INSTRUCTION BOOKLET

Installation and Operation Guide

Wood-Burning Freestanding Fireplace

Thermo Fires

Leadership Through Quality

Dear Builder / Installer

please hand these

instructions over to the

home owner after reading

Established 2003

Choosing the correct fireplace:

At THERMO FIRES we manufacture different shapes and sizes fireplaces for installation in various positions, i.e.

* Corner Freestanding units were designed to fit snug into a corner of the room and to not use up a lot of floor space, making use of that empty corner.

* Wall-standing units are available in an extensive range of shapes and sizes.

* Room dividers - We have a range of double-sided and glass fireplaces that can be installed in the middle of a large room to delineate different zones.

Choosing the placement:

Once you have decided where to place your unit, your installer may need to check that the roof structure allows for installation in that position, whether you will need bends, or extra flues, etc.

You may have to compromise by moving the unit a little to the left or right to clear roof beams. You may also opt to have a n offset installed in the flue to bend around the offending beam.
NEVER CUT A BEAM TO ACCOMODATE A FLUE.
For installation through a wall, you will need bends, wall plates and flue brackets.

IMPORTANT

If you are installing the fireplace in a room with combustible flooring, i.e., wood or carpet, you must provide for a hearth, made from non-combustible material to protect your flooring. This may be tiles, or a metal floorplate (at least 3 mm thick), or a tempered glass panel (at least 8 mm thick), or a slab of marble, quartz, granite, or similar.

1. The SANS law regarding hearths requires:

* The hearth must extend at least 300 mm beyond each side of the fireplace

* It must extend at least 500 mm in front of the log grate or fire basket

*Combustible materials, i.e., curtains or wood, and electrical points cannot be fitted within 300mm of the sides of the firebox or less than 450mm above the firebox, without making adequate provision to insulate these materials.

2. If you are installing a fireplace through a roof with combustible roofing materials, check with your insurance company about the type of precautions they want you to take. Usually, it is sufficient to install an insulated section of flue through the roofing material, as well as adding spark arrestor mesh to your cowl. We can supply this to you as well. Please ensure your installer reads the section regarding the flue height above the roof.

3. If you are installing a slow- or closed- combustion fireplace you MUST use insulated flues. If we provided insulated flues, PLEASE use them. This is to protect your roof structure from catching fire.

4. Never obstruct the flue outlet or chimney.
See below for instructions specific to the type of fireplace, as well as type of installation, you have chosen:

Instructions for OPEN wood-burning fireplaces – through the roof

This type of fireplace is standard supplied with 1.2 m cold-rolled flue, 2 x 1.2 m electro-galvanized flues, ceiling plate and a turbo cowl. First thing to do is to locate the flue marked with a red and white sticker that reads: PLEASE ENSURE YOU / YOUR INSTALLER INSTALLS THIS FLUE DIRECTLY
ONTO YOUR FIREPLACE.

Place the ceiling (escutcheon) plate over the spigot of the fireplace. Leave there.
Fit the first flue – removing the red and white sticker - crimped end down into the fireplace spigot. The next flue will fit with crimped end into the first flue. Add as many flues as needed (see HEIGHT OF CHIMNEY) and lastly your cowl - which will fit over the uncrimped end of the last flue. Rivet all flues together (as well as the cowl to the top flue) and seal all the flue seams with silicone. Seal around the flue. Lastly push the ceiling plate up to the ceiling and fix with 3 masonry screws.
IMPORTANT: If you did not get a flue marked with a red and white sticker, check the (unpainted) insides of the flues. You should have received 2 (or more) flues with a blue-grey colour (these are your electro-galvanized flues) and one made from a shinier material. This is your cold-rolled flue and MUST BE installed DIRECTLY on top of your fireplace. If you are not sure, please contact us as your warranty will be void if installed incorrectly.

Instructions for wood-burning fireplaces with GLASS DOOR/S – through the roof

These types of fireplaces are standard supplied with a 3.6 m stainless steel insulated fluekit, consisting of: 1.2 m plain flue, 1 x endcap flue, 1 x insulated flue, a ceiling plate and a cyclone cowl with insulated adaptor.

