



SARA INTERNATIONAL FACTORY FOR AIR CONDITIONING DUCT

LICENSEE: PRO GULF AIR CONDITIONING INDUSTRIES LLC, DUBAI-UAE

TECHNICAL CATALOGUE

FIRE RATED DUCTS

NON-COATED

PROGULF AIRCONDITIONING INDUSTRIES (L.L.C)

بروجلف لصناعة أجهزة تكييف الهواء (ش.ذ.م.م)

Date – 23/05/2022

CERTIFICATE OF LICENSED MANUFACTURER

We hereby confirm that **M/s. Sara International Factory for Airconditioning Duct** is an authorized manufacturer and supplier of our “Firewall” Brand for Fire Rated Ductwork System, in the Eastern Province of Kingdom of Saudi Arabia.

In addition, Licensor may provide protection and rights to the licensee outside the Eastern Province on project-to-project basis.

This certificate is valid till – **22nd May 2024 (22/05/2024)**.

Licensee – M/s. Progulf Airconditioning Industries LLC, Dubai - UAE

Regards,

PROGULF AIRCONDITIONING INDUSTRIES,



Authorized Signatory.





CARLING
FIRE RESEARCH & TECHNOLOGIES LTD

Applus⁺
laboratories

Applus⁺
certification

FIRE WALL[®]
BUILT TO PROTECT

Fire Rated Ductwork Specialists



Environment
Friendly



Stability & Integrity of
More Than 4 Hours



Factory Process
Control



Audited By Independent
Certified Agency



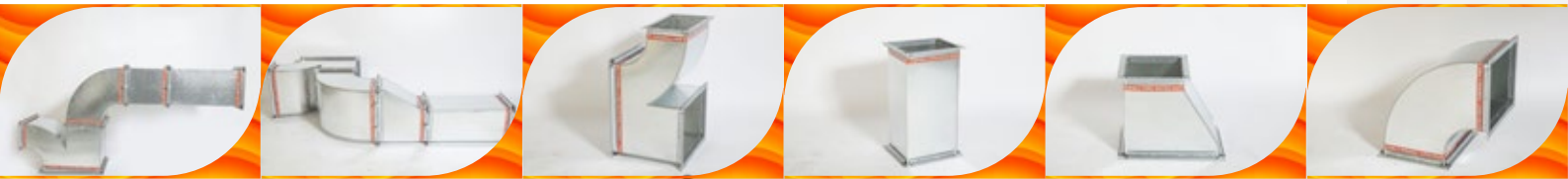
European
Technology



- ⦿ TESTED AS PER BS 476 PART 24
- ⦿ NON - COATED
- ⦿ STABILITY - 4 HOUR +
- ⦿ INTEGRITY - 4 HOUR +
- ⦿ TESTED & CERTIFIED BY APPLUS LABORATORIES

PRODUCT RANGE

- ⦿ GI 120 - STABILITY AND INTEGRITY OF 120 MINUTES
- ⦿ GI 240 - STABILITY AND INTEGRITY OF 240 MINUTES
- ⦿ KED 120 - STABILITY, INTEGRITY & INSULATION OF 120 MINUTES



DUCTWORK CONSTRUCTION

The Firewall Ductwork System is manufactured from Galvanised Steel sheet based on specification and simulated test by Carling Fire. The Fire-Rated Ductwork has been test and certified by Applus to meet the following standards:

⦿ BS 476: PART 24: 1987

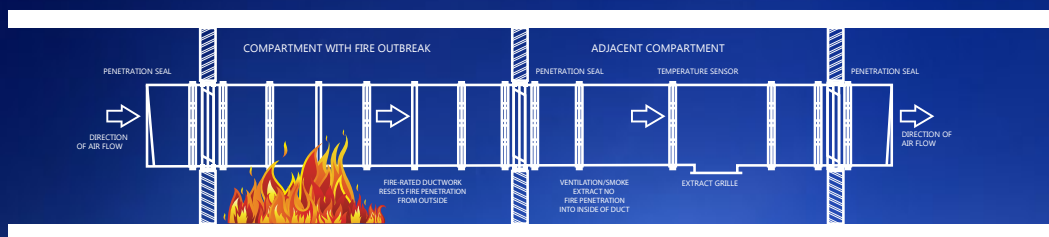
Furthermore, the Firewall® range of Fire-rated Ducts incorporates and are in compliance with the following standards:

