



Flexible space management for optimal space utilisation, Effective sight and sound separation



HUFCOR MANUFACTURING LICENSEE FOR THE MIDDLE EAST & NORTH AFRICA



Hufcor 7000 Classic Series operable partitions are the first choice of leading international hotel chains for meeting rooms and ballrooms and the preferred choice of FORTUNE 500 companies for their offices.

Hufcor 7000 Classic Series operable partitions are easy to operate and last literally forever. The 7000 classic Series operable partition delivers the ultimate in flexible, attractive designs.

More importantly, they are designed to accommodate veneers and all types of decorative elements to complement the ambience and the decor of the room.

This makes them a natural choice for the hoteliers and a delight for the architects and consultants.

Durability, aesthetic value and ease of operation is an unbeatable combination.

Experience Hufcor 7000 Classic Series. Experience Value. Experience Convenience.



## Experience Value. Experience Convenience.



## Do Consider The Important Aspects

Hufcor offers a wide selection of operable partitions. Each has an array of options. With all these choices, selecting the right product for your needs can be confusing.

Before consulting your Hufcor representative or other design professional, we suggest you do some pre-planning which will help to narrow the choice and give you just the products you need. Here are some basic issues to consider:

## Determine what space you want to divide:

As you look at the space, notice the location of exposed sprinkle heads, columns, windows, chair rails, or any other mechanicals that could interfere with the installation or operation of the proposed partitions.

Make certain the new space includes everything needed for the activities it will accommodate. Stand in the space and look around. Does it have adequate Lighting? Ventilation? Electricity? Your plans may need to include additional or rerouted mechanical services.

## Support needed?

Most partitions are supported from the building's overhead structure. A check above the ceiling will need to be made to make certain if there are any obstructions in the area in which you wish to place a partition. A design professional may need to determine if the overhead structure is adequate to support the partition.

## How many partitions will you need?

Estimate how many partitions will you need and what is their approximate size? Gibca will help you with the design issues.

What type of activities will be held in the room? This will determine how much sound control is needed. A Bible study class will have much lower acoustical requirements than the band room! The higher the acoustical rating, the higher the price of the partitions.

Customers often request the highest partition sound rating without considering the sound control of the entire room. The room in which the partitions are located must have a rating equivalent to that of the partitions to achieve optimum sound control.

## How much storage space is available?

Location of the partition storage space affects what configuration of partition is needed.

Determine the area where the partitions will be stored or "stacked" when they are not in the opening. Typically this is at one or both ends of the opening. If there is not enough space in the room, the partition can be moved to a remote storage area with the use of additional track. Panel can even be stored parallel with the perimeter walls, if needed.

Partitions are often stored in a pocket, which is a closet created for that purpose. Hufcor offers pocket doors which cover the pocket opening. The pocket doors may be factory finished with the same covering as the partition. They may also be shipped to the job site unfinished for field finishing to match the perimeter walls.

## Do you have special finishing needs?

Hufcor offers a standard range of vinyl which includes an array of standard patterns and colors. Other colors, patterns, carpet, fabric, high pressure laminate, wood veneers, chair rails, and other design features may be added for an up-charge. Hufcor also assists interior decorators applying custom-in-field finish on our panels.

## Will you need chalk boards, dry erase marker boards or tack boards?

These surfaces come in handy especially for meeting rooms and classrooms. Hufcor marker boards are inset. They are available at an up-charge and are easy to add to new panels. Pockets to hold erasers and marker pens can also be ordered.

## Call GIBCA – the Hufcor Licensee

Now that you have a rough idea of how you wish to use and divide the space, contact Gibca. We are ready to help you determine what partition system is right for you and provide layout and design assistance at no charge.

## **Buying Partitions?**



## **RETRACTABLE TOP & BOTTOM SEALS**

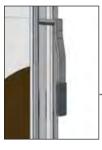
Are vital for optimum acoustic control and partition stability when subject to lateral forces. The seals when extended need to apply just enough pressure to block passage of sound and to ensure the partition in the opening.

## Standard top seal clearance is

32mm and bottom clearance is 44mm. The clearance help to accommodate out-of-level floors. When retracted, no seals drag on the floor. No floor guide or floor track required.

## DEEP INTERLOCKING VERTICAL SEALS

Prevent sound leaks and help to align the panels during set-up.



# align the panels

## **REMOVABLE OPERATING HANDLE**

Prevents unauthorized panel movement. An easy half turn of the handle sets/retracts the seals. The users appreciate the convenient waist-height location of the activator, too. No need to bend over to activate the seals!



