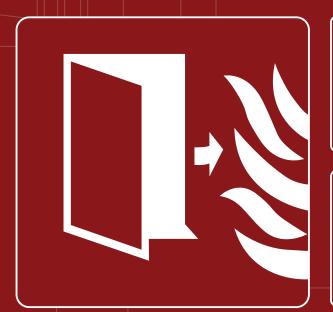


# Nasr Awwadeh Factory

For Fire Fighting and Safety Equipment

# FIRE RATED DOORS



















www.naffire.com











www.bgtdubai.com





Bin Ghurair Trading was incorporated in 1990, initially starting as a specialty supplier of Fire Rated & Non Fire Rated steel doors, frames & ironmongeries, 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. Now we are full fledged with many types of FORT® Fire rated Doors branched out in GCC Countries. Bin Ghurair Trading has always been a front-runner in the architectural supply products.

Since there is a joint cooperation between BGT and its sister Company the Middle East Insulation LLC. (Members of Abdulla & Hamed AI Ghurair Investments) for design, manufacturing, trading and installation of FORT® Doors, Bin Ghurair Trading and Middle East Insulation L.L.C., have obtained a Quality Management System. It is certified in compliance with the international standard ISO 9001-2008. Certification of this quality system helps ensure that the company has the system in place to meet customer needs.





#### **BIN GHURAIR TRADING**

Bin Ghurair Trading has been fulfilling the requirements for Fire Rated & Non Fire Rated 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 Fire Rated & Non Fire Rated 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.

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

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, 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 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. Steel doors and Frames

#### Fire Rated Hollow Metal Steel Door & Frame

- I. UL 10B/10C: 90 Min Fire rating
- II. BS476: Part 22 (1987) from BRE (UK) for 180Min FR
- III. BS476: Part 22 (1987) from Exova Warrington for 240Min FR

#### Non Fire Rated Hollow Metal Steel Door & Frame

#### Special Door types

- I. Acoustic door (Up to STC-43)
- II. Temperature Rise Rated doors (TRR doors)
- III. Smoke Proof Doors

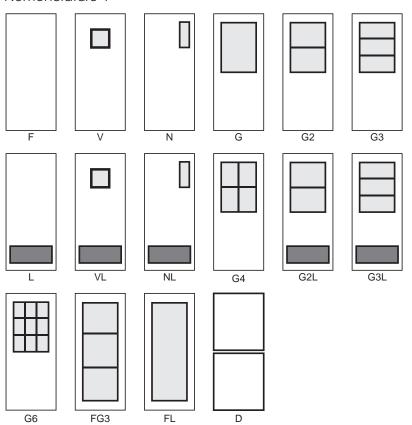
#### **Builders Hardware (Ironmongery)**

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



# 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 'Recommended Standard door type Nomenclature".





- F. 'Flush door"
- V. "Vision Lite Door", 250mm Square-lite.
- N. 'Narrow Lite Door", near the lock stile.
- G. 'Glass Door"
- L. "Louvered door"
- FL. "Full Louvered Door"
- D. 'Dutch Door", A two panel door, separated horizontally

#### FORT® Standard Colours (RAL)

Doors can be make RAL standard colour finish even though the colours shown below are the most using

#### FORT® Wood Grain Finish (WF)

FORT® Wood Grain Doors offer the 'elegance of wood' with 'strength of steel'.











#### FORT® Doors are available with many features

- Non-Handed
- Handed
- Seamed edge
- Seam edge track welded and filled
- Polystyrene core doors NFR
- Honeycomb core doors BS476 from Exova Warrington for 240Min FR
- Polyurethane core doors NFR
- Rock wool, Steel stiffened core doors UL 10B/10C:
   90 Min Fire rating
- Steel Stiffened with any option of core
- Oversize doors and frames
- Double acting doors NFR
- Transom panels
- Vertical or horizontal removable or non removable mullions
- Bi-fold doors
- Custom size doors
- Louver doors
- Doors with variety of vision panels in various sizes and shapes
- Concealed hardware preparation
- Mortise / Cylindrical lock preparation etc.
- Security Doors

# Door Handles, Locks & Hinges

BGT offers the broadest range of full mortise hinges in a variety of metals, finishes, sizes, and weights to meet all your load bearing and security applications. They include two, three, and five knuckle styles, swing clear hinges, wide throw hinges, anchor hinges, electric hinges, institutional hinges and pivots.

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
- 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, UK.

