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SOHN

## HSP 7 DIANA GRANDE RLU 451.08

**Equipment sheet**  
Pellet stove

**GB**

# Notes in the text



Of utmost importance there are the notes entitled **WARNING**. The notes entitled **WARNING** advise you on **serious danger of damage to the heating device or of an injury**.



The note entitled **Notice** advises you on possible damage to your heating device.



The note entitled **Important** calls your attention to the information important for the operation of your heating device.



The note itself calls your attention to the information important for the operation of your heating device in general.

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# 1. Technical data

|  | <b>HSP 7 451.08</b>                                    |
|--|--|
| Heat output range:   | 2,4 – 8,2 kW   |
| Nominal heat output:   | 8,0 kW   |
| Height:  | 1173 mm  |
| Width:   | 494 mm   |
| Depth:   | 494 mm   |
| Weight:  | 132 kg   |
| Diameter of flue elbow:  | 80 mm  |
| Flue gas temperature:  | 197 °C   |
| Testing transport pressure at nominal output:  | 12 Pa  |
| Testing transport pressure at partial output:  | 6 Pa   |
| Flue gas flow rate in g/s  | 5,6 g/s  |
| CO level in flue gas (%) (min./max.)   | 0,01/0,03 %  |
| Efficiency:  | 90/94 %  |
| CO level in flue gas:  | 138 mg/Nm <sup>3</sup>                                 |
| NOx level in flue gas:   | 131 mg/Nm <sup>3</sup>                                 |
| OGC level in flue gas:   | 5 mg/Nm <sup>3</sup>                                   |
| Proportion of dust in flue gas:  | 17 mg/Nm <sup>3</sup>                                  |
| Contents of storage container (pellet tank):   | about 17 kg  |
| Duration of burn with one charge (min./max.):  | about 10 h/30 h  |
| Permitted fuel: Low-dust wood pellets  | diameter: 6 mm   |
| to Ö-Norm M 7135, DIN plus, EN plus-A1   | length: max. 30 mm                                     |
| Room heating capacity to Ö-Norm M 7521:  | max. 230 m <sup>3</sup>                                |
| Room heating capacity to DIN 18893, constant heating:                                | 250m <sup>3</sup> /145m <sup>3</sup> /98m <sup>3</sup> |
| Room heating capacity to DIN 18893, timed heating:                                   | 165m <sup>3</sup> /95m <sup>3</sup> /65m <sup>3</sup>  |
| Electricity supply:  | 230 V (50 Hz)  |
| Electricity supply input:  |  |
| in normal operation:   | max. 50 W  |
| Electric ignition (for max. 15 minutes on ignition):                                 | max. 380 W   |
| Electronics fuses: (F3)  | T 0,315 A, 250 V                                       |
| Fuses for the ignition, screw conveyor motor, induced draught, (F1), conv. fan (F2): | T 3,15 A, 250 V  |

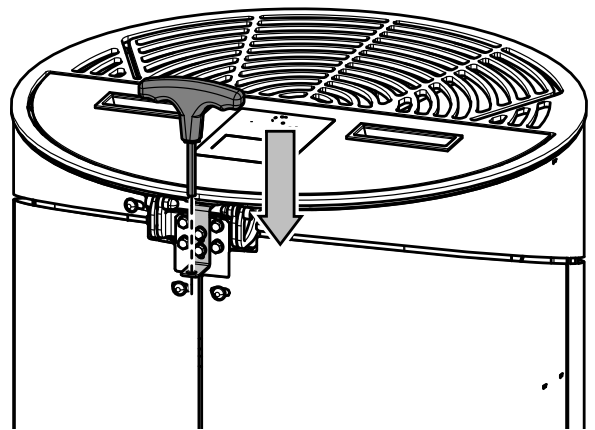
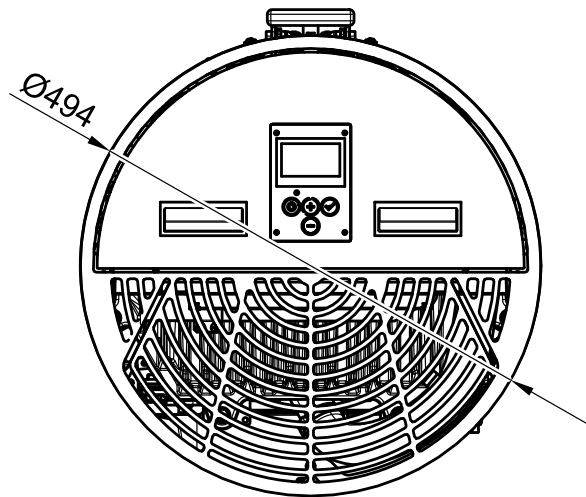
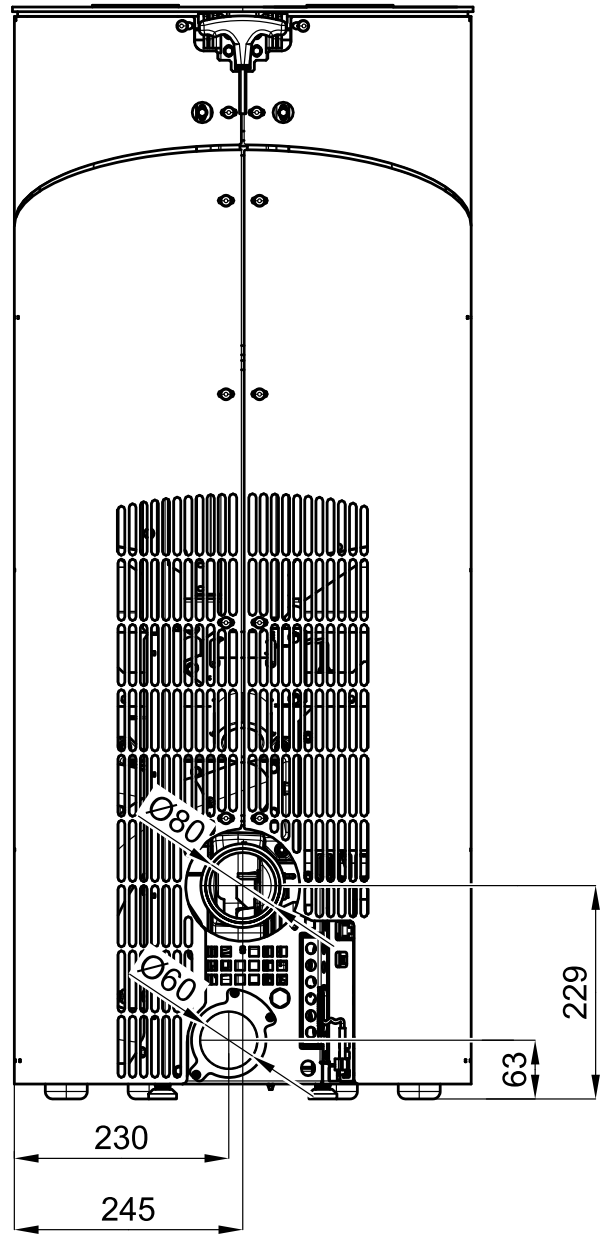
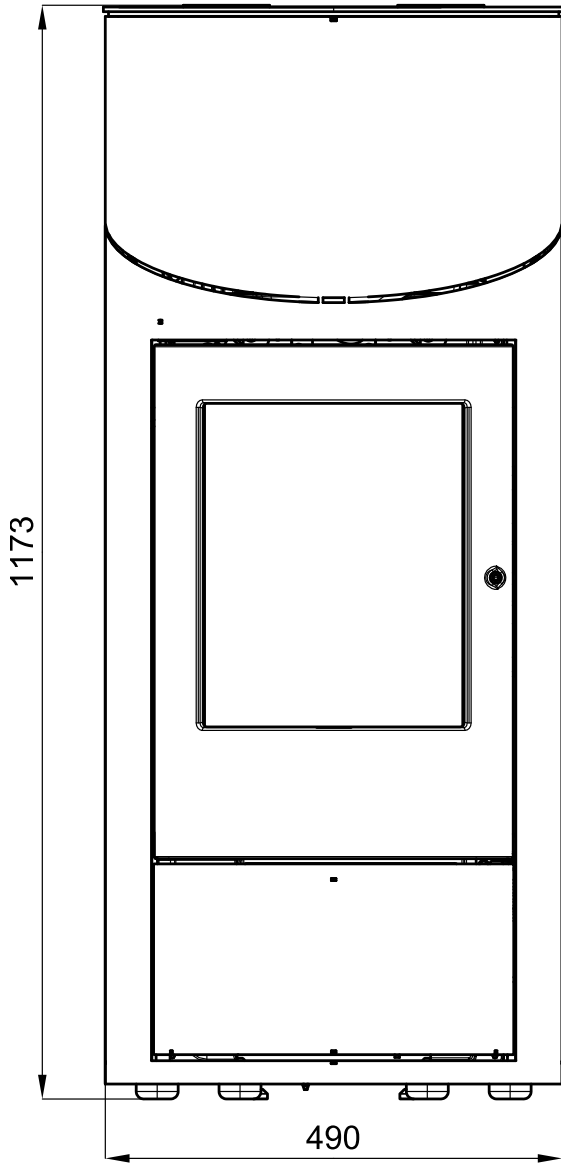
## Safety distances

