Document n° 1054-9 ~ 20/06/2007

# LIMOUSIN

# **Multifuel stove**

# Model : 134 10 12

Output : 10 kW

# DIN EN 13240 : 2005-10



Description of the appliance Installation instructions Operating instructions Spare parts

Warranty certificate

# **Technical manual**

to be saved by the user for future reference



# STAUB FONDERIE

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Subject to modifications.

FRANCO BELGE congratulates you on your choice. FRANCO BELGE, guarantees the quality of its appliances and is committed to meet its customers' needs. FRANCO BELGE, which can boast a 80-year experience in the industry of heating devices, uses state-of-the-art technologies to design and manufacture its whole range of products. This document contains instructions on how to install your appliance and make full use of its functions, both for your comfort and safety.

# This appliance is meant to burn wood safely WARNING

Incorrectly installed, this appliance can be dangerous and possibly cause serious accidents. We recommend that you engage the services of a professional engineer for its installation and the regular maintenance requirements

# CONTENTS

Product information			
Package	Description		
Optional	Principle of operation		
General characteristics p. 3			
Installation instructions			
Warning to the user	Connection to flue		
Location of the unit	Mounting the tray		
Chimney	Pre-utilisation check		
Mounting the flue collar p. 5	Chimney maintenance and sweeping . p. 7		
Instructions for user			
Fuelp.8	Maintenance of the Chimney p. 9		
Instruction for use with wood p. 9	r use with wood p. 9 Maintenance of the stove body p. 9		
Instructions for use with smokeless fuel p. 9	Recommendations		
Cleaning	Trouble Shooting		
Spare parts			

# **1. Product information**

## 1.1. Package

• 1 package : Stove complete.

## 1.2. Optional

• Boiler

# 1.3. General characteristics

#### FUEL : WOOD

FUEL . WOOD	
Reference	134 10 12
Nominal output kW	10
	34 000
Chimney draft required Pa	11
Usable firebox dimensions	
- width mm	540
- depth	250
- height	200
Log dimensions	
- Length maxi	50
Ash pan capacity litres	6,8
Net weight kg	160
Volume heated m <sup>3</sup>	380
Wood	
- Fuel rate kg/h	3,3
- Maximum flue gas temperature °C	291
- Efficiency %	71,9
- Co (13% O <sub>2</sub> ) %	0,28

#### FUEL : ANTHRACITE (smokeless fuel)

 - Flue gas temperature
 ......°C
 234

 - Fuel rate
 ......kg/h
 1,7

 - Efficiency
 ......%
 67

 - Co (13% O<sub>2</sub>)
 0,24

# 1.4. Description

#### Stove, in conformity with DIN EN 13240 : 2005-10

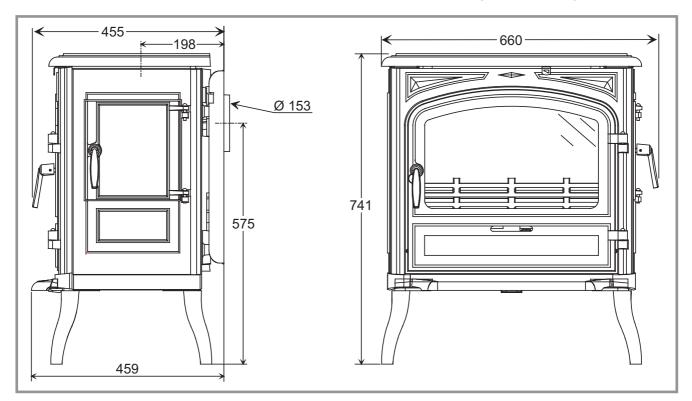
- Intermittent-burning heating appliance.
- Detachable flue collar for rear or top chimney connection.
- Detachable top for easy handling and cleaning (rear flue outlet only).
- Adjustable air control for controlling the burning rate.
- Air control for lighting.
- Large ash-pan.
- Side loading door.

# 1.5. Principle of operation

The "Limousin " is designed for operation with the doors closed.

Heat is mainly diffused by radiation, through the window and body of the appliance.

