

# flue&ducting

Total Chimney Solutions



**fusion**  
by flue & ducting ltd

TECHNICAL PAGES

## DURA FUSION:

Dura Fusion is a twin-wall insulated system appropriate for every kind of fuel. The most unique feature of the system is the fact it does not require locking bands and its push-fit connections are almost invisible. A properly installed system creates a harmonic, aesthetically pleasing system, that gives the illusion of one continuous pipe. Its elegant design and brushed finish will meet the expectations of even the most demanding customers.

There are several special elements in that support the smooth design of the system:

135 Base tee + celanout COMBO	Celanout
	
Base support unit + wall support COMBO	Length (L250 or L1000) + wall bracket COMBO
	
Wall bracket	
	



## MATERIALS:

**LENGTHS INSULATION:** high density, pressure injected mineral insulation 30mm

**FITTINGS INSULATION:** mineral insulation 30mm

**INNER PIPE:** 0,5mm 316L (1.4404)

**OUTER PIPE:** 0,6mm 441 (1.4509)

**OUTER PIPE BLACK:** 0,6mm 441 (1.4509) RAL 9005

**OTHERS:** available on request

## FUELS:

The system can be used with all kinds of fuels provided the working conditions stated in the designation numbers are fulfilled and the fuels are HETAS approved.

## DIAMETERS:

**STANDARD:** 130mm, 150mm

**OTHERS:** 80mm – 250mm available on request

## APPROVALS:

T600-N1-D-V2-L50050-G50 (ventilated installation)

T600-N1-D-V2-L50050-G70 (installation in enclosure)

## DISTANCES AND MEASURES:

**LOCKING BANDS:** Even though locking bands are not required at any stage of system installation we do recommend to use them on every joint above the last support and on the joints of an unsupported lateral/horizontal installation if it involves more than one element between the elbow and tee/elbow.

**WALL BRACKETS:** The tested distance between wall brackets is 4m. Please note that is a maximal length. We recommend to use a wall bracket every 2m.

**FREE END:** The tested free end above the last support subject to wind is 3m. Please note that is the maximum length. We recommend to use a guy bracket and guy ropes or stiff supports if the free end is more than 2m.

**NON-VERTICAL INSTALLATION:** The tested offset between supports for a 90 degree installation is 3m. Please note that is a maximal length. We recommend to use a locking band on every joint of such an installation if it involves more than one element between the elbow and tee/elbow.

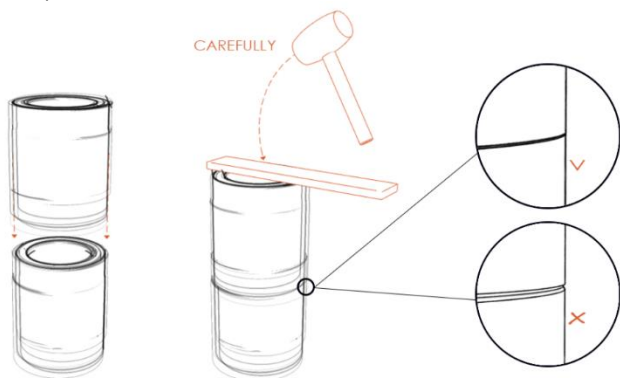
**OVERLAP:** The overlap of the elements is 60mm

## TIPS &amp; TRICKS:

**LOCKING BANDS:** Even though the system doesn't require locking bands please use common sense and consider following our recommendations regarding locking bands esp. in coastal areas or other locations subject to strong winds.

**CONNECTING ELEMENTS:** When connecting the elements it is important to make sure they fit all the way down. The last 2-3mm of the connection gives it most strength and stability. If only possible it's good to thrust the top element on to the bottom one by putting the plank over the top element and hitting a couple of times sensitively with a mallet.

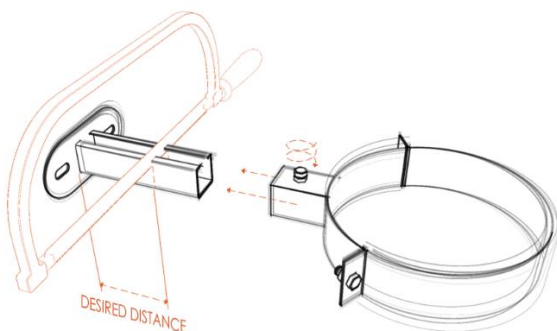
Without this operation the system still keeps its full specification. Even if the elements are not pushed together to the very bottom the installation is still correct but the connection will not be as aesthetically pleasing and may expand/shrink depending on the temperature.



