



MADA ■
GYPSUM

Plasterboard Ceiling Systems 2024



Issue No. 01
June 2024

■ Introduction

Plasterboard ceilings are a popular choice for many homeowners and builders due to their many advantages:

Affordability: Plasterboard is cheaper than bricks and cement.

Sound insulation: Plasterboard has added benefits of sound insulation.

Fire protection: Plasterboard helps builders and designers meet building regulations for fire protection.

Thermal efficiency: Plasterboard helps to control condensation and potential damage in areas of high humidity. It has a lower thermal conductivity which saves cost for heating and cooling rooms.

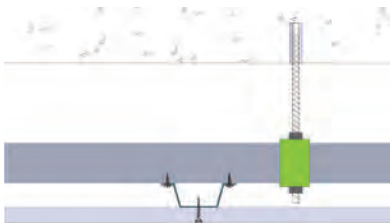
Conceals wires: Plasterboard is an excellent spot to conceal wires.

Excellent finish: Plasterboard provides an exceptional finish.

Non-combustible: Gypsum, the main constituent of plaster, is a non-combustible material.

Mada Gypsum offers a variety of installation methods for its ceiling solutions depending on the accessories chosen, with a consideration for corridors systems. Mada offers a choice between monolithic or tile options, single or double boards, with an option for insulation.

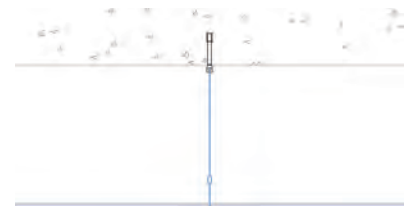
Metal Framing Ceiling System



Free Span Ceiling System



Tile & Grid



Metal Framing System

The most common solution for creating simple, cost-effective, monolithic ceilings, Mada Metal Framing Ceiling is highly adaptive being able to offer fire rated solutions and high-performance acoustic mass barrier configurations.

Components:



Mada Plus Plasterboards are produced from high purity natural gypsum core being sheeted in a closely adhering best selected paper liners.

Manufactured to ASTM C1396 & EN 520.

Size: 2400mm x 1200mm

Thicknesses: 12.5mm & 16mm

- Mada PLUS Regular Plasterboard
- Mada PLUS Moisture Resistant Plasterboard
- Mada PLUS Fire Resistant Plasterboard
- Mada PLUS Fire & Moisture Resistant Plasterboard



Mada Main Channel forms the primary frame of the drywall ceiling framework. It is suspended from the ceiling roof using hooked wire, adjustment clip or rigid hangers.

Manufactured to ASTM C645 and ASTM A641.

Thicknesses: 0.55mm to 1.20mm.



Mada Furring Channel is designed for furr-out any surface for application of final finish. It forms the secondary frame of the drywall ceiling framework.

Manufactured to ASTM C645 and ASTM A641.

Thicknesses: 0.55mm to 1.20mm.



Mada Wall Angle forms the periphery of the drywall ceiling framework. It is fixed to the wall with the help of anchors & serves as support for intermediate channels.

Manufactured to ASTM C645 and ASTM A641.

Thicknesses: 0.55mm to 1.20mm.

■ Metal Framing System *(continued)*

Components:



Mada Threaded Rods are designed to be used in high tensions.

Threaded rods are used to suspend ceilings with one end fixed to the concrete slab /Beams or any other structure with suitable fixings and the other end to the ceiling framework. Manufactured to ASTM C645 & EN 14195.



Mada Drop-In Anchor is an all steel, medium duty, displacement setting, expansion anchor designed to provide a permanent anchorage point in concrete.



Mada C-Clamp is designed to hold primary ceiling channel to soffit by means of threaded rod. Confirms ASTM C645 & EN 14195.



Mada Slotted L-Bracket

Mada specially design L-bracket is typically used to transfer loads in external wall/heavy load attachment/high rise partition where deflection allowance is needed. The rigid structure in the shape of an L, one arm fixed to a vertical (Stud) surface, the other fixed to the support such as Wall, Ceiling, Slab, etc.



Mada Suspension L-Bracket

Mada specially design L-bracket is typically used as suspension bracket. The rigid structure in the shape of an L, one arm fixed to a vertical (suspension) surface, the other fixed to the support such as ceiling, slab, etc.



Mada Self Tapping Screw

Mada Self Tapping bugle head screws is the ability of the screw to advance while creating its own thread. It is used for fastening drywall and other accessories mounting on steel structures below 0.8mm thick.



Mada Wafer Head Self Drilling

Mada Wafer Head Self Drilling screws with a head diameter of 11mm are designed for assembling steel framing components for up to 3.0mm thick. The additional bearing forces provided by a wider head mean fewer screws are required. It is an excellent choice for general purpose, light-to-medium-duty use"

■ Metal Framing System *(continued)*



Mada Furring Channel Clip (Wire Clip)

is designed to hold secondary ceiling furring channel to primary main channel. This Clip can accommodate 70mm & 85mm furring channel.



Mada Fiber Joint Tape

is composed of twisted strands of fiber glass woven at right angles to one another and used for reinforcing drywall joints. Suitable for hand or mechanical application with Mada Gypsum's Jointing Compound.



Mada Paper Joint Tape

is non-elastic and will create stronger joints. The Paper joint tape must be completely saturated and embedded into the base coat to avoid air bubbles. It is suitable for hand or mechanical application with Mada's jointing compound.



Rockwool Insulation

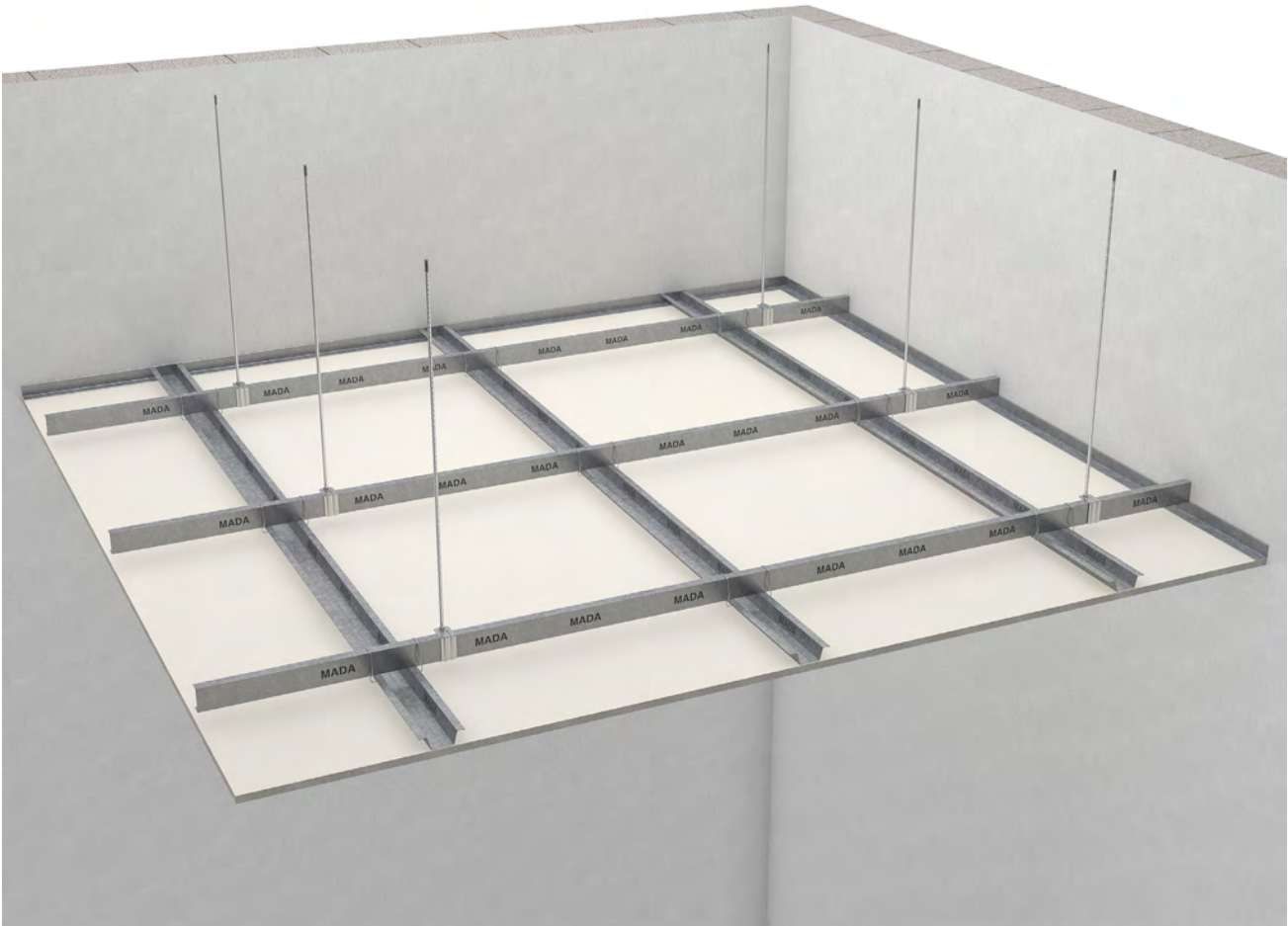
Rockwool is an insulating material manufactured from natural minerals such as basalt, which are melted at very high temperatures and spun using advanced production techniques. The fibers are then bonded with a thermosetting resin binder and special additives. It has good thermal and acoustic properties, is lightweight and strong, and classed as non-combustible when tested to BS:476.






