

ALFA 70 ET

Installation operation and maintenance
EN · 2026



ALFA 70 ET central-heating cooker. Colour and handedness may vary.

Read this manual before installation and first firing. Fire the cooker only with a filled, vented and correctly connected heating system. This version uses an integrated cooling coil and an external thermal safety valve for overheating protection. Verify that the actual appliance matches this version before connection. Keep this manual with the appliance documents.

Manufacturer ALFA-PLAM D.O.O., Radnička 1, 17500 Vranje, Serbia. English manual adapted for SVT Balti OÜ.

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This manual covers the ALFA 70 ET cooker with a water jacket. It is not the manual for the ALFA 70 Dominant wood cooker. ET is part of the factory model name; EE identifies the Estonian manual.

1 Intended use and responsibility

ALFA 70 ET is a wood-fired cooker with a water jacket for heating the room and a hot-water heating system, cooking and baking. Operation is intermittent with the firebox door closed. Domestic hot-water production requires a separately designed system and a suitable heat exchanger. The cooling coil is a safety device and must not be used to heat domestic water.

The installer is responsible for proper installation and connection. Installation, heating-system design and testing must be carried out by an appropriately qualified specialist. Electrical work requires a qualified electrician. Have a competent specialist assess chimney and ventilation suitability. Follow local fire and building requirements and component manufacturers' instructions.

The manufacturer disclaims responsibility for consequences of disregarding instructions, misuse, unapproved modifications, poor maintenance and unsuitable spare parts. Use parts intended for this model. Closing, blocking or modifying safety valves without authorisation is prohibited.

The cooker, doors, cooking surface, flue pipe and controls become hot. Use heat-resistant gloves and the supplied tool. Users must understand safe operation. Children aged eight or over and people with reduced capabilities may use the appliance only with appropriate instruction and supervision. Children must not play with it or clean it unsupervised.

2 Transport and receipt

Keep the cooker upright during transport; tilting forward can overturn it. Use lifting equipment rated above the cooker's weight and avoid sudden movements. Remove packaging and inspect the body, doors, accessories and connections. Do not install or fire a damaged appliance. Keep films, bags and foam away from children.

3 Technical data

Nominal output	12.2 kW
Output to room	4.6 kW
Output to water	7.6 kW
Efficiency at nominal output	76 %
Seasonal space efficiency	67 %
Energy class and EEI	A / 101
Dimensions W × D × H	700 × 600 × 850 mm
Maximum operating pressure set in this manual	2.0 bar or lower rating-plate limit
Net weight	119 kg
Flue connection	Ø120 mm
Minimum chimney draught	16 Pa
Flue gas outlet temperature	271 °C
Flue gas temperature	226 °C
Flue gas mass flow	17.5 g/s
Chimney fire-safety designation	T400 G
Permitted chimney load on cooker	0 kg
Heating-water flow and return	1 inch
Pressure safety-valve connection	½ inch
Cooling-coil connections	½ inch
Fuel	Dry untreated logs
Operation	Intermittent, firebox door closed

Emissions at nominal output, 13% O₂: CO 1315 mg/Nm³; NO_x 65 mg/Nm³; OGC 47 mg/Nm³; PM 25 mg/Nm³. Nominal data follow DoP ALFA 70 ET 02/26 and the product information sheet.

Overall dimensions follow the factory dimensional drawing. Check actual connection threads and projections before installation.

4 Parts and handedness



Figure 2. Main cooker parts.

1	Firebox door
2	Cooker cover
3	Ash-pan door
4	Oven door
5	Cleaning-opening protective cover
6	Fuel drawer
7	Flue connector

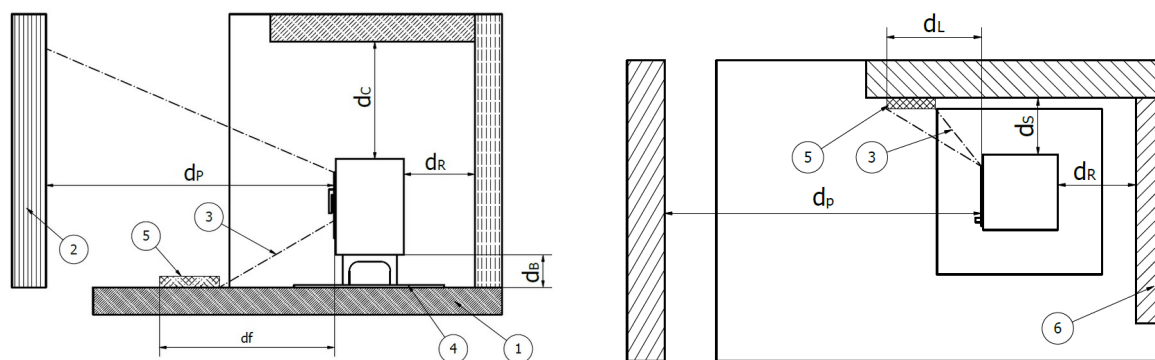
Determine handedness facing the cooker. The right-hand version has the oven and flue connection on the right and the firebox on the left; the left-hand version is mirrored. Figures may show one version. Select connections according to the actual appliance.

5 Installation and fire clearances

Install the cooker in a kitchen or other suitable room on a load-bearing non-combustible base. Set it level; the factory allows raising its rear by 3–4 mm. Check floor capacity for the cooker, water and pipework. Allow access for maintenance and cleaning.

Rear	300 mm
Sides	400 mm
Front	1500 mm
Side-radiation zone	1500 mm
Above and ceiling	>750 mm
Floor protection in front	≥500 mm
Floor protection to sides	≥100 mm

These are minimum distances to combustible materials. Follow any stricter rating-plate or local requirement. On a combustible floor, protection must extend at least 500 mm in front and 100 mm to the sides. Declared dB and dF = 0 mm do not waive floor protection. Keep furniture, textiles, fuel and other combustibles outside the safety clearances.



