

FRAMEWORK CEILING GRID SYSTEMS

MID MODULE

Micro Frame

ASTM INTERMEDIATE DUTY
1 HOUR FIRE RATED



The Ideal Narrow Width
Ceiling Suspension For All
Modern Buildings



MicroFrame

ASTM INTERMEDIATE DUTY

MicroFrame MID Module is an intermediate duty 14mm exposed ceiling grid system for use with narrow reveal ceiling panel.

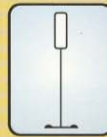
It is used primarily for commercial structures in which the quantities and weights of ceiling fixtures (lights, air diffusers, etc) can be anticipated. It has been tested with a ceiling load of 20 kg/m and achieved an intermediate duty classification without the mid-span deflection exceeding L/360 (3.38mm on 1.22m hanger spacing) according to ASTM C635 .



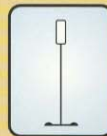
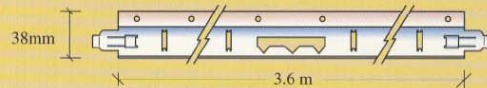
Physical Properties

Components are manufactured from Hot Dipped Galvanised Steel to BS 2989 and JIS G3302 Standards with Z18 Zinc Coating (180/m²). The exposed flange is capped with precoated metal strip with polyester coating of 20 to 25 microns dry film thickness.

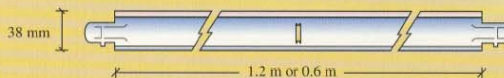
Component Features



Main Tee is a double web section of 38mm high. It is made in standard length of 3.6m with integral push lock splices at both ends for easy interconnection. The end splices have been tested to sustain a pulling force of 68kg before separation. The bulb is prepunched with 6mm holes at every 75mm for hanger fixing. The stalk is punched with "H" slots at 75mm from ends and 150mm in between to receive cross tees. A fire expansion slot is punched on the stalk at 225mm from one end to provide expansion relief during fire.



Cross Tee is a 38mm high double web section with joggled flange at both ends. It has integral splices at both ends for straight entry to the main tee for interlocking connections. The precise accuracy of the joggles ensure a minimum "floating effect" of ceiling boards. Cross tees are available in the standard 1.2m or 0.6m per length.



Structural Performance

Load Test Data Per ASTM C-635 on Deflection L/360 Span based on 1.22m hanger spacing. SISIR Test Report No. G170826/4/EMK is available upon request.

Component	Product Code	Simple Span Concentrated Load at Centre Kg/m	Uniform Load ASTM C-635 Kg/m	ASTM Class
Main Tee	FIMI 36	13.6	20.0	Intermediate Duty
Cross Tee	FICI 12	13.4	18.5	-
Cross Tee	FICI 06	28.8	38.2	-



Fire Protection

MicroFrame MID Module is non-combustible according to BS 476 Part 20.

When used with an approved ceiling panel, the system is capable of providing effective protection to structural steel beams supporting a fire resistant floor for a period of 60 minutes according to BS 476 Part 23 (1987).

A fire test in conjunction with Thermatex Mineral Fiber Ceiling Board had been conducted at the Warrington Fire Research Centre on the 14th of January 1992. It achieved a fire rating of 60 minutes. Warrington test report WFRC No. C80110 is available upon request.

Component Specification

Component	Product Code	Section Height (MM)	Length (M)	Quantity Per Ctn (pieces)	Approx Weight Per Ctn (kg)
Main Tee	FIMI 36	38	3.6	20	22
Cross Tee	FICI 12	38	1.2	60	22
Cross Tee	FICI 06	38	0.6	60	11

Imperial and other sizes are available upon request.

Standard Colours

White (W)
Satin Silver (S)
Black (B)

Other colours can be custom made according to the supplied colour sample for an agreed quantity.

Warranty

All components of MicroFrame are guaranteed for dimensional accuracy and against corrosion according to Framework's standard warranty policy.



