

KARACHI STEEL SERVICES

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Product Line

Fire Rated Metal Doors (SS/GS)

Heavy duty Steel Hinged Doors (SS/GS)

Clean Room Doors / Windows (SS/GS)

Louvered Doors (GS/MS)

Sliding Doors (SS/GS)

Steel Structure / Platforms

Glazed Panels (SS/GS)

Partition Wall (SS/GS)

Ceiling / Railing (SS/GS)

Ancillary Items / Furniture (MS/SS)

1st Local
Manufacturer of
UL10C
BS476-Part 22
Standard
International Listing
Certified Steel
FIRE DOOR
in Pakistan





KSS was founded in 1978 in Karachi, initially starting as a specialist fabricator of iron gates and grills on a small scale for local contractors. During the last 30 years the company has evolved into a leading manufacturer of Heavy duty and light weight MS and SS Doors, Windows, louvers, steel structure / platforms, railing and Expanded Metal Lathe in all leading pharmaceutical, textile industry and hospitals in Pakistan.

The Company has always looked beyond the present day and has been concerned to keep in touch with the market and industry needs and requirements. Now **KSS** is introducing first ever **UL10C, Bs476 Part 22 and EN1364-1 Standards Fire Doors** for 60, 90, 120 and 180 minute fire resistance as a pioneer manufacturer in Pakistan. KSS Fire Doors are duly tested at **MATERIAL LAB DUBAI** and have a Q-Plus product certification by **CONFORMITY CERTIFICATION SERVICES UK** with Fire Door product labeling.

Our success is driven by our passion to cater the local as well as international market, our mission is to become the industry number one provider of innovative solutions in protecting life.



KSS manufacture approved products in our facility in consistent with international standards.

DAS certification certifies us for the Quality Management system against ISO 9001:2015. Our environmental ISO14001:2015 System and occupational Health and Safety OHSAS 18001:2007 systems have also been certified by DAS certification.

KSS Steel doors, frames and windows are manufactured in accordance with SDI100 (ANSI A2508-1998) recommended specifications for standard steel doors and frames as issued by Steel door Institute (SDI) of America.

KSS products are manufactured using the finest quality steel sheets, conforming to ASTM A653, the standard specification for steel is Zinc coated (Galvanized) by the hot dip process.

KSS Stainless Steel products are manufactured of the finest quality SS304 Sheets from Taiwan, confirming to ASTM240/A240M.

KSS manufacturing facility possess various high tech machines (CNC, hydraulic shearing and bending machines as well as all types of welding machines MIG, TIG, ARC etc) that enables us to meet the need of any production requirements.



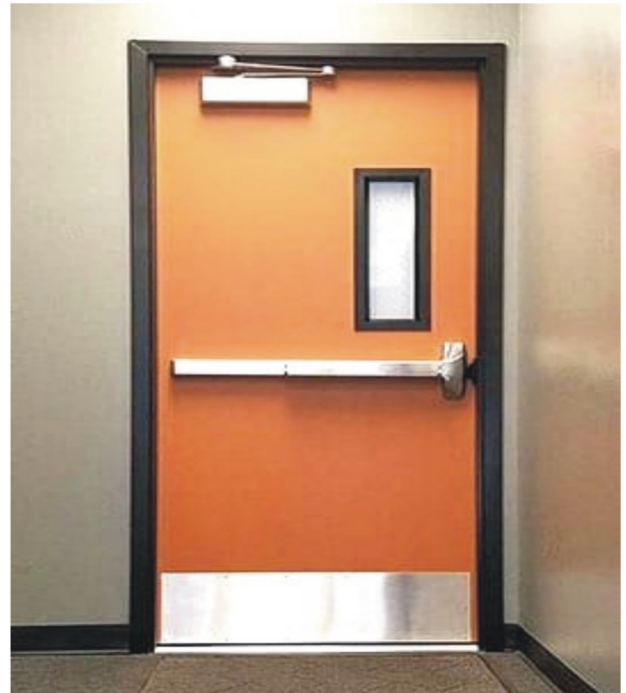


KSS metal fire doors are designed to meet the life-safety requirements in various types of buildings and structures. KSS fire doors help compartmentalize the spaces and contain the spread of fire. KSS steel fire doors complement **existing passive fire-fighting system**

KSS Fire Doors Functions:

KSS fire doors serve five main functions.

- Customize door frames and door sizes
- Serve as a regular door at all times
- Provide ready egress from a fire area during a fire.
- Inhibit spreading of fire
- Protect life and property by reducing smoke hazards.
- **KSS Fire Door** also serve as a temperature rise door as its core integrity range is from 23 to 30 minutes



KSS fire door selection guide

At KSS, we are equipped to offer fire doors tested and certified to American and British Standards. The significant requirements of each of these standards are listed below.

AMERICAN

**NFPA 80-1999, NFPA 252-1995,
UL 10B, UL 10C, UBC 7-2 and IBC 2000.**

- A fire door must have a label attached indicating the fire test rating.
- Doors are rated for $\frac{3}{4}$ time of the rating of the surrounding wall.
- Every fire door must have a labeled self-latching (Panic bars) device to engage the strike. Dead bolts may not be used in place of latch bolts.
- A fire door must be self-closing.
- If a fire door is held open, it must be equipped with a listed / tested, heat responsive or electromagnetic device, fusible link or a smoke detection device which is to be closed in case of fire. .
- Only listed / tested fire door hardware shall be used.
- A fire door with glass opening must be provided with a listed / tested glass, a steel frame and glazing bead along with gasket and spacer.
- Every assembly configuration such as transom panel, louver, vision panel, frame material, thickness of metal, lead construction, core type, door set type (single, double or double egress), etc., Must be covered by the test certificate or global assessment report issued by the authentic testing agency.

BRITISH

**Part 2, BS 476, Parts 20 & 22.
Building Regulations 2000-Fire Safety-
Part B.**

- Labeling is not obligatory but recommended.
- According to BS, a fire door can be tested in unlatched condition with a self-closing device.
- A fire door must be self-closing. Only the active door leaf of an access panel (service ducts) or cupboards, can however be installed without a closer but with a dead lock and a "Fire Door, Keep Shut" sign placed clearly on the door face.
- Unless shown to be satisfactory when tested as part of a fire door assembly, the components of any hinge on which the door is hung should be fire rated.
- If a fire door is held open, it must be equipped with a tested, automatic release mechanism actuated by an automatic fire detection and alarm system, fusible link (not if door is fitted in an opening provided as means of escape), or a door-closed delay device.
- Two fire doors may be fitted in the same opening so that the total fire resistance is the sum of their individual fire resistance.

KSS 90 Minutes Fire Door Testing at Material LAB Dubai (Single Door Set)

TEST STANDARD: BS476 PART-22 (1987)

