportation, setup and assembly:
  - Suitable workwear
  - Protective gloves
  - Sturdy shoes

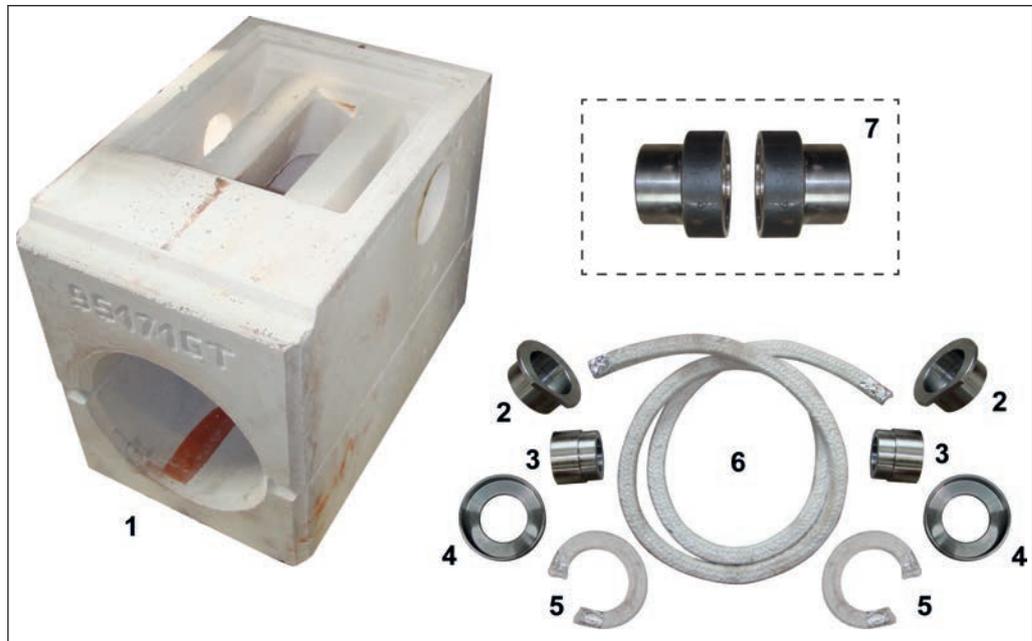
The information on safety, standards and guidelines in the assembly and operating instructions for the boiler should also be observed.

### 1.1 Disposal information

- Ensure that the system is disposed of in an environmentally sensitive way in accordance with waste management regulations.
- You can separate and clean recyclable materials and send them to a recycling center.
- The combustion chamber must be disposed of as construction waste.

## 2 Replacing the combustion chamber

### 2.1 Materials supplied



1	Combustion chamber in two parts (top + bottom)
2	Secondary air bushing
3	Secondary air spacer tube
4	Secondary air seal ring
5	Secondary air seal
6	Combustion chamber seal
7	Adapter pipe (only for fitting in boilers built between 1995 and 2000)

### 2.2 Tools/materials required

The following tools/materials are required for replacing the combustion chamber:

- Flathead screwdriver and spanner with AF 17 mm
- Hammer and chisel
- Angle grinder
- Sticky tape
- Lubricant (e.g. Blue Moly)

Additional tool for boilers built between 1995 and 2000:

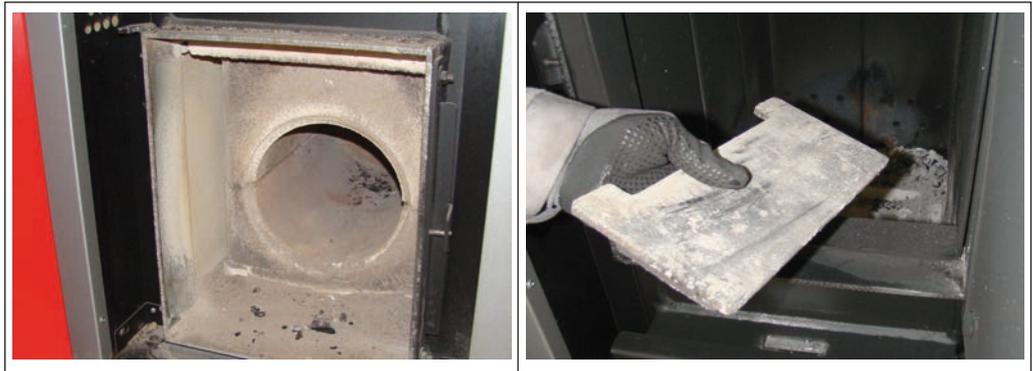
- Welder

### 2.3 Removing the old combustion chamber

- Open the insulating door and combustion chamber door



- Gently bend open the bottom pin retainer using two flathead screwdrivers and remove
- Pull out the door pin



- Repeat these steps for the top door pin and remove the combustion chamber door
- Remove the combustion grate



- Unhinge the linking plates and remove from the boiler
- Remove the triangular stone



- Break the top of the combustion chamber into pieces using a hammer and chisel
- Remove the combustion chamber pieces from the boiler



- Uncover the side secondary air connections using the hammer and chisel and remove
- Lift up the bottom part of the combustion chamber and pull it out over transport clamps