Guide Specification

The ceiling suspension system shall be MicroFrame MID Module as manufactured by Framework Building Products (Pte) Ltd. It shall be suspended with a 4mm diameter adjustable hanger rod system similar to FrameRod.

The system shall be rollformed, perforated, press formed and cut to length on a continuous CNC production line. It shall comply to ASTM C-635 as Intermediate Duty System capable of carrying a load not less than 20 kg/m (16.6 kg/m² on 1.22m hanger spacing) without the mid-span deflection exceeding L/360.

The system shall satisfy a minimum 1 hour fire rating when tested in accordance to BS 476 Part 23 and be acceptable to the local fire authority.

Sufficient evidence of the compliance to the standards must be submitted to the architect for approval before materials are used at the site.

The grid system shall be made of hot dipped galvanised steel conforming to BS 2989 and/or JIS G3302 with a zero spangle zinc coating of not less than 180gm/m². It shall be guaranteed against corrosion by the manufacturer according to the standard warranty policy.

The exposed flange shall be 14mm and capped with precoated metal strip with factory supplied polyester of 20-25 microns dry film thickness.

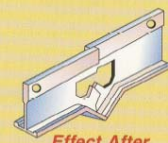
Main Tees shall be 38mm high and of a double web construction similar to MicroFrame FIMI type. Both ends of the main tee shall have integral splices which can be joined firmly and shall not be separated with a force not exceeding 68kg. Hanger holes shall be round and not smaller than 6mm diameter punched on the bulb of the main tee. A fire expansion slot shall be provided at the main tee to provide relief for thermal expansion during a fire.

Cross tee shall be 38mm high and of a double web construction similar to FICI type. The end splices shall be an integral part of the tee section and of the push lock type.

All accessories of the suspension system such as wall angles, hanger rods, hold down clips etc., shall be supplied and installed according to the manufacturer's recommendation.



Fire Expansion Slot At Main Tee



Effect After Exposure To Fire

Our Project References

Singapore

- Daikin Building
- OCBC Centre East
- ST Computer Building
- Alexander Hospital

Malaysia

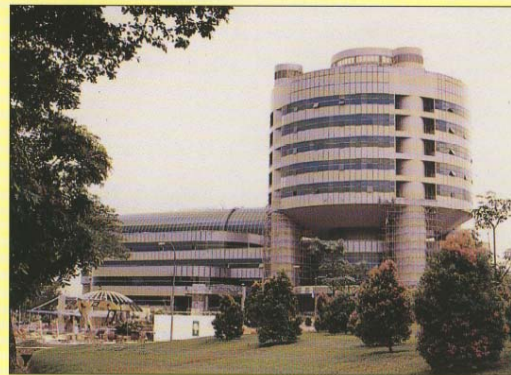
- Porla Headquarter Building
- Kulim Tower, Johore Bahru

Philippines

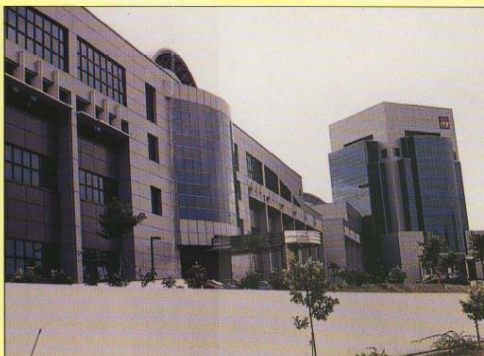
- Phil-Am Life Building
- Ayala Tower

Indonesia

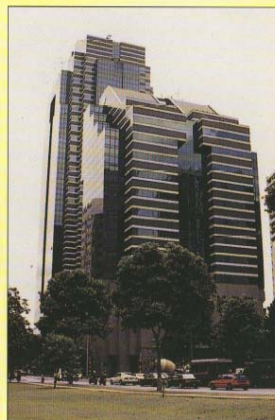
- Bank International Indonesia Building, Surabaya
- Parliament Building, Jakarta
- Sucofindo