Combustion occurs on the grate, with draught entry through the top of the combustion chamber when using wood and under the grate when using smokeless fuel.



#### Figure 1 - Dimensions in mm

# 2. Installation instructions

# 2.1. Warning to the user

All the local and national regulations, and in particular those relating to national and European standards, must be observed when installing the appliance.

An incorrectly installed heating appliance can cause serious accidents (chimney fires, burning of plastic insulation materials, in partition walls, etc.).

The insulation of both the appliance and the exhaust gas pipe has to be reinforced and done according to the Standards and the Building Regulations for safety reasons.

Failure to respect the mounting instructions leads to engage the responsibility of the one doing the installation.

The manufacturer's responsibility shall be limited to the supply of the equipment.

# **2.2. Location of the unit**

**Ventilation** : For satisfactory appliance operation with a natural draught, check that sufficient air for combustion is available in the room.

**Position of the unit**: For new installations, select a central position within the house, to provide a good heat distribution around the building. The heat distribution towards the other rooms will be made through the communicating doors.

These rooms must be in negative pressure or must include ventilation gratings.

*Floor and walls :* Make sure they are not combustible or covered with combustible material (as per the Building regulations).

Otherwise it must necessary to install a non-combustible protection.

There must be a clearance of at least 150 mm at each side of the appliance and at the back of the appliance from a non-combustible wall.

This distance must be extended to a minimum clearance of 350 mm from any combustible materials.

This measurement may be reduced to a minimum gap of 50 mm when the non-combustible wall is at least 200 mm thick.

- It is possible to provide a hearth made of non combusible board/sheet material or tiles at least 12 mm thick.
- Constructional hearths should be constructed of solid non combustible material at least 125 mm thick (including the thickness of any non combustible floor under the hearth).
- The hearth must protrude at least 225 mm in front of the stove and 150 mm each side.
- If the hearth is constructed on timber, there must be a clearance of at least 250 mm from the timber to the top surface of the hearth.
- See section J of the Building regulations.

# 2.3. Chimney

The chimney must comply with Current Building Regulations. If in doubt, consult your Dealer or local Building Inspector.

#### Existing flue :

- The flue must be suitable for the installation of fuel burning appliances, otherwise it must necessary to install a tubing.
- The flue must be in good condition and must provide sufficient draught. (refer to technical details p. 3).
- The flue must be clean. It should be swept to remove soot and dislodge tar deposits.
- The flue must be well insulated. If the flue inner wall surfaces are cold, a good thermal draw is impossible causing condensation problems (tar formation etc) to occur.
- The flue must be watertight.
- The chimney must have a constant cross section.
- The flue must not be shared with any other appliance.
- The chimney must be at least 4.5 m (15 ft high).
- In case of a flat roof or when the roof gradient is lower than 15°, the stack must be 1,2 m (4 feet) high at least.
- The capping must not restrain the draught.
- If the chimney has any downdraught tendency, due to its position in relation to nearby obstacles, an anti-downdraught cowl must be installed on the chimney or the chimney height must be increased.

When using a single wall flue pipe, there must be a clearance (A) of at least three times its diameter (B) from any combustible materials.

If the appliance has to be located in an opening, this distance must be extended to a minimum clearance (A) of 375 mm from the pipe or the stove body to any combustible materials.

#### Hearth :

-The appliance must stand on a fireproof hearth.

