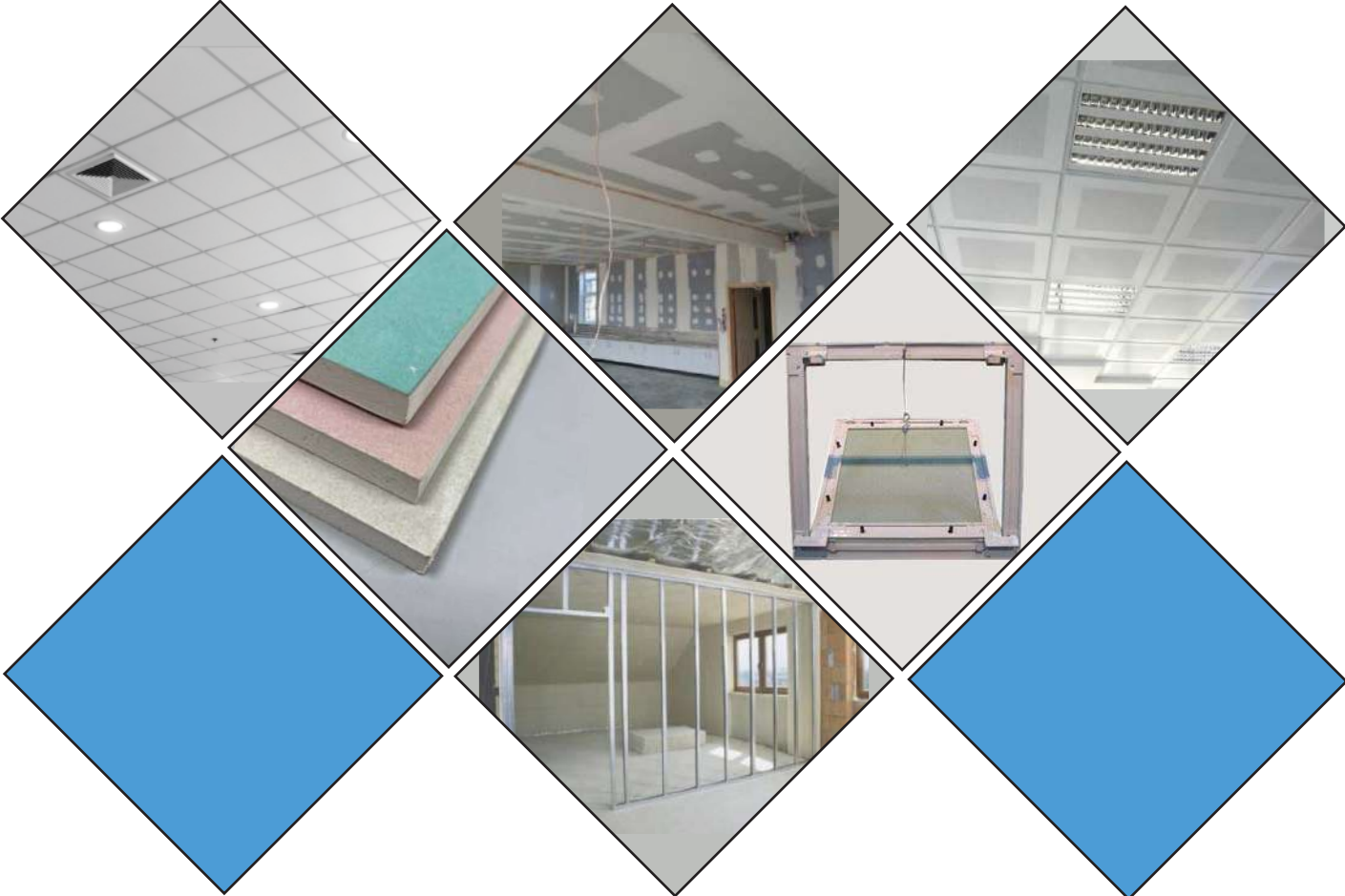


Expanded Metal Manufacturing Co.



Drywall Partition and Ceiling Systems

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FRAMING SYTEM SPECIFICATIONS

ASTM C645 - Standard Specification for Nonstructural Steel Framing Members

ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw - Attached Gypsum Panel Products

ASTM C 636M - Installation of Metal Ceiling Suspension System for Acoustical Tile and Lay-in Panels

BS 7364 - Galvanized Steel Studs and Channels for Stud and Sheet Partitions

BS EN 13964 - 2004 - Suspended Ceilings - Requirements and Test Methods

RAW MATERIAL SPECIFICATIONS

GALVANIZED STEEL

ASTM A 653-2005 - Standard Specification for Steel Sheet, Zinc-coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

BS EN 10346 - Continuously Hot-Dip Coated Steel Flat Products

ALUMINUM

ASTM B 209 -04 - Standard Specification for Aluminum and Aluminum - Alloy Sheet and Plate