## **Benefits & Salient Features**



## Panel Construction

Series 7000 panels are nominally 100mm (4") thick and up to 1219mm (481") in width. The faces are gypsum and/ or steel laminated to the appropriate acoustical backing to meet the sound transmission class requirements. The frames are of anodized aluminum alloy 6063-T6 formed to fully capture and protect the edges of the face material. Hinges are recessed and project no more than 6mm (1/4") from the panel face.

## Suspension System

Hufcor track systems have been life-cycle tested for up to 100 miles (161km) or approximately 10 years of use.

## Seals

Model 7600 single (omni) panels and Model 7500 (paired) have top and bottom retractable seals and provide 32mm (1  $\frac{1}{4}$ ") nominal top clearance when retracted.

## **Finishes**

The standard face finished is factory-applied vinyl; however, carpet, fabric, wood veneer, high-pressure laminate, and other custom finishes are available. Panels may also be supplied unfinished for field decoration. Standard frame color is clear anodized aluminum. Custom powder coating and colored anodizing options available.

## Acoustics

The partition has been tested by an independent acoustical consultant at a laboratory accredited by the National Bureau of Standards in accordance with ASTM E90.

## **Quality Assurance**

Hufcor products conform to ASTM standards.

- A. Fire hazard classification: ASTM E84
- B. Sound transmission classification: ASTM E90
- C. Noise isolation classification : ASTM E336, ASTM E413
- D. Design and construction of surrounding condition shall be per ASTM E556

## **ISO Registration**

Gibca Manufacturing facility quality system is registered to the ISO 9001 standards.

## Warranty

Series 7000 has a two year warranty against defects in material and workmanship.

Complete specifications and details are available on the Hufcor website: www.hufcor.ae

## How good is on STC rating? A Guide

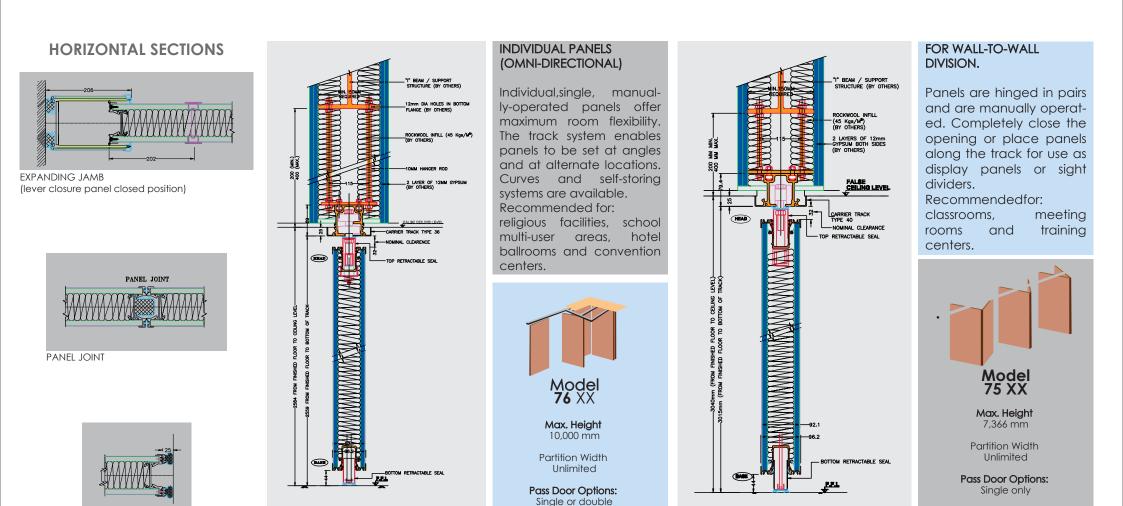
- STC Privacy Afforded
- 25 Normal speech easily understood
- 30 Normal speech audible but unintelligible
- 35 Loud speech understood
- 40 Loud speech audible but unintelligible
- 45 Loud Speech barely audible
- 50 Shouting barely audible
- 55 Shouting not audible

Source U.S. National Bureau of Standards Handbook 1976

Model	Acoustic Rating	Hanging Weight
	STC	kg/sq.m.
7x10	43	38.1
7x30	47	39.1
7x40	49	41.6
7x50	51	41.6
7x60	53	53.2







**BULB SEAL** 

**OMNI PANELS** 

## PAIRED PANELS

## Track System for Operable Walls





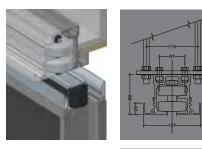
A quality track system assures your partitions will move easily for years to come and enhance fast panel set-up and take-down.