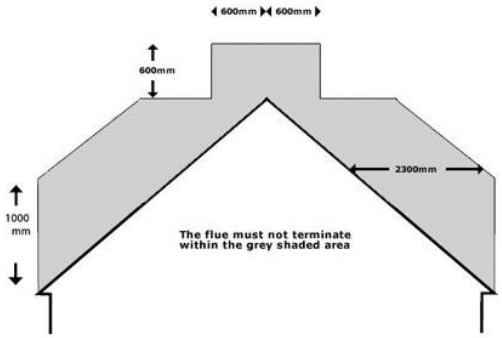
Place the ceiling (escutcheon) plate over the spigot of the fireplace. Leave there.
Fit the first flue crimped end down into the fireplace spigot. The next flue (usually the endcap flue) will simply fit with the crimped end down into the the first flue. The endcap outer flue will now have a crimped end showing up. Next up will be the insulated flue: Ensure you install the insulated flue with the crimped end of the OUTER flue showing up. (The inner flue will fit into the inner of the endcap flue). Add as many insulated flues as needed (see HEIGHT OF CHIMNEY). Lastly, fit the adaptor that was supplied with the cyclone cowl over the crimped end of the last flue, and add the cowl on top of the adaptor.
Please rivet all flues together (as well as the adaptor to the top chimney, and the cowl to the adaptor) and seal all the flue seams with silicone. Seal around the flue. Lastly push the ceiling plate up to the ceiling and fix with 3 masonry screws.

• You may notice the inner flues on the insulated and endcap flues are showing in opposite directions. THIS IS BY DESIGN, AND NOT A MISTAKE YOU SHOULD 'RECTIFY.'
• When installing the endcap flue, we suggest you support the outer flue with strapping to a roof beam, leaving a "gap" of 20 mm between the endcap itself, and the "jenny" of the inner flue. This is necessary as the plain and inner flues will expand due to heat and need to "stretch" without breaking any seal work on top of the roof. The endcap should sit at least 200mm below your ceiling.

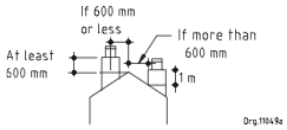
For other types of installations, speak to us.

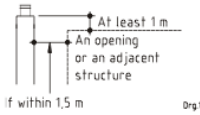
Height of Chimney for non-combustible roofing materials

The flue gasses from the chimney should be able to discharge freely and not present a fire hazard, whatever the wind conditions. To discharge the flue gasses freely, you need a good draw. To get a good draw, you need to raise the flue sufficiently above the roof structure – a surface (like a roof) creates wind eddies and slows the wind down, thus reducing draw. By raising the flue outlet, you bring the top of the flue up into unimpeded air flow. The flue termination is measured to the end of the chimney / flue pipe where the gasses discharge. Rain caps, turbo, or rotating cowls, etc., are not included within this height.



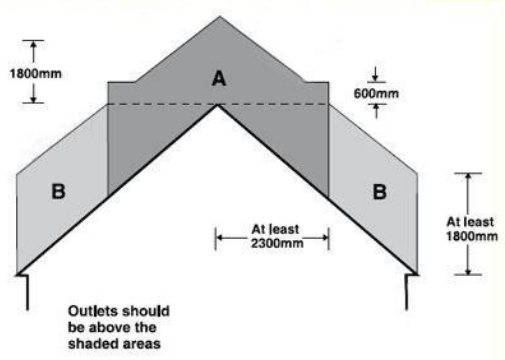
1. The point of outlet of a chimney must be a minimum of 600mm above the highest point of contact of the chimney and the roof, if the centre of the flue is within 600mm of the highest point / ridge,
2. or 2.3m away from the roof structure measured vertically but at least 1m above the highest point of contact of the chimney and the roof, if more than 600mm away from the highest point / ridge of the roof,
3. or 1m above the highest point of a window or roof light that can be opened, or a ventilation inlet situated in a roof or external wall, where the horizontal distance from the nearest point of such window, roof light or opening in a vertical line through the Centre of such chimney is less than 2.3m
4. The point of outlet of a chimney must be a minimum of 1m above the eaves level in the case of a chimney that passes within 1.5m of the nearest wall of such building.
5. On the gable end of such building, the chimney shall not extend less than 1m above the highest point of such gable end, or a roof less than 10º pitch.





