burley Firecube™

Made in the UK

The most efficient wood burning stoves in the world

Bosworth Model 9312

12kW nominal output, 18.3kW maximum. Shown without base

The Firecube range of stoves from Burley are contemporary variations of their incredibly popular Fireball, the world's most efficient wood burning stoves.

Such amazing efficiencies are achieved using patented technology developed in the UK. Air is introduced into the combustion chamber to create a vortex, ensuring virtually complete combustion of not only the fuel, but also the soot and ash.

The mesmeric flame picture created when the stove is burning has to be seen to be believed, whatever the weather outside, you will be warm, comfortable and relaxed.

Launde Model 9304

4kW nominal output, 5.3kW maximum. Shown without base

With two bases

With one base

Extended bases

All the Firecube models can be used with or without extended bases, several bases can be used to raise the stove to the desired level, creating a more *Scandinavian* look with beautiful clean parallel lines.

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Swithland Model 9308

8kW nominal output, 11.7kW maximum.

Optional ducting components

Rectangular wall plate
DUCTPLAT55

Rectangular wall bracket
DUCTBRAC56

Round connector
DUCTRCON111

Rectangular coupler
DUCTCOUP515

Rectangular horizontal bend
DUCTHBEND5251

Rectangular grille
DUCTGRIL571

Rectangular vertical bend
DUCTVBEND5252

Rectangular to round adapter
DUCTADAP521

Round plastic duct
DUCTROUN1005

Flat rectangular duct
DUCTRECT5010

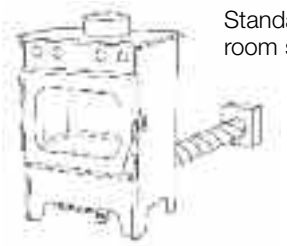
Shown with one optional base

Shown without base

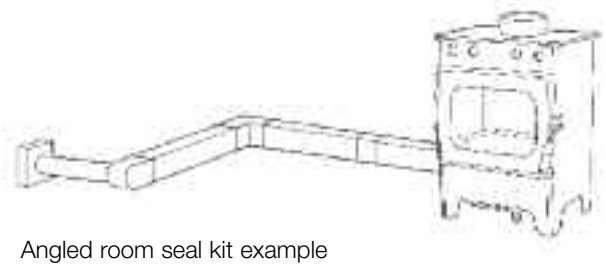
Room seal your Burley stove

The majority of stoves draw their air from the room, often through vents at the top or bottom of the door. Whilst this is a very simple and cheap method, drawing air from the front of the fire for combustion means that you are dragging huge amounts of warm air from the room (which you have already paid to heat) and losing it up the chimney. The average chimney will drag all the warm air from your room once every single hour – 24 hours a day, 365 days a year. That is an awful lot of heat you are losing. This is replaced by cold air from outside, creeping around windows and under doors, chilling your entire house.

Burley stoves draw all their air through a vent at the rear where it is cooler. If you wish, you may attach the optional room sealing kit to the back of the stove so it only draws cold air from outside meaning all the lovely heat stays in your room, radiating outwards through your home. British standards state that any room with a stove rated greater than 5kW must have an air vent fitted. With the room sealing kit fitted to the stove you do not need to fit a vent in the room, conserving yet more energy.



Standard
room seal kit



Angled room seal kit example

Standard room seal kit or angled room seal kit

The Standard kit connects directly from the rear of the fire to the back wall. The Angled kit exits at 90^{0} from the rear of the fire. This can then be connected to standard ducts (available as shown or from builders' merchants), to create a path to an outside wall. A maximum of four 90^{0} angles may be used.

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Bradgate Model 9305

5kW nominal output, 6.4kW maximum. Shown without base

Shown with base

The most efficient wood burning stove in the world

The idea which drove the design of the Burley stove was to invent the cleanest burning and most energy efficient wood burning stove possible.

At up to 89.8% efficient and with innovative technology which has been developed to extract the heat and keep it in your house, Burley Fireball stoves do not simply beat the competition by a few percent, but by a country mile.

How perfect combustion of wood is achieved

Three part combustion
Burning wood efficiently requires a primary, secondary and tertiary combustion process.

Primary combustion
Primary combustion is the initial burning of the wood at relatively low temperatures. During primary burn, water is evaporated and large amounts of creosote gas are produced. This creosote holds 60% of the potential energy of the wood, but is often just deposited on the inside of the stove and the lining of the flue, which causes chimney fires.