|   |                         |       |
|---|-------------------------|-------|
| Minimal distances from flammable materials: | side:                   | 10 cm |
|   | rear:                   | 10 cm |
|   | front (radiation area): | 80 cm |

# 2. Dimensions

Dimensions

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# 3. Cleaning work



## WARNING

Before starting any cleaning work, the stove must be cool down!

Once the cleaning work is completed, the correct operating status of the device must be re-established: Put the combustion pot in correctly, close the combustion chamber door.

### 3.1. Cleaning the surface

Dirt on the upper surface of the stove may be cleaned off with a damp cloth or if necessary with mild soapy water. You are advised against using corrosive cleaning agents and solvents since these might damage the surfaces.

### 3.2. Cleaning the glass panel

To clean the viewing panel, you must first open the stove door. Dirt on the glass panel can be removed with a glass cleaner or with a damp sponge on which you have sprinkled some of the wood ash present. (Environmentally friendly). Cleaning the glass panel may only be done with a cooled down stove in the OFF operating mode.

### 3.3. Clean combustion chamber “function instruction” Error F040

- The whole combustion space must be cleaned after **30-hours operation at the latest, or once a week**.
- The requirement to clean the fire-box (flickering of the display) appears during heating, in case that the cleaning interval has elapsed.
- After the fire-box has been cleaned, the error message "Clean the fire-box" will be confirmed automatically. The condition for automatic confirmation of this error message is that the fire-box door is opened for more than **60 seconds**. This time is necessary for careful cleaning of the fore-box, including the burner.
- This reset of the operating hours counter occurs even if the cleaning of the combustion chamber is performed before the 30 operating hours have run provided that the stove is in “Off” operating status and the door is open for longer than 60 seconds during cleaning.

### 3.4. Cleaning the combustion pot - weekly

During operation, deposits may form in the combustion pot. How quickly the combustion pot becomes dirty depends solely on fuel quality. The deposits or encrustations must be removed from time to time.



## **WARNING**

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If this is not done, the clinker will continue to accumulate. Then the device will no longer be able to ignite properly. Pellets can pile up in the combustion pot. In extreme cases, this can reach all the way back to the pellet chute. Backfire in the pellet container and smouldering in the pellet tank might possibly result.

**This will destroy your device and is not covered in your guarantee.**

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## **WARNING**

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**Cleaning the combustion pot may only be done with a cooled down stove in “OFF” operating mode. Otherwise there is a risk of burns!**

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- Take out the burner bowl from the stove.
- Remove the remains of ashes and slag.
- After the cleaning, mount the burner bowl back to its proper position on the burner rest.
- Re-check the proper seating of the burner bowl, in order to avoid any lack of tightness.



# 4. Maintenance work



## WARNING

**Before starting any cleaning work, the stove must be cool down! The mains plug must be pulled out of the power supply socket (always in advance)!**

The frequency of maintenance in turn depends to a large extent on the pellet quality (ash content). Quality pellets have a low ash content of about 0.2-0.3%. However, if the ash content is higher (0.5% and over), the interval from maintenance to maintenance is reduced and the accumulation of ash increases by 2 or 3 times.



## WARNING

**Devices that are not maintained in accordance with our specifications must not be operated. Failure to observe this point will invalidate all guarantee claims.**

## 4.1. Cleaning the flue gas passes



### CAUTION

Check and clean the flue-gas ways, exhaust (flue-gas) fan and flue-gas ducts at the latest after 1000 kg of pellets have been consumed. Clean with a brush or an ash extractor.



