

MODERN METAL

INDUSTRIES CO.



GYPSUM PROFILES





MMICO POLICY

We don't merely supply steel but far beyond that. We supply strong proactive solutions and forward thinking ingenuity, anything it takes to make your job, and your life easier.

From product innovation to agile customer service, Modern Metal Industries Co. offers you all of the quality, ease and support you're looking for in a partner. Allow us to relieve you from the hassle of working with steel.

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INTRODUCTION

Gypsum boards

Gypsum drywall shaft construction has become the preferred alternative to traditional masonry shafts. One-inch Shaft liner board was developed as a lightweight, easy-to-install replacement for masonry in the interior core of buildings for shaft walls, stairwells, other vertical chases and mechanical enclosures. Shaft liner board is also used as a component of 2" solid partitions, and area separation walls with a layer of 1/2" Regular or Fire-Shield Gypsum Board attached to each side.

The benefits of gypsum drywall shaft systems go far beyond the difference in weight alone. The core wall of a shaft can be installed from the exterior of the shaft and requires no scaffolding. Erection is speedy and clean. Shaft liner also provides excellent sound control and can achieve the fire ratings necessary for today's building standards. Best of all, gypsum shaft wall systems are more economical than masonry shaft construction.



DRY WALL FRAMING SYSTEM

Specifications:

MMICO Dry Wall Framing system comply with:

-ASTM-C645 Nonstructural steel framing members requirements

•Pre-galvanized steel complying with:

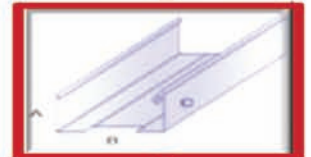
-BS 2989: steel grade Z2, zinc coating type G275.

-ASTM A653M - G90 -DIN EN 10147



Structural Runner Schedule

Codes	Size	dimension			Length (mm)	Psc.\ Palliated bundle
		A	B	C		
RN-048 -GS	48 mm	29	49	29	3000	200
RN-063 -GS	63 mm	29	64	29	3000	200
RN-070 -GS	70 mm	29	71	29	3000	100
RN-075 -GS	75 mm	29	76	29	3000	100
RN-092 -GS	92 mm	29	93	29	3000	100
RN-100 -GS	100 mm	29	101	29	3000	100
RN-125 -GS	125 mm	29	126	29	3000	100
RN-150 -GS	150 mm	29	151	29	3000	100



Structural Stud Schedule

Codes	Size	dimension			Length (mm)	Psc.\ Palliated bundle
		A	B	C		
ST-048-GS	48 mm	29	49	29	3000	200
ST-063-GS	63 mm	29	64	29	3000	200
ST-070-GS	70 mm	29	71	29	3000	100
ST-075 -GS	75 mm	29	76	29	3000	100
ST-092-GS	92 mm	29	93	29	3000	100
ST-100-GS	100 mm	29	101	29	3000	100
ST-125-GS	125 mm	29	126	29	3000	100
ST-150-GS	150 mm	29	151	29	3000	100





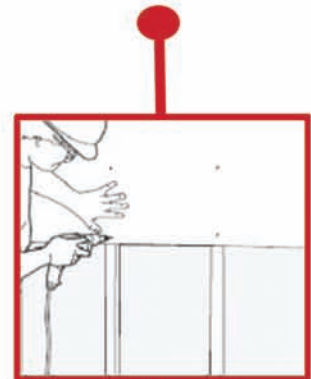
Installation

Code	Description	Dimensions(Approx Requirement Per100m ² portion 3m high	application
RN	Runner	48 to 150 mm	66 lm	Forms heads & Base perimeter Frame of partition
ST	stud	48 to 150 mm	200 lm	Forms vertical Component Of partition

