For the warmest of welcomes

OWNERS MANUAL

A comprehensive guide to the installation, assembly, operation and maintenance for all Horvat Tehnika wood burning stoves

PLEASE READ THIS ENTIRE OWNER'S MANUAL BEFORE YOU INSTALL AND USE YOUR NEW HORVAT TEHNIKA WOOD STOVE.
To reduce the risk of fire, follow the installation instructions. Failure to follow these instructions may result in property damage, bodily injury, or even death.
Congratulations and Thank you for buying a most unique wood burning stove from Horvat Tehnika.

Many homeowners concerned about rising home heating costs purchase wood stoves to reduce heating bills. Adding a wood stove to a house must be undertaken properly to ensure a safe installation. A wood stove is unlike any other device presently in a modern home.

A wood stove regularly has surface temperatures over 200 degrees Celsius. The interior stove temperatures are over 500 degrees Celsius, and if a chimney fire occurs, temperatures over 1000 degrees Celsius ire possible. Obviously, a device that can achieve such high temperatures must be treated with respect, and installed, operated and maintained properly to ensure the device does not pose any hazard in the home.

We have tried to make these instructions as straightforward and comprehensive as possible. Please read throught this manual carefully.

Warning:

The stove must, not be modified in any way without our express permission, any unauthorised modification will invalidate the guarantee.

Unpacking the stove

Take care in unpacking the stove from the cardboard box and wooden pallet to avoid any staples that may protrude from the wood.

Instalation

SAFETY NOTICE: A HOUSE FIRE MAY RESULT IF STOVE IS NOT INSTALLED PROPERLY. FOR YOUR SAFETY, CAREFULLY FOLLOW THE INSTALATION DIRECTIONS.

Locate your stove in a safe, convenient, open area; away from traffic flow, doors, and hallways, and near a chimney and chimney connector. Review the proper clearance measurements from combustible surfaces. Keep furniture, drapes, curtains, wood, paper, and other combustibles far away from the stove.

Never install the stove in a location where gasoline, kerosene, charcoal lighter fluid or other flammable liquids are used or stored. Locate the stove centrally in your living area to allow the heat to travel naturally to distant rooms.

One a location for a stove is established, prepare the area properly to ensiue there is adequate clearance from any combustible surfaces. Combustible surfaces include floors, furniture, and walls of plaster, drywall or paneling.

Combustible flooring must be protected with a covering of noncombustible material. The floor protection must extend beyond the body of the stove at the minimum as shown in the picture.

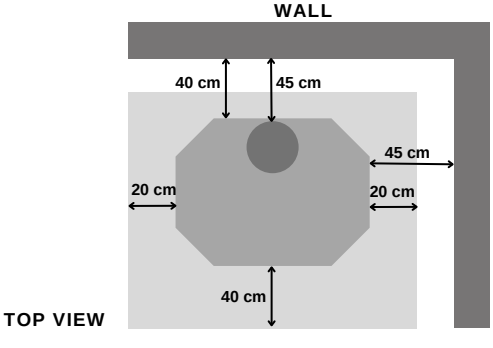
With the stove properly installed, connect the stove to the chimney. For this connection, use a heavy gauge stove pipe--generally (ф120 for most instillations. The connecting stove pipe must be as short as possible. Secure all joints and connect the pipe with the crimped ᴇнd pointing downward to contain creosote. It is important to observe the 45cm clearance from combustible surfaces.

Any chimney must have adequate capacity, correct height, proper location, proper clearance from combustibles and proper mechanical support to be a safe installation. The chimney must be high enough to ensure efficient functioning of the stove.

There are several safety recommendations to follow after installing a wood stove:

- Regularly inspect the entire installation. Inspect it carefully and frequently during the first few months of operation to be sure that everything operates properly and familiarize yourself with its operating and maintenance characteristics.
- Clean the chimney at least once a year.

It is extremely important to follow all of the installation procedures outlined in this fact sheet when installing a wood stove. The most efficient wood stove is not going to save any money if the end result is a house fire. Since the wood stove is a potentially dangerous device, treat it with respect and show proper adherence to installation procedures.



TOP VIEW

- OPERATOR ERROR: Make sure all the gaskets are in good condition. Replace worn out or compressed gaskets. Do not burn the stove with the front, side, ash door, as well as the ash grate in the open position.

Monitoring, the temperature of the surface of the top stones is the best way to determine if the stove is overfiring. If you suspect that your stove is overfiring, contact your dealer immediately. Damage done by overfiring is not covered by your warranty. Results of over-firing can include: warped or burned out internal parts, cracked stones, discolored or warped external parts, and damaged enamel.

