

PROTECTION AGAINST FORCED ENTRY, MANUAL ATTACKS & BALLISTIC ATTACKS.









CERTIFIED HIGH SECURITY DOORS









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Introduction

KAAVAL Security Systems & Equipment Company is an ISO certified company established in 2012 which provides security systems, products, integration and engineering solutions in Kuwait, Middle East and India.

Working with our partners around the world, regular training from manufactures and years of experience made us leaders in this industry to offer cost effective, technically advanced and durable products and systems for the protection of people and assets against forced entry, manual attacks, ballistic attacks & explosions.

Our internationally trained sales and technical staff exceed industry standards in consultancy, survey, design, procurement, installation and maintenance in security and automation field.

Our doors are using attack resistant materials, locks and assemblies for the protection of people and assets against bullet, blast and physical attacks.

Our offerings serve Government & Private offices, VIP offices, Document Rooms, Cash offices, Courts, Banks, Control rooms, Data centers, Embassies, Consulates, Secure receptions, Prisons, Military stores and offices, Jewelry & Watch Showrooms, Money exchanges, Malls & Residential Villas – any building that requires high levels of security.

We provide different types of Tested and Certified Security Doors and windows. These doors are suitable for different applications. The selection should be made as per the risk assessments.

- 1. Certified Security Doors
- 2. External Security Doors for Entrances and External applications
- 3. High Security Vault Doors and Grill Doors for Vaults Rooms and Security Rooms.
- 4. Certified High Security Doors & Windows (Burglary / Ballistic attacks & Blast resistant)

Our solutions can be provided according to the level of Security required for the places as per the value and importance of the assets to be protected in that area or room using tested and certified products.

Our Security Doors are tested & Certified as RC 3, which are normally used for Residential Strong Rooms in Villas, Watch & Jewellery Shops.

Our Vault Doors are having different Grades and certified by ECB-S and UL.

Certified High Security Doors & Windows are certified against forced entry, manual and ballistic attacks certified up to FB7 according european standard DIN EN 1522 and Burglar resistant are certified to RC5 according DIN EN1627 to EN1630. Also we provide Explotion proof Windows & Doors.

Different designs and finishes are available to match the surrounding profiles of the room or the building. We stock spare parts, accessories and Locks to provide quick service supports to our clients.

The doors and windows can be also tailor made to meet specific size, furnishing, locking and surface requirements. Our solid or glazed products are beaded from inside the property, thereby removing the risk of any panels of glass being taken out from the outside by intruders.

With over 25 years of experience in the Security industry with excellent project references, we are well placed to meet your security requirements.

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شركة KAAVAL لأنظمة ومعدات الأمن هي شركة حاصلة على شهادة الأيزو تأسست في عام ٢٠١٢ وهي توفر أنظمة ومنتجات أمنية ودمج وحلول هندسية في الكويت والشرق الأوسط والهند.

من خلال العمل مع شركائنا في جميع أنحاء العالم ، جعلنا التدريب المنتظم من المصنّعين وسنوات من الخبرة روادًا في هذه الصناعة لتقديم منتجات وأنظمة متينة من حيث التكلفة ومتقدمة تقنيًا ودائمة لحماية الأشخاص والأصول من الدخول القسري ، والهجمات اليدوية ، والهجمات البالستية والانفجارات.

يتفوق فريق المبيعات والموظفين الفنيين المدربين دوليًا لدينا على معايير الصناعة في الاستشارات والمسح والتصميم والمشتريات والتركيب والصيانة في مجال الأمن والأتمتة.

أبوابنا تستخدم مواد وأقفال وتجميعات مقاومة للهجوم لحماية الأشخاص والأصول ضد الرصاص والانفجارات والهجمات الجسدية.

