

KIRII

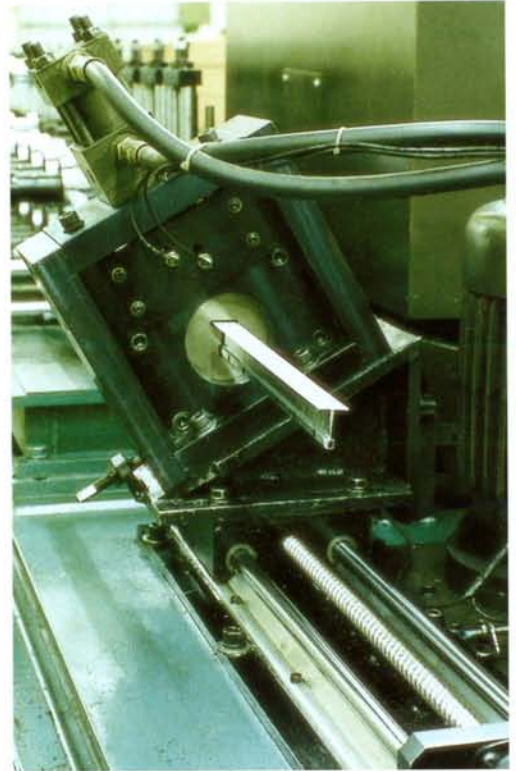
Tee Grid Ceiling System

KIRII TEE GRID CEILING SYSTEM

With over 25 years grand experiences of metal roll forming techniques in ceiling, drywall and gymnasium raised flooring products, Kirii Tee Grid Ceiling System is designed and manufactured with strict confidence to meet the requirements of suspended false ceiling system for commercial, institutional and industrial building, in which acoustical and aesthetical properties can be achieved by our Kirii Tee Grid Ceiling System.

The system main tee and cross tee are equipped with a effective self-locking (Plug-in) device so as to save a lot of manpower. Furthermore, all components are made of hot-dip galvanized steel and capped with pre-coated white colour steel strip for the exposed surface, in order to attain the structural strength, durability and aesthetic.

Kirii Tee Grid Ceiling System are tested in accordance with ASTM C635 standard based on the limit of deflection critetion $1/360$ of simple span.



Exposed T-Grid System

One of the most popular ceiling system, this system permits easy installation and maintenance. Labour and time can be saved by adopting this system.



Semi-Concealed T-Grid System

This system realizes a beautiful line design, since T-grid run in one direction. Also, lighting can be easily installed.



Concealed T-Grid System

Since all ceiling fittings are completely hidden. This system provides a one piece ceiling effect.