Lab Ref: STQ-170128/112



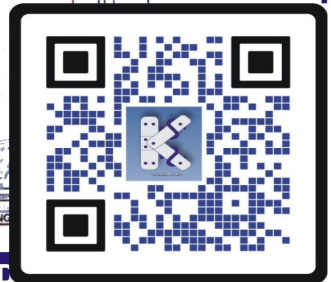
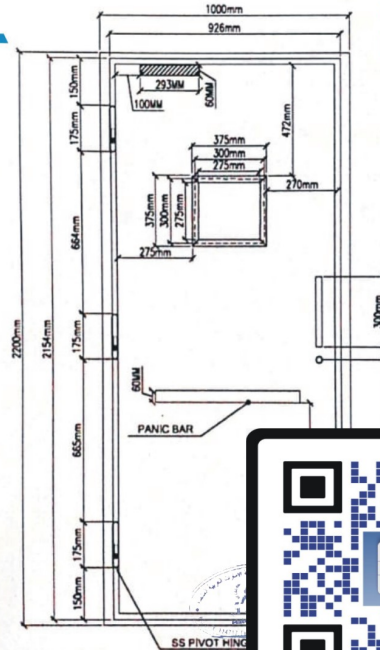
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Name	Manufacturer/Supplier	Physical Properties	Additional Details (provided by test sponsor)
Fire Rated Steel Door Leaf (Specimen - 1 & Specimen - 2)	KSS (Manufacturer)	Overall Thickness: 45mm	2mm thick hot dipped galvanized steel sheet bent to form hollow steel leaf profile and filled in with Rockwool
Fire Rated Steel Door Frame (Specimen - 1 & Specimen - 2)	KSS (Manufacturer)	Jamb Width: 200mm	2mm thick galvanized iron sheet bent to form hollow steel frame profile and filled in with standard grout
SS Pivot (Specimen - 1 & Specimen - 2)	KSS (Manufacturer)	Overall Length: 175mm	3 Nos. of Stainless steel pivots for each door
TG Pull Handles (Specimen - 1)	DORMA (Supplier)	Overall Dimension: (210 x 85) mm	Model No.: TG 9355, Stainless Steel Pull Handle
Mortise Dead Lock (Specimen - 1)	DORMA (Supplier)	-	Model No.: 388A, Mortise Dead Lock with EPC cylinder
Panic Push Bar (Specimen - 1)	DORMA (Supplier)	Overall Dimension: (840 x 145 x 63) mm	Model No.: PHB-3105, Single point locking modular panic bar
Overhead Door Closer (Specimen - 1)	DORMA (Supplier)	Overall Dimension: (245 x 98.5 x 47.5) mm	Model No.: TS-83, Silver colour Over Head Door Closer
Perimeter Seal (Specimen - 1)	NGP (Supplier)	-	-
Automatic Door Bottom Seal (Specimen - 2)	NGP (Supplier)	-	-
Trim with Handle and European Profile Cylinder (Specimen - 2)	ISEO (Brand)	Overall Dimension: (136 x 119 x 69) mm	Model No.: 94011005T, Black Painted Trim with Handle and 5 PIN European Profile Cylinder
Panic Push Bar with Lock (Specimen - 2)	ISEO (Brand)	Overall Dimension: (842 x 165 x 63) mm	Model No.: 944408458T, Panic Push Bar with Self Locking Steel Latch
Overhead Door Closer (Specimen - 2)	NEW STAR (Brand)	Overall Dimension: (250 x 100 x 77) mm	Model No.: 184, Silver colour Over Head Door Closer
Perimeter Seal (Specimen - 2)	PEMKO (Supplier)	-	Model No.: IR 80
Automatic Door Bottom Seal (Specimen - 12)	KILARGO (Supplier)	-	Model No.: ISB1006i, Automatic Door Bottom Seal
Rockwool (Specimen - 1 & Specimen - 2)	INCOM ROCKWOOL (PVT) LIMITED	-	Wired Mat Type Rockwool having stated density of 60 - 140 kg/m ³ used as leaf infill
Glass for Vision Panel (Specimen - 1)	SCHOTT (Manufacturer)	Nominal Thickness: 6mm	Trade Name: PYRAN S, 6mm Fire Rated Glass
Type for Vision Panel Glass (Specimen - 1)	-	Nominal Thickness: 3mm	Trade Name: KERAFIX 2000

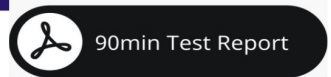
Items used for design of Fire Rated Steel Doors



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Fire Door



90min Test Report



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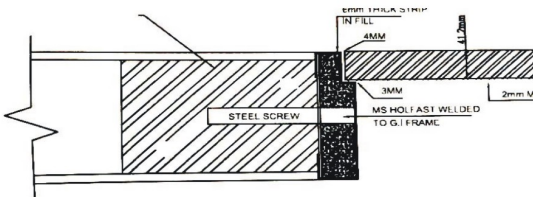


Figure 1.6: Top view of right section showing fixing details of frame and leaf of door set (Specimen - 1)

Sr. No.	Component	Height
1	Door Leaf	2154
2	Frame Rebate Face	35
3	Vertical Door Gap between Frame and Leaf	3
4	Door Gap between Door Leaf and Floor	8
Total Height		2200

Table 2.16: Dimensional verification of height of Specimen - 2 dimensions

Sr. No.	Component	Width
1	Door Leaf	926
2	Frame Rebate Face	35 * 2
3	Door Gap between Frame and Leaf	3 * 2
Total Width		1000

Table 2.17: Dimensional verification of width of Specimen - 2 dimensions

R-PT-044001
Issue Date: 13/11/2014
Issue No: 1



Lab Ref: STQ-170128/112
Lab Project: P - 0729
Page No: 17 of 34

Fire Door Size Detail



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60Min Fire Rated Steel Door (Specimen - 2)

60Min Fire Rated Steel Door (Specimen - 1)

Door Frame for Fire Doors

Thermocouples positioning

Masonry blocks used for supporting construction

Fire Resistive Blocks

Sample holding Rigid Steel Frame

Test specimen mounted in frame for testing

Fire Door (90 Mins Test)



KARACHI STEEL SERVICES
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KSS 90 Minutes Fire Door Testing at Material LAB Dubai (Single Door Set)

TEST STANDARD: BS476 PART-22 (1987)

Lab Ref: STQ-I70I28/112



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Result after 45 Minutes



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Result after 60 Minutes  **90min Test Report**



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Result after 112 Minutes



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Fire Resistance of Single Leaf Steel Door with Vision Panel (Specimen – 1) after 112 minutes of testing:

Fire Rated Steel Single Door Assembly with Rockwool Infill and Vision Panel		
Test Parameters	Results	Remarks
Insulation: 23 Minutes		
1. Average Temperature	23 minutes	Specimen has failed insulation due failure in maximum temperature rise on unexposed surface.
2. Maximum Temperature	23 minutes	Maximum temperature recorded after 23 minutes of testing was 220 °C @ TC-8 which exceeded standard limits.
Integrity: 112 Minutes		
1. Sustained Flaming	112 minutes	No Sustained flaming observed for more than 10 seconds up till 112 minutes of testing
2. 6mm Gap Gauge	112 minutes	No propagation or penetration of 6mm gap gauge throughout 112 minutes of testing
3. 25mm Gap Gauge	112 minutes	No propagation or penetration of 25mm gap gauge throughout 112 minutes of testing

Table 6.1: Integrity & Insulation Evaluation of Fire Rated Steel Door According to BS 476: Part 22: 1987: Amd 2014

After being exposed for a total duration of 112 minutes, the fire rated single-leaf steel door assembly (Specimen - 2) was evaluated against the integrity and insulation criteria set in clause 6.6 of BS 476: Part 22: 1987: Amd 2014. The door system was found to achieve the following fire resistance properties illustrated in table 5.2.

Fire Resistance of Single Leaf Steel Door without Vision Panel (Specimen – 2) after 112 minutes of testing:

Fire Rated Steel Single Door Assembly with Rockwool Infill and without Vision Panel		
Test Parameters	Results	Remarks
Insulation: 29 Minutes		
1. Average Temperature	29 minutes	Specimen has failed insulation due failure in maximum temperature rise on unexposed surface.
2. Maximum Temperature	29 minutes	Maximum temperature recorded after 29 minutes of testing was 220 °C @ TC-8 which exceeded standard limits.
Integrity: 112 Minutes		
1. Sustained Flaming	112 minutes	Sustained flaming observed from door closer for more than 10 seconds after 112 minutes of testing
2. 6mm Gap Gauge	112 minutes	No propagation or penetration of 6mm gap gauge throughout 112 minutes of testing
3. 25mm Gap Gauge	112 minutes	No propagation or penetration of 25mm gap gauge throughout 112 minutes of testing

Result after 112 Minutes

KSS 120 Minutes Fire Door Testing at Material LAB Dubai Double Door Set)

TEST STANDARD: BS476 PART-22 (1987)

