

OPERATING INSTRUCTIONS



TAVO

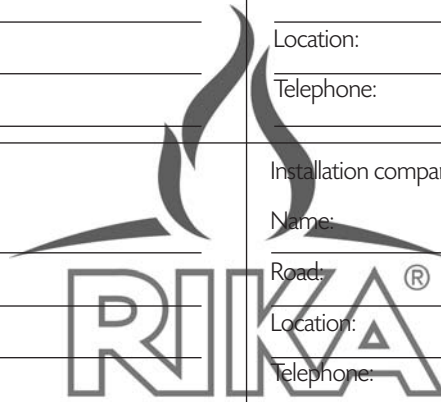


Die Seele Ihres Heimes





Installation address Name: _____ Road: _____ Location: _____ Telephone: _____	Owner Name: _____ Road: _____ Location: _____ Telephone: _____
Dealer Name: _____ Road: _____ Location: _____ Telephone: _____	Installation company Name: _____ Road: _____ Location: _____ Telephone: _____



Fire data	
Fire type	Cladding undamaged
serial number	Operating Instructions
	Warranty documents
	Cleaning brush

Hydraulic peripherals	
Safety valve exists	Geyser
Expansion tank exists (content _____ l)	Calorific value system
Pressure gauge	Heat pump
System pressure	Solar (Collector surface _____ m ²)
Fire bled	Heated area _____ m ²
Return boost (internal 0 external 0)	Floor or wall heating
Hydraulic separator	Thermal safety valve (TAS) fitted
Buffer tank (content _____ l)	TAS connected to safety heat exchanger
Hot water tank (content _____ l)	TAS-sensor fitted in the heat exchanger
Heating circuits	TAS connected to the public water supply
Mixer	Flow pressure from the TAS » 200 kPa (2 bar)
Oil boiler	TAS-drain can be seen into easily
Gas boiler	

Electric peripheral			
Thermostat for boiler/heating circuit pump			

Exhaust line/combustion air			
Diameter		External air connection exists	
Deflectors		Length of the line	
Connections not leaking		Number of changes of direction	
Chimney (Pa)			

Fire functions			
Primary air slide smooth running		Cleaning opening heat exchanger no leaks	
Ash pan pushed in		Starts to heat with explanation	
Wood quality in the required area		Change over to operational burning	
Pump is connected electrically		Switches the circulating pump on at 60° C	
Secondary air regulator smooth running		Triggers the TAS (close pump slide)	
Door closes tightly		Closes the TAS tightly again	

Operator training			
Fire function		Cleaning instructions	
Operating Instructions		Cleaning interval	
Warranty Conditions		Maintenance Interval	

Work carried out in accordance the order given

Commissioning technician: _____ Client signature: _____ Technician signature: _____

Company: _____



A-4563 Micheldorf, Müllerviertel 20

Telefon 0800/ 562 516

Telefon 0043/ 7582/ 686-41

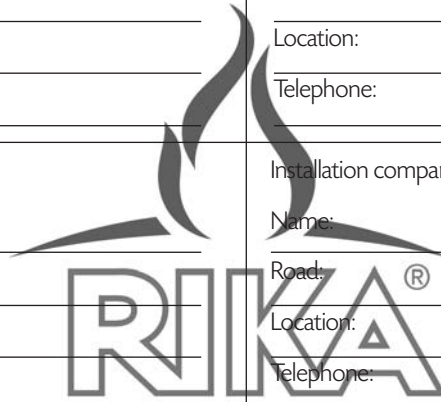
Telefax 0043/ 7582/ 686-43

eMail: verkauf@rika.at

www.rika.at



Installation address Name: _____ Road: _____ Location: _____ Telephone: _____	Owner Name: _____ Road: _____ Location: _____ Telephone: _____
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Important message



Practical advice



Consult the drawing



1. IMPORTANT USER INFORMATION

CONGRATULATIONS!

You have chosen the RIKA "Tavo", a well-designed and stylish stove.