Maintenance

Use of a wood stove requires regular attention to a few maintenance procedures: proper cleaning of the chimney to remove creosote deposits, and regular inspection of the installation and handling of ashes. Creosote is an inevitable by-product of burning wood. Periodically clean out the deposits formed on the chimney walls to ensure good performance of the stove and reduce any safety hazards created by the creosote deposits. Clean chimneys at least once a year.

Check the stove installation at least once a year to be sure that there is no hazard created by the stove and that clearances from combustible surfaces arc maintained. It is important to check the stove pipe used in the chimney connection. Stove pipe is subjected to high temperatures and will corrode in time. It must be checked periodically and replaced when it appears to be corroding beyond safe limits.

REMOVAL AND DISPOSAL OF ASHES

Ashes should be removed when the stove is cold. Use protective fireplace gloves when the pan is warm. Exercise extreme caution when handling, storing or disposing of ashes.

The ash pan and ash pan access door is located under the ash lip. The ash pan collects burned ash from a fire and allows you to conveniently remove the ash from your wood stove. The firebox should be cleared of ashes daily by sliding the ash grate sideways, sifting the ashes across the gate into the ash pan, then returning the grate to its closed position. The ash pan is easy to remove and has a handle for convenient disposal of ashes.

Ashes should be dumped from tho ash drawer into a metal container with a tight fitting lid. Do not place any other items or trash into the metal container. Replace the lid onto the container and allow the ashes to cool. Do not place the ash disposal container on a combustible surface or vinyl flooring, as the container will be hot!

Pending disposal, place the closed ash container on a noncombustible floor or on the ground, well away from all combustible materials.

Ashes should be retained in the closed container until all cinders have thoroughly cooled. Ashes should NEVER be placed in wooden or plastic containers, or in paper or plastic bags, no matter how long the fire has been out. Coals within a bed of ashes can remain hot for several days once removed from the firebox.

GLASS

Do not operate the stove with a broken door glass. Do not abuse the front door by striking or slamming. When necessary, the glass can be cleaned with low alkaline content commercial stove glass cleaners, which are available from your local dealer. Never attempt to clean the glass while the fire is burning or the glass is hot.

Important Safety Information

WARNING

Never touch the stove with your bare hands when it is hot. All surfaces of the stove, including the door knobs and air controls, will get very hot when the stove is in use - always use the stove operating tool provided, or at the very least wear stout oven gloves.

- Do not place combustible materials in close proximity to the lit stove.
- Never use aerosol spray near the stove when it is alight.
- Do not attempt to burn any liquid fuel in the stove
- Never fit an extraction fan in the same room as the stove, it can stop the chimney from drawing properly.
- It is essential that the fire has an adequate air supply for combustion and ventilation. Ventilation apertures fitted in walls are provided for this purpose and must not be restricted (e.g. blocked up or wall papered over).

When using your stove:

- Warn children and others unfamiliar with woodstoves of the danger of touching hot, radiating surfaces of your stove. For your additional safety, obtain hearth and stove guards through your local dealer.
- Burn natural wood only. Higher efficiencies and lower emissions result when burning air-dried. seasoned wood, as compared to green or freshly cut wood.
- Use caution when loading firewood into a hot stove.
- Keep the side and front doors closed at all times except when loading wood.

Operation

CHOOSING FIREWOOD

When an efficient, airtight stove is selected and installed with a proper chimney, the efficiency and safety of the stove operation largely depends on the skill of the operator. The first consideration in operating a stove efficiently is properly preparing the wood for use in the stove. Thoroughly air dry the wood to ensure a moisture content of about 20 percent so that the maximum amount of energy is extracted from the wood.

Green wood does not burn well and the amount of energy available in green wood is 60 percent less than the amount of energy available in dry wood. Season green wood at least six months. Protect the wood from rain or snow with a cover so it does not absorb moisture.

The type of wood used also affects stove operation. Regulate stove operation by the size and type of wood used. Use hardwood. If available, for overnight burns since its higher density provides a longer duration burn. Use small split wood for fire starting and quick heating, often needed in the morning. Use larger round or split pieces when the stove is regularly attended.

Air controls

Primary air controls: The handle is located on the front bottom of the stove, generally beside the ash door latch. The primary air control allows you to regulate the amount of air entering the firebox. Generally, the more air allowed into the firebox, the faster and hotter the rate of burn; conversely, less air creates a slower burn.

To fully open the primary air intake, push the handle as far as it will go to the left away from the firebox; push the handle as far as it will go to the right, towards the firebox to close the primary air control. These are kept fully open when lighting the stove, to boost combustion when adding fresh fuel, or to increase the burn rate of the fire bed.