Figures 3 and 3a. Factory placement and fire-safety diagrams. Floor-protection extension is a separate requirement.

Radiation-diagram numbers: 1 floor; 2 front plate; 3 radiation area; 4 floor protection; 5 critical radiation area; 6 walls. Follow the flue-pipe and chimney manufacturers' clearances and local requirements. The cooker manual's 300 mm guide does not replace stricter flue-pipe clearances.

6 Combustion air and ventilation

Ensure continuous fresh-air supply, for example through an opening low in the wall. Do not close air openings. Airtight windows and doors, cooker hoods and extraction fans can create negative pressure and draw smoke indoors. Have a specialist assess air supply and simultaneous extraction before installation.

Factory options include ducting through a basement, supply from a separated basement open outdoors, supply from above through a tested chimney system, or directly through an external wall. These require professional calculation and suitability checks. Avoid dusty or humid air and condensation. The figure shows room air supply and does not establish a direct outside-air connection on the cooker.

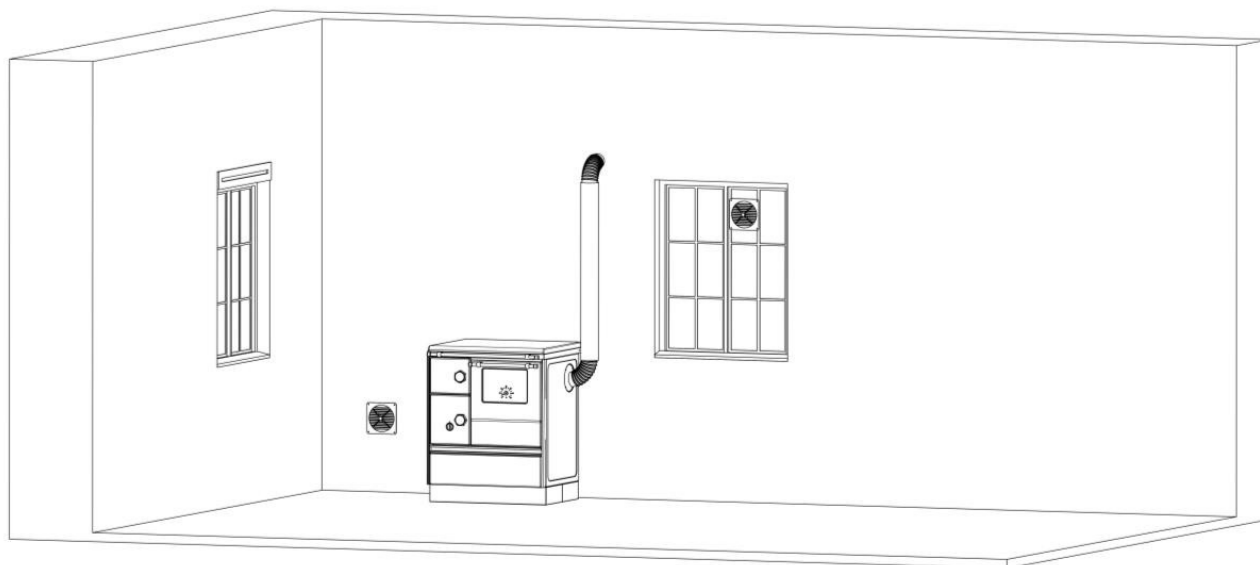


Figure 4. Fresh-air supply to the room.

7 Chimney connection

Check chimney section, material, height, integrity, cleaning access, obstructions and wind protection. Nominal operation requires at least 16 Pa draught. Weak draught causes smoke and poor combustion; excessive draught can overfire the cooker. Have a specialist assess the chimney and any draught regulator.

Use rigid Ø120 mm flue pipe, not flexible hose. The connection must rise towards the chimney and the gas path must not narrow. Secure and seal joints with suitable heat-resistant asbestos-free seals. The chimney must not load the cooker. Check door, cooking-surface cover and air-regulator sealing and operation.