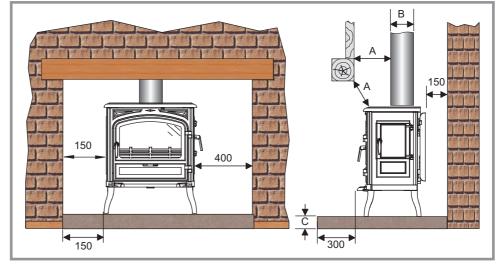


Figure 2 - Clearances

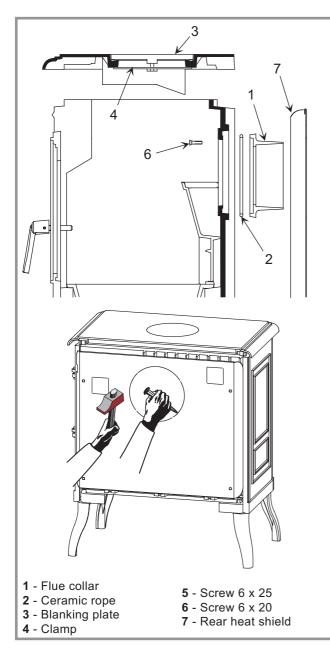


Figure 3 - Rear flue outlet

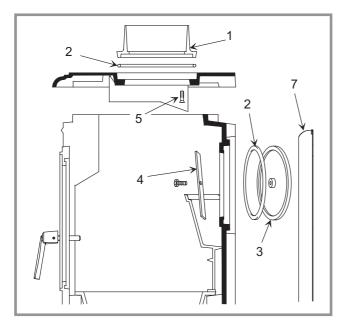


Figure 4 - Smoke exit from top

- If the chimney draught is excessive or irregular, a draught stabiliser (barometric damper) must be installed to the connector pipe.

#### Chimney to be built / New flue

- The chimney must comply with Current Building Regulations. If in doubt, consult your Dealer or local Building Inspector.
- The appliance must not support the weight of the flue.
- Consult a chimney specialist for advice on suitable flue systems for solid fuel appliances.
- It must be distant from any combustible material (walls, cross members)
- It must permit an easy sweeping.

# 2.4. Mounting the flue collar

The stove is supplied with a connection flue collar with an inner diameter of 153 mm.

#### 2.4.1. Flue outlet at rear

#### Figure 3

- Remove the rear heat shield 5.
- Remove the top plate (2 screws).
- Remove the flue baffle.
- Fit the sealing rope 2 in the groove at rear and fix the flue collar 1 with 3 bolts and washers supplied.
- Replace the flue baffle.
- Replace the top plate.
- Remove the cut-out in the rear heat shield and refit.

#### 2.4.2. Flue outlet on the top

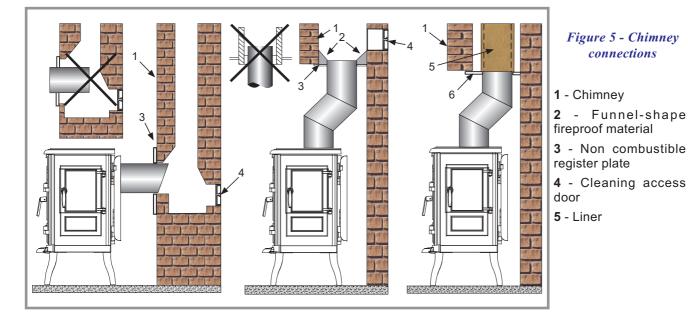
#### Figure 4

- Remove the top plate (2 screws).
- Remove the flue baffle.
- Remove the blanking plate 3 and the clamp 5 and refit them at the rear, ensuring there is a good seal.
- Fix the flue collar 1 on the top with 3 bolts and washers supplied, ensuring there is a good seal.
- Replace the flue baffle.
- Replace the top plate.

In this case, the cut-out of the heat shield must not be remove.

## 2.5. Connection to flue

- The stove must be installed as close as possible to the chimney.
- The stove should be connected to the flue by a smoke pipe, approved for installation with combustion products (e.g. 316 grade 1 mm thick stainless steel or vitreous enamelled steel).



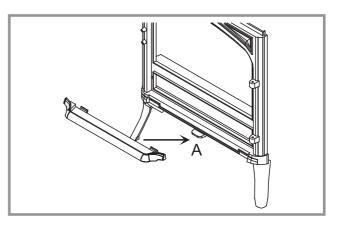
- Pipe diameter must not be less than the appliance spigot diameter.
- If there is no other solution, the reduction can not be more than one diameter lower than the flue spigot and be situated as distant as possible from the flue connection of the appliance.
- The connection can be either vertical or horizontal. For horizontal connections, avoid right angle bends.
- The join between the connection pipe and the stovepipe, and the flue, must be leak tight.
- For the premises equipped with a mechanical controlled ventilation, the airtightness has to prevent the exhauster drawing out the smokes from the exhaust gas pipe.
- The connection pipe and any draught stabiliser must have access for cleaning.

