

FORT®

STEEL DOORS & FRAMES

BIN GHURAIR



بن غرير التجارية
Bin Ghurair Trading



CURRIES®



McKINNEY®

SARGENT®



FORT®
STEEL DOORS & FRAMES



ISO 9001: 2000 Certified



الشركة الأوسط للعزل د.م.م.
Middle East Insulation LLC





Company Profile

Bin Ghurair Trading was incorporated in 1990, initially starting as a specialty supplier of steel doors, frames, ironmongeries, garbage and linen chutes, servicing the construction industry. During the past 14 years, the company has evolved into a leading distributor and manufacturer of these products. The company management has always looked beyond the present day and has been concerned to keep in touch with the market's needs and requirements. Due to this concern, Bin Ghurair Trading has always been a front-runner in the architectural supply products. Diversifying, to keep up with ever-changing needs of the owners, builders and consultants.

During the previous decade Bin Ghurair has provided services to many prestigious projects in the UAE, few of these are

- Etisalat Building Abu Dhabi
- Etisalat Building Al-Ain
- Etisalat Building Ajman
- Abu Dhabi Mall (Abu Dhabi Trade Center)
- Dubai International Air port
- Sheraton Hotel Dubai
- Etisalat Building Fujairah
- Etisalat Building Ras Al - Khaimah
- Substations in Abu Dhabi and other Emirates
- Sports Hall in Sharjah
- and many more.*

ISO 9001-2000 Quality System.

For design, manufacturing, trading and installation of **FORT®** Doors, Bin Ghurair Trading and Middle East Insulation L.L.C. has obtained a Quality Management System. It is certified in compliance with the international standard ISO 9001-2000. Certification of this quality system helps ensure that the company has the system in place to meet customer needs. Achieving the ISO 9001-2000 Certification, requires a thorough review of our quality management system and to insure compliance with the appropriate standards and procedures.



PRODUCTS

Bin Ghurair Trading is proud to be able to offer the supply and installation of many door products than ever before. Following is the list of our main products.

A. Steel doors and Frames

- i. Standard Hollow Metal doors and frames,
- ii. Fire Rated Doors and frames,
- iii. Acoustic doors,
- iv. Temperature Rise Rated doors (TRR doors),
- v. Storm Doors,
- vi. Smoke proof doors
- vii. Bullet Resistant doors,
- viii. Detention doors
- ix. Thermal break frames and
- x. lead lined doors & frames.



B. Overhead Sectional doors (Motorized, remote control & manual)

- i. Garage doors
- ii. Industrial doors
- iii. Fast Rollup doors

C. Roller shutter doors (Motorized, remote control & manual)

- i. Standard single skin roller shutter doors
- ii. Double skin insulated doors
- iii. Fire rated roller shutter doors

D. Builders hardware (ironmongery)

- i. North American Hardware
- ii. European Hardware.

MANUFACTURERES REPRESENTED BY BIN GHURAIR.

We represent some of the largest names in their respective industries. Following are some of the manufacturers that we, at Bin Ghurair Trading are proud to represent;

A. Steel Doors and Frames

1. Curries Company, Mason City, Iowa.

Established in 1958, an ASSA ABLOY group company, Curries has on of the largest production facilities in the industry. Curries manufactures a wide range of Hollow Metal doors and frames. Curries is an ISO 9000 certified company and a member of DHI (Door and Hardware Institute), NAAMM (National Association of Architectural Metal Manufactures) and SDI (Steel Door Institute).

Curries offer following products.

- Standard Hollow Metal doors and frames,
- Fire Rated Doors and frames,
- Acoustic doors,
- Temperature Rise Rated doors,
- Storm Doors,
- Bullet Resistant doors,
- Thermal break frames and
- lead lined frames.



For Complete range of Curries products please ask for Curries Catalogue or visit their website www.curries.com



2. APEX Industries Inc. Moncton, New Brunswick, Canada.

Established in 1961, Apex Industries Inc. has become one Atlantic Canadian largest fabricators of Custom steel products. Apex is an ISO 9000 certified company and a member of DHI (Door and Hardware Institute), NAAMM (National Association of Architectural Metal Manufacturers) and Canadian Steel door & Frame manufacturers Association.

Apex offers following products

- Standard Hollow Metal doors and frames,
- Fire Rated Doors and frames,
- Detention doors,
- Security Doors,
- Temperature Rise Rated doors,
- Bullet/Physical Resistant doors,
- Thermal break frames and
- lead lined doors.

APEX
Industries Inc.

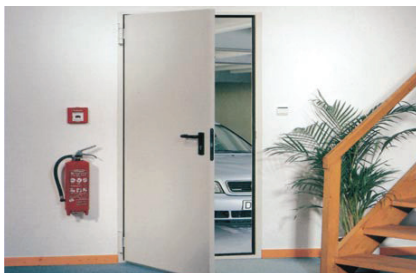
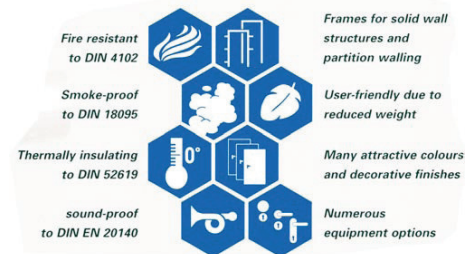
For Complete range of Apex products please ask for Curries Catalogue or visit their website www.apexindustries.com



3. Novoferm GmbH, Rees-Heldern, Germany

Novoferm offers variety of products. Following are the products related to Steel doors.

- Standard steel doors,
- Fire rated doors and frames,
- Security doors,
- Sound proof doors,
- Smoke proof doors
- Thermally insulated doors,
- Interior doors,



Novoferm is an ISO 9001 certified company and conforms to DIN standards. Novoferm door are user friendly, offer large selection of hardware variety and is available in many attractive colours and decoration finishes.

For Complete range of Novoferm products please ask for specific Catalogue or visit their website www.novoferm.com



4. Security Metal Products Corporation, Culver City, California, USA

To fulfill requirements of our clients for Acoustic doors, we import Security Acoustic doors from SMPC. Security Acoustics a division of Security Metal Products Corp, supplies the world with cutting edge acoustic products. Security Metal is a leading manufacturer of Acoustic doors in USA.

Security Metal Products Corporation is a member of DHI (Door and Hardware Institute) and NAAMM (National Association of Architectural Metal Manufacturers).