⦿ BS 5588

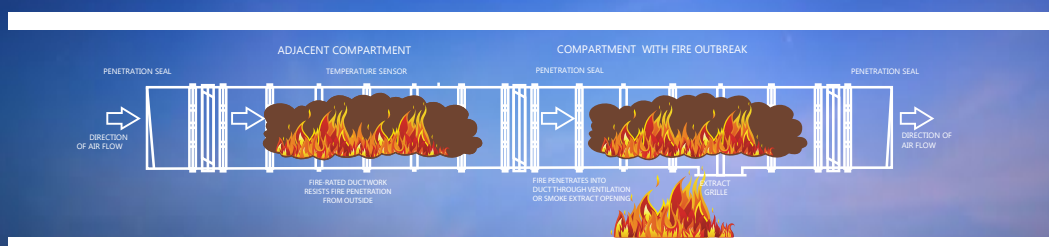
⦿ DW 144

Suitable for use as a Type A (Fire outside) and Type B (Fire inside/outside) fire-rated ductwork system for a period of up to **255 minutes of Stability and Integrity**

FIRE OUTSIDE-DUCT TYPE A



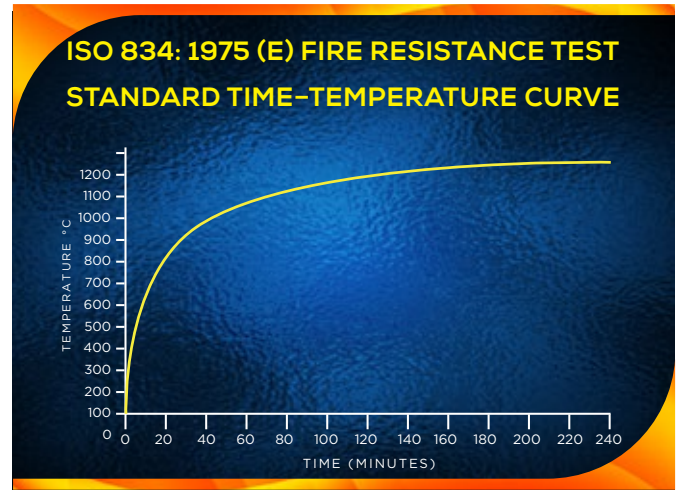
FIRE INSIDE-DUCT TYPE B





SUITABLE FOR USE AS

- Staircase Pressurization System
- Ventilation System
- Smoke Extract System
- Car park Extract System
- Kitchen Extract System



WHAT ARE WE TRYING TO ACHIEVE?

- Protecting Human Lives.
- To ensure the safety of the people as they evacuate the building by protecting common areas i.e. Escape Corridors, Lift Lobbies for upto 4 hours.
- To minimize damage to the building and its contents by maintaining the fire compartmentation.

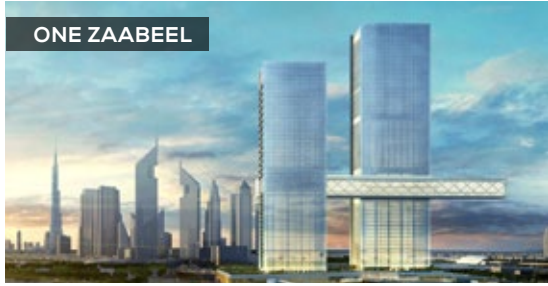
Tested as per **BS 476 Part 24** for the fire resistance of ventilation ductwork which is expressed in minutes of duration of heating in accordance with the ISO 834: 1985 (Cellulosic - Standard Time/Temperature Curve)





Additional services provided for installation:

- Induction Programs for all Client Personnel involved in Installation
- Periodic Inspection of Installed Artwork for Compliance
- Feedback to Clients on Installation of Ductwork



ONE ZAABEEL



MARINA GATE 3



H2B HOTEL



MEDIA ZONE DEVELOPMENT



ICD BROOK FIELD



DEIRA WATERFRONT DEVELOPMENT 11 & 13

The Firewall® Ductwork is suitable for Residential, Commercial, Hotels, Hospitals, High Rise Buildings etc.