Factory chimney-height guide	6 m: 140 × 140 mm; 7–9 m: Ø120 mm. These do not replace chimney calculation.
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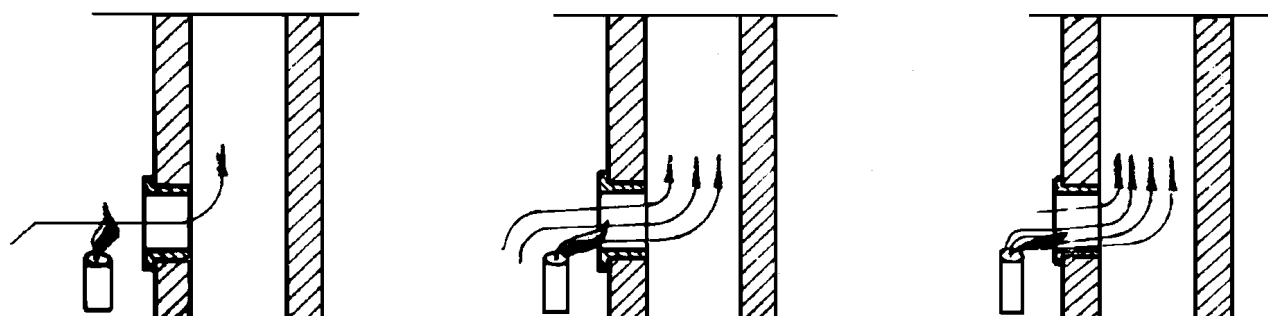
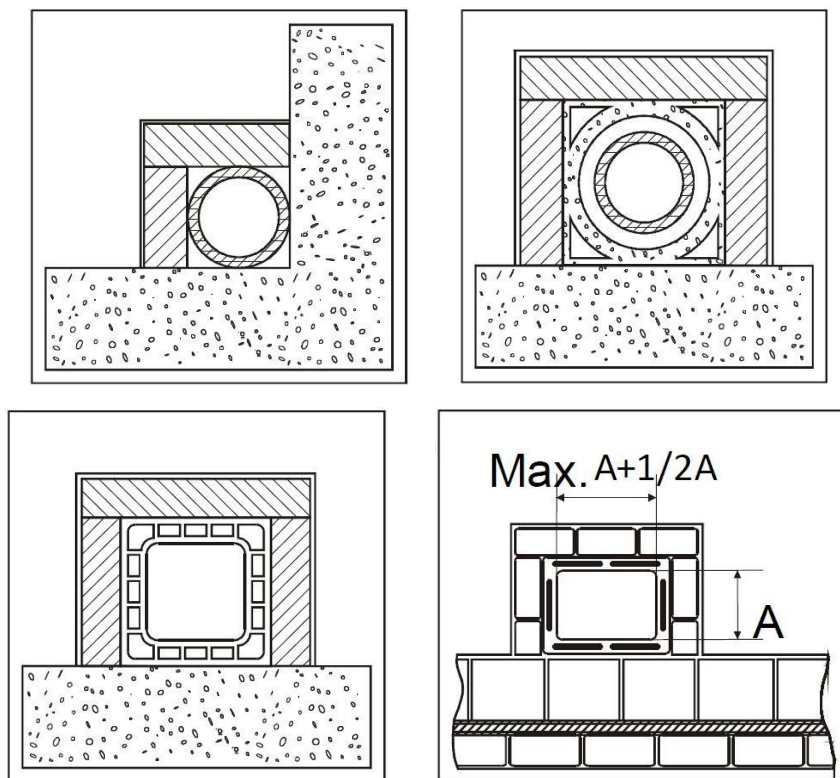


Figure 5. From left: weak, suitable and very strong chimney draught.



Factory chimney examples: insulated steel, insulated fire-resistant construction, clay chimney and unsuitable elongated section. Suitability requires calculation.

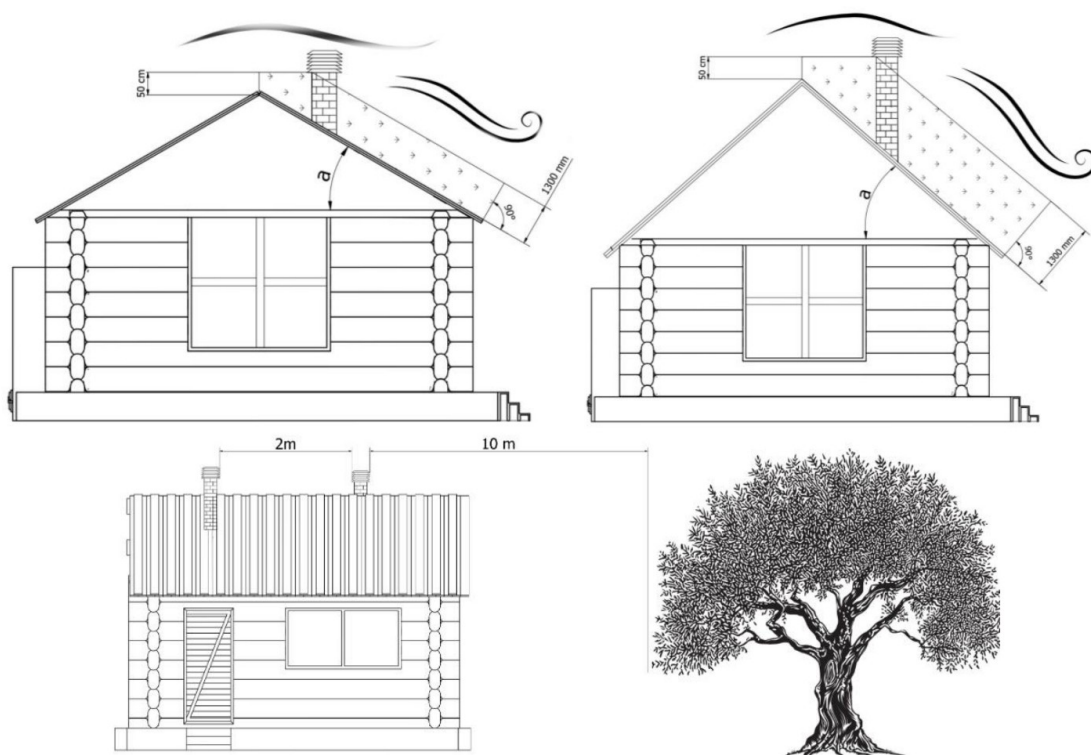


Figure 6. Factory chimney-location diagrams. Follow local roof and chimney-height requirements.
Connection to heat-storage masonry requires consultation with a specialist and may take place only at the consumer's own risk.

8 Water heating and pressure protection

A specialist must design the installation and verify the actual model, connections and permissible operating pressure. The cooker may connect to a designed open or closed water-heating system. Flow and return connections are nominally 1 inch; cooling-coil connections are ½ inch. Check actual thread types before selecting fittings. All joints must be leak-tight.

This manual sets a conservative maximum operating pressure of 2.0 bar. If the rating plate or any system component specifies a lower limit, the lower value applies. The pressure safety-valve setting must not exceed this limit; a specialist checks suitability and protection performance. No isolation valve may separate the safety valve from the cooker, and discharge must be safe and unobstructed.

