



**T-ONE SWING**

**BEDIENUNGSANLEITUNG TONWERK SPEICHEROFEN**

**T-ONE STONE**

**INSTRUCTIONS D'UTILISATION DU POELE À ACCUMULATION TONWERK**

**OPERATING INSTRUCTIONS TONWERK STORAGE HEATING STOVES**

**T-BACK**

**ISTRUZIONI PER L'USO DELLA STUFA D'ACCUMULO TONWERK**

## TONWERK-SPEICHERÖFEN

### AUSZEICHNUNGEN:

- Design Preis Schweiz
- MUT-Umweltpreis, Auszeichnung für umweltfreundliche Entwicklungen
- red dot award, für hohe Designqualität, Designzentrum Nordrhein-Westfalen
- VHe-Qualitäts- und Gütesiegel für typengeprüfte Speicheröfen
- Eidgenössischer Preis für Gestaltung, Produktdesign
- Design Plus, ISH Frankfurt

### DISTINCTIONS OBTENUES PAR LES

#### POELES À ACCUMULATION TONWERK:

- Design Preis Schweiz (Prix du Design Suisse)
- MUT-Umweltpreis (Prix de l'environnement MUT), distinction accordée aux développements écologiques
- red dot award, pour un design de haute qualité, Centre du design de Rhénanie du Nord-Westphalie
- Certifié par un sceau de qualité VHe en tant que poêle à accumulation homologué
- Eidgenössischer Preis für Gestaltung, Produktdesign (Concours Swiss Design Prize, design du produit)
- Design Plus, ISH Francfort

## TONWERK STORAGE HEATING STOVES

### AWARDS:

- Design Preis Schweiz (Switzerland Design Award)
- MUT Umweltpreis, award for ecofriendly developments
- red dot award, for high designquality, Design Centre of North Rhine-Westphalia
- VHe seal of quality and approval for type-approved storage heating stoves
- Eidgenössischer Preis für Gestaltung (Swiss Federal Design Award), product design
- Design Plus, ISH Frankfurt

### PREMI RICEVUTI DALLE STUFE

#### D'ACCUMULO TONWERK:

- Design Preis Schweiz (premio svizzero per il design)
- MUT-Umweltpreis, premio per lo sviluppo ecologico
- red dot award, premio per il design di alta qualità del centro di design della Renania Settentrionale-Vestfalia
- VHe marchio di qualità per le stufe d'accumulo omologate
- Eidgenössischer Preis für Gestaltung, Produktdesign (premio elvetico per la forma, il design dei prodotti)
- Design Plus, ISH Frankfurt

design  
preis  
SCHWEIZ



reddot award

**mut**  
Umweltpreis  
2000





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# 1. TONWERK STORAGE HEATING STOVE – A SWISS QUALITY PRODUCT

Thank you for buying a Tonwerk storage heating stove – we are sure you will derive as much pleasure from our product as we do.

These instructions contain interesting and informative facts and all you need to know about the subjects of heating, wood, and operating your Tonwerk storage heating stove. Please read these instructions carefully before using your stove for the first time and keep them in a safe place.

## WE ARE SATISFIED WITH OUR WORK WHEN YOU HAVE NO MORE QUESTIONS.

In our energy-conscious times we have made it our mission to extract the maximum possible energy from the raw material wood with the minimum possible emissions.

We want to utilise effectively wood, fire, and the heat they generate.

## WE HAVE CREATED A LIVING SPACE FOR YOUR WOOD FIRE – THE TONWERK STORAGE HEATING STOVE!

Your Tonwerk storage heating stove never fails to fascinate with its extraordinary design and a heart of the most innovative technology – **handmade in Switzerland!**

**YOU CAN LET THE SUN SHINE WHENEVER YOU WANT TO!**



Next to stone and bone, wood is one of the oldest working materials in the world.

**A TONWERK STORAGE HEATING STOVE GIVES YOU THAT FEEL-GOOD HEAT, EVERY DAY**

## 1.1 THE STORAGE HEATING STOVE

The storage heating stove is a fireplace made of ceramic or natural stone. The energy or heat generated by burning wood is absorbed by the ceramic storage core. Once the wood has completely burned, this core, as a heat exchanger, radiates the stored energy in the form of heat at a carefully dosed rate, releasing it over its surface for an extended time into the environment.