# 2.6. Mounting the tray

#### Figure 6

To avoid damage during transport, the tray has been stored behind the main door.

- Fix the tray on the appliance.
- Centre on tab "A" and lower into place.



#### Figure 6 - Mounting the tray

## 2.7. Pre-utilisation check

- Check that the glass is not damaged.
- Check that the smoke passages are not obstructed by packaging or removable parts.
- Check that the seals of the smoke-line are in good condition.
- Check that the doors close correctly.
- Check that all removable parts are correctly installed. (side walls, flue baffle, grates, etc.)

**Note :** if it acts of a ceramics braid, it is consumable and thus brought to be changed by the user

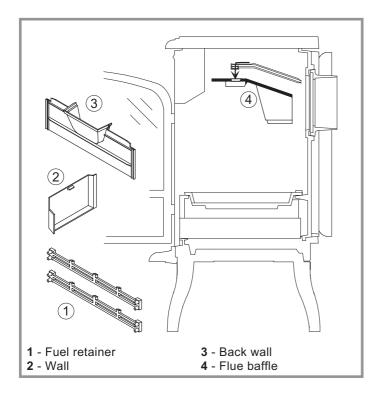


Figure 7 Removing the flue baffle

## 2.8. Chimney maintenance and sweeping

**Very important :** To avoid accidents (chimney fire, etc.), regular maintenance should be carried out. If the stove is regularly used, the chimney should be swept several times per year, together with the stovepipe connection section.

First remove the two retainer grates (# 1, fig. 7), then remove the side walls (# 2 & 3, fig. 7) and remove the flue baffle (# 4, fig. 7).

Refit the parts in the reverse order (fig. 8).

If the chimney catches fire, you must cut off the flue draught, close the doors and windows, hatches and

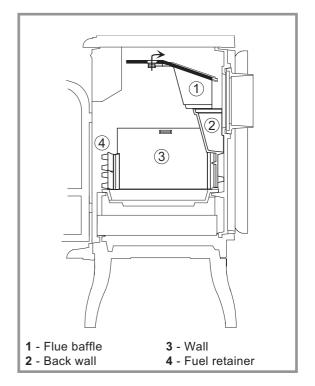


Figure 8 Put back into position the elements

keys, remove the embers from the stove, stop up the connection hole with wet cloths and call the Fire Brigade.

DO NOT OPEN THE DOOR OF THE APPLIANCE (OR AIR INLET) UNDER ANY CIRCUMSTANCES.

Chimney condition should be checked at least once per year by a professional engineer.

# 3. Instructions for user

The manufacturer will not be responsible for damages on parts of the appliance due to the use of prohibited fuel or due to an alteration of the appliance or its installation. Only use replacement parts supplied by the manufacturer.

Don't run the stove in mild weather with smokeless fuels : Under certain circumstances (e.g. fog and repeated thaw) the chimney will not draw sufficiently well and thus be at the origin of asphyxia. Awaiting better weather circumstances, don't use any smokeless fuels but only wood.

At the first lighting, the fire must be progressively increased to allow the various parts to expand normally and to dry up.

Note : When the fire is lit for the first time, the stove may give off fumes from the new paint. This is normal but ensure the room is well ventilated during the first few hours of operation.

Warning : properly installed and operated this appliance will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fuelling may occur. Persistent fume emission is dangerous and must not be tolerated. If fume emission does persist :

- Open doors and windows to ventilate room.
- Let the fire out and dispose of fuel from the appliance.
- Check for flue or chimney blockage, and clean if required.

- Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice.

Note : It is recommended to use a fireguard in the presence of children, and also in the presence of old and/or infirm people.

## 3.1. Fuel

#### This appliance is not an incinerator.

Use hard wood logs, which have been cut for at least two years and stored, under a ventilated shelter.