### CAUTION

After completion of the cleaning make sure that when putting back the covers, the seals are seated in the right positions. It is essential to replace defective seals.

Please perform the long-time cleaning in four steps:

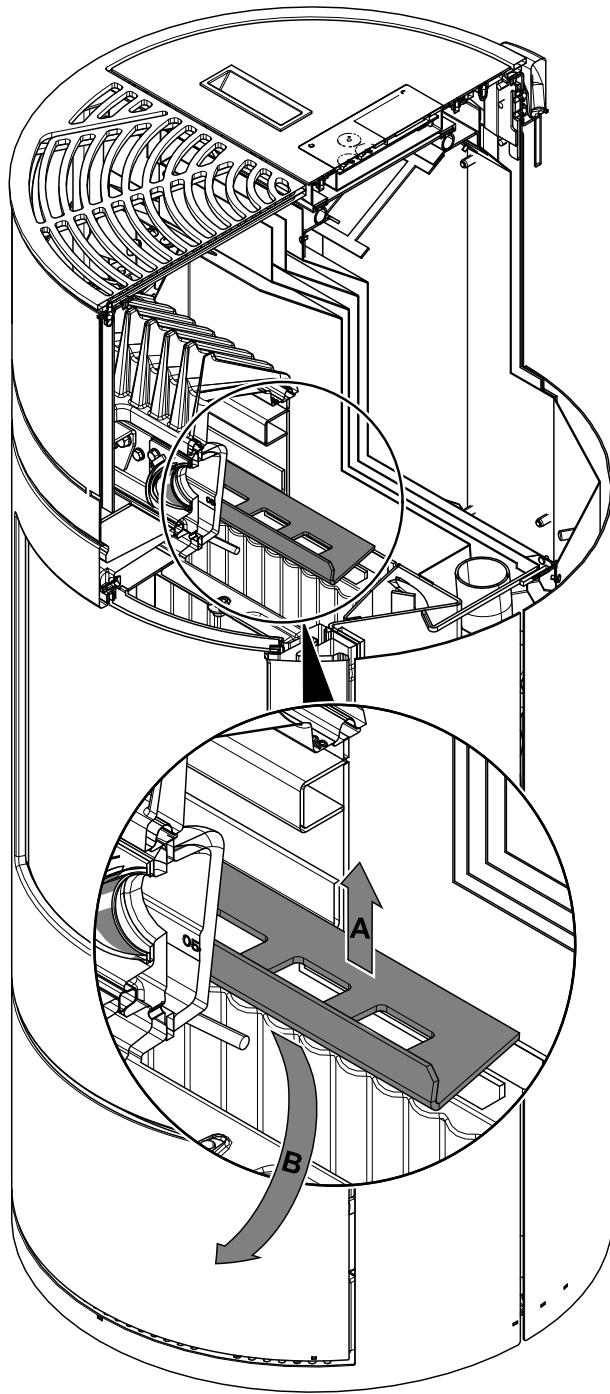


Figure 1: Removing the flue baffle

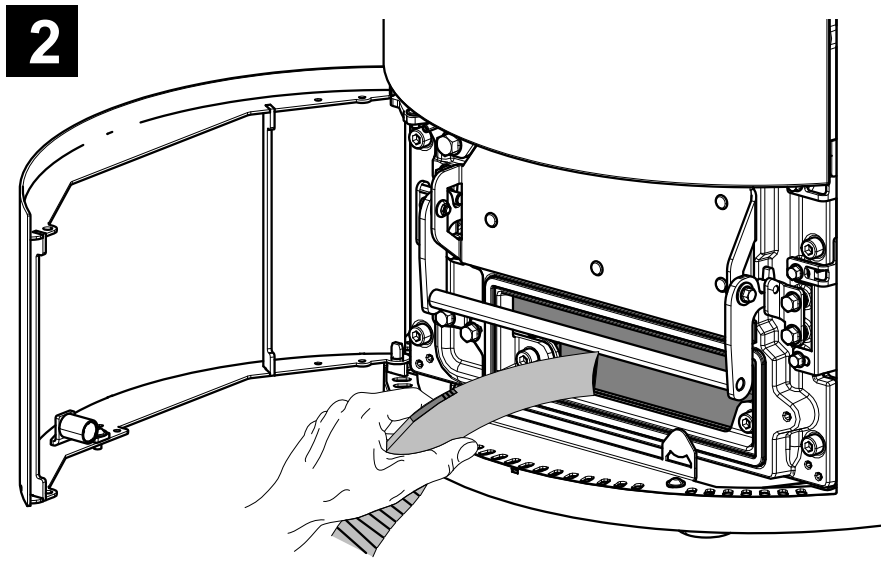
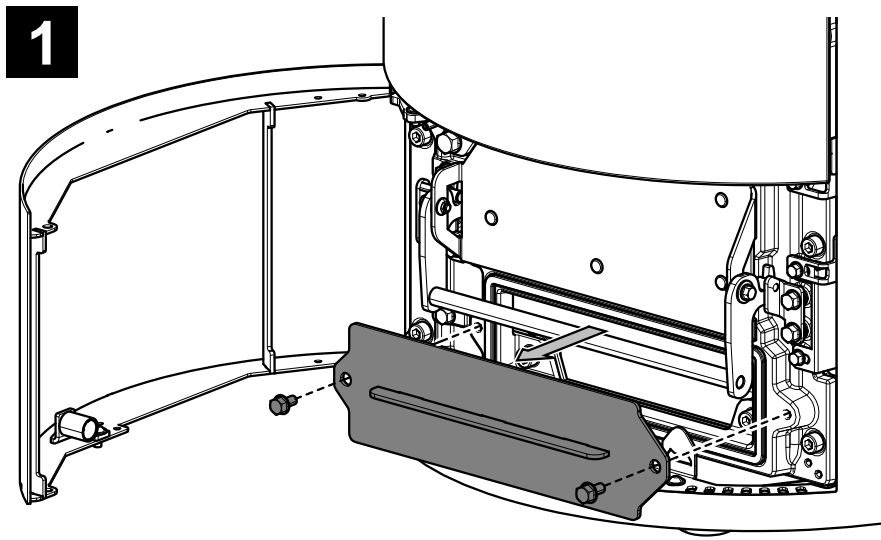
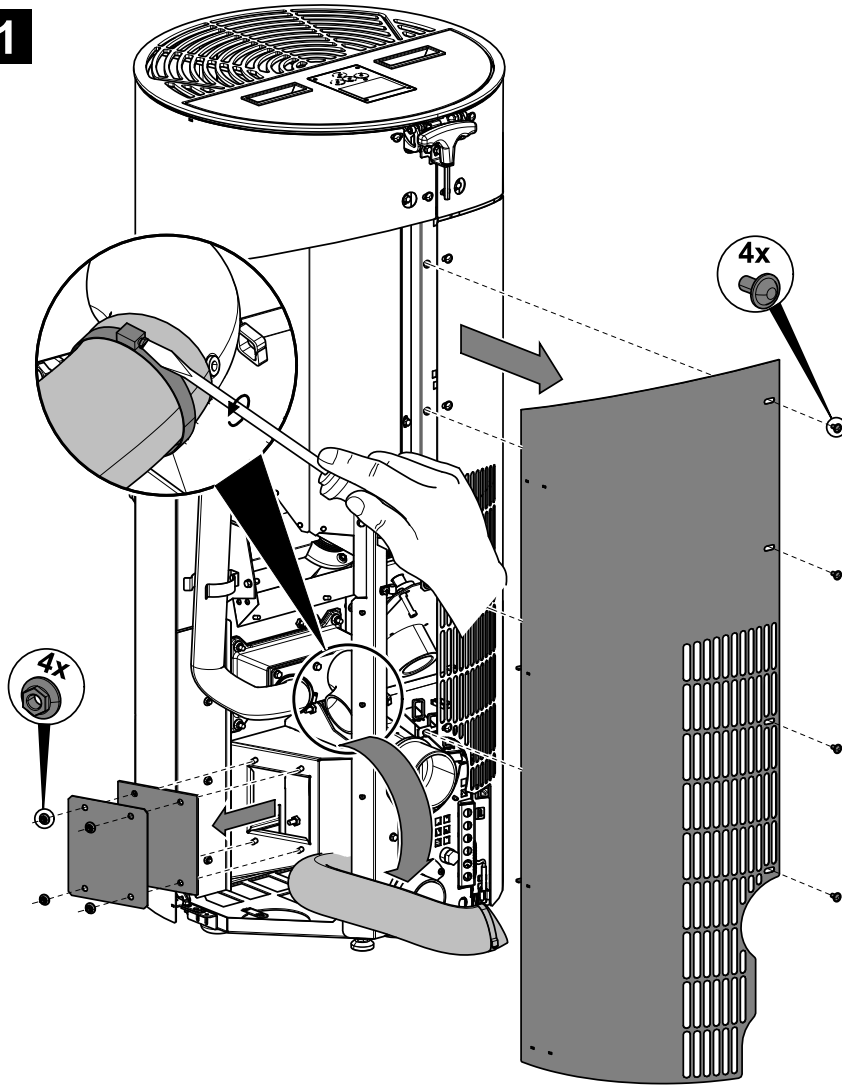