A specialist performs pressure and leak testing under a manufacturer-approved procedure. The factory manual's 0.2 MPa / 2 bar value concerns a water pressure test; it does not establish maximum operating pressure or automatically set the safety valve. Test pressure must suit every system component. Do not fire the cooker during testing.

Provide a suitable expansion vessel, pressure gauge, thermometer, vents and filling/draining arrangements. The recommended minimum setting for the pump contact thermostat is 57 °C. The installer must ensure heat dissipation and suitable return temperature, prevent condensation and account for power failure. Underfloor heating requires a separately temperature-limited mixing arrangement; do not connect hot flow directly to floor-heating pipes.

9 Cooling coil and thermal protection

The ALFA 70 ET version in the factory manual has an integrated copper cooling coil. During overheating, the thermal safety valve sends cold water through this separate coil and discharges hot water safely to drain. This safety circuit is separate from the heating water jacket. Do not use this diagram to feed cold water directly into the water jacket.

A closed system requires a thermal safety valve. The factory manual does not mandate it for an open system, but the designer must assess adequate protection under local requirements in every case. Thermal and pressure safety valves are not supplied with the cooker. Sensor position, flow direction and required water supply must meet valve and cooker requirements.

Cooling-water supply and safe unobstructed drainage must remain available during power failure. If water depends on an electric pump, the installer must provide supply during outages. Circulation-pump backup power can support heat dissipation but does not replace required thermal protection. A specialist checks protection before first firing. If the actual cooker has no cooling coil, this connection arrangement does not apply; obtain manufacturer instructions for that version before installation.

10 Open-system diagram

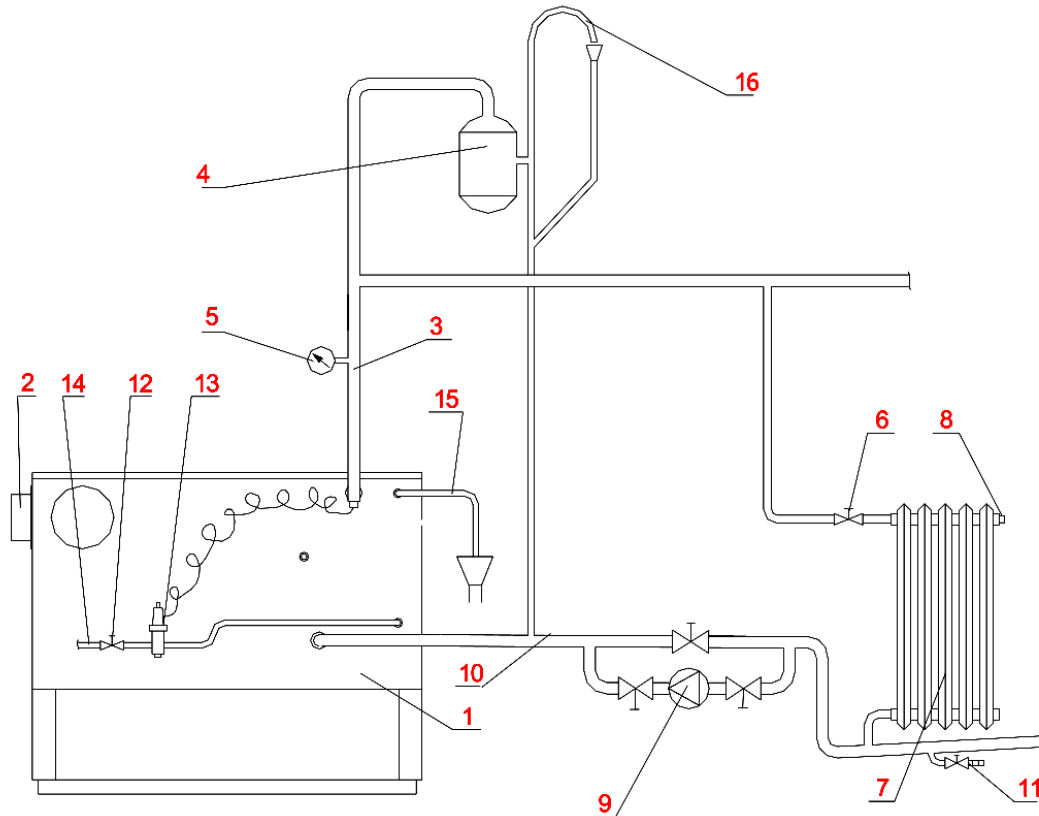


Figure 7. Open-system principle diagram. It does not replace the installation design.

1	Water jacket
2	Flue connector
3	Flow
4	Open expansion vessel
5	Pressure gauge
6	Radiator valve
7	Radiator
8	Air vent
9	Circulation pump
10	Return
11	Fill/drain cock
12	Cooling-water control valve
13	Thermal safety valve
14	Cold-water supply
15	Hot cooling-water drain
16	Overflow discharge

Install the open expansion vessel at the designer's specified height and protect it from freezing. No isolation valve may interrupt the safety connection between cooker and vessel. Overflow must be unobstructed and safe. The drawing identifies the pressure gauge as 5 and overflow as 16. The cooling-coil safety circuit is separate from the heating system.