BS EN 485 - Aluminum and Aluminum Alloys - Sheet, Strip and Plate

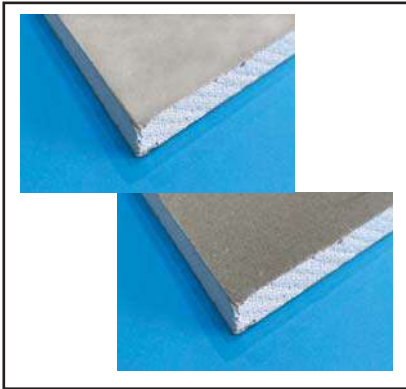
LEED / GSAS INFORMATION

RAW MATERIAL: GALVANIZED STEEL

LEED Requirement	EXMET Compliance
MRC.5 / M1: Regional Materials	<ul style="list-style-type: none"> Products are manufactured in Doha within 800 km distance
MRC.4 / M3: Recycled Content	<ul style="list-style-type: none"> Post-consumer content – 30% Post-industrial / Pre-consumer – 10%

RAW MATERIAL: ALUMINUM

LEED Requirement	EXMET Compliance
MRC.5 / M1: Regional Materials	<ul style="list-style-type: none"> Products are manufactured in Doha within 800 km distance
MRC.4 / M3: Recycled Content	<ul style="list-style-type: none"> Post-consumer content – 30% Post-industrial / Pre-consumer – 10%



REGULAR GYPSUM BOARD

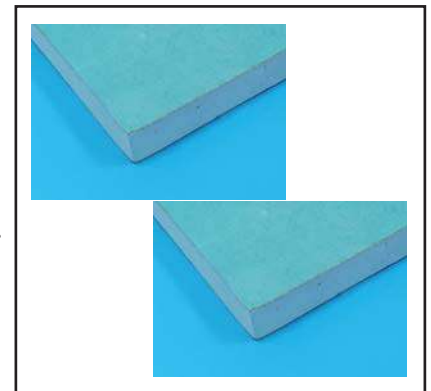
Made up of a non-combustible and mechanically stable aerated gypsum core, encased in heavy duty Kraft paper liner on either side. It can be fixed to timber, metal framing and masonry works for ceiling, partitions and wall linings, providing a high quality and economical finish to interior projects.

Board Color	Face Color: Ivory / Reverse Color: Grey
Technical Properties	Sound Insulation

MOISTURE RESISTANT GYPSUM BOARD

Water repellent agents has been added in the non-combustible mechanically stable aerated gypsum core. These board inhibit moisture absorption in the gypsum core when used for lining interior walls and ceilings, which may be exposed to a high degree of moisture.

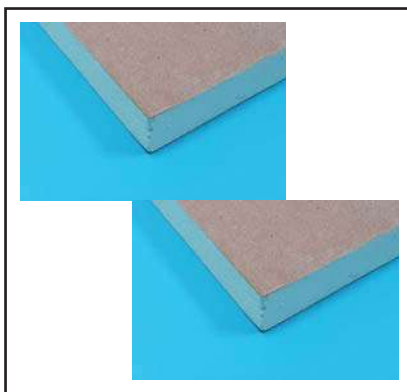
Board Color	Face Color: Green / Reverse Color: Green
Technical Properties	Moisture Absorption and Mold Growth Inhibition



FIRE RATED GYPSUM BOARD

Consist of gypsum core mixed with glass fiber chopped strands chopped strands and fire resistant expansion additives, firmly bonded to heavy duty Kraft paper liner on either side, increasing its strength and provided fire resistance property.

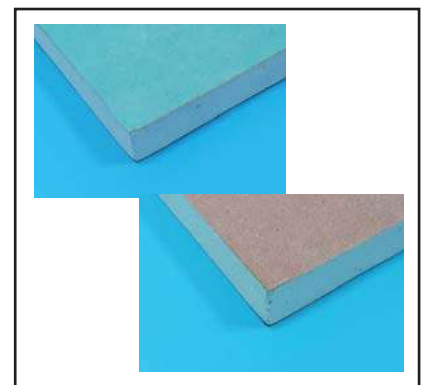
Board Color	Face Color: Pink / Reverse Color: Pink
Technical Properties	Fire-Resistant, Sound Resistant



FIRE AND MOISTURE RESISTANT GYPSUM BOARD GYPSUM BOARD

These boards have inherent properties of Firewall plasterboards and accrued Moisture Resistant plasterboards. This property is due to specific additives such as water repellents agents in the non-combustible, mechanically stable, and fire retarding gypsum core.

Board Color	Face Color: Green / Reverse Color: Grey
Technical Properties	Moisture Absorption and Mold Growth Inhibition



Thickness (mm)	9.5, 12.5, 15, 18
Edge Profile (mm)	Tapered Edge, Square Edge
Width (mm)	1200 - 1220
Length (mm)	2000 - 3000
Product Standards	ASTM C 1396 / C1396M



Cement boards are composed of cement and reinforcing fibers which are then formed into sheets of various thickness. These are used as a backing board nailed or screwed to wood or steel studs.

APPLICATION:

- Used on the exterior of buildings as a base of external plaster (stucco)
- Used as the final finish.