Secondary air controls: These allow extra air, which is preheated, into the upper part of the combustion chamber giving a hotter burn. This preheated air is directed down over the glass, which will tend to burn any deposits off the glass and allow a clear view of the fire. The use of these controls makes the most of the fuel and will give cleaner emissions.

BUILDING A FIRE

Once you understand the controls of your wood stove and have chosen the appropriate firewood, you are ready to start a fire.

When you light your first fires, the wood stove will emit some smoke. This is normal off-gassing of the paints and oils used when manufacturing the wood stove. If you find it necessary, open a few windows to vent your room. The smoke and fumes will usually subside after 10 to 20 minutes of operation. The odor and smoke will end once the stove is "cured".

BUILDING A FIRE FOR EVERYDAY USE

1) Open the front or side door and place five or six double sheets of tightly twisted newspaper in the center of the firebox. Arrange kindling in a crisscross pattern over the newspaper.

2) Fully open the primary air control by pushing it completely to the left, away from the firebox.

3) Light the paper under the kindling. Leave the front door slightly ajar momentarily until the kindling has started to burn and draft begins to pull.

4) Close the door and allow the fire to burn.

5) Once the kindling is burning, open the front or side door and add logs, small at first, to build the fire up. Make sure to keep the logs away from the glass in front in order for the air-wash system to work properly. Otherwise, keep the doors and ash drawer closed while the stove is in use.

6) Once the fire is burning well, use the primary air control to regulate the desired rate of burn. Pushing the handle to the left opens the PRIMARY AIR CONTROL for a high rate of burn or pushing it to the right for a low rate of burn.

Note: When opening the front or side door to reload or re-arrange logs, it is advisable to open the door just a crack, pause for a moment then open the door completely. This procedure will allow the firebox to clear of smoke before the door is opened fully. Also, reloading on a bed of hot, red coals reduces smoking time and will bring fresh fuel up to a high temperature rapidly.

OVER-FIRE CAUTION

Over- firing; means the stove is operating at temperatures above the recommended temperatures outlined above in the BURN RATE section. Over-firing should be carefully avoided since it will cause damage to the stove. Symptoms of over firing include short burn times, a roaring sound in the stove or stovepipe, and discoloration of the stovepipe.

Over-firing; can be caused by excessive draft, inappropriate fuel, and operator error. Correct an overfire situation as follows:

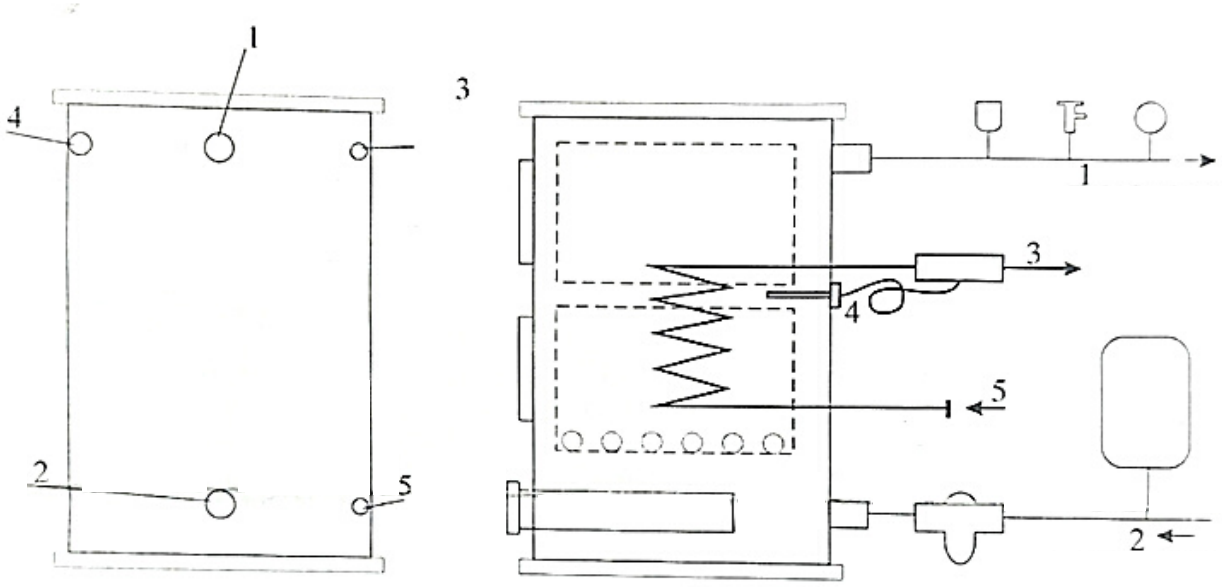
- INAPPROPRIATE FUEL: Do not burn coal, kiln dried lumber, wax logs or anything other than natural cordwood.
- Keep the ash pan tray fully inserted and the ash door closed tightly.
- Inspect the stovepipe, chimney connector and chimney, as recommended.
- Be sure the removable ash lip is in place while using the stove. If the ash lip is not installed properly, the hearth may exceed safe temperatures. Follow these safety precautions:
- Never modify this stove in any way, especially the primary air control system.
- Never burn kiln dried wool, painted or treated wood, solvents, trash, plywood, colored or glossy paper, artificial logs, cardboard, coal, garbage or driftwood. Especially, do not burn coal in this stove.
- Never use gasoline type fuel, kerosene, charcoal lighter fluid, or other liquid fuels or solid fire starters to start or invigorate the fire. These fuels can possibly generate carbon monoxide, which can sap the supply of oxygen. Keep all such materials away from the stove.
- Never use the stove if the ash pan door is open, damaged, not in place, or not sealing.
- Never use a wood grate or other device to elevate the fire.
- Do Not allow logs to rest against or otherwise come in contact with the glass when the door is closed.