SECURITY ACOUSTICS
A Division of Security Metal Products Corp

For Complete range of Security Metal products please ask for specific Catalogue or visit their website www.securityacoustics.com



5. **FORT® Steel Doors and Frames, UAE (Manufactured by Bin Ghurair)**

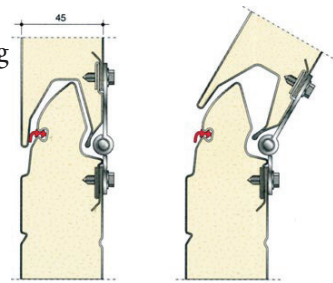
Bin Ghurair Trading has been fulfilling the requirements for steel doors, frames and hardware in the construction industry of the Gulf countries for more than a decade. Being the business partner of the world's best brands of steel doors of North American and European manufactures, Bin Ghurair Trading has acquired valuable experience in the field. Having the expertise of the product and considering the delivery requirement of the growing construction industry in the area, BGT management has decided to manufacture steel doors and frames in the UAE. This decision will reduce freight and delivery time without compromising the quality of the product. Our doors and frames are manufactured under strict compliance with the same standards and specifications of our imported doors and frames. In light of this decision, we are proud to introduce our product FORT steel doors and frames, being manufactured under by BGT

B. Overhead Sectional Garage and Industrial Doors

Novoform Nederland B.V., Holland

Novoform offers variety of products. Following are the products related to Steel doors.

- Overhead Sectional Garage doors
- Overhead Sectional Industrial doors
- Fast Rollup doors



Novoform is an ISO 9001 certified and one of the largest European system suppliers of various kinds of doors, operators for domestic, commercial and industrial use. Novoform offers an extensive range of high quality automatic doors. For Complete range of Novoform products please ask for specific Catalogue or visit their website www.novoform.nl

C. Rolling Shutters

1. SKB Shutters Manufacturing Sdn. Bhd. Selangor Malaysia

SKB offers a wide range of residential, commercial and industrial door systems including but not limited to fire rated roller shutters, smoke resistant shutters, vertical and horizontal shutters, single skin and insulated. For Complete range of SKB products please ask for specific Catalogue or visit their website www.skb-shutters.com





2. Novoferm-Riexinger- Germany.

A joint Venture of Novoferm and Riexinger is producing a variety of roller shutters which suits almost all needs for roller shutters. The doors are manufactured and tested as per European standards and specification. For Complete range of Novoferm-Riexinger products please ask for specific Catalogue or visit their website riexinger.com/int/fsrt.html

D. Builder's Hardware (Ironmongery)

Bin Ghurair is proud to be the supplier of world's best brands of door hardware. Following are some of the brands with deal in.

- Dorma, Ennepetal, Germany and Dorma Gulf, Jebel Ali Free Zone, UAE.
www.dorma-usa.com



- McKinney Hinge Company, Scranton, Pa., USA
www.mckinneyhinge.com



- Sargent Manufacturing Company, New Haven Ct. USA.
www.sargentlock.com



- Hager Manufacturing Company Ltd. USA.
www.hagerhinge.com



- Gallery Specialty Hardware, Toronto, Ontario, Canada
www.gallery.com



- BEST Access systems, USA
www.bestaccess.com



- Securitron Magnalock Corporation, USA
www.securitron.com



- Consort Architectural Hardware, U K.



Please ask for complete detail and catalogue for any of the above products or visit their website.



Bin Ghurair Trading has experienced professionals who will take care of your projects from estimating to execution, shipping and installation of the material on the job site. Our team of professionals includes qualified engineers, quantity surveyors, computer specialists and project managers.

The company has invested in a LAN/WAN computer network and other advanced software for Computer Aided Design and Manufacturing (CAD/CAM) that ensures expedient dissemination of information.

On your next project, large or small, do not settle for anything less when the team of professionals at Bin Ghurair Trading is available to assist you. Our trained professionals and consultants are capable of helping you from the design stage of your project through to the completion. Bin Ghurair Trading is much more than just "Traders"!





FORT® Steel Doors & Frames a product of Bin Ghurair

Steel door and frame products have earned an enviable reputation with architects engineers, and construction trade professional around the world. It provides a wealth of benefits uncommon in competing products. When specifying door and frame systems for your next project, consider the many demonstrated benefits of steel products.

Steel products are rugged, long lasting and offer great endurance through time. They resist environmental stress like heat and humidity that adversely impact other door and frame products. Steel products are easy to maintain and ensure virtually trouble free operation for many years. Steel door and frame products are also an ideal solution to any degree of security.

To meet the varied needs of the construction industry, Bin Ghurair manufactures a wide range of steel door and frames for interior and exterior use. **FORT®** doors are the most reliable door manufactured, by using only the highest quality materials and manufacturing techniques. **FORT®** doors are produced in many sizes, gauges and design to meet the needs of architects, owner and contractors.

Bin Ghurair vast experience, knowledge of the product, state of the art CNC machines, has made the timely delivery of finest quality material possible.

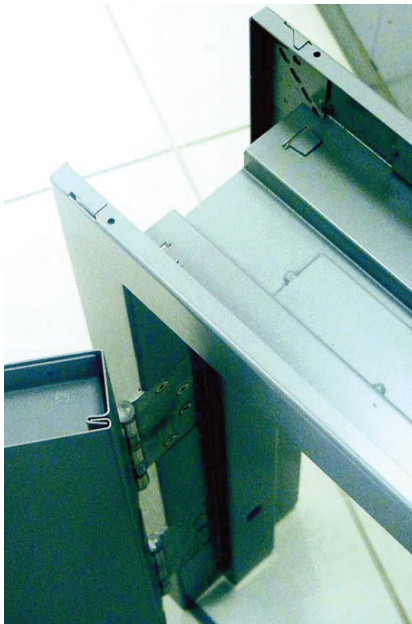
LPCB and BRE Certification

For the manufacturing of **FORT®** fire rated steel doors and frames, Bin Ghurair Trading Company is in full compliance with the Loss Prevention Standard (LPS) issued by the Loss Prevention Certification Board LPCB. This compliance includes satisfactory evaluation for fire testing under: B.S. 476: Part 22: 1987 and a Cyclic Test to LPS 1056: Issue 5: 1996. The testing and certification body is BRE (Building Research Establishment) Bucknalls Lane, Garston Watford WD259xx, U.K.

www.bre.co.uk

To meet the strict production requirements, our manufacturing facility also undergoes FACTORY PRODUCTION CONTROL (FPC) Surveillance audits by BRE.