Glasswool Insulation

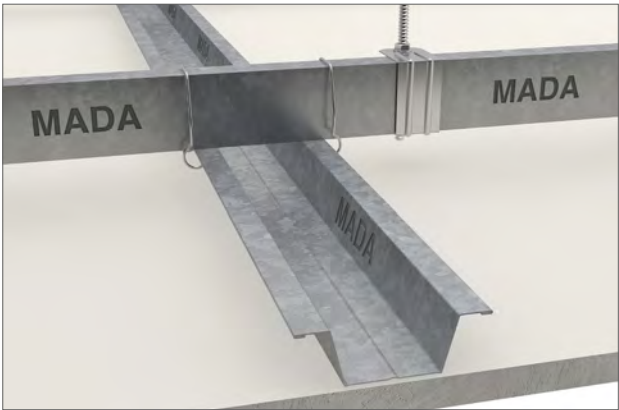
An insulating material consisting of fine, long, inorganic fibers bonded together by a high-temperature binder. Excellent acoustic properties, lightweight, high-tensile strength, with exceptional resilience.

Metal Framing System | Threaded Rod



Performance	Mada PLUS Plasterboard	Mada Insulation	Test Standard
 1 Hour	2 x 16mm Mada PLUS Fire Resistant Plasterboard	Rockwool insulation 50mm - 40 kg/m ³	EN 2-1364
 2 Hour	4 x 16mm Mada PLUS Fire Resistant Plasterboard	Rockwool insulation 50mm - 40 kg/m ³	EN 2-1364
 45 STC	3 x 16mm Mada PLUS Fire Resistant Plasterboard	Glasswool insulation 75mm - 24 kg/m ³	ASTM E90

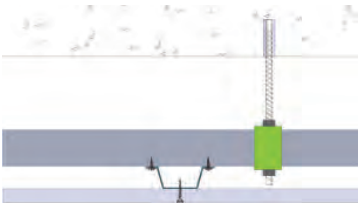
Metal Framing System | Threaded Rod *(continued)*



Threaded Rod Load Table
Based on 0.55mm Mada Sections

Hanger Centres (mm)	Main Channel Centers (mm)	Furring Channel Centers (mm)	Maximum Load (kg/m²)
1200	1200	400	19.60
1000	1000	400	24.50
600	900	400	34.30
600	600	400	39.20

Non rated



Fire Rating
Not rated

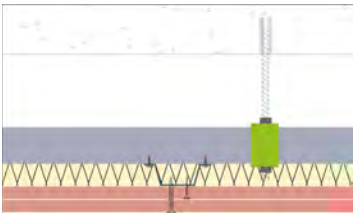
Board Thickness
1 Layer of 12.5 Regular

Main Channel Centers
900mm

Insulation
None

Furring Channel Centers
400mm

1 hour fire rated solution



Fire Rating
EN1364-2: 60 min

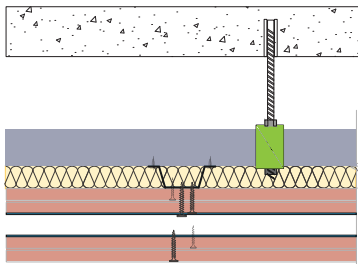
Board Thickness
2 Layers of 16 Fire Resistant

Main Channel Centers
900mm

Insulation
50mm Rockwool (40 kg/m³)

Furring Channel Centers
400mm

2 hour fire rated solution



Fire Rating
EN1364-2: 120 min

Board Thickness
4 Layers of 16 Fire Resistant

Main Channel Centers
900mm

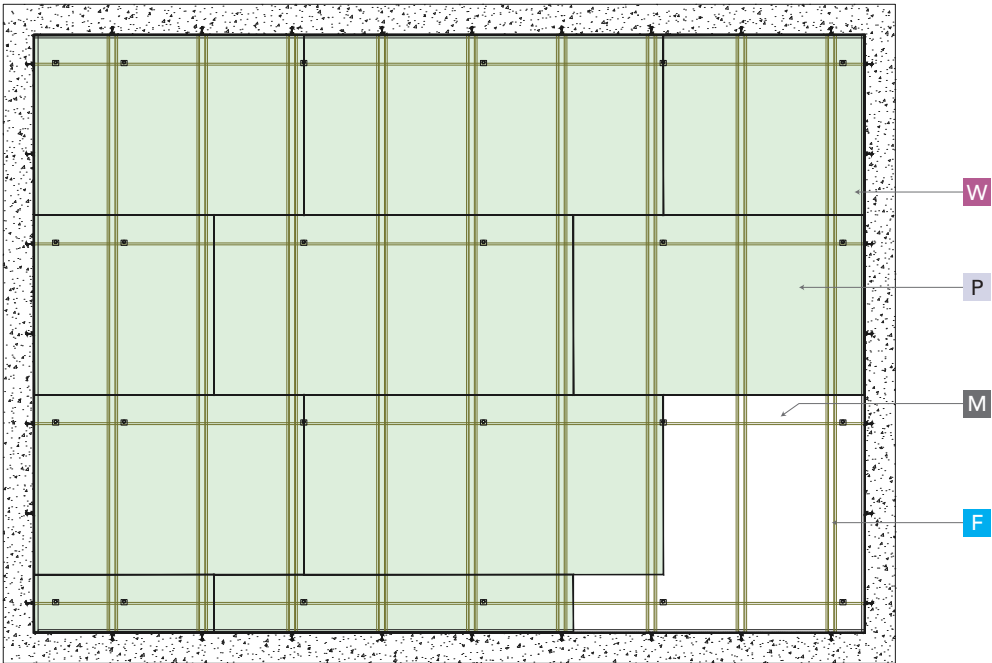
Insulation
50mm Rockwool (40 kg/m³)

Furring Channel Centers
400mm

■

Metal Framing System | Threaded Rod (continued)

Ceiling Board - Reflecting Ceiling Plan
Double Layer



PLAN VIEW - REFLECTED CEILING PLAN (THREADED ROD) - DOUBLE LAYER

- M

Mada Main Channel
- P

Mada Plus Plasterboard
- W

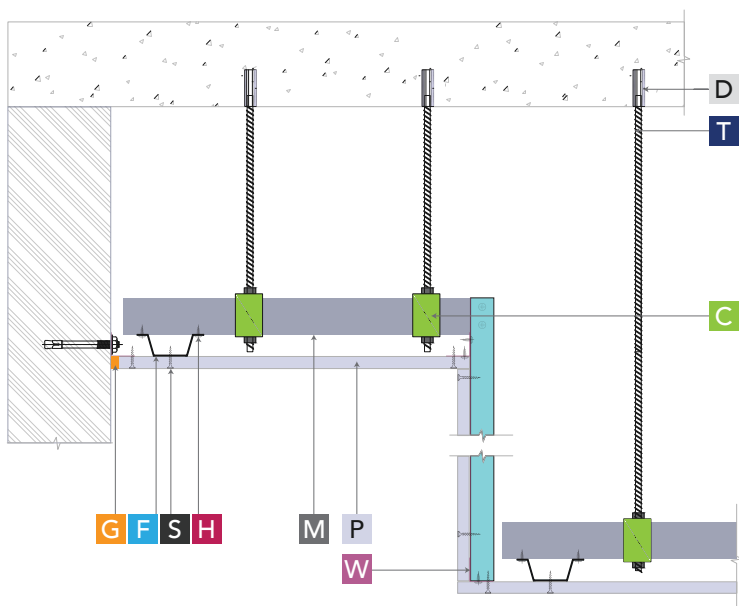
Mada Wall Angle
- F

Mada Furring Channel

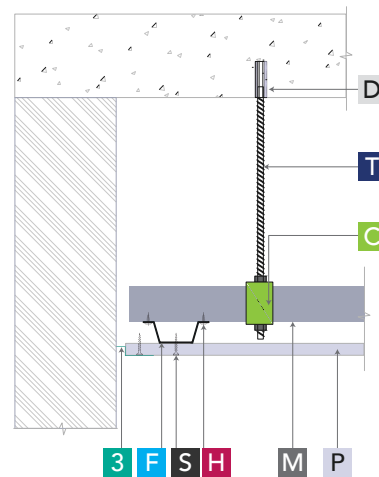


Metal Framing System | Threaded Rod *(continued)*

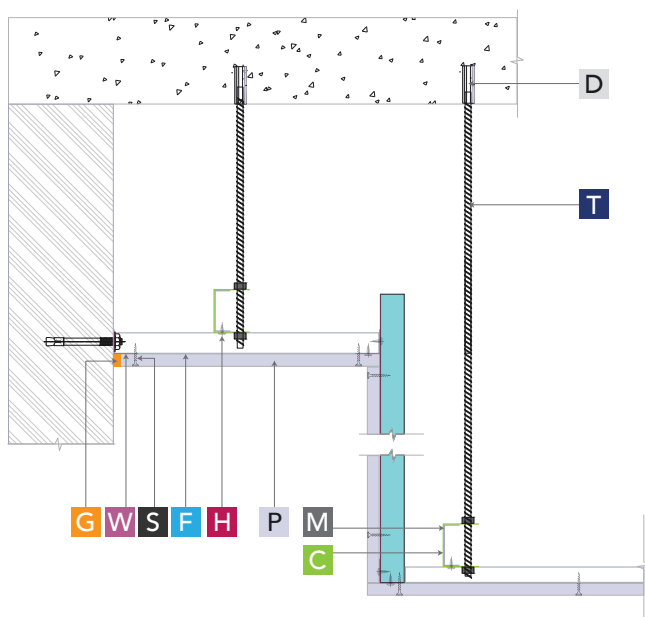
Change of Level Perimeter Detail
Parallel to Furring Channel