عروضنا تخدم المكاتب الحكومية والخاصة ، مكاتب كبار الشخصيات ، غرف الوثائق ، مكاتب النقد ، المحاكم ، البنوك ، غرف التحكم ، مراكز البيانات ، السفارات ، القنصليات ، الاستقبالات الآمنة ، السجون ، المخازن والمكاتب العسكرية ، معارض المجوهرات والساعات ، الصرافة ، مراكز التسوق والفلل السكنية - أي مبنى يتطلب مستويات عالية من الأمن.

نحن نقدم أنواعًا مختلفةً من أبواب ونوافذ الأمان المختبرة والمعتمدة. هذه الأبواب مناسبة لمختلف التطبيقات. يجب أن يتم الاختيار حسب تقييمات المخاطر .

- ١. أبواب الأمان المعتمدة
- ٢. أبواب الأمان الخارجية للمداخل والتطبيقات الخارجية
- ٣. أبواب خزائن عالية الأمان وأبواب شواء لغرف الخزائن وغرف الأمن.
- ٤. أبواب ونوافذ معتمدة عالية الأمان (السطو/الهجمات البالستية ومقاومة الانفجار)

يمكن توفير حلولنا وفقًا لمستوى الأمان المطلوب للأماكن وفقًا لقيمة وأهمية الأصول المراد حمايتها في تلك المنطقة أو الغرفة باستخدام منتجات تم اختبارها واعتمادها.

يتم اختبار واعتماد أبواب الأمان الخاصة بنا باعتبارها RC »، والتي تُستخدم عادةُ للغرف السكنية القوية في الفلل ومحلات الساعات والمجوهرات. تتمتع أبواب Vault لدينا بدرجات مختلفة ومعتمدة من قبل ECB-S و UL.

تم اعتماد الأبواب والنوافذ عالية الأمان المعتمدة ضد الدخول القسري ، والهجمات اليدوية والباليستية المعتمدة حتى FBv وفقًا للمعايير الأوروبية Noyy DIN EN ومقاومة السرقة المعتمدة لـ RC وفقًا لـ DIN EN 170 إلى EN 170. كما نقدم نوافذ وأبواب مقاومة للانفجار.

تتوفر تصميمات وتشطيبات مختلفة لتتناسب مع الملامح المحيطة للغرفة أو المبنى. نقوم بتخزين قطع الغيار والملحقات والأقفال لتوفير دعم الخدمة السريعة لعملائنا.

يمكن أيضًا أن تكون الأبواب والنوافذ مصممة خصيصًا لتلبية متطلبات حجم وتأثيث وقفل ومتطلبات سطح معينة. إن منتجاتنا الصلبة أو المزججة مزخرفة بالخرز من داخل مكان الإقامة ، وبالتالي إزالة خطر خروج أي ألواح زجاجية من الخارج من قبل الدخيل.

مع أكثر من ٢٥ عامًا من الخبرة في صناعة الأمن بمراجع مشروع ممتازة ، فنحن في وضع جيد لتلبية متطلباتك الأمنية.





BURGLARY Resistance Classes & Values										
Class (EN 1627)	Burglar	Static tests (EN 1628)	Dynamic tests (EN 1629)	MANUAL TESTS - ATTEMPTED FORCED ENTRY (EN 1630)						
				Tool set	Illustration of some Tools	Contact duration	Total Test duration			
RC1	Occasional	300 kg	50 kg 450 mm	Small simple tools, physical force		1	/			
RC2	Occasional	300 kg	50 kg 450 mm	Above + simple tools (screwdriver, plers, wood/plastic wedges, saws)		3 min	15 min			
RC3	Moderate	600 kg	50 kg 750 mm	Above + additional (screwdrivers, crowbar, small hammer, hand drill, drift pin)		5 min	20 min			
RC4	Experienced	1000 kg	/	Above + heavy hammer, axe, wood chisel, metal chisel, bolt-cutter, hand chisel and portable drill	111777	10 min	30 min			
RC5	Experienced	1500 kg	/	Above + electric tools (drill, portable jigsaw, sabre saw, angle grinder)		15 min	40 min			
RC6	Experienced	1500 kg	/	Above + sledgehammer, steel wedge, poweful electric tools (grinder, impact hammer)	17120	20 min	50 min			