Authorized Exclusive Licensee

For more information about our product, scan the below code to visit our website.



Progulf Air-conditioning Industries LLC
PLOT 597 - 392, Dubai Investment Park
Dubai, UAE



CARLING FIRE OFFICE

Carling Fire Research and Technologies Limited
Nicosia, Cyprus

FIRE SAFETY CERTIFICATION

FIRE PERFORMANCE

No. **APF-1151**

LGAI TECHNOLOGICAL CENTER S.A. (APPLUS), according to the requirements of the SPC-117 certifies the Fire Performances following the Classification and Testing standard for:

Product	FIRE RESISTING VENTILATION DUCTS "GI-120"
Company	PROGULF AIRCONDITIONING INDUSTRIES LLC. DUBAI INVESTMENT PARK 2, PO BOX: 37945 DUBAI, UAE
Manufactured	PROGULF AIRCONDITIONING INDUSTRIES LLC. DUBAI INVESTMENT PARK 2, PO BOX: 37945 DUBAI, UAE
Classification and testing standards	BS 476-24:1987: "Fire tests on building materials and structures. Method for determination of the fire resistance of ventilation ducts".
Product Details and Test Report	Please check at the technical annex file nº 21-22512-1679 ER1





LGAI has performed the product initial tests and the initial assessment of the management system. Periodically, the entity does a follow-up assessment of the management system.

Renovation/Modification of the initial certificate issued on 04th May 2020

Valid until 31st May 2023

Bellaterra, 23rd September 2022

 Applus⁺ LGAI Technological Center, S.A. Xavier Ruiz Peña Product Conformity B. U., Managing Director	
You can check the validity of this certificate on our website: www.appluslaboratories.com/certified_products	

This document is not valid without its technical annex, whose number coincides with the number of certificate.



APF-1151

CERTIFIED PERFORMANCE

Performance	Time (minutes)
Stability	120
Integrity	120

Additional characteristics	Time (minutes)
Smoke extraction	120

Product Application

- Product trade name: GI-120
- Type of duct: A and B.
- Horizontal and vertical installation.
- Rectangular and circular ductwork
- Material: GI, Stainless Steel or Mild Steel.
- Intumescent seals between duct sections:
 - Intumescent gasket reference "Arboseal Intumescent Tape" or "Firewall FG 15X3 Intumescent Tape".
 - Intumescent sealant reference "Arbosil XL1075" or "Firewall FS 240".

Rectangular GI Steel ductwork with RSA channel

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
400	200	0,6	1220	1220	-	-	SOF 20x20 x0,7	300	RSA 40x40 x4	8
600	300	0,6	1220	1220	-	-	SOF 20x20 x0,7	300	RSA 40x40 x4	8
800	400	0,7	1220	1220	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	RSA 50x50 x5	8
1000	500	0,8	1220	1220	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	RSA 50x50 x5	10
1200	600	0,8	1220	1220	SOF 30 x 30 x 0,8	Ø12mm x 6 ut	SOF 30x30 x0,8	300	RSA 60x60 x8	10
1600	800	0,9	1220	1220	SOF 30 x 30 x 0,8	Ø12mm x 6 ut	SOF 30x30 x0,8	300	RSA 80x80 x8	10
2000	1000	1,0	1220	1220	SOF 30 x 30 x 0,8	Ø14mm x 9 ut	SOF 30x30 x0,8	300	C-channel 76x38	12
2500	1250	1,0	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	SOF 40x40 x1,2	300	C-channel 102x51	12
3000	1500	1,0	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	SOF 40x40 x1,2	300	C-channel 127x64	14

