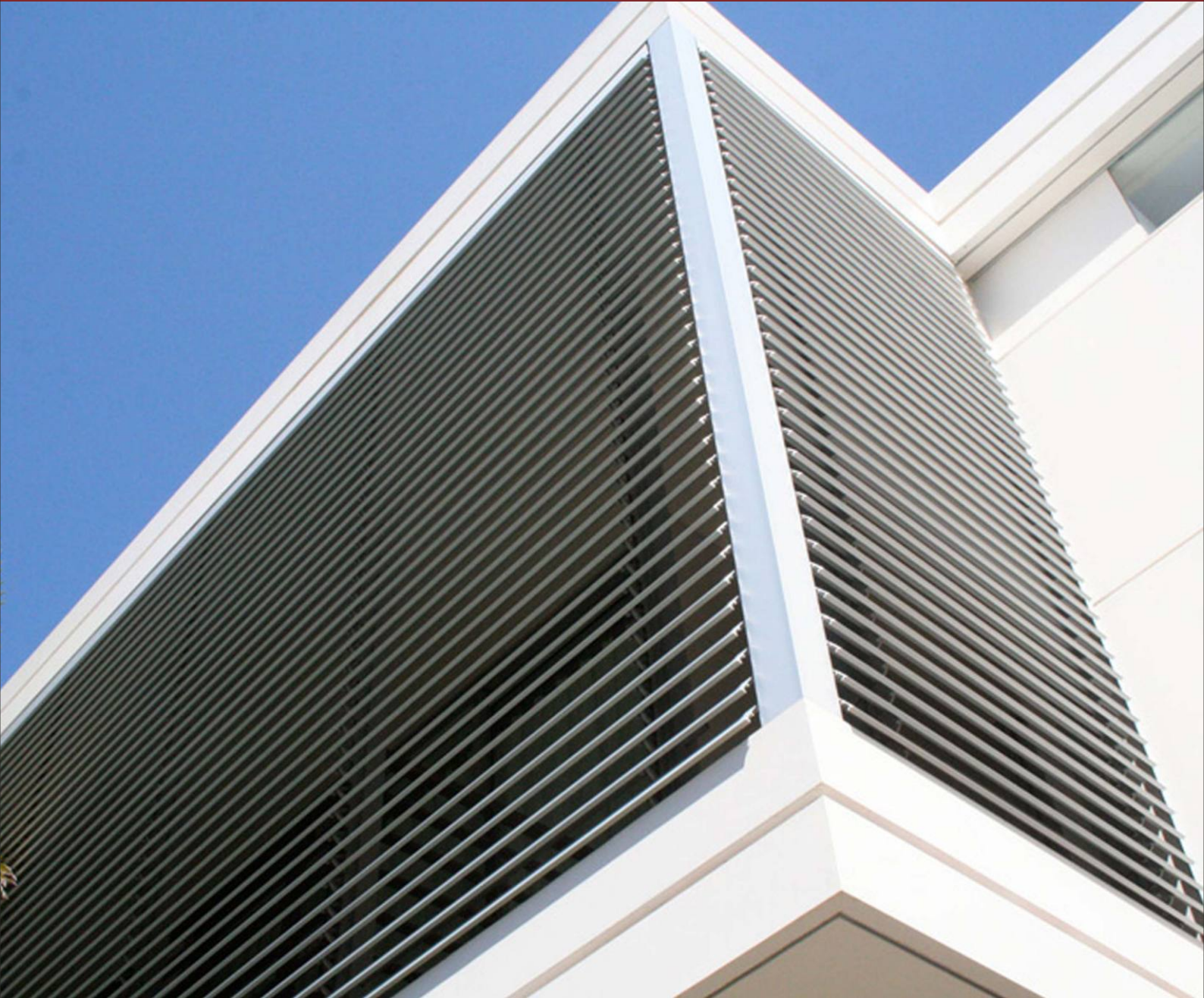


ROYAL KRAFT

MANRAJ CEILING PRODUCTS PVT. LTD.



Manraj Ceiling Products Private Limited

Royal Kraft

Metal false ceiling

Introduction

We started our career in Metal Ceiling Trade in 1990 in full swing and today we are a major player in this field and working as Group of Companies. We have our manufacturing units located at Ludhiana (Punjab) India.

We have always concentrated to give better quality in the market and the result is, today we are a leading company in Metal False Ceiling System in India with our brand name Royal Kraft.

Royal Kraft is one of the respected name in metal false ceiling industry, whose commitment of quality is not comparable. We have our own standard, quality and concentration for the products. We are fully dedicated to the services, technical innovation and high standard of quality. We are continuous in process of developing a new wide range of the products.