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





















# FORT® Doors & Frames Fully Automatic Production

Salvagnini S4X+P4X line for production of our FORT doors which is a fully automated facility for shearing, Punching & Bending. The first prototype dates back to 1979 and is a landmark in the development of systems for integrated logistics. It remains the most ef cient flexible manufacturing system (FMS) on the market today Guaranteed flexible automation and kit production

This new system punches, shears and bends metal parts from standard blanks with no intermediate handling of the partly machined workpieces.

Automatic set-up in masked time ensures excellent levels of productivity and makes "batch one" production truly possible. The multi-press head, integrated shear, proprietary software, Punch&Cut function and flexible universal bending tool make kit and unmanned "lights-out" production a reality.

#### **Exceptional modularity**

The S4X+P4X lines can be configured in a variety of ways, from the simplest to the most complex and highly automated, with devices for loading and unloading to and from automatic storage systems.















# **Manufacturing of FORT® Doors**

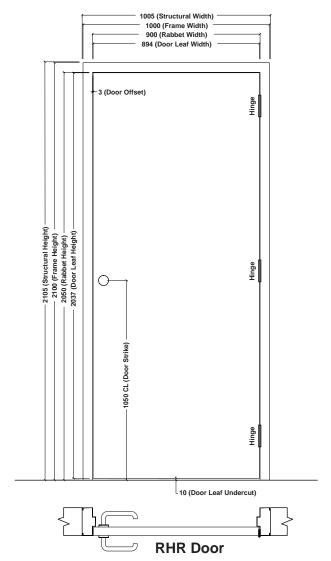
FORT® steel doors and frames are manufactured in accordance to SDI 100 (ANSI A250.8-1998) Recommended specification for standard steel doors and frames published by Steel Door Institute (SDI) of America.

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) and Galvannealed 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.





#### **POWDER COATING LINE**

#### **SPRAY PRETREATMENT TUNNEL**

The hydraulic plant is composed by a series of centrifugal pumps, made of, conveying liquids to the respective spray ramps. It is provided with flanges, unions, adjustment valves and pressure control manometer.

#### **DRYING OVEN**

The oven is of the type with warm air forced circulation, with incorporated generator. It mainly consists of two chambers. The first one acts as heat exchanger housing, the second one acts as passage and storage area for the pieces to be treated.

#### LIQUID COATING APPLICATION BOOTH

The spray booths are manufactured with the use of materials of primary brands that guarantee efficiency and durability. The structure is modular and entirely made of galvanized sheet.

#### **POLYMERIZATION OVEN**

The oven is of the type with warm air forced circulation, with incorporated generator. It mainly consists of two chambers. The first one acts as heat exchanger housing, the second one acts as passage and storage area for the pieces to be treated.





#### PROJECTION WELDING MACHINES

#### **CAPACITOR DISCHARGE WELDING MACHINES**

In this resistance welding process, a bank of capacitors is charged to a pre-set voltage and then discharged through a pulse transformer. Very high current is passed in very short time resulting in fantastic projection welding quality.

This technology with Fully digital and micro-controller based is ideal for projections welding.











# FORT® Honeycomb Door Series

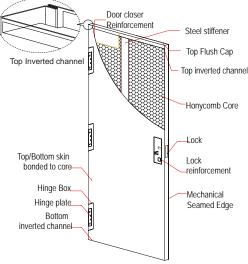
FORT® Honeycomb door has a paper honeycomb core. The core is permanently bonded to door skins strengthening the structural integrity of the door, enhancing long term performance and durability, while significantly reducing the weight.

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. The rigid honeycomb structure is integrated 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 features. 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. Bevelled 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 preparation, 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.





#### 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 (1.5mm), 14ga (2mm)

Core : HONICEL paper-honeycomb

Cut out for hinges : As per Hardware requirements.
Cut out for locks : As per Hardware requirements.
Astragal : On one leaf of double doors.

Flush bolt cut out : As per Hardware requirements.

Door Closer Reinforcement : Provided on all doors and frames.

Top/Bottom Channels : Inverted U-Channel.

Fire Rating (As per BS476: Part 22) : 4 hr Flush door, 120 min. with vision panel.





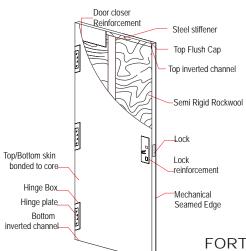
#### FORT® Rockwool Door Series

FORT® stiffened 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. Rockwool-stiffened core is the most reliable and durable construction.