Figure 2: Removing the cleaning cover

1



2

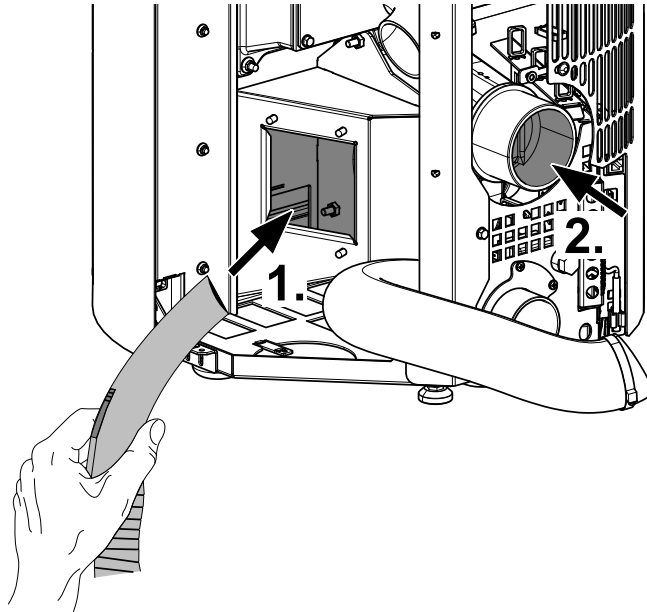
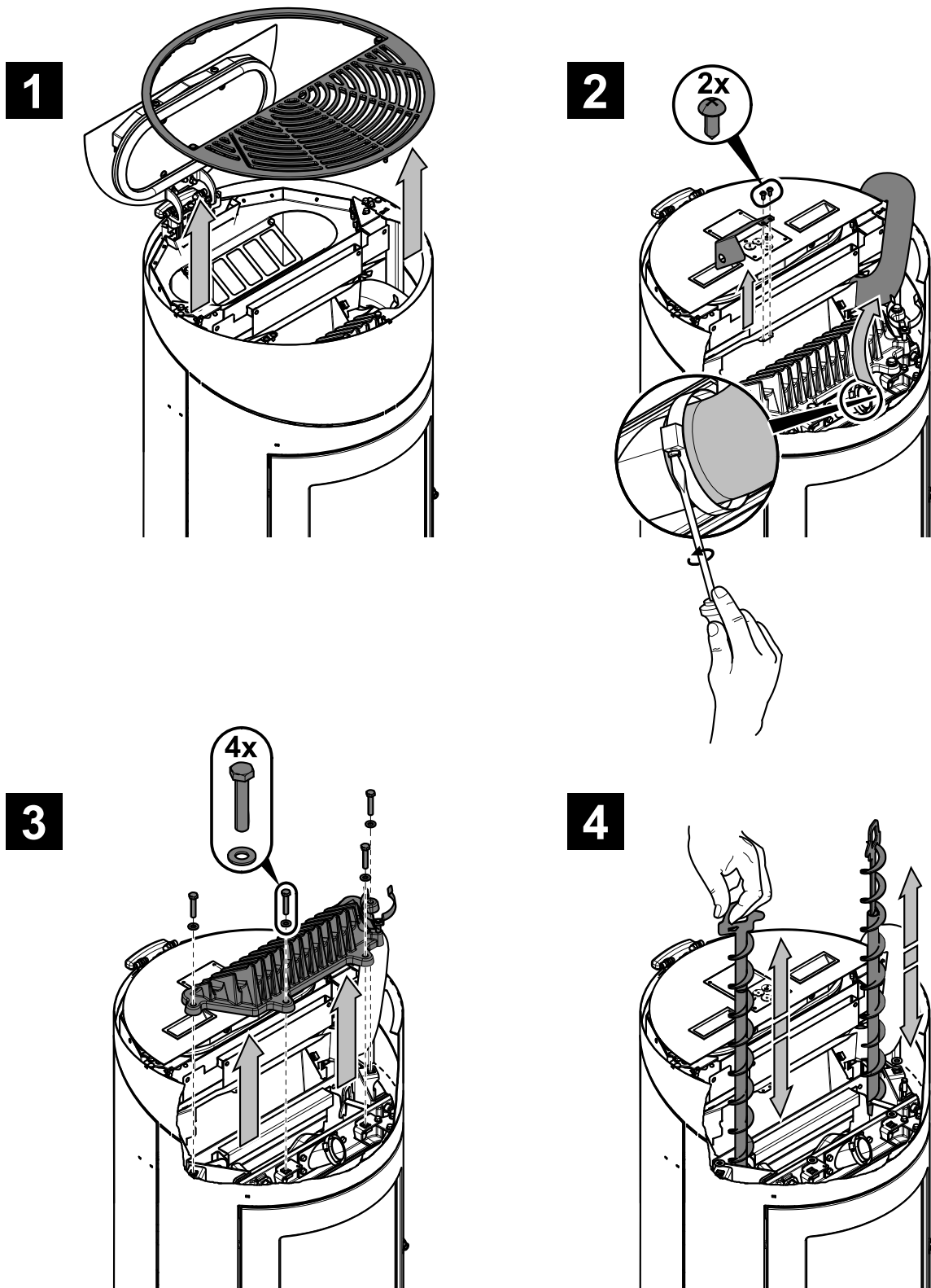


