

Mech-Elec®

FIREBRAKE

The ventilation ducting intumescent connector



***Prevent the spread of fire
through ventilation ducting***

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- Meets the requirements of Approved Document B of the UK Building Regulations
- Meets the requirements of NHBC Standard (April 2004) 8.1-S2 (f)
- Tested by BRE to BS 476 Part 20: 1987 and prEN 1366-3
- 2 hour fire rating
- Available for all five sizes of flat channel ducting systems

FireBrake is a unique, scientifically advanced intumescent product to prevent the spread of fire through plastic ventilation ducting systems. It has been designed specifically for its intended purpose.

Fire prevention is a serious concern. Building Regulations state that when a compartment wall is penetrated an approved fire-stopping device should be installed. The purpose is to contain fire spread that could be harmful to life, and to maintain the integrity of the building for as long as possible.

FireBrake reacts to the heat from the fire and expands inwards stopping the spread of the fire by quickly providing a 100% closed fire stop seal.

FireBrake has been designed with safety of the householder as its primary concern. This gives the installer unparalleled peace of mind that the installation is fit for purpose and will pass inspection by Building Control.

FireBrake allows simple but effective installation to deal with most common problems faced on site which often make alternative options like fire collars and wraps unsuitable.

Due to its construction, design features, and user friendly nature you can specify and install FireBrake with confidence.

FireBrake is available for all five sizes of flat channel ducting systems.

Quick and easy installation

FireBrake is very simple to install. Its user friendly nature avoids improvisation during fitting particularly in areas that are difficult to access. This is a significant advantage over wraps and collars.

FireBrake ensures professional installation. It is the correct fire stop for all rectangular ventilation ducting.

In most fire-stopping applications two collars or wraps are required, one on either side. Thus FireBrake can provide substantial cost savings, especially in installation time. No maintenance is required.

For masonry or stud walls and concrete floors

FireBrake is designed for multi-purpose installation. For stud walls the steel casing (fitted as standard) ensures that the product closes inwards. The 125mm length of FireBrake is sufficient to prevent it falling through a stud wall once the duct has melted away. This is not the case with most collars. Wraps are not suitable for use within stud walls.

Robust Construction

FireBrake is strong enough to cope with the rigours of transportation and the hazardous environment on building sites. Its sturdy nature inspires confidence that it will be fit for purpose.

No additional fixings necessary

FireBrake does not require additional fixings, such as screws and metal anchors. This saves considerable time and money on site.

Forms an integral part of the ducting system

FireBrake acts as a connector. It can be incorporated as part of the ducting system design providing a seamless configuration.

Designed to put safety first

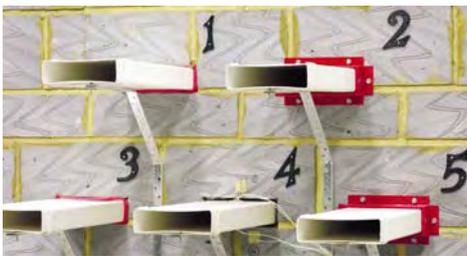
FireBrake helps prevent careless installation. This is a common problem with wraps and collars as they are difficult to work with. Careless installation can result in failure under fire conditions.



Careful attention has been made to ensure that the wall thickness of the FireBrake is sufficient to give 100% closure thus providing a safe, effective and rapid fire stop seal. The 125mm length of the FireBrake also gives added protection when compared to the size of most alternatives.

FireBrake instills confidence that it will perform when most needed. The length of the product and the red steel casing allow easy verification by Building Control during inspection. Verification is a common problem when using wraps as they are often hidden.

TESTED



Independent Fire Test: 1 - wrap on one side only; 2 - collar fitted on one side only; 3 - wraps on both sides; 4 - FireBrake centred within the wall; 5 - collars fitted on both sides of the wall.



After 5 minutes: FireBrake (No. 4) is already creating an effective fire stop seal.



After 2 hours: FireBrake (No. 4) has maintained its fire stop closure whilst the traditional products failed.



Wrap failed



Collar failed



FireBrake passed

INSTALLATION

Masonry Walls and Concrete Floors

FireBrake connectors are suitable for use in masonry walls and concrete floors of up to 150mm in thickness to provide up to and including 2 hours of fire protection (fig. 1).

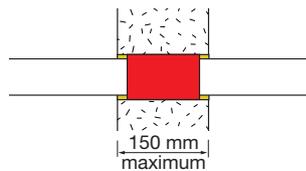


Fig. 1

For installations in masonry walls or floors of thickness greater than 150mm, two close-coupled FireBrakes must be used joined together using a 125mm length of ducting (fig. 2).