Rockwool Stiffened doors are used for exterior doors, where rigidly 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 Rockwool 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. Bevelled 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. Rock-wool Insulated have integral high resistance to Impact damage. Calculated thermal conductivity factors and STC rating for Rock-wool Insulated doors are as follows.





FORT® Rockwool Core door specification.

Core : Steel Stiffeners with rockwool

Fire rating (As per UL10B/10C): 90 min for flush door & with Vision panel

Vision panel (Max. area) : 100 Sq.Inch as per UL10B/10C

#### \*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 bigger 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)

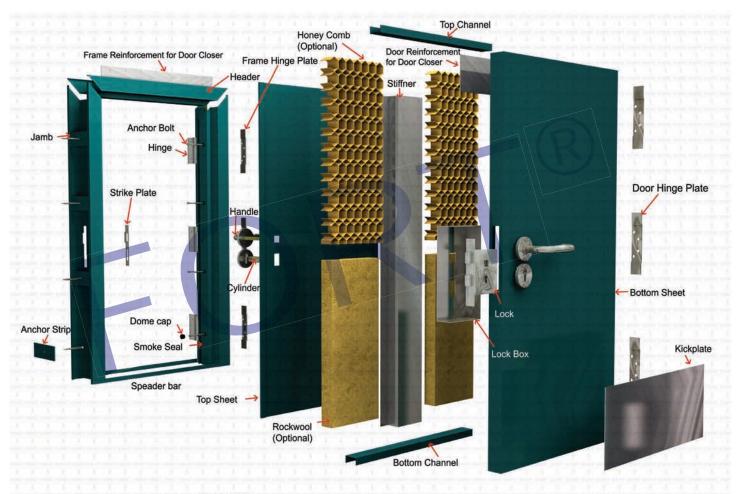
#### FORT® **Urethane Door Series** (Non Fire Rated)

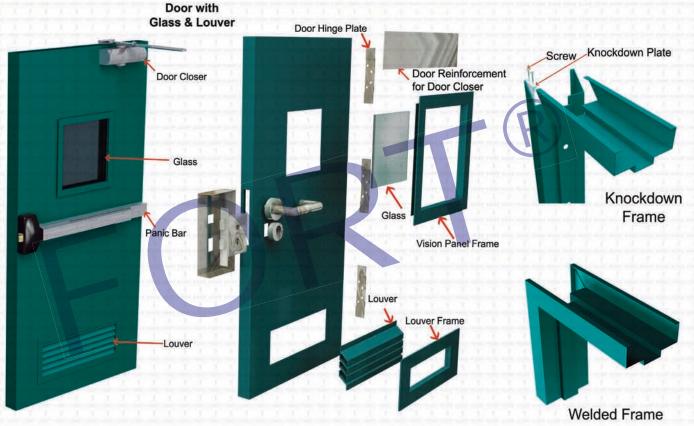
FORT® Urethane door with a Polyurethane core. The core is permanently bonded to door skins strengthening the structural integrity of the door, enhancing long term performance and durability.

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.

U-Factor: 0.09 \*R-Factor: 11.10 \*STC: 26









# FORT® Doors Usage Guide.

FORT® doors conform to SDI 108-9 9 "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.

Stan	dard Steel Door Gra	FORT® <b>Usage Class</b>				
Level		Door Skin Thickness			USAGE	Door Skin
		Msg. No.	Inches	mm	USAGE	Th. (mm)
ı	Standard Duty	20	0.032	0.80	CLASS A	1.20
II	Heavy Duty	18	0.042	1.00	CLASS A	
III	Extra Heavy Duty	16	0.053	1.20	CLASS B	1.50
IV	Maximum Duty	14	0.067	1.50	CLASS B	

i citi daga ciasa							
USAGE	Door Skin						
USAGL	Th. (mm)						
CLASS A	1.20						
CLASS B	1.50						

# 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.







## Hardware reinforcement FORT® doors and frames.

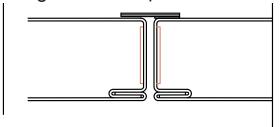
FORT® doors and frames are reinforced, drilled and trapped to receive mortised hinges, locks, latches strikes and flush bolts as required are in accordance with ANSI A115. series. Specification for steel doors and frames preparation for hardware and ANSI A250.6-1997 Hardware on standard steel doors (Reinforcement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