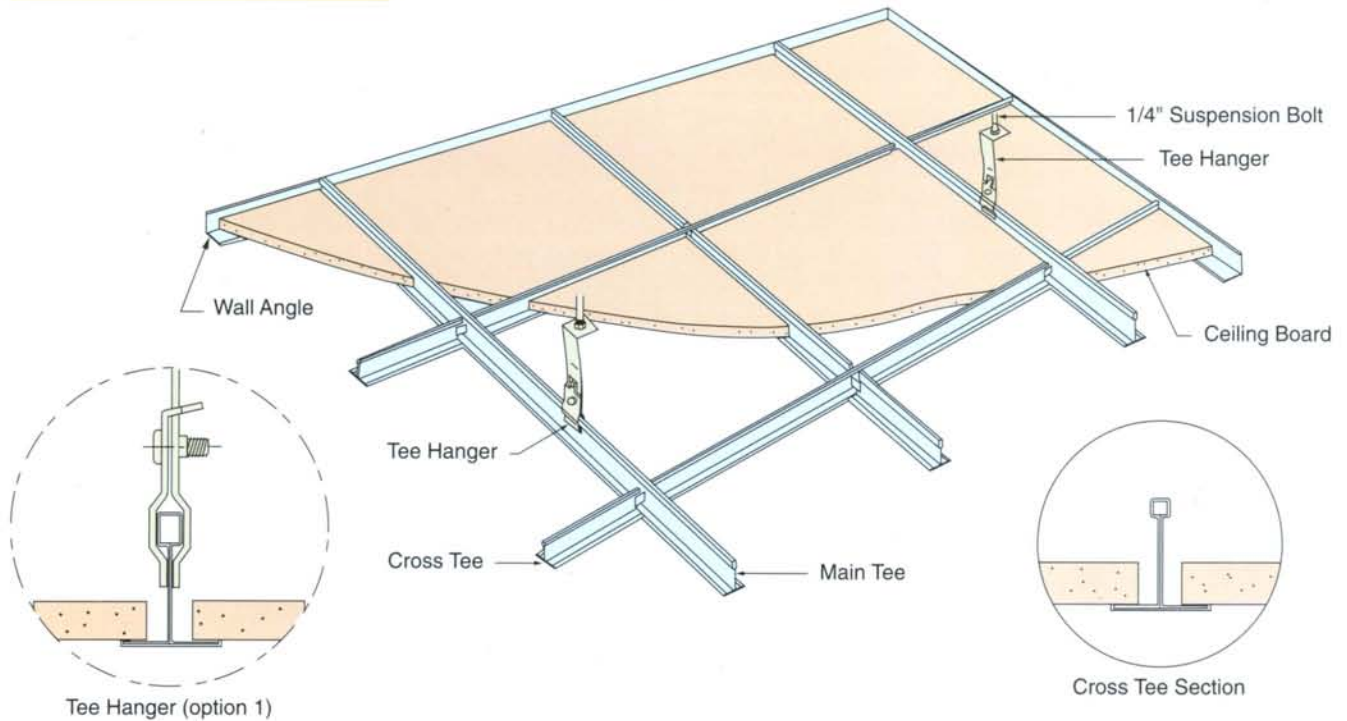
Silm T-Grid and Profile Grid Systems

Please refer to relevant product literature for details.

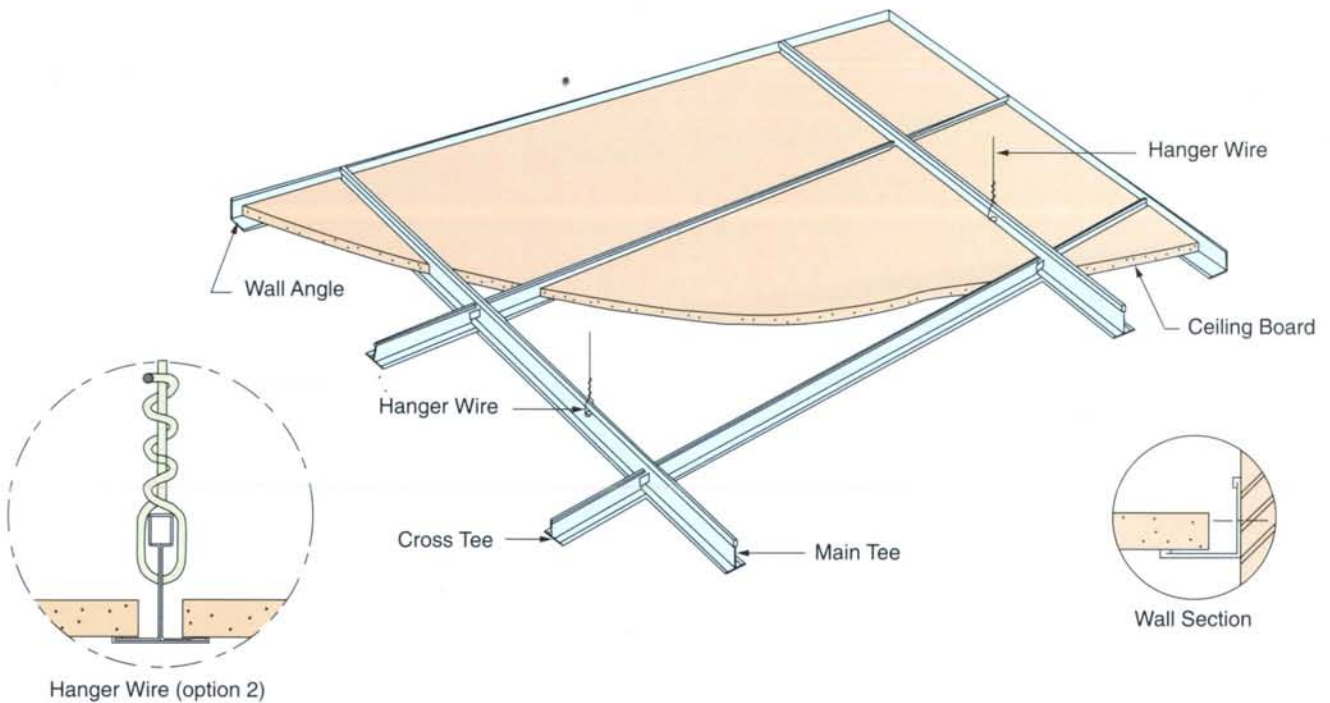
Installation



Exposed Suspension (2' x 2' or 600 x 600mm)



Exposed Suspension (2' x 4' or 600 x 1200mm)