11 Closed-system diagram

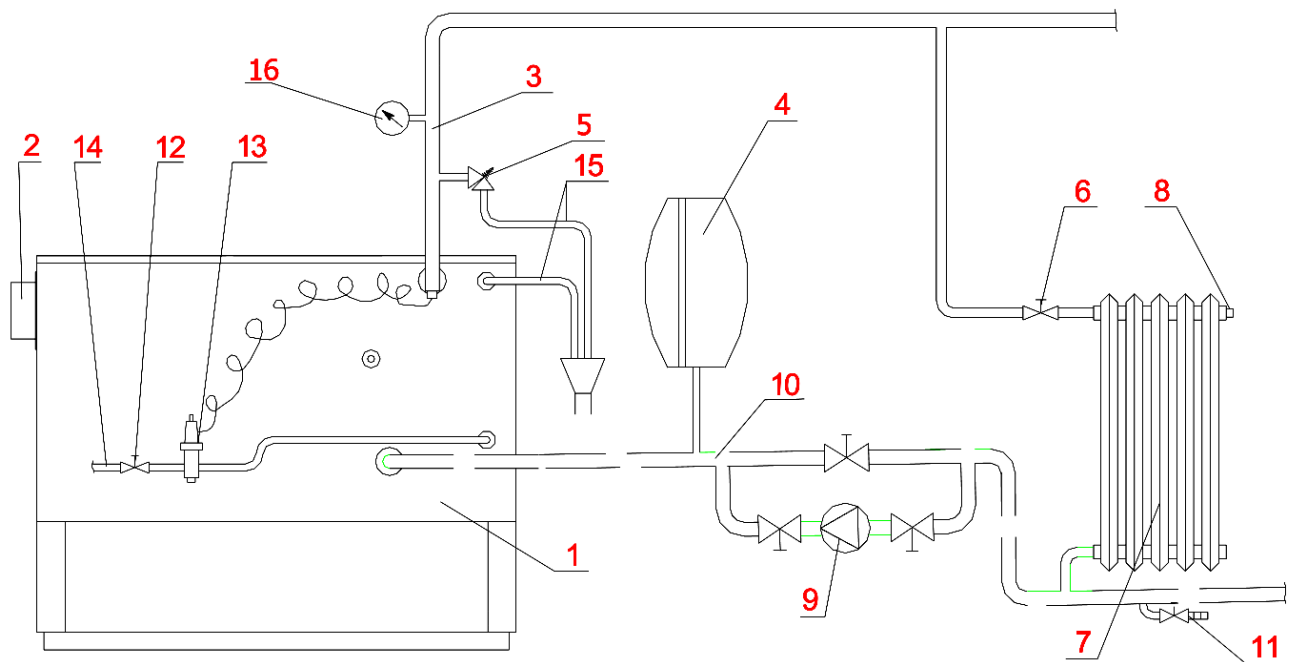


Figure 7a. Closed-system principle diagram. Thermal and pressure protection are separate devices.

1	Water jacket
2	Flue connector
3	Flow
4	Closed expansion vessel
5	Pressure safety valve
6	Radiator valve
7	Radiator
8	Air vent
9	Circulation pump
10	Return
11	Fill/drain cock
12	Cooling-water control valve
13	Thermal safety valve
14	Cold-water supply
15	Hot cooling-water drain
16	Pressure gauge

The designer sizes expansion-vessel volume and precharge from system water volume, height and permissible pressure. Check the pressure gauge and thermometer. The pressure safety valve requires a direct safety connection to the cooker with no intervening isolation valve. Connect the thermal safety valve to the cooling coil. Follow component instructions for sensor installation and drainage.

12 Commissioning and fuel

Before firing, fill and vent the system and connect the chimney correctly. Check seals, pump operation, pressure and thermal protection, and open connections to heat consumers. The installer performs at least a 30-minute trial run and hands the manual and documents to the user. Record operating-pressure limit and safety-valve setting at handover.

The factory manual requires connected heat consumers rated at least 8 kW, approximately 65% of total cooker output; its general installed-output guide is 65–100% of total nominal output. Actual system suitability must be calculated using 7.6 kW water output, operating temperatures and building heat loss. Do not close all heat consumers during firing. Never fire the cooker without water.

Use only dry untreated logs with moisture below 25%. The factory recommends two years of storage in a dry ventilated place; check actual moisture. Do not burn waste, plastic, painted or treated wood or other unsuitable material. Wet fuel increases soot, tar, smoke and chimney-fire risk.

13 Lighting and normal operation

With a cold system, the automatic regulator's rear air flap must be open. Set the lighting damper to O, open. Light dry kindling on the grate with a suitable firelighter; do not use lighting fluid. Once established, add logs and close the firebox door. After approximately 15–20 minutes, close the lighting damper to Z. Set the automatic regulator to a suitable temperature.

Add fuel gradually and open the door slowly to reduce smoke escape. The factory's 1–2 hour burn-time guide depends on load, draught and setting. Let fresh wood ignite cleanly after refuelling, but do not exceed safe water temperature or system heat-dissipation capacity. Do not leave the ash door open to raise output. Keep firebox and ash doors closed in normal operation.

14 Grate position and conversion

The lower grate position is for normal room and water heating. The upper position suits cooking, baking and reduced heating demand in transitional weather. The factory supplies the cooker with the grate lowered. Change position only when the cooker is completely cold with no fire or glowing embers.