Figure 3: Removing the side wall

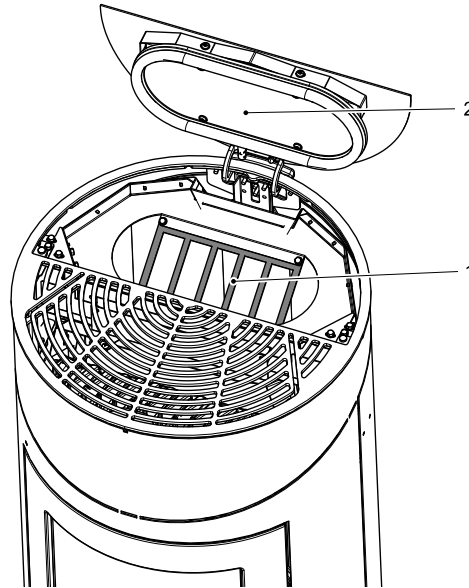


**Figure 4: Shake the turbulator**

- For cleaning the flue gas passes, shake the turbulator 5 times at least, in compliance with the Fig. 4, pos. 4.

## 4.2. Cleaning the pellet container - annual maintenance

- Heat the pellet stove until the storage tank is completely empty.
- Then the protective grille (1) in the pellet tank may be removed.
- Then clean the tank and the intake of the screw conveyor housing with a vacuum cleaner.
- After cleaning, it is essential to put back the protective grille. When doing this, make sure that no screws fall into the pellet tank so as to avoid consequential damage to the screw conveyor.