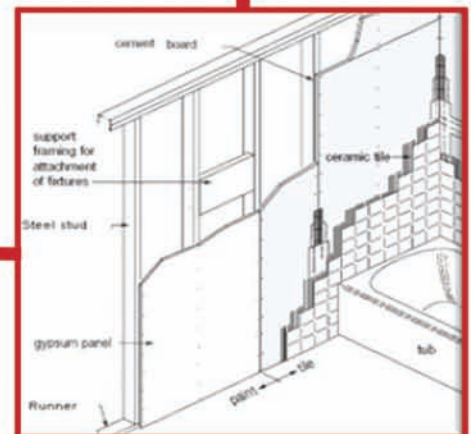


Dry Wall Framing System installation Standards: ASTM C754 / ASTM C840

- Install the steel runner on the floor and ceiling
- Use a plumb bob to ensure correct placement.
- measure the studs and fasten them to the interior of the runner. Stud to be screwed into place every 600 mm.
- Studs shall not be located more than 50 mm from door jambs and abutting partitions.



At (L) or (T) junction, leave clearance at top and bottom for board thickness





SUSPENDED CEILING SYSTEM

Specifications :

MMICO Suspended Ceiling system comply with:

-ASTM-C645 Nonstructural steel framing members requirements

• Pre-galvanized steel complying with:

-BS 2989: steel grade Z2, zinc coating type G275.

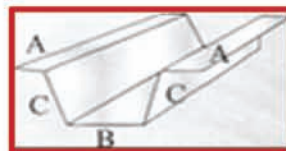
-ASTM A653M - G90 -DIN EN 10147

Ceiling System Schedule

Code	Dimensions (mm)	Length (cm)	Pes./Palletted Bundle
MC038-GS	11x38x11	300	500
FC035-GS	12x22x35x22x12	300	250
PA025-GS	25x25	300	500



Main Ceiling Channel



Furring Channel



Perimeter Angle
(Wall Angle)



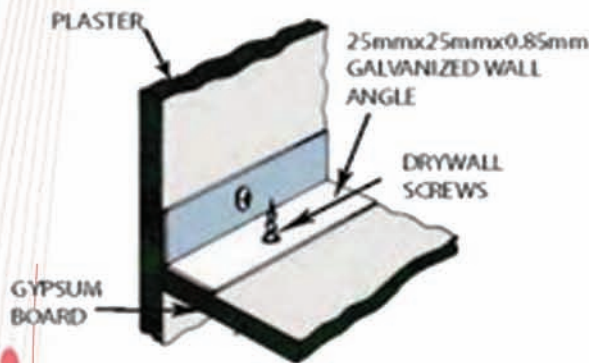
Installation

Code	Description	Dimensions	Approx requirement Per 100m ²	Application
MC	Main Ceiling Channel	11 x 38 x 11mm	110 lm	Main support for furring channels
FC	Furring Channel	12x22x35 x 22 x 12mm	200 lm	Support section where plaster board is fixed
PA	Perimeter Angle (Wall Angle)	25 x 25 mm	40lm	Fixed round the perimeter receive ends of furring channels and outer edges of plaster board

Suspended Ceiling Installation

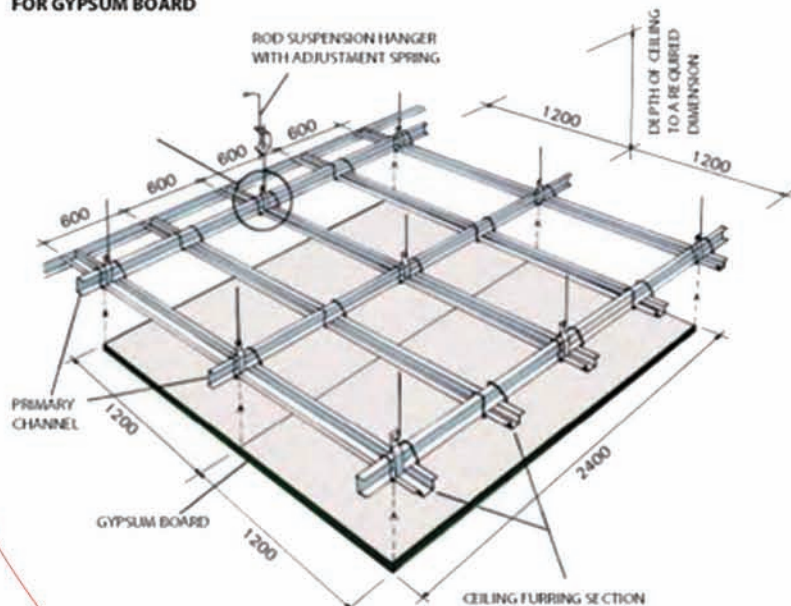
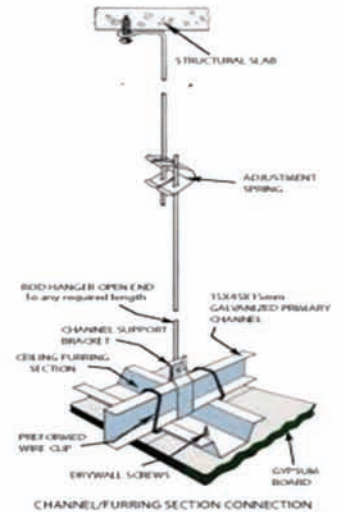
Main channels set at 1200 mm center with hanger 1200mm center-starting no more than 450mm from wall. Furring sections are set at 600mm or 450mm centers depending on thickness and number of layers of the boards.