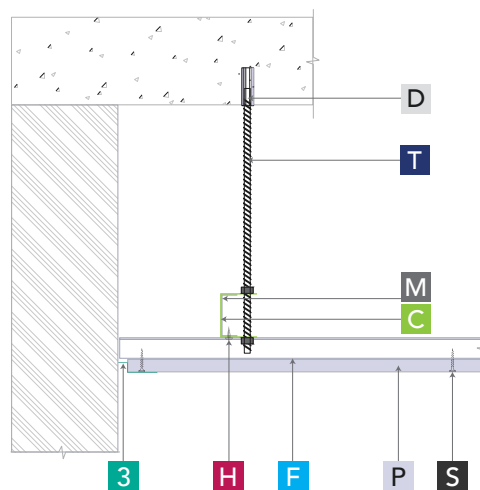
Floating Perimeter Detail
Parallel to Furring Channel



Change of Level Perimeter Detail
Parallel to Furring Channel



Floating Perimeter Detail
Parallel to Main Channel

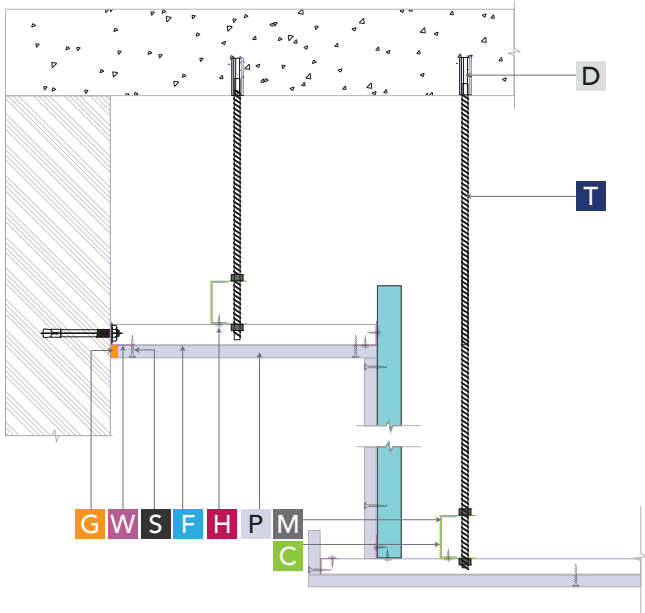


- | | |
|--------------------------------|--|
| A Mada Access Panel | H Mada Wafer Head Screw |
| S Mada Drywall Screw | W Mada Wall Angle |
| 3 Mada Shadow Gap Angle | G Mada Fire Guard Acrylic Sealant |

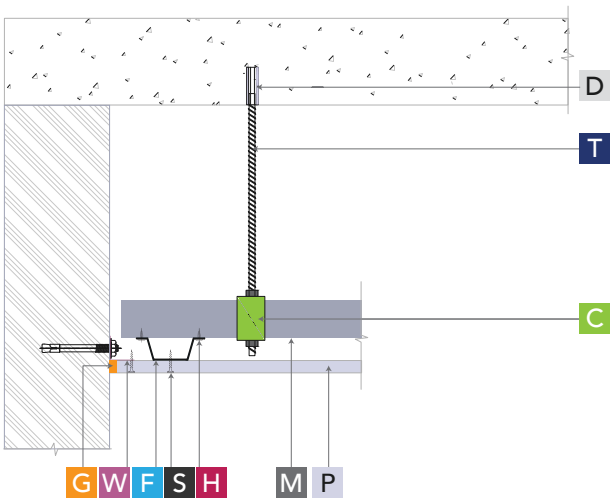
- | | |
|---------------------------------|------------------------------|
| P Mada Plus Plasterboard | M Mada Main Channel |
| F Mada Furring Channel | D Mada Drop In Anchor |
| T Mada Threaded Rod | C Mada C-Clamp |

Metal Framing System | Threaded Rod *(continued)*

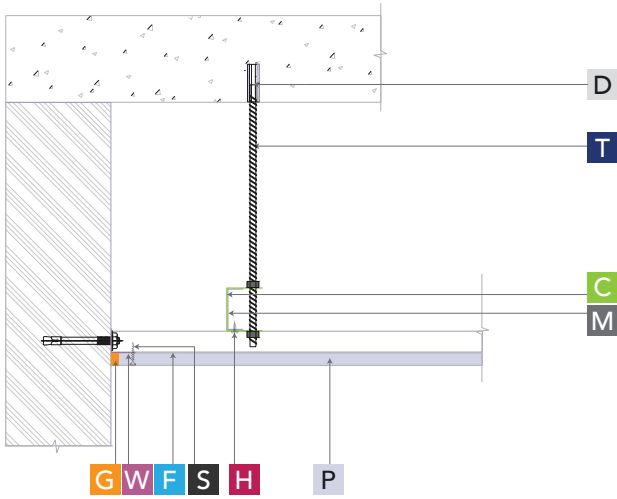
Light Cove Detail



Perimeter Detail
Parallel to Furring Channel

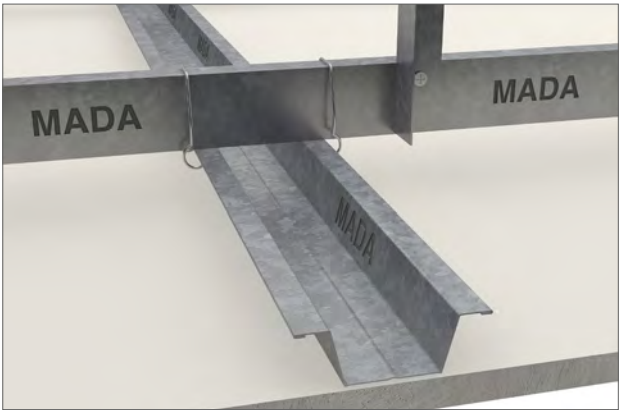
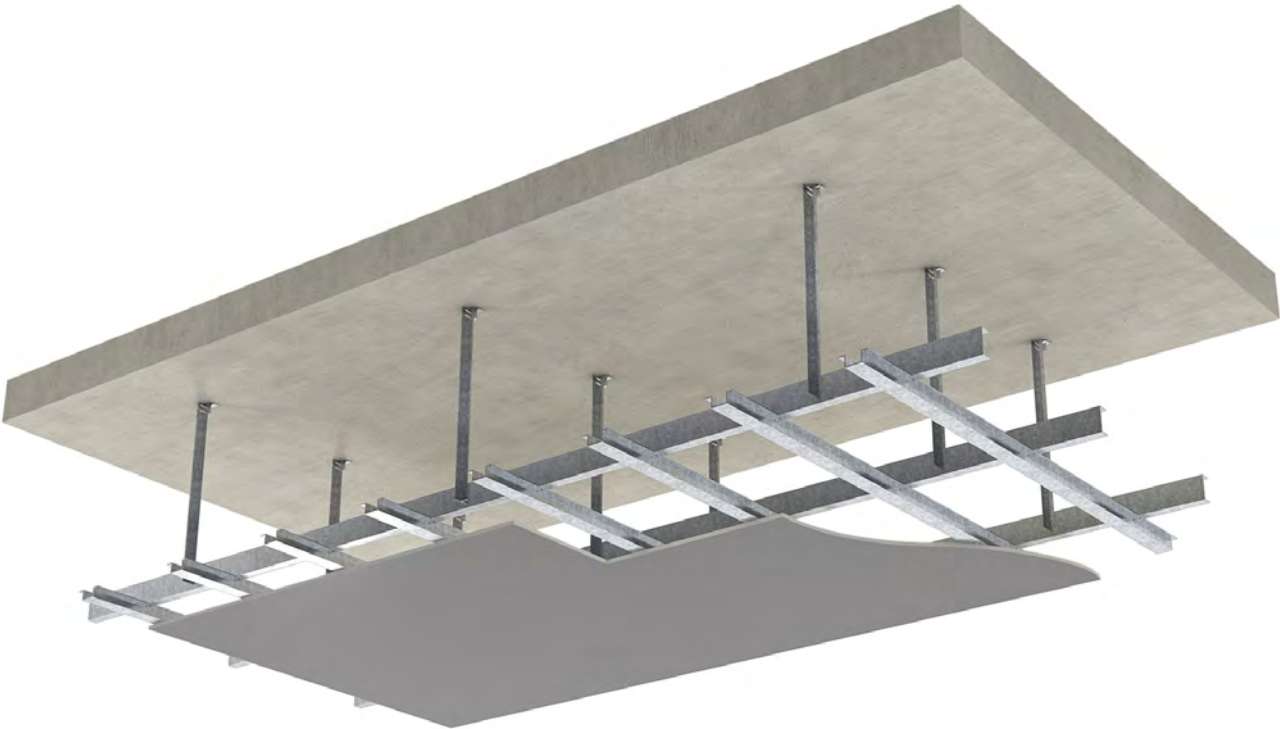