As we are into the manufacturing of metal false ceilings, it becomes our priority to offer our clients with the most amazing range of products and services. Our designs are world class and perfect for architecture and interior decorative uses. All the services and products are offered to clients based in international as well as domestic market. At present, we are into manufacturing of various products.

Acoustics

Noise is major concern when designing indoor spaces. Room sound absorption is one of the most important factors in controlling built-up reverberant noise and in reducing sound transmission between rooms. Perforated Suspended ceilings provide good acoustics control both by helping to reduce sound within a room and by reducing sound transmission from room to room. Modern buildings are increasingly becoming noisy places with high people density and instrument and appliance noise. Suspended acoustical ceilings serve to provide sound absorption on the most useful surface in a room. It helps in reducing reverberant sound intensity within a room.

Royal Kraft Metal False Ceiling range comprises different type of perforated panels with an acoustic non-woven material factory applied to the rear side of the panels. Due to the controlled sound impedance of this perforated panel, and with a backing air space (ceiling plenum), the **Royal Kraft** ceiling provides excellent sound absorption properties without the use of any fibrous material behind the perforated panel.

Thermal Insulation

Suspended False Ceilings help in Thermal Insulation of buildings. Due to superior Thermal Insulation property of the ceiling material external heat is kept outside while air-conditioned cooling is preserved inside.

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Our Products Range

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ROYAL KRAFT SUSPENSION GRID SYSTEM

ROYAL KRAFT The Ceiling suspension system shall be exposed lay in system to fit 600mm x 600 mm or 600 mm x 1200 mm ceiling module. It shall be suspended to the soffit by a 4mm diameter adjustable quick butterfly fit hanger rod system. Main Tee shall be in 38mm/32mm height exposed portion (polyester coated) shall be 24mm/15mm. Cross tee shall be 26mm height and expose portion is 24mm/15mm. All systems components are made of roll formed hot dipped galvanized steel of 0.30mm thickness with zinc coating of not less than 100/120gsm/m² and a minimum tensile strength of 240 mpa. wall angle are 24mm height x 24mm or 15mmx15mm exposed portion made of 0.35mm thick pre coated coil. Both ends of the Main Tee have integral splices which can be enjoyed firmly by inserting a tab on the one end of one section into slot in the adjoining section. The exposed flange finish shall be pre painted polyester coated galvanized steel not less than 0.30 in white colour with coating thickness of 20 microns top coat and 8 microns primer alkyd backer on backside.

















SPECIALITIES FOR T GRID SYSTEM

- » This material is processed by pre painted hot-dipped galvanized steel.
- » Tee-Grid Zinc Mass Coating is 100-120gm/m² Salt spray test for the white pre-painted cap is for 1000-Hours. The Material is processed with 20-micron polyester pre-painted.
- » The anti-rusty process has been incorporated into the galvanized steel.
- » T-Grid is produced by fully automatic machine controlling the production of straight material to maximum 0.1 mm tolerance ensuring consistent dimensioning of the grid module after installation.
- » Load bearing capacity when the span is 1.2 meter, supported with 4 mm hanger wire from roof for type 1 is 12.00 kg/m² and 8.50 kg/m² for type II



TEE GRID

Part Name	Main Tee	Cross Tee
Centerline	 <p>24x32x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>24x26x1200x0.30mm 24x26x600x0.30mm Qty./Box-40 Nos.</p>
Centerline	 <p>15x32x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>15x32x1200x0.30mm 15x32x600x0.30mm Qty./Box-40 Nos.</p>
Type-I	 <p>24x38x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>24x38x1200x0.30mm 24x38x600x0.30mm Qty./Box-40 Nos.</p>
Type-II	 <p>24x38x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>26x24x1200x0.30mm Qty./Box-50 Nos. 26x24x600x0.30mm Qty./Box-75 Nos.</p>
Type-III	 <p>32x24x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>26x24x1200x0.30mm Qty./Box-50 Nos. 26x24x600x0.30mm Qty./Box-75 Nos.</p>
Type-IV	 <p>32x15x3600x0.30mm Qty./Box-25 Nos.</p>	 <p>26x15x1200x0.30mm Qty./Box-50 Nos. 26x15x600x0.30mm Qty./Box-75 Nos.</p>
Wall Angle	 <p>24x24x3000x0.35mm Qty./Box-50 Nos.</p>	 <p>15x15x3000x0.35mm Qty./Box-50 Nos.</p>