Secondary combustion
If, however, the combustion chamber is designed correctly by having sufficient insulation to raise the core temperature to 400ºC, and the correct amount of air is introduced, this creosote spontaneously combusts. This creates a chain reaction which increases the temperature inside the stove from 400ºC to 600ºC with no extra use of fuel. This is the secondary burn.

Introducing the air
The Burley range of stoves has a unique and patented system of introducing air for combustion, this is called The Fireball. A tubular framework channels air from the intake at the rear, around the fuel bed where it is preheated. The framework extends up each corner of the combustion chamber where the hot air is injected horizontally along the inside of the stove. This creates a vortex which spins anticlockwise and ensures every area of the fire box receives exactly the correct amount of oxygen.

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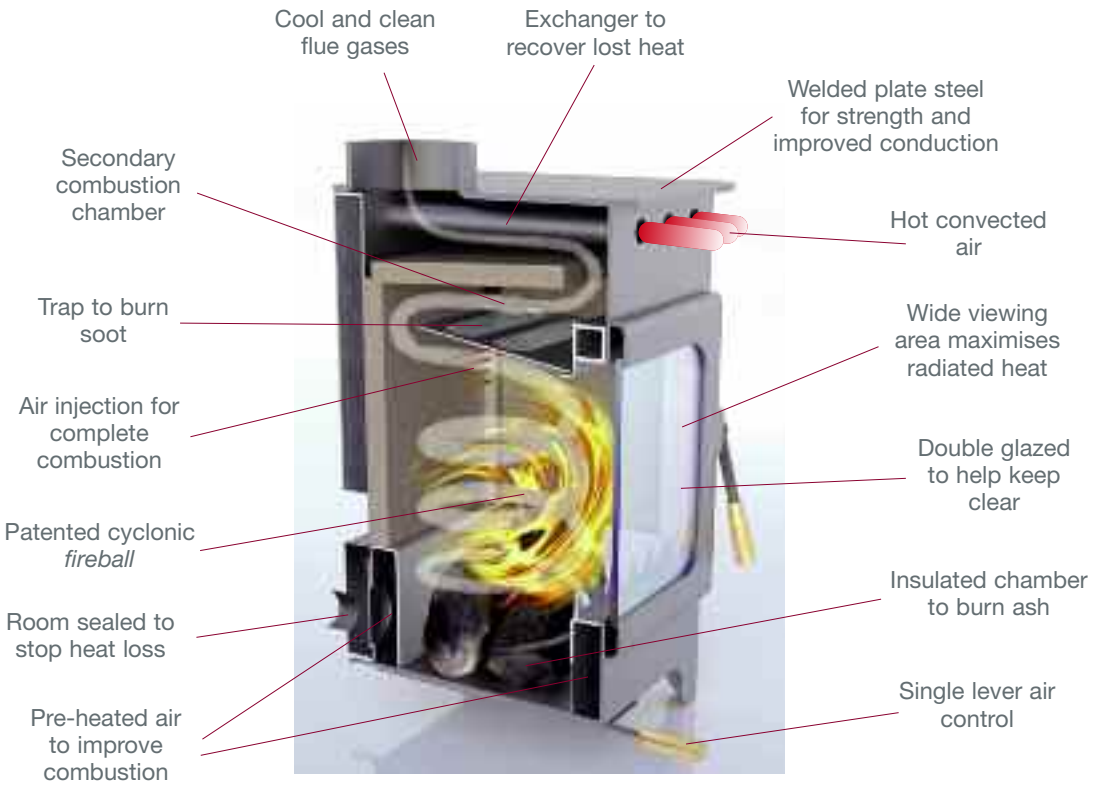

Tertiary combustion
Tertiary combustion occurs by fully burning the carbon, charcoal and ash which is left behind. These contain a huge amount of energy and provide a long rate of heat. Anyone who has barbecued will be aware of how much heat is present in semi-combusted wood, blacksmiths melt steel on it.

The vortex created by the Fireball technology also envelops the entire fuel bed, burning it so completely that there is no need for an ash pan. 100kg of wood can be reduced to 1 pint of ash (a ratio of 350:1) which is simply scooped out. No more carrying bucket loads of ash through the house every time you want a fire.

100kg of logs can be reduced to one pint of ash.