Perimeter Detail
Parallel to Main Channel



- | | | | |
|--------------------------------|--|---------------------------------|------------------------------|
| A Mada Access Panel | H Mada Wafer Head Screw | P Mada Plus Plasterboard | M Mada Main Channel |
| S Mada Drywall Screw | W Mada Wall Angle | F Mada Furring Channel | D Mada Drop In Anchor |
| 3 Mada Shadow Gap Angle | G Mada Fire Guard Acrylic Sealant | T Mada Threaded Rod | C Mada C-Clamp |

Metal Framing System | Angle Fixation



Angle Fixation Load Table

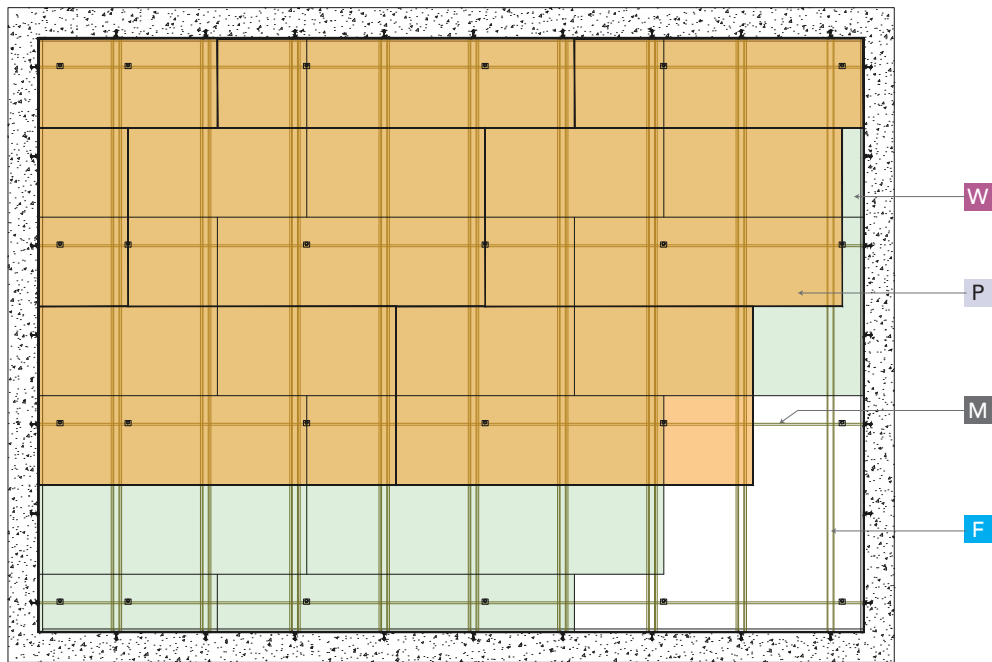
Based on 0.55mm Mada Sections

Hanger Centres (mm)	Main Channel Centers (mm)	Furring Channel Centers (mm)	Maximum Load (kg/m²)
1200	1200	400	14.70
1000	1000	400	19.60
600	900	400	29.40
600	600	400	34.30

Metal Framing System | Angle Fixation *(continued)*

Ceiling Board - Reflecting Ceiling Plan

Double Layer



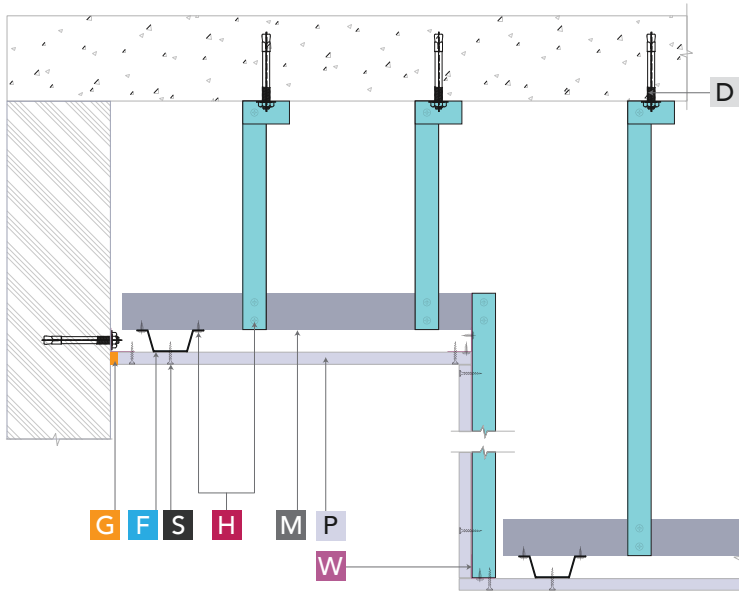
PLAN VIEW - REFLECTED CEILING PLAN (ANGLE FIXATION) - DOUBLE LAYER

- | | | | | | | | |
|----------|-----------------------|----------|---------------------------------|----------|------------------------|----------|---------------------|
| A | Mada Access Panel | H | Mada Wafer Head Screw | P | Mada Plus Plasterboard | M | Mada Main Channel |
| S | Mada Drywall Screw | W | Mada Wall Angle | F | Mada Furring Channel | D | Mada Drop In Anchor |
| 3 | Mada Shadow Gap Angle | G | Mada Fire Guard Acrylic Sealant | | | | |

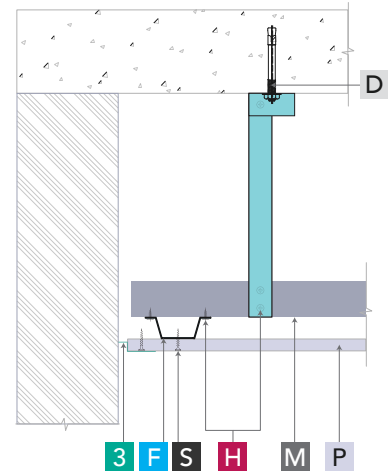


Metal Framing System | Angle Fixation *(continued)*

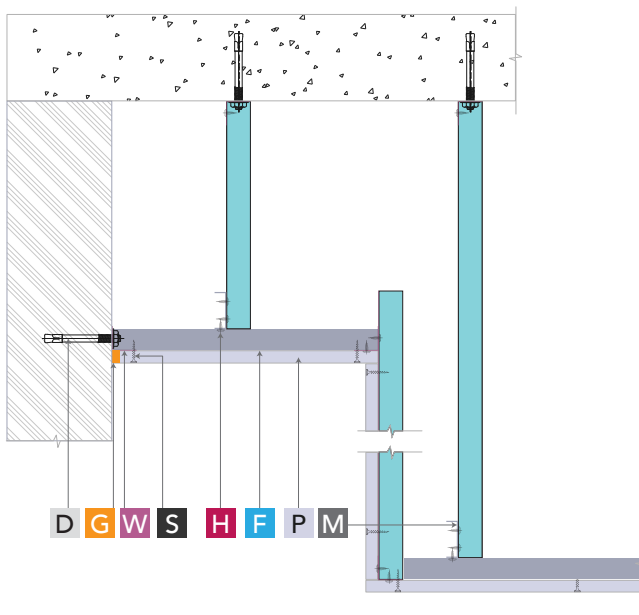
Change of Level Perimeter Detail
Parallel to Furring Channel



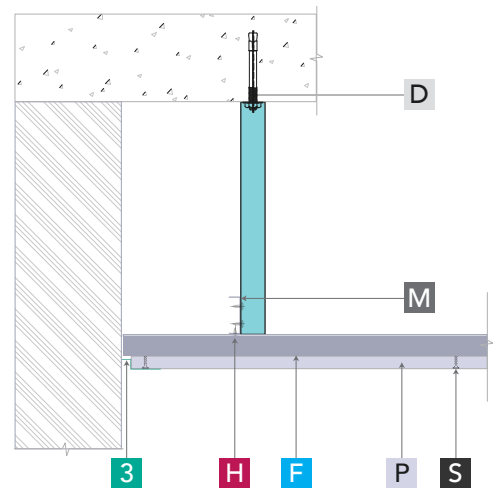
Floating Perimeter Detail
Parallel to Furring Channel