APF-1151

Rectangular GI Steel ductwork with Slotted channel

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
400	200	0,6	1220	1220	-	-	SOF 20x20 x0,7	300	S-Channel 41x21 x2,5	8
600	300	0,6	1220	1220	-	-	SOF 20x20 x0,7	300	S-Channel 41x21 x2,5	8
800	400	0,7	1220	1220	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	S-Channel 41x21 x2,5	8
1000	500	0,8	1220	1220	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	S-Channel 41x41 x2,5	10
1200	600	0,8	1220	1220	SOF 30 x 30 x 0,8	Ø12mm x 6 ut	SOF 30x30 x0,8	300	S-Channel 41x41d x2,5	10
1600	800	0,9	1220	1220	SOF 30 x 30 x 0,8	Ø12mm x 6 ut	SOF 30x30 x0,8	300	C-channel 76x38	10
2000	1000	1,0	1220	1220	SOF 30 x 30 x 0,8	Ø14mm x 9 ut	SOF 30x30 x0,8	300	C-channel 76x38	12
2500	1250	1,0	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	SOF 40x40 x1,2	300	C-channel 102x51	12
3000	1500	1,0	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	SOF 40x40 x1,2	300	C-channel 127x64	14

Rectangular Stainless Steel ductwork: Cross joints SOF profiles

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Straight Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
600	300	0,8	1220	1220	-	-	SOF 20x20 x0,7	300	RSA 40x40 x4	8
1200	600	0,8	1220	1220	-	-	SOF 30x30 x0,8	300	RSA 60x60 x8	8
1600	800	0,9	1220	1220	RSA 30 x 30 x 3	Ø12mm x 3 ut	SOF 30x30 x0,8	300	RSA 80x80 x8	10
2000	1000	1,0	1220	1220	RSA 30 x 30 x 3	Ø12mm x 3 ut	SOF 40x40 x1,2	300	C-channel 76x38	12
3000	1500	1,0	1220	1220	RSA 40 x 40 x 4	Ø12mm x 6 ut	SOF 40x40 x1,2	300	C-channel 102x51	14

APF-1151

Rectangular Stainless Steel ductwork: Cross joints RSA profiles

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Straight Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
600	300	0,8	1220	1220	-	-	RSA 25x25 x3	300	RSA 40x40 x4	8
1200	600	0,8	1220	1220	-	-	RSA 25x25 x3	300	RSA 60x60 x8	8
1600	800	0,9	1220	1220	RSA 30 x 30 x 3	Ø12mm x 3 ut	RSA 30x30 x3	300	RSA 80x80 x8	10
2000	1000	1,0	1220	1220	RSA 30 x 30 x 3	Ø12mm x 3 ut	RSA 30x30 x3	300	C-channel 76x38	12
3000	1500	1,0	1220	1220	RSA 40 x 40 x 4	Ø12mm x 6 ut	RSA 40x40 x4	300	C-channel 102x51	14

Rectangular Mild Steel ductwork: Cross joints SOF profiles

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Straight Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
600	300	1,2	1220	1220	-	-	SOF 20x20 x0,7	300	RSA 50x50 x5	8
1200	600	1,2	1220	1220	-	Ø12mm x 6 ut	SOF 30x30 x0,8	300	RSA 60x60 x10	10
2000	1000	1,2	1220	1220	RSA 30 x 30 x 3	Ø14mm x 9 ut	SOF 30x30 x0,8	300	C-channel 76x38	12
3000	1500	1,2	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	SOF 40x40 x1,2	300	C-channel 127x64	14

APF-1151

Rectangular Mild Steel ductwork: Cross joints RSA profiles

Longer side (mm)	Height (mm)	Thickness (mm)	Standard Straight Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
					Intermediate	Internal	Type / Rating			
600	300	1,2	1220	1220	-	-	RSA 25x25 x3	300	RSA 50x50 x5	8
1200	600	1,2	1220	1220	-	Ø12mm x 6 ut	RSA 25x25 x3	300	RSA 60x60 x10	10
2000	1000	1,2	1220	1220	RSA 30 x 30 x 3	Ø14mm x 9 ut	RSA 30x30 x3	300	C-channel 76x38	12
3000	1500	1,2	1220	1220	RSA 40 x 40 x 4	Ø14mm x 12 ut	RSA 30x30 x3	300	C-channel 127x64	14