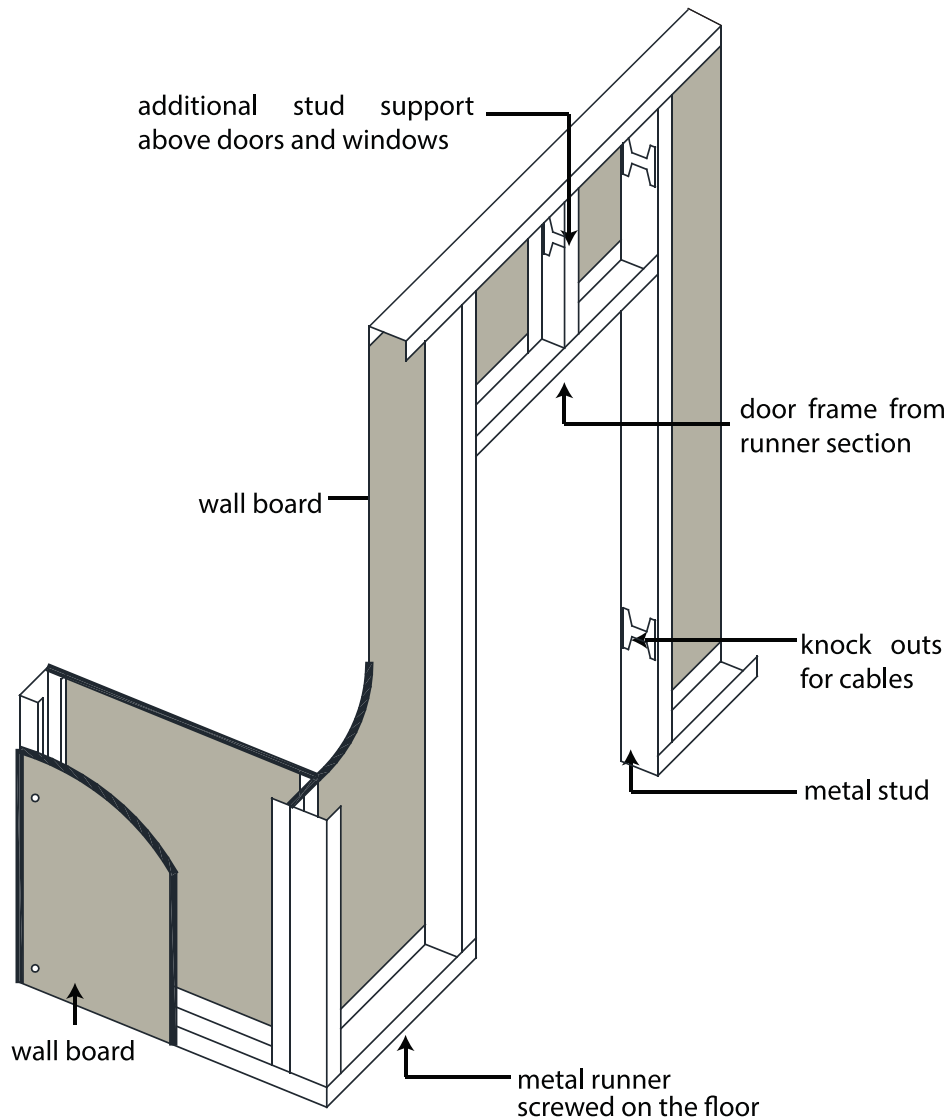
FEATURES:

- Adds impact resistance and strength to the wall surface.
- Also available in thin sheets with polymer modified cements to allow bending for curved surfaces.
- Better long term performance because it will not breakdown physically when there is moisture or leaks.

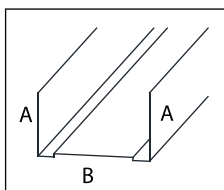
Thickness (mm)	6, 9, 12, 18
Width (mm)	1200 - 1220
Length (mm)	2400 - 2440

DRYWALL PARTITION

Dry wall is an interior non-load bearing wall or partition finished in a dry material, usually in the form of prefabricated sheets or panels fastened to galvanized studs and tracks.



RUNNER



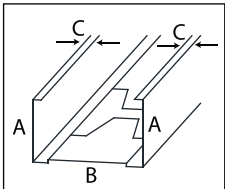
Type Code	Dimensions (mm)			Length (m)	Packing Pcs / bundle
	A	B	Thickness		
GRN-50	29 or 47	50	0.5mm to 1.5mm	3	200
GRN-64		64		3	200
GRN-70		70		3	200
GRN-75		75		3	200
GRN-92		92		3	200
GRN-100		100		3	200
GRN-125		125		3	200
GRN-150		150		3	200

* Width (B) varies ± 1 mm depend on thickness of material.

** other lengths can be arranged according to requirements

DRYWALL PARTITION

STUD



Type Code	Dimensions (mm)				Length (m)	Packing Pcs / bundle
	A	B	C	Thickness		
GST-50	34 or 50	48.2	5	0.5mm to 1.5mm	3	200
GST-64		63.0	5		3	200
GST-70		68.2	5		3	200
GST-75		73.2	5		3	200
GST-92		90.2	5		3	200
GST-100		98.2	5		3	200
GST-125		123.2	5		3	200
GST-150		148.2	5		3	200

* Width (B) varies ± 1 mm depend on thickness of material.