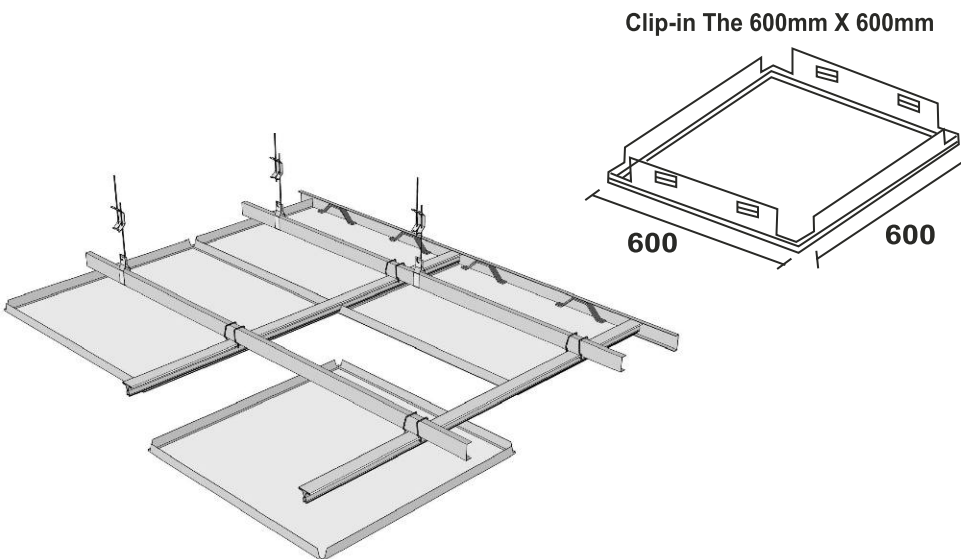
ROYAL KRAFT Lay-in false Ceiling System with G.I./aluminium tile 595 mm X 595 mm is manufactured out of 0.50 mm thick polyester coil coated/Powder coated galvanized steel 100/120 gsm zinc coating or 0.7mm aluminium powder coated with 60 microns polyester paint in AA5050, AA3105 or AA1050 alum. alloy these tiles can have square or bevelled edges. Coil coated steel tile has 20-micron polyester coated finish and back coat of 8-micron alkyd primer. The exposed metal grid comprises of Main Runners and Cross Tees, roll formed from galvanized steel of 100/120gsm zinc coating. The main and cross tees are provided with bayonet coupling for quick installation and have a height of 32/38 mm and 26 mm. The grid is suspended from the roof with G.I. wire rods for quick adjustment by suspension hangers at max. 1200 mm and is filled with 1200 mm / 600 mm cross tees. Hangers are fixed to roof by expansion fasteners. Wall angle are 24 mm X 24 mm X 0.4 mm thick coil coated steel matching the colour of the tile.



CLIP-IN TILES



ROYAL KRAFT Clip-in False Ceiling System with G.I/aluminium tile (600 mm x 600 mm) is manufactured out of 0.50 mm thick polyester coil coated/powder coated galvanized steel 100/120 gsm zinc coating or 0.7mm aluminium powder coated with 60 microns polyester paint in AA5050, AA3105 or AA1050 alum. alloy. These tiles can have square or bevelled edges. Coil coated G.I tile has 20-micron polyester coated finish and back coat of 8-micron alkyd primer. Two sides of each tile are raised and piped and stopped to ensure positive engagement into the spring Clip-in profile, yet allow for demounting of individual tiles. The rigid suspension system consists of rows of 0.5 mm galvanized steel Clip-in profiles of size 34 mm X 24 mm, installed at 600 mm c/c spacing and fixed with C channel of size 10x38x10 mm of 0.7 mm thickness. Clip in profile and C channel have to fix with each other with the help of hold on clamp. Suspension Angles or 6 mm thread rod are suspended from the roof structure by GI Ceiling Brackets. The tiles are held in place by pressure clips. In the flexible system the Hanger and Butterfly Clip can replace the suspension angle. C Wall angles are of size 20X30x20 mm and 0.4 mm thick. They are made of coil coated steel or aluminium matching the colour of tiles. These tiles are available in plain and perforation of 2.2 mm, 2.5 mm and 1.8 mm.



OPEN CELL CEILING SYSTEM

ROYAL KRAFT G.I./Aluminium open cell ceiling tiles are designed to lay onto 15mm Tee Grid in size of 595x595 mm. 15 mm Main Tee shall be in 32mm height exposed portion (polyester coated) shall be 15mm. Cross tee shall be 32/26mm height and expose portion is 15mm. All systems components are made of roll formed hot dipped galvanized steel of 0.30mm thickness with zinc coating of not less than 100/120gsm/m² and a minimum tensile strength of 240 mpa. wall angle is 15mm height x 15mm exposed portion made of 0.35mm thick pre coated coil. Both ends of the Main Tee have integral splices which can be enjoyed firmly by inserting a tab on the one end of one section into slot in the



adjoining section. The exposed flange of grid shall be pre painted polyester coated galvanized steel not less than 0.30 in white colour with coating thickness of 20 microns top coat and 8 microns primer alkyd backer on backside. Open cell ceiling tiles can be available with multiple of colour choice with matching the colour of 15 mm T-Grid in powder coating with 60 microns front coat.