All Hufcor tracks are rigorously tested to last aluminium of 160 km (100 miles), approximately ten years of use.

Job requirements vary, which is why Hufcor offers a selection of steel and aluminum tracks to meet your needs.

Our patented designs are the most imitated in the industry.

Our aluminum tracks are of clear anodized extruded architectural grade 6063-T6 alloy. The list of aluminum benefits is long. Among these are quiet carrier operations, consistent shape for end-to-end alignment, unitized design for incorporating header panels and alignment pins, corrosion-resistance, and enable anodizing for a smooth, hard running surface needed for proper carrier movement.



## TYPE 36 OMNI-DIRECTIONAL TO 455 kg

For Omni-Directional panels up to 455 kg (1000 lbs). Patented by Hufcor, this unique tack and carrier system is the world's most imitated. Two carriers are provided per panel. Each carrier has two horizontal counter-rotating wheels that roll (not slide) in the track. Each wheel has precision-ground bearings, encased with Delrin for quiet operation. Carriers easily negotiate square or angled corners without switches. Minimum dimension from the ceiling to the structure is 203 mm (8").

## **TYPE 40 PAIRS AND MANUAL TRAINS TO 409 Kg**

For Paired Panels and Manual Trains up to 409 kg (900 lbs). One 4-wheeled carrier is provided per panel. Each wheel consists of molded polymer tires on hardened steel bearings. Resilient mounted body for quiet operation and load distribution. Minimum dimension from the ceiling to the structure is 203 mm (8").

## TYPE 57 OMNI-DIRECTIONAL TO 680 kg

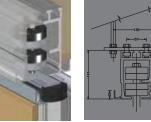
For Omni- Directional panels weighing 455-680 kg (between 1000 and 1500 lbs). Two carries are provided per panel. Each carrier has two horizontal counter-rotating wheels that roll (not slide) in the track. Each wheel has precision-ground bearings, encased with Delrin, steel banded and reinforced. Carriers easily negotiate square or angled corners. Minimum dimension from the ceiling to the structure is 305 mm (12").

## Type 11 Track Available On Pairs, Single Panels and Electric Continuously Hinged models to 1364 kg

For Pairs and Electric Trains weighing up to 1500 lbs. [680] and Omnis weighing up to 3000 lbs. [1364] per panel. The track is made of 1/4" [6] slotted structural steel tubing, painted black. The track trim is clear anodized aluminum. All intersections are factory assembled and welded. Curves, diverters or switches are available. One carrier is provided per panel for pairs and trains; two carriers per panel for omnis. Each carrier has four steel wheels with precision-ground radial bearings. Bearings are inserted into a steel tire. The steel tire rim fully captures the bearing. Carriers may be programmed for self-directing and sorting. Minimum dimension from the ceiling to the structure is 12" [305]; the minimum becomes 16" [406] when used with electric partitions.



Track Options





## **Operable Partition Options**



**ADA Compliant Pass Door** 

Available in single or double doors, Hufcor pass doors comply with ADA requirements and are of the same construction and finish as the panels. No threshold or foot bolt stabilizers are required. Pass door options include:

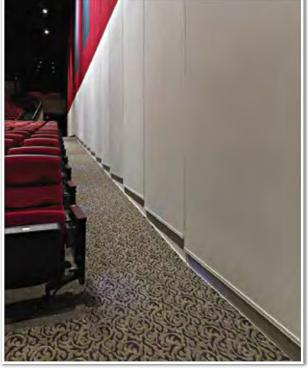
- Exit signs
- Automatic door closer
- Panic Hardware
- Locks
- Frame and prep for window
- Peep viewer.

## **Pocket Doors**

The finishing touch to your installation, pocket doors cover the opening of the partition storage area. The pocket doors may be factory finished to match the partitions or field finished to match the perimeter walls.



We understand the custom built nature of our business – our products are designed to blend seamlessly in your existing building design. Our solutions liberate rather than restrict your design ideas and help you find your style and identity on the project.





**Stepped Panel** 



**Removable Faces** 

The unique patented design not only helps apply multi-segmented complicated finishes, it also allows facilities maintenance staff to quickly resurface damaged faces and reapply them onto the operable wall. The mounting system has an added benefit of acoustically separating the finish and unfinished surface resulting in an insulating air gap.