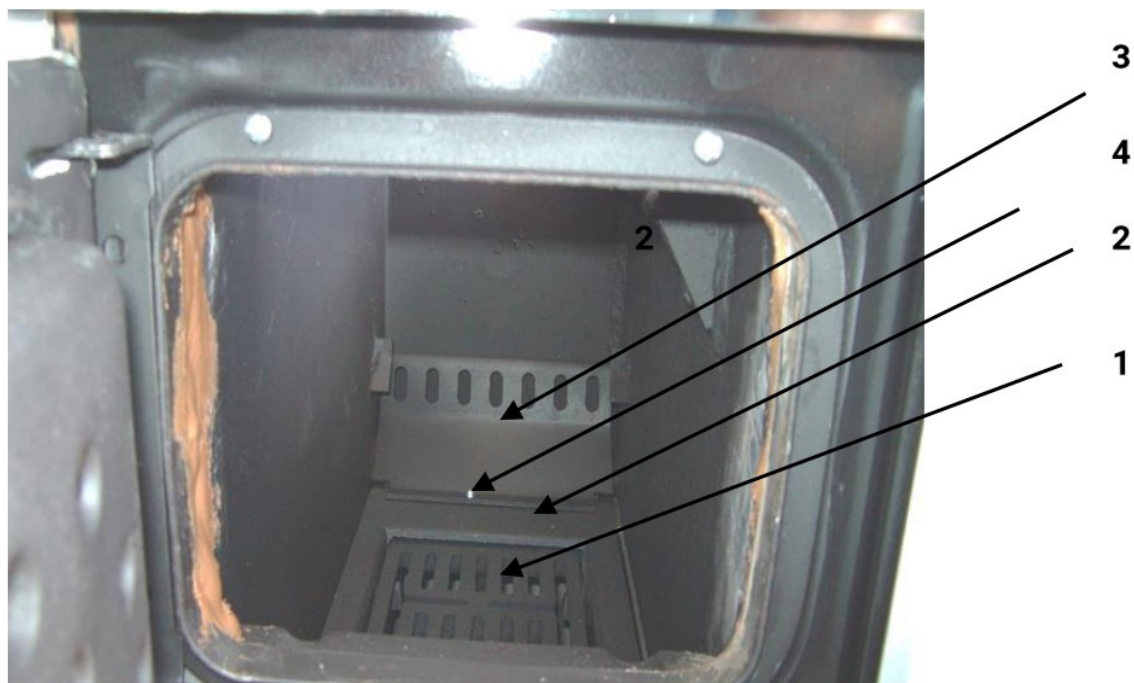


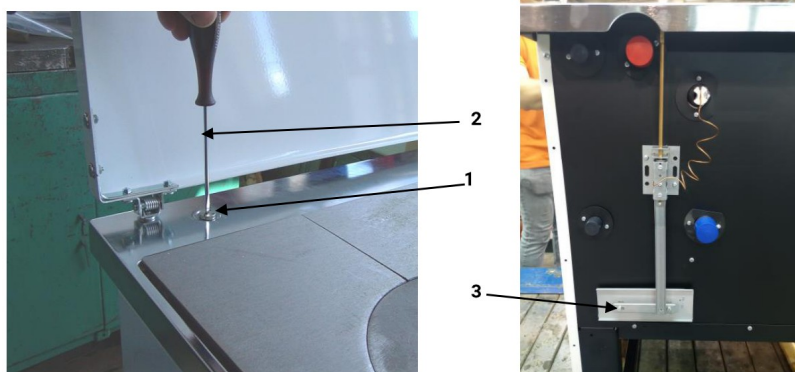
Figure 8. Grate-conversion parts.

1	Grate
2	Grate support
3	Air-supply sheet
4	Pin

Remove pin 4 joining air-supply sheet 3 to grate support 2. Pull the air-supply sheet out of the firebox. Push the grate fully back, lift it through the ash compartment and remove it. Then lift out its support. Place the grate in the intended upper position. Verify stable support and a clear air path; if the mounting arrangement is unclear, have a specialist perform conversion. Restore the lower position in reverse order with the support, air-supply sheet and pin.

15 Automatic regulator and air settings

The automatic regulator controls the rear air flap according to water temperature and knob setting. Use the supplied key or a suitable screwdriver. Numbers are temperature guides, not output steps or safety-valve settings. Keep all other uncontrolled air openings closed.



Figures 9 and 9a. 1 regulator knob; 2 tool; 3 rear air flap.

Knob position	Water-temperature guide
0	Closed
3	30 °C
4	40 °C
5	50 °C
7	70 °C
9	90 °C

The secondary-air rod is on the inside of the firebox door. Position 0 reduces and position 1 increases secondary air. Adjust carefully with a heat-resistant tool and close the door after adjustment.

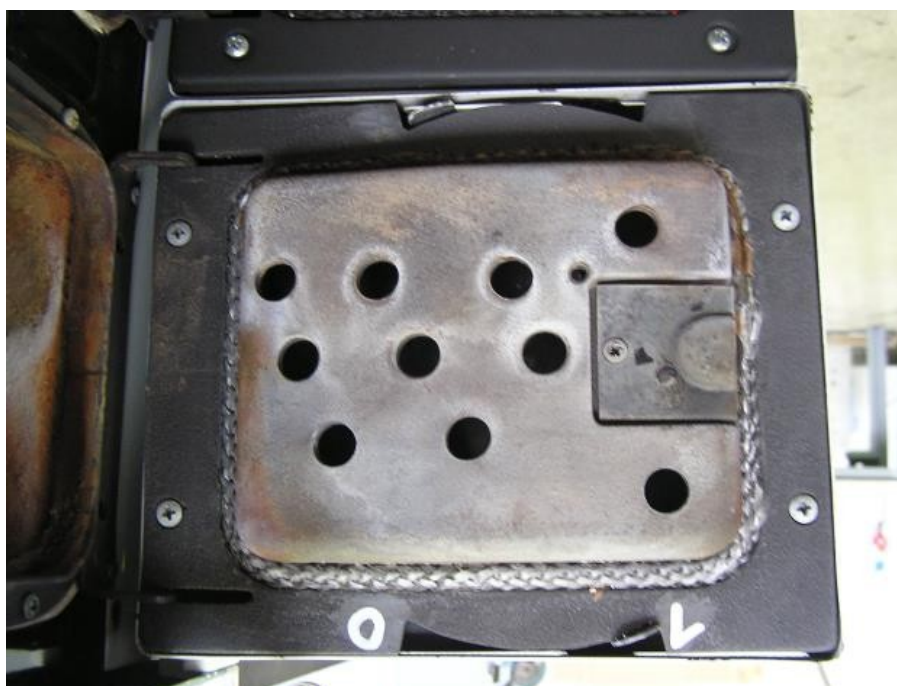


Figure 10. Secondary-air adjustment 0-1.