- Perimeter angle is set on all sides of the ceiling giving a base for gypsum board.



CEILING/WALL JUNCTION

A QUICK AND EASY TO INSTALL SYSTEM FOR GYPSUM BOARD





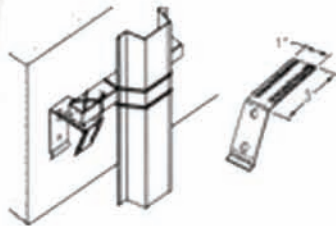
ACCESSORIES



(11.1mm) Pan Head
Attached 25-ga. steel stud to runner.



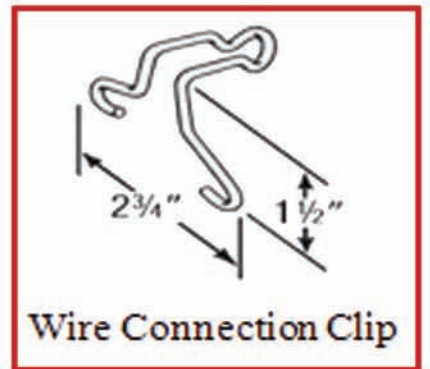
(25.4mm) Bugle Head Type S
Attached 1/2 inch single layer gypsum panel and
passes and bases to steel framing.
Also batten strip for demountable partition



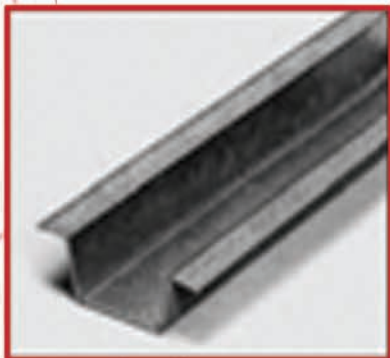
Adjustable wall furring bracket



Hanger and tie wire



Wire Connection Clip



Furring channel



Corner tape



Wire Connection Clip



TOOLS

Framing & Acoustical Ceiling Installation

Magnetic Spirit Level

Ensure that steel framing members are level and plumb. Typical length is 4" available in 2" -7 " lengths.



Measuring Tape

Retractable steel tape measure is essential for accurate measurements in preparation for cutting and attaching board .

Chop saw

Cut wood and steel framing members with an abrasive metal blade. Its steel base can be placed on a bench, saw horse or floor for fast and efficient gang-cutting of members.



Power fastener driver

drives fasteners into concrete or steel for attachment of framing members. Power-driven model shown .



Drywall Saw

Used for cutting gypsum board quickly and easily .





TOOLS NAME

Drywall Hummer Saw



Taping Knives



Pop Rivet Tool



Keyhole-type utility saw



Metal Snip



Magnetic Spirit Level



Chalk line



Circle Cutter



Power Fastener Driver



Circular Saw



Drywall Hummer Saw



Chop Saw



Lather`s Nipper



Drywall Saw



Locking Pliers/clamp



Measuring Tape





GYPSUM BOARDS

Plaster board range

Description

Boards are composed of a gypsum core encased in paper on the face side and a paper liner side. The face paper is folded around long edges to reinforce and protect the core. The ends ; cut and finished smooth. The long edges are tapered on the face side to form a shallow chain joint reinforcement.