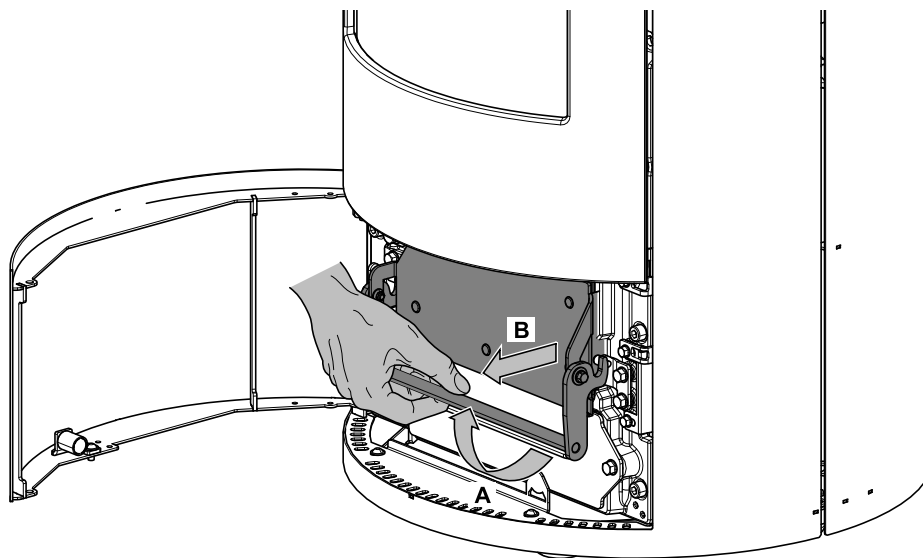


**Figure 5: Pellet tank**

- 1 Protective grille
- 2 Tank cover

## 4.3. Cleaning of the ash pan - once a week

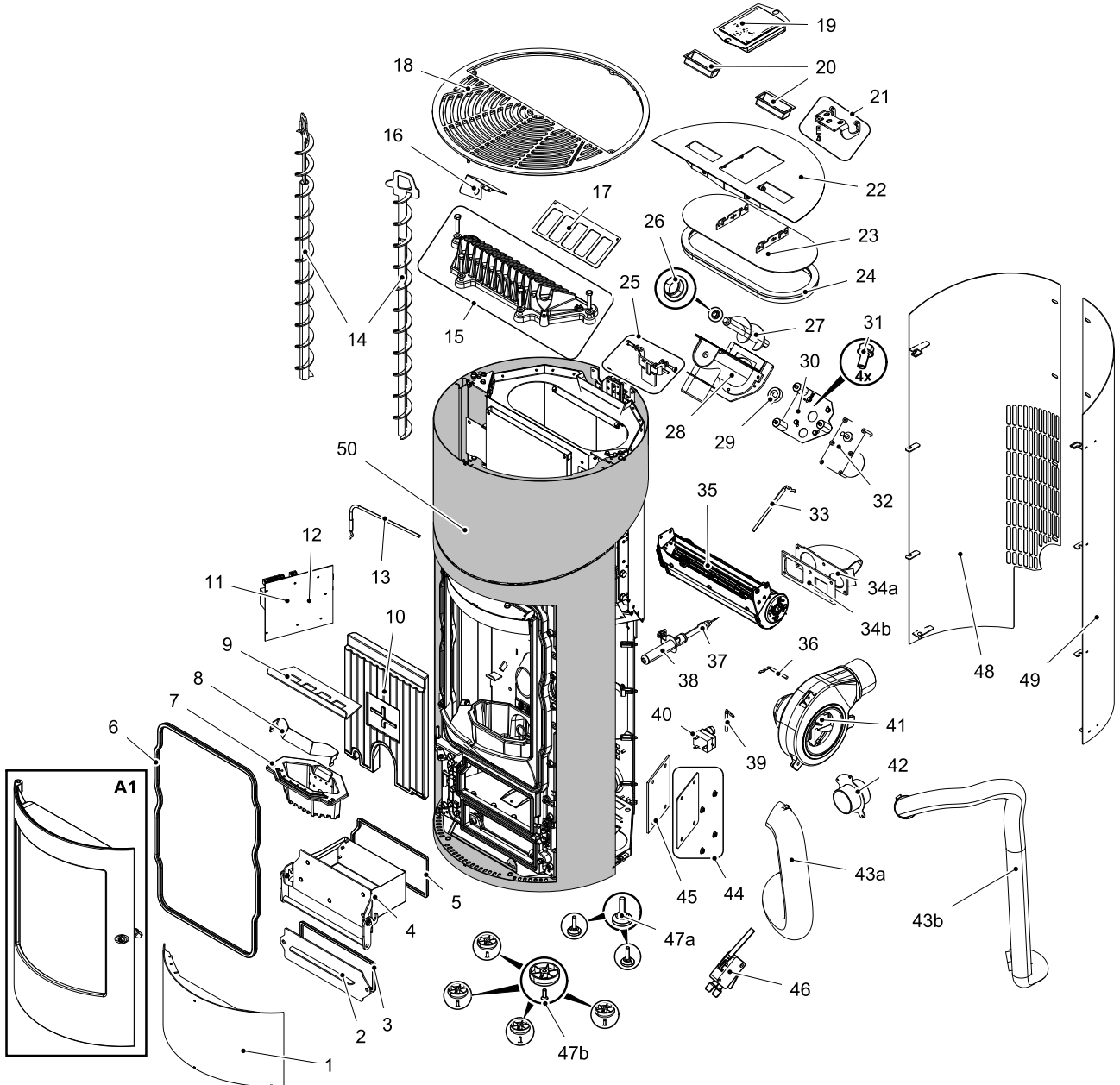
- Open door, push handle up, and pull out the ash bin.



**Figure 6**

# 5. Replacement parts list

## 5.1. Replacement parts list HSP 7 DIANA GRANDE RLU 451.08



Replacement parts list

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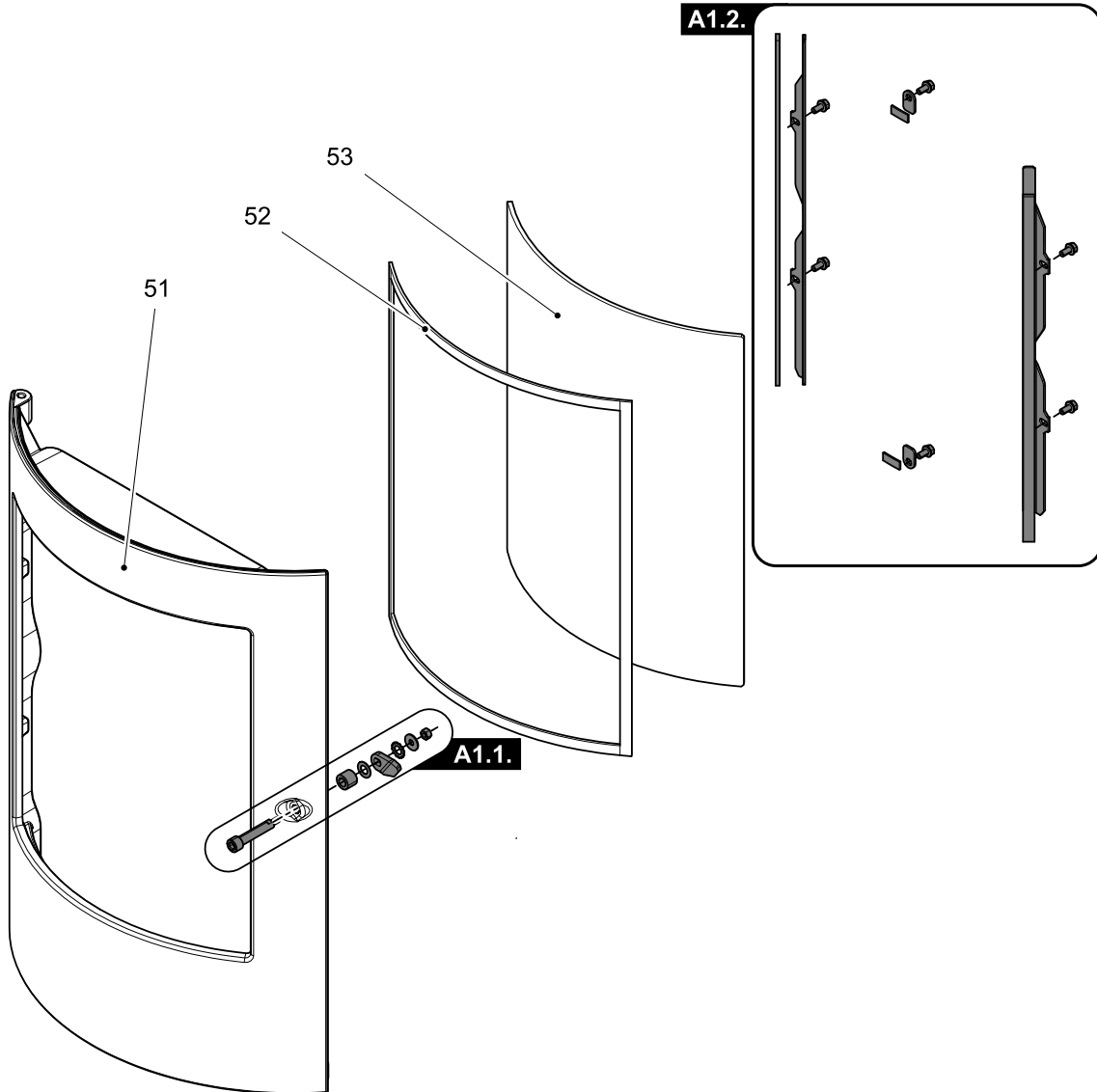
| Pos.  | Description                                   | Piece   | Spare part number |
|---|---|---------|-------------------|
| <b>Replacement parts list HSP 7 DIANA GRANDE RLU 451.08</b> |   |         |                   |
| <b>A1</b>   | Complete combustion chamber door/black        | 1 piece | 0545008005300     |
| <b>A1</b>   | Complete combustion chamber door/black-glossy | 1 piece | 0545008115300     |
| <b>1</b>  | Ash door panel/black                          | 1 piece | 0545008105330     |
| <b>1</b>  | Ash door panel/black-glossy                   | 1 piece | 0545008125330     |
| <b>2</b>  | Cleaning cover front/black                    | 1 piece | 0545008005037     |

