

DVAC

DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Non Coated Fire Rated Ducts Catalogue



Non-Coated Fire Rated Ductwork - DVAC 240

Tested in accordance with BS 476: PART 24:1987





DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Table Of Contents

Non-Coated Fire Rated Ducts - DVAC 240

Rectangular, Circular & Oval Ducts	Page
Introduction - Description	3
Test Result Standard & Criteria, DVAC 240 Benefits	4
Fabrication Procedures (Rectangular & Round Ducts)	5
Construction Schedule: GI & SS Rectangular Ducts (Horiz./Vert.)	6
Construction Schedule: BS Rectangular, Circular & Oval Ducts	7
IFC Fire Rated Certifications	8-9
QCDD Approval Certificate	10-11

INTRODUCTION

The **DVAC-240 Fire Duct System** is a **non-coated fire-rated ductwork system** designed to provide reliable fire resistance without the use of external fire-protective coatings. Fire performance is achieved through the duct construction and materials.

The system is **tested and certified to BS 476: Part 24: 1987**, providing **4-hour fire resistance for stability and integrity** for both **Type A and Type B ducts** (external and internal fire exposure).

As approximately **85% of fire-related fatalities are caused by smoke inhalation**, the use of **fire-resistant ductwork such as DVAC-240** helps limit the spread of smoke and toxic gases, maintain fire compartmentation, and support safe smoke extraction.

DESCRIPTION

The DVAC non-coated fire-rated duct system complies with applicable local construction standards and the requirements of the Civil Defense Authorities in the State of Qatar.

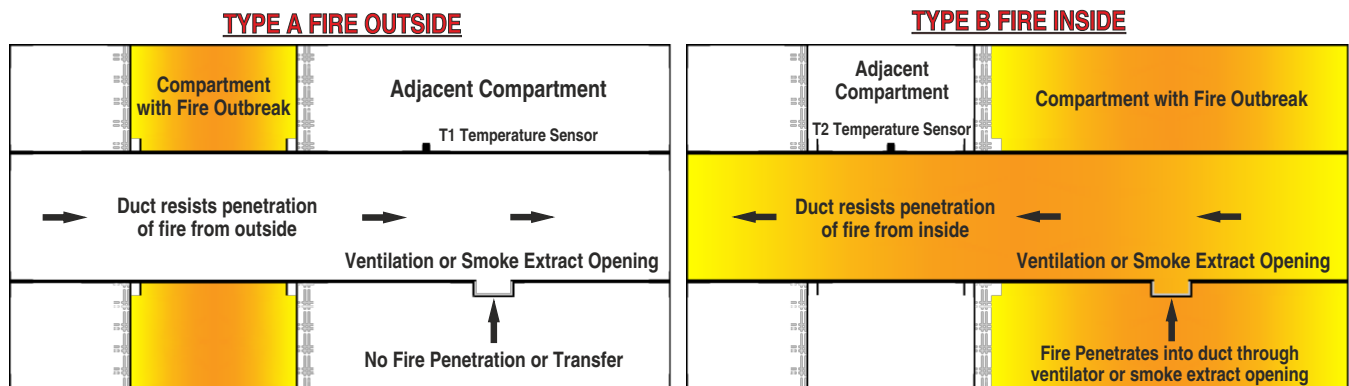
A. System Approval and Applications

The DVAC 240 Non-Coated Fire-Rated Duct System is approved for the following applications:

1. Mechanical Ventilation System
2. Dual Ventilation
3. Smoke Extraction System
4. Car Park Extraction System
5. Pressurization Duct.

B. System Features

- Manufactured in accordance with the approved Construction Schedule and QCDD requirements.
- Tested to BS 476: Part 24: 1987 for 4-hour fire resistance for Type A and Type B ducts.
- Approved for galvanized, stainless, and carbon steel ducts in rectangular, circular, and oval shapes.



DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.

TEST RESULT STANDARD AND CRITERIA

DVAC Duct Specimen has been subjected to the condition indicated into the **BS 476: Part 24: 1987**, method of determination of fire resistance of ventilation ducts, in order to verify the performance criteria stated in this standard for Horizontal and Vertical Ducts.