In addition to design we place great emphasis on advanced combustion technology, quality material and good workmanship. The RIKA "Tavo" has been manufactured using state-of-the-art technology and has been approved according to European Standard DIN EN13240 as a room heater for solid fuels. This stove is suitable for multiple connections to the chimney.

When setting up and connecting the stove be sure to observe current legislation, regional building regulations, local building regulations and installation standard DIN 18896. The operational capability and life of your stove depends on the correct operation, care and observance of the instructions contained in the set-up, installation and operating instructions.



note

If the set-up, installation and operating instructions are not observed, then the warranty is invalidated. The owner of the RIKA Tavo must not modify it in any way!

CAUTION! CHILDREN AT PLAY!

Your stove will get hot, especially the top surface, panels and protective glass! Ensure that children remain at a safe distance when the stove is operating in a hot condition.

UNSUITABLE/NON-PERMITTED FUELS:

The Federal Immission Control Law and the agreement in accordance with Art. 15 a BV-G strictly forbids the incineration of rubbish and waste in domestic stoves. Anyone who uses the solid fuel stove as a private waste incineration unit to incinerate household waste, chemically treated wood remnants or waste paper, is not only acting irresponsibly towards the environment, but may be punished under the law.

The behaviour of your stove as far as the low emission of dangerous substances is concerned is greatly affected by the selection of the correct types of fuel! (see Section 3.1)

SUCTION EQUIPMENT



note

Suction equipment (e.g. ventilation equipment, dust hood), that is operated in the same room or ventilation connection, can affect the supply of combustion air.

2. AUFSTELLUNG, INSTALLATION UND ERSTINBETRIEBNAHME

Only a specialist fitter must set up the stove.



Important: Only an authorised installation company must carry out the connection and commissioning of the heating system.

Please refer to our separate Set-up and Installation instructions for the RIKA "Tavo", that form part of these operating instructions.

The RIKA "Tavo" must never be operated without a fully functioning water connection!

During first commissioning the paintwork of the Tavo will harden under temperature. This can cause unpleasant odours. Avoid breathing in the fumes directly. During this phase ensure that the installation space is well ventilated. Carefully wipe off any condensation on the Tavo or on the panels or residues will become fused into the paintwork.

Please see Section 4 "First commissioning and functional checks" in the Tavo set-up and installation instructions!

Together with your dealer please fill in the Commissioning Report in duplicate. One copy should be kept with the operating instructions and will be useful in future if any questions arise concerning your Tavo. The duplicate must be filled in, signed and returned to RIKA MetallwarengmbH & Co KG, to ensure that your warranty and guarantee are valid!

3. OPERATION

3.1 FUELS

The RIKA Tavo stove is a purely wood-burning device. You should only use fuel prescribed by the Ordinance on Small Firing according to Federal Immission Control Law (1.BimSchV) and the agreement according to Art. 15 a BV-G:

TYPE		TAVO
Firewood		
Max. length	[cm]	25
Max. circumference	[cm]	30
Max. residual humidity	[%]	20
Capacity (at nominal heat output)	[kg]	3,5

TYPE		TAVO
Wood pellets according DIN 51731		
Logs	[cm]	ø 1 0/32 lang
Octagonal rod	[cm]	ø 7/20 lang
Max. fill quantity	Logs [kg]	2-3
	Octagonal rod [kg]	3-4



The incineration of rubbish invalidates the guarantee!

FIREWOOD

Only dry wood burns without harming the environment!

Dry wood is natural chopped wood with a maximum residual moisture of 20% (with respect to the absolute dry weight), which is normally achieved after two year's in a well ventilated storage place.

WOOD PELLETS

Note that wood pellets increase in volume in the stove! When using them please refer to the relevant product instructions!

Do not use waste products, chips, wood shavings and sawdust, bark and backing plate waste or laminated and surface treated wood.