** other lengths can be arranged according to requirements

ACCESSORIES AND INSTALLATION NOTES:

Components	Dimensions	Approx. Requirements per 100 m ² Partition (3m Height)	Application
Runner	Size: 50 – 150 mm Thickness – 0.5 – 1.5mm	66 lm	Screwed to the ceiling and floor.
Stud	Size: 50 – 150 mm Thickness – 0.5 – 1.5mm	166 lm	Fitted to the runner. Knock-outs are provided for MEP connections
Gypsum Board	Board Thickness: 9.5, 12.5, 15, 18	Varies	Regular, Moisture Resistant, Fire and Moisture Resistant
Drywall Screw	Length: 25mm / 35mm / 45mm	1200 pcs.	For single layer or double layer plasterboard installation
Framing Screw	Length: 11mm	Varies	For attaching fixtures, back up plates, door frames plaster grounds, etc. to metal studs
Drywall Joint Tape	50mm x 54 m roll 50mm x 90m roll	150mm	For reinforcing tapered edges, joints and internal angles
Corner Tape	50mm x 30m roll	Varies	For strengthening external angles
GI Corner Bead (Thin Coat Bead)	Size: 25 x 25mm Thickness – 0.45mm Length – 2.7 / 3.0m		Used to reinforce external angles that need maximum protection
GI Edging Bead J – Trim / L – Trim	Size: 10 / 12.5 / 15.5mm Thickness – 0.45mm		Used to reinforce the board ends

Deflection Track System

It is a part of a wall construction assembly where there is an expected deflection of floor or beams above the partition, to accommodate this movement without damage to the wall and system assembly. The two common methods are:

a. Slotted Track – is simpler and faster. This consists of 1" (25mm or more slotted holes as shown below). The track is installed as usual but the vertical studs are cut at a minimum of 1/2" (12mm) shorter



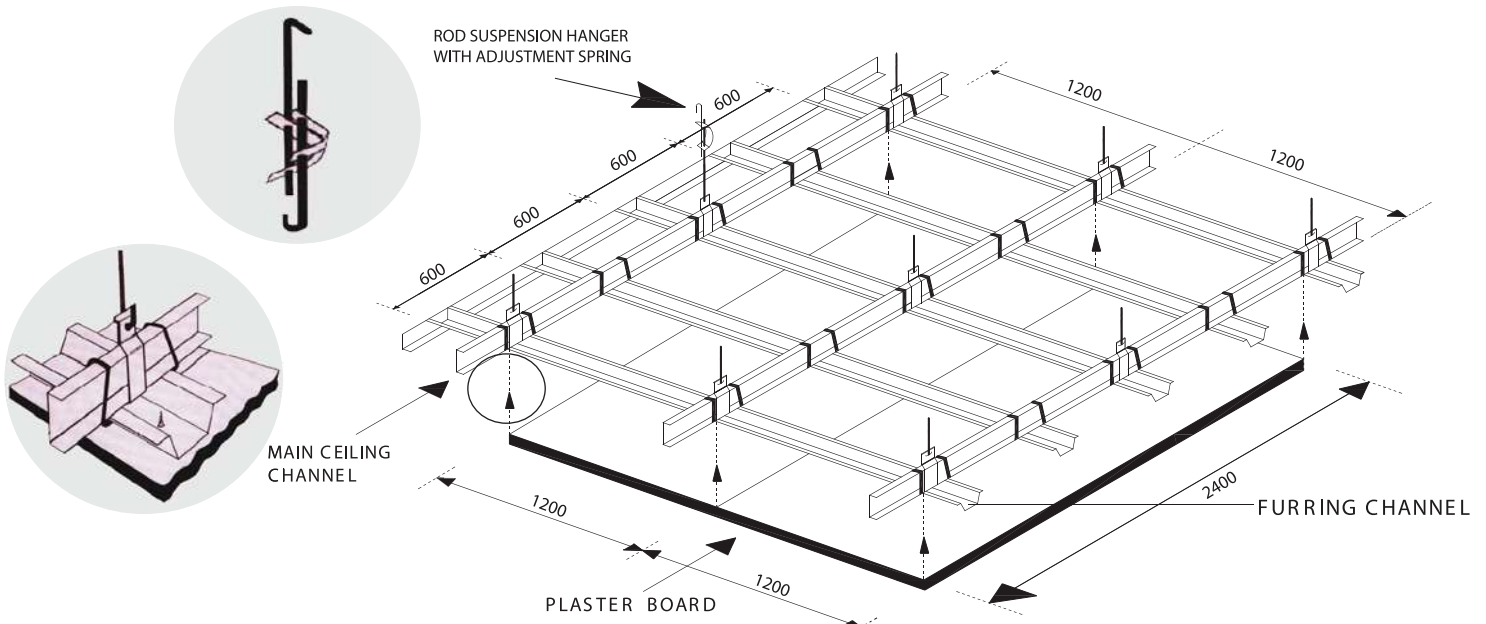
b. Double Track (Overtrack System) - consists of two tracks (runners). First one is called deep runner and it will be oversized (compared to the stud width by 1/8" (3mm), and it will have long flanges not less than 2" (50 mm). The deep runner is to be secured to the structure. The second track is a normal track that fits inside the deep runner.