Circular/Round Ductwork GI, Mild and Stainless Steel

Diameter (mm)	Thickness (mm)	Standard Straight Length (mm)	Hanger Spacing (mm)	Stiffener		Cross Joint	Clamp (mm)	Bearer	Drop Rod (mm)
				Intermediate	Internal	Type / Rating			
400	0,6	1220	1000	-	-	Coupling	300	RSA 40x40 x4	8
600	0,6	1220	1000	-	-	SOF 20x20 x0,7	300	RSA 40x40 x4	8
800	0,7	1220	1000	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	RSA 50x50 x5	8
1000	0,8	1220	1000	-	Ø12mm x 3 ut	SOF 20x20 x0,7	300	RSA 50x50 x5	10
1250	0,8	1220	1000	SOF 30 x 30 x 0,8	Ø12mm x 6 ut	SOF 30x30 x0,8	300	RSA 60x60 x8	10

FIRE SAFETY CERTIFICATION

FIRE PERFORMANCE

No. **APF-1460**

LGAI TECHNOLOGICAL CENTER S.A. (APPLUS), according to the requirements of the SPC-117 certifies the Fire Performances following the Classification and Testing standard for:

Product	KED-120
Company	PROGULF AIRCONDITIONING INDUSTRIES LLC. DUBAI INVESTMENT PARK 2, PO BOX: 37945 DUBAI, UAE
Manufactured	PROGULF AIRCONDITIONING INDUSTRIES LLC. DUBAI INVESTMENT PARK 2, PO BOX: 37945 DUBAI, UAE
Classification and testing standards	BS 476-24:1987: "Fire tests on building materials and structures. Part 24: Method for determination of the fire resistance of ventilation ducts". (More details in Technical Annex)
Product Details and Test Report	Please check at the technical annex and report n° 19/16625-694-1 M1 ER1





LGAI has performed the product initial tests and the initial assessment of the management system. Periodically, the entity does a follow-up assessment of the management system.

Renovation/Modification of the initial certificate issued on 04th May 2020

Valid until 31st May 2023

Bellaterra, 23rd September 2022

 LGAI Technological Center, S.A. Xavier Ruiz Peña Product Conformity B. U., Managing Director	
You can check the validity of this certificate on our website: www.appluslaboratories.com/certified_products	

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APF-1460

CERTIFIED PERFORMANCE

Performance	Time (minutes)
Stability	120
Integrity	120
Thermal insulation	120

Additional characteristics	Time (minutes)
Smoke extraction	120
Kitchen extraction	120

Product Application

- Product trade name: KED-120.
- Ducts type A.
- Material: GI steel, Mild Steel and Stainless steel.
- Rectangular and circular ductwork.
- Installation: Horizontal and vertical.
- Intumescent seals between duct sections:
 - Intumescent gasket reference "Arboseal Intumescent Tape" or "Firewall FG 15X3 Intumescent Tape".
 - Intumescent sealant reference "Arbosil XL1075" or "Firewall FS 240".

Rectangular ducts:

Longer side (mm)	Thickness (mm)	Installation	Stability (min)	Integrity (min)	Insulation (min)
400	1,2	Horizontal Vertical	120	120	120
600	1,2	Horizontal Vertical	120	120	120
800	1,2	Horizontal Vertical	120	120	120
1000	1,2	Horizontal Vertical	120	120	120
1600	1,2	Horizontal Vertical	120	120	120
2000	1,2	Horizontal Vertical	120	120	120
3000	1,2	Horizontal Vertical	120	120	120

Circular ducts:

Diameter (mm)	Thickness (mm)	Installation	Stability (min)	Integrity (min)	Insulation (min)
400	1,2	Horizontal Vertical	120	120	120
600	1,2	Horizontal Vertical	120	120	120
800	1,2	Horizontal Vertical	120	120	120
1000	1,2	Horizontal Vertical	120	120	120
1250	1,2	Horizontal Vertical	120	120	120