

CEILINGS

# USG MIDDLE EAST MONOSILENT CEILING INSTALLATION GUIDE

©2024 Factory of USG Middle East LTD. Co. All rights reserved. Doc. Ref. CT-CAT006-1

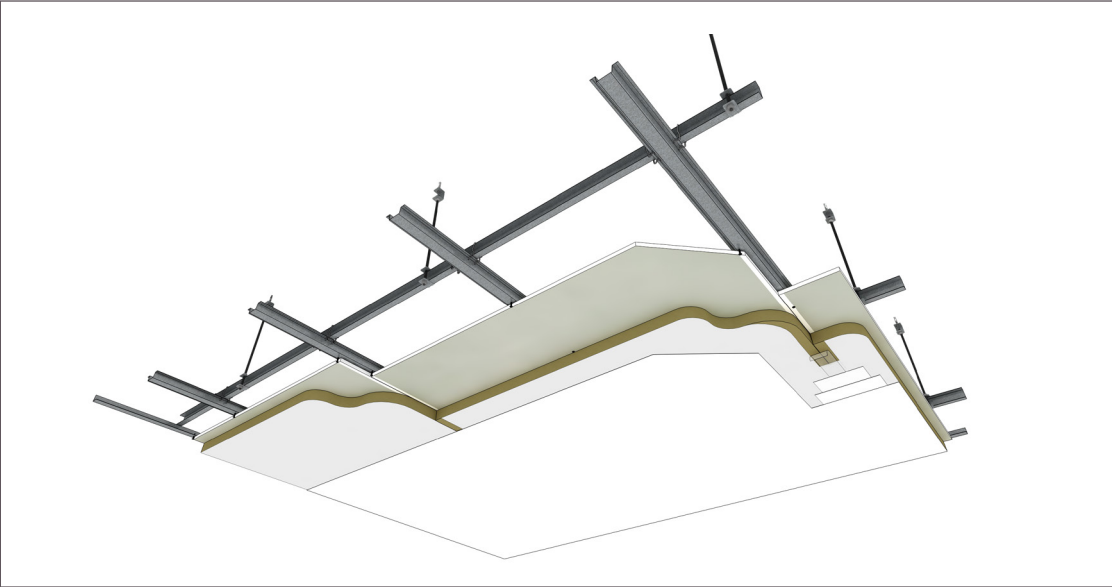
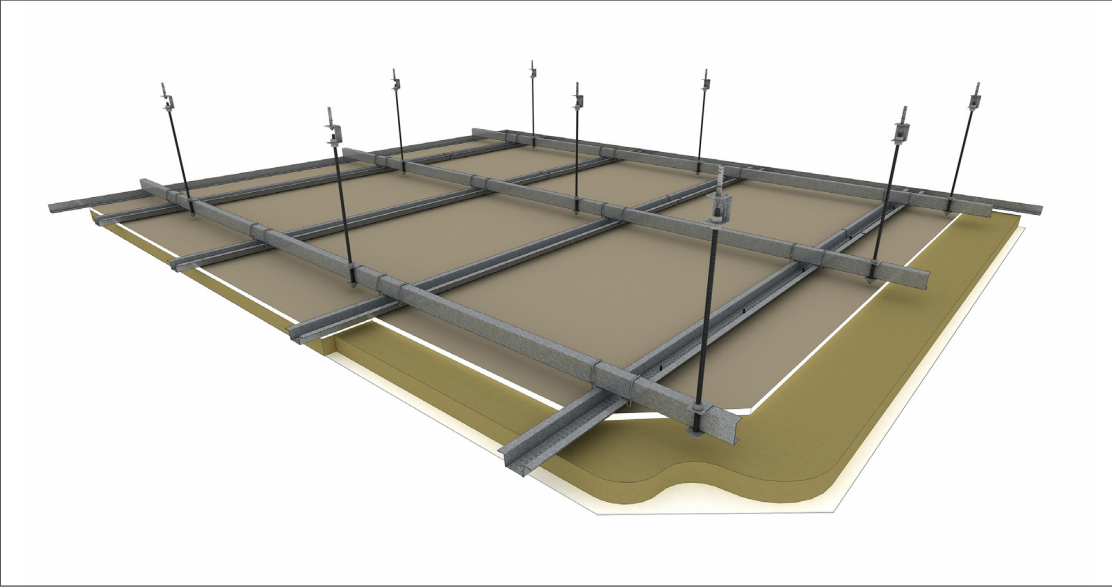
**USG ME**   
INNOVATIVE SOLUTIONS. EVERYTIME.

