
LPCB Red Book



Part: 3

Smoke and fire ventilation systems

bre

Introduction

BRE Global Ltd, based in the UK near London, is an independent third party organisation offering certification of fire, security and sustainability products and services to an international market. LPCB is the certification brand used for fire and security products and services. The LPCB mark is accepted worldwide. We have representative offices in China, India and Dubai. We are owned by the BRE Trust, a not-for-profit organisation.

LPCB listings can be accessed, free of charge, at www.redbooklive.com.

RE Global additionally carries out:

- Fire Investigation
- Fire Risk Assessment
- Fire Safety Engineering
- Research
- Training

LPCB Listings

Listings are given in sections which list related groups of products and services such as suppression, security and so on. Each section also summarises the technical basis for the certification of each product or service. The Red Book listings should always be used in conjunction with rules, regulations and design specifications required by the relevant Authority having jurisdiction.

Listings comprise:

Volume 1:

- Fire detection and alarm products, systems, and cables
- Manual fire extinguishing equipment
- Automatic sprinkler, water spray and deluge systems
- Fixed fire fighting products and systems
- Watermist systems
- Related installers

Volume 2: (This Volume)

- **Passive fire protection products**
- **Security protection products**
- **Fire doors and shutters**
- **Smoke and fire ventilation systems**
- **Security Assessments - SABRE**
- **Related installers**
- **Management Systems**
- **Construction products**

Listings are given in the name of the manufacturer or service provider, in alphabetical order. They can be downloaded free of charge from our website at www.redbooklive.com.

Updates

Certification of products and services are updated regularly. To ensure that you are using the most up to date information please refer to <<<<<<www.redbooklive.com>>>>>>



What is Third Party Certification?

A frequent concern of stakeholders is in knowing whether a product will perform in accordance with the stated specifications. These concerns can involve such product attributes as safety, health or environmental impacts, durability, compatibility, suitability for intended purposes or for stated conditions, and other similar considerations. These issues can all be addressed through product certification.

Third party certification is a conformity assessment process, carried out by a body that is independent of both supplier and customer organisations. It provides confirmation that products and services have met and will continue to meet the requirements of specified standards and other normative documents.

LPCB third party product certification schemes are quality assurance schemes and comprise initial type testing and technical evaluation, assessment and surveillance of the manufacturer's quality system and factory production procedures, regular audit testing, labelling and listing.

Similarly, LPCB schemes for suppliers of services (installers) are also quality assurance schemes comprising a technical assessment of an installer's capability, assessment and surveillance of the installer's quality system and production procedures, regular inspection of completed installations and listing.

Benefits of Third Party Certification

For specifiers, regulators, insurers, manufacturers and installers, the benefits of an LPCB approval are:

For specifiers and regulators:

- Risk reduction - specifying LPCB approved products and services demonstrates due-diligence and best endeavour and mitigates against possible accusations of negligence.
- Avoidance of costly mistakes - you can trust LPCB approved products and services to conform each and every time.
- Time - using Red Book Live to search for and assess products and services can save you time.

For manufacturers and installers:

- Increased global sales - LPCB approval is recognised and specified widely throughout the world. In some territories LPCB approval is a mandatory requirement.
- Added value of the product or service - LPCB approved products and services are recognised as providing added value given their ability to conform each and every time.
- Reduced liability - LPCB approved products and services demonstrate due-diligence which can reduce liability for both you and your customers.

What does LPCB Certification offer?

LPCB certification is carried out against Loss Prevention Standards (LPS's). These LPS's include reference to BS, EN or ISO standards as appropriate. LPCB certification are level 5 schemes as detailed in ISO/ IEC 17067 with the added requirement to have a quality system certificated to ISO 9001.

The technical requirements of LPCB schemes are given in the Loss Prevention Standards (LPSs). These documents are drafted by LPCB technical experts in conjunction with appropriate external experts. They are then peer reviewed by representatives from trade bodies, regulators, insurers, specifiers, manufacturers and other suppliers. Finally these documents are approved for use by the BRE Global Governing Body; the Body that oversees all of the certification activities of BRE Global.

VOLUME 2 LIST OF APPROVED PRODUCTS AND SERVICES

Product schemes comprise:

- Initial type testing and evaluation of product.
- Approval and surveillance of the manufacturer's (or supplier's) quality management system to ISO 9001
- Assessment and surveillance of the manufacturer's (or supplier) factory production control system (FPC).
- Periodic audit testing of the product from either the factory or marketplace.
- Labelling or marking as appropriate.
- Listing on Red Book Live

Installer schemes comprise:

- Technical assessment of the installation contractor's capability.
- Approval and surveillance of the contractor's quality management system to ISO 9001 or assessment against the requirements of the relevant Loss Prevention Standard where ISO 9001 is not appropriate.
- Regular surveillance inspections of on-going installations.
- The issue of Certificates of Conformity by the installer to demonstrate compliance for each installation.
- Listing in the Red Book.

The LPCB Mark - the Mark you can trust

After certification of a product or service the manufacturer or service provider may place the LPCB certification mark, as shown below, on the product, packaging and literature etc.



Where LPCB holds accreditation through the United Kingdom Accreditation Service (UKAS), the certified company may include the UKAS symbol (the Crown and Tick) alongside the LPCB mark for certain applications e.g. promotional literature or material and stationery, as shown below.



(Full details of LPCB accreditation can be found on the UKAS website at www.ukas.com)

Where for reasons of space or cost the use of the above full mark is not practical, then the following simplified mark may be applied directly to the product (for some schemes only). The LPCB scheme rules define how and where the marks can be used.



The products listed in Volume 2: Part 5 - Construction Products, are approved under our BRE Global Certification brand - the certification mark for this brand is:-



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Part

3

*SMOKE AND FIRE
VENTILATION SYSTEMS*

PART 3: SMOKE AND FIRE VENTILATION SYSTEMS

INTRODUCTION

Fire ventilation systems are installed to:

- Keep escape and access routes free from smoke.
- Facilitate fire fighting operations by creating a smoke free layer.
- Delay and/or prevent flashover and the subsequent full development of the fire.
- Protect equipment, furnishings, contents, etc.
- Reduce the thermal effects on structural components during a fire.
- Reduce damage caused by thermal decomposition of products and hot gases.