## 1.2 THE RADIATED HEAT

The human organism responds to radiated heat with a particularly pleasant feeling. It is physiologically beneficial and soothing. Since prehistoric times humans have utilised and enjoyed radiated heat. It is transmitted by electromagnetic waves in the infrared range. Radiated heat travels through air without loss and without heating this. Not until it encounters solid bodies like walls, objects, and also people does it generate heat. This effect is familiar to everyone from sunny winter days. Even when the air is very cold you can feel the warm rays of the sun on your skin. It makes you feel a temperature that is higher than the actual air temperature. This explains the great benefits and the sustainability of radiated heat.

## 2. INTERESTING FACTS ABOUT WOOD AND THE ENVIRONMENT

**WOOD – NATURAL AND PRACTICAL!**

**THE FUTURE HAS NOW BEGUN!**

### 2.1 WHAT IS WOOD?

Do you know what you are putting in the firing chamber of your Tonwerk storage heating stove when you are filling it with wood?

This is 50% carbon, 42% oxygen, 6% hydrogen, and 2% mineral substances, nitrogen, oils, resins, tanning agents, and colorants.

...that is wood!

### 2.2 ENVIRONMENTAL PROTECTION

Burning firewood releases only as much CO<sub>2</sub> as the tree has absorbed from the atmosphere during its growth.

And when the firewood comes from nearby there are no additional CO<sub>2</sub> emissions from transport.

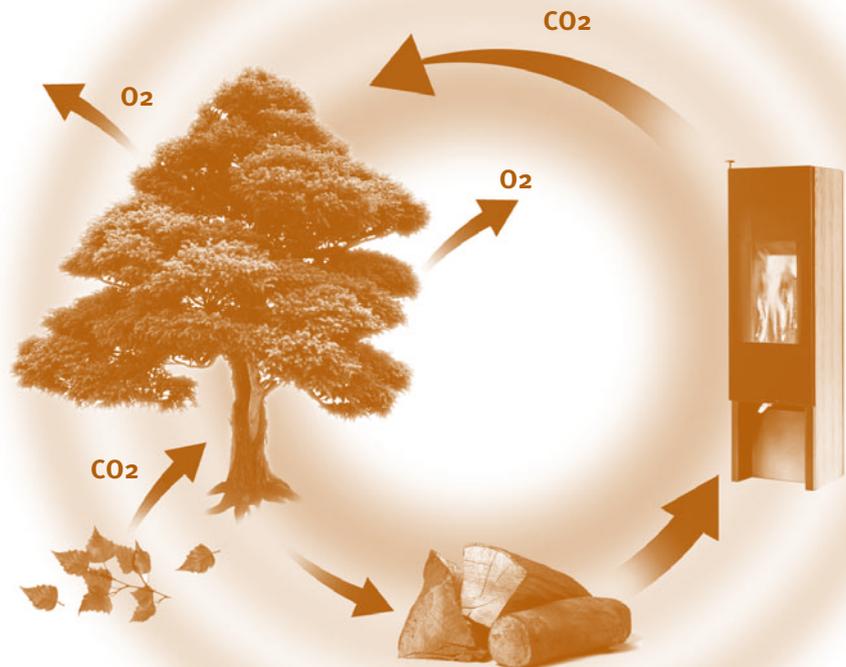
Wood rotting in the forest generates the same amount of CO<sub>2</sub> as the same wood burning.



Wood does not contribute to the greenhouse effect!



Wood is stored solar energy.



## 2.3 BUYING FIREWOOD

Where can I get my firewood?