These certificates and approvals demonstrate our ongoing continued commitment to provide quality products and service to our customer.



FORT® Doors are available with many features

- ☑ Non-Handed
- ☑ Handed
- ☑ Seamed edge
- ☑ Seam edge track welded and filled
- ☑ Polystyrene core doors
- ☑ Honeycomb core doors
- ☑ Polyurethane core doors
- ☑ Rock wool, Steel stiffened core doors
- ☑ Steel Stiffened with any option of core
- ☑ Oversize doors and frames
- ☑ Double acting doors
- ☑ Transom panels
- ☑ Vertical or horizontal removable or non removable mullions
- ☑ Dutch doors
- ☑ Bi-fold doors
- ☑ Custom size doors
- ☑ Louver doors
- ☑ Doors with variety of vision panels in various sizes and shapes
- ☑ Pocket pivot preparations
- ☑ Concealed hardware preparation
- ☑ Mortise/cylindrical lock preparation Etc.

Bin Ghurair Trading Sales Department.

Our Sales Department, having architectural and technical experts, provide consulting services to architects, contractors, building owners and project managers to help ensure the best product selection for each client/ building/ location's unique requirements. Our experts offer the following services, but not limited to,

- ▼ Specification writing
- ▼ Shop Drawings
- ▼ Code interpretations
- ▼ Takeoffs and Schedules
- ▼ Compliance guidance
- ▼ Order Coordination.

Inquiries.

Please address your inquiries to :

Sales Department
Bin Ghurair Trading
PO Box 55686 Dubai, UAE
Tel : +971 4 880 2008
Fax : +971 4 880 2009
Email to : mail@bgtdubai.com
Website : www.fortdoors.ae
www.mei-uae.com

Delivery Schedule.

BGT offers the following Delivery Schedules¹.

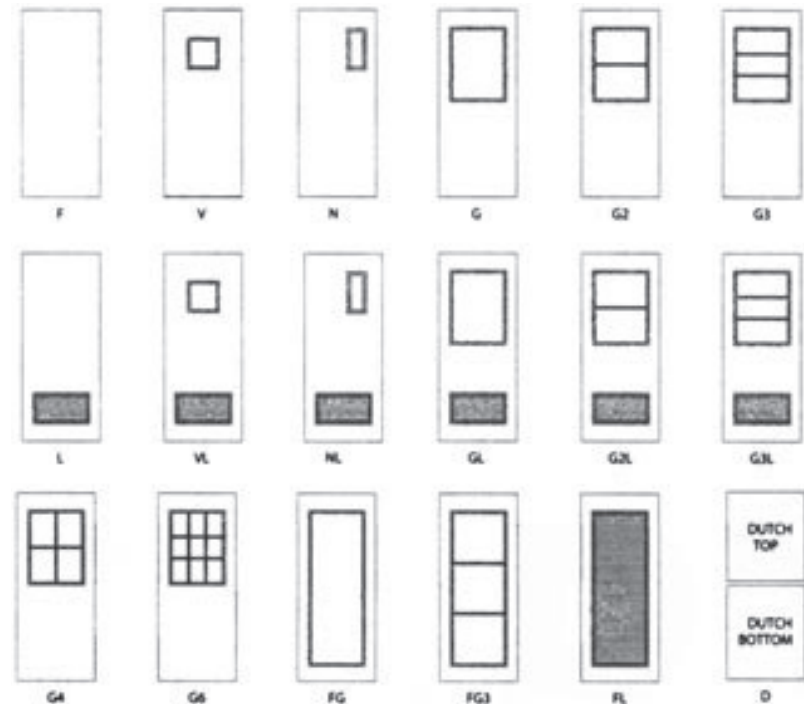
1. QUICK SHIP 2 weeks² delivery (Custom Sizes).
2. QUICK SHIP 1 week delivery (Standard Stock Sizes).
3. QUICK SHIP 6 weeks delivery (As per Customer Requirements)

1. Delivery periods mentioned above are best estimates, it may change by the time of order depending on stock, raw material and any force majeure.
2. Periods mentioned start from the date approved shop drawings are received, all queries answered and accepted

Nomenclature for standard FORT® door designs.

FORT® door designs are in accordance with ANSI A250.7-1997 “Nomenclature for standard steel doors & steel frames” and “SDI 106-99 “Recommend standard door type nomenclature”.

NOMENCLATURE FOR STANDARD DOOR DESIGNS



NOMENCLATURE LETTER SYMBOLS EXPLANATORY NOTES

- F. “Flush door” a door without lites or louvers.
- V. “Vision Lite Door”, 250mm Square-lite on vertical Centerline of the door. The horizontal centerline of the lite 1550mm from the finished floor.
- N. “Narrow Lite Door”, Door with lite cutout near the lock stile. Lite width minimum 80mm and height varies from 250mm to 1500mm.
- G. “Half Glass Door”, (Design G, G2, G3, G4,& G6) Please see detailed drawings for Size and locations. Multiple lite patterns are created by the installation of muntins. (As per ANSI/ICC A117.1 door containing one or more glazing panels shall have the bottom of at least one glass a maximum of 1090mm from the finished floor.)
- L. “Louvered door”, Louver is an opening in the door with a series of slats of blades to allow passage of air. Fire rated louvers have arrangement of fusible link, to control passage of flames and heat.
- GL. “Glass Louvered door”, Design VL, GL, G2L, G3L, and NL. as indicated, a combination of glass lites and louvers.
- FG. “Full Glass Door”, Designs FG and FG3. door with minimum 155mm stiles and top rail, 200mm bottom rail. The glass can be a single piece, or multiple lite patterns are created by the installation of muntins.
- FL. “Full Louvered Door”, style and rail sizes as FG.
- D. “Dutch Door”, A two panel door, separated horizontally at a height of 900mm to 1060mm, from the finished floor level. A shelf can be provided if required. The shelf height shall not be more than 915mm from the finished floor level (ANSI/ICC A117.1)



Manufacturing of FORT® Doors

FORT® steel doors and frames are manufactured in accordance to SDI 100 (ANSI A250.8-1998) *Recommended specification for standard steel doors and frames* published by Steel Door Institute (SDI) of America.