The key components of smoke and fire ventilation systems, i.e. fire dampers, ductwork, smoke curtains and powered smoke and heat exhaust ventilation fans, are listed in this section.

Their functions are:

Fire dampers:

- To maintain compartmentation where air distribution ducts pass through compartment walls and floors.

LPCB approves fire dampers to LPS 1162: *Requirements for the approval of fire dampers.*

Fire resistant ductwork:

- To maintain compartmentation when air distribution ducts pass through compartment walls and floors and where fire resisting dampers are not used to provide the compartmentation.
- To achieve the same fire resistance in terms of integrity and, if required, insulation as required for the compartment walls or floors.

LPCB approves fire resistant ductwork to BS 476: Part 24 *Fire tests on building materials and structures: Method for determination of the fire resistance of ventilation ducts and/or EN 1366 Part 1 Fire resistance tests for service installations Ducts.*

Smoke Extraction Ducts

The purpose of smoke duct systems are for the prevention of transmission of smoke and combustion products from a fire zone, smoke control duct sections are utilised to contain the spillage of otherwise harmful and toxic extinguishing gases from the affected area, and for the control of pressurising and excess air relief within pressurisation systems.

Smoke control ducts are commonly used in smoke and heat control systems. They may serve single compartments or a number of different fire compartments. The systems may be dedicated smoke extraction or possibly a combined environmental ventilation/smoke extraction.

LPCB approves Smoke Extraction Ducts to EN 1366 Part 8 or EN 1366-9 *Fire resistance tests for service installations. Single compartment smoke extraction ducts*

Smoke curtains:

- To create a smoke reservoir by containing and limiting the travel of smoke.
- To channel smoke in a predetermined direction.
- To prevent or retard smoke entry to another area or void.

LPCB approves Smoke curtains to LPS 1182: *Requirements for the approval of fixed fabric smoke curtains, fixed metal smoke curtains and powered smoke curtains.*

Powered smoke and heat exhaust ventilation fans:

- To channel heat and smoke in a predetermined direction.
- To prevent smoke logging of the protected space.

Powered smoke and heat exhaust ventilation fans are approved in accordance with EN 12101-3 *Smoke and heat control systems. Part 3 Specification for powered smoke and heat exhaust ventilation.*

PART 3: SMOKE AND FIRE VENTILATION SYSTEMS

Grease filters used in commercial kitchen extract systems:

- To reduce flammable and volatile grease droplets from the cooking exhaust of commercial cooking equipment.

LPCB categorises and approves grease filters in accordance with the requirements of LPS 1263:
Requirements for the approval and listing of the fire performance of grease filters used in commercial kitchen extract systems.

PART 3: SECTION 1

FIRE DAMPERS

Fire dampers are installed:

- To maintain compartmentation where air distribution ducts pass through compartment walls and floors.
- To achieve the same fire resistance in terms of integrity as required for compartment walls or floors.
- To close completely as soon as a fire is detected.

All the fire resistant dampers listed in Section 1 of this part of the list have been tested and assessed against the requirements of LPS 1162 *Requirements and tests for the LPCB approval of fire dampers*.

Fire resistant ductwork is installed:

- To maintain compartmentation when air distribution ducts pass through compartment walls and floors where fire resisting dampers are not used to provide the compartmentation
- To achieve the same fire resistance in terms of integrity, and if required insulation, as required for the compartment walls or floors.

All the fire resistant ducts listed in here have been tested and assessed against the requirements of BS 476:Part 24 *Fire tests on building materials and structures: Method for determination of the fire resistance of ventilation ducts* and/or EN 1366 Part 1 *Fire resistance tests for service installations Ducts*.

Certification is limited to the applications and fire resistances given.

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Tel: 01462 477360

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Certificate No: 1506a to BS 476 Part 24

Flameshield

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1506a/03
	Smoke outlet	Fire inside	None	-	240	-	
Flameshield	Kitchen extract	Fire inside	None	-	240	-	1506a/04
	Ventilation	Fire outside	None	-	120	-	
Flameshield	Smoke outlet	Fire outside	None	-	120	-	1506a/04
	Kitchen extract	Fire outside	None	-	120	-	
Flameshield	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1506a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	60	
Flameshield	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	1506a/04
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Flameshield	Ventilation	Fire inside	Knauf Firetek BD917	90	240*	120	1506a/04
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
Flameshield	Ventilation	Fire outside	Knauf Firetek BD917	45	120	30	1506a/04
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	60	
Flameshield	Ventilation	Fire outside	Rockwool FirePro Duct Slab	40	120	60	1506a/04
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	90	
Flameshield	Ventilation	Fire outside	Rockwool FirePro Duct Slab	70	120	90	1506a/04
	Ventilation	Fire outside	Knauf Firetek BD917	90	120	120	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire inside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	60	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	90	
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	60	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	90	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire outside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Kitchen extract	Fire inside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire inside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	90	120	60	
	Kitchen extract	Fire outside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire outside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	90	120	60	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1506b to SD198 (Appendix B12)/EN 1366-1

FlameshieldEN

Product Name	LPCB Ref. No.
Flameshield Vertical and Horizontal insulated and uninsulated ducts	1506b/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

E & S Heating and Ventilation Limited

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E-mail: EmmaCollins@esgroup.co.uk • Website: www.esgroup.co.uk