Change of Level Perimeter Detail
Parallel to Furring Channel



Floating Perimeter Detail
Parallel to Main Channel

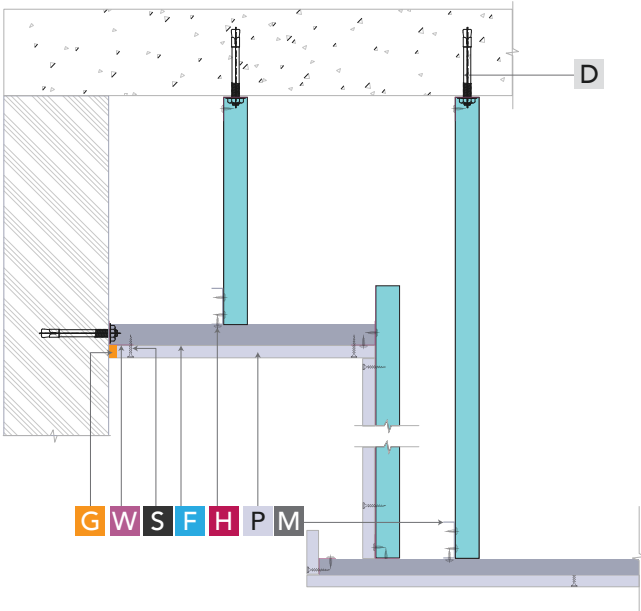


- | | |
|--------------------------------|--|
| A Mada Access Panel | H Mada Wafer Head Screw |
| S Mada Drywall Screw | W Mada Wall Angle |
| 3 Mada Shadow Gap Angle | G Mada Fire Guard Acrylic Sealant |

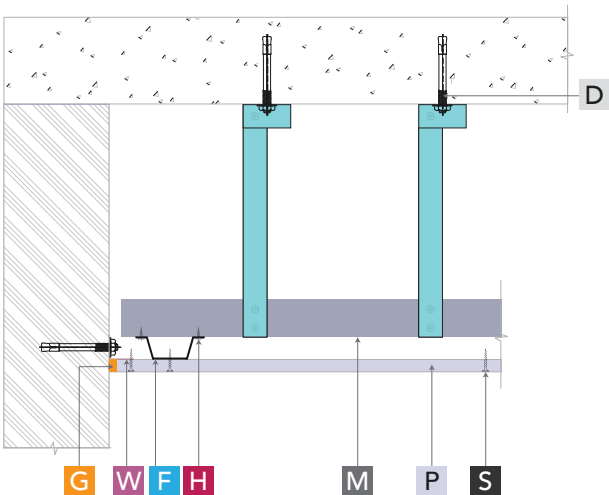
- | | |
|---------------------------------|------------------------------|
| P Mada Plus Plasterboard | M Mada Main Channel |
| F Mada Furring Channel | D Mada Drop In Anchor |

Metal Framing System | Angle Fixation *(continued)*

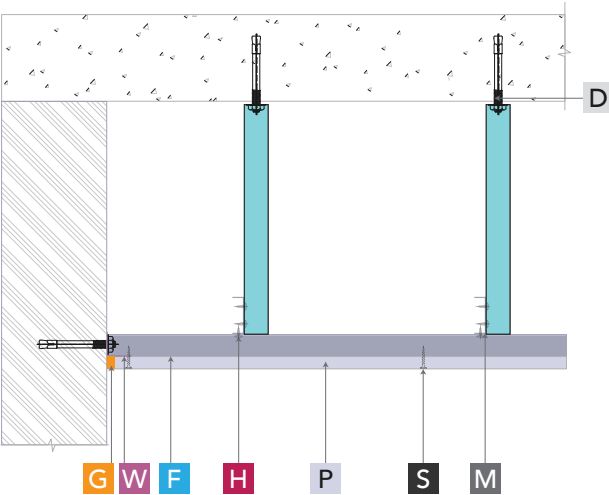
Light Cove Detail



Perimeter Detail
Parallel to Furring Channel



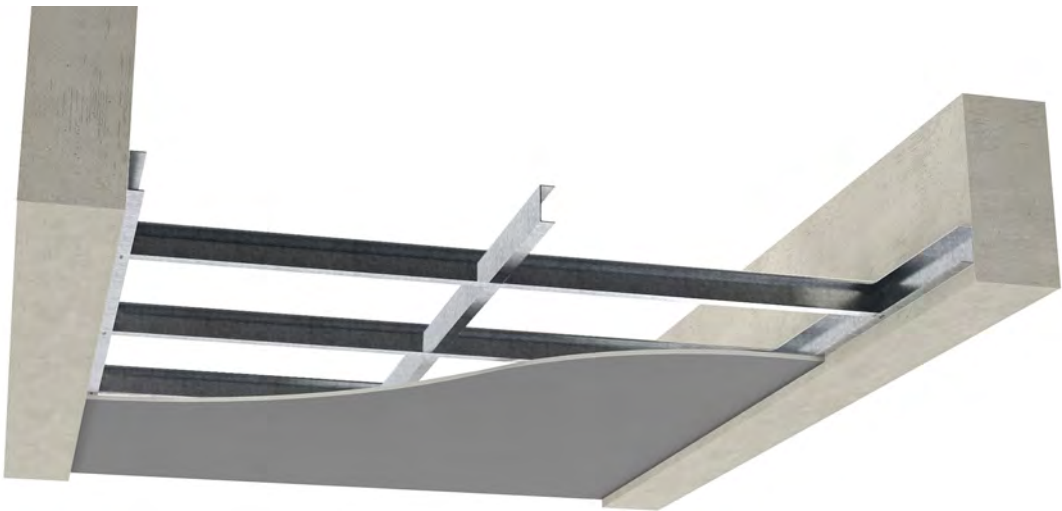
Perimeter Detail
Parallel to Main Channel



- | | | | |
|--------------------------------|--|---------------------------------|------------------------------|
| A Mada Access Panel | H Mada Wafer Head Screw | P Mada Plus Plasterboard | M Mada Main Channel |
| S Mada Drywall Screw | W Mada Wall Angle | F Mada Furring Channel | D Mada Drop In Anchor |
| 3 Mada Shadow Gap Angle | G Mada Fire Guard Acrylic Sealant | | |

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Free Span Ceiling System



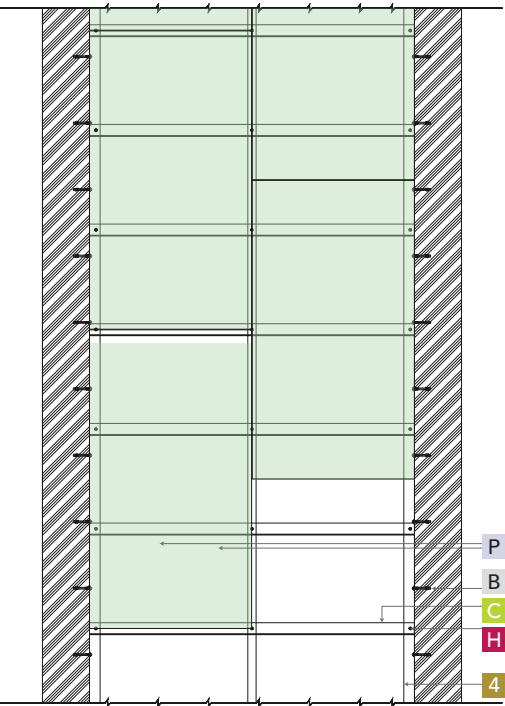
There are many situations where access to the soffit is limited. These situations are very limiting for traditional suspended ceiling solutions. To overcome this, Mada Corridor Spanning system uses sections to span horizontally without the need for vertical suspension.