Technical Details

- Standard Module Cell Size
- 75mm x 75mm, 100mm x 100mm, 150mm x 150mm, 200mm x 200mm, 300mm x 300mm
- **Web Height:** 50 mm
- **Width :** 15 mm
- **Thickness:** 0.35 mm G.I.
0.45 mm Aluminium
- **Finish:** powder-coated (epoxy polyester paint) and limitless colours & White Pre-coated
- **Dimensions:** other customized dimensions also available as per factory confirmation.
- **Substrate:** Aluminium alloy / Galvanised Steel
- **Tee Grid:** Main runner-3600 mm x 15 mm x 32 mm x 0.30 mm
Cross tee- 1200 mm x 15 mm x 26 mm x 0.30 mm
Cross tee- 600 mm x 15 mm x 26 mm x 0.30 mm
Wall Angle- 3000 mm x 15 mm x 15 mm x 0.40 mm

Advantages

- Easy access to lighting, ventilation systems, and sprinklers
- Strong sense of three-dimension
- The product can be match will all type of light fixtures
- The product plays a prominent role in exhaust ventilation
- Versatile range of patterns, configurations, and colours
- Available in various interior cell sizes
- Eco-friendly

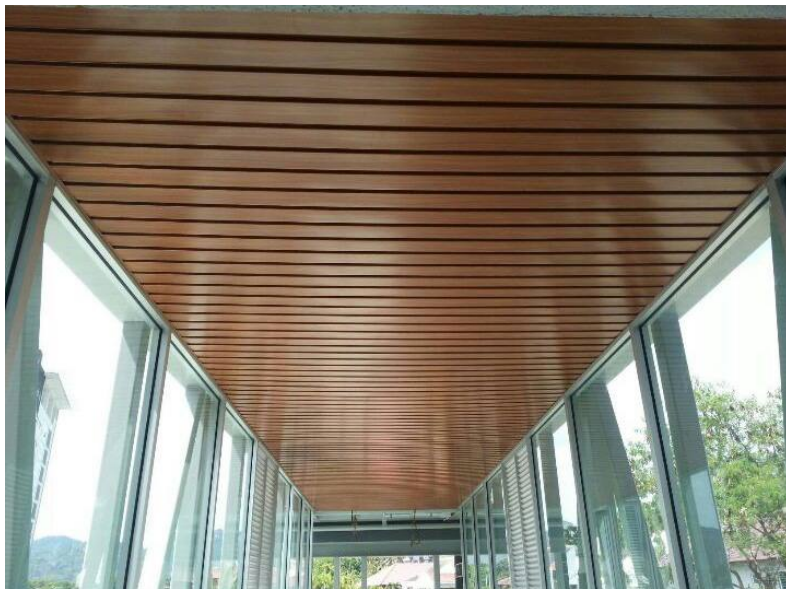
84 R LINEAR CEILING PANELS

ROYAL KRAFT Linear or strip ceilings provide an aesthetic linear finish to any interior.

Available in a variety of profiles and modules, including 84R, 84C, 150F, 150C and 300C

The panels are available in coil coated or powder coated steel and aluminium substrates. Perforated profiles are available 2.2, 2.5mm and 1.8mm perforation for acoustic applications.

Panels are available in lengths up-to 5-6 meters, to suit your design and site requirements



84R LINEAR CEILING SYSTEM

84 R ceiling system comprises of 84 mm x 16 mm panels without flush profile (for 100 mm module only) roll formed out of metal coils. Panels are fixed on to roll formed carriers 32 mm wide x 39 mm deep made out of 0.9 mm Aluminium or 0.5 mm galvanised steel sheet with cut outs to hold the panels in module of 100 mm at maximum 1.5 mm without insulation and at maximum 1.2 m c/c with insulation. Carriers are suspended from the roof or truss by 4 mm dia. galvanized steel wire rod hanger with special height adjustment suspension clip at max. 1.2 m c/c. Hangers are