Certificate No: 1713a to BS 476: Part 24

Flameshield

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1713a/03
	Smoke outlet	Fire inside	None	-	240	-	
Kitchen extract	Ventilation	Fire inside	None	-	240	-	1713a/04
	Ventilation	Fire outside	None	-	120	-	
Smoke outlet	Ventilation	Fire outside	None	-	120	-	1713a/04
	Ventilation	Fire outside	None	-	120	-	
Kitchen extract	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1713a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	60	
Ventilation	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	1713a/04
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Ventilation	Ventilation	Fire inside	Knauf Firetek BD917	90	240*	120	1713a/04
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
Ventilation	Ventilation	Fire outside	Knauf Firetek BD917	45	120	30	1713a/04
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	60	
Ventilation	Ventilation	Fire outside	Rockwool FirePro Duct Slab	40	120	60	1713a/04
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	90	
Ventilation	Ventilation	Fire outside	Rockwool FirePro Duct Slab	70	120	90	1713a/04
	Ventilation	Fire outside	Knauf Firetek BD917	90	120	120	
Ventilation	Ventilation	Fire outside	Rockwool FirePro Duct Slab	90	120	120	1713a/04
	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	
Smoke outlet	Ventilation	Fire inside	Knauf Firetek BD917	90	120	60	1713a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	
Smoke outlet	Ventilation	Fire inside	Rockwool FirePro Duct Slab	70	120	90	1713a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	120	
Smoke outlet	Ventilation	Fire inside	Rockwool FirePro Duct Slab	90	120	120	1713a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	120	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Smoke outlet	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	30	
Smoke outlet	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	60	
Smoke outlet	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
Smoke outlet	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	90	
Smoke outlet	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
Smoke outlet	Smoke outlet	Fire outside	Knauf Firetek BD917	90	120	120	
Smoke outlet	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
Kitchen extract	Kitchen extract	Fire inside	Knauf Firetek BD917	45	120	30	
Kitchen extract	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	40	120	30	
Kitchen extract	Kitchen extract	Fire inside	Knauf Firetek BD917	90	120	60	
Kitchen extract	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	90	120	60	
Kitchen extract	Kitchen extract	Fire outside	Knauf Firetek BD917	45	120	30	
Kitchen extract	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	40	120	30	
Kitchen extract	Kitchen extract	Fire outside	Knauf Firetek BD917	90	120	60	
Kitchen extract	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	90	120	60	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1713b to SD198 (Appendix B12) / EN 1366-1

FlameshieldEN

Product Name	Steel type / gauge	Duct type / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	1713b/01
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002B/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct B	P104441-1002C/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct A	P104441-1002D/1	E 60 (ve o i) S	
	Galvanised steel / 0.8mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002E/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct B	P104441-1002F/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct A	P104441-1002G/1	E 60 (ho o i) S	

PART 3: SECTION 2.1**FIRE RESISTANT DUCTS**

Product Name	Steel type / gauge	Duct type / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct B	P104441-1002H/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct A	P104441-1002I/1	E 60 (ve o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002J/1	EI 20 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002K/1	EI 45 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002L/1	EI 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002M/1	EI 90 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002N/1	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002O/1	EI 120 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1800 x 1000	Flexible or rigid wall	Duct B	13-H-131440	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 2500 x 1250	Rigid wall	Duct B	13-H-131459	EI 120 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 800 x 800	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001724	EI 120 (ho o i) EI 30 (ho o i)	
	Galvanised steel / 1.0mm - thick	Rectangular 400 x 400	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001727	EI 120 (ho o i) S EI 30 (ho o i) S	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-002671	EI 120 (ho o i) S EI 20 (ho o i) S	

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Certificate No: 1732a to BS 476 Part 24

Flameshield

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1732a/03
	Smoke outlet	Fire inside	None	-	240	-	
	Kitchen extract	Fire inside	None	-	240	-	
	Ventilation	Fire outside	None	-	120	-	
	Smoke outlet	Fire outside	None	-	120	-	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Kitchen extract		Fire outside	None	-	120	-	
Ventilation		Fire inside	Knauf Firetek BD917	45	120	30	1732a/04
Ventilation		Fire inside	Knauf Firetek BD917	90	120	60	
Ventilation		Fire inside	Knauf Firetek BD917	90	120	90	
Ventilation		Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Ventilation		Fire inside	Knauf Firetek BD917	90	240*	120	
Ventilation		Fire inside	Rockwool FirePro Duct Slab	90	120	120	
Ventilation		Fire outside	Knauf Firetek BD917	45	120	30	
Ventilation		Fire outside	Knauf Firetek BD917	45	120	60	
Ventilation		Fire outside	Rockwool FirePro Duct Slab	40	120	60	
Ventilation		Fire outside	Knauf Firetek BD917	45	120	90	
Ventilation		Fire outside	Rockwool FirePro Duct Slab	70	120	90	
Ventilation		Fire outside	Knauf Firetek BD917	90	120	120	
Ventilation		Fire outside	Rockwool FirePro Duct Slab	90	120	120	
Smoke outlet		Fire inside	Knauf Firetek BD917	45	120	30	
Smoke outlet		Fire inside	Knauf Firetek BD917	90	120	60	
Smoke outlet		Fire inside	Knauf Firetek BD917	90	120	90	
Smoke outlet		Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Smoke outlet		Fire inside	Knauf Firetek BD917	90	120	120	
Smoke outlet		Fire inside	Rockwool FirePro Duct Slab	90	120	120	
Smoke outlet		Fire outside	Knauf Firetek BD917	45	120	30	
Smoke outlet		Fire outside	Knauf Firetek BD917	45	120	60	
Smoke outlet		Fire outside	Rockwool FirePro Duct Slab	40	120	60	
Smoke outlet		Fire outside	Knauf Firetek BD917	45	120	90	
Smoke outlet		Fire outside	Rockwool FirePro Duct Slab	70	120	90	
Smoke outlet		Fire outside	Knauf Firetek BD917	90	120	120	
Smoke outlet		Fire outside	Rockwool FirePro Duct Slab	90	120	120	
Kitchen extract		Fire inside	Knauf Firetek BD917	45	120	30	
Kitchen extract		Fire inside	Rockwool FirePro Duct Slab	40	120	30	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Kitchen extract		Fire inside	Knauf Firetek BD917	90	120	60	
Kitchen extract		Fire inside	Rockwool FirePro Duct Slab	90	120	60	
Kitchen extract		Fire outside	Knauf Firetek BD917	45	120	30	
Kitchen extract		Fire outside	Rockwool FirePro Duct Slab	40	120	30	
Kitchen extract		Fire outside	Knauf Firetek BD917	90	120	60	
Kitchen extract		Fire outside	Rockwool FirePro Duct Slab	90	120	60	

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Certificate No: 1732b to SD198 (Appendix B12)/EN 1366-1

FlameshieldEN

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	1732b/01
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002B/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct A	P104441-1002D/1	E 60 (ve o i) S	
	Galvanised steel / 0.8mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002E/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct B	P104441-1002F/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct A	P104441-1002G/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct B	P104441-1002H/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct A	P104441-1002I/1	E 60 (ve o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002J/1	EI 20 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002K/1	EI 45 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002L/1	EI 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002M/1	EI 90 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002N/1	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002O/1	EI 120 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1800 x 1000	Flexible or rigid wall	Duct B	13-H-131440	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 2500 x 1250	Rigid wall	Duct B	13-H-131459	EI 120 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 800 x 800	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001724	EI 120 (ho o i) EI 30 (ho o i)	
	Galvanised steel / 1.0mm - thick	Rectangular 400 x 400	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001727	EI 120 (ho o i) S EI 30 (ho o i) S	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-002671	EI 120 (ho o i) S EI 20 (ho o i) S	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