|     |                                       |         |               |
|-----|---------------------------------------|---------|---------------|
| 3   | Seal for cleaning cover 8 mm (620 mm) | 1 piece | 0040008080005 |
| 4   | Ash pan/black                         | 1 piece | 0545008105600 |
| 5   | Seal for ash pan 8 mm (670 mm)        | 1 piece | 0040008080005 |
| 6   | Seal door 11 mm (1600 mm)             | 1 piece | 0040300110006 |
| 7   | Burner cast/black                     | 1 piece | 0545008006756 |
| 8   | Protection grate                      | 1 piece | 0551908006709 |
| 9   | Draught baffle plate/black            | 1 piece | 0545008005073 |
| 10  | Furnace back wall Vermiculite         | 1 piece | 0545008005041 |
| 11  | Complete control unit                 | 1 piece | 0545008007569 |
| 12  | Backup battery CR 2032                | 1 piece | -             |
| 13  | Flame temperature sensor              | 1 piece | 0553808005541 |
| 14  | Turbulator                            | 2 piece | 0545008005030 |
| 15  | Furnace lid/black                     | 1 piece | 0545008006871 |
| 16  | Baffle plate                          | 1 piece | 0545008007652 |
| 17  | Protective grille                     | 1 piece | 0545008105981 |
| 18  | Metal cover plate/black               | 1 piece | 0545008106210 |
| 18  | Metal cover plate/black-glossy        | 1 piece | 0545008115210 |
| 19  | Operator console                      | 1 piece | 0571207005510 |
| 20  | Grip                                  | 2 piece | 0089500940005 |
| 21  | Tank cap hinge/black                  | 1 piece | 0545008108341 |
| 22  | Tank cover/black                      | 1 piece | 0545008107321 |
| 22  | Tank cover/black-glossy               | 1 piece | 0545008115321 |
| 23  | Profile retaining plate               | 1 piece | 0545008006331 |
| 24  | Seal, tank cover (1000 mm)            | 1 piece | 0546608005189 |
| 25  | Tank cap hinge/black                  | 1 piece | 0545008105931 |
| 26  | Lower screw conveyor bearing          | 1 piece | 0571207005026 |
| 27  | Screw conveyor                        | 1 piece | 0571207005030 |
| 28  | Conveyor                              | 1 piece | 0571207016060 |
| 29  | Collet                                | 1 piece | 0089000345000 |
| 30  | Motor plate - set                     | 1 piece | 0551908007080 |
| 31  | Screw UN5950 M5x10                    | 4 piece | -             |
| 32  | Screw conveyor motor                  | 1 piece | 0089500000006 |
| 33  | Bottom temperature sensor             | 1 piece | 0561008005543 |
| 34a | Suction flange                        | 1 piece | 0545108115335 |
| 34b | Seal for suction flange               | 1 piece | 0545008007333 |
| 35  | Conv. fan                             | 1 piece | 0545008007600 |
| 36  | Flue gas thermosensor                 | 1 piece | 0553808005540 |



|     |                              |         |               |
|-----|------------------------------|---------|---------------|
| 37  | Ignition                     | 1 piece | 0541908005202 |
| 38  | Lighter case                 | 1 piece | 0545008105220 |
| 39  | Room temperature sensor      | 1 piece | 0089500390005 |
| 40  | OC                           | 1 piece | 0089500080005 |
| 41  | Induced draught fan          | 1 piece | 0561008005807 |
| 42  | Air inlet funnel             | 1 piece | 0545008105920 |
| 43a | Hose Meniflex AL L=570       | 1 piece | 0545008105315 |
| 43b | Hose foxiVulca L=1200        | 1 piece | 0545008105317 |
| 44  | Cleaning cover back/black    | 1 piece | 0545008005052 |
| 45  | Seal for cleaning cover      | 1 piece | 0545008005081 |
| 46  | Door contact switch          | 1 piece | 0089500040005 |
| 47a | Stand - back                 | 2 piece | 0551908505005 |
| 47b | Stand                        | 4 piece | 0089501090005 |
| 48  | Side wall left/black         | 1 piece | 0545009015151 |
| 48  | Side wall left/grey          | 1 piece | 0545009005151 |
| 48  | Side wall left/white         | 1 piece | 0545009006151 |
| 48  | Side wall left/black-glossy  | 1 piece | 0545009025151 |
| 48  | Side wall left/grey-glossy   | 1 piece | 0545009065151 |
| 48  | Side wall left/blue          | 1 piece | 0545009035151 |
| 48  | Side wall left/red           | 1 piece | 0545009045151 |
| 48  | Side wall left/copper brown  | 1 piece | 0545009055151 |
| 49  | Side wall right/black        | 1 piece | 0545009015141 |
| 49  | Side wall right/grey         | 1 piece | 0545009005141 |
| 49  | Side wall right/white        | 1 piece | 0545009006141 |
| 49  | Side wall right/black-glossy | 1 piece | 0545009025141 |
| 49  | Side wall right/grey-glossy  | 1 piece | 0545009065141 |
| 49  | Side wall right/blue         | 1 piece | 0545009035141 |
| 49  | Side wall right/red          | 1 piece | 0545009045141 |
| 49  | Side wall right/copper brown | 1 piece | 0545009055141 |
| 50  | Front panel/black            | 1 piece | 0545009015100 |
| 50  | Front panel/grey             | 1 piece | 0545009005100 |
| 50  | Front panel/white            | 1 piece | 0545009025100 |
| 50  | Front panel/black-glossy     | 1 piece | 0545009045100 |
| 50  | Front panel/grey-glossy      | 1 piece | 0545009085100 |
| 50  | Front panel/blue             | 1 piece | 0545009055100 |
| 50  | Front panel/red              | 1 piece | 0545009065100 |
| 50  | Front panel/copper brown     | 1 piece | 0545009075100 |