**LENGTH + WALL BRACKET COMBO:** Don't treat lengths with integrated wall brackets as supports. Even though they do have some bearing capacity they shall be treated as regular wall brackets.

**WALL BRACKETS:** There are two types of wall brackets you can choose from:

- a) Typical adjustable wall bracket mounted around the outer pipe. Cut the profile to adjust to desired length. Recommended when you need to fit to an exact height with the wall bracket.

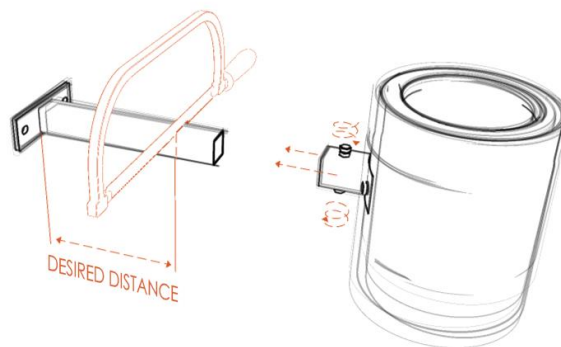


- b) COMBO length (L250 or L1000) with integrated wall bracket and a short support. This solution is recommended when you can choose the height at which you fix the chimney to the wall.

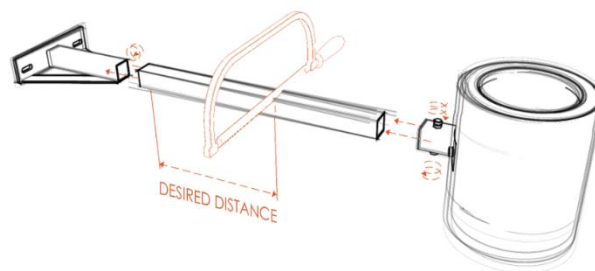
The lengths are sold with short supports that are enough to get the minimal distance to combustibles. If you

need to set a distance greater than the minimum choose one of the optional supports:

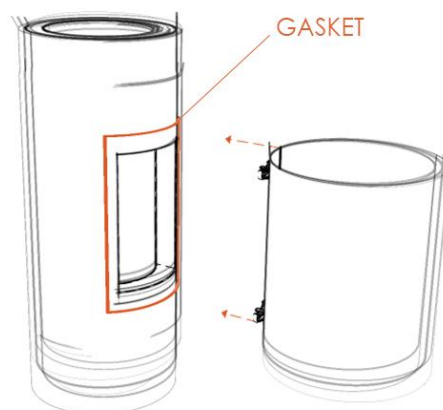
- Independent L250 support you can cut



- Support for distance over 360mm + one of the extension profiles (L500 or L1000)

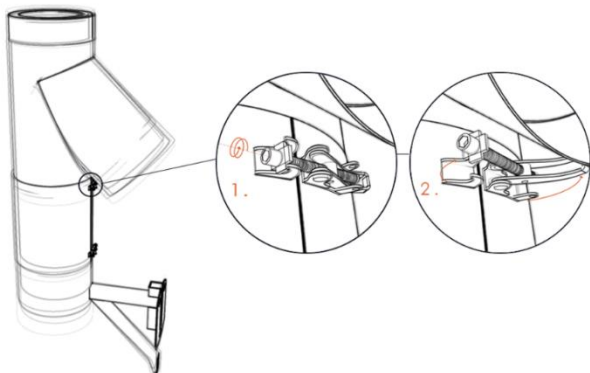


**CLEANOUTS:** When installed outside, a gasket should be stuck to the inner surface of the cleanout closing band in order to assure water tightness. The gasket should be positioned in such a way to fully cover the cleaning hatch. That concerns as well the Base Tee + Cleanout Combo.