Height of Chimney for Combustible roofing materials

When your roof is made of combustible materials like thatch or timber, the recommended distances should be increased to those shown below:



A. If within 2.3 m, measured vertically, from the highest point of the roof - the top of the outlet of a chimney must be at least 1.8m above the highest point of contact of the chimney and the roof, **and** at least 600mm above the ridge / pitch,

B. If more than 2.3m, measured vertically, from the highest point of the roof - the top of the outlet of a chimney must be at least 1.8m above the highest point of contact of the chimney and the roof.

IMPORTANT:

- You must provide for spark arrestor material in the flue liner or in your cowl.
  We strongly suggest using a Thermo turbo cowl with spark-arrestor material on the outside of the cowl, to facilitate cleaning.
- If an exposed flue liner is taken through combustible roofing material, an insulated flue will be needed – which can be ordered from us.

Other Important Notes to keep in mind

- The laws regarding flue lengths are prescribed to "…not present a fire hazard…" and does not guarantee a proper draught. You may have to lengthen the flue outlet if external factors require this, if i.e., you have an A-Frame roof, large trees close to the house, sitting between double-storey homes, etc.
- Never obstruct the flue outlet or chimney.
- **IMPORTANT:** Combustible materials (i.e., electrical points or curtains) should not be fitted within 300 mm of the sides of the unit without making adequate provision to insulate these materials.
- If combustible flooring materials are to be used (i.e., carpet or wood flooring), read the section on page 1 about hearths.
- If you are installing a slow- or closed- combustion fireplace, ALWAYS use insulated flues.

Instructions on how to use your Fireplace

All of our Freestanding fireplaces are supplied with a damper. This is a plate inside the spigot that can be opened and closed (or anything in-between) by way of a handle on the front or rear of the spigot, depending on your unit, in order to regulate the amount of oxygen pulled into the fireplace. The handle will be showing up when it is completely open and to the side when it is completely closed.

Always use dry seasoned wood. Using unseasoned "wet/green" wood will cause black smoke that may pour into your room. Although hard woods like Kameeldoring and Rooikrans is great for braaiing, this is not the best wood to use in your fireplace, as it will burn through your grate much faster than fireplace wood. Rather use wood that won't make as much coals, like Black Wattle or Blue Gum.

The paint on your fireplace will need curing. This happens the first (and sometimes second) time you use your fireplace. It is best to use your fireplace for the first time on a warmer day, leaving open some windows and doors to get rid of the paint smells. Curing may look like smoke leaking "through" the steel, but this is just the curing process, and nothing to be alarmed about.

How to correctly start a fire:

1. Locate your damper handle and open the damper completely.
2. Use a fire starter (i.e., Blitz) and some kindle to start your fire. Kindle is well-seasoned wood that has been chopped up in small pieces (which you can do yourself or buy from your wood supplier). You may also use twigs or pine cones if it is properly dried out.
3. When the kindle is burning properly, add 2 or 3 smaller pieces of wood and wait until this is also burning well, before adding more wood.
4. When the second batch of wood is burning hot, add as much wood as you need. You can now start to 'choke' the unit by closing the damper a bit at a time, by turning the handle sideways. You will know the position is correct when no smoke leaks out the front of your fireplace, and your flames are dancing.
5. **If you bought a unit with (a) glass door/s**, leave the door/s slightly open when first lighting your kindle. You can close the doors when you add the second lot of wood. You may now also start choking the fire by way of the damper and vents.

These steps are very important to allow your unit and flue to heat up, pushing out all the cold air trapped inside your flue, and forming the negative air pressure that will remove all the smoke. Cold air trapped inside the flue may cause a cold-lock, and the fireplace to smoke out.