## **Special Applications**

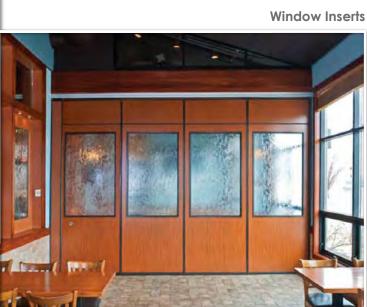
**Sloped Panel** 

## Special Applications

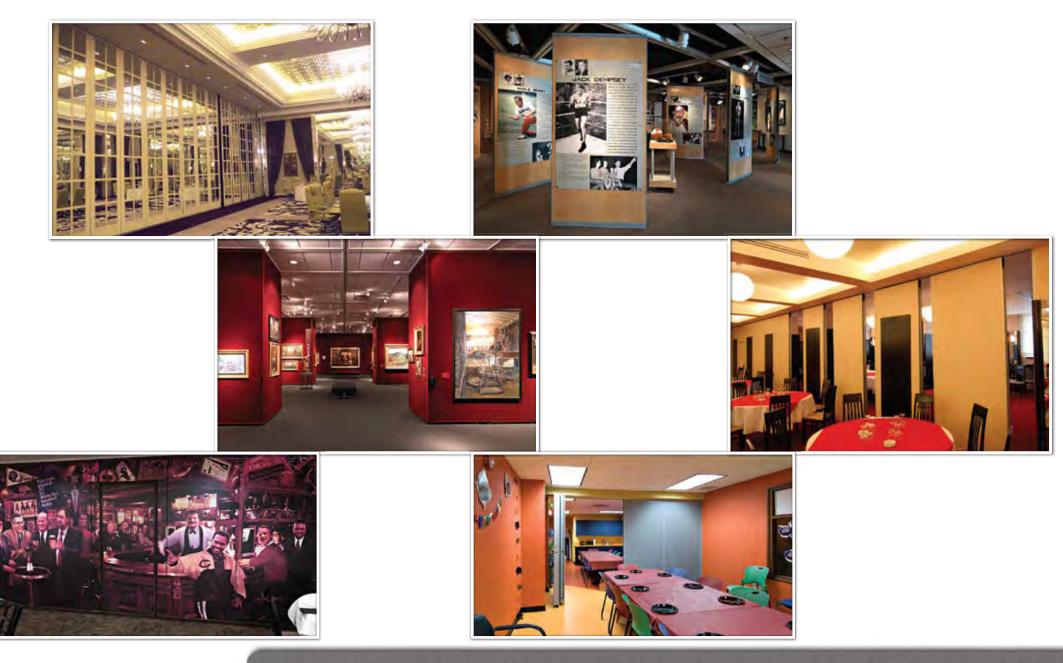


Work Surfaces

- Dry erase steel marker boards, inset or full-height.
- Inset porcelain enamel steel dry marker or chalk board. Includes a full-width pen or chalk rail. The markerboards resist damage, abrasion, scratching and color fading.
- Eraser pocket. This handy inset pocket holds a standard markerboard eraser, pens or other work surface accessories.
- Tackboards are inset and are covered with Hufcor's standard vinyl.







Find your Style *The possibilities are endless*. Endless finish options to choose from

## **Understanding Acoustics**

In specifying operable partitions or planning multi-use space for your facility, no factor is more important than sound control. In architectural acoustics, we are concerned with controlling the amplitude and/or the duration of sound. In walls and partitions, this is done by controlling sound transmission loss and sound absorption. When sound waves strike a partition, same are reflected from the surface, staying in the same room as the source of the sound. Some of the incident waves are absorbed by the material of the partition and converted to heat energy; while and some are transmitted to the other side.

## **Sound Transmission Loss**

Sound Transmission Loss (STL) is the effectiveness of a barrier at preventing sound from getting one side to the other. It is measured in decibels (dB), the same as amplitude.

## **Sound Absorption**

Sound absorption is the effectiveness of a surface or materials at preventing the reflection of sound. It does this by converting sound energy to heat. The more sound absorption, the less echoing will exist. It is important to note the difference between a barrier and an absorber. Typical barriers made of hard, dense material may actually increase the echoes in the room, while absorbent batts of insulation allow sound to pass through as if they were not there. Generally speaking, you can't use a barrier to absorb sound, and you can't use an absorber to block sound.