Use hardwood that have a higher calorific value per cu metre (Yoke-elm, oak, ash, maple, birch, elm, beech, etc.). Large logs must be split and cut to an useful length, before being stored in a sheltered and ventilated place.

#### Recommended fuel :

The best fuels for use with the Franco Belge "Belfort" are :

Seasoned wood. - hard wood logs that have been cut, split and stored for at least two years with a minimum moisture content of 20 % e.g. oak, beech, elm etc.

Anthracite – dry steam coal fuels as described in type A - table B2 of the Standard - smokeless fuels along with coalite and anthracite.

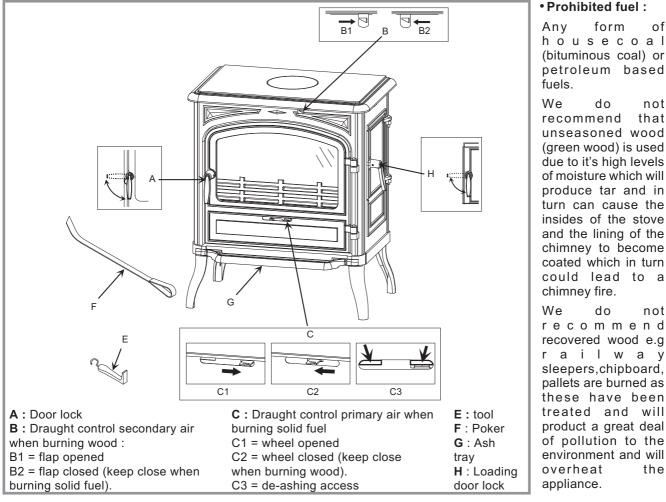


Figure 9 - Operating devices

(bituminous coal) or petroleum based

of

do not recommend that unseasoned wood (green wood) is used due to it's high levels of moisture which will produce tar and in turn can cause the insides of the stove and the lining of the chimney to become coated which in turn could lead to a chimney fire.

do not recommend recovered wood e.g railway sleepers, chipboard, pallets are burned as these have been treated and will product a great deal of pollution to the environment and will the

## 3.2. Instruction for use with wood

#### 3.2.1. Lighting (figure 9)

- Slide the top air control (# B1) and the lower air control (# C1) to the right.
- Open the front door and lay firelighters or rolled up newspapers on the grate with a reasonable quantity, if necessary, of dry kindling wood. Place 2 or 3 small logs on top.
- Light the newspaper or firelighters using a long taper and close the front door.

When the fire is burning fiercely, add further logs of a diameter up to 10 cms.

When the stove body is very hot, close the lower air control (# C2).

The burning rate can now be adjusted by moving the top air control to the left (# B1). Experience will show you which settings are best for your situation.

#### 3.2.2. Re-fuelling

It is advisable to wait for the fire to be reduced to hot embers before re-loading. The door should also be opened slowly when re-loading.

# 3.3. Instructions for use with smokeless fuel

#### 3.3.1. Lighting

- Close the top air control by sliding it to the left (# B2).
- Open the lower air control by sliding it to the right (# C1).
- Open the front door and lay firelighters or rolled up newspapers on the grate with a reasonable quantity, if necessary, of dry kindling wood. Place a small quantity of solid fuel on top.
- Light the newspaper or firelighters using a long taper and close the door.
- When the fire is burning fiercely, add further fuel.
- When the stove body is hot, adjust the burning rate with the lower air control (# C).

#### 3.3.2. Re-fuelling

- Open the lower air control (# C1).
- Open the front door and add fuel.
- Leave the lower air control open for a few minutes to allow the initial volatiles in the fuel to burn.
- Adjust the lower air control to the desired position (# C).

## 3.4. Cleaning

It is essential to keep the grate free from a heavy build up of ashes.

REMEMBER TO BURN SMOKELESS FUEL CORRECTLY, AIR SHOULD BE ALLOWED TO FLOW FROM THE ASH PIT AREA THROUGH THE GRATE AND THROUGH THE FUEL. IF THE GRATE OR ASH PAN ARE CONGESTED, THE PERFOMANCE WILL BE EFFECTED.