Advantages

- Eliminate excessive moisture in construction.
- Exceptionally resistant to cracks caused by minor movements, vibrations or settlements.
- Quick and easily applied, low cost installation.
- Suitable for all decorations: Paint, textile, wallpaper, tiling.

Applications

- For internal use :
- * Ceiling frame
 - * Under roofing
 - * Wall lining
 - * Partitioning

Regular boards

Thickness mm	Width mm (+0 mm -5 mm)	Approx.weight Kg/m3	Length mm (+ 0.5 mm)
9.5	1200	7.9	1800 - 4000
12.5	1200	10.2	1800 - 4000
15	1200	12.1	1800 - 4000
18	1200	14.9	1800 - 4000

•Technical characteristics / Thermal resistance

9.5 mm	0.03 m: K/W
12.5 & 15 mm	0.04 m2. K/W

18 mm	0.05 m2. K/W
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Water Resistant

Boards are covered with a multi sheet cellulose, impregnated with silicone.

The core of the boards is also treated with silicone oil.

This treatment provides a high protection against water and moisture

Properties

The main technical properties of water resistant gypsum boards are:

- Moisture absorption according to ASTM C 473/84 tests.
- Surface absorption less than 160 gm. after 2 hours.

Applications

- Immersion absorption less than 5% of the weight after two hours of immersion.

The main application is for walls and partitions where there is a risk of flooding, such as: Bathrooms, kitchens, gymnasiums, technical rooms, basements, etc.



Fire Resistant

Those are the gypsum boards which have fiber glass incorporated in their plaster cores thus achieving a greater fire resistance.

Properties & Applications

The greater fire resistance of those boards makes them specially adequate for buildings where a special fire protection is required. Thermal conductivity (W/m² °C): 0.18.

Classified M-1, non flammable cording to UNE 23.727 standard.

Standard Dimensions (mm).		
Thickness	12.5	15
Width	1200	1200
Length	2400-3000	2400-3000

Boards Working

Stacks of boards should be stored on a level surface in a dry place, preferably inside a building and protected from damp and rainy weather. It is possible to stack 4 pallets one on each other.

Handling

Boards should be carried on edge.

Cutting

With a knife or cutter

Screwing of Gypsum Boards

Use a power screwdriver and drywall screws, adjust the chuck of the screwdriver, for proper depth.





MATERIAL

Plain

A. Hot Rolled Steel Plates, Sheets and Coils S235JIR, S355JR

As per:
EN 10025-2 / DIN 17100 / BS 4360 / ASTM A 653M / ASTM A 1011 / ASTM A 1011-01 a
JIS 3101 / JIS 3106 / GB 700 / GB / T1591.
ASTM A 907 / ASTM A 1018M.
ASTM A570M / ASTM A572M.

B. Cold Rolled Steel DC01,

As per:
EN 10130 / DIN 1623, Part 2 / BS 1449:1 / ASTM A366 / ASTM A 1008 / JIS G 3141 / GB 699.
EN 10131 / ASTM A568M

Galvanized

C. Continuously Pre-Galvanized Hot – Dip Zinc Coated Steel DX51D+Z,

As per:
EN 10327 / DIN 17162 / BS 2989 / ASTM A 527M / ASTM A 653M / AS G 3302.
EN 10326 / EN 10142 / ASTM A 526, 527, 528 / ASTM A146

D. Electro Galvanized Steel (Electrolytic Coating) DC01+ZE,

As per:
EN 10152 / DIN 17163 / ASTM A591 / AS G 3313 / JIS G 3141 / 13S 1449:1
EN 10131

Stainless Steel

As per:
ASTM A 240 / EN 10088-2 / DIN 17400 / BS 1449:2 / ASTM A480 / ASTM A666 / ISO 3506 / EN 10028-7 / JIS G 4304

F.1 Stainless Steel Fasteners EN 3506

F.2 Stainless Steels Wire BS 1554, ASTM A276

Aluminum

G. Aluminum 5052 & 6063



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