### BUYING READY-TO-BURN FIREWOOD

Regenerated ready-to-burn firewood can be purchased from dealers:

- stove-ready, stored for at least two years
- predried, stored for one year
- fresh from the forest

**Every dealer has a wood moisture meter that they use to test the wood they buy. The ideal residual moisture is 12–15% and should be no higher!**

### TREATING FIREWOOD YOURSELF

Unseasoned wood can be purchased from the forestry office, owners of woodland, or the community:

- trunks lying in the forest
- seasoned trunks by the wayside

Whether you have cut your own wood or bought it, the important thing is: **the wood should be dried for at least two years before it is burned!**

## 2.4 DRYING AND STORING WOOD

### DRYING

The water content of firewood has a great effect on its burning properties. Your wood should be as dry as possible. Only then can it give off much heat and burn without polluting the environment. Freshly cut wood can contain between 45 and 60% moisture depending on the season and type. After the optimal drying this water content drops to below 15%. Depending on the wood type this can take about two years, and even longer for some kinds.



**Damp wood damages your stove and reduces the calorific value!**

### STORAGE

If firewood is to dry thoroughly, it must be cut into small pieces.

Check this yourself: the circumference should be max 20–25 cm. Store the wood out of doors, protect it from rain and snow, and make sure it is well ventilated.



**What you must not burn: refuse, wet wood, briquettes!**

## 2.5 WOOD TYPES AND CALORIFIC VALUE

The calorific value describes the heat energy released when one kilogram of fuel is burned under specific conditions.

The calorific value is based on the volume specified in stacked or solid cubic metres.

The various wood types have various calorific values:

TREE	CALORIFIC VALUE
<b>Hardwoods</b>	
beech, oak, locust	2100 kWh/stcm
birch	1900 kWh/stcm
sycamore	1900 kWh/stcm
<b>Softwoods</b>	
Douglas fir, pine	1700 kWh/stcm
larch	1700 kWh/stcm
spruce, fir	1500 kWh/stcm

The values are based on 15% residual wood moisture!

**A TONWERK STORAGE HEATING STOVE CAN BE FIRED WITH ALL OF THE ABOVE WOOD TYPES.**



The many oils and resins in larchwood also provide for an acoustic fireworks!

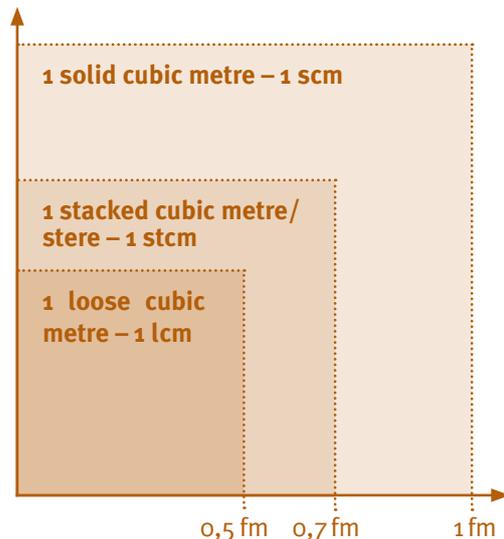
## 2.6 UNITS OF MEASUREMENT FOR WOOD

**Solid cubic metre (scm):** As its name suggests, the solid cubic meter corresponds to one cubic metre of solid as opposed to stacked wood.

**Stacked cubic metre (stcm) or stere (st):** A stacked cubic metre or stere corresponds to one cubic metre of stacked wood including the gaps between layers. One stere equals 0.7 solid cubic metres.

**Loose cubic metre (lcm):** The loose cubic metre is a measure for chopped firewood that is loosely packaged for trade and transport. One loose cubic metre is 0.7 steres or about 0.5 solid cubic metres.

**NOTE THE SPECIFIED UNIT OF MEASUREMENT WHEN ORDERING!**



## 2.7 WHAT HAPPENS WHEN WOOD BURNS

Burning or combustion is a rapid oxidation of substances forming flames. When wood burns, the oxygen in the air combines with the carbon and hydrogen in the wood. In the process, energy is released in the form of heat and light. In the ideal case the products of complete combustion are only carbon dioxide, ashes (formed primarily of the wood's mineral constituents), and water.

The combustion process on firewood can be divided roughly into three phases.