BAL Class	LISTIC	Resistance Weapon type	Classe	es & Values	BULLET Shape	Structure	Weight (g)	Test con Shooting dist. (m)	ditions Velocity (m/s)
FB1	Rifle		22 LR	-	Round nose	• lead	2.6	10	360
FB2	Automatic pistol		9 mm Luger		Round nose	• full steel jacket • soft core (lead)	8	5	400
FB3	– Hand gun		357 Magnum		Coned bullet	• full steel jacket • soft core (lead)	10.2	5	430
FB4	– Hand gun		44 Rem. Magnum		Flat nose	• full steel jacket • soft core (lead)	15.6	5	440
*AK47	, Kalach- nikov		7.62 x 39		pointed	full steel jacketsoft core (lead) (niv. 2)	8	10	700
FB5	Assault rifle		5.56 x 45		pointed	copper jacketsteel coresteel penetrator	4	10	950
FB6	– Rifle	FA	7.62 x 51		pointed	• full steel jacket • soft core (lead)	9.5	10	830
FB7	Rifle	PA	7.62 x 51		pointed	copper jacketsteel hard core	9.8	10	820

1. Certified High Security Doors
RC3 - Certified High Security Doors
(suitable for indoor use)

ELITE Security Doors - Wooden Series







General details of a Tested & Certified Security Door (RC3)

Elite wooden finish



Different Colour Finishes are available

EWF-1 Walnut Finish

EWF-1 Teak Finish

EWF-1 White Finish







- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.







2. Security Doors for Residential Vault / Strong Rooms RC 3 Certified (suitable for indoor use)

Monoblock Series.

MB1/JMW Walnut Finish

MB2/MT Teak Finish

MB3/White Finish







- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.



Deluxe Series.

DL1/BL



DL1/BL



Deluxe series is our most popular double door with decorative fittings including 6 mm tempered glass surface on both side of steel leaf, to add to the aesthetic appeal. Aluminum & Wooden frame coating can be done optional.

- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.







2. Neoclassic Series.

NC1/ANG

NC2/WT

NC3/BL







Neoclassic series is a single series door excellent for door entrances giving an exquisite and elegant view of your door way with decorative fittings including Special fiber surface resistant to external front over the front steel leaf, to add to the aesthetic appeal. Aluminum & Wooden frame coating can be done optional. Inside frame has decorative aluminum profile

- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.



3. UV Sunny Series.

UVS1/GL

UVS2/WT

UVS3/WLN







Sunny UV Glass series can be manufactured as single leaf and double leaf. Sunny UV Glass series Special PVC laminated surface with chrome detail and 6+52+6 Light permeable tempered reflective glass. Aluminum & Wooden frame coating and Inside frame with decorative aluminum profile can be done optional.

- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- · 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.







4. Double Series.

DS1/GWSD

DS2/GWDD



DS3/WLDD



DS4/WLSD



DS5/BLDD



DS6/WTSD



Double series is offers double door of different designs from decorative fittings including 6 mm tempered glass surface to Special silver laminated surface over front steel leaf, to add to the aesthetic appeal. Aluminum & Wooden frame coating can be done optional. Special modelling MDF surface over front steel leaf can be done upon request

- 2 layers of 1.2mm Galvanized Steel Sheets are provided inside the door for high security
- Polyurethane is filled between these Galvanized Steel Sheets.
- Six numbers of Dead Bolts are fixed on the rear side
- Multi Lock Central Locking System with 14 Active Bolts
- · Anodized Aluminum Shield around the Door leaf
- Security Hinges, Door Handle & Door Viewer
- 2mm thick frame
- Frame suitable for 18 to 24cm wall thickness.



4. Vault Doors / Strong Room Doors from Chubbsafes - UK

Chubb vault doors are designed to be used by banks and others to protect cash and valuables. Security is an ever-increasing problem, facing by bankers and businessmen today. To get maximum protection and security for your cash and valuables are solely depends on how you construct your Vaults and which type of Vault Door you use.