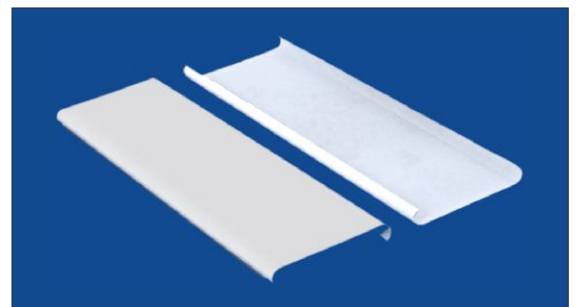
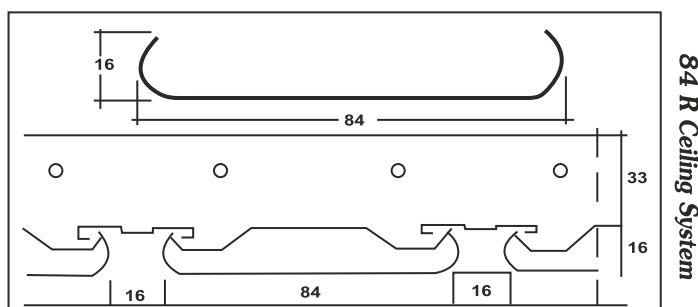
fixed to the roof by ceiling bracket. Panels are available in max. Lengths up to maximum 5 m to suit site dimensions. Edge profiles or wall angles are 24 mm X 24 mm X 0.4 mm thick and match the colour of the panel. Flush profile can be use in between 2 panels to fill gap of 16mm.

Material used for panels and Carriers:

Aluminium Alloy AA5050, AA3105 or AA1050 is used to make the panels and carrier. Thickness is 0.5 mm for panels. carriers shall be 0.5 mm thick in G.I and 0.9 mm in aluminium.

Panel are made of Galvanised steel with 100 gsm Zinc coating and 20 microns polyester paint coil coating sheets. Panels can be available in 60 microns polyester powder coating galvanized steel with 100 gsm Zinc coating or in aluminium alloy in different colours.

Finish of the panels: Panels are available in plain and perforation of 2.2mm, 2.5mm and 1.8mm



84 C LINEAR CEILING PANELS

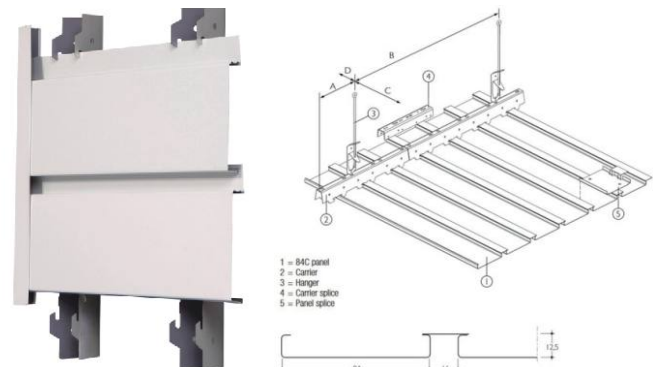
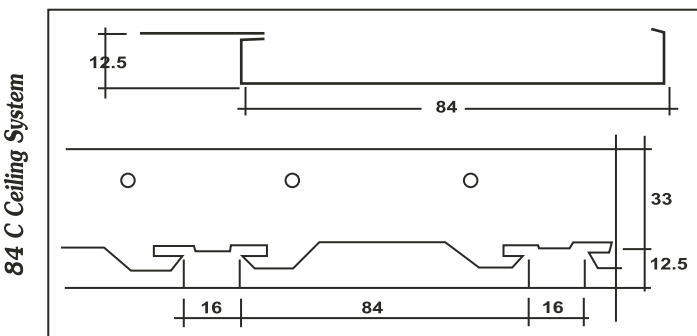


ROYAL KRAFT 84 C ceiling system comprises of 84 mm x 12.5 mm panels with 23.9 mm flange roll formed out of metal coils galvanized coil coated steel or aluminium alloy. Panels are fixed on to roll formed carriers 32 mm wide x 39 mm deep out of 0.9 mm Aluminium or 0.5 mm galvanized steel sheet with cut outs to hold the panels in module of 100 mm at maximum 1.5 m c/c without insulation and at maximum 1.2 m c/c with insulation. Carriers are suspended from the roof or truss by 4 mm dia. galvanized steel wire rod hanger with special height adjustment suspension clip at max. 1.2 m c/c. Hangers are fixed to the roof by ceiling bracket. Panels are available in lengths up to maximum 5 m to suit site dimensions. Edge profiles or wall angles are 24 mm X 24 mm X 0.4 mm thick and match the colour of the panel.

Material used for panels and carrier:

Aluminium Alloy AA5050, AA3105 or AA1050 is used to make the panels and carrier. Thickness is 0.5 mm for panels and 0.9 mm for carriers.