The combustion residue of incorrect fuels not only leads to uncontrolled air pollution,

but has a negative effect on the functioning and life of the chimney and stove. It results in increased breakdown and faster wear, which means expensive repairs and even replacement of the stove. Chimney sweeps have a good eye for environmentally damaging signs of this sort. The chimney sweep should check the chimney every six months and if the stove is operating correctly and only dry wood is used, the chimney sweep will not even have to remove soot.

For starting we recommend brushwood, kindling wood or firelighters.

Do not split the firewood too finely. Firewood that is too small does not burn for long and is only really useful for starting.

3.2 HEATING OPERATION AND VARIABLE CONTROL

For the correct and safe operation of the stove you must ensure that the chimney can create the required delivery pressure. This is especially the case in seasonal transition periods (e.g. autumn or spring) or during periods of bad weather (e.g. strong winds, fog, etc.).

Hold a match or lighter flame by the opened door. If the flame is not drawn into the opening, then a draught must be created in the chimney by the forced development of heat (e.g. by paper or kindling wood). If this does not work then commissioning of the stove should be halted!

When the stove is in operation the grate door should be kept closed to prevent hot gases escaping.

Due to the strong de-gasification process of wood fuels and a weak chimney draught, opening the door can lead to smoke and hot fumes escaping. We recommend that the stove door should not be opened until the fuel load has burnt down to hot embers.

When using stoves that draw their air supply from the room in which they are installed, ensure that there is an adequate supply of fresh air. During operation any separate combustion air line should not be modified or closed off.

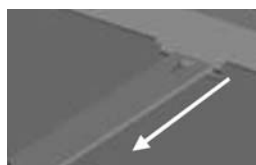
Note that the surfaces of the Tavo become very hot when the stove is operating (e.g. the metal front or the ceramic glass, etc.). When operating the stove we recommend you use the heat resistant gloves supplied.

OPERATING ELEMENTS:

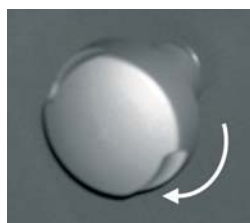
Example: PRE- HEATING



Pre-heating damper and combustion air controller



Pre-heating damper (Fig. 1)



combustion air controller (Fig. 2)

PRE-HEATING

This section applies to all fuels mentioned in section 3.1. To heat the RIKA Tavo stove the maximum quantity of air is required.

Raise pre-heater damper fully (Fig. 1)

Turn the combustion air regulator fully to the right in a clockwise direction (Fig. 2)

To light the fire we recommend an auxiliary fire lighter. After the auxiliary fire lighter has kindled, build up the firewood and leave the grate door slightly ajar, to prevent the build up of condensation on the cold panels. Re-close the door after 10 minutes. If a strong fire has developed then the first layer of firewood can be laid on the fire.

CONTINUOUS HEATING

The pre-heating damper and combustion air controller are still in the position for strong heating (pre-heating). After the pre-heating phase the actual continuous heating begins. Carefully open the stove door and gently rake the embers flat to prepare for the first layer of wood. The maximum height that the grate can be filled to is two levels. To reach the nominal heat output note the fill quantities given in Section 3.1. On reaching the heat output proceed as follows:

Push in pre-heating damper fully

Turn back combustion air controller 1/2 turn in an anti-clockwise direction

In this way all the combustion air is led in front of the protective glass and from behind to the fuel. This brings about an ecological and economic combustion whilst maintaining the glass as clean as possible.

Output control:

Wood combustion can only be controlled to a limited extent. The output can be influenced to a certain degree by the fre-

quency with which wood is laid on the fire and the quantity. Large logs (circumference 30cm) reduce the speed of combustion and favour uniform combustion. Small logs (circumference 20cm) burn faster and very quickly lead to a higher output. With the correct filling of wood and the prescribed output control an environmentally friendly combustion can be achieved for a period of 60 minutes. Avoid overfilling with fuel otherwise the "Energy output" will be too great and the exhaust gases too abundant.

Wood does not provide a weak or continuous fire!

Wood is a long flame, highly gaseous fuel that has to be burnt quickly and with a continuous supply of oxygen. Combustion must not be inhibited in any way.