**Heating and drying** – In this first phase the water and other volatile substances stored in the firewood evaporate.

**Pyrolysis** – In this second phase the firewood decomposes at temperatures from about 150 °C.

**Actual combustion** – In this third phase the gases formed in the first two phases react with additional oxygen from the atmosphere to form carbon dioxide and water. Also any remaining charcoal burns completely with time in the combustion zone. Only ashes remain as the single residue of combustion. Each phase of combustion can be observed very easily on an open fire.



Burning wood is a proactive contribution to climate protection!



A fire needs three things: fuel, oxygen, and heat.

## 3. APPROVALS AND CERTIFICATIONS

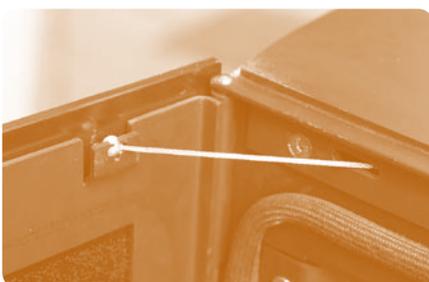
### 3.1 APPROVAL

Your Tonwerk storage heating stove has been tested under the following standards:

DIN 18891 Art 15a B-VG (Model 1)  
EN 13240

### 3.2 MODEL 1 – SELF-CLOSING FIRING CHAMBER DOOR

The Tonwerk storage heating stove is fitted as standard with a self-closing firing chamber door. This is an important operating and safety element. The door closes automatically as soon as it is released. Consequently the Tonwerk storage heating stove is suitable for connection to flues with multiple installations (several Model 1 stoves connected to the same flue).



### 3.3 SEAL OF QUALITY

On the basis of these tests the Tonwerk storage heating stove has been awarded the following approvals:

Schweizerische Brandschutzzulassung der Vereinigung Kantonaler Feuerversicherungen (Swiss Fire Protection Approval issued by the Association of Cantonal Fire Insurance Underwriters) VKF no. Z 10980

Qualitätssiegel für Holz-Feuerstätten der Vereinigung für Holzenergie Schweiz (Seal of Quality for Wood Fireplaces issued by the Association of Swiss Wood Energy Users) VHe-Nr. 0104/1



### 3.4 CE CONFORMITY

The manufacturer, Tonwerk Lausen AG, confirms that the Tonwerk storage heating stove conforms to the standards under EN 13240 and that the quality requirements are constantly monitored.

Rhein-Ruhr-Feuerstättenprüfstelle GmbH; RRF409930

### 3.5 RATINGS PLATE

The ratings plate is affixed to the left side next to the ash drawer.

## 4. FIRE PROTECTION

The national and European standards, the local and building legislation, and the fire safety terms and conditions must be observed without condition. Your chimney sweep or Tonwerk partner company will be pleased to inform you.

### 4.1 SAFETY DISTANCES TO FIXED TONWERK STORAGE HEATING STOVES: T-ONE SWING, T-ONE STONE

#### Safety distance A

The side and rear panels must be no closer than 20 cm to flammable materials

#### Safety distance B

Smoke pipes must be no closer than 20 cm to flammable materials

#### Safety distance C + D

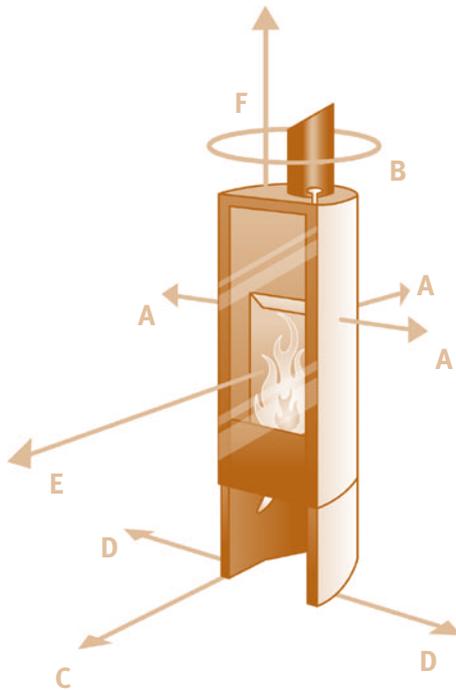
Flammable floor materials must be no closer than 50 cm to the front and 30 cm to the sides