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### MONOSILENT CEILING

The Monosilent Monolithic Acoustical Ceiling Board comes in a size of 600 x 1200mm, featuring a tapered edge for quick and precise jointing during installation. This breakthrough ceiling solution integrates seamless design with remarkable acoustical performance. Engineered with precision, Monosilent Monolithic Acoustical Ceiling Panels mirror the installation and finishing process of traditional plasterboard. Certified contractors handle the installation, utilizing a plasterboard suspension system for secure screw attachment of the panels. Joint finishing is accomplished using USG ME Monosilent Ceilings compounds. The final touch includes coating with USG ME Monosilent Plaster Spray Applied Finish to achieve a monolithic appearance. The patented finish is acoustically transparent, allowing sound to pass through the surface, where it is absorbed by the insulation. The outcome is a surface that not only delivers excellent acoustical performance but also enhances the overall aesthetic. This makes it ideal for high-profile spaces such as hotels, luxurious areas, lobby spaces, and executive or boardrooms.



Suspension option as per the projects specifications

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### SYSTEM SUMMARY

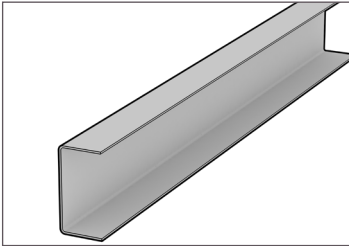
	Monosilent	
Application	Lobbies, Commercial offices, Atriums, Museums, Executive/Board Rooms, Conference Rooms, Corridors	
Total Weight	15 kg/m <sup>2</sup>	
Board Size	600 x 1200 mm	
Acoustic Performance	Up to: NRC 0.95 and CAC 43dB	
Substrate	25mm or 38mm glass wool substrate attached to 12.5mm gypsum board on the rear side	
Light Reflectance	0.85 for white finish	
Fire Rated	Class A	
Surface Finish	White, seamless, spray-applied fine texture with low VOC-emitting material. Custom finishes are available upon request	
Specification	Framing	USG Middle East Primary Channel
		USG Middle East Furring Channel
		USG Middle East Connecting clip
		USG Middle East Primary C Bracket
		USG Middle East Suspension System
	Lining	USG Middle East gypsum board 12.5mm thick panel
	Insulation	25mm or 38mm glass wool 120 kg/m <sup>3</sup>
	Joint Tape	Paper Tape or Fiberglass mesh tape 50mm width
	Joint Compound	USG ME Monosilent Compound
	Final Finish	USG ME Monosilent Spray-Applied Finish
Warranty	To ensure the performance of this system meets USG ME's Warranty requirements, USG ME products are to be used and installed only in accordance with our specifications and recommendations.	

### FEATURES AND BENEFITS

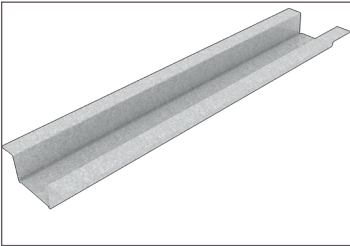
- Seamless plasterboard look with acoustic performance of up to 0.95 NRC and 43 CAC.
- Class A fire rating.
- Class 1 surface burning as per BS 476, Part 7.
- High light-reflective finish (LR-0.85 for white finish) reduces fixture & energy use.
- Acoustically transparent spray-applied finish.
- Ideal for renovation when low room reverberation time is desired.

### COMPONENTS

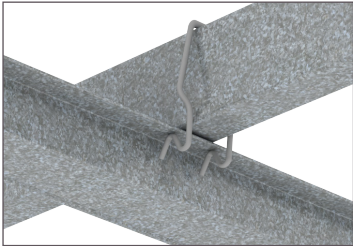
#### FRAMING



Primary Channel Drywall Suspension

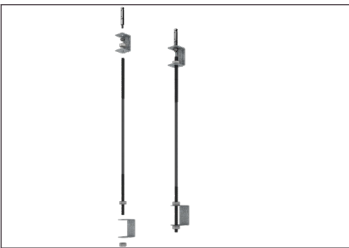


Furring Channel Drywall Suspension



Wire Connecting Clip (WCC)