Fenland Fire Contracts Limited

Unit 3, Laburnum Farm, East Hyde, Near Luton, Bedfordshire LU2 9PW, United Kingdom

Tel: +44 (0)1582 723979 • Fax: +44 (0)1582 723980

E-mail: info@ffcducting.co.uk • Website: www.ffcducting.co.uk

Certificate No: 1176a to BS 476: Part 24

Fenland Fire Rated Ductwork

Product Name	Duct Tape	Condition	Type / Density of Insulation	Insulation Thickness (mm)	Fire Resistance (integrity / stability)	Fire Resistance (insulation)	LPCB Ref. No.
Fenland Fire Rated Ductwork	Ventilation, Smoke extract, Kitchen extract	Fire outside	None	-	240	-	1176a/01
	Ventilation, Smoke extract, Kitchen extract	Fire inside and outside	None	-	240	-	
	Ventilation, Smoke extract, Kitchen extract	Fire outside	None	-	120	-	
	Ventilation, Smoke extract, Kitchen extract	Fire inside and outside	None	-	120	-	
Ventilation, Smoke extract	Fire outside	Stone mineral/wool/160kg/m ₃	30	120	30	1176a/02	
Ventilation, Smoke extract	Fire outside	Stone mineral/wool/160kg/m ₃	40	120	60		
Ventilation, Smoke extract	Fire outside	Stone mineral/wool/160kg/m ₃	45	120	90		
Ventilation, Smoke extract	Fire outside	Stone mineral/wool/160kg/m ₃	50	120	120		
Ventilation, Smoke extract	Fire inside and outside	Stone mineral/wool/160kg/m ₃	40	120	30		
Ventilation, Smoke extract	Fire inside and outside	Stone mineral/wool/160kg/m ₃	55	120	60		
Ventilation, Smoke extract	Fire inside and outside	Stone mineral/wool/160kg/m ₃	70	120	90		
Ventilation, Smoke extract	Fire inside and outside	Stone mineral/wool/160kg/m ₃	90	120	120		

PART 3: SECTION 2.1**FIRE RESISTANT DUCTS**

Product Name	Duct Tape	Condition	Type / Density of Insulation	Insulation Thickness (mm)	Fire Resistance (integrity / stability)	Fire Resistance (insulation)	LPCB Ref. No.
Kitchen extract		Fire outside	Stone mineral/wool/160kg/m ³	45	120	30	
Kitchen extract		Fire outside	Stone mineral/wool/160kg/m ³	90	120	60	
Kitchen extract		Fire outside	Stone mineral/wool/160kg/m ³	135 (3x45)	120	90	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Fire Protection Limited

Flamebar House, South Road, Templefields, Harlow, Essex CM20 2AR, United Kingdom

Tel: +44 (0)1279 634 230 • Fax: +44 (0)1279 634 231

E-mail: steve.harrison@fireprotection.co.uk • Website: www.fireprotection.co.uk

Certificate No: 277a to BS 476 Part 24

Flamebar BW11

Product Name	Duct Tape	Condition	Type of Insulation	Insulation Thickness	Integrity / Stability (min)	Insulation (min)	LPCB Ref. No.
Flamebar BW11	Ventilation	Fire outside duct	-	-	120	15	277a/01
	Ventilation	Fire outside duct	-	-	240	15	
	Ventilation	Fire outside duct	105kg/m ³	50mm	120	120	
	Ventilation	Fire outside duct	105kg/m ³	80mm	120	120	
	Ventilation	Fire outside duct	105kg/m ³	50mm	240	208	
	Ventilation	Fire outside duct	105kg/m ³	80mm	240	240	
	Ventilation	Fire outside duct	105kg/m ³	120mm	240	240	
	Ventilation	Fire outside duct	105kg/m ³	100mm**	240	240	
	Ventilation	Fire inside duct	-	-	120	-	
	Ventilation	Fire inside duct	-	-	240	-	
	Ventilation	Fire inside duct	105kg/m ³	50mm	120	60	
	Ventilation	Fire inside duct	105kg/m ³	80mm	120	90	
	Ventilation	Fire inside duct	105kg/m ³	120mm	120	120	
	Ventilation	Fire inside duct	105kg/m ³	100mm**	120	120	
	Ventilation	Fire inside duct	105kg/m ³	80mm	240	90	
	Ventilation	Fire inside duct	105kg/m ³	120mm	240	120	
	Ventilation	Fire inside duct	105kg/m ³	100mm**	240	120	
	Smoke outlet	Fire outside duct	-	-	120	15	
	Smoke outlet	Fire outside duct	-	-	240	15	
	Smoke outlet	Fire outside duct	105kg/m ³	50mm	120	120	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Tape	Condition	Type of Insulation	Insulation Thickness	Integrity / Stability (min)	Insulation (min)	LPCB Ref. No.
Smoke outlet	Smoke outlet	Fire outside duct	105kg/m ³	80mm	120	120	
Smoke outlet	Smoke outlet	Fire outside duct	105kg/m ³	50mm	240	208	
Smoke outlet	Smoke outlet	Fire outside duct	105kg/m ³	120mm	240	240	
Smoke outlet	Smoke outlet	Fire outside duct	105kg/m ³	120mm	240	240	
Smoke outlet	Smoke outlet	Fire outside duct	105kg/m ³	100mm**	240	240	
Smoke outlet	Smoke outlet	Fire inside duct	-	-	120	-	
Smoke outlet	Smoke outlet	Fire inside duct	-	-	240	-	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	50mm	120	60	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	80mm	120	90	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	120mm	120	120	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	100mm**	120	120	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	80mm	240	90	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	120mm	240	120	
Smoke outlet	Smoke outlet	Fire inside duct	105kg/m ³	100mm**	240	120	
Kitchen extract	Kitchen extract	Fire outside duct	-	-	120	15	
Kitchen extract	Kitchen extract	Fire outside duct	-	-	240	15	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	50mm	120	45*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	80mm	120	45*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	100mm**	120	60*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	50mm	240	45*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	80mm	240	45*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	120mm	240	60*	
Kitchen extract	Kitchen extract	Fire outside duct	105kg/m ³	100mm**	240	60*	
Kitchen extract	Kitchen extract	Fire inside duct	-	-	120	-	
Kitchen extract	Kitchen extract	Fire inside duct	-	-	240	-	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	50mm	120	60	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	80mm	120	90	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	120mm	120	120	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	100mm**	120	120	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	80mm	240	90	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	120mm	240	120	
Kitchen extract	Kitchen extract	Fire inside duct	105kg/m ³	100mm**	240	120	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Firetrace Ductwork Limited