#### Safety distance E

Firing chamber apertures must be no closer than 80 cm to flammable materials within the radiation zone

#### Safety distance F

The minimum distance from the ceiling is 50 cm



### 4.2 SAFETY DISTANCES TO SWIVELLING TONWERK STORAGE HEATING STOVES: T-ONE SWING, T-ONE STONE

#### Safety distance A

The side and rear panels must be no closer than 20 cm to flammable materials

#### Safety distance B

Smoke pipes must be no closer than 20 cm to flammable materials

#### Safety distance C+D

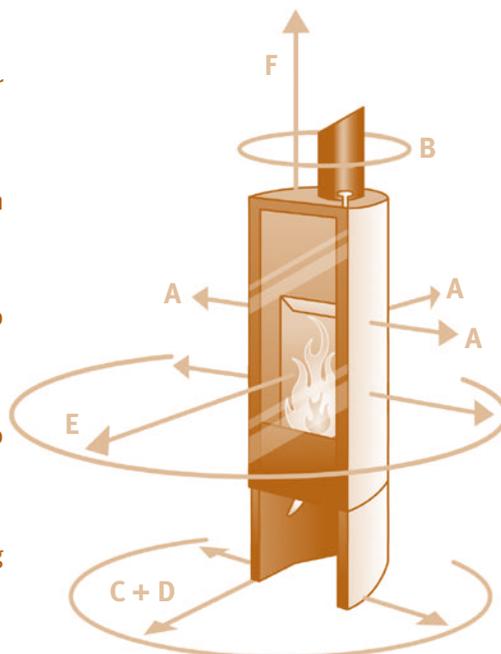
A minimum distance of 50 cm applies to the whole swivelling range

#### Safety distance E

A minimum distance of 80 cm applies to the whole swivelling range

#### Safety distance F

The minimum distance from the ceiling is 50 cm



### 4.3 GENERAL SAFETY INSTRUCTIONS

- Never leave children alone or unattended at a burning fireplace.
- Teach your children how to behave properly and operate safely the fireplace.
- Every stove gets hot when fired: risk of burning!
- Avoid touching the outside surfaces when the stove is operating.
- Do not burn refuse or painted wood.
- Dispose of the ashes only after they have cooled completely.
- Inform your specialised dealer without delay of defect gaskets.
- Observe the information in our operating instructions and make a proactive contribution to fire prevention and the protection of our environment.

### 4.4 CHIMNEY SAFETY INSTRUCTIONS

The condition and functionality of your chimneys must be inspected by a chimney sweep or specialist before the Tonwerk storage heating stove is installed.

This will provide the optimal conditions for trouble-free heating.