CHUBB produce different types vault doors with different security levels. We can provide free consultation regarding the construction of Vaults or Selection of Vault Doors and its delivery and installation.

CHUBB use different types of Certified Locks like, Keylock, Mechanical Combination Locks and Electronic Combination Locks. User can decide the configuration of the locks. Double or Triple Locks can be used to control the Access of the Vault by two or three persons.

Emergency Access Doors can be provided separately or as built in. Day Gate or Grill Door can be provided for easy entry in the day time working hours.

Weight of the door, delivery & shifting of the door to be considered if it is in the basement or on upper floors.







Lock options

STANDARD LOCKS



KEYLOCK The door is secured by a 8-lever double bitted key lock from Germany



KEYLESS COMBINATION LOCK

Secured by a 3-wheel Keyless Combination Lock capable of 1,000,000 changes of code. The operation of this lock is simple. The code can be changed easily and security can be maintained over the safe whenever there is a change of staff.

OPTIONS



LOCKS: **Electronic Lock**

Adial Check LOck can be fitted as an option to the combination lock.

Two or three movement Time Lock may be fitted as an additional requirement



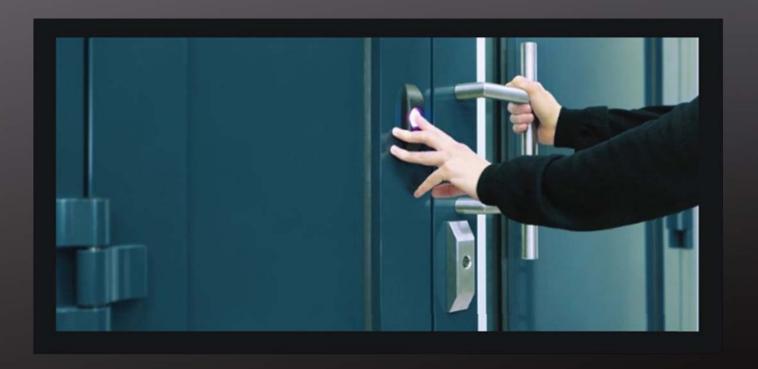


5. Certified Burglary resistant and Ballistic resistant, Blast resistant Doors & Windows

Manual attack protection is easily understood to be protection against intrusion, burglary and vandalism, with manual attack doors being the best solution for protecting public administration buildings, banks, CITs, retail sites, embassies or buildings.

Based on its advanced expertise in security, we developed a range of manual attack-resistant doors to protect people, property and assets from theft and attack. Our doors are manufactured in several versions to meet a variety of customer requirements. They are designed so that they can be easily integrated into both existing areas and new constructions. Made from aluminum or special steel, they have an elegant appearance.

Featuring successive special steel armoring, our doors can provide high-degree protection for sensitive areas such as cash counting rooms, cash transit rooms, back office rooms, security enclosures, etc. These Door range is also provided as thermally-insulated security version.



Standards

Established as per the provisions of European standard EN 1627 and resistance to a manual attack (standard EN 1630). According to these standards, manual attack-resistant doors can be classified based on their resistance to attack on 6 different levels (Class 1 to Class 6). Each of these levels is based on resistance time (calculated in minutes) and the type of tools used.

Ballistic attack protection

Bullet-resistant doors are designed to offer a high degree of protection against physical and fire-arm attacks.



Constructed from special 80mm aluminum or steel profiles in combination with steel armour, our doors provide a ballistic resistance of up to FB6 in accordance with EN 1522.

The Doors are a closing solution developed to meet users' bullet-resistant and intrusion-protection require-ments. Because of its versatility, the range can be used for both building refurbishments or with new constructions. This way, by installing a bullet-resistant door, an armoured structure can be configured so as to transform any internal space into an armoured room.