The negative consequences of this is: smouldering, condensation and tar formation, heavy soot formation, smoke formation (emission of dangerous substance) and the danger of explosion.

Extended combustion, however, is possible. If the flame profile gets smaller and more wood embers or fire embers are formed then the heat output of the fire can be extended by closing, the air regulator and air damper. This also prevents cooling of the fire.

Note that the surfaces of the Tavo become very hot when the stove is operating (e.g. the metal front or the ceramic glass, etc.). When operating the stove we recommend the use of the heat resistant gloves supplied

RETENTION OF EMBERS

If no more fuel is added and no more flames are formed, re-set the damper and controller:

Push in pre-heater damper fully

Turn combustion air controller fully back in an anti-clockwise direction

This can also prevent heat- and flow losses through the chimney.

3.3 CLEANING AND MAINTENANCE

To ensure correct operation the RIKA Tavo must be cleaned at least once per year or as required.

GLASS CERAMIC WINDOW

The glass ceramic window should only be cleaned with commercially available glass cleaner (preferable with RIKA glass cleaner). Spray a small quantity of the cleaner on to the cold surface of the window and rub in. Then wipe off with a damp cloth and dry with a clean cloth. Under no circumstances must the glass ceramic window be treated with corrosive or scouring materials.

CLEANING THE HEAT EXCHANGER AREA

Cleaning should only be carried out when the stove is cold!

Gently lift the front panel above the stove door and pull towards the front. Then loosen the four wing nuts of the cover plate (behind the front panel). The heat exchanger pipes can now be cleaned using the cleaning brush supplied.



ASH REMOVAL

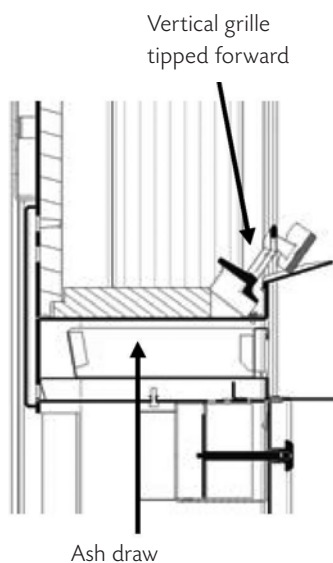
Ash removal should only be carried out when the stove is cold!

For wood stoves daily ash removal is not necessary.

Ash is caught in the ashtray beneath the combustion chamber. Ash removal can be carried out with the ash damper provided.

To do this the vertical grille must be tipped forward.

The ashtray is removed through the open stove door.



3.4 FAULT CHECKLIST

Fault	Cause	Action
Fire burns badly	Wood too damp	▶ Check; max. residual dampness 20%
	incorrect fuel	▶ Use only the fuel that is permitted for your stove
	Chimney draught too weak (Minimum delivery pressure: 10Pa at exhaust pipe)	▶ Check exhaust unit for sealing ▶ Kindle fire in the chimney ▶ Close the doors of other devices connected to the chimney ▶ Seal off connecting element of unsealed chimney cleaning openings and clean if necessary
	Insufficient combustion air	▶ Connect combustion air line directly to the device and lead to outside ▶ Check room ventilation unit or dust hood, open window, if necessary
Formation of condensation	Higher Temperature differential	▶ Open door slightly during pre- heating phase. Do not leave the stove unattended!
Protective glass gets dirty quickly	Wood too damp	▶ Check, maximum residual dampness 20%
	Incorrect fuel	▶ Fuel not small enough, max. circumference 30cm ▶ Use only the fuel that is permitted for your stove
	Wood load too large	▶ Do not put on more than 2 to 3 logs
	Not enough combustion air	▶ Connect combustion air line directly to the device and lead to outside ▶ Check room ventilation unit or dust hood, open window, if necessary
Excessive smoke	Chimney draught too weak: (Minimum delivery pressure: 10Pa in exhaust pipe)	▶ Check exhaust unit for sealing ▶ Kindle fire in the chimney ▶ Close the doors of other devices connected to the chimney ▶ Seal off connecting element of unsealed chimney cleaning openings and clean if necessary
	Fuel not burned completely	▶ Only add fuel to the fire when there are no visible "yellow" flames
Excessive dirt on heat exchanger surfaces	Wood too damp	▶ Check; max. residual dampness 20%
	Incorrect fuel	▶ Use only fuel permitted for this stove
	Too little fuel	▶ Put on more fuel
	Defective/faulty backflow lift	▶ Please contact your dealer