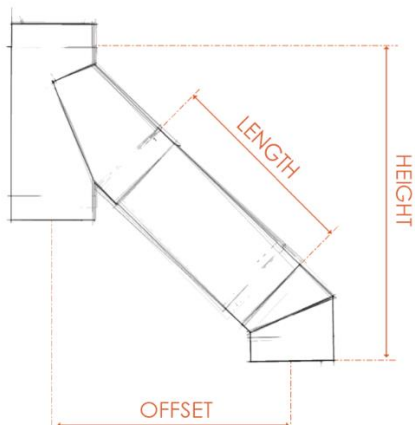
**ROOF FLASHING:** If a roof flashing is required for your installation please use Dura Flash, a storm collar from the Fusion system and a dura glue to assure a watertight connection of the storm collar. For more details on flashing installation please refer to Dura Flash Technical Pages.

**BASE TEE + CLEANOUT COMBO:** This all in one item was designed to be as compact as possible thus saving money & space. In case you should have problems opening the top toggle latch on the closing band, make sure you first unscrew the bolt in the toggle latch and then open it.

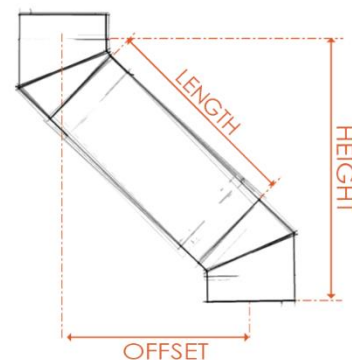


#### OFFSET CHARTS:

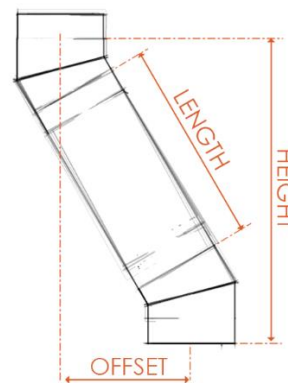
Below you will find offset charts for the most popular combinations of products.



135° TEE (+ LENGTH) + 45° ELBOW OFFSET CHART			
DIAMETER	LENGTH	OFFSET	HEIGHT
5" (130mm)	none	315	588
	250mm	450	722
	500mm	626	899
	1000mm	980	1253
6" (150mm)	none	335	602
	250mm	470	737
	500mm	646	913
	1000mm	1000	1267



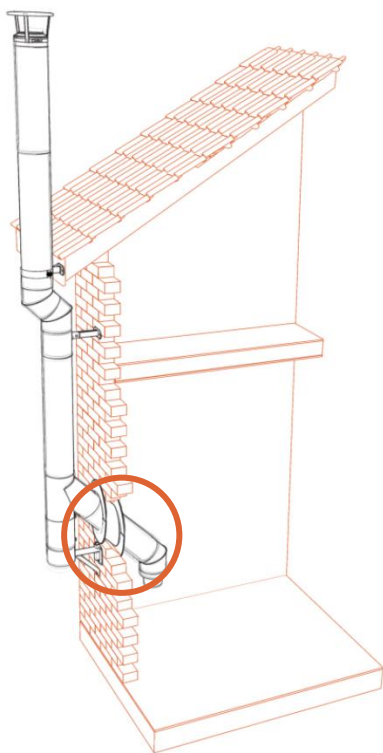
45° ELBOW (+ LENGTH) + 45° ELBOW OFFSET CHART			
DIAMETER	LENGTH	OFFSET	HEIGHT
5" (130mm)	none	169	408
	250mm	302	541
	500mm	479	717
	1000mm	832	1071
6" (150mm)	none	175	422
	250mm	308	555
	500mm	484	732
	1000mm	838	1085



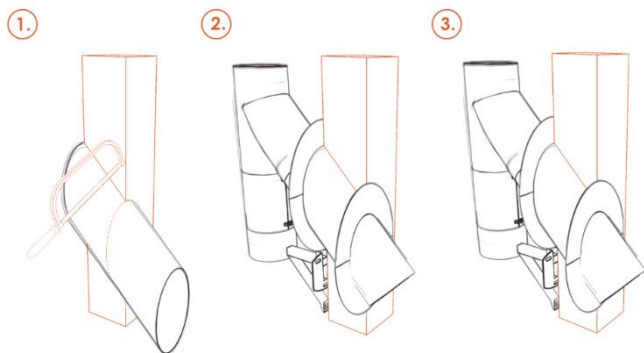
30° ELBOW (+ LENGTH) + 30° ELBOW OFFSET CHART			
DIAMETER	LENGTH	OFFSET	HEIGHT
5" (130mm)	none	105	392
	250mm	199	555
	500mm	324	772
	1000mm	574	1205
6" (150mm)	none	108	402
	250mm	202	565
	500mm	327	782
	1000mm	577	1215