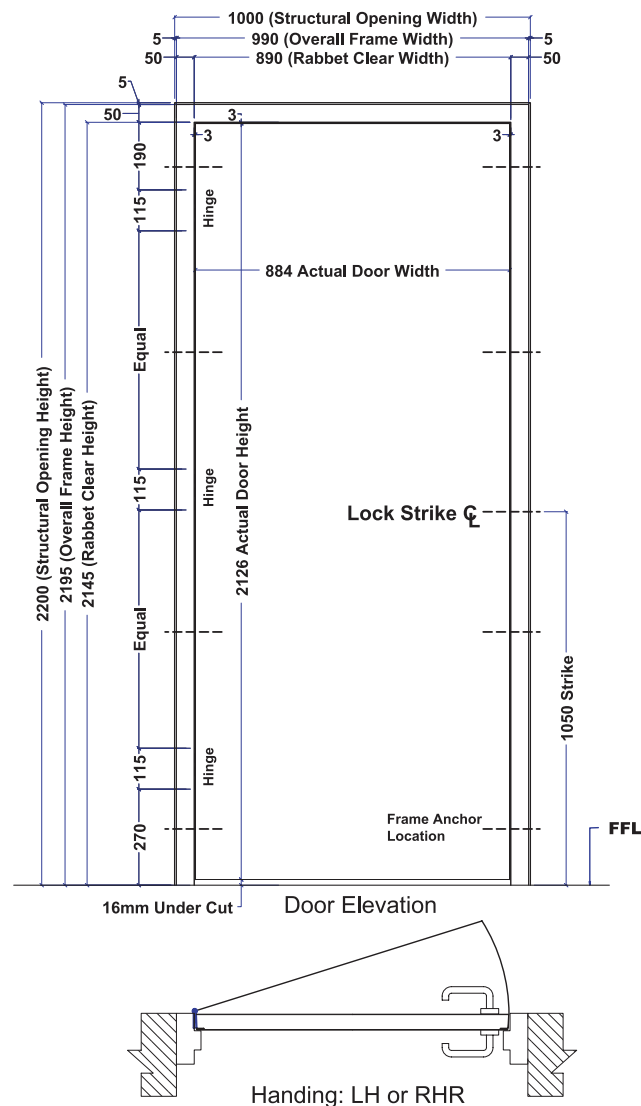
FORT® steel doors and frames are manufactured of the finest quality steel sheets, conforming to ASTM A653, this standard specification for steel is Zinc Coated (Galvanized) by the hot dip process.



Hinge and Lock Strike Locations for Standard FORT® doors and frames.

FORT® doors follows SDI 129-00 *Hinge and Strike Spacing* standards for hardware preparation locations on doors and frames.

Dimensions for Standard size single door.





FORT® Doors Usage Guide.

FORT® doors conform to SDI 108-99 “Recommended Selection and Usage Guide for Standard Steel Door” As per SDI standard steel doors are classified in four levels. Each of which offer a range of construction models and design to meet architectural requirements for performance and appearance. Minimum gauge requirements for the various levels and models of standard steel doors, as recommended by SDI and **FORT®** equivalent USAGE CLASS are as follows.

Standard Steel Door Grades and Models (as per SDI)					FORT® Usage Class	
Level		Door Skin Thickness			USAGE	Door Skin
		Msg. No.	Inches	mm		Th. (mm)
I	Standard Duty	20	0.032	0.80	CLASS A	1.20
II	Heavy Duty	18	0.042	1.00		
III	Extra Heavy Duty	16	0.053	1.30	CLASS B	1.60
IV	Maximum Duty	14	0.067	1.60		



Application of FORT® Doors and Frames.

The applications in which **FORT®** door and frame products are appropriate is virtually limitless. From apartment buildings, hotels, schools, courthouse, office buildings, dormitories, military barracks, detention centers, prisons, retail stores, warehouses, hospitals, industrial buildings, airports, convention centers and many more. Steel products have met and exceed expectations for decades.



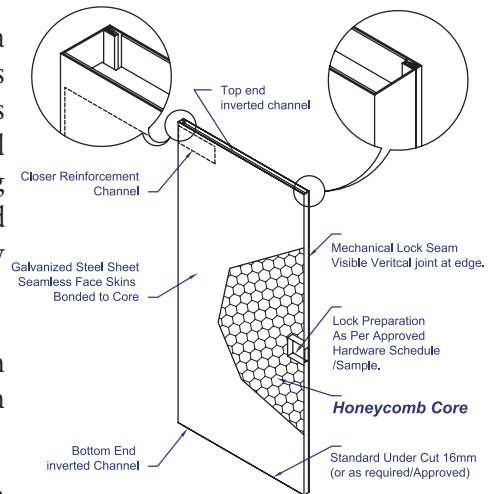
The construction of **FORT®** doors and frames affords architects a remarkable degree of design freedom in non-typical situations, where a standard size or profiled product is inappropriate. With the proprietary steel construction techniques and capabilities of Bin Ghurair Engineering L.L.C., our design professionals have the opportunity to innovate and create virtually any solution and do so within a reasonable budget.



FORT® Honeycomb Door Series

FORT® Honeycomb door has a paper honeycomb core. The core is permanently bonded to door skins strengthening the structural integrity of the door, enhancing long term performance and durability, while significantly reducing the weight.

FORT® door is constructed with HONICEL paper-honeycomb from the N.L.



Honeycomb was developed as a structural core for military aircraft wings during World War II. Among its advantages are a high strength-to-weight ratio, uniform crushing strength, high shear strength, and excellent impact resistance. It is durable, can be treated to resist decay and insects, and also provides sound deadening and insulating properties. The rigid honeycomb structure is intergrated with door to form hundreds of small I-beams with the door, with a uniform thickness and flat surface that makes it easy to add lites, louvers or other feautres. It reinforces the full width and height of the door. Door edges are mechanically interlocked the full height of the door. Top and bottom inverted channels provide stability and protection. Beveled hinge and lock edges allow for tighter installation tolerances, to ensure easier operation and eliminate binding and sticking.

FORT® Honeycomb construction is in compliance with SDI-100 standards (ANSI A250.8-1998). Hardware preperation, reinforcement and locations are in accordance with ANSI A- 250.6-1997 and SDI 129-00. Honeycomb core doors are recommended for interior and exterior applications. Honeycomb core have integral high resistance to impact damage. Calculated thermal conductivity factors and STC rating for Honeycomb core doors are as follows.