Fault	Cause	Action
Actuation of thermal process control (TPC)	No water circulation	<ul style="list-style-type: none"> ♣ Ventilate pipelines ♣ Check all ventilators
	Water pressure too low	<ul style="list-style-type: none"> ♣ Check; 1.5 to 2 bar recommended ♣ Check expansion tank initial pressure
Buffer accumulator does not store energy	Temperature differential control faulty	♣ Contact your specialist
Pump cannot deliver	No water circulation	<ul style="list-style-type: none"> ♣ Ventilate pipelines ♣ Check all ventilators
	System water pressure too low	<ul style="list-style-type: none"> ♣ Check; 1.5 to 2 bar recommended ♣ Check expansion tank initial pressure
	No mains voltage	♣ Check mains voltage
	Long period without use	♣ Remove vent screw on the front of the pump; The pump axle can now be pushed using a screwdriver

ACTION IN THE EVENT OF CHIMNEY FIRE

We recommend the following action in the event of a chimney fire:

- (1) Close off the combustion air!
- (2) Call the fire brigade and the chimney sweep!
- (3) Ensure access to the cleaning openings (e.g. cellar and attic)!
- (4) Remove combustible material from the chimney!
- (5) Before using the stove again you must inform your chimney sweep and check the chimney for damage.
- (6) The chimney sweep should also determine the cause of the chimney fire and remove it or take corrective action

4. WARRANTY AND GUARANTEE

This information supplements our "General terms and conditions".

Our products and accessories are high-quality products that are certified by independent test centres. They are manufactured according to current heating technology standards and are carefully assembled using high-quality, commercially available materials.

As the stoves are technical devices special technical expertise is required for their purchase, setting up, connection and commissioning. This assumes that on set-up and first commissioning the installation specialist will observe the manufacturer's instructions as well as the current building regulations and technical rules. Careful observation of the operating instructions will ensure that you enjoy many years of incomparable heating enjoyment. Specific components must be checked regularly and replaced or rectified if necessary.

For newly manufactured products the statutory warranty period of the manufacturer, with respect to the end-user, for initial material defects - except in those cases in which the deficiency of a component is involved - is 24 months from the assumption of risk.

Please note the restrictions or loss of warranty and guarantee on pages 8 and 9!

In addition to the legal provisions RIKA also offers a voluntary guarantee of 5 years from date of manufacture for all castings with respect to fault-free, fit for purpose, materials. The guarantee covers free repair of the device and the faulty parts.

Replacement free of charge can only be claimed for parts that demonstrate failure in workmanship or materials. All further claims are excluded. The guarantee does not cover parts that are subject to normal wear and tear. Owing to the nature of their application wearing parts have only a limited life. Wearing parts are especially those parts that have direct contact with the stove, e.g. grate fittings, fire bricks, glass, seals, etc. Please note that the limited life of wearing parts can also have an effect on the guarantee. Wear and tear caused by use is not an initial material defect and does not therefore fall under the guarantee.

Also excluded are all damage and deficiencies relating to devices and their components that are caused by external chemical or physical effects, transporting, storing, improper assembly (see Section 2) and use, incorrect operation, use of unsuitable fuel and mechanical, chemical, thermal and electrical stress.

The manufacturer does not assume liability under the guarantee for direct or indirect damage caused by the device. It is not possible to claim for withdrawal or reduction, unless the manufacturer is unable to remedy the deficiency or damage within a reasonable period. If a claim under the guarantee arises, please contact your installation manufacturer in writing.