## EXTERNAL INSTALLATION:

For wall penetration please use our wall sleeve. Wall sleeve secures a 20mm distance between the external pipe of the flue and the wall. In case of uncombustible materials like brick or concrete no additional insulation is required. Should the walls be made of combustible materials please refer to HETAS and local building regulations.

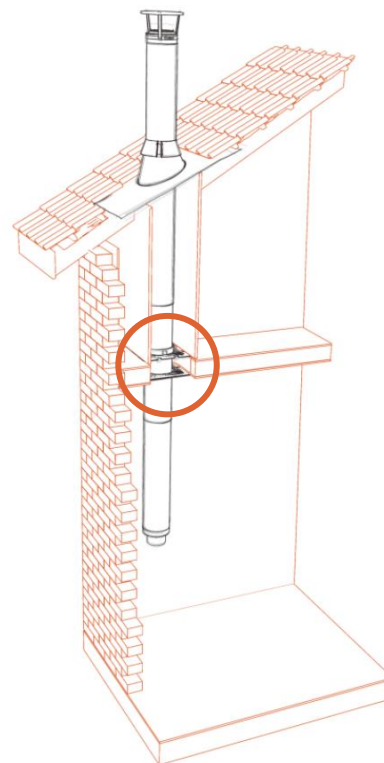


1. Install the wall sleeve in a pre-prepared wall opening. Cut the wall sleeve to a desired length.
2. Put a tee piece through a wall sleeve. Add a length to attain the desired length.
3. Once the installation is finished fit the trim rings to cover the wall penetration.

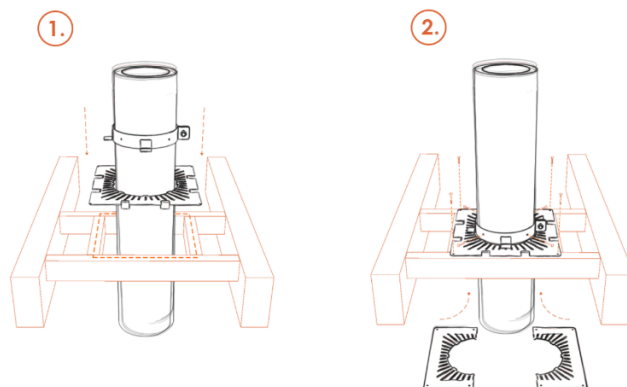


## INTERNAL INSTALLATION:

For ceiling penetration please use our firestop support set. The firestop spacer supports the stack above it and secures a 60mm clearance to combustible materials. When the flue is installed in an enclosure this distance shall not be alerted in any way. Please make sure the joist of the flue doesn't fall inside the ceiling penetration or on any of the firestop set parts.



1. Put a length through a pre-prepared wood box and slide down the firestop support plate and the support clamp.
2. Screw the firestop support plate to the box and lay the support clamp on the support plate. Next, screw the support clamp directly to the jacket pipe of the length. **MAKE SURE THE SCREWS ARE SHORT ENOUGH NOT TO TOUCH OR PUNCTURE THE CORE PIPE.** Install the ventilated plate on the bottom.





### GUARANTEE TERMS AND CONDITIONS:

Flue and Ducting Ltd offer a 30 year warranty on DURA-FUSION against the faulty manufacture of the product or defective fuels/materials used when system has been fitted for its sole purpose as a domestic chimney in use with Flue and Ducting Ltd recommended fuels only.