A. Stability : **DVAC-240 Non-coated Fire Rated Ductwork System** conforms with the Stability Test Standards. All the support system remained intact and fulfilled the requirements for 2 hrs for both **Type A & Type B** Ducts. **DVAC-240 Non-Coated Fire Rated Ductwork System fulfills the Stability Criteria for 4 hours.**

B. Integrity: **DVAC-240 Non-Coated Fire Rated Ductwork System** when subjected to Integrity test according to **BS 476: Part 24: 1987 for 4 hours**, it did not show any presence or formation of cracks, holes or any other opening outside the furnace, through which fumes or hot gasses can pass. There were no ignition of cotton pads or appearance of any sustained flaming on the unexposed surface of the duct specimens. **DVAC-240 Non-Coated Fire Rated Ductwork System fulfills the Integrity criteria for 4 hours.**

DVAC-240 BENEFITS

1. Speed

Removing the need for a multi-process coating means that the manufacturing 'turnaround' for **DVAC-240** Ductwork can be quick and meet customers' expectations; especially for any urgent add-on orders.

2. Durability

DVAC-240 Fire Rated Ductwork has no coating that could be damaged during transportation and/or installation or that will degrade over time and/or due to vigorous cleaning. Fire performance relies on a product's dependability and durability.

3. Economy

Using **DVAC-240** can assist in "designing out" Fire Dampers. This allows considerable savings on the total capital cost of dampers, their installation and on-going costs associated with periodic testing, maintenance and ultimately replacement of failed dampers over time. Non-coated product is therefore particularly cost-effective over the lifetime of the building.

4. Cleaning

To minimize the build-up of combustible materials (grease) on the inside of Fire Rated Systems, it is recommended -in both the Building Regulations and DW172- that systems are regularly cleaned. To facilitate thorough cleaning, fire resisting access doors should be positioned every 2m along the ductwork. In addition, fire resisting access doors should be positioned –on either one or two sides– where the ductwork takes a change of direction and also adjacent to any inline plant such as fans, balance dampers, attenuators and heat recovery coils. Non-Coated **DVAC-240** ductwork is easier to clean and maintain than spray coated or clad systems. Visual checks are also simple and quick to conduct, as nothing is concealed.

5. Safety

Unlike some other systems which require the in-situ application of bonding agents & fillers, there is no specific requirement for RPE (Respiratory Protective Equipment) or a well-ventilated work area, over & above normal Health and Safety measures.

6. Environmental

DVAC-240 is manufactured without the need for the additional chemical processes which are required to etch, prime and coat ductwork. This eliminates the environmental impact risk and costs otherwise associated with the production, application and hazardous waste disposal of chemicals.

DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.

FABRICATION PROCEDURES




- I- Rectangular Ducts:** Fabrication of Galvanized Rectangular Ducts shall be based on Drawing/Take-Off provided by the client, following consequently below procedures:
- The Shop Drawings shall be encoded into our Autodesk Fabrication CAD-Mep Software, to be converted into individual plans. All items shall be Tagged on the drawings. Individual duct pieces shall be nested on sheet to maximize the sheet usage on CNC Machine avoiding material loss.
 - An accurate BOQ shall be issued including connectors.
 - The Fabrication Data shall be saved as NC Program, shall be printed out into different Job Orders (for Straight Ducts & Fittings).
 - Job orders shall be sent to the CNC Plasma & Coil Line machines for cutting and items identification, as follows:
 - For Straight Rectangular ducts, the Coil shall be cut into sheets and folded through the Coil Line Machine. It shall be stiffened by mean of beading @ 300mm center distance. (Straight Duct standard length shall be 1220mm).
 - For Fittings (Elbow, Tee, Reducer, etc..) the sheets shall be cut through the Plasma Cutting Machine into individual marked pieces; then shall be taken to the assembly area.
 - Connectors that shall be fixed to the ducts/fittings complying to the Fire Rated Ducts Construction Schedule.
 - Stiffener shall be applied in the outer middle of the duct as per Construction Schedule.

- II- Circular Spiral Ducts:** Fabrication of **Straight** Galvanized Circular Ducts shall be based on Drawing/Take-Off provided by the client, following consequently below procedures:
- The Job Order shall be encoded in the SPIRO Tubeformer Machine to produce the straight spiral ducts as per diameters and lengths requested.
 - Connectors/Joints shall be according to the project specs (Flanges / Coupling)
- N.B:** Fittings Fabrication shall be same as for the Rectangular Ducts Fittings.