Quaternary combustion
To create even more heat for your room and less soot for your chimney, Burley's stoves have a unique quaternary (fourth) combustion process. As the hot gases exit the combustion chamber they pass through a mesh filter. The mesh is heated to such a high temperature that when any particles of soot or creosote which have escaped the secondary combustion touch it, they are ignited on contact.

Results
Making a stove which will burn wood is very simple and cheap. Producing and designing a top quality stove which will burn wood efficiently and cleanly is very difficult and is expensive. During product approval, when the European test house was measuring the emissions from the Burley stove, the combustion was so clean they assumed that their gas analyser had broken and sent it away for recalibration.

Wood or multi-fuel
Many people ask for multi-fuel stoves in the belief that they can burn any household rubbish, you can't. A multi-fuel stove is not as efficient as a wood burning stove. Wood is far greener, cheaper, cleaner and gives a much nicer flame picture. Our advice would be 'don't compromise, potato peelings are not a source of fuel'. We are sure that once you buy a wood burner you will only want to burn wood, but in the off-chance that you do want to burn coal, Burley produce a multi-fuel grate for some models which can easily be retro-fitted into the stove.

Glass door
As two of the main reasons for buying a stove are to be mesmerised by the flame picture and to defrost your backside in the radiated heat, Burley wanted the largest possible window. Due to its size the screen has to withstand massive temperature fluctuations and thermal shock so it is actually ceramic and not conventional glass. Ceramic glass is very expensive, despite this your stove is double glazed which helps keep it clean and promotes secondary combustion.

To see the amazing flame effect please visit
www.burley.co.uk/woodburner.php
or scan the QR code below.

Carlby Model 9307

7kW nominal output, 10kW maximum. Shown with base

The extended height of the Carlby provides a tall glass door, perfect for showing the fireball effect, enveloping the entire firebox.

Burley's 'Thank you' Pack. Contents vary between models.

Going the extra mile

We don't want you to be pleased with your Burley stove, we want you to be delighted. We listen to our customers and constantly make improvements where possible. We try to enhance your enjoyment with useful extras shown above. We have real people in our office in England who can speak to you knowledgeably should you have any questions or problems.

Not going the extra mile

One of your reasons for buying a stove may be to reduce your carbon footprint. Burley are proud to not only manufacture our stoves in Britain, but where possible to also source British components. We insist that our steel is not just rolled in Britain (which allows it to say 'British steel') but is smelted in Britain.

We have a never ending policy of assessment and implementation to reduce our impact on the environment. This includes generating our own electricity with a 200kW array of PV panels on our factory roof which provides most of our requirements as well as providing power for up to 70 houses at weekends. Nearly all heating in the factory is re-circulated heat from fires and stoves which are being tested, our salesmen only drive cars which exceed 80 mpg, the offices are heated by biomass.

In 2014 Burley became a zero carbon company, we generate more energy than we use.

Model	Height*	Width	Depth	kW rating	Efficiency	Weight	Defra approved	Max log length	Extended base	Room seal kit	Angled room seal kit
Coppice 9050	542	403	346	5	86.1%	60kg	✓	285	✗	✓	
Leighfield 9303	495	370	296	3	88.9%	45kg	✓	220	120	✓	✓
Launde 9304	560	422	340	4	89.8%	57kg	✓	250	120	✓	✓
Bradgate 9305	680	470	405	5	89.1%	95kg	✓	310	120	✓	✓
Carlby 9307	856	450	425	5	89.1%	105kg	✓	400	120	✓	✓
Swithland 9308	680	598	405	8	85.5%	105kg	✓	430	120	✓	✓
Bosworth 9312	780	750	405	12	84.1%	130kg	✗	580	120	✓	✓

*Height excludes flue collar (45mm). All measurements are in millimeters.

Because our policy is one of constant development, details may vary from those given in this brochure.

All stoves must be installed by a HETAS approved fitter in accordance with the manufacturer's installation instructions.

defra approved

Coppice Model 9050–5kW

5kW nominal output, 6.1kW maximum. Inset into a standard fireplace opening

Designed to easily convert an inefficient and draughty open fireplace into a highly effective source of heat and centre piece for your home.

Scan QR code for installation video or visit www.burley.co.uk/product/coppice-9050

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With base

Leighfield Model 9303

3kW nominal output, 4.1kW maximum. Shown without base.

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Warranty
All welded steel components are guaranteed for 5 years (conditions apply).