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

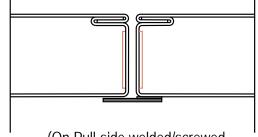
Hawah waxa Itana		Door		Door			
Hardware Item	MSG No.	**IP-in	***SI-mm	MSG No.	I P-in	SI-mm	
Hinge (44.4 mm) Door	10	.123	3.0	10	.123	3.0	
Mortise Lock or Deadbolt	14	.067	1.5	14	.067	1.6	
Bored Lock or Dead bolt	14	.067	1.5	14	.067	1.6	
Flush Bolt Front	14	.067	1.5	14	.067	1.6	
Surface Applied Closer	14	.067	1.5	14	.067	1.6	
Hold Open Arm	14	.067	1.5	14	.067	1.6	
Pull Plates and Bar	16	.053	1.3	16	.053	1.3	
Surface Exit Device	14	.067	1.5	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			

<sup>\*</sup> MSG No. Manufactures Standard Gages.

#### Astragal details on pairs Doors



(On push side welded/screwed on in-Active leaf)



(On Pull-side welded/screwed on Active leaf)







<sup>\*\*</sup> IP-in Imperial Inches.

<sup>\*\*\*</sup> SI-mm. System International Millimetres.

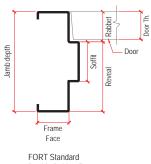


#### FORT® FRAMES

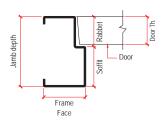
FORT® has a complete line of frames that are available in various gauges. These Frames are available in various profile face dimensions, gauges and door opening sizes to suite any requirement in the construction industry today. Construction of FORT® Frames is in accordance to SDI 100 (ANSI A250.8-1998)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

In addition to FORT® Frames, we offer Screens, Borrowed Lites, Transom Frames, Slide Lites, and many other custom configurations, which allows total design freedom.

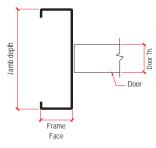
#### FORT® Frames standard profiles.



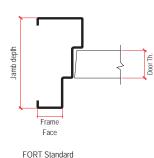
Double Rabbet Frame



FORT Standard Single Rabbet Frame.



FORT Standard Double Action Frame.



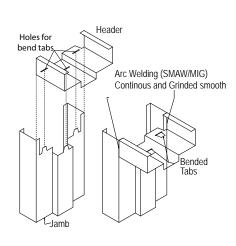
Egress Frame.

# FORT® Frames Corner Details.

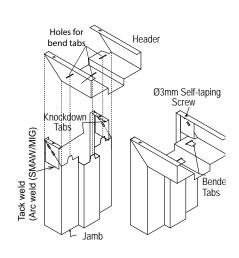




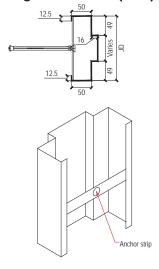
### Butt corner joint welded frame



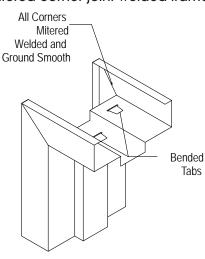
#### Knock-down Mitered corner joint



#### Existing Wall Anchor (EWA).



#### Mitered corner joint welded frame

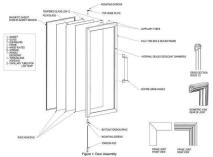




Alternative to steel doors, special designed fully glazed **fi**re rated and non-**fi**re rated glazed doors for traditional store front and entrance system,

Narrow stiles and rails with concealed hardware for good aesthetic view, increased glazed area slimmer profile integrity and insulation application special fireresistive infill







### Features

- Seamless welded design
- Alternate Stainless-steel material
- Alternate glass specification
- Additional top panel
- Knock down frame /Groove frame with kerf gasket
- Smoke rated as per UL1784 / BS476 section 31.1/BSEN 1634-3
- Acoustical



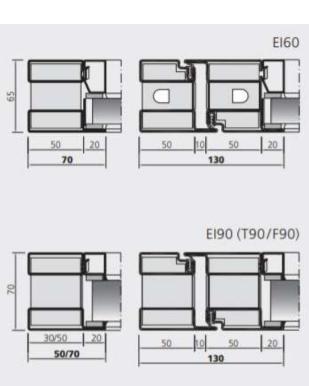
Thermally broken and insulated doors and partitions

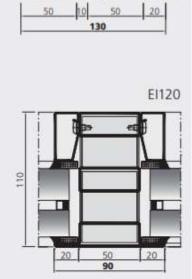
FUEGO is a thermally broken and insulated profile system, suitable for internal applications where there is are requirement for EI fire resistance ratings

