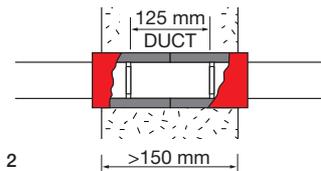


Fig. 2

Stud Walls

FireBrakes are also suitable for use in stud walls of up to a maximum of 125mm thick (fig. 3c). The rugged steel casing contains the expansion of the intumescent when a FireBrake is installed in a stud wall.

It is imperative that the FireBrake is firmly supported on its underside by a noggin or similar structural cross-member (fig. 3a & 3c). Otherwise the general installation guidelines apply.

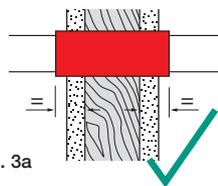


Fig. 3a

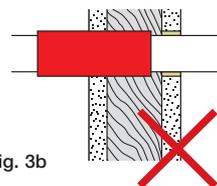


Fig. 3b

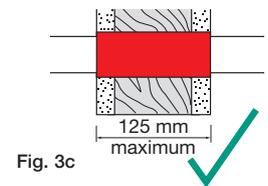


Fig. 3c

Important – Do not reduce or cut the length of the FireBrake as this will have a detrimental effect on the performance of

the product. FireBrake is not suitable for use with metal ducting.

General Installation Guidelines

A. Position the FireBrake Connector evenly within the fabric of the compartment wall to provide a firm support for the ducting.

Removal of the outer label is unnecessary.

If it is necessary to position the FireBrake unevenly within a masonry wall, for example, when making an immediate right-angled bend in the duct system, ensure that a minimum of 75mm of the FireBrake length is contained within the fabric of the wall (fig. 4). Note the constraints of point B.

C. There must be no more than a 12mm void in the fabric of the wall around any one side of the FireBrake. Gaps and voids in excess of 12mm should be made good with cement or mortar.

B. Important - Ensure that the ends of the FireBrake remain visible; this allows both rapid activation of the intumescent in the event of a fire and also provides Building Control with easy access for identification for either auditing or fire risk assessment purposes.

D. Gaps around FireBrake of up to 12mm should be made good with MAS87 Acoustic Intumescent Mastic to provide both a complete smoke seal and a reduction in sound transmission through the duct system (fig.5).

E. The ducting can now be fitted to the FireBrake Connector.

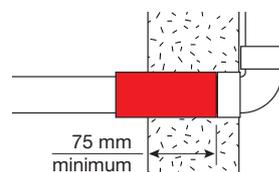


Fig. 4

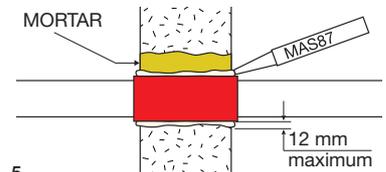


Fig. 5



Product	Code		Description	Dimensions mm		Notes
	Boxed	Prepack		Length	Overall/Fitting	
	087	n/a	System 100 FireBrake Duct Connector	125	<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></div> 124 x 68 <div style="width: 15px; height: 10px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> 110 x 54 </div>	Connects over System 100 flat channel lengths providing a secure seal.
	587	n/a	Supertube 125 FireBrake Duct Connector	125	<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></div> 218 x 74 <div style="width: 15px; height: 10px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> 204 x 60 </div>	Connects over Supertube 125 flat channel lengths providing a secure seal.
	987	n/a	MegaDuct 220 FireBrake Duct Connector	125	<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></div> 241 x 111 <div style="width: 15px; height: 10px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> 220 x 90 </div>	Connects over MegaDuct 220 flat channel lengths providing a secure seal.
	2087	n/a	PolyVent 225 FireBrake Duct Connector	125	<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></div> 248 x 43 <div style="width: 15px; height: 10px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> 234 x 29 </div>	Connects over PolyVent 225 flat channel lengths providing a secure seal.
	3087	n/a	PolyVent 300 FireBrake Duct Connector	125	<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></div> 322 x 43 <div style="width: 15px; height: 10px; background-color: gray; border: 1px solid black; margin-right: 5px;"></div> 308 x 29 </div>	Connects over PolyVent 300 flat channel lengths providing a secure seal.

= internal dimensions
 = outer dimensions

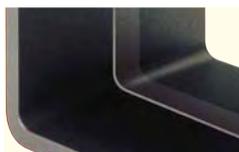
	Code		Description	Volume		Notes
	Boxed	Prepack				
	MAS87	n/a	Acoustic Intumescent Mastic	310 ml	Apply using a standard sealant applicator gun.	Four hour fire rating. Meets BS476: Part 20.



Fit for purpose.



Acts as a connector.



Profile specifically designed for ducting.



The steel casing ensures inwards closure.



Intumescent mastic completes the perfect installation.