Vertical studs will have to be cut short and temporarily secured to the regular track. The temporary fastener will be removed when the drywall is fitted. In this system, the drywall is held down below the oversized track.



FURRING CEILING SYSTEM

Furring ceiling system is a type of ceiling in which rigid furring channels and profiles are attached directly to the structural members of the building and is suitable for internal dry lining applications. This system provides a high performance ceiling that can be used for new ceiling structures or to upgrade existing ceilings and give it a decorative look.

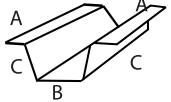
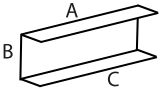
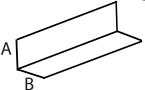
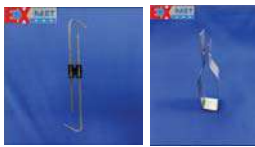




Profile	Type Code	Dimensions (mm)	Thickness (mm)	Length (m)	Packing Pcs / bundle
Perimeter Angle 	GPA-25	25 x 25	0.40 – 0.6	3	200
	GPA-30	25 x 30		3	200
Furring Channel 	GPF-35	12 x 22 x 35 x 22 x 12	0.45 – 0.9	3	200
	GPF-50*	12 x 22 x 50 x 22 x 12		3	200
Main Channel 	GPS-25*	11 x 25 x 11	0.55 – 1.0**	3	200
	GPS-38	11 x 38 x 11		3	200
	GPS-50*	11 x 50 x 11		3	200

*Non standard sizes, needs to be specially ordered.

** Other sizes can be arranged

ACCESSORIES AND INSTALLATION NOTES:

Components	Dimensions	Approx. Requirements per 100 m ²	Application
Furring Channel 	Size (B): 35 / 50 mm Thickness – 0.5 – 0.9mm	200 lm	Furring support section to which plaster board is screwed.
Main Channel 	Size (B): 25 / 38 / 50 mm Thickness – 0.55mm	110 lm	Used as main support for furring channel.
Perimeter Angle 	Size (B): 25 / 30 mm Thickness – 0.4 – 0.6mm	40 lm	Fixed around the perimeter to receive ends of the furring channels and the outer edges of the plasterboard.
Gypsum Board	Board Thickness: 9.5, 12.5, 15, 18	Varies	Regular, Moisture Resistant, Fire and Moisture Resistant
Adjustable Rod Hanger and Channel Bracket 	Bracket – 0.6mm thick Rod Diameter – 4mm	150 sets	Used as a hanger bracket to hang main ceiling channel to soffit.
U-Bracket with M6 threaded Rod, Anchor Nut and Washer 	Length: 25mm / 35mm / 45mm	150 sets	Alternative hanging system: To hang main ceiling channel to soffit.
Wire Connecting Clips	Diameter – 2.5mm	420 sets	Used to connect furring channel to main ceiling
Drywall Screw	Length: 25mm / 35mm / 45mm	1200 pcs	For single layer or double layer plasterboard installation
Drywall Joint Tape	50mm x 54 m roll 50mm x 90m roll	150mm	For reinforcing tapered edges, joints and internal angles
Ready-mix Joint Compound	25 kg / pail	35 kg	Serves as joint filer and joint finish
Trims: Z-Trim / W-Trim Shadow Groove 	Thickness – 0.45mm (available in other thickness as required)		Provides a clean, straight and shadow edge after setting.

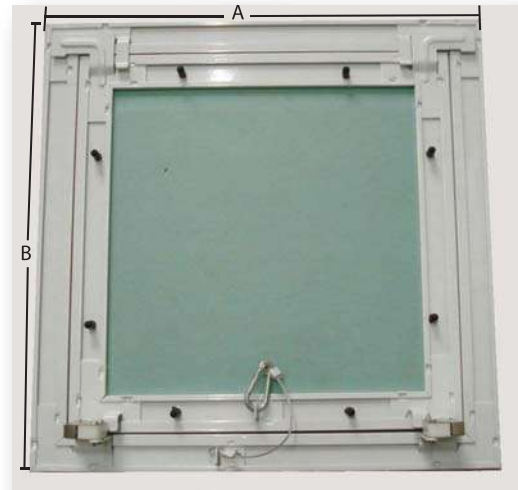
ACCESS PANEL

The installation frame of the inspection flap consists of 4 single, mitered aluminum profiles that are firmly connected with each other through hidden corner plates and a mortise joint.