The Warranty scheme is subject to the following conditions:

- Flue and Ducting Ltd Registration card is completed by the HETAS installer on completion of work and is sent to Flue and Ducting Ltd within 30 days of job completion with all accurate information. Flue and Ducting reference numbers should be referred to in all future warranty claims.
- Any complaints should first be attended/investigated by the original HETAS engineer and if a fault/problem is found the HETAS engineer will need to report the fault/problem within 14 days to Flue and Ducting Ltd in writing with the initial registration card and all relevant information i.e. records of all proper maintenance of appliance and flue by a professional chimney sweep as recommended in our installation guide.
- The flue has been correctly installed by a HETAS registered installer and that Document J of the building regulations and our installation guide has been followed correctly.
- Appropriate distances to combustible materials are secured.
- After installation the chimney flue should be regularly checked (2-3 times per year) by a qualified chimney sweep to prevent the build-up of soot deposits in the chimney ways which can cause chimney fires, and that the collection of condensation is removed as this can cause introduction of premature corrosion. (Please see installation guide)
- The flue elements must be not be damaged, modified or changed in any way before the installation is carried out we also strongly advise you use Flue and Ducting Ltd fittings as standard otherwise products used will need to be in the HETAS registered listings.
- The flue must be in accordance with the appliance and existing masonry flue and surroundings, this is down to the HETAS engineer's discretion. If uncertain please check with Flue and Ducting Ltd first or the manufacturer of the appliance.
- The appliance is installed, operated and maintained in accordance with the appliance manufacturer's warranty/instructions and complies with HETAS and Document J of the Building regulations.
- If any fault/problem should be found to be external of the chimney flue i.e. appliance, operation, installation or other the site survey will be chargeable at Flue and Ducting Ltd's discretion.

Should Flue and Ducting Ltd find that the flue supplied is of poor manufacture and does not meet the standard requirements, Flue and Ducting Ltd will offer a complete replacement element free of charge subject to the terms above.

This warranty only covers the cost of the replacement product and does NOT cover the cost of any external components, fixings, fittings, building work, installation or any other products other than the product supplied. All of which is the responsibility of the customer and this warranty is agreed when the sale of the product has taken place.

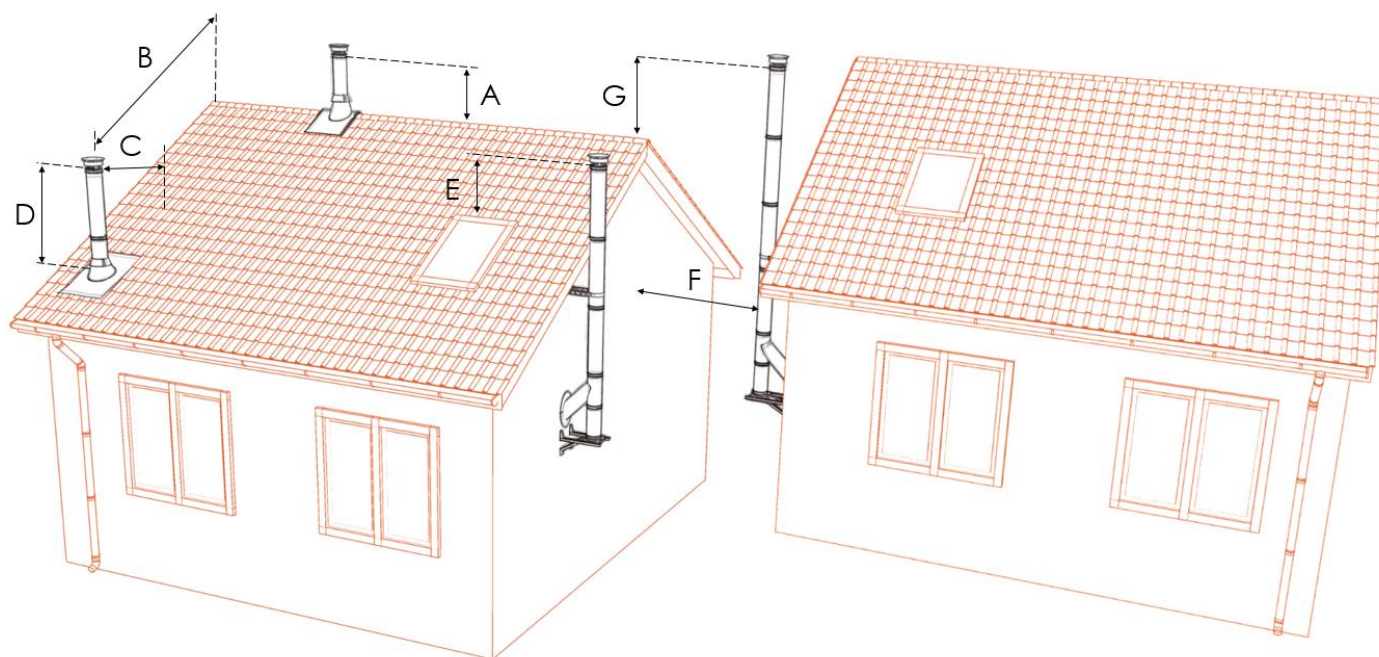
Reasonable efforts will always be made by Flue and Ducting Ltd to resolve the situation but please note that NO cash or any other payment types will be offered instead of the replacement product. The replacement of the product is the only offer that will be made in a warranty claim. The purchase of this product indicates that you agree to Flue and Ducting Ltd's warranty policy.