- Do Not slam the door or use the door to force wood in to the stove.
- Never over-fire your stove.
- Never put articles of clothing or candles on a hot stove.
- Do Not connect the stove to a flue that is serving another appliance.

PROBLEM	POSSIBLE CAUSE	SOLUTIONS
STOVE SMOKES	Operating Technique	Fully open the primary air control one minute before opening doors.
	Cold Chimney	Preheat the chimney when first starting a fire.
	Blocked Chimney	Examine the chimney and stovepipe for blockage or creosote accumulations.
	Oversized Chimney	Reline the chimney to the appropriate diameter.
	Undersized Chimney	Install a draft inducer or replace the chimney.
	Chimney Too Short	Lengthen the chimney.
	Air Infiltration Into The Chimney	Seal chimney connections and openings in clean-out doors.
	More Than One Appliance Connected to the Flue	Disconnect all other appliances and seal openings.
BACK-PUFFING OR GAS EXPLOSIONS	Operating Technique	Disconnect all other appliances and seal openings.
	Extra Low Burn Rate	Burn the stove at a higher burn rate.
	Chimney Down-draft	Install a chimney cap.
	Excessive Ash Build-up	Empty ash pan more frequently.
UNCONTROLLED OR SHORT BURN	Unsealed or Open Door	Close the door tightly or replace the gaskets.
	Open ash grate	Slide ash grate to closed position.
	Excessive Draft	Check the installation. Operate at LOW BURN. Install stovepipe damper.
	Deteriorated Cement Seals	Reseal the stove with furnace cement.
	Extra Long Chimney	Shorten the chimney. Install stovepipe damper.
	Oversized Chimney	Reline the chimney to the proper diameter.
	High Winds or Hilltop	Install a chimney cap.
	Location: Excessive Draft	Draft in excess of 0.1 we should be corrected with a stovepipe damper
INSUFFICIENT HEAT	Poor Quality or Green Wood	Use only air-dried wood, preferably dried at least one year.
	Low Burn Rate	Operate the stove at a higher burn rate.
	Air Insulated Chimney	Replace with a pre-fabricated insulated chimney system or a properly sized masonry chimney.
	Cold Exterior Chimney	Reline or insulate the chimney.
	Leaky Stovepipe or Chimney	Check the installation.
	Too Much heat Loss From Home	Caulk windows. seal openings in home.
BLISTERING OF ENAMEL CASTING	Operating Technique	Do not over-fire the stove. Monitor stove temperatures. Use seasoned wood only.
	Excessive Draft	Check the DRAFT. A damper may be required. Operate the %to% c at a LOW BURN range.

Installation manual for System for Central Heating

This system for central heating must be installed by a professional.
For every damage caused by unprofessional and bad installation the producer does not recognize the damage under the warranty.



1. Exit for hot water 1"
2. Entry for cold water 1"
3. 5 Protection for overheating 1/2 1/2 1/2'
4. Thermoventil

On the back side of the wood stove are the exits for thermoventil, exit and entry for water circuit. You MUST put the thermoventil on the right pipe hole. Without Thermoventil warranty is VOID.The working pressure of the circuit can not be over 2.5 bar. It is recommended to be from 1.6 to 1.8 bar. Before the firing the stove you should empty the air out of the system.

WARNING:
WITHOUT PROPER INSTALLATION THE WARRANTY IS VOID

SUPPORT AND USEFULL ĺNFORMATION

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