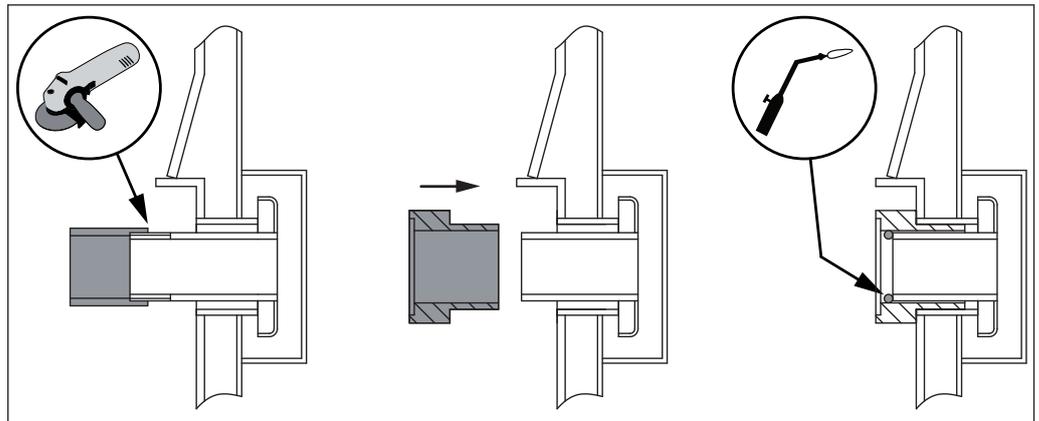
- Remove the rest of the broken pieces from the boiler
- Remove the seal cord from the boiler casing



- Knock out the transport clamp using the hammer
- Thoroughly clean the boiler base and boiler casing
- Plane the protruding welds from the transport clamp on the boiler base using an angle grinder

## 2.4 Additional steps for boilers constructed between 1995 and 2000

In combustion chambers constructed between 1995 and 2000 the secondary air pipes protrude into the combustion chamber. The following additional steps are required before installing the new combustion chamber:



- Cut off the left and right secondary air pipes directly at the sleeve using the angle grinder
- Put on the adapter pipes provided and push in as far as the boiler casing
- Pull the air pipes in the adapter pipe inwards and affix with the welder

## 2.5 Installing the new combustion chamber

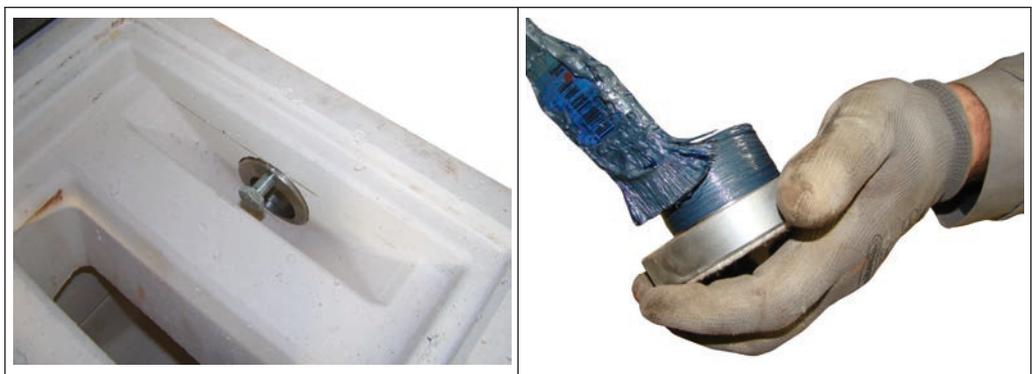
**NOTICE!** Before installing the combustion chamber, note the colour markings. Only stones with a red marking may be installed!



- Position the pallet provided in front of the boiler
- Place the bottom of the new combustion chamber on the pallet and boiler base



- Place the top of the new combustion chamber on top of the bottom
- Insert the secondary air bushing into the top of the combustion chamber from the outside
  - The flat part must be facing down



- Unscrew the clamping screws until the thread of the screws no longer protrudes into the bushing

- ❑ Insert the secondary air seals in the secondary air seal ring and join together with the secondary air spacer tubes and grease as shown



- ❑ Push the assembled unit with the seal cord facing out on the right and left into the secondary air bushings and secure with sticky tape
  - The sticky tape must be affixed to the side and must not cover the secondary air opening



- ❑ Push the entire combustion chamber back as far as the rear boiler wall



- ❑ Gently press the secondary air pipes onto the air openings in the boiler casing with clamping screws
  - Do not tighten as this will damage the seals!
- ❑ Place the combustion grate on the combustion chamber



- ❑ Bend the combustion chamber seal up approx. 3-4 cm at each end
- ❑ Place the seal at the front of the boiler with the turned up end facing up
  - The turned up end forms the side seal for the triangular stone



- ❑ Place the seal around the combustion chamber and push in with a blunt object
- ❑ Place the triangular stone at the front of the combustion chamber as shown
  
- ❑ Finally, fit the linking plates and combustion chamber door again
  - Follow the above steps in the reverse order to dismantle
    - ⇒ See "[Removing the old combustion chamber](#)" [page 5]

### 3 Heating up for the first time

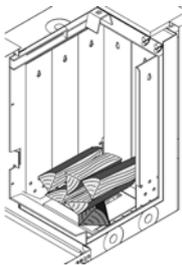
**⚠ CAUTION**

If the boiler heats up too quickly on initial start-up:

*If the output during the heating-up process is too great, the combustion chamber may be damaged as a result of drying out too rapidly!*

For this reason the following applies the first time you heat up the boiler:

- Start the firewood boiler for the first time in accordance with the heating instructions



***Heating instructions when starting up a firewood boiler for the first time***

- Place a piece of wood diagonally across the combustion chamber (see diagram on left)
  - Load the boiler with a small amount of firewood (max. 10-20% of the fuel loading chamber)
  - Ignite it and allow it to burn slowly with the central pre-heating chamber door open

**NOTICE! Fissures are normal and do not indicate a fault**

Once the material in the boiler has burnt down, the boiler can be used in accordance with the operating instructions ("Operating the system" section).