This warranty only applies in the UK, Flue and Ducting Ltd offer no warranty, further customer service or take any responsibility for the product when the product leaves the UK.

This warranty does NOT cover any of our products if installed with fully condensing boilers, or where harmful/dangerous gasses/chemical fumes are being used such as chlorine or halogenic vapours.

**SOLID FUEL FLUE TERMINATION CHART**

(see Gas Vent Technical Pages for gas flue termination chart)



The chart is based on the Document J of the building regulations for solid and oil fired appliances. For more details refer to current Building Regulations and National Standards. All the below are minimum measures measured from the top of the flue excluding terminals.

- A. 600mm above the roof ridge
- B. If this measure is less than 600mm from the roof ridge, the height (D) should be 600mm above the roof ridge
- C. 2,3m measured horizontally from the surface of the roof
- D. 1m with the provision of securing the C measure, or 600mm above the roof ridge if less than 600mm
- E. 1m above the top of a flat roof and any openable window, roof light, ventilator, etc.
- F. 2,3m
- G. If F is less than 2,3m then

**IMPORTANT INFORMATION**

Most installations of solid fuel and wood biomass appliances and systems are subject to the requirements of Building Regulations and are notifiable to the Local Authority in your area by law.

HETAS registered installers can self-certify their work, thus avoiding the need for costly and time consuming Building Notice applications to the local Building Control Department. HETAS Registered Businesses leave the customer with a Compliance Certificate and send a copy to HETAS for onward notification to the Local Authority.

This is a simple and effective process costing a few pounds whereas the local authority Building Notice can cost hundreds of pounds in some cases. The Certificates issued by HETAS and the notifications to Local Authority are important records demonstrating that work was done legally by registered, competent businesses and individuals and records that the registered business carried out the work in accordance with Building Regulations.

When people sell their houses, the information about work carried out under the Building Regulations in England & Wales is used by Solicitors on their inquiry forms and failure to demonstrate compliant work where applicable can adversely affect the sale of properties.

The information gathered in this way may be used in any future home information pack (HIP) requirement and Local Authorities are already required by law to hold such information.

Please note, all information given in this technical documentation is a guideline only. The products should only be fitted by a legally qualified person. Flue and Ducting Ltd cannot take responsibility for any installations.

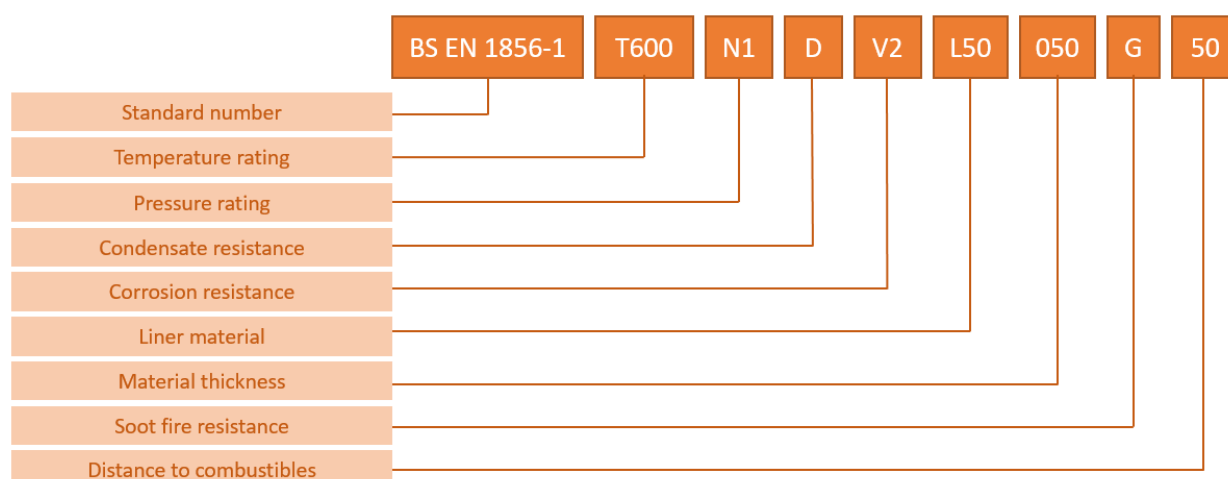
It is required by law that a carbon monoxide alarm must be fitted with every new solid fuel appliance.