*U-Factor: 0.42

*R-Factor: 2.38

*STC: 31

*U-Factor:

Heat transmission in BTU per hour per square foot per degree fahrenheit of temperature difference from air to air for a complete panel section
(the lower the U-factor, the better the insulation)

*R-Factor:

Thermal resistance to retard heat flow, R represents a value of the thermal resistance, per hour per square foot of a typical panel section
(the higher the "R", the better the insulating value)

*STC-Ratings:

Sound Transmission rating that measures the amount of sound passing through a building product
(the higher the STC - Number the better the rating.)

FORT® Honeycomb door specification.

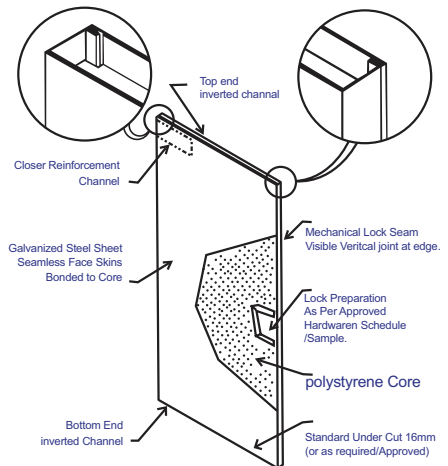
Construction	: FORT® Standard
Usage Class	: FORT® Usage class A & B.(SDI Level I, II, III & IV)
Door thickness:	: 44.5mm
Finish	: Factory Primed & Powder Coated
Steel sheet thickness	: 18ga (1.2mm), 16ga (1.6mm)
Core	: HONICEL paper-honeycomb
Cutout for hinges	: As per Hardware requirements.
Cutout for locks	: As per Hardware requirements.
Astragal	: On one leaf of double doors.
Flush bolt cutout	: As per Hardware requirements.
Door Closer Reinforcement	: Provided on all doors and frames.
Top/Bottom Channels	: Inverted U-Channel.
Fire Rating	: 3 hr Flush door, 1 hr with vision panel



FORT® Styrene Door Series

FORT® Styrene door has an expanded polystyrene core. The core is permanently bonded to door skins strengthening the structural integrity of the door, enhancing long term performance and durability, while significantly reducing the weight.

Polystyrene slab core is used mainly for exterior applications or where a greater temperature differential from one side of the door to the other is needed.



Minimum density of Polystyrene board used in **FORT®** Styrene doors is 1.25pcf(20Kg/m3)



Door edges are mechanically interlocked the full height of the door. Top & bottom inverted channels provide stability and protection. Beveled hinge and lock edges allow for tighter installation tolerances, to ensure easier operation and eliminate binding and sticking.

FORT® Styrene construction is in compliance with SDI-100 standards (ANSI A250.8-1998). Hardware preparation, reinforcement and locations are in accordance with ANSI A250.6-1997 and SDI 129-00.

Polystyrene core doors are recommended to be used in extreme hot/cold conditions. Calculated thermal conductivity factors and STC rating for polystyrene core doors are as follows

*U-Factor: 0.23

*R-Factor: 4.20

*STC: 25

FORT® Styrene door specification.

Construction	: FORT® Standard
Usage Class	: FORT® Usage class A & B. (SDI Level I, II, III & IV)
Door thickness	: 44.5mm
Finish	: Factory Primed
Steel sheet thickness	: 18ga (1.2mm), 16ga (1.6mm)
Core	: Expanded Polystrene
Cutout for hinges	: As per Hardware requirements.
Cutout for locks	: As per Hardware requirements.
Astragal	: On one leaf of double doors
Flush bolt cutout	: As per Hardware requirements.
Door Closer Reinforcement	: Provided on all doors and frames.
Top/Bottom channels	: Inverted U-Channel.
Fire Rating	: Not available with Polystyrene Core.



FORT® Urethane Door Series

FORT® Urethane door with a Polyurethane core. The core is permanently bonded to door skins strengthening the structural integrity of the door, enhancing long term performance and durability.

Polyurethane is used where extreme protection from rigid cold is a priority. It offers the lowest “U” value and the highest “R” factor of all the cores.

Door edges are mechanically interlocked the full height of the door. Top & bottom inverted channels provide stability and protection. Beveled hinge and lock edges allow for tighter installation tolerances, to ensure easier operation and eliminate binding and sticking.

FORT® Urethane construction is in compliance with SDI-100 standards (ANSI A250.8-1998). Hardware preparation, reinforcement and locations are in accordance with ANSI A250.6-1997 and SDI 129-00.

Polyurethane solid core is designed to provide efficient assembly for Arctic weather conditions. These are recommended for exterior applications. They have integral high resistant to impact damage. Calculated thermal conductivity factors and STC rating for polyurethane core doors are as follows.

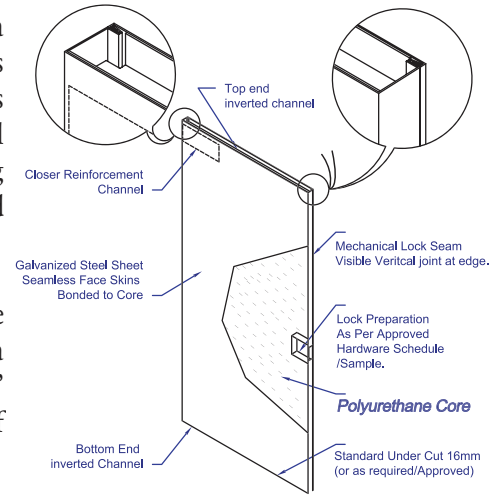
U-Factor: 0.09

*R-Factor: 11.10

*STC: 26

FORT® Urethane door specification.

Construction	: FORT® Standard
Usage Class	: FORT® Usage class A & B.
Door thickness	: 44.5mm
Finish	: Factory Primed
Steel sheet thickness	: 18ga (1.2mm), 16ga (1.6mm)
Core	: Polyurethane
Cutout for hinges	: As per Hardware requirements.
Cutout for locks	: As per Hardware requirements.
Astragal	: On one leaf of double doors.
Flush bolt cutout	: As per Hardware requirements.
Door Closer Reinforcement	: Provided on all doors and frames.
Top/Bottom channels	: Inverted U-Channel.
Fire Rating	: Not available with Polyurethane Core.