Lab Ref: STQ-170605/2881



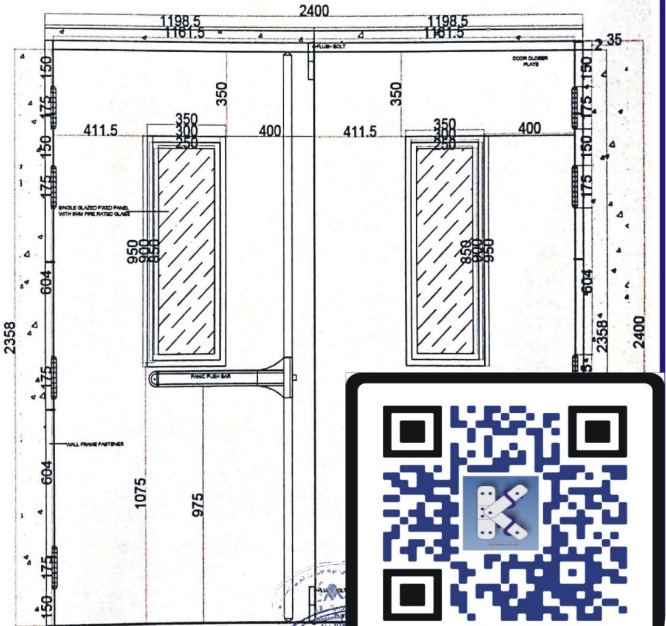
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Name	Manufacturer/Supplier	Physical Properties	Additional Details (provided by test sponsor)
Fire Rated Steel Double Door Leaf	KSS (Manufacturer)	Overall Thickness: 44 mm	2mm thick hot dipped galvanized steel sheet bent to form hollow steel leaf profile and filled in with Rockwool
Fire Rated Steel Double Door Frame	KSS (Manufacturer)	Jamb Width: 200 mm	2mm thick galvanized Iron sheet bent to form hollow steel frame profile and filled in with standard grout
SS Pivots for Fire Rated Steel Double Door	KSS (Manufacturer)	Overall Length: 175mm	8 Nos. of Stainless steel pivots, 4 for each door leaf
Panic Push Bar Device for Fire Rated Steel Double Door	ISEO (Supplier)	Overall Dimension: (842 x 165 x 63) mm	Model No.: 944408458T, Chassis painted black and bar painted red
Overhead Door Closer for Fire Rated Steel Double Door	CONSORT (Supplier)	-	Model No.: CDC903, Silver color Over Head Door Closer
Flush Bolt for Fire Rated Steel Double Door	CONSORT (Supplier)	Overall Dimension: (171 x 27 x 25) mm	Model No.: CH282D, Lever action flush bolt in Satin Chrome Plate finish
Perimeter Seal for Fire Rated Steel Double Door	PEMKO (Supplier)	-	Model No.: IR 80
Rockwool Infill for Fire Rated Steel Double Door	INCOM ROCKWOOL (PVT) LIMITED	-	Wired Mat Type Rockwool having stated density of 60 – 140 kg/m ³ used as leaf infill
Glass for Vision Panel of Fire Rated Steel Double Door	SAINT GOBAIN (Manufacturer)	Nominal Thickness: 5 mm	Trade Name: KERALITE, 5mm Fire Rated Glass
Tape for Vision Panel Glass of Fire Rated Steel Double Door	-	Nominal Thickness: 3 mm & 5 mm	Trade Name: KERAFIX 2000

Items used for design of fire rated steel double door



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Non Fire side view of the assembly

KSS 120min Test Report



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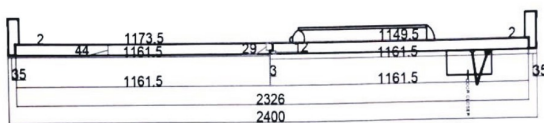


Figure 1.3: Top view showing fixing details of frame and leaf of steel double door set

Sr. No.	Component	Height
1	Door Leaf	2358
2	Frame Rebate Face	35
3	Vertical Door Gap between Frame and Leaf	2
4	Door Gap between Door Leaf and Floor	5
Total Height		2400

Table 2.9: Dimensional verification of height of steel double door dimensions from exposed side

Sr. No.	Component	Width
1	Door Leaves (Left leaf + Right leaf)	1161.5 + 1161.5
2	Frame Rebate Face	35 * 2
3	Gap at Meeting Stile	3
4	Door Gap between Frame and Leaf	2 * 2
Total Width		2400

Table 2.10: Dimensional verification of width of steel double door dimensions from exposed side

R/FT-B-W-01
Issue Date: 15/11/2014
Issue No: 1

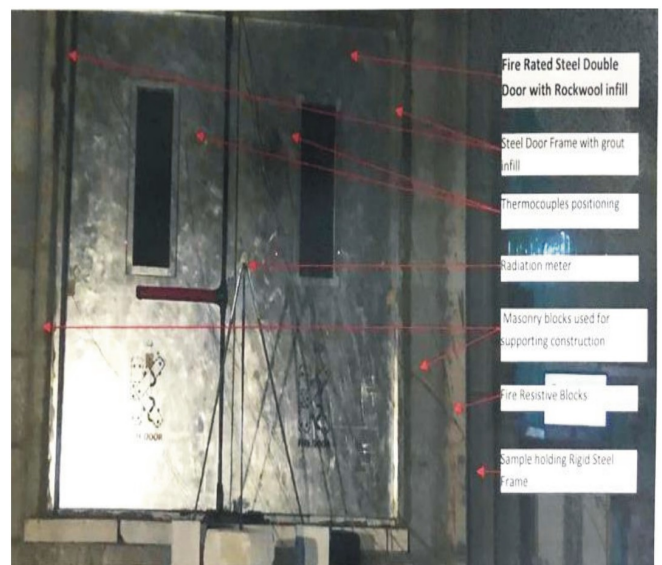


Lab Ref: STQ-170126/112
Lab Project: P - 3725
Page No: 17 of 34

Fire Door Size Detail



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Test Specimens mounted in frame for testing

Fire Door (120 Mins Test)



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KSS 120 Minutes Fire Door Testing at Material LAB Dubai (Double Door Set)

TEST STANDARD: BS476 PART-22 (1987)

Lab Ref: STQ-170605/2881



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Result after 45 Minutes



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Result after 90 Minutes



KSS 120min Test Report



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Test failure at 125 Minutes



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Fire Resistance of Steel Double Door Assembly with Vision Panel after 125 minutes of testing:

Fire Rated Steel Double Door Assembly with Rockwool Infill and Vision Panel		
Test Parameters	Results	Remarks
Insulation: 31 Minutes		
1. Average Temperature	-	Specimen has failed insulation due failure in maximum temperature rise on unexposed surface.
2. Maximum Temperature	31 minutes	Maximum temperature recorded after 31 minutes of testing was 220 °C @ TC-8 which exceeded standard limits.
Integrity: 125 Minutes		
1. 6mm Gap Gauge	125 minutes	Development of gap at mid-height of meeting stile through which 6mm gap gauge penetrated and was able to move 150mm vertically after 125 minutes of testing
2. 25mm Gap Gauge	-	Development of crack/gap in frame or leaf through which 25mm gap gauge could penetrate did not occur for 125 minutes of testing
3. Sustained Flaming	-	No Sustained flaming observed for more than 10 seconds up till 125 minutes of testing
4. Cotton Pad	-	No ignition or glowing of cotton pad after 31 minutes of testing. Use of cotton pad was discontinued after 35 minutes of testing as temperature on unexposed side had exceeded 300 °C

Result after 125 Minutes

KSS 180 Minutes Fire Door Testing at Material LAB Dubai Double Door Set)

TEST STANDARD: ANSI/UL 10C-2009 (Positive pressure Fire Test of Door Assemblies) With Hose Stream Test