			Span (mm)
Horizontal Frame	Centres (mm)	Thickness (mm)	1 layer of 15mm board
48mm 'C' stud	400	0.55	1900
		0.9	2200
	300	0.55	2150
		0.9	2350
68mm 'C' stud	400	0.55	2400
		0.9	2700
	300	0.55	2950
		0.9	3400
98mm 'C' stud	400	0.55	3500
		0.9	3750
	300	0.55	3800
		0.9	4050
148mm 'C' stud	400	0.8	5050
		0.9	5350
	300	0.8	5300
		0.9	5800

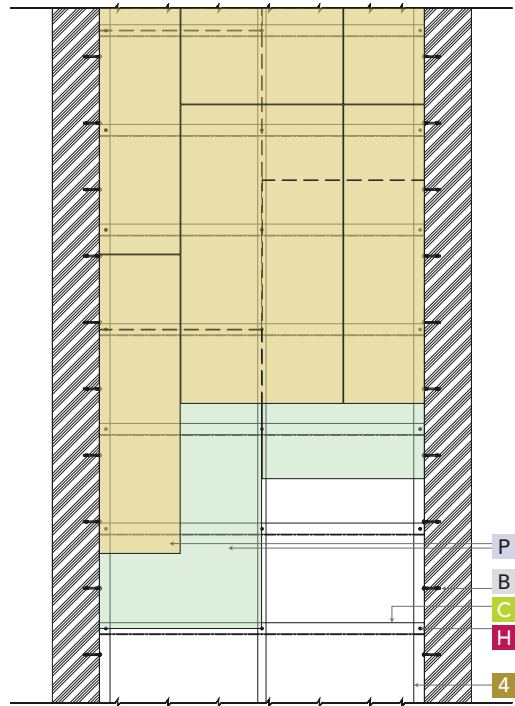
Free Span Ceiling System

(continued)

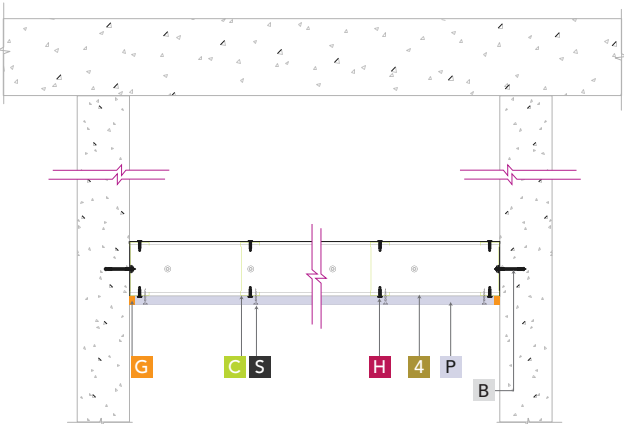
Reflected Ceiling Plan (Single Layer)



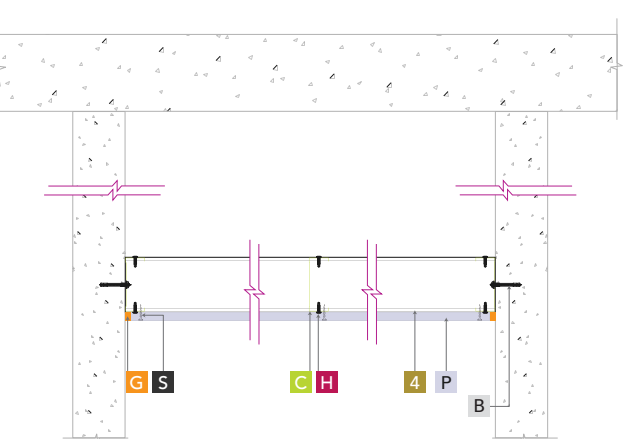
Reflected Ceiling Plan (Double Layer)



Section Detail Parallel to Primary Stud Frame



Section Detail Parallel to Reinforcement Frame



- A

Mada Access Panel
- P

Mada Plus Plasterboard
- S

Mada Drywall Screw
- H

Mada Wafer Head Screw
- W

Mada Wall Angle
- G

Mada Fire Guard Acrylic Sealant
- C

Mada C-Stud
- B

Mada Trubolt Anchor
- 4

Mada Deflection Head Track

Access Panel

d- Mada Access Panel

Mada Access panels are gypsum based built-in accessories for drywall systems.

Applicable for ceiling system, partition systems, shaft wall systems and other such applications that require access for constant adjustments, inspections and revisions. Ventilation ducts, electrical control outlets, pipes and valves can be given as examples to these areas.

Board:

MR Plasterboard

Standard Sizes:

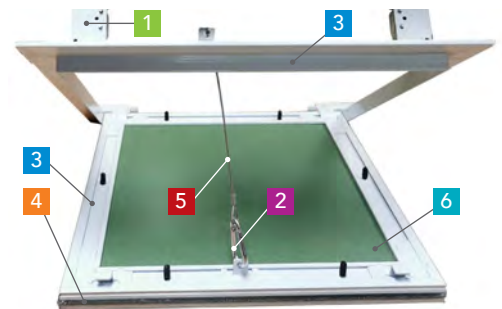
300 x 300mm

450 x 450mm

600 x 600mm

(customized sizes are available upon request)

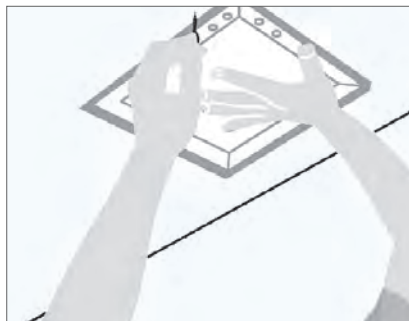
- 1 Click Lock
- 2 Ground Hook
- 3 Aluminum Alloy
- 4 Brush Sealing Strip
- 5 Safety Rope
- 6 Moisture Resistant Gypsum Board



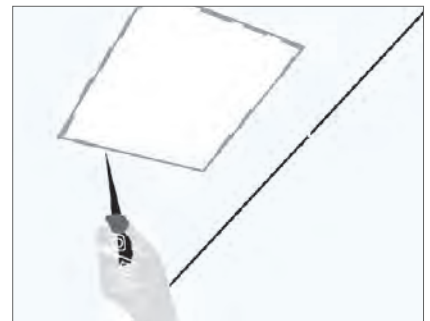
Installation



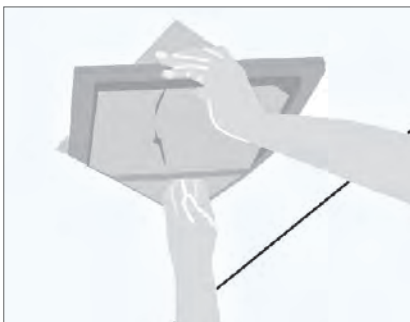
1. Remove The Door From The Frame



2. Draw Around The Access Panel Inner Rim Where The Aperture is Required



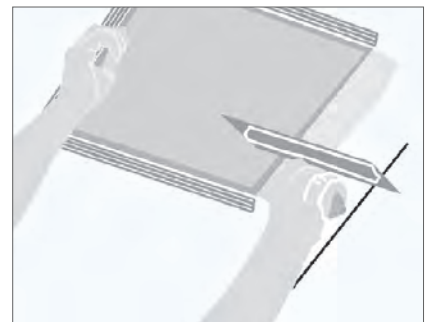
3. Cut The Aperture – For Dry lining Ceilings and Walls Use a Plasterboard Saw