19 Marshall Road, Eastbourne, Sussex BN22 9AD, United Kingdom

Tel: 01323 400680 • Fax: 01323 400690

E-mail: clive@firetrace-ductwork.co.uk • Website: www.firetrace-ductwork.co.uk

Certificate No: 1345a to SD 198 (Appendix B12)/BS 476-24:1987

Product Name	Duct Type	Condition	Duct Orientation Vertical V- or Horizontal H-	Type/density of insulation	Insulation Thickness (mm)	Fire Resistance (Integrity/Stability)	Fire Resistance Insulation	LPCB Ref. No.
Caswell Firesafe	Ventilation Smoke Outlet Kitchen Extract	Fire inside (Type B) & Fire outside (Type A)	V or H	None	-	240	-	1345a/01
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V or H	Mineral wool 160 kg/m ³	25	30	30	1345a/02
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	H	Mineral wool 160 kg/m ³	40	60	60	
	Kitchen Extract	Fire inside (Type B) & Fire outside (Type A)	H	Mineral wool 160 kg/m ³	40	30	30	
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V or H	Mineral wool 160 kg/m ³	70	90	90	
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	H	Mineral wool 160 kg/m ³	90	120	120	
	Kitchen Extract	Fire inside (Type B) & Fire outside (Type A)	H	Mineral wool 160 kg/m ³	90	60	60	
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V	Mineral wool 160 kg/m ³	30	60	60	
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V	Mineral wool 160 kg/m ³	50	90	90	
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V or H	Mineral wool 100 kg/m ³	50	30	30	1345a/03
	Ventilation Smoke Outlet	Fire inside (Type B) & Fire outside (Type A)	V or H	Mineral wool 100 kg/m ³	100 (2x50)	60	60	1345a/04

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Notes:

1. LPCB Ref. No's 1345a/01, 1345a/02, 1345a/03 and 1345a/04 - Uninsulated and Insulated Ductwork systems to be manufactured and installed to the specifications as detailed in Report no 335274 Issue 2 dated 15 July 2014.
2. LPCB Ref. No 1345a/02 Mineral wool specification: Rockwool FirePro Duct Slab with a nominal density of 160kg/m³. The boards of maximum size 2000mm x 1200mm, have thicknesses of 25, 30, 40, 50, 70 and 90mm.
3. LPCB Ref. No 1345a/03 Mineral wool specification: Rockwool RW5 Slab, 50mm thick and 100 kg/m³ nominal density.
4. LPCB Ref. No 1345a/04 Mineral wool specification: Rockwool Marine Firebatt 2000, 100mm (2 x 50mm) thick and 100 kg/m³ nominal density.
5. LPCB Ref. No's 1345a/01- covers rectangular and circular ductwork up to 3000mm wide x 3000mm high, reference Firesafe Tables 1 to 4 and circular ductwork up to 1250mm diameter Table 9. The Firesafe systems may also be employed as attenuator casings as defined in Assessment Report no.335274 Issue 2 dated 15 July 2014 however the LPCB approval does not cover the attenuator itself.
6. LPCB Ref. No's 1345a/02 - maximum size of steel duct without extra support to insulation for rectangular and circular insulated ductwork when insulation material thick 25mm, 30mm, 90mm is up to 1000mm x 1000mm, when insulation material thick 70mm - up to 1200mm x 1200mm and when insulation material thick 40mm, 50mm, 70mm - 1500mm x 1500mm. Where insulation is required for circular ducts, Firepro Duct Slab is fitted around the duct as a square box in the same manner as for rectangular ducts. On horizontal ducts additional hangers are fitted at 1510mm maximum centres. Where the diameter of the steel duct exceeds 610mm then studwelded pins and washers must be fitted at the mid-width of the board in the same manner as for rectangular ducts.
7. LPCB Ref. No's 1345a/03 1345a/04 - covers rectangular and circular insulated ductwork up to 1000mm x 1000mm.
8. LPCB Ref. No's 1345a/01, 1345a/02, 1345a/03 and 1345a/04 - Details of the modified penetration seal system, where the duct passes through fire compartment walls or floors, are shown in Firesafe drawings no's. CF213A, CF311B & CF312. The parts of the steel collars are bolted together instead of welded and that, for insulated ducts, a gasket of ceramic tape 100mm wide x 3mm thick is fitted between the collar and the duct wall on all four sides of the duct.
9. LPCB Ref. No's 1345a/01, 1345a/02, 1345a/03 and 1345a/04 - thin film paint finishes may be applied to the outside of the steel ductwork. The foil facing of insulated ducts may also be painted provided that the paint is water based. The paint finish must comply with the reaction to fire requirements for the building in which the ductwork is being installed.
10. LPCB Ref. No's 1345a/01, 1345a/02, 1345a/03 and 1345a/04 - an assessment report No 335274 covers systems manufactured from galvanised steel, mild steel and stainless steel and ducts over 3m longest side (in panel construction).

Ductwork Manufacturers

The following Companies manufacture the products listed on this certificate to a specification issued and controlled by Firetrace Ductwork Limited

These Companies are audited by the LPCB to ensure the product certification requirements are met.