# 5. OPERATING INSTRUCTIONS

## 5.1 BEFORE FIRING THE STOVE FOR THE FIRST TIME

Dear Customer,

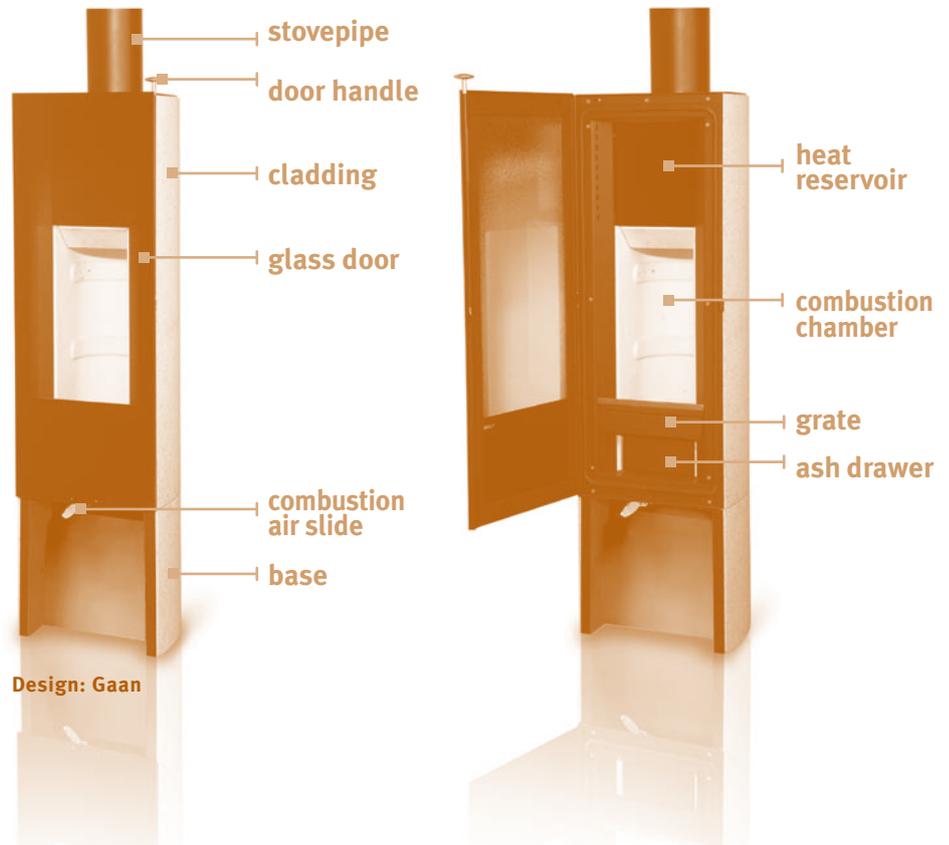
You have now been instructed by one of our specialised dealers on how to fire your Tonwerk storage heating stove.

In these operating instructions we wish to set down each step that you must take if you are to encounter no problems when operating your Tonwerk storage heating stove.

Read through these operating instructions carefully and keep them in a safe place. Your specialised dealer will be pleased to assist you with any questions you may have.

## 5.2 ABOUT THE STOVE

What's what?



## 5.3 GENERAL INFORMATION

### 5.3.1 WHEN THE STOVEPIPE PAINT DRIES

When the stove is fired for the first few times the paint on the stovepipe emits an odour when it dries.

Make sure that the combustion chamber is completely filled. The Tonwerk storage heating stove then reaches its optimal operating temperature and the paint dries faster.

Also make sure the room is well ventilated during this phase.

### 5.3.2 VENT PIPE AND VENTILATING SYSTEM

Extractor hoods and ventilating systems can affect the operation of your Tonwerk storage heating stove.

Please make sure that there is adequate incoming air for multiple installations.

### 5.3.3 HEATING IN THE TRANSITION TIME AND IN DIFFICULT CONDITIONS

In damp or foggy weather, at outdoor temperatures from 15 °C, and during the transition time you are advised to light a pilot fire before firing the stove proper. This serves to displace the cold, heavy air in the chimney and to create the right conditions for the optimal extraction of smoke.

This pilot fire is lit with paper in the chimney's inspection aperture until extraction is assured.

### 5.3.4 PREPARATIONS FOR FIRING

Have ready an adequate supply of chopped firewood, ecofriendly lighting aids, and kindling. You are best storing the wood in a warm room for a number of days before firing.

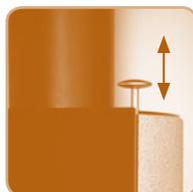


## 6. FIRING THE STOVE

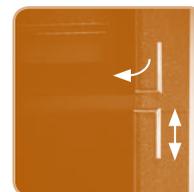
Place the firewood inclined slightly towards the back in the firing chamber. Place an ecofriendly lighting aid at the centre and two handfuls of kindling over the top. Bear in mind that the stove must be filled completely with small pieces of chopped wood 33 cm in length. If you have a supply of mixed wood types, you can burn these together.



Now ignite the lighting aid and close and lock the door. Make sure that the lock engages properly. The wood burns from top to bottom.



T-ONE STONE /  
T-ONE-SWING



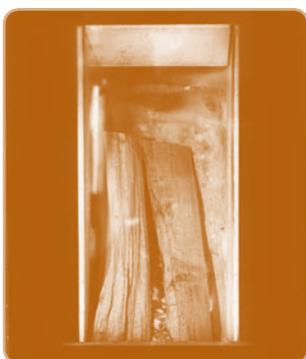
T-BACK



Make sure that the combustion air slide is at the right position . The firewood can burn cleanly and effectively only when the combustion air slide is fully open.