#### SUSPENSION OPTION



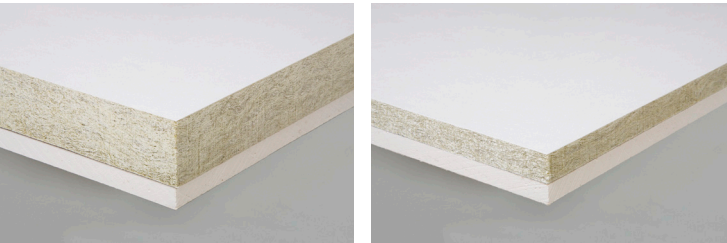
Threaded Rod



# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### LINING



50mm board (NRC 0.95)

38mm board (NRC 0.75)

### FINISHING



Paper Joint Tape or Fiberglass Mesh Tape



Monosilent Compound



Monosilent Spray Applied Finish



Sanding Block with 180 to 220-grit sandpaper



Pitch Squeegee Trowel

### SPRAYING



Texture Sprayer



Air Compressor



Disposable Protective Overalls



Safety Glasses

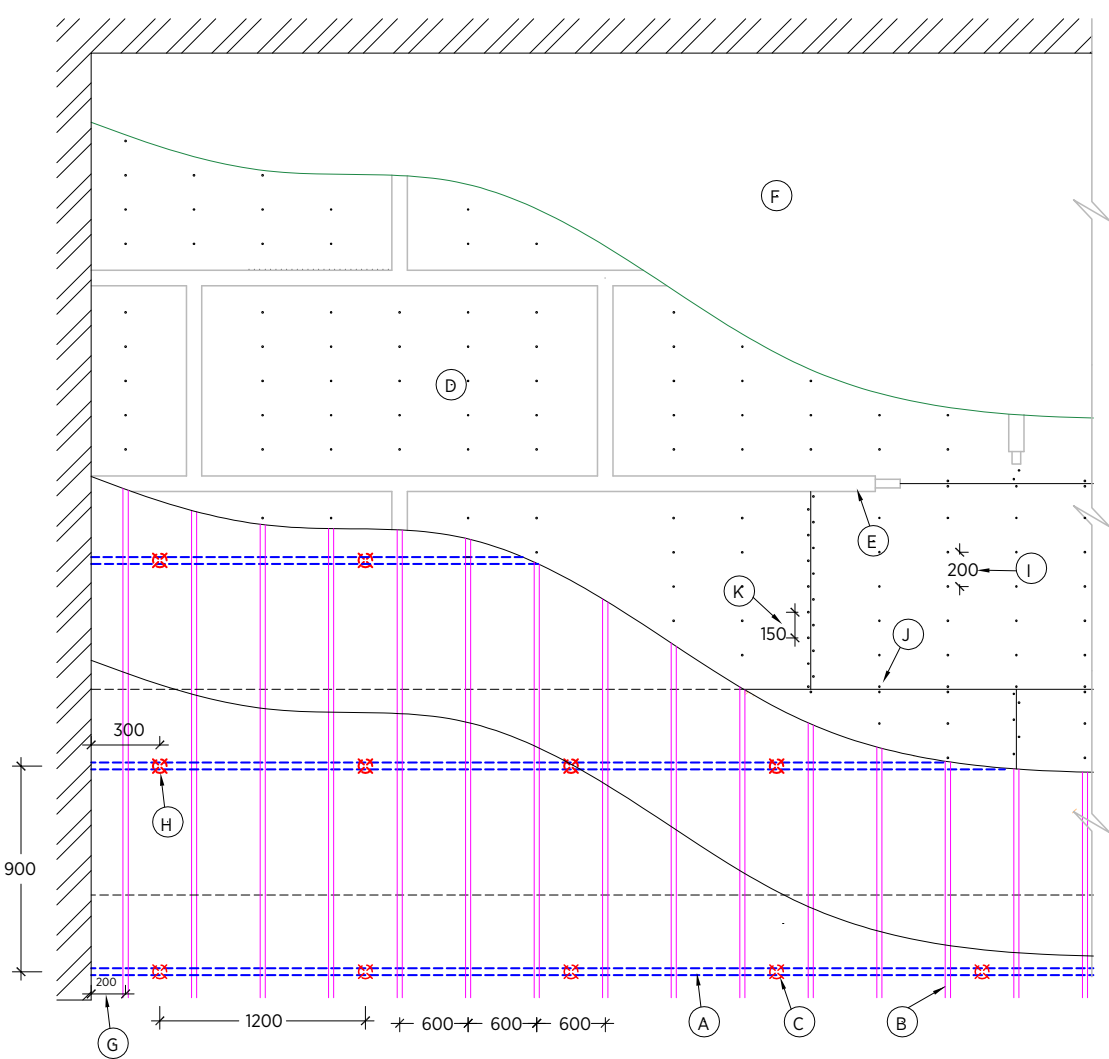


P2/N95 Dust Mask (AS/NZS 1716:2012)

### FIXING CONFIGURATION

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING



- (A) Primary Channel Drywall Suspension @ 900mm ctrs max.
  - (B) Furring Channel Drywall Suspension @ 600mm ctrs max.
  - (C) Suspension system as specified
  - (D) Monosilent Monolithic Acoustical Ceiling 600 x 1200mm
  - (E) Monosilent Compound and Paper Joint Tape
  - (F) Monosilent Spray-Applied Finish
  - (G) Furring Channel 200mm max. from perimeter wall
  - (H) Suspension Rod 300mm max. from perimeter wall
  - (I) Screws\* @ 200mm ctrs at field/center of board
  - (J) Screws\* @ 10-15mm from edge of board
  - (K) Screws\* @ 150mm ctrs at butt joint, staggered
- \*Screws should reach the gypsum board while fastening

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### METAL FRAMING INSTALLATION

- Fix the anchor to the concrete slab in specific location which have been marked before starting the fixation. Anchor type has to be approved by the site supervision team.
- Hang the threaded rod instead to the installed angle bracket.
- Hang the primary channel bracket to the road hangers.
- Slide the primary channel inside the brackets.
- The same procedure will be followed each 900mm.
- Connect the primary channel each 600mm to a furring channel using wire connection clip.
- The level should be followed carefully.
- The framework will be inspected by Site In-charge for any discrepancy, to rectify, if any, before proceeding the work.

### INSTALLATION OF BOARDS

- Verify the level of the installation area before proceeding.