Panel are made of Galvanised steel with 100 gsm Zinc coating and 20 microns polyester paint coil coating sheets. Panels can be available in 60 microns polyester powder coating galvanized steel with 100 gsm Zinc coating or in aluminium alloy in different colours.



150 F LINEAR CEILING PANELS

ROYAL KRAFT 150F ceiling system comprises of 150 mm X 17 mm. Panels are fixed on the roll formed out of metal coils galvanized coil coated steel or aluminium alloy. carriers 34.5 mm wide X 48 mm deep out of 0.9 mm Aluminium or 0.5mm galvanized steel with cut outs to hold the panels in module of 150 mm at maximum 1.5 m c/c without insulation and at maximum 1.2 m c/c with insulation. Carriers are suspended from the roof or truss by 4 mm dia galvanized steel wire rod hanger with special height adjustment suspension clip at max.

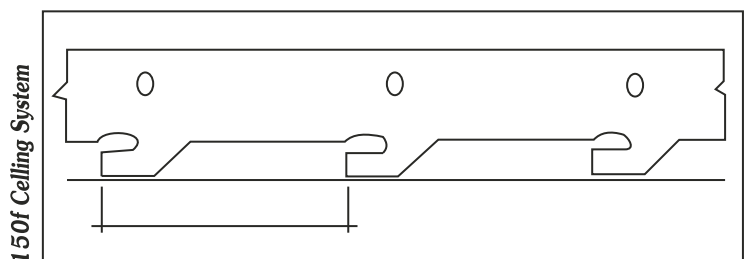
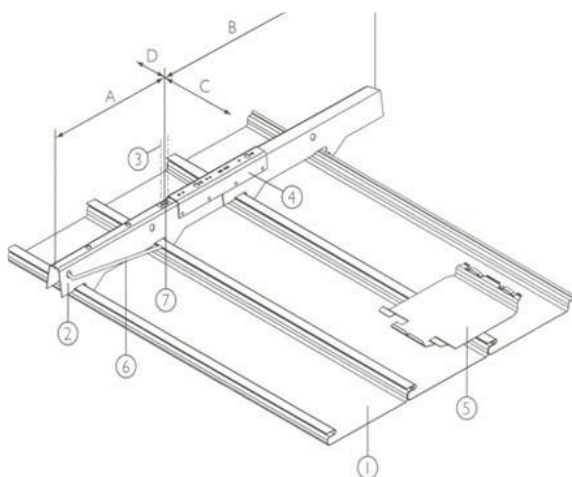


1.2 m c/c. Hangers are fixed to the roof by ceiling brackets. Panels are available in lengths up to maximum 5 m to suit site dimensions. Edge profiles or wall angles are 24 mm X 24 mm and match the colour of the panel.

Aluminium - Alloy AA5050, AA3105 or AA1050 is used to make the panels and carriers. Thickness is 0.5 mm for panels and 0.9 mm for carriers.

Mild Steel - Galvanized with 100 gsm Zinc coating, Thickness is 0.5 mm for panels and 0.5 mm for carriers.

Finish of the panels: Panels are available in plain and perforation of 2.2mm, 2.5mm and 1.8mm



150 C LINEAR CEILING PANELS

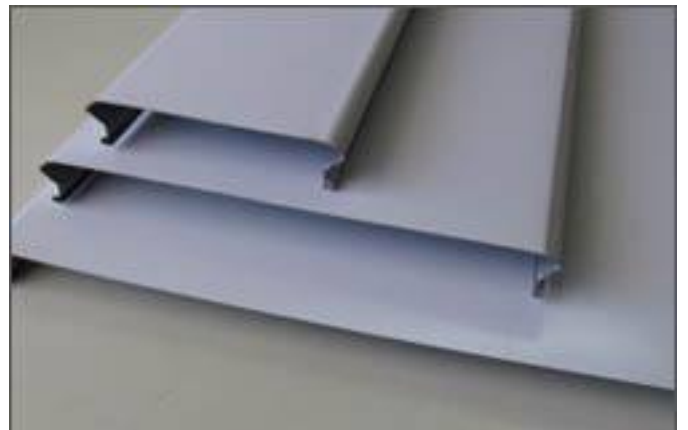


ROYAL KRAFT 150 C ceiling system comprises of 150 mm X 15 mm. Panels are made of roll formed metal galvanized coil coated steel or aluminium alloy 3105 coils with thickness 0.5mm or 0.7 mm. Aluminium Panels shall be powder coated with 60 microns polyester paint coating on front side or 20 microns front side and 8 microns backside for pre-coated G.I coils.