Lab Ref: FRR-1812/883 SN 1/1



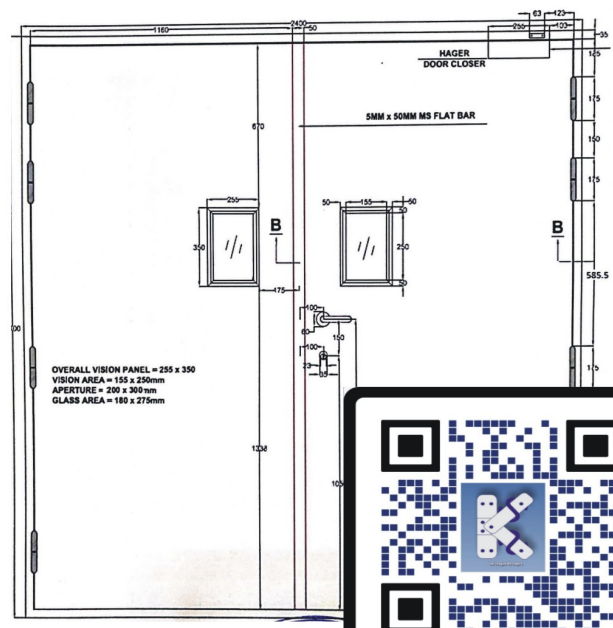
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Name	Manufacturer/Supplier	Physical Properties	Additional Details (provided by test sponsor)
Fire Rated Steel Double Door Leaf	Karachi Steel Services (Manufacturer)	Overall Thickness: 45 mm	2mm thick hot dipped galvanized steel sheet bent to form hollow steel leaf profile and filled in with Rockwool
Fire Rated Steel Double Door Frame	Karachi Steel Services (Manufacturer)	Jamb Width: 200 mm	2mm thick galvanized iron sheet bent to form hollow steel frame profile and filled in with Cebex Cable Grout
SS Pivots for Fire Rated Steel Double Door	Karachi Steel Services (Manufacturer)	Overall Length: 175mm Thickness: 22mm	8 Nos. of Stainless steel pivots, 4 for each door leaf
Mortise Lock Details for Fire Rated Steel Double Door	Hager (Supplier)	Overall Dimension: (110 x 152 x 25) mm	3800 series Grade 1 mortise
Overhead Door Closer for Fire Rated Steel Double Door	Hager (Supplier)	Overall Dimension: 255mm x 90mm	Model No.: 5300 series, Silver color Over Head Door Closer
Flush Bolt for Fire Rated Steel Double Door	CONSORT (Supplier)	Overall Dimension: (171 x 27 x 25) mm	Model No.: CH282D, Lever action flush bolt in SS Plate finish
MS Square Tube for Fire Rated Steel Double Door	Karachi Steel Services (Supplier)	Overall Dimension: (50 x 50 x 2) mm	(50 x 50 x 2) mm Square Tubes for internal framing.
MS Flat Bar for Fire Rated Steel Double Door	Karachi Steel Services (Supplier)	Overall Dimension: (5 x 50) mm	5 x 50 mm Flat Bar for astragal
Rockwool Infill for Fire Rated Steel Double Door	INCOM ROCKWOOL (PVT) LIMITED, Karachi, Pakistan	50mm thick	Wired Mat Type Rockwool having stated density of 100 kg/m ³ used as leaf infill
Glass for Vision Panel of Fire Rated Steel Double Door	KERALITE SAINT GOBAIN (Manufacturer)	Nominal Thickness: 5 mm	Trade Name: KERALITE, 5mm Fire Rated Glass
Tape for Vision Panel Glass of Fire Rated Steel Double Door	KERAFIX 2000	Nominal Dimension: 3 mm x 15 mm	Trade Name: KERAFIX 2000

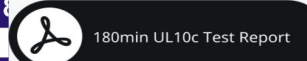
Items used for design of Fire Rated Steel Doors



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Result after 180 mins



180min UL10c Test Report



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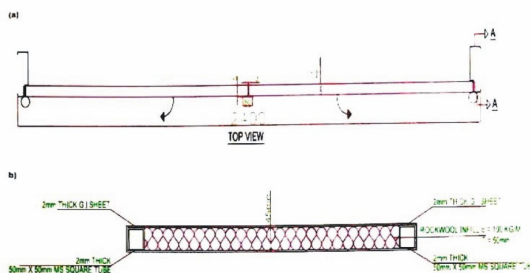


Figure 1.4: (a) Top view showing meeting stile section fixing details of assembled steel double door set, (b) Top view of section showing details of leaf of steel double door set

Sr. No.	Component	Height
1	Door Leaf	2350
2	Frame Rebate Face	35
3	Average Vertical Door Gap between Frame and Leaf	3
4	Door Gap between Door Leaf and Floor	6
Total Height		2400

Table 2.9: Dimensional verification of height of Steel Double Door dimension from exposed side

Sr. No.	Component	Width
1	Door Right Leaf	1160
2	Door Left Leaf	1160
3	Frame Rebate Face	35 * 2
4	Door Gap at Meeting Stile between both Leaves	3
4	Average Door Gap between Frame and Leaf	3.5 * 2
Total Width		2400

Table 2.10: Dimensional verification of width of Steel Double Door dimension from exposed side

R-FT-UL-10C-01
Issue Date: 01/01/2018
Issue No.: 1

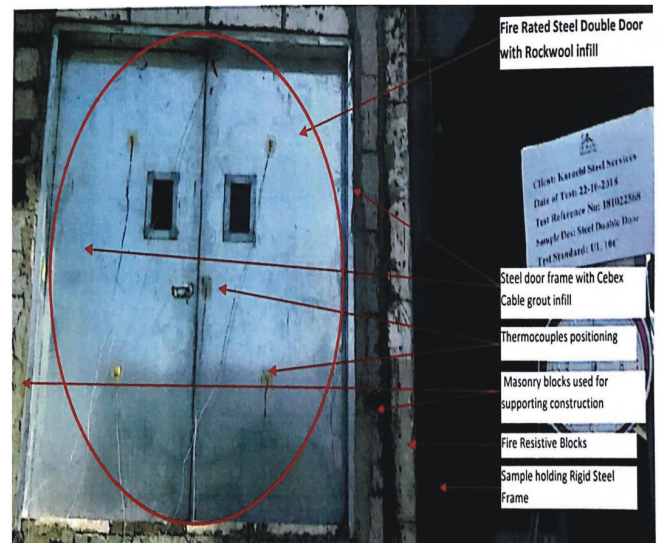


Lab Report No: FRR-1812/883 SN 1/1
Lab Project P.: 3725
Page No.: 10 of 25

Fire Door Size Details



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Test Specimens mounted in frame for testing

Fire Door (180 Mins Test)



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KSS 180 Minutes Fire Door Testing at Material LAB Dubai (Double Door Set)

TEST STANDARD: ANSI/UL 10C-2009 (Positive pressure Fire Test of Door Assemblies) With Hose Stream Test

Lab Ref: FRR-1812/883 SN 1/1



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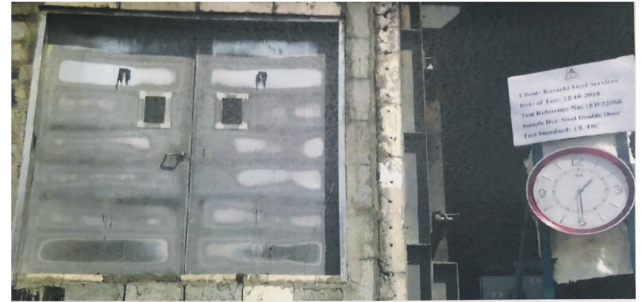
Specimen after 30mins of testing



Result after 30 & 60 Minutes



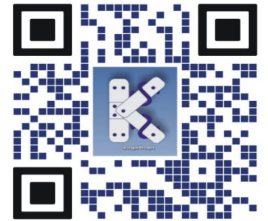
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Specimen after 90mins of testing



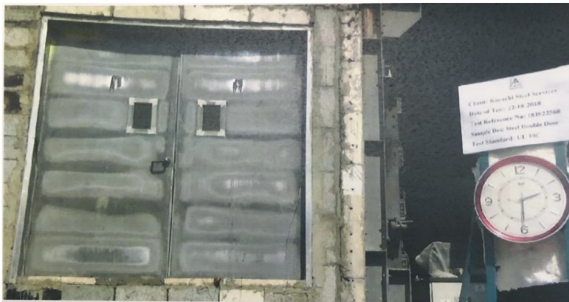
Result after 90 & 120 Minutes



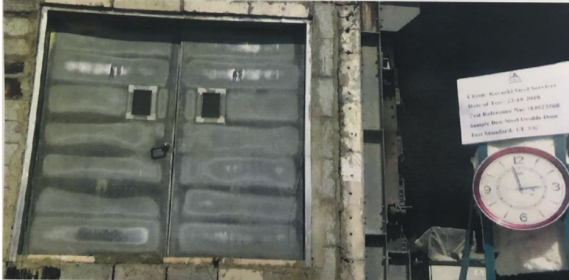
180min UL10c Test Report



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Specimen after 150mins of testing



Result after 150 & 180 Minutes



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Fire Resistance of Double Leaf Steel Door Assembly after 180 minutes of testing:

Fire Rated Steel Double Door Assembly with Rockwool Infill, Overall Frame: (2400 x 2400)mm		
Test Parameters	Results	Remarks
Fire Endurance: 3 Hours		
1. Sustained Flaming	No Failure	No Sustained flaming observed for more than 10 seconds up till 180 minutes of testing
2. Cotton Pad	No Failure	No ignition or glowing of cotton pad after 76 minutes of testing. Use of cotton pad was discontinued after 76 minutes of testing as temperature on unexposed side had exceeded 250 °C on TC-1.
Hose Stream Test: No Failure		
3. Hose Stream Test	No failure	Specimen complied with the hose stream requirements set in clause 14 and 15 of UL 10C