4. Install The Frame in to The Aperture



5. Fix securely using Drywall Screws and re-fit the door to check operation and then remove to allow for finishing Draw

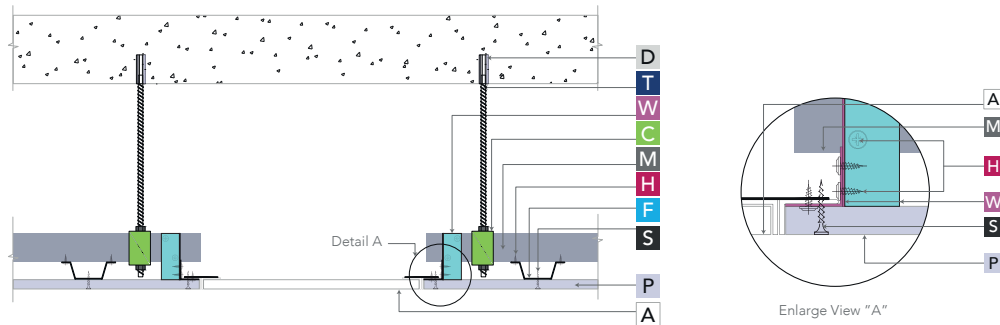


6. Finish with Mada Tapes and Mada jointing Compound around the fitted frame. Re-fit door once decorated

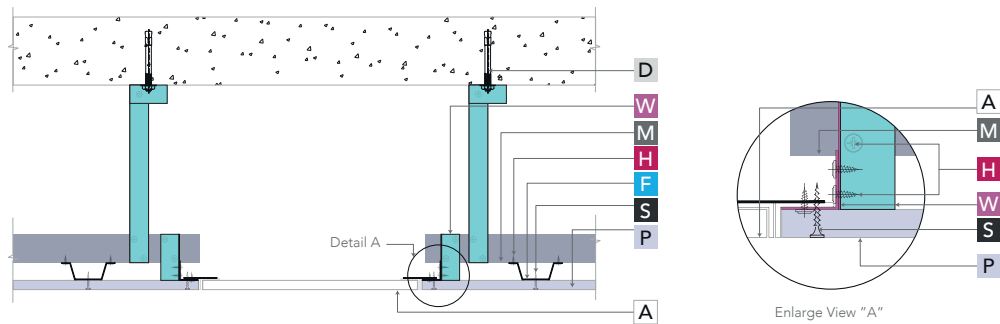
Access Panel *(continued)*

Access Panel Detail

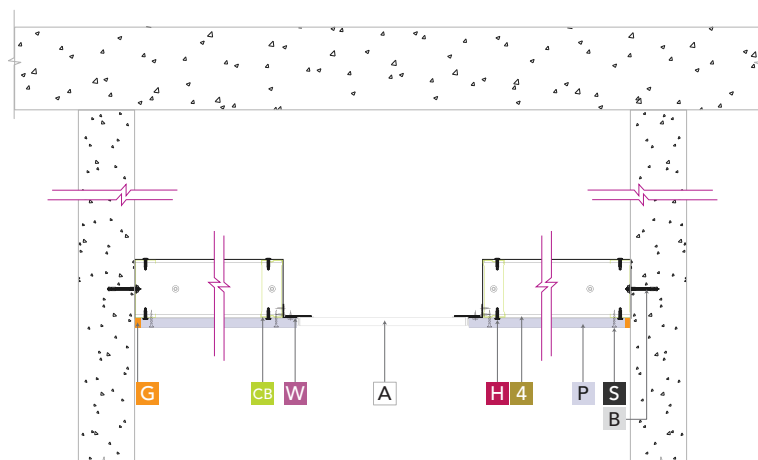
Threaded Rod



Angle Fixation

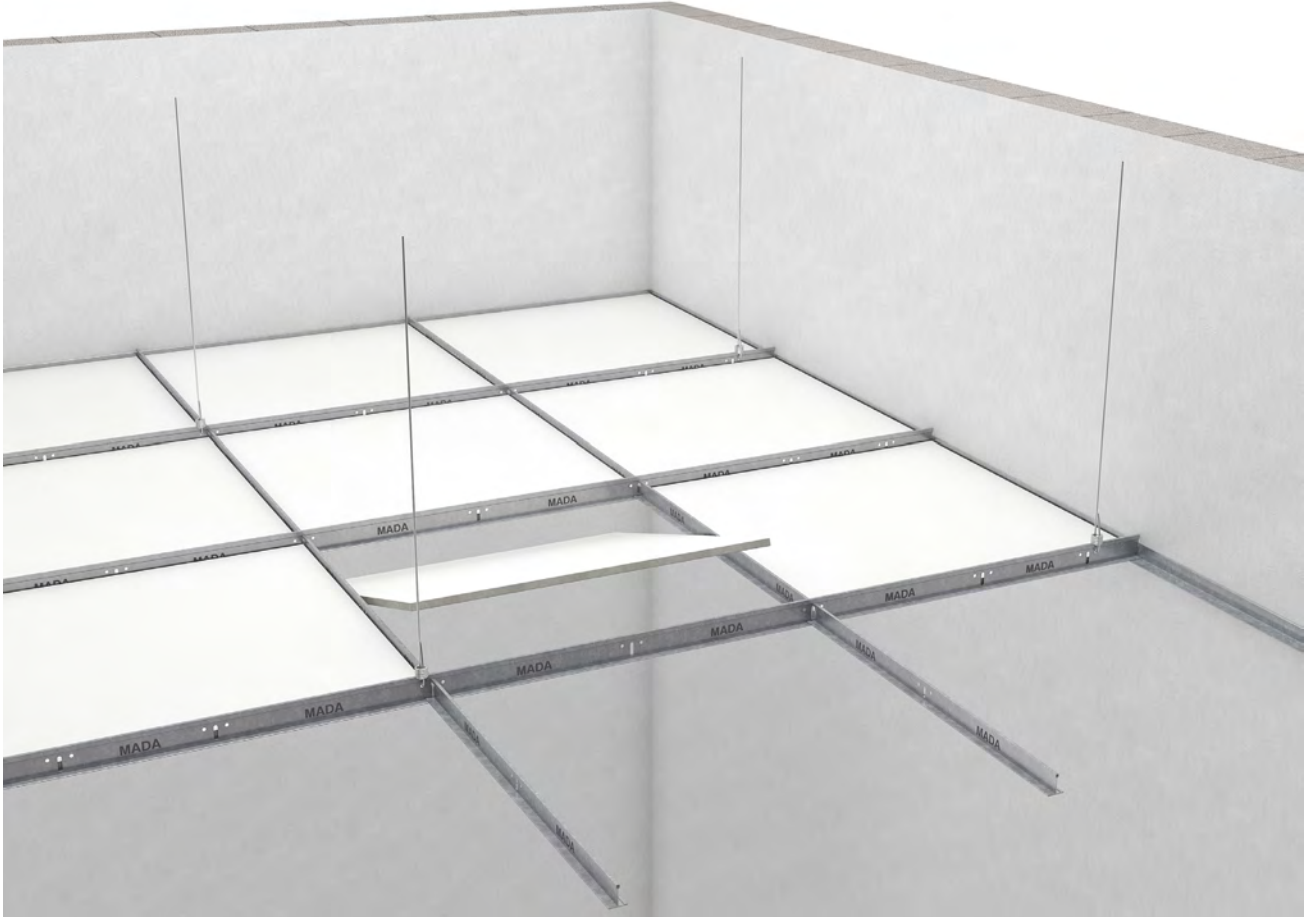


Corridor Spanning System



A Mada Access Panel	H Mada Wafer Head Screw	P Mada Plus Plasterboard	M Mada Main Channel
S Mada Drywall Screw	W Mada Wall Angle	F Mada Furring Channel	D Mada Drop In Anchor
3 Mada Shadow Gap Angle	G Mada Fire Guard Acrylic Sealant	T Mada Threaded Rod	CB Mada C-Stud Box

■ Tile & Grid



Components:



Mada Main Tee is a typically 3.6m length of 'T' shape grid which forms the primary support for the suspended ceiling.



Mada Cross Tee Short metal T-beam used in suspended-ceiling systems to bridge the spaces between the main tees.

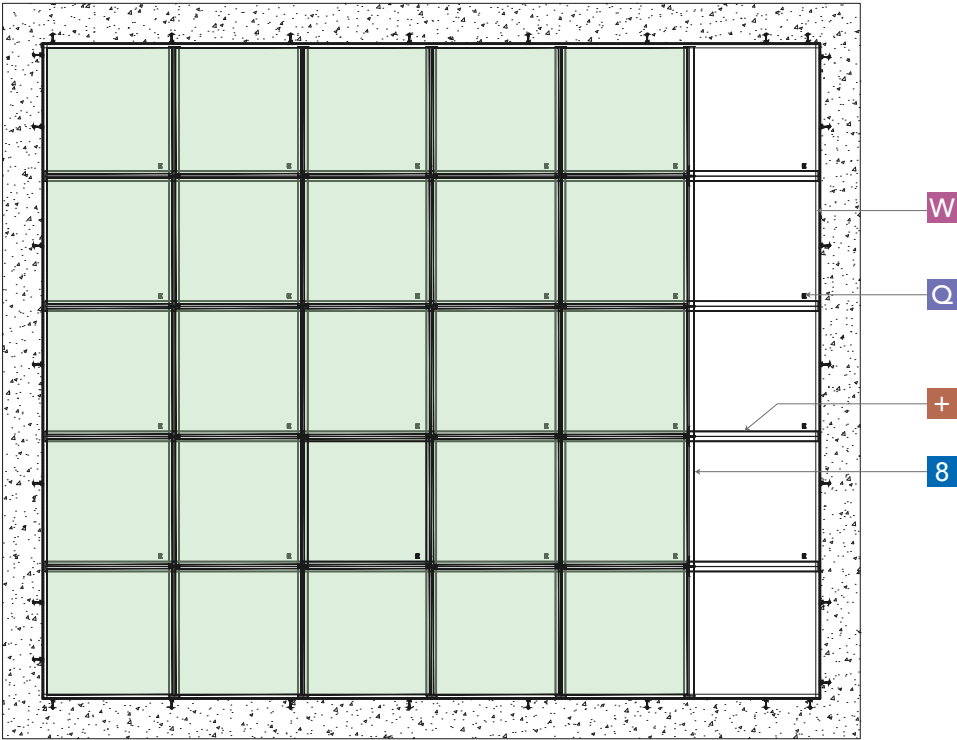


Mada Wall Angle is a Pre-Painted Galvanized Iron (PPGI) 90 - degree angle used in the framework.