These Doors are also possible to provide with thermally-insulated security version. Indeed, the 2010/31 European Directive initiated on 19 May 2010 aims to reduce energy consump¬tion by requiring the adoption of national regulations designed to improve buildings' energy performance. As part of these regulations, thermally insulated elements such as doors, windows and partitions are now increasingly mandatory on public and private buildings across the European Union.

We KAAVAL, helps you to meet the national regulations and to address your expectations for reduced energy consumption without compromising the protection you need against ballistic attacks.

Other than above mentioned Doors, we can also provide Blast-resistant doors, Fire-resistant doors, Tiger Trap Doors and Intelligent doors.





Blast resistant Doors & Windows

Detonation and deflagration protection



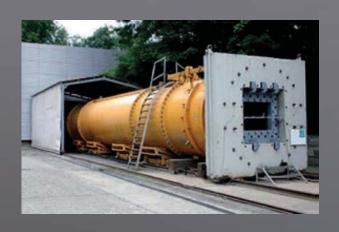


An explosion is a sudden release of gas at high pressure in the environment. Sudden, because the release must be sufficiently rapid for the energy contained in the gas dissipated via a shock wave.

High pressure because at the instant the pressure is released, the gas pressure is greater than the surrounding atmospheric pressure.

The explosion creates an expansion or overpressure wave which, when it encounters an obstacle, creates a pressure peak also known as "reflected pressure" that is approxi¬mately twice as intense as the initial pressure. After this impact, there is a depression (negative pressure) equivalent to 1/3 of the pressure peak.

Drawing on its long experience operating on sensitive markets exposed to the risks of accidental or terrorist explosions, Experts has designed this Blast Resistant range of products to offer door solutions that can meet the most demanding requirements for protection of personnel, property and assets. These range has been tested against the most demanding standards, including tests equivalent to 100kg of TNT for a large number of special applications, always carried out in accordance with EN standards 13123/4-1 and ISO/DIS 16933.



This standard covers three types of "blast" according to their duration and intensity: detonation, deflagration and explosion. For protection against detonation, the Blast Resistant range has been validated with a pressure detonation of up to 15 tonners per square meter over a period of 20 milliseconds (EPR3).

For protection against deflagration, the Blast Resistant door has been validated with a detonation of 6.3 tons per square meter of pressure over a period of 300 milliseconds (EN 13123/4-1).

Standards

- Since 2000, the 2 European standards which have been used to qualify the sets of structures (frame +infill +locks) are those described in Standards EN 13123/124-1 and EN 13123/124-2.
- Standard EN 13123/124-1 is valid for windows, doors and partitions with tests carried out in Shock-Tubes, whereas the Standard EN 13123/124-2 is based on open field tests.
- There is also International Standard ISO DIS 16933 which applies to windows and doors with two types of classification (car bombs and satchel bombs) and 6 levels of resistance, depending on the damage caused.
- When the European standards cannot be used to classify a material, a reference table is used.

Classification resistance	Standard	Load explosive TNT	Distance (m)	Duration (ms)	Pressure reflected (bar)	impulse positive l + (bar.ms)
EPR1	EN 13123/124-1			≥20	0.5	3.7
EPR2	EN 13123/124-1	-	-	≥20	1	9
EPR3	EN 13123/124-1	-	-	≥20	1.5	15
EPR4	EN 13123/124-1	-	-	≥20	2	22
EXR1	EN 13123/124-2	3	5	-	2.5	3
EXR2	EN 13123/124-2	3	3	-	8	5
EXR3	EN 13123/124-2	12	55	-	7	7
	EN 13123/124-2	12	4		16	10
EXR5	EN 13123/124-2	20	4	-	28	15