Table 5.1: Evaluation of Fire Rated Steel Door According to ANSI/UL 10C-2009

Total Deflection on Steel Double Door after 180 minutes:

Infra-red Sensor Number	D1	D2	D3	D4
Deflection (mm)	7	19	24	8

Result after 180 Minutes

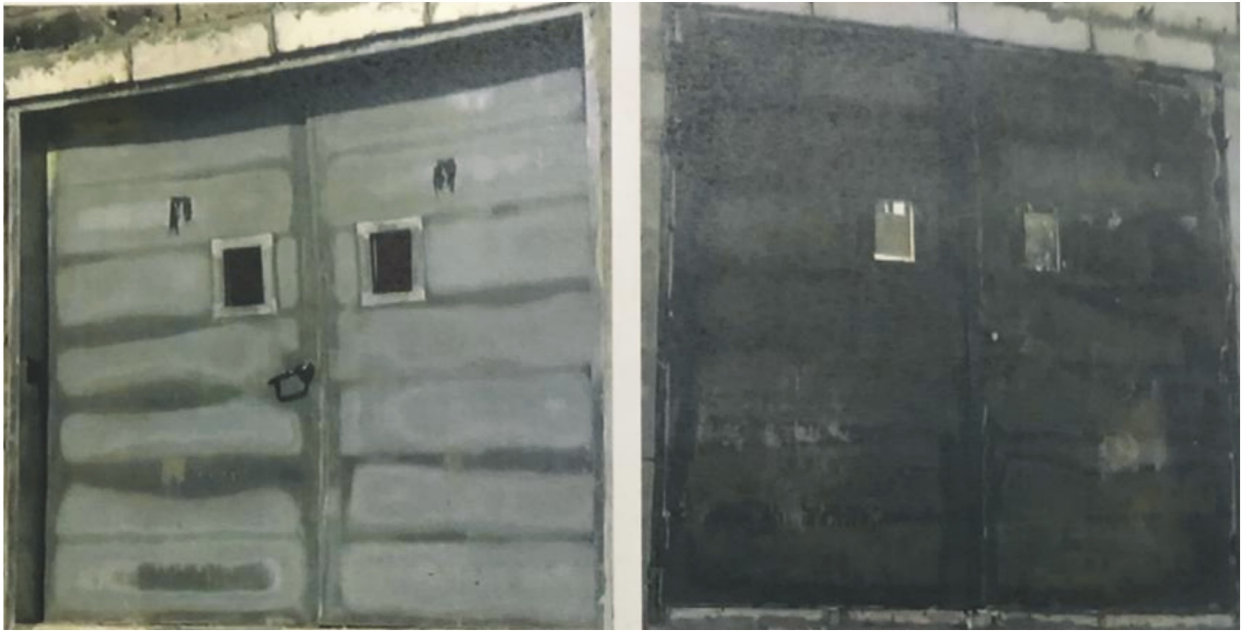
KSS 180 Minutes Fire Door Testing at Material LAB Dubai Double Door Set)

TEST STANDARD: ANSI/UL 10C-2009 (Positive pressure Fire Test of Door Assemblies) With Hose Stream Test

Lab Ref: FRR-1812/883 SN 1/1



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Exposed & unexposed side of specimen after completion of test



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Specimen exposed & unexposed sides immediately after being subjected to hose stream test



CERTIFICATE OF COMPLIANCE



 KSS UL 10C Listing

Certificate Number R40762
Report Reference R40762-20220829
Date 2022-September-06

Issued to: Karachi Steel Services
187, Nishter Road, Near Nishter Road Post Office Garden
West
Karachi Sindh 75400 PK

**This is to certify that
representative samples of**

SWINGING-TYPE FIRE DOORS, POSITIVE-PRESSURE
TESTED

See Addendum Page for Product Designation(s).

Have been evaluated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 10C - Positive Pressure Fire Tests of Door
Assemblies

ANSI/UL 10B - Fire tests Of Door Assemblies

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



KSS UL 10 C STEEL STIFFENED DOORS DETAILS

STEEL FIRE DOOR

Specifications:

Type	: Single and Double
Door thickness	: 45mm
Finish	: Powder coating/ Epoxy Coating
Astragal	: On active leaf of double

FIRE RATINGS

ANSI/UL10C- Up to 120 minutes



SIZES

Approval	Standard	Infill	Door	Range	Leaf Height (mm)	x	Leaf width (mm)	Fire Rating (Min)
UL	UL 10C	Rock Wool	Single	Max	2400	x	1200	120
UL	UL 10C	Rock Wool	Double	Max	2400	x	2400	120





PRODUCT CONFORMITY CERTIFICATE

The IPS certify that the company(ies):

Karachi Steel Services

187, Nishter Road, Near Nishter Road Post Office Garden
West, Karachi-75400, Pakistan

Has successfully complied the requirements of:

**International Listing Product
Conformity Certification Scheme 01, Type 3
for Construction Products,
Classic Single Site Certification**

Statement of conformity is hereby granted covering
the scopes of:

Fire Rated Door Assemblies

Covering the following test codes:

UL 10c and BS 476:Part 22



IPS-KSS111-ILC

Certificate ID:

01

Issue Reference:

August 28, 2022

Initial Certification Date:

August 28, 2022

Current Issue Date:

August 27, 2027

Indicative Expiry Date



Scan QR for Certificate Authenticity,
Updated Scopes and Validity!



P.O BOX 183094
LICENSE ID: 967670
P.O BOX 0183034, Dubai, United Arab Emirates | operations@ipscertification.com | +971 4 591 6002

IPS reserves the ownership of this certificate to whom it must be returned to including all copies or reproduction or destroyed on request. Contact IPS should there be any clarifications required.

IPS-IL-OP01-F11, Rev. 00 | 25July21
Page 1 | 1

I-Listing Scope ID: IPS-KSS111-ILC-02A, Rev. A

Certified Scope Descriptions	Validated Properties	Test Codes
Latched, Single Acting, Rockwool Infill Single Leaf Steel Door Assembly– With or Without Vision Panel_KSS UL180 Single Series Overall Tested Dimensions Frame = 2400x1236mm (HxW) Metal Frame Profile = 200x35mm (Depth x T), Single Rebate Door Stop = 15x152mm (T x Depth), Integral Frame Infill = Cementitious Grout or Concrete, Min. wet mix density of 2000kg/m ³ Metal Leaf Dimension = 2356x1160x45mm (HxW1+W2xT) Leaf Infill = Rockwool with density of 100kg/m ³ Vision Panel, Overall Area = 0.09 m ² , Square or Rectangular, Single pane only Glass Overall Area = 0.05m ² , Square or Rectangular	Integrity = Up to 180 Minutes	UL 10C

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I-Listing Test Evidences

Test Reference(s) ID	Category
FRQ-1812/408SN 1/1 (181022568)	Primary

I-Listing Scope ID: IPS-KSS111-ILC-01A, Rev. A

Certified Scope Descriptions	Validated Properties	Test Codes
Latched, Single Acting, Rockwool Infill Double Leaf Steel Door Assembly– With or Without Vision Panel_KSS UL180 Double Series Overall Tested Dimensions Frame = 2400x2400mm (HxW) Metal Frame Profile = 200x35mm (Depth x T), Single Rebate Door Stop = 15x152mm (TxDepth), Integral Frame Infill = Cementitious Grout or Concrete, Min. wet mix density of 2000kg/m ³ Metal Leaf Dimension = 2356x1160+1160x45mm (HxW1+W2xT) Leaf Infill = Rockwool with density of 100kg/m ³ Metal Astragal = 5x50mm (TxW) Vision Panel, Overall Area = 0.09 m ² , Square or Rectangular, Single pane per leaf only Glass Overall Area = 0.05m ² , Square or Rectangular	Integrity = Up to 180 Minutes	UL 10C

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I-Listing Test Evidences

Test Reference(s) ID	Category
FRQ-1812/408SN 1/1 (181022568)	Primary

I-Listing Instructions

- a. Reduce door sizes (HxW) is permitted subject to limitations, see notes;

The following are not in any form permitted unless validated and endorsed by IPS:

- b. Door size increase (HxW);
- c. Alternative or added components;
- d. Other configurations/specifications;
- e. Other end-use;
- f. Manufacturer other than stated herein; and
- g. Other information/specifications not stated.