Non-thermally broken doors and partitions

PRESTO is a non-thermally broken profile system, suitable for both internal and external applications

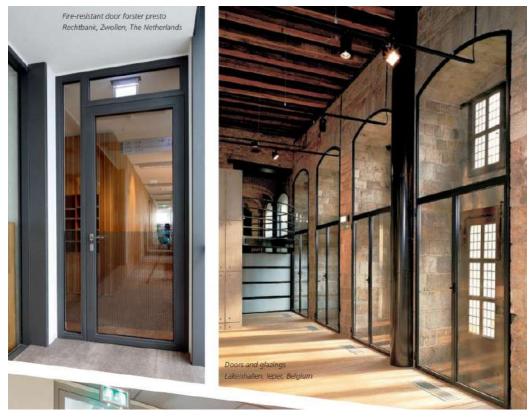
where there is a requirement for E or EW fire performance

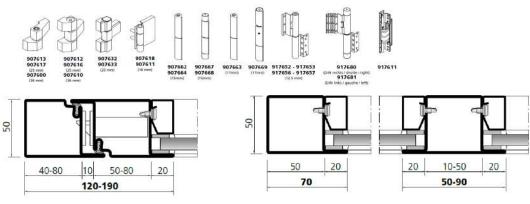
The system also provides air, water, acoustic and

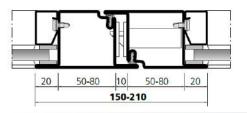
U-value ratings













They allow natural light penetration that adds a contemporary feel to any workspace. This is because they increase the visibility across spaces, making them ideal for creating meeting rooms and offices for quiet work and meetings.

Our single glazed systems can accommodate a range of glass thicknesses to suit the required acoustic performance and are more cost-effective than double glazed systems. This makes them a great choice for projects with a tighter budget.







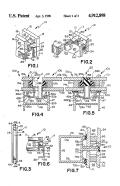


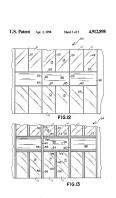
A glass butt joint for curtain wall construction is formed from a novel insulating glass panel unit having a peripheral edge with an outwardly opening U-shape and a novel pair of brackets adapted to hold a pair of adjacent panel units to a supporting framework member such as mullion or rail located within the interior of a building thereby providing an exterior glass surface which is mullion and/or rail free.

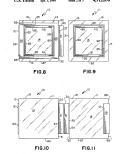










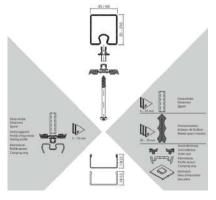


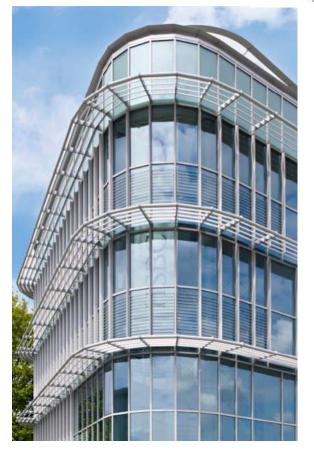


Thermally broken, Stick Façade, which is suitable for high performance (air, wind, water, acoustics, U-values), fire, manual attack, ballistic and blast resistance applications



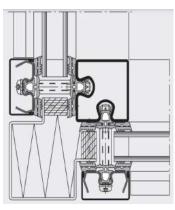














E.T.E.M. blast, bullet proof, ballistic doors are suitable to a wide range of applications, from military sector to industrial, civilian and public sectors. We manufacture burglar resistant bullet proof and blast doors to protect people and belongings in oil and gas facilities, airports, subways, train stations, banks, embassies, public and government buildings, panic rooms, IT server rooms.

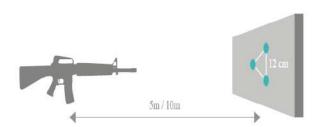




Foto / Photo: Beschussamt Ulm Nr. / No.: S 19 0200 04; B08



Foto / Photo: Beschussamt Ulm Nr. /No.: \$ 19 0200 04; 809





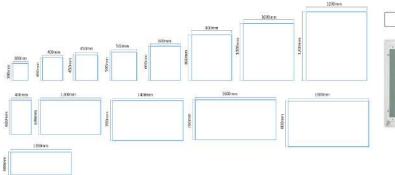




Fire rated access doors and panels are designed for privacy and easy access to areas behind walls or ceilings while a fire rated access panel is specifically manufactured with compliance to fire safety standards. For your commercial or residential construction project, installing the right fire rated door will be very useful in case of fire outbreaks.





