- Install USG Monosilent Ceiling Panels with dimensions 600x1200x50mm or 600x1200x38mm.
- Cut the USG Monosilent Ceiling Panels using a T square and utility knife, scoring the face at the desired length and ensuring a complete cut through the face fleece.
- Snap the panels and cut through the back fleece.
- Avoid making any marks on the panels in the field unless covered by USG ME Monosilent Compound before spraying (e.g., pencil, marker).
- Fasten the USG Monosilent Ceiling Panels onto primary channel profiles from end to end.
- Add an additional row of screws in the middle of the board, following the primary channels spacing (i.e., 600mm).
- Ensure that screw spacing does not exceed 300mm.

### SCREW FIXING CONFIGURATION

Location	Fixing Centers
Field/Center	200mm
Recessed Joint	150mm
Square Set/Fixing at Perimeter Relief	150mm
Edge Distance	10-15mm from edge

### JOINTING FINISHING

Finish the joints by applying Monosilent Compound and using Sheetrock® Brand Paper or Fiberglass Joint Tape. Ensure that the joints are finished as flat and level with the surface of the board as possible. It is crucial to avoid slightly hollow or crowned joints, as these imperfections may become visible under critical lighting after the finishing is applied.

- Align and fix Monosilent boards to the primary channels before starting Taping and Jointing activities.
- Fill the joints with a small amount of Monosilent Compound.
- Using a 100mm broad knife, center and press the tape into the Monosilent compound.

**Ensure that there are no air bubbles left under the tape.**

- Embed joint tape into the Monosilent Compound, using a joint knife by hand. Wipe off excess compound with the joint knife and let it dry completely.
- Spot all fastener heads with Monosilent Compound, using a 1” or 2” joint knife.

**Keep the compound area small to minimize covering the screw heads.**

- Once the tape and bed coat are dry, apply the first coat of Monosilent Compound over the joints.
- Apply a second coat to fasteners.
- Allow the compound to dry completely.
- Sand joints to remove any excess joint compound.