## STC

Currently, the most widely accepted standard for ranking the acoustical performance of operable partition is STC or Sound Transmission Class. Sound Transmission Class is a two-digit number describing the laboratory performance of a single building element in stopping the transmission of sound through it.

## **Flanking Paths**

Sound, like water, follows the path of least resistance. If there are leaks in the surrounding construction, even the best movable partition will not provide a good sound barrier. Shoddy construction, customary construction practices, or poor installation of the partition can all contribute to the leaks, known as "flanking paths".

Flanking paths can be present even when the surrounding construction is of good quality. Direct HVAC ductwork between rooms, common lobbies and corridors, and open plenums above suspended ceilings are all perfect escape routes for sound. The ceiling tiles themselves, whose porous properties help prevent reverberation, allow sound to pass through easily.

Uneven floors and out-of-plumb walls also contribute to leaks as do recessed lighting, access panels, projection and lighting booths, and other design details.

In dealing with sound transmission, there's no substitute for quality construction. Above all, the best defense against flanking paths is carefull planning in the early stages of the project.

## Glossary of Acoustical Terms

### Absorption

The reduction of reverberating sound by the use of porous, nondense materials.

### Amplitude

Amplitude is the magnitude of the vibration, which determines how loud the sound is. Amplitude (or loudness), is measured in decibels (dB).

### Ambient Noise

The outgoing noise of a given environment. Also known as background noise.

## Decibel

(dB)- Common unit of loudness, actually a logarithmic ratio of sound pressure level to a reference level.

## Duration

Duration is the time the sound lasts, measured in seconds.

## Frequency

Frequency is the rate of vibration, determining how high or low the pitch is.

Frequency is measured in cycle per second, or Hertz (Hz).

### Hertz

Unit of frequency. One Hertz equals one cycle per second. Abbreviated Hz.

### NRC (Noise Reduction Coefficient) average of absorption coefficients at four keys frequencies. Rating of the absorptive characteristic of a surface.

## Pink Noise

Broadband noise with equal power at each constantpercentage bandwidth, often used for acoustic testing.

## Receiving Room

Room opposite the room with the sound source, in acoustic measurement.

### Reverberation

The reflection of sound from hard surfaces. Contributes to loudness

### Source Room

In architectural acoustic measurements, the room that contains the sound source.

STC Sound Transmission Class

### STL Sound Transmission Loss

## Typical Sound Levels



## STC's Familiar Constructions STC Construction Hollow-metal door without seals

- 22 Solid wood doors without seals
- $^{1}/_{4}$ " plate glass
- 32 <sup>1</sup>/<sub>4</sub>" plate glass
- $\frac{1}{2}$ " dry wall on wood studs, both sides
- 41 4 painted concrete block wall
- 42 5/8" drywall on steel studs, both sides
- 46 8" hollow concrete block wall
- 48 12" painted concrete block wall
- 50 double 5/8" dry wall on steel studs, insulated
- 53 12" poured solid concrete wall

## Sound Control Checklist

Acoustics is a science. It's not a guesswork. The same applies to selecting acoustical movable partitions.

- 1. Determine the use of the room or rooms to be divided.
- 2. Determine the use of the surrounding areas and the ambient noise of each.
- 3. Take the necessary steps in design and construction to avoid flanking paths.
- 4. If flanking paths are unavoidable, specify a realistic STC for the partitions, keeping it in balance with the surrounding construction.
- 5. Specify the STC needed.
- 6. Select the appropriate type of partition, keeping in mind the application, construction quality, easy of operation, seals and guarantee.
- 7. Make sure the partitions are installed by qualified and professional installers.
- 8. Have operating personnel fully trained to move, store, and adjust partitions properly.
- 9. Utilize top and bottom mechanical seals to ensure ease of partition movement and a positive acoustical seal.