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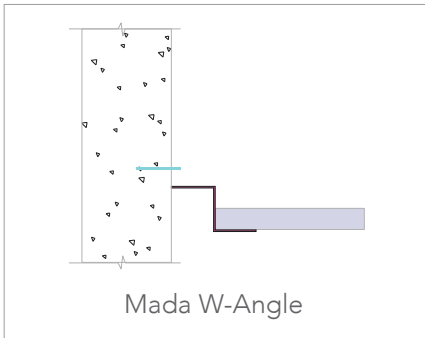
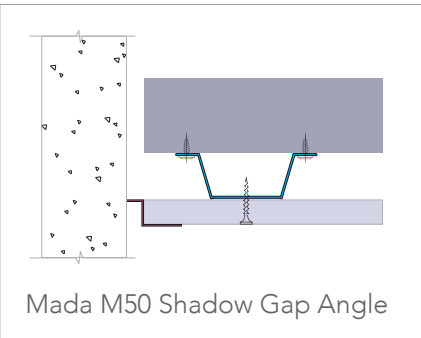
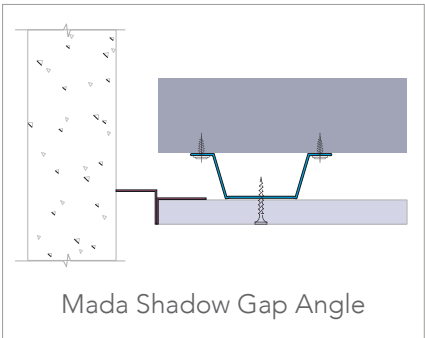
Tile & Grid *(continued)*

Tile Ceiling Reflecting Plan



- | | | | |
|--------------------------------|-----------------------------|-------------------------------|-------------------------------|
| H Mada Wafer Head Screw | CT Mada Ceiling Tile | M Mada Main Channel | D Mada Drop In Anchor |
| S Mada Drywall Screw | W Mada Wall Angle | F Mada Furring Channel | C Mada C-Clip |
| T Mada Threaded Rod | Q Mada Wire Anchor | Z Mada Wire Hanger | 9 Mada Adjustable Clip |
| 8 Main Tee | + Cross Tee | | |

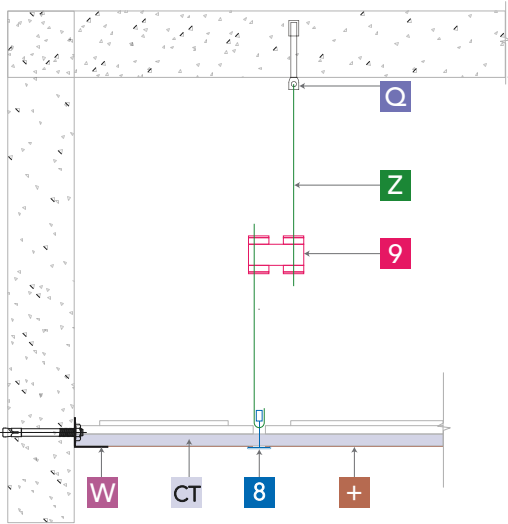
Connection Details



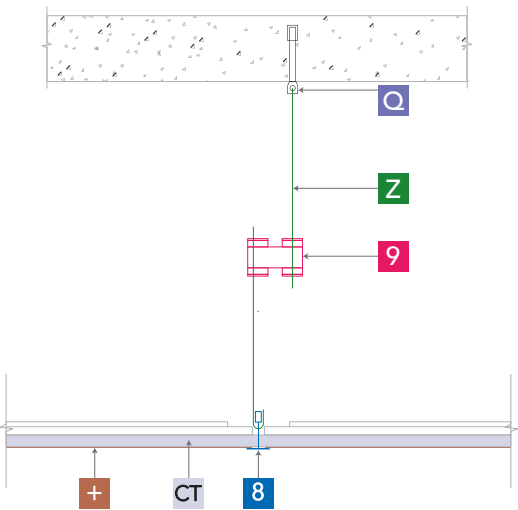
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Tile & Grid *(continued)*

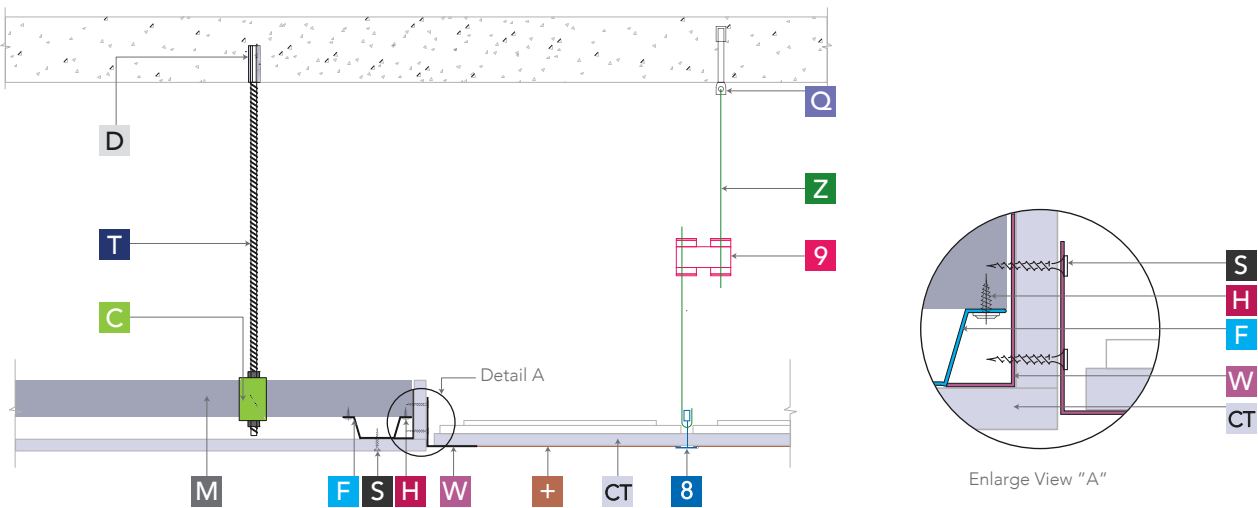
Perimeter Detail



Soffit Fixation



Grid to MF Transition Detail




- | | | | |
|--------------------------------|-----------------------------|-------------------------------|-------------------------------|
| H Mada Wafer Head Screw | CT Mada Ceiling Tile | M Mada Main Channel | D Mada Drop In Anchor |
| S Mada Drywall Screw | W Mada Wall Angle | F Mada Furring Channel | C Mada C-Clamp |
| T Mada Threaded Rod | Q Mada Wire Anchor | Z Mada Wire Hanger | 9 Mada Adjustable Clip |
| 8 Main Tee | + Cross Tee | | |


Residential Sector References



 **Jeddah Aqua Raffles**
KSA - Jeddah

 **Consultant**
Morganti Saudi Arabia


 **Timeline**
2019 - 2023

 **Main Contractor**
Al Arrab
Contracting Co. Ltd.


 **Drywall Partition I
Ceiling**
90,000 m²



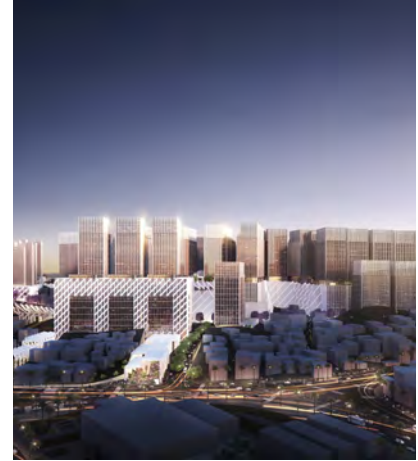
 **Sail Tower**
KSA - Jeddah


 **Consultant**
Al Issa Consulting Co.

 **Timeline**
2018 - 2022

 **Main Contractor**
Al Saad Contracting
Company

 **Drywall Partition I
Ceiling**
140,000 m²




 **Thakher city**
KSA - Makkah

 **Consultant**
El Kheriji Co. - Khatib & Alami

 **Timeline**
2019 - 2024

 **Main Contractor**
Al Arif Contracting
Company

 **Drywall Partition I
Ceiling**
60,000 m²



 **Coastal Village Residential**
KSA - Umluj

 **Consultant**
SDT
(Services Design Technology)

 **Timeline**
2020 - 2023

 **Main Contractor**
Many Main Contractors

 **Drywall Partition I
Ceiling**
100,000 m²



 **Coastal Village - Villas & Town Houses**
KSA - Umluj

 **Consultant**
SDT
(Services Design Technology)

 **Timeline**
2020 - 2022

 **Main Contractor**
Al Bawani


 **Drywall Partition I
Ceiling**
15,000 m²



 **Neom Construction Village**
KSA - Neom

 **Consultant**
ECEC (East Consulting
Engineering Center)

 **Timeline**
2019 - 2022

 **Main Contractor**
Many Main Contractors

 **Drywall Partition I
Ceiling**
60,000 m²

Residential Sector References *(continued)*



 **SFMC Project**
KSA – Riyadh

 **Consultant**
Manens - Tifs


 **Timeline**
2018 - 2025

 **Main Contractor**
ABV Rock Group

 **Drywall Partition I Ceiling**
1 Million m²



 **SANG Hospital Taif**
KSA - Taif

 **Consultant**
DAR Al Handasah


 **Timeline**
2017 - 2021

 **Main Contractor**
Nesma

 **Drywall Partition I Ceiling**
500,000 m²



 **AI Wasl Tower**
UAE - Dubai

 **Consultant**
UN Studio & Werner Sobek
Engineering Consultant

 **Timeline**
2021 - 2024

 **Main Contractor**
Saleh Construction LLC

 **Drywall Partition I Ceiling**
275,000 m²

BUILDING EXCELLENCE

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