* QA/QC shall be conducted before each delivery in order to indicate the "Passed" or "Rejected" Tags

* Each item shall be holding DVAC Label with a Code; contents as follows:

- Tag No.,
- PO Ref.,
- Date,
- Customer/Company Name,
- Project Name,
- Job Order Ref.,
- Type of Materials (GI, SS, BS, Alum.)
- Steel Thick, Gauge
- Weight, Length, Area,
- Connector Dimensions
- Steel Thick/Gauge
- Type of Item (Straight, Elbow, Tee, Reducer, etc.)
- Item Picture

		Item: SE 25		
P.O. Ref.: 26303252		Date: 01/02/2026		
Customer: M/S. DVAC Duct Ventilation Air Conditioning Co. (W.L.L.)				
Project: DVAC Test				
Job Name: 1St Floor - Fire Rated				
Material: Galvanized x 22		Taper 550 x 400		
		C1: 550 x 400	C2: 850 x 300	C3:
Weight: 10.07 (kg)			Service: Fire Rated	
Area: 1.13 (sqm)				
Ins: N/A			Length/Angle: 360 (mm)	
Double Wall: No	Skin:	Skin Area: (sqm)	MADE IN QATAR	

* Each Item shall be holding a colored sticker that defines the exact service provided.

* Items Quantity for delivery shall be bar coded by our software, same as mentioned in the Delivery Reports.



DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.



DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Non-Coated Fire Rated Ducts - DVAC-240

- Construction Schedule: - GI Rectangular Ducts
- S.S Rectangular Ducts

Tel: +974 44 500 118 - 44 500 119 - Fax: +974 44 500 117 - Doha, State Of Qatar

LIMITATIONS - CONSTRUCTION SCHEDULE FOR RECTANGULAR DUCTS (Horizontal/Vertical Ducts)

- . GALVANIZED Rectangular Duct Construction
- 240 minutes Fire Resistance
- . IFC Certified as per BS 476: PART 24: 1987

Longer Side	Height	Thickness	Standard Straight Length	Hanger Spacing	Stiffener		CrossJoint	Clamp	Bearer	Drop Rod
					Intermediate	internal				
mm	mm	mm	mm	mm			Type/Rating	mm		mm
0-400	0-400	0.6	1200	1100	RSA 30x30x0.8		SOF 30x30x0.8	200	RSA 50x50x5	8
401-600	401-600	0.6	1200	1100	RSA 30x30x0.8	Ø8mm x 3 ut	SOF 30x30x0.8	200	RSA 50x50x5	8
601-990	601-990	0.8	1200	1100	RSA 30x30x0.8	Ø10mm x 3 ut	SOF 30x30x0.8	200	C-channel 76x38	8
991-1200	991-1200	0.8	1200	1100	RSA 30x30x0.8	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	10
1201-1600	1201-1600	1.0	1200	1100	RSA 40x40x1.2	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	12
1601-2000	1601-2000	1.0	1200	1100	RSA 40x40x4	Ø12mm x 9 ut	SOF 40x40x1.0	200	C-channel 76x38	14
2001-2500	2001-2500	1.2	1200	1100	RSA 50x50x5	Ø14mm x 12 ut	SOF 40x40x1.0	200	C-channel 102x51	18
2501-3000	2501-3000	1.2	1200	1100	RSA 60x60x6	Ø14mm x 15 ut	SOF 40x40x1.0	200	C-channel 127x64	22

- . STAINLESS STEEL Rectangular Duct Construction
- 240 minutes Fire Resistance
- . IFC Certified as per BS 476: PART 24: 1987