If burning smokeless fuel always empty the ash pan at least once a day or whenever it is full of ashes. Never allow the ashpan to overfill allowing ash to be in contact with the underside of the grate. If this condition is allowed, the grate will wear out pre-maturely.

#### 3.5. Maintenance of the Chimney

**Very important** : In order to avoid any incident (chimney fire, etc...), maintenance tasks must be carried out regularly.

If the appliance is regularly used, the chimney should be swept several times per year, together with the stovepipe connection section. If the chimney catches fire, you must cut off the flue draught, close the doors and windows, hatches and keys, remove the embers from the stove, stop up the connection hole with wet cloths and call the Fire Brigade.

Chimney condition should be checked at least once per year by a professional engineer.

#### 3.6. Maintenance of the stove body

- The stove must be regularly cleaned.
- Remove all deposits from the combustion chamber and clean the grate area.
- The vitro ceramic glass can only be cleaned using a soft cloth and stove glass cleaner, available from your Franco Belge Dealer. DO NOT USE ABRASIVES
- The vitro ceramic glass resists a temperature of 750°C. If the glass should be broken, it is recommended that only an original factory replacement should be fitted.
- Check that there are no obstructions before relighting after a long period of disuse.
- The appliance must not be used with a flue serving several appliances.
- To maintain the grates ventilation free of any obstruction,

For enamelled finishes, the stove body can be cleaned using a soft cloth either dry, or slightly damp with a very mild detergent.

#### NEVER CLEAN ENAMEL SURFACES WHILST THE STOVE IS HOT.

The cast iron body panels of non-enamelled stoves can be cleaned with a proprietary stove cleaner or re-sprayed / touched up using a stove paint. These products are available from your Franco Belge Dealer.

#### 3.7. Recommendations

This appliance produces heat and may cause severe burns if touched. The stove may still be hot even when the fire has burnt out.

#### KEEP CHILDREN AWAY.

☑ :	This sign means that you should asl	ked
fo	r a qualified engineer to do the work	ί.

		Т		
Problem	Probable causes		- Action	
Fire difficult to start Fire goes out	Wood green, too damp or poor quality.		- Use the recommended fuel.	
	Logs are too big.		<ul> <li>To light the fire, use small, very dry twigs. To maintain the fire, use split logs.</li> </ul>	
	Air starvation.		- Open lower air control (coal) or top air control (wood).	
	Insufficient draught.		- Check that the flue is not obstructed, sweep it if necessary	
			- Seek advice from a chimney specialist.	
Fire burns too quickly.	Too much draught.		<ul> <li>Ensure that the lower air control is closed (with wood burning)</li> </ul>	
			- Partially close the top air control lever.	
	Excessive draught.	$\checkmark$	- Install a draught stabiliser. Consult your Dealer.	
	Poor quality wood.		- Do not continuously burn small wood, sticks, bundles, carpentry offcuts (plywood, pallets), etc.	
Smokes when lighting up.	Flue duct is cold.		- Burn paper and kindling wood to increase heat.	
	Room is in decompression.		<ul> <li>In houses equipped with mechanical ventilation, partly open a window until the fire is well established.</li> </ul>	
Smokes while burning.	Draught is insufficient.	$\checkmark$	- Consult a chimney specialist.	
			- Check that the flue is not obstructed, sweep if necessary.	
	Down draught.	$\checkmark$	- Install an anti-down draught cowl. Consult your Dealer.	
	Room is in decompression.	V	<ul> <li>In houses equipped with Mechanical Ventilation, ar outside air intake must be installed for the chimney.</li> </ul>	
Low heat output.	Incorrect Fuels.		- Use the recommended fuel.	

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# 4. Spare parts

When ordering spare parts, specify **the stove type** and **serial number**, including the **colour index** (on the guarantee or identification plate), **the name** of the part and **the part number**.

Example : Multifuel stove "Limousin", ref. 134 10 12, color Y, Top plate 352124 EF.