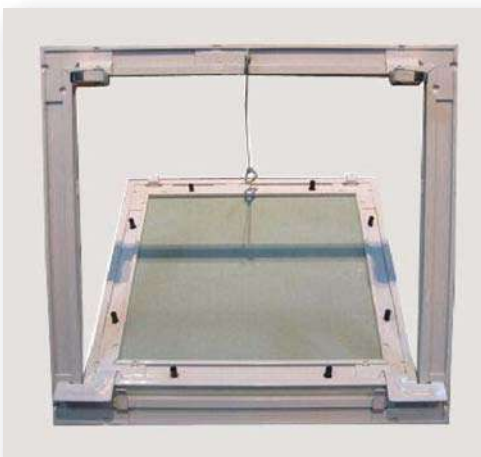
Thanks to the removable flap lid, easy installation on the wall or the ceiling is insured.

The inspection flap is equipped with a safety catch on front side. The bearing sheets on the flap lid and the counter sheet on the frame allow the inspection flap to be both wall-mounted and ceiling-mounted.

The concealed snap locks open the inspection flap when pushed.



Item No.	Normal Size (mm)		
	A	B	Thickness of Gypsum
GA3030	300	300	12.5
GA3060	300	600	12.5
GA4040	400	400	12.5
GA4060	400	600	12.5
GA4545	450	450	12.5
GA5050	500	500	12.5
GA6060	600	600	12.5
GA8080	800	800	12.5
GA60120	600	1200	12.5



Assembly Instructions:

A - Check inspection flap for proper function.

B - Cut out opening (approx. 6mm larger than the normal size).

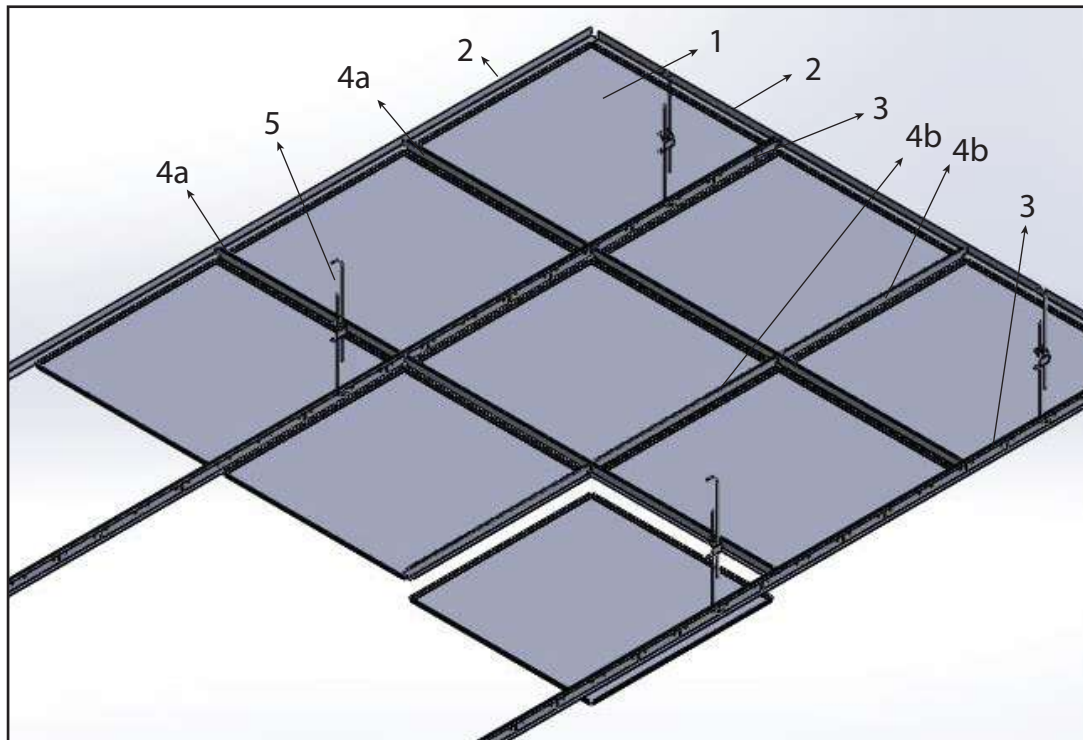
C - Remove flap lid, diagonally push the frame through the opening and install it

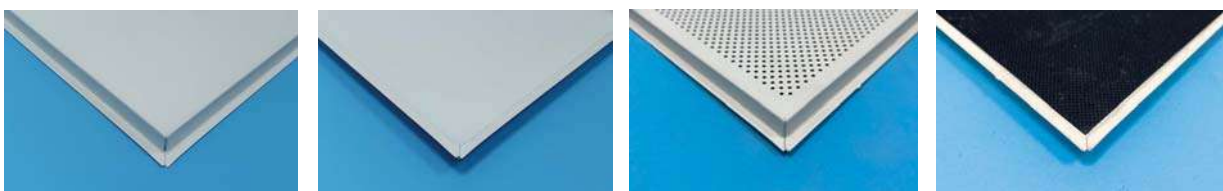

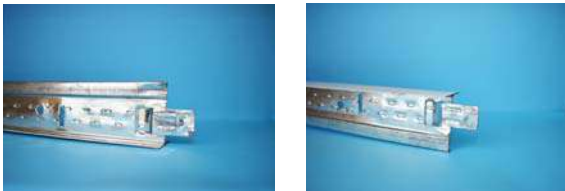


Align the frame - with wall installation, ensure snap lock is facing upwards - chuck (with screw clamp or the like) and pre-drill (When using screws with drill points, pre-drilling is not required).