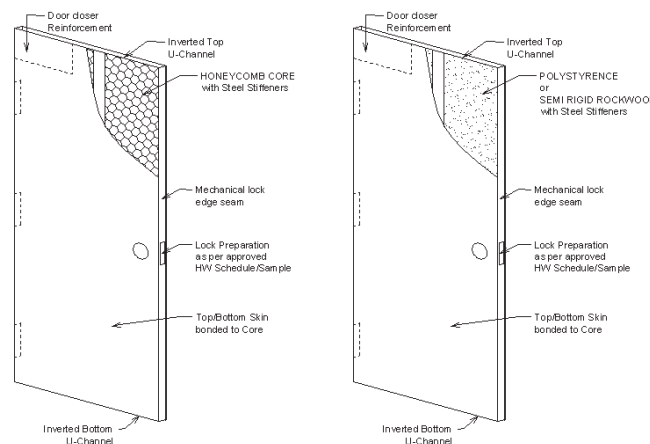
FORT® *stiffed* Door Series

FORT® *stiffed* door has vertical steel-stiffeners throughout the height of the door. The stiffeners can be of Z-section, U-Channel, Offset-channel or Hat-Sections welded to each skin of the door. Steel-stiffened core is the most reliable and durable construction.

Steel Stiffened doors are used for exterior doors, where rigidity is important. They are available in varying degrees of strength and quality. The thickness of the stiffeners can vary, the majority is made of 20 gauge steel. Heavier gauges can be used, particularly on security doors. The stiffeners are welded to each other at the top and bottom, and to the inside door skins. The cavities between two stiffeners can be filled with polystyrene or any insulating material. Lower gloss paint should be selected when finishing the door to reduce any welding marks that may be visible. Door edges are mechanically interlocked the full height of the door. Top & bottom inverted channels provide stability and protection. Beveled hinge and lock edges allow for tighter installation tolerances, to ensure easier operation and eliminate binding and sticking.



FORT® Stiffened construction is in compliance with SDI-100 standards (ANSI A250.8-1998). Hardware preparation, reinforcement and locations are in accordance with ANSI A250.6-1997 and SDI 129-00.



FORT® *Stiffened Core* door specification.

Construction	: FORT® Standard
Usage Class	: FORT® Usage class A & B (SDI level I, II, III, IV)
Door thickness	: 44.5mm
Finish	: Factory Primed
Steel sheet thickness	: 18ga (1.2mm), 16ga (1.6mm)
Core	: Steel Stiffeners with polystyrene or other material.
Cutout for hinges	: As per Hardware requirements.
Cutout for locks	: As per Hardware requirements.
Astragal	: On one leaf of double doors.
Flush bolt cutout	: As per Hardware requirements.
Door Closer Reinforcement	: Provided on all doors and frames.
Top/Bottom channels	: Inverted U-Channel.
Fire rating	: Steel Stiffened Honey Comb Core only



Hardware reinforcement **FORT®** doors and frames.

FORT® doors and frames are reinforced, drilled and trapped to receive mortised hinges, locks, latches strikes and flush bolts as required are in accordance with ANSI A115. series. *Specification for steel doors and frames preparation for hardware* and ANSI A250.6-1997 *Hardware on standard steel doors (Reinforcement Application)* ..

Minimum hardware reinforcing gages (as per-SDI-100)

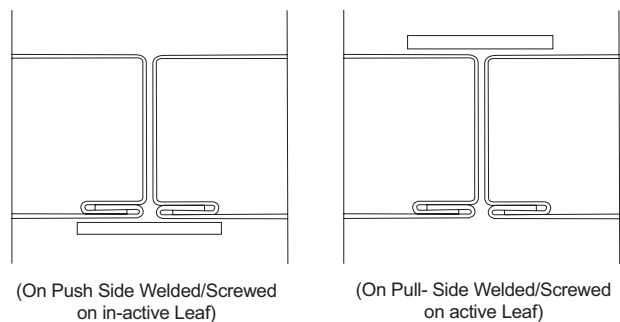
Hardware Item	Door			Frame		
	*MSG No.	**IP-in	***SI-mm	MSG No.	IP-in	SI-mm
Hinge (34.9 mm) Door	12	.93	2.3	12	.93	2.3
Hinge (44.4 mm) Door	10	.123	3.0	10	.123	3.0
Mortise Lock or Deadbolt	14	.067	1.6	14	.067	1.6
Bored Lock or Deadbolt	14	.067	1.6	14	.067	1.6
Flush Bolt Front	14	.067	1.6	14	.067	1.6
Surface Bolt	14	.067	1.6	14	.067	1.6
Surface Applied Closer	14	.067	1.6	14	.067	1.6
Hold Open Arm	14	.067	1.6	14	.067	1.6
Pull Plates and Bar	16	.053	1.3	16	.053	1.3
Surface Exit Device	14	.067	1.6	14	.067	1.6
Floor Checking Hinge	7	.167	4.2	7	.167	4.2
Pivot Hinge	7	.167	4.2	7	.167	4.2
Kick/ Push Plate	Not Required			Not Required		

* MSG No.Manufactures Standard Gages.

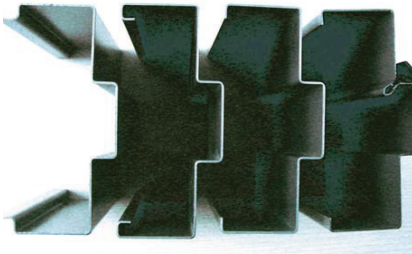
** IP-in.Imperial Inches.

*** SI-mm.System International Millimeters.

Astragal details on pairs Doors

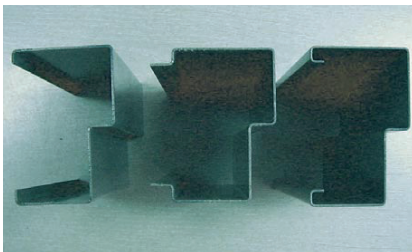


Flat Bar Astragal



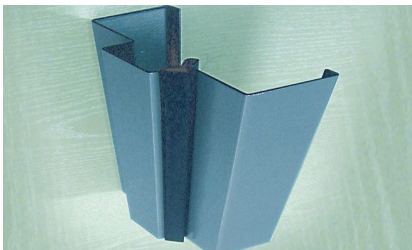
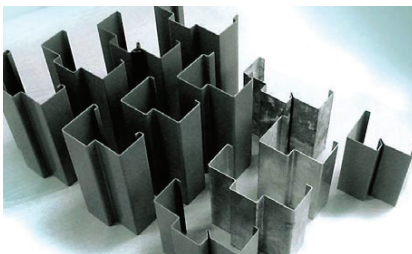
FORT® FRAMES

FORT® has a complete line of frames that are available in various gauges. **FORT®** Frames are available in various profile face dimensions, gauges and door opening sizes to suite any requirement in the construction industry today. Construction of **FORT®** Frames is in accordance to SDI 100 (ANSI A250.8-1998) *Recommended Specification for Standard Steel doors and frames*, published by SDI, Steel Door Institute.