Longer Side	Height	Thickness	Standard Straight Length	Hanger Spacing	Stiffener		CrossJoint	Clamp	Bearer	Drop Rod
					Intermediate	internal				
mm	mm	mm	mm	mm			Type/Rating	mm		mm
0-400	0-400	0.6	1200	1100	RSA 30x30x0.8		SOF 30x30x0.8	200	RSA 50x50x5	8
401-600	401-600	0.6	1200	1100	RSA 30x30x0.8	Ø8mm x 3 ut	SOF 30x30x0.8	200	RSA 50x50x5	8
601-990	601-990	0.8	1200	1100	RSA 30x30x0.8	Ø10mm x 3 ut	SOF 30x30x0.8	200	C-channel 76x38	8
991-1200	991-1200	0.8	1200	1100	RSA 30x30x0.8	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	10
1201-1600	1201-1600	1.0	1200	1100	RSA 40x40x1.2	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	12
1601-2000	1601-2000	1.0	1200	1100	RSA 40x40x4	Ø12mm x 9 ut	SOF 40x40x1.0	200	C-channel 76x38	14
2001-2500	2001-2500	1.2	1200	1100	RSA 50x50x5	Ø14mm x 12 ut	SOF 40x40x1.0	200	C-channel 102x51	18
2501-3000	2501-3000	1.2	1200	1100	RSA 60x60x6	Ø14mm x 15 ut	SOF 40x40x1.0	200	C-channel 127x64	22

DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.



DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Non-Coated Fire Rated Ducts - DVAC-240

- Construction Schedule: - BS Rectangular Ducts
- GI Circular & Oval Ducts

Tel: +974 44 500 118 - 44 500 119 - Fax: +974 44 500 117 - Doha, State Of Qatar

LIMITATIONS - CONSTRUCTION SCHEDULE FOR RECTANGULAR DUCTS (Horizontal/Vertical), ROUND & OVAL

- . BLACK STEEL Rectangular Duct Construction
- 240 minutes Fire Resistance
- . IFC Certified as per BS 476: PART 24: 1987

Longer Side	Height	Thickness	Standard Straight Length	Hanger Spacing	Stiffener		CrossJoint	Clamp	Bearer	Drop Rod
					Intermediate	internal				
mm	mm	mm	mm	mm			Type/Rating	mm		mm
0-400	0-400	0.6	1200	1100	RSA 30x30x0.8		SOF 30x30x0.8	200	RSA 50x50x5	8
401-600	401-600	0.6	1200	1100	RSA 30x30x0.8	Ø8mm x 3 ut	SOF 30x30x0.8	200	RSA 50x50x5	8
601-990	601-990	0.8	1200	1100	RSA 30x30x0.8	Ø10mm x 3 ut	SOF 30x30x0.8	200	C-channel 76x38	8
991-1200	991-1200	0.8	1200	1100	RSA 30x30x0.8	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	10
1201-1600	1201-1600	1.0	1200	1100	RSA 40x40x1.2	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	12
1601-2000	1601-2000	1.0	1200	1100	RSA 40x40x4	Ø12mm x 9 ut	SOF 40x40x1.0	200	C-channel 76x38	14
2001-2500	2001-2500	1.2	1200	1100	RSA 50x50x5	Ø14mm x 12 ut	SOF 40x40x1.0	200	C-channel 102x51	18
2501-3000	2501-3000	1.2	1200	1100	RSA 60x60x6	Ø14mm x 15 ut	SOF 40x40x1.0	200	C-channel 127x64	22

- . CIRCULAR & OVAL Duct Construction
- 240 minutes Fire Resistance
- . IFC Certified as per BS 476: PART 24: 1987

Diameter	Thickness	Standard Straight Length	Hanger Spacing	Stiffener		CrossJoint	Clamp	Bearer	Drop Rod
				Intermediate	internal				
mm	mm	mm	mm			Type/Rating	mm		mm
0-400	0.6	1200	1100	SOF 20x20x0.7		SOF 30x30x0.8	200	RSA 40x40x4	8
401-600	0.6	1200	1100	SOF 20x20x0.7	Ø8mm x 3 ut	SOF 30x30x0.8	200	RSA 40x40x4	8
601-990	0.8	1200	1100	SOF 20x20x0.7	Ø10mm x 3 ut	SOF 30x30x0.8	200	RSA 50x50x54	8
991-1200	0.8	1200	1100	SOF 30x30x0.8	Ø12mm x 6 ut	SOF 40x40x1.0	200	RSA 50x50x5	10
1201-1250	1.0	1200	1100	RSA 40x40x1.2	Ø12mm x 6 ut	SOF 40x40x1.0	200	C-channel 76x38	12

Straight Seamed / Spiral Wound Seam.