The lighting-damper lever above the oven door shortens the flue-gas path during lighting. Use the open position only for lighting and close it once fire is established, after approximately 15–20 minutes. Check the appliance's O/Z markings and actual movement. An open damper reduces oven and water heating and increases fuel consumption.



Figure 11. Lighting-damper lever.

16 Cooking and door handling

For baking and cooking, close the lighting damper and select a suitable regulator setting. Normally use the lower grate during the heating season; the upper grate may suit lower heating demand. Do not close every radiator or restrict water-jacket heat dissipation. After cooking, set the regulator for actual heating demand.

If the firebox-door handle is hot, open and close it using the supplied special key and heat-resistant gloves. Do not touch hot parts with bare hands.



Figure 12. Opening the firebox door with the tool.

17 Cleaning and seasonal maintenance

Clean only a cold cooker. Remove combustion residue from the grate with a suitable tool before adding fuel. Empty the ash pan daily and remove larger deposits. Store ash in a lidded metal container on a non-combustible base; embers may remain hot for a long time. Never put hot ash into a waste bin.

Brush and scrape flue-gas-contact surfaces at least monthly or more often according to deposits. Inspect and clean chimney and flue pipe regularly as required. Soot and tar reduce efficiency and increase fire risk.



Figure 13. Inner cleaning-opening cover behind its protective cover.

Remove the protective cover and wing-screw-fastened inner cover. Clean accessible flue channels. Check the sealing cord before closure and replace worn seals with suitable heat-resistant material. Refit the cover tightly. Do not fire with cleaning covers removed or leaking.

Clean enamel with a damp cloth and mild detergent. Fine sandpaper may clean the cooking plate; a thin vegetable-oil film may protect it before a long shutdown. Do not force-cool the cooker or pour water into the firebox. Remove ash and soot at season end. Normally leave system water in place; have a specialist address freezing risk and suitable antifreeze.

18 Overheating and emergencies

If water temperature rises rapidly, boiling noises occur or protection activates, stop adding fuel and reduce combustion air. Keep firebox and ash doors closed. Do not remove burning fuel or open a hot or pressurised system. Do not manually add cold water to a hot water jacket. Maintain designed heat dissipation and thermal-protection water supply. Do not exceed 90 °C water temperature.

During power failure, use a pump bypass only if it is designed into the system and the installer has explained its use. Pump backup power does not replace thermal protection. Thermal protection may activate above 95 °C; this is emergency protection, not normal operating temperature. After cooling, a specialist must identify the cause and check pressure, filling and protection.

In a fire or chimney fire, close combustion-air supply and keep the firebox door closed. Call 112. Do not extinguish the cooker or chimney with water. Use a suitable extinguisher only if safe and leave the dangerous area. Have a specialist inspect cooker, chimney and heating system before reuse.

19 Faults and remedies

Users may perform routine maintenance and safe adjustments. Pressure equipment, expansion-vessel, pump and electrical repairs require a specialist. Do not fill a hot system, open joints or disable protection during a fault.

1 Pressure falls slowly	Possible leak. Have a specialist check joints and seals in the cooled system.
2 Cold radiators and air noise	Air or low pressure. Vent safely; a specialist checks cold-system filling pressure.
3 Condensation on water jacket	Cold return or mismatched load. Have mixing, temperatures and load checked.
4 Radiator heats unevenly	Possible trapped air; vent under system instructions.
5 Safety valve leaks or fails	Stop firing. Have valve suitability, setting and system pressure checked; replace a faulty valve. Never block discharge.
6 Water temperature rises suddenly	Possible air, closed valves, pump failure or outage. Follow section 18 and call a specialist.
7 Pressure rises sharply with temperature	Expansion-vessel precharge, size or membrane may be faulty; air is also possible. A specialist checks the cooled system.
8 Pump will not start or fuse trips	Possible supply, connection, capacitor or rotor fault and deposits. Do not open electrical equipment; have it professionally repaired and cleaned.
9 Incorrect instrument reading	Thermometer or pressure gauge may be faulty. Have it checked and replaced if necessary.
10 Heating-system noise	Possible air, excessive pump speed, wear or loose fixing. Have the system checked and adjusted.
11 Pump noise	Possible low suction pressure or vessel problem. Do not raise pressure arbitrarily; have it checked.
12 Overheating and boiling noise	Stop adding fuel, reduce air and keep doors closed. Follow section 18. Do not remove glowing fuel.
13 Thermal safety valve activates	Possible outage, open ash door or insufficient heat dissipation. This is emergency protection. Check cause and protection after cooling.
14 Condensation with wet wood	Use dry fuel. For cold return, have temperature protection and mixing checked.
15 Flow water insufficiently warm	Possible wet fuel, small load or excessive demand. Check fuel and settings; have the system balanced professionally.
16 Irregular combustion	Have draught, pipe and door seals, and uncontrolled air checked.
17 Insufficient cooking heat	Check regulator, dry fuel and closed lighting damper. Adjust within safe limits; do not leave the ash door open.
18 Excessive cooking heat	Reduce regulator setting and fuel load while maintaining required heat dissipation.
19 Odour or smoke on first firing	Heated finishes may cause temporary odour; ventilate. Smoke escaping into the room through pipes or doors is not normal and requires checks.
20 Smoke indoors during normal use	Possible blockage, wet fuel, overloading, inadequate air or chimney fault. Stop firing, ventilate and have the cause checked.
21 Grate jams	Remove foreign objects and hard deposits from the cold grate. Do not force it.