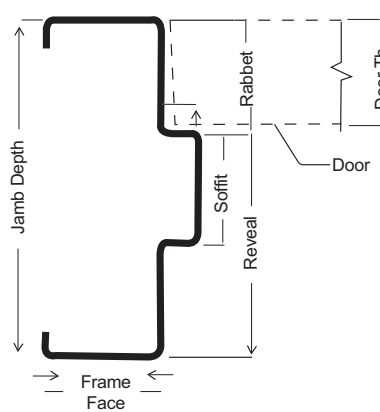


In addition to **FORT® Frames**, we offer **FORT® Screens**, **FORT® Borrowed Lites**, **FORT® Transom Frames**, **FORT® Slide Lites**, and many other custom configurations, which allows total design freedom in developing, aesthetically pleasing, functional units as required by the demands of today's architecture.

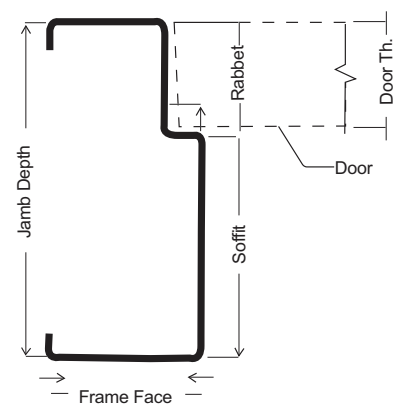
FORT® Frames standard profiles.



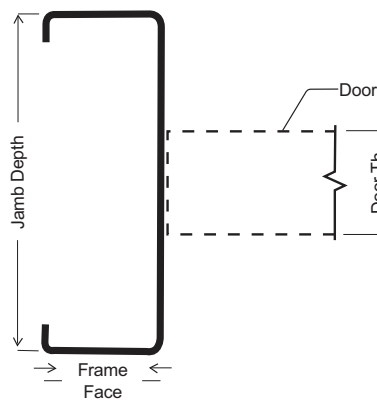
FORT® Groove Frame



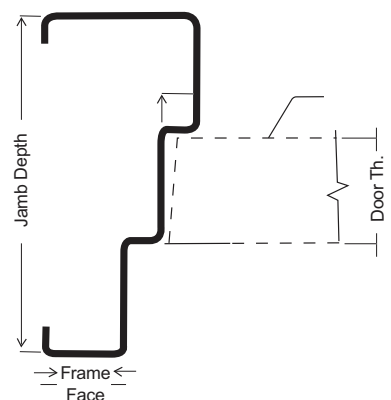
FORT Standard
Rabbet Frame.



FORT Standard
Single Rabbet Frame.

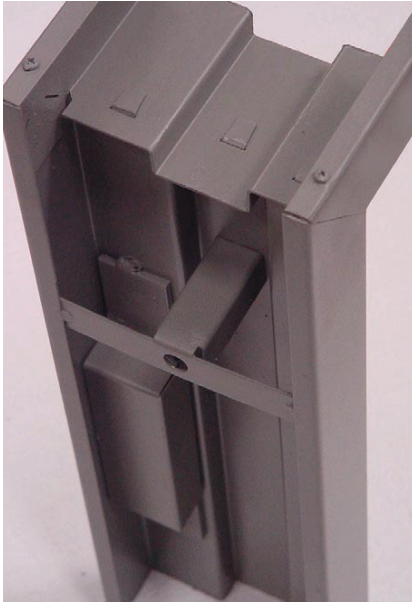


FORT Standard
Acting Frame.



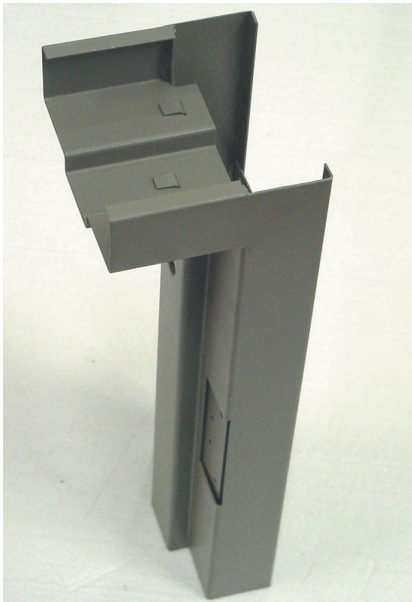
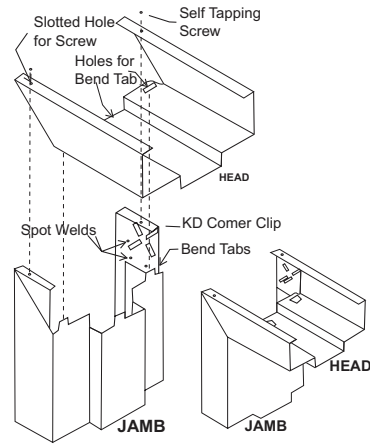
FORT Standard
Egress Frame.

FORT® Frames standard profiles.

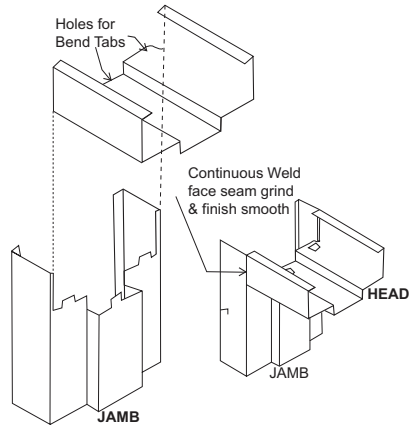


FORT® Frames corner details.