N.B: For Straight Seamed Circular / Oval Duct, the Longitudinal Seam shall be "Grooved Seam" or "Continuous Welded".

DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.

IFC CERTIFICATE



FIRE RATED DUCTWORK & COMPONENTS SCHEME

Certificate number: IFCC 1548

Certificate only valid if verified on website – www.ifccertification.com

Issued by IFC Certification Ltd part of the Kiwa UK Group

This is to certify that

DVAC

(Duct Ventilation Air Conditioning Co. (W.L.L.))

Small Industries Zone
Pink Area – Zone 81, Street 13 – Building 57
Doha
Qatar

Telephone: (+974) 44500118

Who supply the following products:

DVAC Non-Coated Fire Rated Duct

have satisfied the requirements of the SDP 26-1 fire resisting ducts (including smoke extraction) and components scheme v1.2, Appendix A. This includes the testing of products to **BS 476: Part 24: 1987**. The inspection of their Factory Production Control and continuing surveillance audits and testing of samples of products taken from production. The product specification and field of application to achieve from **120 minutes stability and integrity to 240 minutes stability and integrity (Duct Type A)** and **120 minutes stability, 60 minutes integrity to 240 minutes stability and integrity (Duct Type B)** are detailed in the reports referenced on page 2 of this certificate.

Initial Certification: 24 December 2019

Re-issued: 19 December 2024

Revised: 06 March 2025

Valid to: 23 December 2029

Issue number: 5

David Mowatt
Head of IFC Certification /
Kiwa Group Limited

*This certificate consists of 2 pages.
Publication of this certificate is permitted.*

IFC Certification Ltd
Ground Floor, Suite A, Building 2
Bear Brook Office Park
Walton Street
Aylesbury
Buckinghamshire
HP21 7QG
United Kingdom
T +44 (0)1494 276820
www.ifccertification.com



Check the validity of this certificate
by scanning this QR Code or visiting
www.ifccertification.com/verify



DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.

IFC CERTIFICATE



Certificate number: IFCC 1548 issue 5



The application of this product should be carried out following the manufacturer's instructions and according to the following documents:

Product Description	Fire Rating Stability	Fire Rating Integrity	Assessment / Test Report
Uninsulated Duct Type A	120 minutes	120 minutes	19/19102-496
Uninsulated Duct Type B	120 minutes	60 minutes	
Uninsulated Duct Type A	120 minutes	120 minutes	19-17654-651 M1
Uninsulated Duct Type B	120 minutes	60 minutes	
Uninsulated Duct Type A	240 minutes	240 minutes	23-32304633
Uninsulated Duct Type B		240 minutes	
Uninsulated Duct Type A	240 minutes	180 minutes	23/32300117 M1
Uninsulated Duct Type B		240 minutes	

Signed on behalf of Kiwa UK

David Mowatt
Head of IFC Certification /
Kiwa Group Limited

The scope of the certification is limited to the details and parameters contained within these reports and all aspects of the specification and limitations defined therein must be satisfied.

It is the certificate holder's responsibility to ensure that the latest version/ revision of the above assessment reports are maintained as part of the audited FPC system.

Failure to comply with all specifications will invalidate the certification and may jeopardise the fire performance.

CERTIFICATE

IFC Certification Ltd
Ground Floor, Suite A, Building 2
Bear Brook, Office Park
Watson Street
Aylesbury
Buckinghamshire
HP21 7GQ
United Kingdom
T +44 (0)1684 278920
www.ifccertification.com

Page 2 of 2



DVAC-240 (Non-Coated Fire Rated Ducts) complies with BS 476: PART 24: 1987 for 4 Hours Stability & Integrity for Type A & Type B Ducts.

QCDD APPROVAL CERTIFICATE

الإدارة العامة للدفاع المدني
General Directorate of Civil Defense
إدارة الوقاية - Prevention Department

وزارة الداخلية
Ministry of Interior
دولة قطر - State of Qatar



تاريخ الطباعة : 2026-01-27
وقت الطباعة : AM 9:07
E-Service-WFS 7961

شهادة عدم ممانعة اعتماد منتج



106-PAC26000879

بيانات المنشأة

الإسم التجاري : شركة دفاك دأكت للتهوية والتكييف
رقم قيد المنشأة : 12-1845-00
رقم الرخصة التجارية : 104438
البريد الإلكتروني :
التصنيف : Smoke and Heat Control Ventilation Systems ;
إسم المنتج : Ducts & Accessories

تفاصيل الشهادة

تم مراجعة الطلب المقدم واتضح بأنه لا مانع من اعتماد المنتج /المنتجات الموضحة في التقرير الفني المرفق بناء على اعتماده من قبل الهيئة المختبرية الموضحة في التقرير الفني المرفق.