## 5.2. Detail A1

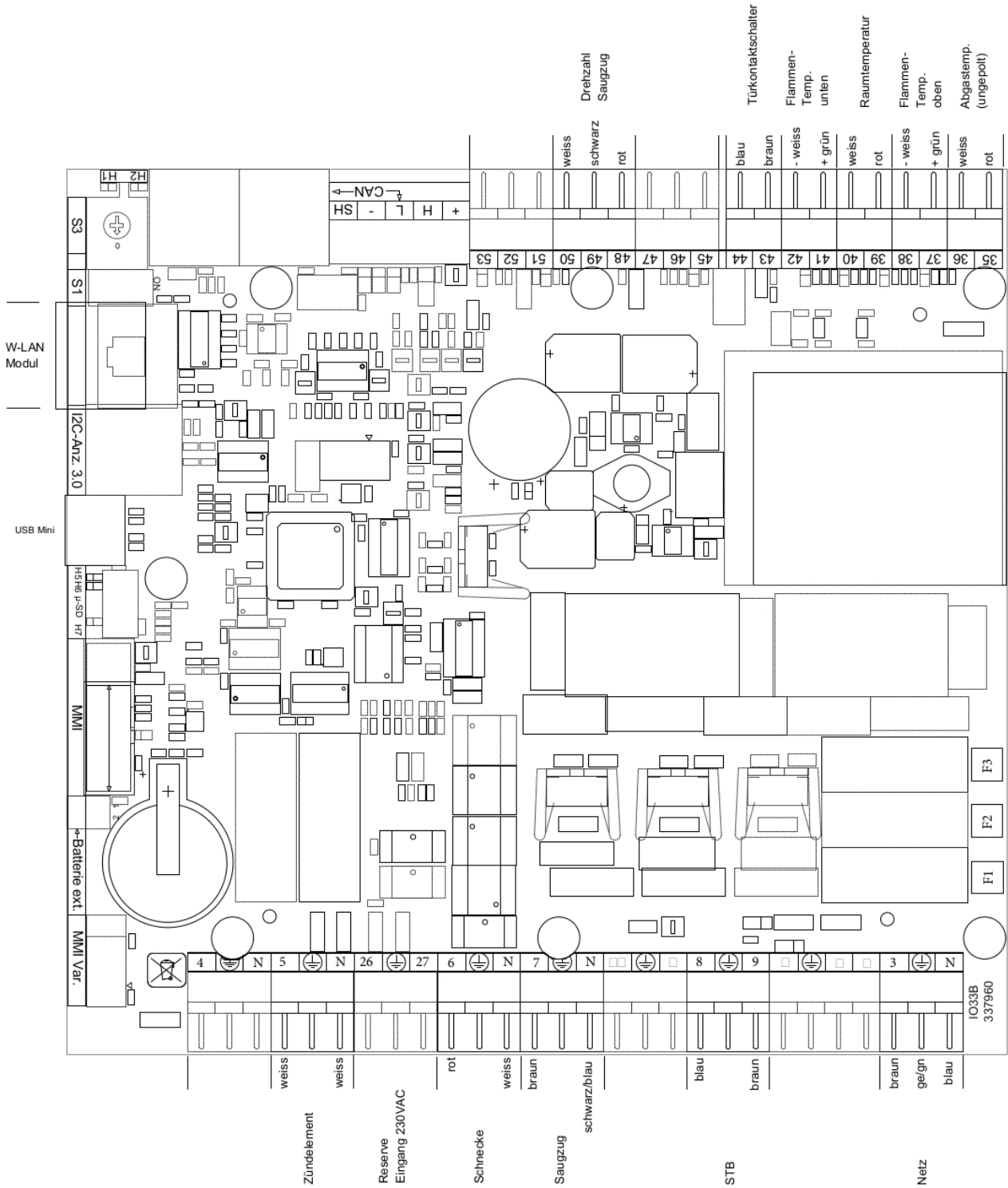


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| Pos.             | Description                   | Piece   | Spare part number |
|------------------|-------------------------------|---------|-------------------|
| <b>Detail A1</b> |                               |         |                   |
| <b>A1.1.</b>     | Screwing door - Set           | 1 piece | 0545008005221     |
| <b>A1.2.</b>     | Glass holder/black - Set      | 1 piece | 0545008005222     |
| <b>51</b>        | Combustion chamber door/black | 1 piece | -                 |
| <b>52</b>        | Seal glass 8x2 mm (1340 mm)   | 1 piece | 0040208020005     |
| <b>53</b>        | Door glass                    | 1 piece | 0545008005309     |

# 6. Circuit diagram

Circuit diagram IO 33.3



**Description Circuit diagram:**

|       |   |
|-------|---|
| No.:  | Description Cable harness   |
| 3     | Mains plug / mains filter   |
| 5     | Electric ignition   |
| 6     | Screw conveyor motor  |
| 7     | Induced draught   |
| 8/9   | OC  |
| 10    | Conv. fan   |
| 35/36 | Flue gas temperature sensor                                       |
| 37/38 | Flame temperature sensor  |
| 39/40 | Room temperature sensor   |
| 41/42 | Bottom flame temperature sensor                                   |
| 43/44 | Door contact switch   |
| 48-50 | Flue gas fan rotation speed                                       |
| F1    | Fuse T 3,15 A ignition, induced draught fan, screw conveyor motor |
| F2    | Fuse T 3,15 A conv. fan   |
| F3    | Fuse T 0,315 A operator console                                   |