**A** = 134 10 12 Y **B** = 134 10 12 E

N°	Code	Description	. Туре	. <b>A</b>	. B Qty
1	100939	Axle		. А	. B 04
2	101048	Axle		. А	. B 02
3	110404	Hinge pin	. 6x30	. А	. В 02
4	110405	Hinge pin	. 6x35	. А	. В 02
5	134107	Glove		. А	. B 01
6	134711	Pin	. 6x30	. А	. В 02
7	134749	Pin	. 4x20	. А	. B 02
8	142301	Adhesive rope		. А	. B 1,32 m
9	162721	Descriptive plate	9	. А	. B 01
10	181607	Ceramic rope	. Ø 9,5	. А	. B 1,00 m
11	181614	Ceramic rope	. Ø 9,5	. А	. B 3,40 m
12	181615	Ceramic rope	. Ø 12	. А	. B 1,77 m
13	188780	Ceramic glass			
14	205391	Back panel	14	. А	. B 01
15	209915	Protector			
16	222609	Suppl. flue baffle		. А	. B 01
17	237413 60	Reducing plate			
18	259015	Fixing plate		. А	. B 04
19	270409	Air control flap		. А	. B 01
20	270410 60	Air control flap		. А	. B 01
21	300122 EF	Leg		. А	04
21	300122 RP	Leg		. А	. B 04
22	300462 EF	Base		. А	01
22	300462 RP	Base			. B 01
23	300991 EF	Handle		. А	02
23	300991 RP	Handle			. B 02
24	303515 EF	Loading door			
24	303515 RP	Loading door			
25	303718 EF	Blanking plate		. А	01
25	303718 RP	Blanking plate			
26	303826 EF	Flue collar			
26	303826 RP	Flue collar	Ø 153 int		. B 01
27	305015	Wall		. А	. B 01
28	305150	Back wall		. А	. B 01
29	306278 EF	Back wall			
29	306278 RP	Back wall			
30	307422 EF	Fuel retainer			
30	307422 RP	Fuel retainer			
31	308712	Coal grate			
32	309897 EF	Front plate			
32	309897 RP	Front plate			
33	310729 EF	R. side panel			
33	310729 RP	R. side panel			
34	310826 EF	L. side panel			
34	310826 RP	L. side panel			
35	314607	Inner door			
36	315602				
37	323211	Flue baffle.			
38	325304 EF	Reducing plate			
38	325304 RP	Reducing plate			
39	327901 EF	Tray			
39	327901 RP	Tray			. В 01