Airtrace Sheet Metal Limited (LPCB Ref. No. 1345)
19 Marshal Road
Eastbourne
East Sussex
BN22 9AD

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

Flameshield Products Limited

9 Zillah Gardens, Wigmore, Gillingham, Kent ME8 0EE, United Kingdom

Tel: 0800 3289980

E-mail: info@flameshieldproducts.co.uk; info@kentductwork.co.uk

Certificate No: 785d to SD198 (Appendix B12) / EN 1366-1

Product Name	LPCB Ref. No.
FlameshieldEN	785d

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 785a to BS 476: Part 24

Flameshield Vertical and Horizontal insulated and uninsulated ducts

Product Name	LPCB Ref. No.
Flameshield	785a/03
	785a/04

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Gardner FRD Ltd

1-5 Bermondsey Street, London SE1 2ER, United Kingdom

Tel: 0207 403 5894

E-mail: mark.duguid@gardnerco.net

Certificate No: 1494a to BS 476 Part 24

Flameshield

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1494a/03
		Smoke outlet	None	-	240	-	
Kitchen extract	Ventilation	Fire inside	None	-	240	-	1494a/04
		Fire outside	None	-	120	-	
Smoke outlet	Ventilation	Fire inside	None	-	120	-	1494a/04
		Fire outside	None	-	120	-	
Kitchen extract	Ventilation	Fire inside	None	-	120	-	1494a/04
		Fire outside	None	-	120	-	
Ventilation	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1494a/04
		Fire inside	Knauf Firetek BD917	90	120	60	
Ventilation	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	1494a/04
		Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Ventilation	Ventilation	Fire inside	Knauf Firetek BD917	90	240*	120	1494a/04
		Fire inside	Rockwool FirePro Duct Slab	90	120	120	
Ventilation	Ventilation	Fire outside	Knauf Firetek BD917	45	120	30	1494a/04
		Fire outside	Knauf Firetek BD917	45	120	60	
Ventilation	Ventilation	Fire outside	Rockwool FirePro Duct Slab	40	120	60	1494a/04
		Fire outside	Knauf Firetek BD917	45	120	90	
Ventilation	Ventilation	Fire outside	Rockwool FirePro Duct Slab	70	120	90	1494a/04
		Fire outside	Knauf Firetek BD917	90	120	120	
Ventilation	Ventilation	Fire outside	Knauf Firetek BD917	90	120	120	1494a/04
		Fire outside	Rockwool FirePro Duct Slab	90	120	120	
Smoke outlet	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1494a/04
		Fire inside	Knauf Firetek BD917	90	120	60	
Smoke outlet	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	1494a/04
		Fire inside	Rockwool FirePro Duct Slab	70	120	90	
Smoke outlet	Ventilation	Fire inside	Knauf Firetek BD917	90	120	120	1494a/04
		Fire inside	Rockwool FirePro Duct Slab	90	120	120	

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FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	60	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	90	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire outside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
Flamshield	Kitchen extract	Fire inside	Knauf Firetek BD917	45	120	30	
Flameshield	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire inside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	90	120	60	
	Kitchen extract	Fire outside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire outside	Knauf Firetek BD917	90	120	60	
Flameshield	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	90	120	60	

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Certificate No: 1494b to SD198 (Appendix B12)/EN 1366-1

FlameshieldEN

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm) Duct shape / Duct shape / Duct shape /	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	1494b/01
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002B/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct B	P104441-1002C/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct A	P104441-1002D/1	E 60 (ve o i) S	

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FIRE RESISTANT DUCTS

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm) Duct shape / Duct shape / Duct shape /	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
	Galvanised steel / 0.8mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002E/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct B	P104441-1002F/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct A	P104441-1002G/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct B	P104441-1002H/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct A	P104441-1002I/1	E 60 (ve o i) S	
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002J/1	EI 20 (ho i o)	
FlameshieldEN	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002K/1	EI 45 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002L/1	EI 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002M/1	EI 90 (ho i o)	
FlamrsjieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002N/1	EI 120 (ho i o)	
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002O/1	EI 120 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1800 x 1000	Flexible or rigid wall	Duct B	13-H-131440	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 2500 x 1250	Rigid wall	Duct B	13-H-131459	EI 120 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 800 x 800	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001724	EI 120 (ho o i) EI 30 (ho o i)	
	Galvanised steel / 1.0mm - thick	Rectangular 400 x 400	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001727	EI 120 (ho o i) S EI 30 (ho o i) S	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-002671	EI 120 (ho o i) S EI 20 (ho o i) S	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Kent Ductwork Limited

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Tel: 01322 558887

E-mail: info@kentductwork.co.uk • Website: www.kentductwork.co.uk

Certificate No: 1336b to SD198 (Appendix B12)/EN 1366-1

Fire resistant ductwork

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	1336b/01
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002B/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct B	P104441-1002C/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct A	P104441-1002D/1	E 60 (ve o i) S	
	Galvanised steel / 0.8mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002E/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct B	P104441-1002F/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct A	P104441-1002G/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct B	P104441-1002H/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct A	P104441-1002I/1	E 60 (ve o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002J/1	EI 20 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002K/1	EI 45 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002L/1	EI 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002M/1	EI 90 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002N/1	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002O/1	EI 120 (ho o i) S	
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1800 x 1000	Flexible or rigid wall	Duct B	13-H-131440	EI 120 (ho i o)	
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 2500 x 1250	Rigid wall	Duct B	13-H-131459	EI 120 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 800 x 800	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001724	EI 120 (ho o i) EI 30 (ho o i)	
	Galvanised steel / 1.0mm - thick	Rectangular 400 x 400	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001727	EI 120 (ho o i) S EI 30 (ho o i) S	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification (EN 13501-3)	LPCB Ref. No.
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-002671	EI 120 (ho o i) S EI 20 (ho o i) S	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1336a to BS 476-24

Flameshield Vertical and Horizontal insulated and uninsulated ducts

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1336a/03
	Smoke outlet	Fire inside	None	-	240	-	
	Kitchen extract	Fire inside	None	-	240	-	
	Ventilation	Fire outside	None	-	120	-	
	Smoke outlet	Fire outside	None	-	120	-	
	Kitchen extract	Fire outside	None	-	120	-	
	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1336a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	60	
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
	Ventilation	Fire inside	Knauf Firetek BD917	90	240*	120	
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	30	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	60	
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	90	
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Ventilation	Fire outside	Knauf Firetek BD917	90	120	120	
	Flameshield	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire inside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	60	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	90	
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	120	

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FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	60	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	90	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire outside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Kitchen extract	Fire inside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire inside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	90	120	60	
	Kitchen extract	Fire outside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire outside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	90	120	60	