Attention:

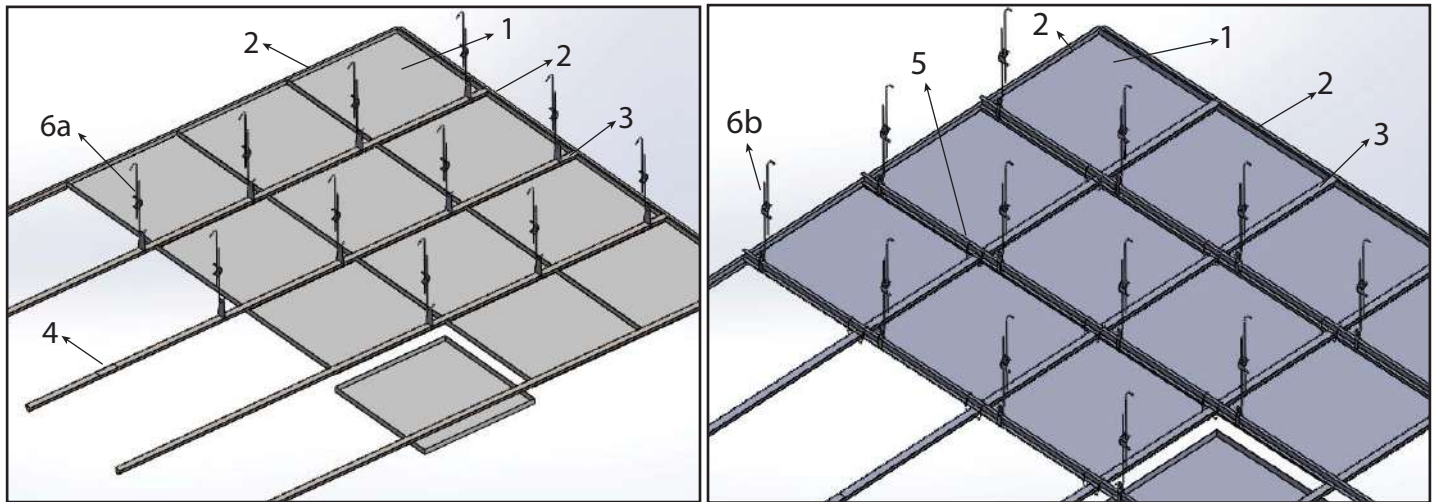
The frame has to be bolted on each side: Up to 300mm frame length, 2 screws per side of frame; as from 300mm frame length, 3 screws per side of frame. Evenly distribute the drill holes over the entire length. Screw in drywall screws (screw heads have to be slightly countersunk in the ceiling or wall plate) and cover the thread ends that are pointing out on the rear side with the provided protective caps. Seal the space between the gypsum plaster plate and the frame with drywall adhesive.

LAY-IN SYSTEM



COMPONENT	
Description and Size	
<p>Aluminum Ceiling ① Material: Powder Coated Aluminum Perforated or Plain Size: 600 x 600</p> 	
<p>Wall Angle ② Material: Powder Coated Aluminum Size: 24 x 24 mm Length: 3 meter</p> 	<p>Main Tee ③ Length: 3.6 meter</p> 
<p>Cross Tee Length : 1200 mm ④a Length : 600 mm ④b</p> 	<p>Adjustable Rod Hanger with Butterfly Clip ⑤ Rod Diameter: 3.8 - 4.8 mm</p> 

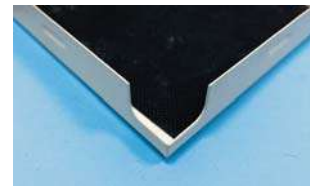
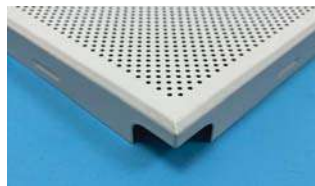
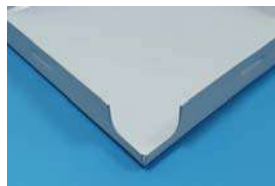
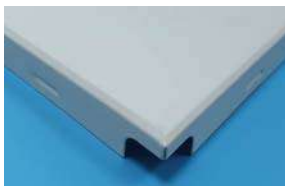
CLIP-IN SYSTEM



COMPONENTS Description and Size

Aluminum Ceiling ①

Material: Powder Coated Aluminum | Perforated or Plain
Size: 600 x 600



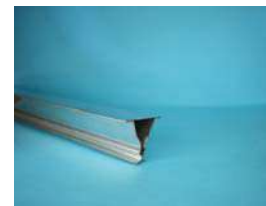
U - Molding ②

Material: Powder Coated Aluminum
Size: 15 x 35 x 15 mm



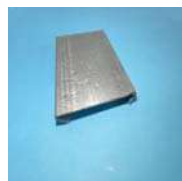
Spring Tee ③

Material: Galvanized Steel
Width: 33mm
Height: 27.5mm



Spring Tee Connector ④

Material: Galvanized Steel
Thickness: 0.4mm



Main Channel with Wire Connecting Clip ⑤

Material: Galvanized Steel
Main Channel Size: 11 x 38 x 11 mm
Main Channel Thickness: 0.4-0.6mm
Wire Connecting Clip Dia.: 2.5mm