## Our Recognition is the Forever Growing







MOVENPICK,

BAHRAIN



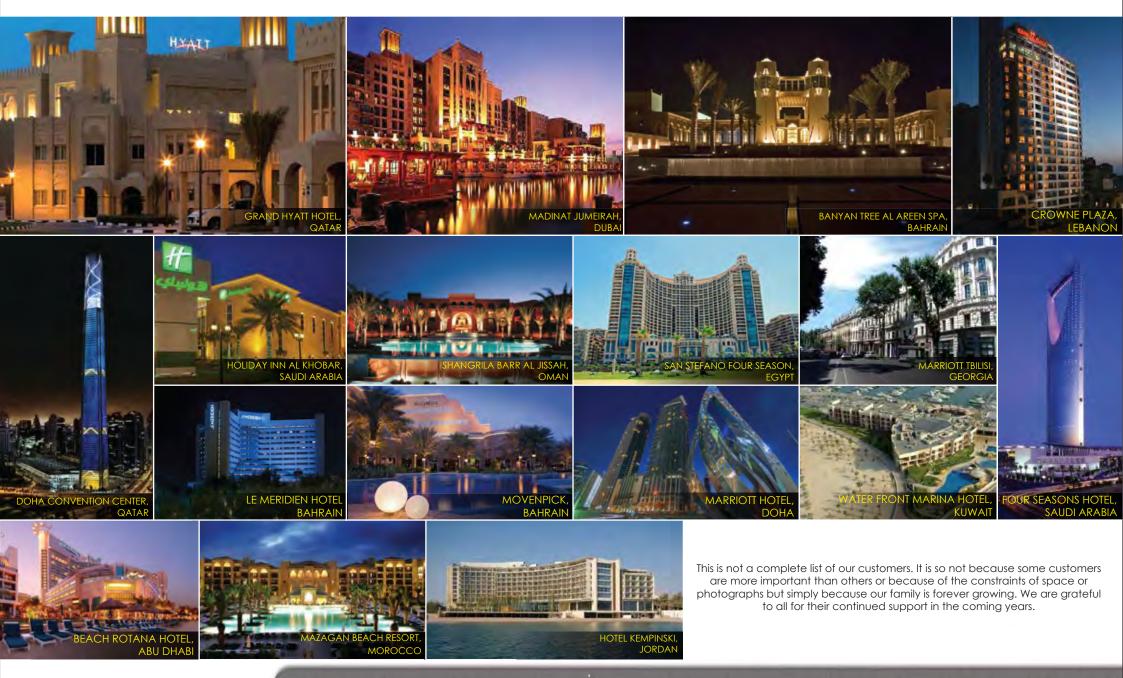


QATAR CONVENTION CENTER DOHA We are consumer-centric company. It is always our endeavor to provide efficient solution to them for their space and acoustic requirements.

From providing technical support and specifications to designers and consultants, to assessing the precise site requirements, to custom manufacturing panels to stringent international quality standards, to experienced installation for smooth and effortless operation ... it is always our effort to make life simpler and easier for our customers.

For it is our customers who have made us what we are today the industry and world leader in operable partitions.





Family of our happy and satisfied clients



GIBCA is the preferred choice for a broad spectrum of customers and users throughout the region courtesy of our superior products, knowledgeable project management team & highly trained installers. Our claim to the number one operable wall supplier in the region is further reinforced by an equally adept service and maintenance team who have helped us connect better with our end users. We have a sizable list of customers who have benefitted from our maintenance and refurbishment programs to transform their decade old installations at a fraction of the cost of full pledged replacement. Quite a few of our clients have opted for our preventive maintenance program or annual maintenance contracts which at an extremely competitive rate that ensures round the clock ease of operation of partition panels.

Operable walls need to be serviced to ensure key functions are preserved: Through periodic maintenance, our products will provide years of trouble free, reliable functionality; that ensures your business is not interrupted, delayed or inconvenienced simply because a wall jamb or seal fails to lock into position properly.

## Why service your partitions ?

- Extending life of your moveable walls.
- Increase the operational efficiency and durability.
- Helps you identify damage.
- Reducing the requirement for emergency repairs.
- Ensuring correct acoustic performance.

Choose GIBCA maintenance service department for a complete line – up of quality services, parts and products.

## What we offer :

- Inspection Service.
- Resurfacing of partition panel faces in different finishes.
- Quarterly & Half yearly Maintenance Service.
- Repair for moveable partition.
- Partition/ Track replacement and retro fit of existing partitions & track.

If for any reason a service call is necessary, our dedicated service technicians will gladly call and rectify the situation both speedily and efficiently.

## y call and rectify the situation both speedily and

## Service & Maintenance



## **WHUFCOR**

## Range of Movable Glasswalls





ACOUSTIC g l a s s w a l l s



WEATHER resistant glasswalls



GIBCA LIMITED COMPANY (FZC) LLC

Address: P.O.Box 312, Postal Code 322, Sohar, Sultanate of Oman





Tel: + 968 2685 0261, Fax: + 968 2685 0285, Email: info@gibcaoman.com, Website: www.gibcaoman.com