### IMPORTANT!

Keep the combustion air slide open for the whole duration of the combustion process. Only when there is a strong blaze does the wood release its whole energy that can then be absorbed by the storage stone.



### 6.1 ADDING MORE WOOD

If you want to continue enjoying the flames add another two pieces of firewood while there are enough flames visible. The added wood ignites within a few minutes and burns from bottom to top. Every combustion process is different, and you will soon find the optimum time for putting on more wood.

### IMPORTANT!

Open the door slowly: first just a gap wide so that the pressure in the firing chamber can equalise. This helps to reduce flying ash.



Once the wood has burned completely and all flames have extinguished, move the combustion air slide to the „minus“ symbol, thereby closing off the supply of air. This prevents the heat reservoir from cooling too quickly. Your Tonwerk storage heating stove stays warm longer.

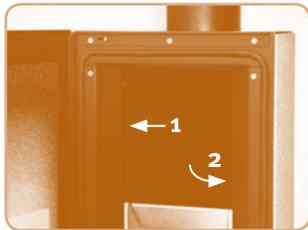
Now also close the smoke flue flap, if installed and permitted.

### IMPORTANT!

The high temperature fluctuations in the firing chamber give rise to natural cracking. **These cracks do not affect the operation or function of your Tonwerk storage heating stove.**

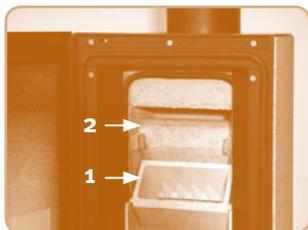
# 7. CLEANING AND CARING FOR YOUR STOVE

Empty the ash drawer only when it has cooled completely. If necessary you can clean the window with a moist cloth and some ashes. Repeat for stubborn soiling or use a special flue window cleaner. Rough surfaces on the outer cladding can be vacuumed off with an upholstery attachment. Polished surfaces are cleaned with a spray-wet cloth. The provided cleaning stone is used to remove stubborn soiling. Under no circumstances must you use hard brushes or chemical cleaning agents. The optimal functionality is obtained when the chimney, stovepipe, and stove are cleaned at least once a year.

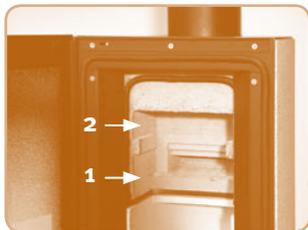


## 7.1 CLEANING THE SMOKE FLUE

Remove the panel (2) from the smoke flue by pushing it to the left (1) and pulling it towards you at an angle.

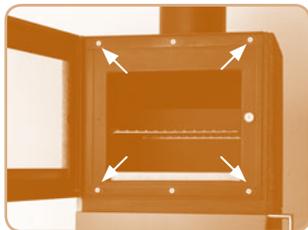


Pull out towards you the secondary combustion chamber (1) behind and the baffle stone (2).



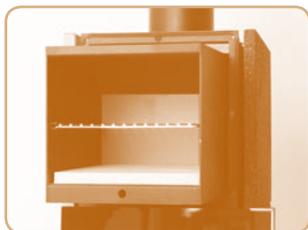
Now clean the stovepipe and the smoke flue, and remove the residue with a vacuum cleaner.

Return the baffle stone (2) and the secondary combustion chamber (1) to their original positions. Now insert the panel back between the gasket and spring shackles.

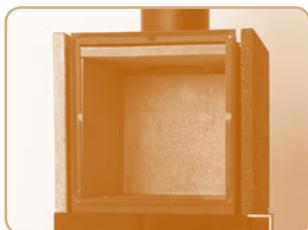


## 7.2 CLEANING THE BAKING CHAMBER

Loosen and remove the four corner screws (arrows). Pull out towards you the frame with the glass pane.



Now pull out towards you the baking insert and clean the housing.



Now clean the stovepipe and remove the residue with a vacuum cleaner. Afterwards clean the smoke flue as described in Section 7.1.

Now return the baking insert and screw in place the frame with the glass pane.