Panels are fixed on to roll formed carriers 30 mm wide X 40 mm deep out of 0.5 mm galvanized steel or 0.9 mm for aluminium sheet with cut outs / prongs to hold the panels in module of 150 mm at maximum 1.5 m c/c without insulation and at maximum 1.2 m c/c with insulation.

Carriers are suspended from the roof or truss by 4 mm dia. galvanized steel wire rod hanger with special height adjustment suspension clip at max. 1.2 m c/c. Hangers are fixed to the roof by 'J' hooks and nylon inserts. Panels are factory cut in lengths up to maximum 5 m to suit site dimensions or Architect Drawings.

G.I. Edge profiles or wall angles are 24 mm X 24 mm X 0.4 mm thick and match the colour of the panel.



300 C LINEAR CEILING PANELS



ROYAL KRAFT 300 C ceiling system comprises of 300mm wide x 30 mm. Panels are made of roll formed 0.5 / 0.7mm thick Aluminium sheet or 0.5 mm thick coil coated G.I sheets with bevel edge, panel length shall be up to 5 mtr. Panels shall be Pre-Coated 20 microns with polyester paint on the front side and 5-8 microns Primer coat on the back side. Powder coated Panels shall have 60 microns polyester paint on the front side only. Panel shall be clipped to Powder Coated G.I carrier of 41.5mm wide x 62mm deep x 0.5mm thick in standard length up to 5 mtr with cut outs to hold the panels in a module of 300mm closed at a distance 1.2 mtr. Panel carrier shall be suspended by means of G.I. suspension rod 4mm diameter and a Stainless steel suspension spring clip at a distance of 1.2 mtr c/c. G.I Edge profiles or wall angles are 24 mm X 24 mm X 0.35 mm thick shall be used on the walls with matching the colour of the panels.



SUN LOUVERS



ROYAL KRAFT Sun louver system is a highly functional, yet architecturally pleasing system that can add colour and exciting design effects to a building façade. The system is available with panel set at the range of angles and a wide range of colours and size. Also, Royal Kraft sun louver system provides for flexibility in design, easy maintenance and fast installation.

ROYAL KRAFT Aluminium Sun Louvres 84R system comprises of 84 mm wide and 16 mm deep roll formed out of aluminium or G.I coils. Panels are made of 0.5mm thick aluminium alloy or G.I coils. Carriers are made of 0.9mm thick aluminium alloy or 0.5 mm thick G.I sheets with cut-outs.

ROYAL KRAFT Sun louver system is a vertical or horizontal wall sun shading system. The system used 84 R panels that snap into vertically or horizontal mounted frames. The frames can be mounted on the exterior of a building over window openings, along balconies or over open area on a building elevation.

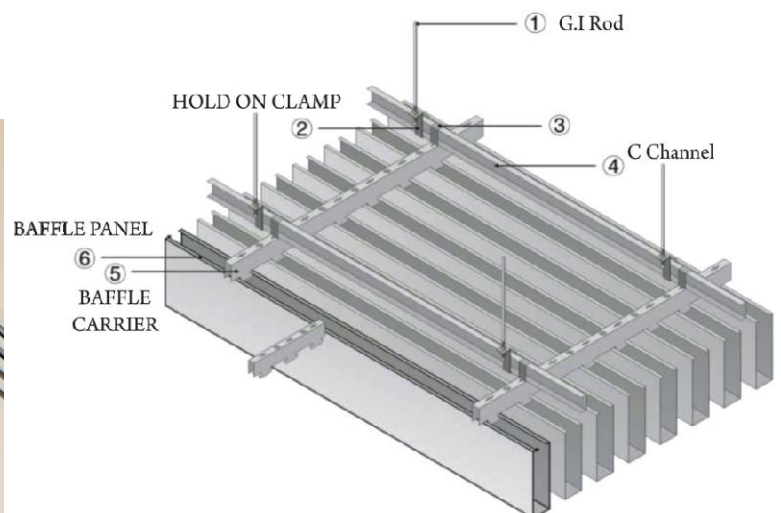
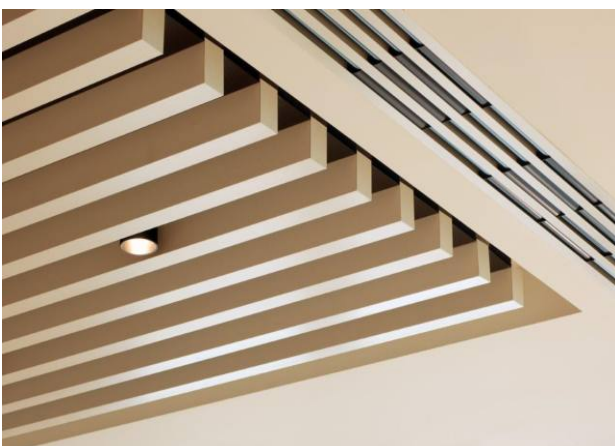
The vertical frames are offered in two different designs that hold the panels at different angles of 35 and 45 degrees. The ranges of angles provide air flow, sun shading, safety from rainfall and desired visibility.