6. ALWAYS stack your wood to the rear of the unit. Any piece of burning wood that rolls against the glass, will cause thermal pressure in the glass and cause it to break. Your glass is not under guarantee against this.

7. Clean your fireplace regularly to prevent a build-up of ashes and coals underneath your fire grate. If this happens, your grate will burn through (melt) and need more regular replacement.

8. It is good practice to have your chimney swept regularly to prevent flue fires.

Frequently asked Questions

Q: Why is my fireplace smoking out?

A 1: When using the fireplace for the first time

1. Refer to the installation instructions and check the chimney heights conform to required heights. Fix this if needed.
2. Check that the damper is open!
3. Shine a torch down the chimney and remove any obstructions. Also check for mortar in the opening of the flue outlet.
4. If using a rotating cowl, check that it is greased (this must be done every 6 months) and turning freely. If not, grease the cowl.
5. Did you start the fire with kindle? If not, check "Instruction on how to use your Fireplace". The other most common mistake is not using seasoned wood. Seasoned wood must be at least 2 years old, and you should not see or hear any wood sap discharging when burning. Un-seasoned wood also does not burn very hot.
6. Crack a window or open a door. If this works, your home is too air-tight and a negative air pressure is forming in the room. You will have to provide a fresh air inlet or have an extractor fan installed.
7. If nothing works, call us for more advice.

A 2: If your fireplace used to draw correctly, but suddenly starts smoking out:

1. If using a rotating cowl, check that it is greased (this must be done every 6 months) and turning freely. If not, grease the cowl.
2. Check the chimney for obstructions like birds' nests.
3. Call a Chimney Sweeper to clean the chimney. A build-up of soot may, over time, clog up the outlet enough to restrict air-flow. It is good practice to do a sweep and service every couple of years to prevent flue fires.
4. Did the neighbour add an extra storey to his home? Has the tree on your property (or the neighbour's) grown higher than your cowl? You may have to extend your chimney.
5. Check that your damper is not stuck in the "closed" position.

Q: Why is the glass in the door of my fireplace turning black?

A:

1. Using un-seasoned wood will cause this. Seasoned wood must be at least 2 years old, and you should not see any wood sap discharging when burning. Un-seasoned wood does not burn hot enough and, together with the discharge of moisture from the wood, causes a tarry layer on the glass.
2. Check that you followed all the steps on how to correctly light a fire.
3. You may have closed the damper too much and the fire is being starved of oxygen, thus burning too cold. Open the damper completely; this should burn away most of the black residue. Then start closing the damper again, but do not close the damper again as much as before.

Q: How do I clean the glass in the door of my fireplace?

A: Using a damp cloth, dip the cloth into some fine ash from your fireplace and use this to rub clean the glass. Do not use abrasive chemicals that may damage the surface of the glass (and our planet).

Q: How do I clean my mild steel fireplace?

A: Never use harsh chemicals that may cause rust over time. Brush ash & dust away with a soft brush or duster. You may wish to repaint your fireplace from time to time. Please contact us to get the correct paint for the job.

Q: How do I prevent the glass in my fireplace from breaking?

A: When adding wood to your fireplace:
Never throw the wood into the unit, but place it in instead.
Stack wood towards the rear of the unit
Never slam the door on your fireplace
If a piece of wood rolls forward and against the glass, remove it. The heat in the piece of burning wood is different from the ambient temperature inside the fireplace. Leaving it to burn against the glass will cause thermal stress, and may cause the glass to burst.

PS: the glass in our fireplaces are tempered, and upon bursting it will "crumble" into millions of tiny pieces. Rest assured it will NOT explode into shards which could injure someone.

Your Thermo Fireplace carries a 20 years quality warranty on the body of the unit. Please complete the below and keep in a safe place.

Model: _____

Place of purchase: _____

Date of Purchase: _____

Invoice Number: _____

Thermo Fires cc: Designing and Manufacturing
Braais and Fireplaces of the highest standard
since 2003.