## Warranty Registration Form

Installation address:

Product description	
Name of the company the product was purchased from	
Date of purchase	
Installers name and contact details	
Installers - HETAS/Gas safe/Offtech Registration.	
Date of installation.	
Type of appliance being used with Flue & Ducting Ltd product.	
Type of fuel being used and estimated usage.	

FOR YOUR WARRANTY TO BE ACTIVATED YOU MUST FILL OUT THE WARRANTY FORM WITHIN 30 DAYS OF INSTALLATION.





**TERMS OF PAYMENT**

Subject to any special terms agreed in writing between the Buyer and Flue and Ducting Limited, Flue and Ducting Limited shall be entitled to invoice the Buyer for the price of the Goods on or at any time after despatch of the Goods, unless the Goods are to be collected by the Buyer or the Buyer wrongfully fails to take delivery of the Goods, in which event, Flue and Ducting Limited shall be entitled to invoice the Buyer for the price at any time after Flue and Ducting Limited has notified the Buyer that the Goods are ready for collection or (as the case may be) Flue and Ducting Limited has tendered delivery of the Goods.

The Buyer shall pay the price of the Goods upon despatch of the Goods unless otherwise agreed in writing. Where Flue and Ducting Limited has agreed to credit terms the Buyer shall pay the price of the Goods (less any discount to which the Buyer is entitled, but without any other deduction) within 30 days from the date of the invoice, and Flue and Ducting Limited shall be entitled to recover the price, notwithstanding that delivery may not have taken place and the property in the Goods has not passed to the Buyer. The time of payment of the price shall be of the essence of the Contract.

Receipts for payment will be issued only upon request.

In respect of any services provided by Flue and Ducting Limited, Flue and Ducting Limited's standard charges and any additional sums payable shall be paid by the Buyer (together with any applicable Value Added Tax (VAT), and without any set-off or other deduction) within 30 days from the date on the invoice.

If the Buyer fails to make any payment by the due date then, without prejudice to any other right or remedy to Flue and Ducting Limited, Flue and Ducting Limited shall be entitled to:

1. Cancel the Contract, or suspend any further deliveries or service to the Buyer
2. Appropriate any payment made by the Buyer to such of the Goods (or the goods supplied under any other contract between the Buyer and Flue and Ducting Limited), or service as Flue and Ducting Limited may think fit (notwithstanding any purported appropriation by the Buyer.
3. Charge the Buyer interest (both before and after any judgement) on the amount unpaid at the rate of 8% per annum above the National Westminster Bank base rate until payment in full is made (a part of a month being treated as a full month for the purpose of calculating interest).

**Flue & Ducting Ltd  
STOCKPORT**

Unit D6,  
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**Flue & Ducting Ltd  
WELLINGTON**

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Wellington, TA21 9JQ

**Flue & Ducting Ltd  
BALLYCLARE**

Unit 16,  
Avondale Business Park  
Ballyclare, BT39 9AU

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# flue&ducting

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## Flue and Chimney Supplies



To order please:

**Log in:** [www.flue-ducting.co.uk](http://www.flue-ducting.co.uk)

**Email:** [sales@flue-ducting.co.uk](mailto:sales@flue-ducting.co.uk)

**Call:** 0161 480 2994

or collect from our trade counter