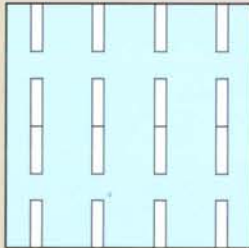


Design Ceiling Modules

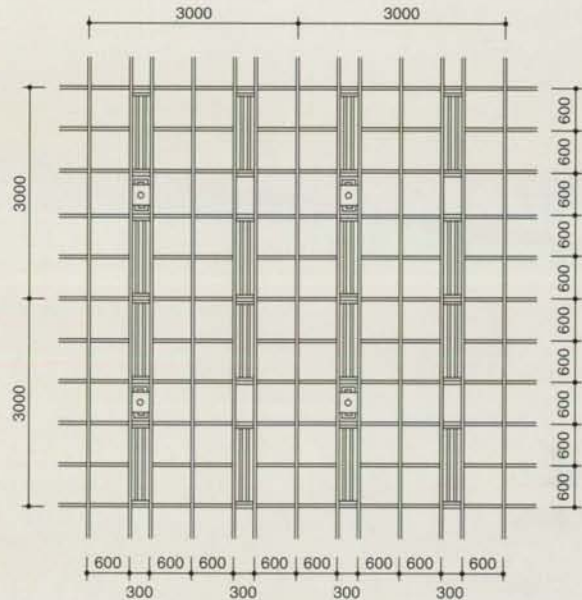
----Parallel

System Components:

- Main Tee MS-3000
- Cross Tee CS-1200
- Cross Tee CS-300



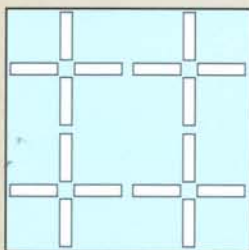
Lighting Layout



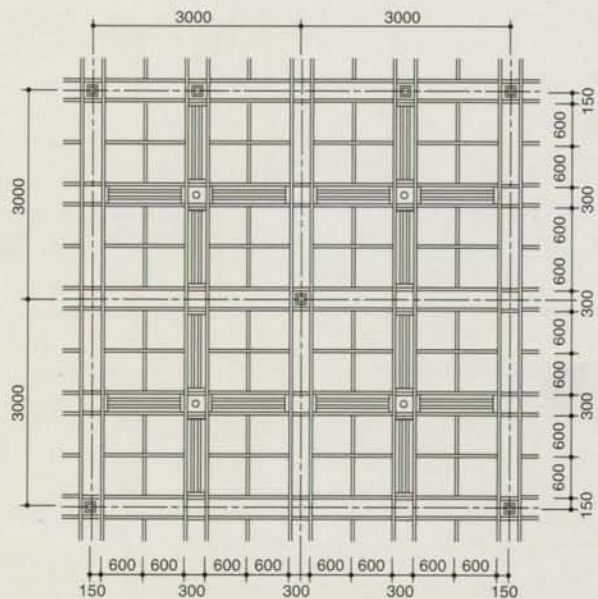
----Cross

System Components:

- Main Tee MS-3000
- Cross Tee CS-1200
- Cross Tee CS-600
- Cross Tee CS-300



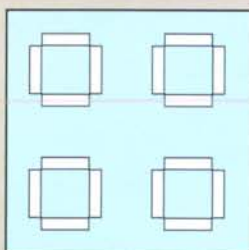
Lighting Layout



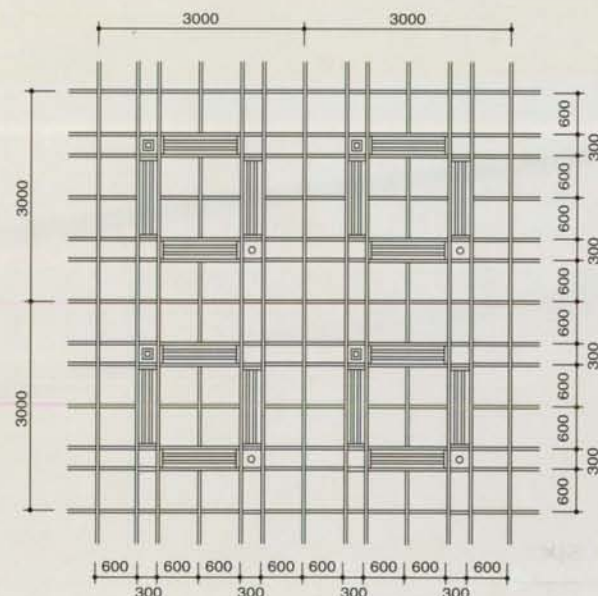
----Square

System Components:

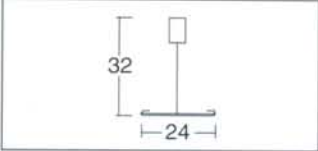
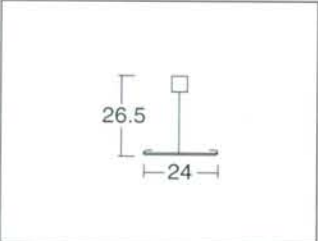
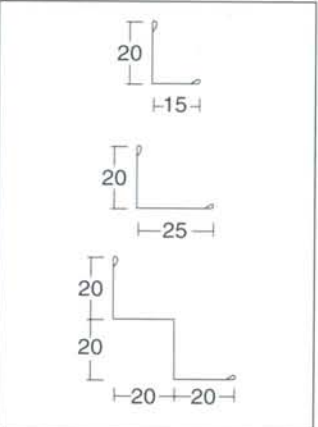
- Main Tee MS-3000
- Cross Tee CS-1200
- Cross Tee CS-600
- Cross Tee CS-300



Lighting Layout



System Components and Accessories

Product	Item Code	Profile	Length	pcs./ctn.	Kg/ctn.
Main Tee	MS-3000		3000mm	25	25
	MS-10'		10'	25	25
	MS-3125		3125mm	25	26
Cross Tee	CS-600		600mm	60	11
	CS-1200		1200mm	60	21
	CS-2'		2'	60	11
	CS-4'		4'	60	21
	CS-300		300mm	120	11
	CS-500		500mm	60	9.0
	CS-625		625mm	60	11
Wall Angle	LA-2015		10'	40	18
	LA-2025		10'	40	22
	WA-2020		10'	20	19

* Other length can be customised to suit individual design and application with an agreed quantity.

Accessories	pcs./ctn.	kg/ctn.
Tee Hanger	200	12
1/4" Suspension Bolt	20	30
1/4" Nut	200	9.6
Z Bracket	200	7.5
Ram Clip	200	6

Quick Guide to Quantity Estimation






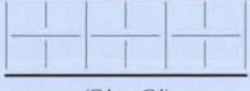




Product	2' x 2' 600 x 600 mm	2' x 4' 600 x 1200 mm
	<u>Pieces</u>	<u>Pieces</u>
MS-3000 or MS-10'	25	25
CS-1200 or CS-4'	125	125
CS-600 or CS-2'	125	-
Wall Angle	14	14
Suspension bolt assemblies	65	65

* This guide cover a ceiling area of 1,000 sq.ft. based on simple layout without wastage factor.

Load Test Data Based on ASTM C635 1/360 Span Deflection

Product	Item Code	Length	Height in (mm)	Load Carrying Capacity (kg/m)
Main Tee	MS-10'	10'	32	9.9
Cross Tee	CS-2'	2'	26.5	37.7
	CS-4'	4'	26.5	6.0
	CS-500	500mm	26.5	75.7
	CS-1000	1000mm	26.5	10.5
	CS-625	625mm	26.5	38.4
	CS-1250	1250mm	26.5	5.9

Permissible Distributed Load of Ceiling Grid Systems

S/N	Ceiling Modules	Main Tee Spacing	Cross Tee Length	System Components	Permissible Distributed Load (kg/m ²)
1	 (2' x 4')	4ft	4ft	MS-10' CS-4'	8.1
2	 (2' x 2')	4ft	4ft 2ft	MS-10' CS-4' CS-2'	8.1
3	 (2' x 4')	2ft	2ft	MS-10' CS-2'	16.2
4	 (2' x 2')	2ft	2ft	MS-10' CS-2'	16.2
5	 (2' x 4')	4ft	4ft 4ft	MS-10' CS-4' CS-4'	4.9
6	 (2' x 2')	4ft	4ft 4ft 2ft	MS-10' CS-4' CS-2'	4.9
7	 (0.5 x 0.5 m)	1000mm	1000mm 500mm	MS-3000 CS-1000 CS-500	9.9
8	 (0.5 x 0.5 m)	500mm	500mm	MS-3000 CS-500	19.8
9	 (0.625 x 0.625 m)	1250mm	1250mm 625mm	MS-3125 CS-1250 CS-625	7.9
10	 (0.625 x 0.625 m)	625mm	625mm	MS-3125 CS-625	15.8

* For Module 2, 5 - 7 & 9, it was assumed that the second cross tee lying parallel to the main tee is not supporting any load, but only served as a stiffener to prevent buckling.

