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Bespoke ironwork in covershot courtesy of blacksmith John Churchill www.jchurchill.co.uk

www.woodfirestoves.co.uk



Woodfire stoves are high efficiency, boiler stoves, designed to burn wood and wood only. There are four types: the freestanding models (F12, C12, and C18), their direct counterparts the 12i and 18i which are insert stoves, the RS Series insert models which go up to higher heat outputs (RS12, RS15, RS19, RS23, and RS32), and the RSD Series double sided insert stoves the RS15D and RS19D.



Wood heating

Wood is a sustainable fuel source and virtually carbon neutral when sourced from sustainably managed woodland.

Ideally firewood should be bought in one or two seasons ahead and then stacked in an open sided woodshed. This will ensure that you are always using well seasoned fuel, which is the key to clean, efficient and economical burning.

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Technical details F12

| Height | 828mm |
|---------------|--------|
| Width | 520mm |
| Depth | 450mm |
| Heat to water | 10.6kW |
| Heat to room | 1.2kW |
| | |

HS Series

Woodfire F12

The Woodfire F12 is a small stove with a powerful boiler. It can give up to 10 kW to water and yet puts out less than 2 kW to the room. This, together with the fact that it can take all of its air from an external air duct, makes it ideal for installation in the modern highly insulated, airtight house.

The F12 can be installed into a pressurised or open vented system and runs at an impressive 82% efficiency.

The F12 is available in black or with tiled sides.

Woodfire C12

The Woodfire C12 is the curved top version of the F12 stove. Like the F12 the C12 will give out up to 10kW of heat to water and less than 2kW to the room. The low heat output to the room makes the C12 well suited to very well insulated houses. With the addition of the external air manifold the C12 can be 100% room sealed and hence perfect for very airtight houses.

The C12 is available with black or tiled sides.

Woodfire C18

The Woodfire C18 is a highly efficient wood burning boiler stove with a large window, good sized firebox and contemporary styling. With over 14 kW to hot water, the high output boiler can heat a good sized house as well as do the domestic hot water. Yet the output to room is less than 4 kW, enabling it to do all of this without overheating the room it is in.





Technical details C12

| Height | 1090mm |
|---------------|--------|
| Width | 520mm |
| Depth | 450mm |
| Heat to water | 10.6kW |
| Heat to room | 1.2kW |

Technical details C18

| Height | 1170mm |
|---------------|--------|
| Width | 740mm |
| Depth | 450mm |
| Heat to water | 14.4kW |
| Heat to room | 3.6kW |



Technical details 12i

| Height | 826mm |
|---------------|--------|
| Width | 443mm |
| Depth | 443mm |
| Heat to water | 10.6kW |
| Heat to room | 1.2kW |

Technical details 18i

| Height | 890mm |
|---------------|--------|
| Width | 655mm |
| Depth | 445mm |
| Heat to water | 14.4kW |
| Heat to room | 3.6kW |

HS Series insert stoves Woodfire 12i

The Woodfire 12i is an insert boiler stove designed to give a high output to water but a low output to the room, and can be connected to an external air duct. This combination makes it ideal for very low energy /

passive houses or houses using heat recovery systems. The 12i can be installed into a masonry wall which will soak up some heat and pass it slowly to the room. Straightforward to install and easy to use, this stove burns wood cleanly and efficiently and is ideal to link in with an existing central heating system.

Woodfire 18i

The Woodfire 18i has all the fuel economy and controllability of the 12i but with a higher output to water. This means the 18i can be connected to a larger heat accumulator which can power the heating and hot water needs for a larger house. As an insert it both saves space in the room and has a clean lined contemporary look. If installed in a masonry wall then the thermal mass of the construction can be put to good use, absorbing heat from the stove and gently releasing it over a longer period.





RS insert stoves

The RS Series insert stoves come in a range of different outputs from the 12kW RS12 up to the 32kW RS32. These are wood boiler stoves for people who are serious about wood heating. The RS Series stoves can take their primary air via an external air duct with the addition of an external air controller.