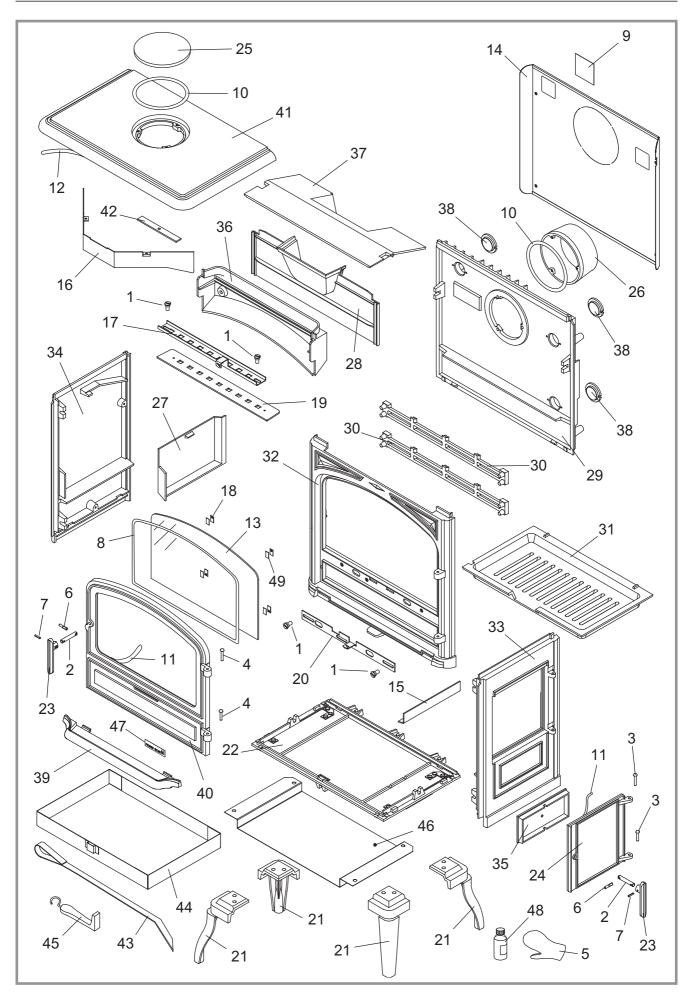


Figure 10 - Stove - exploded view

N°	Code	Description
40	331108 EF	Main door
40	331108 RP	Main door
41	352124 EF	Top plate
41	352124 RP	Top plate
42	406816	Clamp
43	415504 60	Poker
44	624043	Ash-pan
45	808001 ED	Hand tool
46	262608	Heat shield
47	122820	Name plate
48	161061	Touch-up paint

#### **A** = 134 10 12 Y **B** = 134 10 12 E

Note

# ➢ Guarantee certificate ≫

**FRANCO BELGE** 

#### ➢ Legal guarantee

The specifications, dimensions and information shown on our documents are provided for information purposes only and under no circumstances are binding upon the vendor.

With the aim of constantly improving our equipment, all modifications considered as necessary by our departments may be made without notice.

The provisions of the present guarantee certificate are not excluding or limiting the owner of the equipment's rights, concerning the legal guarantee regarding faults or hidden vices which applies in all circumstances, in the conditions detailed in articles 1641and following of the civil code, and in the country in which the equipment was purchased.

#### ✤ Contractual guarantee

Our equipment is guaranteed against faults and hidden vices subject to the following conditions:

- 1) Installation and adjustment of the device by a professional installer.
- 2) Observance of the instructions provided in our technical documents and our installation/adjustment instructions.
- 3) The installation, use and maintenance of the device carried out in conformity with the applicable standards and legislation, and with the indications provided in the technical instructions accompanying the device.

This guarantee covers the replacement, in our factory, of parts recognised as being defective from the outset by our "Guarantee Inspection" Department. Carriage and labour is at the user's cost. Moreover, if the repair or replacement of parts covered by the guarantee is found to be too costly vis-à-vis the price of the appliance, the decision to replace or repair the appliance will be taken by the vendor.

Our guarantee is for 2 (two) years for all appliances, with the exception of closed combustion fireplace and inserts for which our guarantee is 5 (five) years excluding the following:

1) Indicator lights, fuses, electrical elements and fans.

- 2) Parts subject to wear or in contact with high temperatures namely: soles and burner grills, bottom plates baffles, ash pans, paintwork and surface treatments for decorative parts. Also excluded from this guarantee are seals and windows.
- 3) Any damage which may result from the use of the appliance with a fuel other than that stipulated in our instructions.
- 4) Damage occurring to parts caused by elements outside the appliance (down draught, storm damage, damp, abnormal pressure or vacuum, heat shocks, etc.).
- 5) Damage to electrical parts caused by plugging in and using the appliance on a mains system, the voltage of which (measured at the entrance to the appliance) is 10% above or below the nominal voltage of 220 V.

#### Exclusion of liability

In the case of a product manufactured at the client's request, under no circumstances may we, as a subcontractor, be considered liable vis-a-vis the client or third parties for defects arising from the installation or a design fault with the item in question.

Name and address of the installer :		
Telephone :		
☑ Name and address of the customer :		
Date of installation :/ / /		
Model of the appliance : 🗋 134 10 12		
Color : 🖸 Y 🗋 E		
Serial number :		
<ul> <li>This certificate has to be completed and kept carefully. In case of claims, send a copy of this to :</li> </ul>		
STAUB FONDERIE Administration : BP 73, 59660 MERVILLE, FRANCE.		