Architectural Specification

Material

System Specification

- The ceiling suspension system shall be Kirii Tee Grid Ceiling System as manufactured by Kirii H.K. Ltd.
- The suspension system shall comply to ASTM C635 standard and shall be capable of carrying the ceiling load with a maximum deflection of 1/360 of the span. The ceiling module shall be specified by the architect, using the following components.
- The body of the grid section shall be made of hot dip galvanized steel with a zinc coating of not less than 180g/m² (Z18).
- The exposed flange of the grid section shall be 24mm width made of hot dip galvanized steel capping. The white finish applied shall be factory-coated with a polyester coating thickness of 25 microns.

Main Tee

Main tee shall be 32mm high and of double web design with rectangular bulb. The main tee shall be equipped with a effective self-locking (plug in) device which can be joined firmly to form a continuous straight line. Hanger holes shall be round and punched on the web of the main tee at interval of 150mm (6"). Cross tee slots shall be accurately punched on the web at 150mm (6") o.c.

Cross Tee

Cross tee shall be 26.5mm high and of double web design with reinforcing bulb. The cross tee shall be flat and in plane with the flange of the main runners after insertion.

Wall Angle

Wall angle shall be either L or W-shaped with factory-coated white surface finish matching the colour of tee grid system.

Site conditions

- Suspension ceilings are essentially a finishing trade and therefore the building shall be in a suitable condition with regard to cleanliness, temperature and relative humidity before installation begins.
- The building shall be fully enclosed, and all wet work shall be completed and dried out unless the board manufacturer's recommendations allow otherwise.
- All work above the suspended ceiling shall be completed before the suspended ceiling is installed with the exception of connections and balancing adjustments to services.

Installation

Setting out and levelling

- Sufficient information shall be clearly indicated on the drawings to enable the ceiling module and setting out points in each ceiling area applicable to all relevant trades to be established early. All trade shall work to the same setting out points and data.
- The ceiling height in each area shall be marked in relation to the elevation bench marks and then transferred by means of water levels, or rotation laser or other device.
- Setting out lines shall be in both directions and squared accurately at the outset.

Top fixings

- Before top fixings are installed, the suitability of the building structure from which the ceiling is to be suspended shall be verified.
- Preferably all top fixings shall be installed at the same time as the suspended ceiling to ensure accurate spacing.

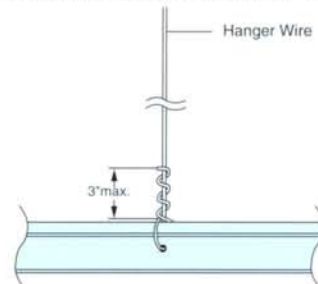
Hangers

- Hangers shall be spaced in accordance with the recommendations of the manufacturer of the ceiling system.
- Where hangers cannot be fixed at the recommended spacing due to the presence of services equipment or other obstructions, a sub-grid of appropriate span performance shall be used. It shall be securely supported to prevent lateral movement.
- Hangers shall be vertical or nearly vertical and shall not press against insulation covering ducts or pipes. If hangers have to be fixed diagonally to avoid obstructions the horizontal force shall be offset by bracing. Wire hangers shall be carefully straightened and tensioned before use.

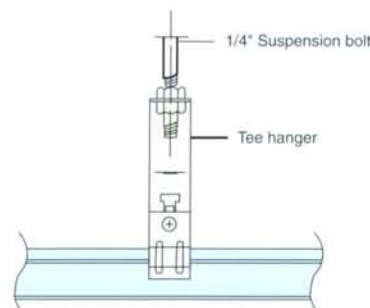
Exposed Tee Grids

Main Tees (runners)

- The main runners shall be installed so that they are level. Levelling shall be done with the supporting hangers taut to prevent any subsequent downward movement when the ceiling loads are applied.
- Kinks or bends shall not be made in hanger wire as a means of levelling the main runners.
- There shall be no visually apparent angular displacement of the longitudinal axis of one runner in relation to the next runner in line with it.
- Where hangers wires pass through main runners, the loops shall be sharply bent and tightly wrapped to prevent vertical movement of the runner within the loop. The wire must be wrapped around itself a minimum of three full turns (360° each) within a 3 inches length.



- An alternative hanging method by using galvanized steel Tee hanger. It provides a rigid hanger system where the ceiling is likely to be subjected to upward movement, e.g. wind pressure, cleaning procedures etc.



Cross tees

- Cross tees that are supported by either main runners or other cross tees shall be installed so that they form a right angle with the intersecting runner.
- Cross tees over 600 mm long which are cut and rest on the wall angle shall be supported by an additional hanger.

Wall Angle

- Wall angle shall be neatly jointed at all external and internal angles. Straight run joint shall be neat and adjacent lengths truly in line.
- All wall angle shall be firmly fixed at the specified centers to the perimeter wall or other structure.

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