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Certificate No: 1555a to BS 476: Part 24

Flameshield

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
Flameshield	Ventilation	Fire inside	None	-	240	-	1555a/03
	Smoke outlet	Fire inside	None	-	240	-	
	Kitchen extract	Fire inside	None	-	240	-	
	Ventilation	Fire outside	None	-	120	-	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
	Smoke outlet	Fire outside	None	-	120	-	
	Kitchen extract	Fire outside	None	-	120	-	
	Ventilation	Fire inside	Knauf Firetek BD917	45	120	30	1555a/04
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	60	
	Ventilation	Fire inside	Knauf Firetek BD917	90	120	90	
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
	Ventilation	Fire inside	Knauf Firetek BD917	90	240*	120	
	Ventilation	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	30	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	60	
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Ventilation	Fire outside	Knauf Firetek BD917	45	120	90	
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Ventilation	Fire outside	Knauf Firetek BD917	90	120	120	
	Ventilation	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire inside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	60	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	90	
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire inside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire inside	Rockwool FirePro Duct Slab	90	120	120	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	30	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	60	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	40	120	60	
	Smoke outlet	Fire outside	Knauf Firetek BD917	45	120	90	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	70	120	90	
	Smoke outlet	Fire outside	Knauf Firetek BD917	90	120	120	
	Smoke outlet	Fire outside	Rockwool FirePro Duct Slab	90	120	120	
	Kitchen extract	Fire inside	Knauf Firetek BD917	45	120	30	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Duct Type	Condition	Type of Insulation-mineral wool reference	Insulation Thickness (mm)	Fire Resistance (integrity/stability)	Fire Resistance Insulation	LPCB Ref. No.
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire inside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire inside	Rockwool FirePro Duct Slab	90	120	60	
	Kitchen extract	Fire outside	Knauf Firetek BD917	45	120	30	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	40	120	30	
	Kitchen extract	Fire outside	Knauf Firetek BD917	90	120	60	
	Kitchen extract	Fire outside	Rockwool FirePro Duct Slab	90	120	60	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

Certificate No: 1555b to SD198 (Appendix B12)/EN 1366-1

FlameshieldEN

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification(EN 13501-3)	LPCB Ref. No.
FlameshieldEN	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002A/1	E 60 (ho i o)	1555b/01
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002B/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct B	P104441-1002C/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Concrete floor	Duct A	P104441-1002D/1	E 60 (ve o i) S	
	Galvanised steel / 0.8mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002E/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct B	P104441-1002F/1	E 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Flexible wall	Duct A	P104441-1002G/1	E 60 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct B	P104441-1002H/1	E 60 (ve i o)	
	Galvanised steel / 1.2mm - thick	Circular ⁽¹⁾	Concrete floor	Duct A	P104441-1002I/1	E 60 (ve o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct B	P104441-1002J/1	EI 20 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002K/1	EI 45 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002L/1	EI 60 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002M/1	EI 90 (ho i o)	

PART 3: SECTION 2.1

FIRE RESISTANT DUCTS

Product Name	Steel type / gauge	Duct shape / Max size (w x h) (mm)	Supporting construction	Duct type	Classification Ref.	Classification(EN 13501-3)	LPCB Ref. No.
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct B	P104441-1002N/1	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 1250 x 1000	Flexible wall	Duct A	P104441-1002O/1	EI 120 (ho o i) S	
	Galvanised steel / 1.2mm - thick	Rectangular 1800 x 1000	Flexible or rigid wall	Duct B	13-H-131440	EI 120 (ho i o)	
	Galvanised steel / 1.2mm - thick	Rectangular 2500 x 1250	Rigid wall	Duct B	13-H-131459	EI 120 (ho i o)	
	Galvanised steel / 1.0mm - thick	Rectangular 800 x 800	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001724	EI 120 (ho o i) EI 30 (ho o i)	
	Galvanised steel / 1.0mm - thick	Rectangular 400 x 400	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-001727	EI 120 (ho o i) S EI 30 (ho o i) S	
	Galvanised steel / 1.0mm - thick	Rectangular 1250 x 1000	Flexible or rigid wall	Duct A Kitchen Extract	EFR-16-002671	EI 120 (ho o i) S EI 20 (ho o i) S	

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

PART 3: SECTION 2.2

SMOKE EXTRACTION DUCTS

The purpose of smoke duct systems are for the prevention of transmission of smoke and combustion products from a fire zone, smoke control duct sections are utilised to contain the spillage of otherwise harmful and toxic extinguishing gases from the affected area, and for the control of pressurising and excess air relief within pressurisation systems.

Smoke control ducts are commonly used in smoke and heat control systems. They may serve single compartments or a number of different fire compartments. The systems may be dedicated smoke extraction or possibly a combined environmental ventilation/smoke extraction.

LPCB approves Smoke Extraction Ducts to EN 1366 Part 8 *Fire resistance tests for service installations. Smoke extraction ducts* or EN 1366-9 *Fire resistance tests for service installations. Single compartment smoke extraction ducts*

Smoke curtains are used:

- To create a smoke reservoir by containing and limiting the travel of smoke.
- To channel smoke in a predetermined direction.
- To prevent or retard smoke entry to another area or void.

All the smoke curtains listed in Section 3 of this part of the list have been tested and assessed against the requirements of LPS 1182 *Requirements and tests for fixed fabric smoke curtains, fixed metal smoke curtains and powered smoke curtains*.

Currently there are no products listed in this section.

PART 3: SECTION 4

POWERED SMOKE AND HEAT EXHAUST VENTILATION

Powered smoke and heat exhaust ventilation fans are used:

- To channel heat and smoke in a predetermined direction.
- To prevent smoke logging of the protected space.