Linen chute doors are side hung on stainless steel hinges, with either separate or master keyed locks. The doors are fully self closing on an efficient hydraulic self closer. Chutes from are very convenient, simple and low cost method of controllingand disposing of refuse and linen.

Chutes meet the most stringent requirements of environmental health and safety. Chutes are used as original equipment in new buildings, such as: Hotels, Hospitals, High Rises and Residential Towers.





Bin Ghurair Trading offers full range of detention product requirements for cell doors, cell toilet, pedestrian swing gate, etc., designed as per international standards.

Prison Doors, Jail Doors, Detention Doors, Grills

Detention Doors can be customized to fit any combination of door specification. Our doors and frames are used as prison doors and jail doors as well as in many other security applications. BGT offers full range of security cell grills designed to meet the international standard requirements for the Detention Product Requirements.

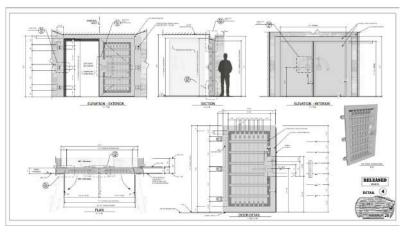


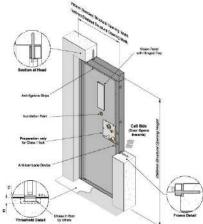
















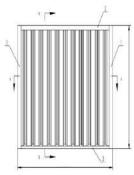
The sand trap louver door is used as pre-filter for the protection of air conditioning plants, Electrical substation and generator rooms in areas exposed to extreme levels of industrial pollution. It has a degree of separation of sand and large dust particles, even in cases of high dust concentrations.

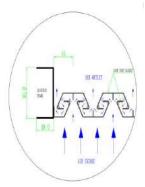


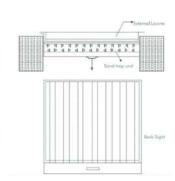














When the door opens, both door panels fold simultaneously and swivel to the sides. This creates large passages although the overall system width is rather small. In addition, the hinges are of jam-free design and therefore especially safe.

Folding Doors have more than two panels. They can be used as internal or external room dividers and can be made from a variety of materials. Most Folding Doors are glazed with wood, aluminum, or upvc panels.



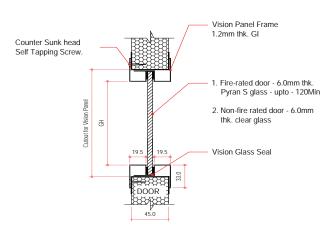








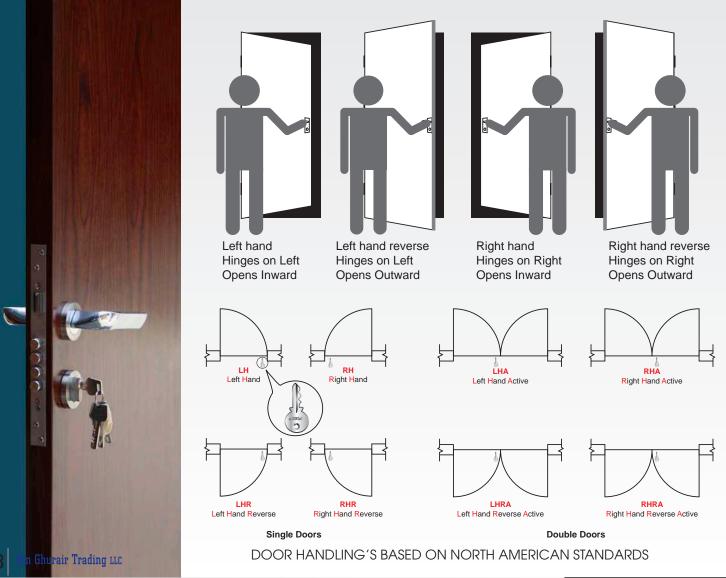
#### FORT® Vision Panel Trim Detail.





#### 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.





# 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.

# Delivery Schedule.

BGT offers the following Delivery Schedules<sup>1</sup>

- 1. QUICK SHIP 2 weeks<sup>2</sup> 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