Spring Tee Hanger ⑥a

Rod Diameter: 3 - 4.8 mm
Spring Tee Bracket Thickness: 0.7mm

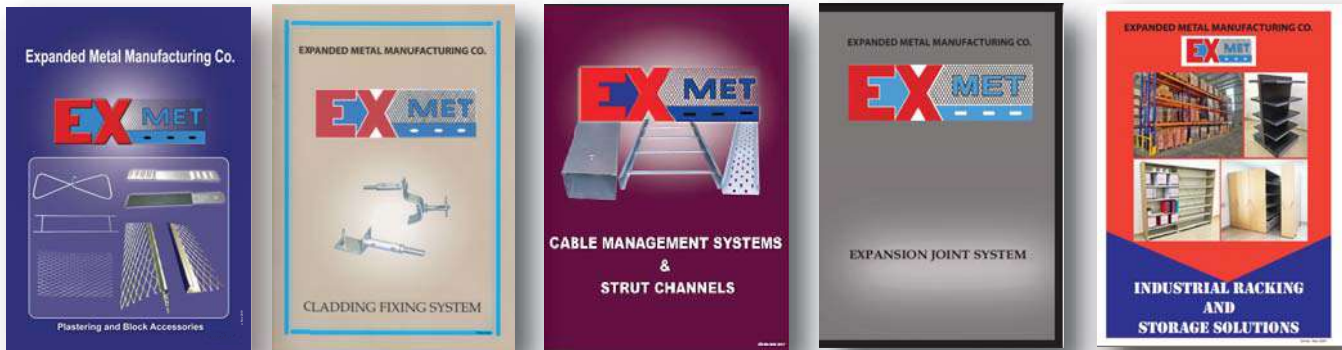


Adjustable Rod Hanger with Bracket ⑥b

Rod Diameter: 3 - 4.8 mm
Bracket Thickness: 0.6mm



OUR PRODUCT CATALOGUES



BLUE - BUILDING MATERIALS

- Plastering Accessories
- Blockwork Accessories
- Gypsum Accessories
 - * Drywall Partition
 - * Suspended Ceiling
- Pipe Hangers and Clamps
- Threaded Rods and Accessories

GREY - EXPANSION JOINT SYSTEM

ORANGE - INDUSTRIAL SHELVING AND STORAGE SOLUTIONS

MAROON - CABLE MANAGEMENT SYSTEM

- Cable Tray
- Basket Tray
- Cable Ladder
- Cable Trunking
- Strut Channel System

OFF WHITE - CLADDING FIXING SYSTEM

- Cladding Fixing System for:
 - * Marble and Granite
 - * Stone, etc.
- Cable Management Fixing System
- Lavatory Fixing System
- Air Conditioning Fixing System
- Strut Channel System

Gauge No.	SWG		BG	BWG	USG
	inches	mm	inches	inches	inches
0	.324	8.230	.3964	.340	-
1	.300	7.620	.3532	.300	-
2	.276	7.010	.3147	.284	-
3	.252	6.401	.2804	.259	.2391
4	.232	5.893	.250	.238	.2242
5	.212	5.385	.2225	.220	.2092
6	.192	4.877	.1981	.203	.1943
7	.176	4.470	.1764	.180	.1793
8	.160	4.064	.157	.165	.1644
9	.144	3.658	.1398	.148	.1495
10	.128	3.251	.125	.134	.1345
11	.116	2.946	.113	.120	.1196
12	.104	2.642	.0991	.109	.1046
13	.092	2.337	.0882	.095	.0897
14	.080	2.032	.0785	.083	.0747
15	.072	1.829	.0699	.072	.0673
16	.064	1.626	.0625	.065	.0598
17	.056	1.422	.0556	.058	.0538
18	.048	1.219	.0495	.049	.0478
19	.040	1.016	.0440	.042	.0418
20	.036	0.914	.0392	.035	.0359
21	.032	0.813	.0349	.032	.0329
22	.028	0.711	.03125	.028	.0299
23	.024	0.610	.02782	.025	.0269
24	.022	0.559	.02476	.022	.0239
25	.020	0.508	.02204	.020	.0209
26	.018	0.457	.01961	.018	.0179
27	.0164	0.4166	.01745	.016	.0164
28	.0148	0.3759	.015625	.014	.0149
29	.0136	0.3454	.0139	.013	.0135
30	.0124	0.3150	.0123	.012	.0120
31	.0116	0.2946	.011	.010	.0105
32	.0108	0.2743	.0098	.009	.0097
33	.0100	0.254	.0087	.008	.0090
34	.0092	0.2369	.0077	.007	.0082
35	.0084	0.2134	.0069	.005	.0075
36	.0076	0.1930	-	.004	-



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