I-Listing Notes

Note 1: The scope components, specifications, construction, door size variations and other information are documented at IPS International Field of Application reference: IPS-FOA01- KSS111-ILC-01A, Rev. 00 and test reports only, subject to full compliance;

Note 2: The certification is endorsed only to door assemblies manufactured by the abovementioned main certification holder at its manufacturing address and satisfactory complying to both I-Listing Instructions and Notes duly labelled with official IPS I-Listing Product Labels only; and

Note 3: Both IPS International Field of Application and The International Listing Registration Scope documents are subject to periodic reviews and updates.

The International Listing Registration Scope



KARACHI STEEL SERVICES
You Imagine We Inspire

I-Listing Scope ID: IPS-KSS111-ILC-03A, Rev. A

Certified Scope Descriptions	Validated Properties	Test Codes
Latched, Single Acting, Rockwool Infill Double Leaf Steel Door– With or Without Vision Panel Assembly _KSS BS120 Double Series Overall Tested Dimensions Frame = 2400x2400mm (HxW) Metal Frame Profile = 200x35mm (Depth x T), Single Rebate Door Stop = 15x152mm (TxDepth), Integral Frame Infill = Cementitious Grout or Concrete, Min. wet mix density of 2000kg/m ³ Metal Leaf Dimension = 2358x1162+1162x44~45mm (HxW1+W2xT) Leaf Infill = Rockwool with density of 100kg/m ³ *Metal Astragal = 5x50mm (TxW) Vision Panel, Overall Area = 0.333 m ² , Square or Rectangular, Single pane per leaf only Glass Overall Area = 0.270m ² , Square or Rectangular	Integrity = Up to 120 Minutes Insulation = Up to 31 Minutes	BS476: Part 22

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I-Listing Test Evidences

Test Reference(s) ID	Category
STQ-170605/1041 SN1/1 (170524499)	Primary
FRQ-1812/408SN 1/1 (181022568)	Supplementary

I-Listing Scope ID: IPS-KSS111-ILC-04A, Rev. A

Certified Scope Descriptions	Validated Properties	Test Codes
Latched, Single Acting, Rockwool Infill Single Leaf Steel Door– With or Without Vision Panel Assembly _KSS BS120 Single Series Overall Tested Dimensions Frame = 2400x1238mm (HxW) Metal Frame Profile = 200x35mm (Depth x T), Single Rebate Door Stop = 15x152mm (TxDepth), Integral Frame Infill = Cementitious Grout or Concrete, Min. wet mix density of 2000kg/m ³ Metal Leaf Dimension = 2358x1162x44~45mm (HxW1+W2xT) Leaf Infill = Rockwool with density of 100kg/m ³ Vision Panel, Overall Area = 0.333 m ² , Square or Rectangular, Single pane per leaf only Glass Overall Area = 0.270m ² , Square or Rectangular	Integrity = Up to 120 Minutes	BS476: Part 22

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I-Listing Test Evidences

Test Reference(s) ID	Category
STQ-170605/1041 SN1/1 (170524499)	Primary
FRQ-1812/408SN 1/1 (181022568)	Supplementary

I-Listing Instructions

- Reduce door sizes (HxW) is permitted subject to limitations, see notes;
- * Metal Astragal is optional for ≤door tested size, see notes;
- Door size (HxW) increase is permitted to assembly with Fire integrity requirement only with limitations, see notes;

The following are not in any form permitted unless validated and endorsed by IPS:

- Alternative or added components;
- Other configurations/specifications;
- Other end-use;
- Manufacturer other than stated herein; and
- Other information/specifications not stated.

I-Listing Notes

- Note 1: The scope components, specifications, construction, door size variations and other information are documented at IPS International Field of Application reference: IPS-FOA03- KSS111-ILC-03A,4A Rev.00 and test reports only, subject to full compliance;
- Note 2: The certification is endorsed only to door assemblies manufactured by the abovementioned main certification holder at its manufacturing address and satisfactory complying to both I-Listing Instructions and Notes duly labelled with official IPS I-Listing Product Labels only; and
- Note 3: Both IPS International Field of Application and The International Listing Registration Scope documents are subject to periodic reviews and updates.

I-Listing Scope ID: IPS-KSS111-ILC-05A, Rev. A

Certified Scope Descriptions	Validated Properties	Test Codes
Latched, Single Acting, Rockwool Infill Single Leaf Steel Door– With or Without Vision Panel Assembly_KSS BS90 Single Series Overall Tested Dimensions Frame = 2200x1000mm (HxW) Metal Frame Profile = 200x35mm (Depth x T), Single Rebate Door Stop = 15x152mm (TxDepth), Integral Frame Infill = Cementitious Grout or Concrete, Min. wet mix density of 2000kg/m ³ Metal Leaf Dimension = 2154x926x44~45mm (HxWxT) Leaf Infill = Rockwool with density of 100kg/m ³ Vision Panel, Overall Area = 0.141 m ² , Square or Rectangular, Single pane per leaf only Glass Overall Area = 0.096m ² , Square or Rectangular	Integrity = Up to 90 Minutes Insulation = Up to 29 Minutes	BS476: Part 22

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I-Listing Test Evidences

Test Reference(s) ID	Category
STQ-170128/112 SN 1/1 (170128437)	Primary
STQ-170605/1041 SN1/1(170524499)	Supplementary
FRQ-1812/408SN 1/1 (181022568)	Supplementary

I-Listing Instructions

- Reduce door sizes (HxW) is permitted subject to limitations, see notes;
- Door size (HxW) increase is permitted to assembly with Fire integrity requirement only with limitations, see notes;

The following are not in any form permitted unless validated and endorsed by IPS:

- Alternative or added components;
- Other configurations/specifications;
- Other end-use;
- Manufacturer other than stated herein; and
- Other information/specifications not stated.

I-Listing Notes

Note 1: The scope components, specifications, construction, door size variations and other information are documented at IPS International Field of Application reference: IPS-FOA05- KSS111-ILC-05A, Rev. 00 and test reports only, subject to full compliance;

Note 2: The certification is endorsed only to door assemblies manufactured by the abovementioned main certification holder at its manufacturing address and satisfactory complying to both I-Listing Instructions and Notes duly labelled with official IPS I-Listing Product Labels only; and

Note 3: Both IPS International Field of Application and The International Listing Registration Scope documents are subject to periodic reviews and updates.

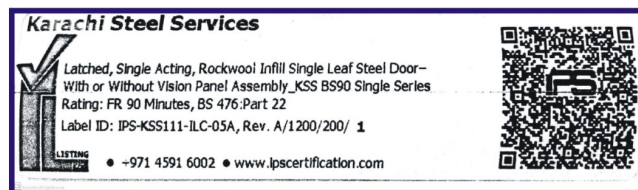
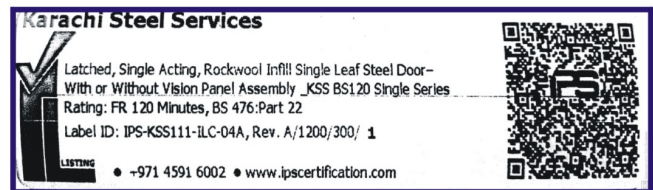
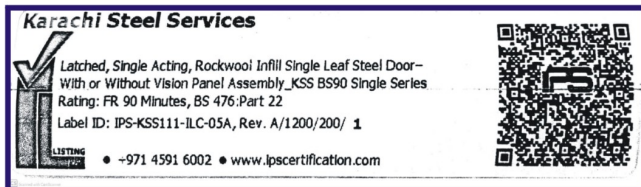
The International Listing Registration Scope



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KSS Fire Door Labels

All KSS Certified Fire Doors have QR Readable International product listing
IPS certified fire door labels paste on them.