**Avoid over sanding as much as possible.**

- Apply a third coat to the fasteners if required. Allow to dry completely.
- Ensure that all joints are filled and leveled with the surface of the board.
- Sand down any crowned joints to achieve a level surface using a flat sander tool.
- It is important to thoroughly check each joint down the entire length for flatness, not just at a few random locations.

### JOINTING FINISHING

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### Jointing System (Level 4 Finish)

Item	Fixing Centers
Tape	Paper Joint Tape or Fiberglass Mesh Tape
First Coat	Monosilent Compound
Second Coat	
Finish	Monosilent Spray Applied Finish

The joints are finished using the USG ME Jointing Compound as per table above. It is imperative to finish the joints as flat and level with the surface of the board as possible. Slightly hollow or crowned joints will show as imperfections under critical lighting after the finish is applied. To achieve a Level 4 finish, use Paper Joint Tape and relevant USG ME Jointing Compound as per the table above, and finish all board joints to the correct finished width.

	First Coat	Second Coat	Third Coat
Recessed Joint	50mm (using wide broad-knife)	100mm (using wide broad-knife)	120mm (using wide broad-knife)



**Step 1**  
*Fill in the joints with Monosilent compound*



**Step 2**  
*Apply second coat*



**Step 3**  
*Apply final coat*



**Step 4**  
*When compound is dry, lightly sand at 45 degree with a sanding block*



# INSTALLATION

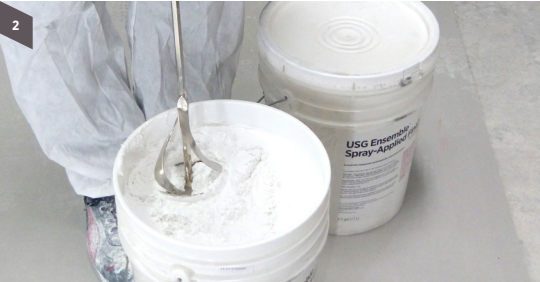
## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### MIXING

- Finish must be thoroughly mixed prior to application
- Mix in the 17L container prior to filling the spray machine hopper
- Check for proper consistency using the material thickness gauge provided by the spray equipment manufacturer (small steel ball). If the ball sinks completely, the texture is ready to spray. If the ball does not sink within 3-4 seconds, add more water, 100ml at a time, and mix thoroughly until the ball sinks
- Up to 500ml clean, potable water may be added in order to achieve the proper spray consistency



**Step 1**  
Check the consistency of the Monosilent Spray Applied Finish



**Step 2**  
Mix Paint using electric drill



**Step 3**  
Mix until smooth



**Step 4**  
Check the viscosity of the paint using the material thickness gauge (small steel ball)

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### SETTING THE EQUIPMENT

- Prime the Spray Machine Prime texture equipment with five liters of clean water.
- With the air nozzle switched off, cycle water through the hose and drain the water out completely (including water in the hose).
- Pour the mixed Monosilent Spray Applied Finish into the hopper.
- Empty the water remaining in the hose until the paint starts to flow. With the air nozzle turned off, cycle the remaining water out of the hose into an empty bucket until the paint reaches the spray gun. When the paint has reached the gun, cycle the paint through the gun back into the hopper until it is flowing smoothly through the machine.
- When there is a need to stop spraying for longer than 30 minutes, submerge the gun into water to avoid blockage in the spray gun.
- Depending on the desired texture, adjust the pump pressure to 60 to 70psi and the air pressure to 80 to 90psi. For a finer texture, a higher pump pressure can be adopted. Set the independent air compressor regulator to 120psi.
- Standard spray gun 4mm tip with added GRACO fan tip 4mm adaptor must be used to increase spray fan width to 400mm for a faster and smoother finish.