5. CERTIFICATE OF CONFORMITY

RIKA MetallwarengmbH & Co KG
 Müllerviertel 20
 4563 Micheldorf
 www.rika.at

declares on its own responsibility, that the Tavo stove fulfils the requirements of EN 13240 and DIN EN 303-5.

This product is suitable for the heating of hot water in the planned set-up location.

The type test was carried out at the following independent test centre:

RWE Power
 stove test centre
 Dürener Str. 92
 D-50226 Frechen
 Leer, 2005-07-12



Sven Müller, Test Centre Manager

The Tavo stove nameplate can be found on the rear panel of the stove:

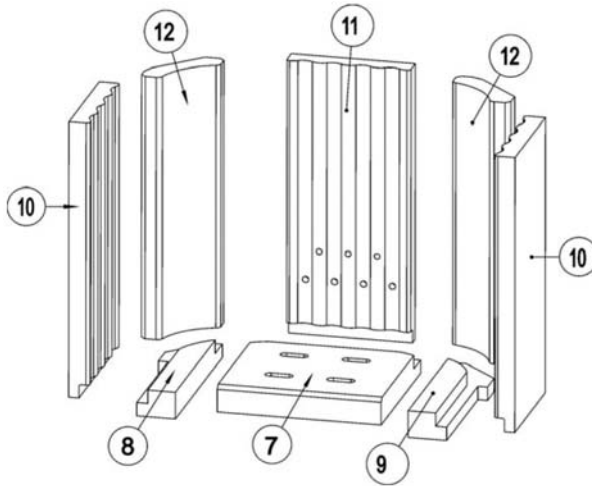


6. REPLACEMENT AND WEARING PARTS

Only original replacement parts of the manufacturer must be used! Replacement parts can be obtained from your dealer or unit manufacturer.

Note!

The internal cladding, i.e. brick lining consists of natural firebrick that develops isolated hairline cracks after a long period of intensive use. This does not have any effect on the functioning of the device and is therefore not a reason for complaint.



Replacement parts

item	NAME	Order number.
1	Thermal process control	111554
2	Vent	111555
3	Cleaning brush	111556
4	Glass window	Z30317
5	Safety valve	111557
6	Door handle	B14561

Pos. 1 - 6 not shown!

Wear parts

item	NAME	Order number.
7	Floor fire brick, centre	Z32525
8	Floor fire brick, left	Z32523
9	Floor fire brick, right	Z32524
10	Corrugated fire brick, right and left	Z29560
11	Corrugated fire brick, rear	Z32522
12	Corner fire brick	Z29561

7. TECHNICAL DATA

STOVE		TAVO
Nominal heat output according to DIN 13240 (total)	[kW]	10
Direct room heat output	[kW]	3
Water output	[kW]	7
Permitted operating pressure	max[bar]	2,5
Permitted Supply temperature	max[°C]	95
Permitted operating gauge pressure of safety heat exchanger	max[bar]	10
Water content	[l]	28
Burning time at nominal heat output	[min]	60

Data for chimney dimensions according to DIN EN 13384 with respect to NWL		TAVO
Exhaust gas mass flow rate	[g/s]	11
Mean exhaust gas pipe temperature	[°C]	260
Minimum supply pressure at nominal heat output	[Pa]	12
Minimum supply pressure at 0.8 times at nominal heat output	[Pa]	10
Efficiency	[%]	≥ 75

EMISSION LIMITS		TAVO
CO Carbon monoxide with reference to 13% O ₂	[mg/m ³]	≤ 1500
Dust content with reference to 13% O ₂	[ø mm]	≤ 75
NO x Nitrogen with reference to 13% O ₂	[mm]	≤ 200
CnHm Kohlenwasserstoffe bezogen auf 13% O ₂	[cm]	≤ 120



GUARANTEE

Trader stamp

Purchase day:

--	--	--	--	--	--

Model designation

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Attached by:

Numbers of the vehicle identification plate on the furnace back:

Serial no.:

--	--	--	--	--	--	--



GUARANTEE

Customer

Stamp

To