KSS Fire Door Application

High Rise building (stairways / Elevator Shaft)

Power Plants / Grid Stations

Pharmaceutical Plants

Garment Processing Units

Shopping Malls

School / College / Universities

Multiplexes

Hotels

Oil & Gas Sector

Warehouses

Data Centre etc.,



KARACHI STEEL SERVICES
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Door Accessories

Testing Standards



BHMA
CERTIFIED®



Available Brands



CONSORT
ARCHITECTURAL HARDWARE



AKADA®
HIGH QUALITY HARDWARE

ISEO®



Customers



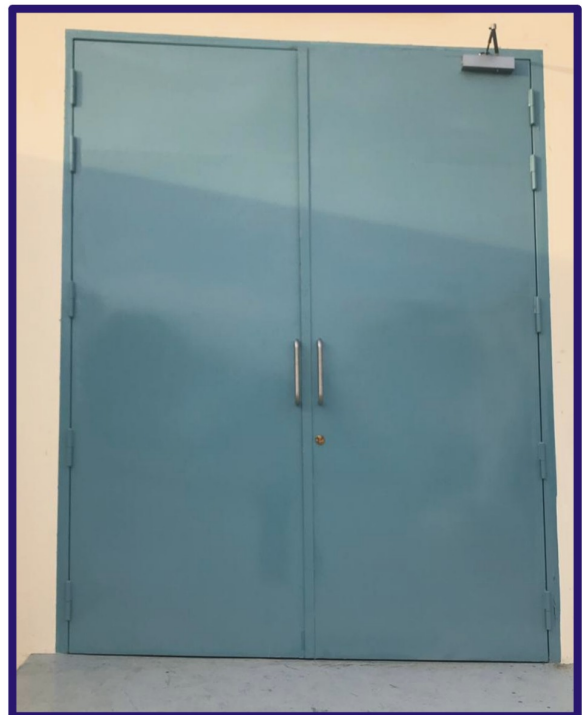
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Heavy Duty Galvanized Steel Hinged Doors

- Door Frame Sheet = 1.5mm to 2mm
- Internal Framing = Pipe / Steel Stiffened
- Door Infill = Rock Wool / Glass Wool
- Door Shutter Sheet = 1.5mm to 2mm
- Hinges = SS Pivot Type
- Paint Finish = Enamel / Epoxy

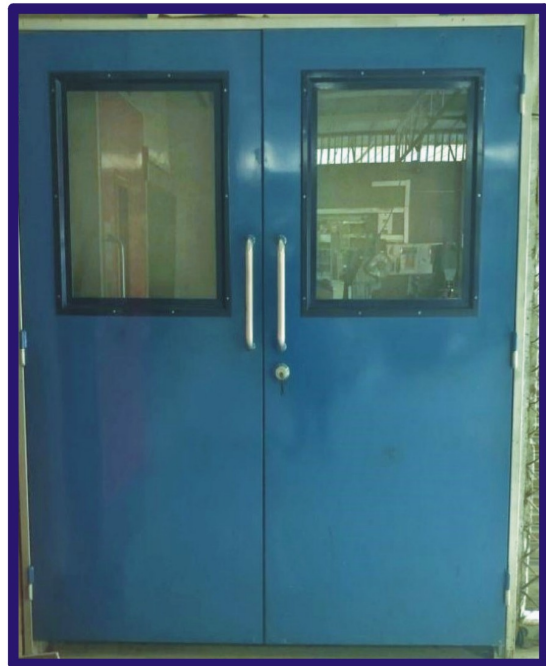




Heavy Duty Galvanized Steel Hinged Doors

- Door Frame Sheet = 1.5mm to 2mm
- Internal Framing = Pipe / Steel Stiffened
- Door Infill = Rock Wool / Glass Wool
- Door Shutter Sheet = 1.5mm to 2mm
- Hinges = SS Pivot Type
- Paint Finish = Enamel / Epoxy







Stainless Steel Hinged Doors

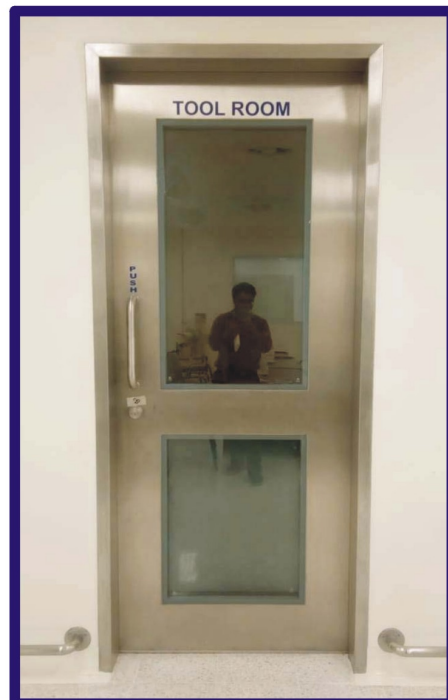
- Door Frame Sheet = SS 304 1.5mm to 2mm (Taiwan)
- Door Shutter Sheet = SS304 1.5mm to 2mm (Taiwan)
- Sheet Finish = Satin / Grind Finish
- Internal Framing = SS/MS Pipe / Steel Stiffened
- Hinges = SS Pivot Type
- Door Infill = Rock Wool / Glass Wool





Clean Room SS / GS Doors

- Door Frame Sheet = SS 304 1.5mm to 2mm (Taiwan)
- Door Shutter Sheet = SS304 1.5mm to 2mm (Taiwan)
- Sheet Finish = Satin / Grind Finish and Paint Finish
- Glazing = 5mm Double Glazed
- Hinges = SS Pivot Type





Clean Room SS / GS Windows

- Window Frame Sheet = SS 304 1.5mm to 2mm (Taiwan)
- Sheet Finish = Satin / Grind Finish and Paint Finish
- Glazing = 5mm / 6mm Double Glazed
- Glass Reinforcement = 3m Double adhesive





Louvered Doors (GS/MS)

- Frame Sheet = GS / MS 1.5-2mm
- Louver Thickness = 1.5 - 2mm
- Louver Style = Z-Shape
- Paint Finish = Enamel / Epoxy

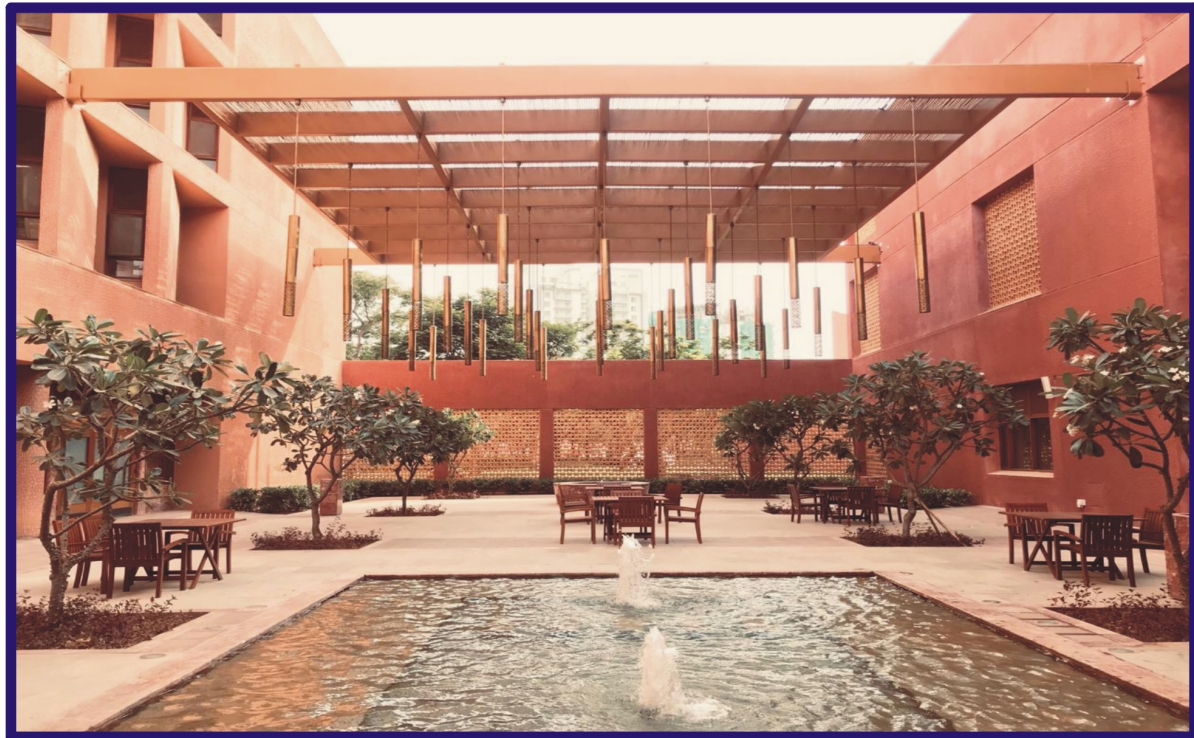




Sliding Doors (SS / GS)