ملاحظات

1. يجب على الشركة الالتزام والعمل بما جاء في اشتراطات قسم أنظمة السلامة التي تم الاطلاع .والموافقة عليها من خلال الموقع.
2. يجب ان يقوم بتوكيد هذا المنتج من قبل مهنيين وفنيين معتمدين من الإدارة العامة للدفاع المدني.
3. يجب ان يحمل المنتج العلامة التجارية لهيئته المختبرية المعتمدة والموضحة في التقرير الفني المرفق .

تاريخ انتهاء الشهادة : 2028-01-27

تاريخ اصدار الشهادة : 2026-01-27

QCDD APPROVAL CERTIFICATE

الإدارة العامة للدفاع المدني
General Directorate of Civil Defense
إدارة الوقاية - Prevention Department

وزارة الداخلية
Ministry of Interior
دولة قطر - State of Qatar



تاريخ الطباعة : 2026-01-27
وقت الطباعة : AM 9:07
E-Service-WFS 7961

شهادة عدم ممانعة اعتماد منتج



106-PAC26000879

التقرير الفني

PRODUCT	Ducts & Accessories			منتج
PRODUCT APPLICATION	Smoke and Heat Control Ventilation Systems			تصنيف المعدة
APPLICANT / P.O BOX	شركة دفاك ناكث للتهوية والتكييف			مقدم الطلب
MANUFACTURER / LOCATION	DUCT VENTILATION AIR CONDITIONING CO. W.L.L. / QATAR			الشركة المصنعة / بلد الصنع
الوصف				الموديل
Non Coated Fire Rated Ducts, 1200mm standard straight length for rectangular and circular ducts. * Uninsulated Duct type A, 240 minutes stability, 180 minutes integrity. * Uninsulated Duct type B, 240 minutes stability, 240 minutes integrity. Refer to the Test Report for required thickness corresponding to its maximum dimensions.				DVAC Non-Coated 23/32300117 M1 IFCC1548
3RD PARTY CERTIFICATE / APPROVAL	23-32304633/2332300117M1	IFCC 1548	IFC Certification Ltd.	شهادة المختبرات المساندة (من هيئات معتمدة)
RECOMMENDATIONS				التوصيات
The application of this product should be carried out following the manufacturer's instruction and in accordance with the Report # 23/32300117 M1. IFC CERTIFICATE # IFCC1548 Valid to: 23 December 2029 To: BS 746 Part 24/SDP 26-1 This product approval shall comply with the Design, Inspection, Installation, Testing and Maintenance requirements of NFPA 92/90A/90B/IMC (and/or other related NFPA Codes / Standards), other acceptable International Codes / Standards, Local Regulations and/or Manufacturer's Published Instructions subject to the technical review and approval of the Authority Having Jurisdiction (Qatar Civil Defense).				

Signed By: Ministry Of Interior
Location: Doha, Qatar
Date: 2026-01-27 09:50:17 AEST

وزارة الداخلية
Ministry of Interior
دولة قطر - State of Qatar



تاريخ انتهاء الشهادة : 2028-01-27

تاريخ اصدار الشهادة : 2026-01-27

تعتبر هذه الوثيقة معتمدة إلكترونياً. للتحقق من صحة الوثيقة يرجى زيارة موقع الخدمات الإلكترونية لوزارة الداخلية (www.moi.gov.qa) أو فراء رمز الاستجابة السريع (QR Code).



DVAC

DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Small Industries Zone - Pink Area Zone 81 - Street 13 - Bldg. 57
Tel: +974 44 500 118 - 44 500 119 - Fax: +974 44 500 117 - P.O. Box: 55619
Doha, State Of Qatar - Email: info@dvac-duct.com - Website: www.dvac-duct.com

Non-Coated Fire Rated Ducts - DVAC-240 Catalogue
Issue Date: Jan 2026