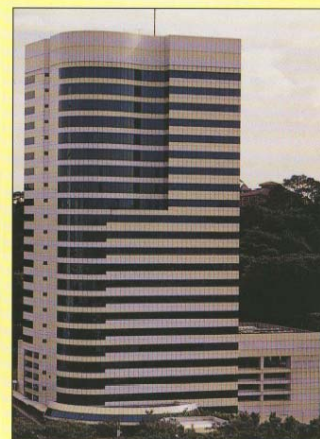
The Synergy Building



ITE Complex



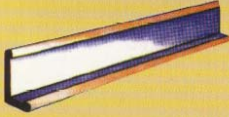
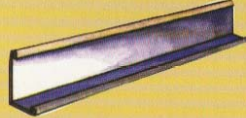
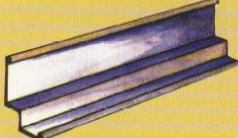
GE Tower



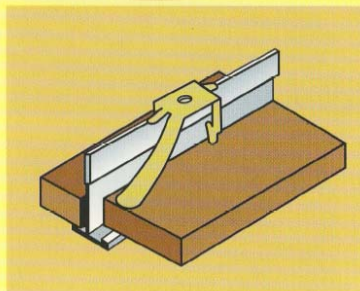
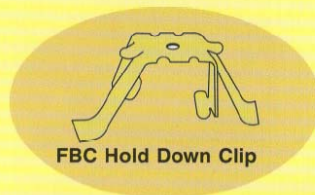
CMPB Tower A

Accessories

Wall Angles And Mountings

Component	Product Code	Size (MM)	Length (M)	Quantity per Ctn (piece)	Weight Per Ctn (kg)
 Aluminium Capped Wall Angles	FAA2414	24x 14	3.6	40	23
 Painted Steel Wall Angles	FAS2414	24 x 14	3.6	40	22
 Shadow Wall Angles	FAW1914	19 x 14	3.6	40	28

FAW Shadow Wall Angle is recommended for use to improve the appearance of ceiling installation, especially for walls with uneven surfaces.

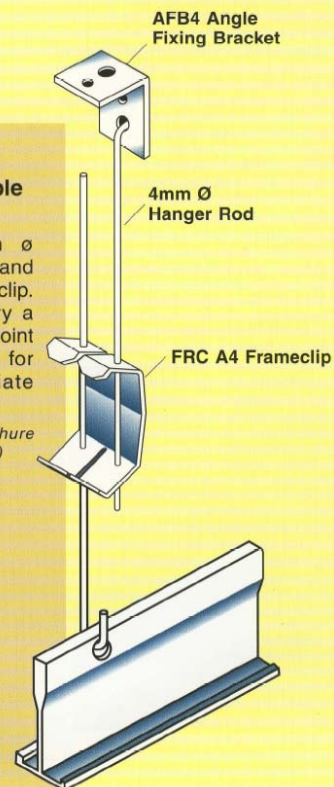


Made from heat tempered spring steel with phosphate coating to protect against corrosion. It is recommended for fire rated installations which require the prevention of lifting of boards due to positive pressure differentials.

FrameRod Adjustable Hanger System

Comprises of 4mm \varnothing galvanised steel rods and heat tempered spring clip. It is designed to carry a ceiling load of 75 kg/point and is recommended for heavy and intermediate duties installations.

(Refer to FrameRod brochure FW08/1996 for more details)





Other Framework Products

MasterFrame

- MasterFrame MLD Module - 24mm Light Duty System
- MasterFrame MID Module - 24mm Intermediate Duty System
- MasterFrame MHD Module - 24mm Heavy Duty System

MicroFrame

- MicroFrame MHD Module - 14mm Heavy Duty System

MitreFrame

- MitreFrame 815 AluSteel Featured Grid System
- MitreFrame 1615 AluSteel Featured Grid System

MegaFrame

- MegaFrame Fixed Module Metal Furring System
- MegaFrame Variable Module Metal Furring System

FrameRod

- FrameRod 3 Adjustable Hanger System
- FrameRod 4 Adjustable Hanger System



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