- Sliding Door Sheet = MS 1.5mm to 2mm
- Sliding System = Heavy Duty rails with Wheel
- Internal Frame = MS Box Section
- Paint Finish = Enamel / Epoxy









Glazed Panel Frame = 1.5mm to 2mm (SS / GS)
Glass Tempered = 8mm to 12mm





SS Glass Partition



Dry Cement Board Partition

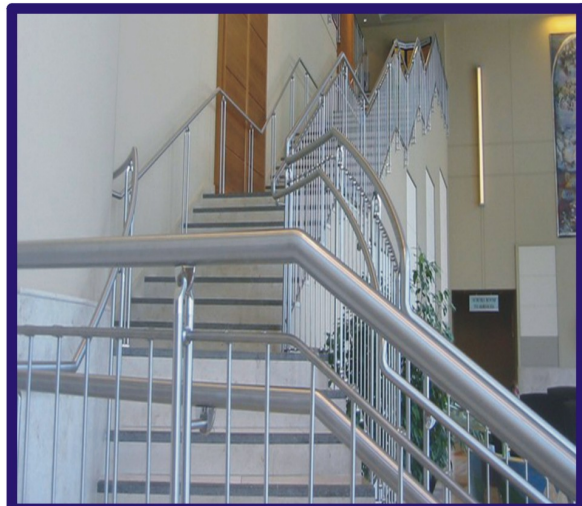




Expanded Metal Lathe (EML) Ceiling



SS / GS Railing







DAS CERTIFICATION



Quality Management System

Certificate of Approval

This is to certify that the QMS of
Karachi Steel Services
187 nishter road, near nishter road post office, garden west, karachi-
Pakistan

Has been assessed and found to meet the requirements of

ISO 9001:2015

This certificate is valid for the following scope of operations

Steel Fabrication, Manufacturer of Fire Resistant Doors and Panels

Authorised by:

Stan Wright
Director

Date of Certificate Issue: 16 August 2021

Certificate Valid Until: 15 August 2022

Surveillance audit before 15 July 2022. Certified since 16 August 2021.
This certificate is the property of SN Registrars (Holdings) Limited and remains valid
subject to satisfactory annual Surveillance audits.

SN Registrars (Holdings) Limited
Registration House, 22b Church Street,
Rushden, Northamptonshire,
NN10 9YT, UK
Tel: +44 (0) 1933 381859
Email: enquiries@dascertification.co.uk
Web: www.dascertification.co.uk
Company Number: 07659067

Certificate Number: DAS 42793305/19/Q Rev: 001



This Presentation Certificate is not a legal document and cannot be used for legal purposes. D-PK Q Rev 01
For Certificate Verification Please visit: <http://www.das.com.pk/online-certificate-verification.php>

DAS CERTIFICATION



Environmental Management System

Certificate of Approval

This is to certify that the EMS of
Karachi Steel Services
187 nishter road, near nishter road post office, garden west, karachi-
Pakistan

Has been assessed and found to meet the requirements of

ISO 14001:2015

This certificate is valid for the following scope of operations

Steel Fabrication, Manufacturer of Fire Resistant Doors and Panels

Authorised by:

Stan Wright
Director

Date of Certificate Issue: 16 August 2021

Certificate Valid Until: 15 August 2022

Surveillance audit before 15 July 2022. Certified since 16 August 2021.
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SN Registrars (Holdings) Limited
Registration House, 22b Church Street,
Rushden, Northamptonshire,
NN10 9YT, UK
Tel: +44 (0) 1933 381859
Email: enquiries@dascertification.co.uk
Web: www.dascertification.co.uk
Company Number: 07659067

Certificate Number: DAS 98879669/19/E Rev: 001



This Presentation Certificate is not a legal document and cannot be used for legal purposes. D-PK Q Rev 01
For Certificate Verification Please visit: <http://www.das.com.pk/online-certificate-verification.php>

DAS CERTIFICATION



Occupational Health & Safety Management System

Certificate of Approval

This is to certify that the OHSMS of
Karachi Steel Services
187 nishter road, near nishter road post office, garden west, karachi-
Pakistan

Has been assessed and found to meet the requirements of

ISO 45001:2018

This certificate is valid for the following scope of operations

Steel Fabrication, Manufacturer of Fire Resistant Doors and Panels

Authorised by:

Stan Wright
Director

Date of Certificate Issue: 16 August 2021

Certificate Valid Until: 15 August 2022

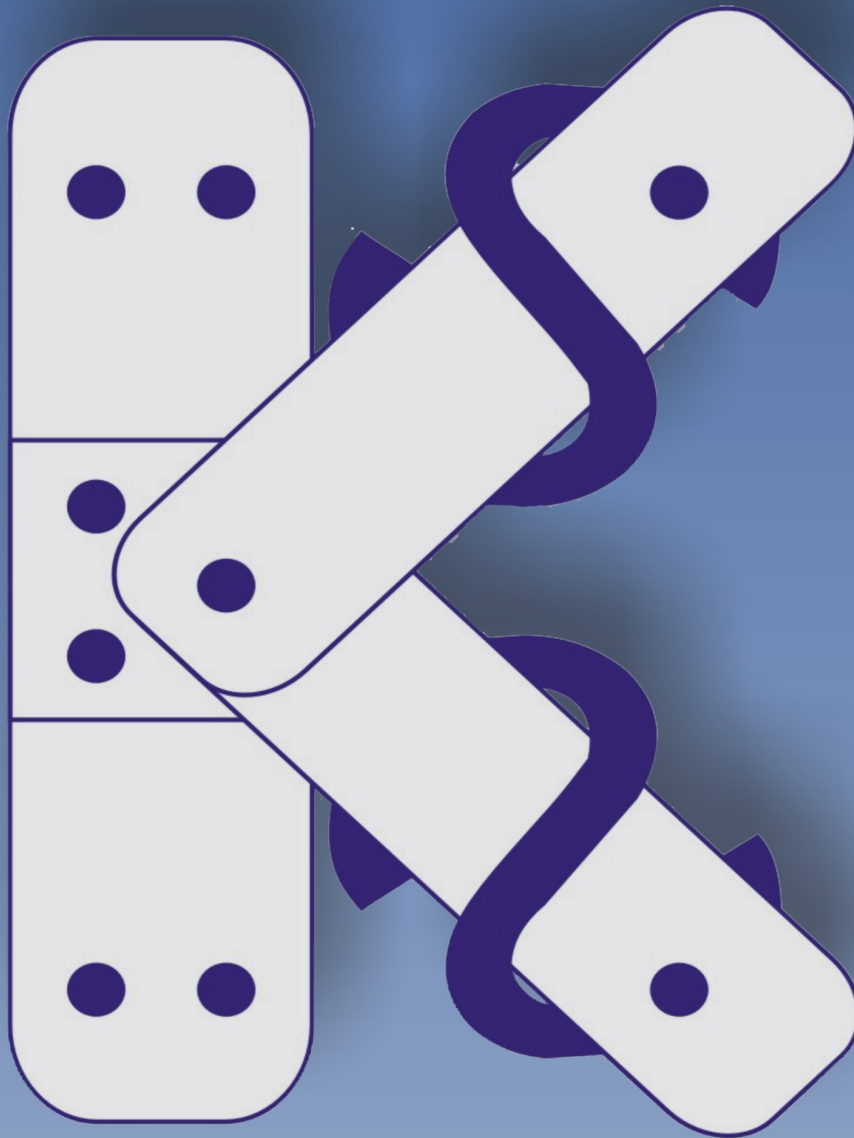
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Company Number: 07659067

Certificate Number: DAS 43983057/19/O Rev: 001



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KARACHI STEEL SERVICES

187, Nishter Road, Near
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Cell # 92344 2180000