Technical details RS insert stoves

| | RS 12 | RS 15 | RS 19 | RS 24 | RS 32 |
|---------------|--------|--------|--------|--------|--------|
| Height | 1350mm | 1350mm | 1350mm | 1350mm | 1350mm |
| Width | 710mm | 710mm | 710mm | 710mm | 710mm |
| Depth | 505mm | 505mm | 515mm | 515mm | 635mm |
| Heat to water | 11kW | 12.6kW | 16.7kW | 20.7kW | 27.7kW |
| Heat to room | 2.2kW | 2.2kW | 2.3kW | 2.3kW | 4.7kW |





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RSD double-sided insert stoves

The Woodfire RSD Series stoves are double sided, insert, woodfired boiler stoves. Installed into a wall or partition these stoves create a stunning feature as well as being able to heat a whole house and provide hot water. Like the RS Series, primary air can be taken via an external air duct with the addition of an external air controller.

Technical details RSD double-sided insert stoves

| | RSD 15 | RSD 19 |
|---------------|--------|--------|
| Height | 1300mm | 1300mm |
| Width | 710mm | 710mm |
| Depth | 660mm | 750mm |
| Heat to water | 10kW | 14kW |
| Heat to room | 4.8kW | 5kW |

Installation and plumbing

Woodfire stoves can be installed to open vented or pressurised systems and can power the heating and hot water needs for a whole house. Woodfire stoves are at their best when linked to an accumulator tank which stores up the heat so that it can be used when it is needed, meaning that you do not always have to have your stove lit to have heating or hot water.

> Heat is stored up for use as and when needed in the accumulator tank. The tank is very well insulated so heat losses are very low. The accumulator forms the heart of the heating and hot water system

Solar panels provide hot water during the warmer months, with the accumulator storing the excess on hotter days

During cooler months the stove is lit, heats the accumulator and provides a cosy fire in the home.

> Conventional boilers, heat pumps and/or electric immersions can easily be connected as backup or top-up systems

Domestic hot water is supplied through heat exchange coils in the tank which gives you on-demand hot water at mains pressure throughout the house

The accumulator powers the heating system in the house. Underfloor heating is particularly ideal in combination with an accumulator tank

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Chimney



The correct chimney is a vital part of any stove installation. Woodfire stoves work at high efficiency levels, which means little heat is lost up the chimney. For that reason the chimney used needs to be well insulated to keep the flue gases flowing well and to reduce condensation of tar and water in the chimney.

A new chimney should be made from pumice or prefabricated insulated stainless steel chimney sections. Pumice forms a highly insulating masonry chimney. Non structural timbers and combustible materials can be run right up to a pumice chimney which makes joining to an airtight layer easy. A pumice chimney can also withstand higher temperatures and so is more resilient.

Twin wall stainless chimney is well suited to existing houses as it is easy to retrofit but can also be used for newbuild projects.

Existing masonry chimneys should be lined with a flexible liner that is then insulated to keep the flue gases warm enough.

> Selkirk STC twin wall insulated chimney system



Installing an insert stove

The Woodfire insert models are installed into a chamber with an air gap around the stove.

You can use an existing fireplace opening (which may require enlarging), or the chamber can be made from steel studwork or blocks to form a new chimney breast. This chamber may be insulated on the inside, which means that heat is passed more quickly from the chamber to the room, or if the chamber is masonry then it may be left uninsulated so that the masonry absorbs the heat and then gradually radiates it out into the room.

Cool air is drawn into the bottom of this chamber through a vent. This vent can be neatly concealed within an integrated wood store. The air is heated as it passes over the body of the stove and is then let back out into

the room as warm air through a top vent. This top vent can be placed at the side if installing the stove in a chimney breast.

The 300mm deep hearth needed in front of the stove can be positioned just below the stove or at floor level.





www.woodfirestoves.co.uk

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