All the fans listed have been approved against the requirements of EN 12101-3 *Smoke and heat control systems. Part 3 Specification for powered smoke and heat exhaust ventilation.*

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Certificate No: 937a to SD 198 (Appendix B13/EN 12101-3:2002)

Smoke and Heat Control Systems

Product Name	Model	Application Classes	Response Delay	Resistance to Fire Class	Motor Temp. Rating⁽¹⁾	LPCB Ref. No.
SmokeVent axial fan	LCS025, LCS031, LCS035, LCS040, LCS045, LCS050, LCS056, LCS063, LCS071, LCS080, LCS090, LCS100, LCS112, LCS125, LCS140, LCS160, LCS180, LCS200, SCS025, SCS031, SCS035, SCS040, SCS045, SCS050, SCS056, SCS063, SCS071, SCS080, SCS090, SCS100, SCS112, SCS125, SCS140, SCS160, SCS180, SCS200, LCSCR025, LCSCR031, LCSCR035, LCSCR040, LCSCR045, LCSCR050, LCSCR056, LCSCR063, LCSCR071, LCSCR080, LCSCR090, LCSCR100, LCSCR112, LCSCR125, LCSCR140, LCSCR160, LCSCR180, LCSCR200 LCS040K2-A10/34/B, LCS125R4-A12/37/B	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use Uninsulated; smoke reservoir; dual purpose	N/A N/A	F200 F200	Class F / Class H or Class B / Class H Class F / Class H or Class B / Class H	937a/01
JetVent Impulse (flanged - standard thrust) axial fan	JFSU-CPA-315 2/4-3, JFSU-CPA-400 2/4-3, JFSR-CPA-315 2/4-3, JFSR-CPA-400 2/4-3, JFSR-CPA-400 2-3	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F200	Class F / Class H or Class B / Class H	
JetVent Impulse (flanged - enhanced thrust) axial fan	LCS031-CPU 2/4-3, LCS035-CPU 2/4-3, LCS040-CPU 2/4-3, LCS031-CPR 2/4-3, LCS035-CPR 2/4-3, LCS040-CPR 2/4-3	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F200	Class F / Class H or Class B / Class H	

PART 3: SECTION 4
POWERED SMOKE AND HEAT EXHAUST VENTILATION

Product Name	Model	Application Classes	Response Delay	Resistance to Fire Class	Motor Temp. Rating ⁽¹⁾	LPCB Ref. No.
SmokeVent axial fan	LCS025, LCS031, LCS035, LCS040, LCS045, LCS050, LCS056, LCS063, LCS071, LCS080, LCS090, LCS100, LCS112, LCS125, LCS140, LCS160, LCS180, LCS200, SCS025, SCS031, SCS035, SCS040, SCS045, SCS050, SCS056, SCS063, SCS071, SCS080, SCS090, SCS100, SCS112, SCS125, SCS140, SCS160, SCS180, SCS200, LCSCR025, LCSCR031, LCSCR035, LCSCR040, LCSCR045, LCSCR050, LCSCR056, LCSCR063, LCSCR071, LCSCR080, LCSCR090, LCSCR100, LCSCR112, LCSCR125, LCSCR140, LCSCR160, LCSCR180, LCSCR200 JFSR-CPA 400 2-3, LCS125-R4-A12/29/B	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use Uninsulated; smoke reservoir; dual purpose	N/A N/A	F300 F300	Class F / Class H Class F / Class H	937a/02
JetVent impulse (flanged - standard thrust) axial fan	JFSU-CPA-315 2/4-3, JFSU-CPA-400 2/4-3, JFSU-CPA-400 2-3, JFSR-CPA-315 2/4-3, JFSR-CPA-400 2/4-3, JFSR-CPA-400 2-3	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	
JetVent impulse (flanged - enhanced thrust) axial fan	LCS031-CPU 2/4-3, LCS035-CPU 2/4-3, LCS040-CPU 2/4-3, LCS031-CPR 2/4-3, LCS035-CPR 2/4-3, LCS040-CPR 2/4-3	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	
JetVent impulse (flanged standard and enhanced thrust) axial fan	JFU/F3-315, JFR/F3-315, JFU/F3-355, JFR/F3-355, JFU/F3-400, JFR/F3-400	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	
SmokeVent axial fan	LCS025, LCS031, LCS035, LCS040, LCS045, LCS050, LCS056, LCS063, LCS071, LCS080, LCS090, LCS100, LCS112, LCS125, SCS025, SCS031, SCS035, SCS040, SCS045, SCS050, SCS056, SCS063, SCS071, SCS080, SCS090, SCS100, SCS112, SCS125, LCSCR025, LCSCR031, LCSCR035, LCSCR040, LCSCR045, LCSCR050, LCSCR056, LCSCR063, LCSCR071, LCSCR080, LCSCR090, LCSCR100, LCSCR112, LCSCR125 LCS 140, SCS140, LCSCR140, SCSCR140 (Weg Pad only)	Insulated or uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F400	Class F / Class H	937a/03
JetVent centrifugal (Mark I) fan	JISU-CPC-50N, JISU-CPC-100N	Uninsulated; smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	937a/04
JetVent centrifugal (MarkII) fan	JISU-2-CPC-50N, JISU-2-CPC-60N, JISU-2-CPC-100N, JISU-2-CPC-120N	Uninsulated; smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	937a/05
JetVent impulse (unflanged - standard thrust) axial fan	JVSU-CPA-315 2/4-3, JVSU-CPA-400 2-3, JVSU-CPA-400 2/4-3, JVSR-CPA-315 2/4-3, JVSR-CPA-400 2-3, JVSR-CPA-400 2/4-3	Uninsulated; smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	937a/06

PART 3: SECTION 4

POWERED SMOKE AND HEAT EXHAUST VENTILATION

Product Name	Model	Application Classes	Response Delay	Resistance to Fire Class	Motor Temp. Rating⁽¹⁾	LPCB Ref. No.
JetVent impulse (flanged standard and enhanced thrust) axial fan	JFU/F4-315, JFR/F4-315, JFU/F4-355, JFR/F4-355, JFU/F4-400, JFR/F4-400	Uninsulated; smoke reservoir or non smoke reservoir; dual purpose or emergency use	N/A	F400	Class F / Class H	937a/07
JetVent - centrifugal (Mark III) fan	JVC/F3-100N, JVC/F3-50N	Uninsulated; smoke reservoir; dual purpose or emergency use	N/A	F300	Class F / Class H	937a/08

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

LPS 1263 Requirements for the LPCB Approval and Listing of the Fire Performance of Grease Filters Used in Commercial Extract systems.

This standard covers the test procedures and method of calculating the fire performance rating of grease filters used for the reduction of flammable and volatile grease droplets from the cooking exhaust of commercial cooking equipment in such situations as restaurant kitchens, canteens or similar food preparation areas where it is necessary to reduce the cooking exhaust via a ventilation system.