20 Determining required heating output

Required output follows a building heat-loss calculation accounting for insulation, ventilation, room size and design outdoor temperature. The factory's approximate 30 kcal/(h·m³) at 0 °C outdoors is only a guide, not a substitute for design.

Dry wood, 15% moisture	3600 kcal/kg $\approx$ 4.2 kWh/kg; relative quantity 1.00
Wet wood, 50% moisture	1850 kcal/kg $\approx$ 2.2 kWh/kg; relative quantity 1.95. Wet wood is not permitted fuel.

21 Dimensional drawing

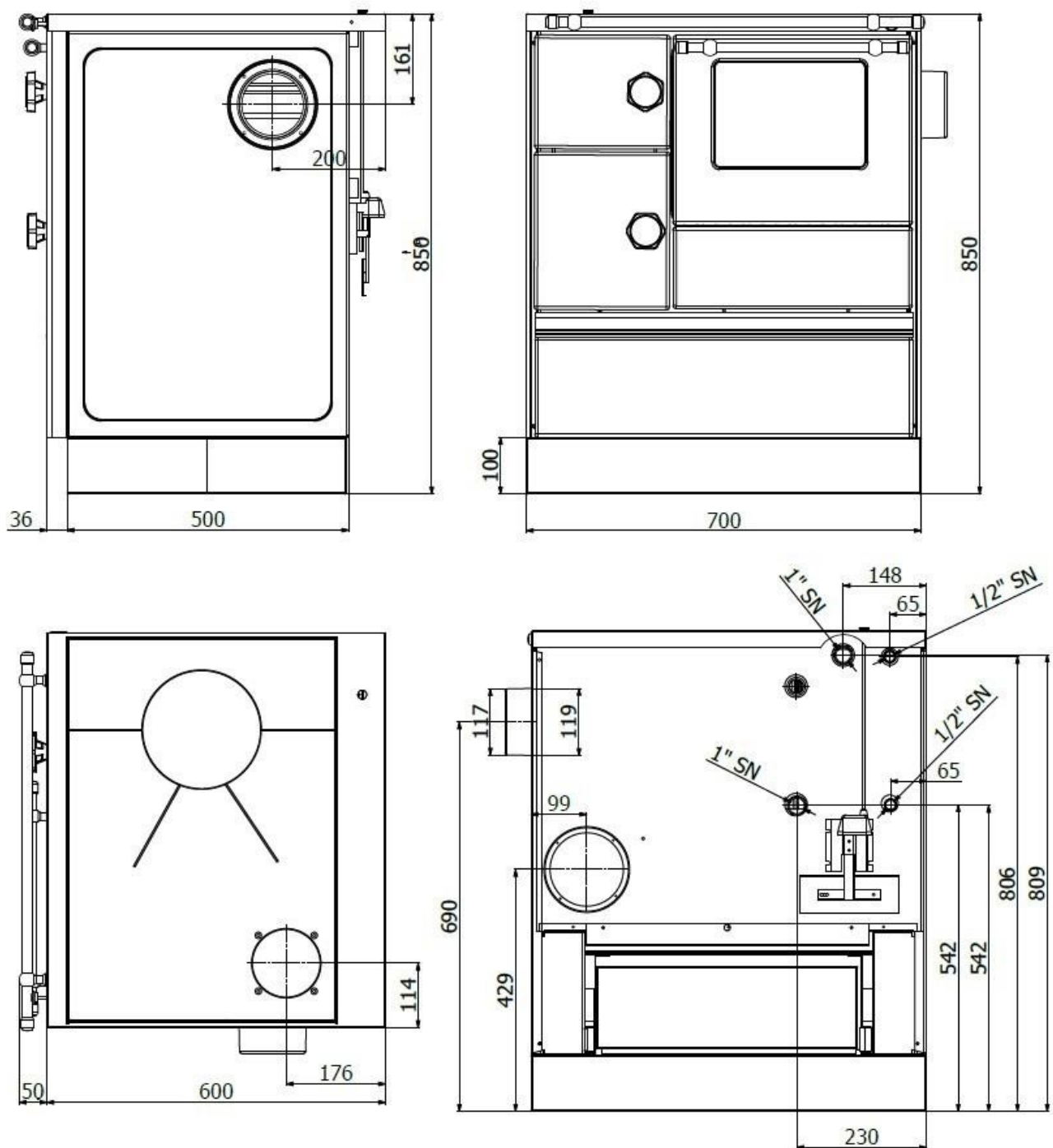


Figure 1. Factory dimensional drawing in millimetres. It does not replace fire-clearance requirements.

22 Decommissioning and documents

The owner is responsible for proper disposal. Let the cooker cool and have it safely disconnected. Electrical and plumbing work require competent specialists. Send metal, packaging, insulation and other materials to suitable waste handlers under local requirements. Do not abandon a cooker in a public place or burn waste in its firebox.

Keep this manual, Declaration of Performance, energy label, product information sheet and handover records throughout service life. Sources are the user-supplied ALFA 70 ET ENG_V.1.0 / EN 16510 manual, DoP ALFA 70 ET 02/26, energy label and information sheet. This manual is adapted for SVT and is not a factory-approved translation.

Model and serial number	_____
Permissible operating pressure	_____
Pressure safety-valve setting	_____
Thermal protection checked	_____
Installer and date	_____