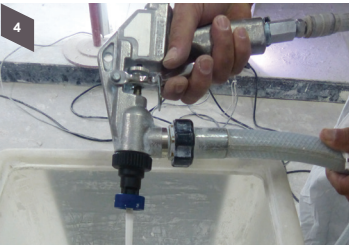
**Step 1**  
Put in the spray machine 5 liters of clean water



**Step 2**  
Cycle water through the hose



**Step 3**  
Pour the mixed paint into the hopper.



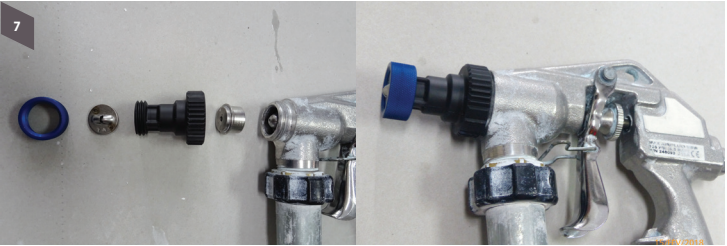
**Step 4**  
Use gun to smoothly cycle paint through the machine, ensuring a smooth flow of the paint.



**Step 5**  
Submerge the gun into water when you need to stop



**Step 6**  
Depending on the desired texture, adjust the pump



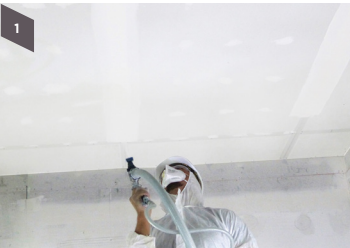
**Step 7**  
Standard spray gun

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### SPRAYING

- Apply Monosilent Spray-Applied Finish in a minimum of two coats, cross-hatching with at least a 50% overlap to achieve the desired appearance and sound performance.
- Maintain a clean and safe working environment. Wear proper protective equipment, including safety goggles, a NIOSH-approved respirator, and overalls, during the application.
- Start the application in one corner and work progressively across the ceiling.
- Once the finish is dry to the touch (approximately 10 to 20 minutes), recoat using the same technique.
- Apply each coat with a minimum one-meter gun clearance.
- Allow the paint to dry for approximately 4 hours between layers.
- Between each spray, submerge the gun into water to prevent blockage in the spray gun.
- Apply a minimum of two successive coats until the desired appearance is achieved, and the perforations are no longer visible through the finish.
- Consider the spray successful when all butt joints, recessed joints, and screw heads are no longer visible under natural light, and a consistent and fine texture is achieved.
- Leave the ceiling to dry for a minimum of 24 hours, ensuring it is completely dry.
- If necessary, use a soft rubber-bladed squeegee to remove any minor irregularities.



**Step 1**  
*Apply Monosilent Spray Applied Finish*



**Step 2**  
*Start in one corner and work progressively across the ceiling*



**Step 3**  
*Submerge the gun into water to avoid blockage*



**Step 4**  
*Two coats of Monosilent Spray Applied Finish must be applied*



**Step 5**  
*Leave the ceiling to dry for a minimum of 24 hours*



**Step 6**  
*Use soft rubber-bladed squeegee to remove any minor irregularities*

# INSTALLATION

## MONOSILENT MONOLITHIC ACOUSTICAL CEILING

### CLEANING

- Ensure the paint is thoroughly cleaned from the hose and gun.
- Flush the remaining paint in the hose and fill the hopper with water.
- Disconnect the spray gun, nozzle, and air pressure valve for proper cleaning.
- Clean the nozzle by removing the tip and holder. Thoroughly clean out any residual dry paint in the gun.
- Clean the paint valve by thoroughly cleaning out the paint residue.
- Open up the pressure cap and clean out residual paint within the gun.
- Lastly, ensure the air pressure nozzle is cleaned thoroughly.



**Step 1**



**Step 2**



**Step 3**



**Step 4**



**Step 5**



**Step 6**



**Step 7**





**SEE US ON LINKEDIN**  
/usgme



**FIND US ON FACEBOOK**  
/usgme



**FOLLOW US ON INSTAGRAM**  
/usg\_me



**FOLLOW US ON TWITTER**  
/usg\_me



**SEE US ON YOUTUBE**  
/USG Middle East



**MESSAGE US ON WHATSAPP**  
/+966 92 003 5672

**FACTORY OF USG MIDDLE EAST LTD. CO.**

7410 (Wasil), Street #23, Cross 76  
2nd Industrial City, Dammam 34326-4201  
Kingdom of Saudi Arabia

**CUSTOMER SERVICE**

t +966 13 812 0995  
f +966 13 812 1029  
info@usgme.com  
www.usgme.com

**WEBSITE**

www.usgme.com



**WHATSAPP**

+966 92 003 5672



**USG ME** 

INNOVATIVE SOLUTIONS. EVERYTIME.