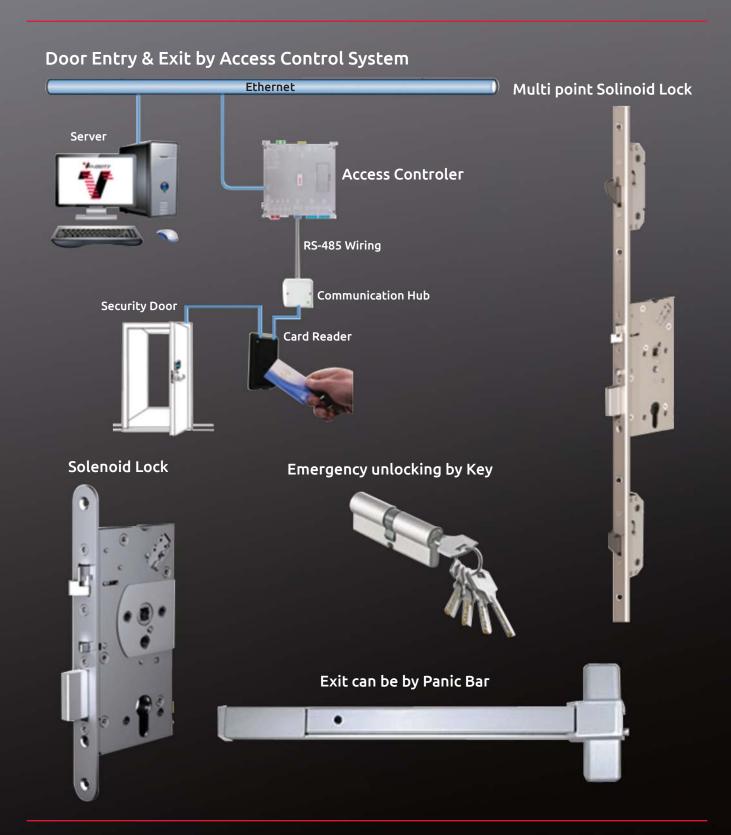
1bar = 10t/m2 = 100kPa



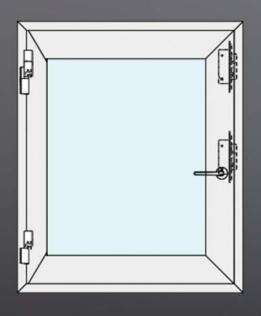


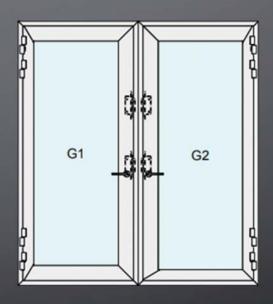
Lock Options

Different Types of Locking options can be provided for Security Door. Certified Mechanical Lock with Single or Multi Lock is possible. Or Access Control with Electrically operated Solenoid Lock is possible. In this, the Reader will be on the wall and Entry & Exit by the Access Control order. In an Emergency situation, Lock can be opened by a Security key also.



TESTED & CERTIFIED Fixed, Hinged & Transaction WINDOWS















High Security Booth



Contact us for Certified products



Burglary resistance



Bullet-proof



Blast-proof



Fire resistance



Acoustic performance



Electromagnetic



Anti-panic



Smoke tightness



Thermal insulation



Airtightness



Watertightness



Wind resistance



Vaultroom



Prison security



Mechanical resistance



Frequency of use

From consulting through to maintenance

Our service includes consultation, survey, risk assessment, selection of suitable product, Design with preparation of specification, BOQ and Drawings, Supply of required product and services, planning, procurement, production, shipping, delivery, installation and maintenance.

Your Personal Support

If you need more information about our products and services or if you have a specific security project that you would like to discuss with us, please get in touch with our General Manager, who is having more than 25 years of experience in this field. Mr. Thomas Abraham. He will be glad to assist you, you can reach him by phone at +965 66955617 or

by email thomas@kaavalkuwait.com

Your enquiries are very valuable to us, kindly send to us.

Thank you very much.

Or, Kindly visit us.







For consultation or enquiries, kindly contact Mobile: +965 66955617 / 65784060 Email: info@kaavalkuwait.com

www.kaavalkuwait.com