**WE WISH YOU MANY  
PLEASANT HOURS WITH  
YOUR TONWERK STOR-  
AGE HEATING STOVE.**



## 8. TIPS & TRICKS

**Wood does not ignite when stove is fired; fire just smoulders away; fire extinguishes:**

- open combustion air slide
- kindling unsuitable
- wood too damp
- firewood too thick
- ash drawer full

**Heavy sooting in the firing chamber; heavy sooting on the window:**

- open combustion air slide
- too little wood
- firewood damp or too thick

**Smoke escapes from the stove:**

- assure adequate extraction in the chimney, light pilot fire
- provide for adequate supply of air

**Your specialised dealer will be pleased to assist you with any further questions you may have.**

## 9. WARRANTY

We grant a five year warranty for your new Tonwerk storage heating stove. The warranty period begins on the day the stove is installed and tested by the specialised dealer.

Warranty claims become valid when the purchase price for the stove has been paid in accordance with the agreement and the warranty certificate has been completed and returned within thirty days to Tonwerk Lausen AG.

If one of these conditions is not fulfilled the minimum warranty of six months applies.

### 9.1 WARRANTY TERMS

proper installation by a specialised dealer

handling in accordance with the provided operating instructions

no continuous firing

no overheating

regular maintenance / cleaning (once a year)

### 9.2 EXCLUDED FROM THE WARRANTY

wearing parts like gaskets, cast grate, fireclay, and glass

smoke and soot damage

natural discoloration or deviating colours on the outer cladding

cracks in the combustion chamber that have no effect on the safe functioning of the Tonwerk storage heating stove

damage incurred through failure to observe these operating instructions

damage covered by an insurance policy or other agreement

## **GARANTIEZERTIFIKAT**

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Wir gewähren für Ihren neuen Tonwerk Speicherofen eine Garantie von 5 Jahren. Die Garantielaufzeit beginnt mit dem Tag der Inbetriebnahme durch den Fachhändler. **Der Garantieanspruch tritt dann in Kraft, wenn der Kaufpreis für den Ofen vertragsgemäß entrichtet ist und das Garantiezertifikat vollständig ausgefüllt innerhalb 30 Tagen an die Tonwerk Lausen AG zurückgesendet wird.**

Wird eine dieser Bedingungen nicht erfüllt, so gilt die Mindestgarantie von 6 Monaten.

## **CERTIFICAT DE GARANTIE**

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Nous vous apportons une garantie de 5 ans pour votre poêle à accumulation neuf. La période de garantie commence à courir à partir de la date de mise en service par le distributeur spécialisé.

**Votre prétention à la garantie entre en vigueur au moment où vous vous êtes acquitté du prix d'achat du poêle fixé par contrat, et si vous avez renvoyé dans un délai de 30 jours à la Tonwerk Lausen AG le certificat de garantie intégralement rempli.**

Si l'une de ces conditions n'est pas respectée, on appliquera une garantie minimale de 6 mois.

## **WARRANTY CERTIFICATE**

---

We grant a five year warranty for your new Tonwerk storage heating stove. The warranty period begins on the day the stove is installed and tested by the specialised dealer.

**Warranty claims become valid when the purchase price for the stove has been paid in accordance with the agreement and the warranty certificate has been completed and returned within thirty days to Tonwerk Lausen AG.**

If one of these conditions is not fulfilled the minimum warranty of six months applies.

## **CERTIFICATO DI GARANZIA**

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Per la vostra nuova stufa d'accumulo Tonwerk vi offriamo una garanzia di 5 anni. Il periodo di garanzia ha inizio il giorno della messa in funzione da parte del rivenditore specializzato.

**Il diritto alla garanzia entra in vigore quando il prezzo d'acquisto della stufa è pagato conformemente al contratto e il certificato di garanzia è rispedito compilato in tutte le sue parti entro 30 giorni a Tonwerk Lausen AG.**

Tonwerk Lausen ata, verrà applicata la garanzia minima di 6 mesi.



**Tonwerk Lausen AG**

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**TONWERK**   
SPEICHERÖFEN  
MADE IN SWITZERLAND