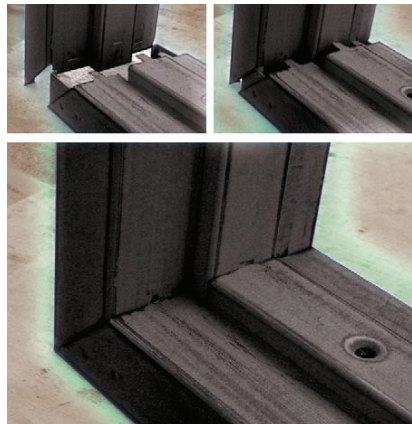
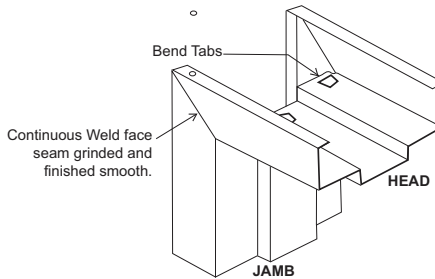
Knockdown Mitered corner joint



Butt corner joint welded frame

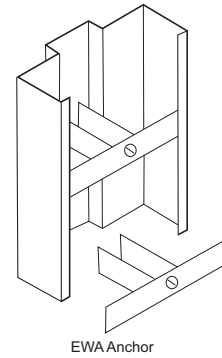
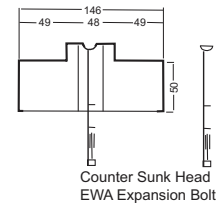


Mitered corner joint Welded Frame

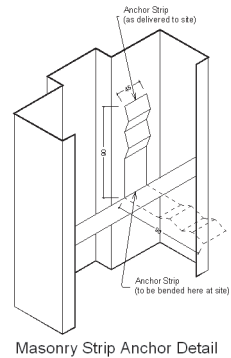
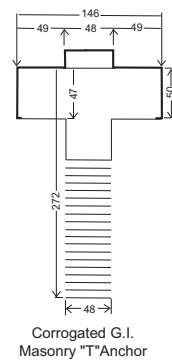


Fixing details.

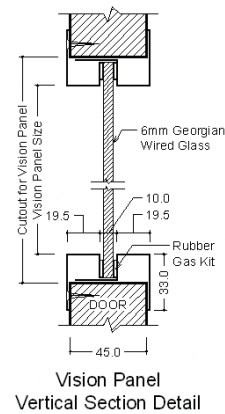
Existing Wall Anchor (EWA).



Masonry Strip Anchor Details.



FORT® Vision Panel trim detail.



FORT® Door Handing detail.

The term “handing” or “hand” of a door is applied to doors, frames and hardware so as to indicate the direction of the swing of the door. Basically the door will be either Right Hand (RH) or Left Hand (LH). However due to the door location and hardware we have to use the following terms.



Left hand
Hinges on left,
opens inward



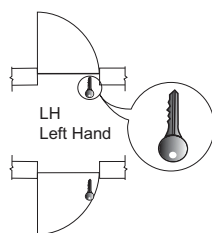
Left hand reverse
Hinges on left,
opens Outward



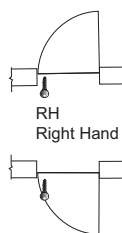
Right hand
Hinges on right,
opens inward



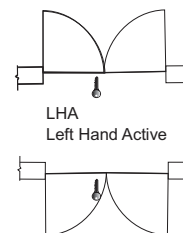
Right hand reverse
Hinges on right,
opens outward



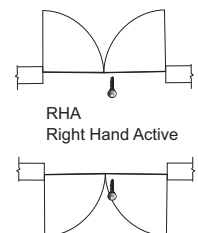
LH
Left Hand



RH
Right Hand



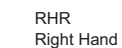
LHA
Left Hand Active



RHA
Right Hand Active



LHR
Left Hand Reverse



RHR
Right Hand Reverse



LHRA
Left Hand Reverse Active



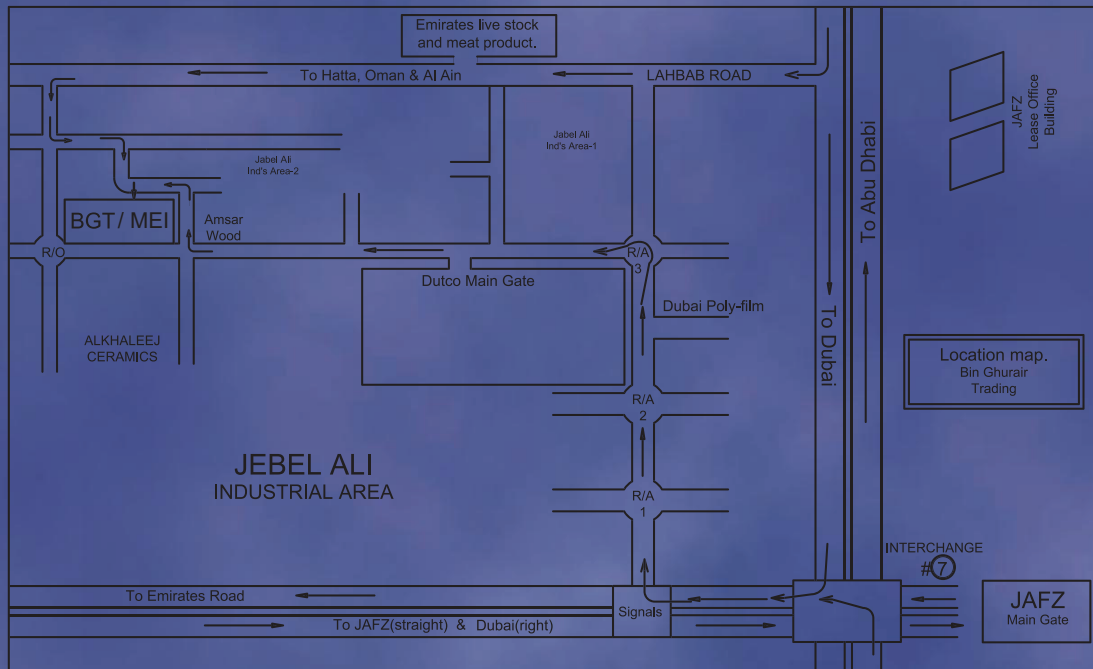
RHRA
Right Hand Reverse Active

Single Doors

Double Doors

DOOR HANDLINGS BASED ON NORTH AMERICAN STANDARDS

Bin Ghurair Trading Location Map.



بن غرير التجار
Bin Ghurair Trading