BAFFLE CEILING PANELS



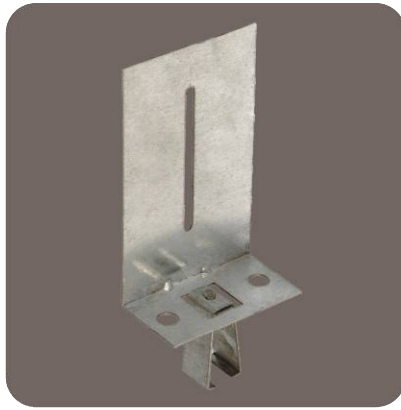
We are manufacturing a quality range of Baffle Ceiling. Ideal for controlling sound reverberation from hard surfaces, these baffles are extremely useful in commercial and industrial areas. **ROYAL KRAFT** offers a variety of high-performance acoustic hanging baffles in different sizes and shape. Baffle Ceiling is useful for many different types of area and application. Baffle Ceiling combine performance with high NRC Ratings and value for money to solve the most demanding of noise reduction problems. Baffles that mount up in the ceiling are one of the most effective methods to reduce reverberation and noise, because both sides of the baffle are exposed to the room. There are many types and coverings for indoor and outdoor applications. These Baffle ceilings are available in Galvanized Iron and Aluminium in a choice of different colours with 60 microns powder coating. All the sound baffles are fitted with hanging system used for vertical suspended or horizontal suspended from the ceiling. These baffles are light weight and do not add any extra load on ceiling.



FIXING ACCESSORIES



Hold on clamp C channel



Hold on clamp Adjustable



Hold on clamp with Butterfly



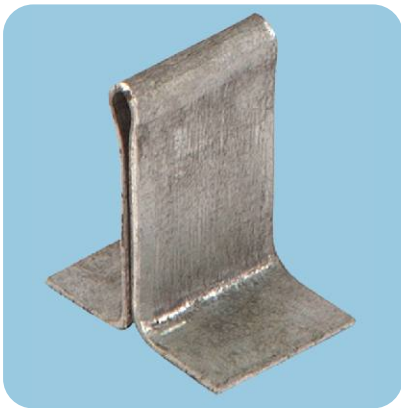
Level Adjuster



Wall Panel Splice 150 F



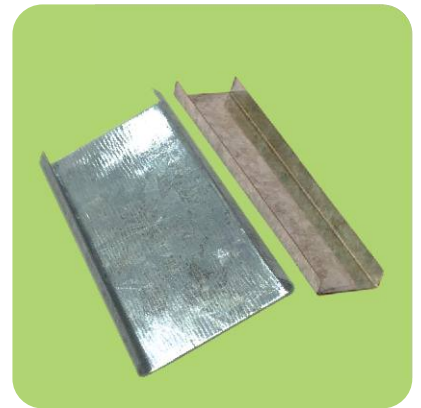
Panel Splice 84 C



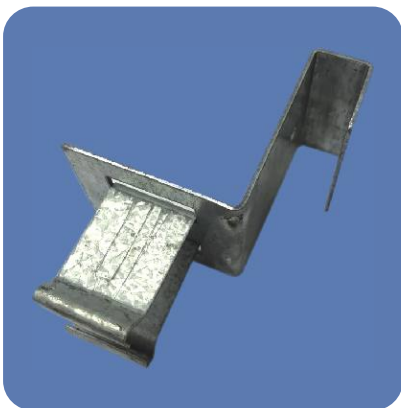
Pressure Clip



Suspension clip and Butterfly



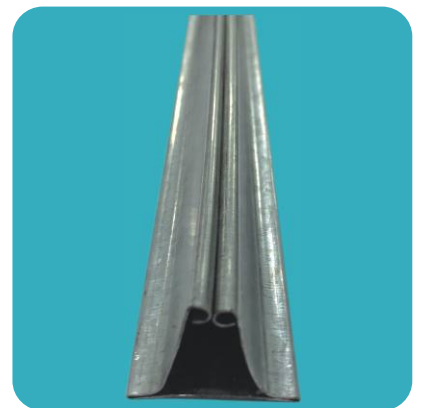
Jointer clip in Profile & C Channel



Hold on clamp



T Grid Clamp



Clip in Profile

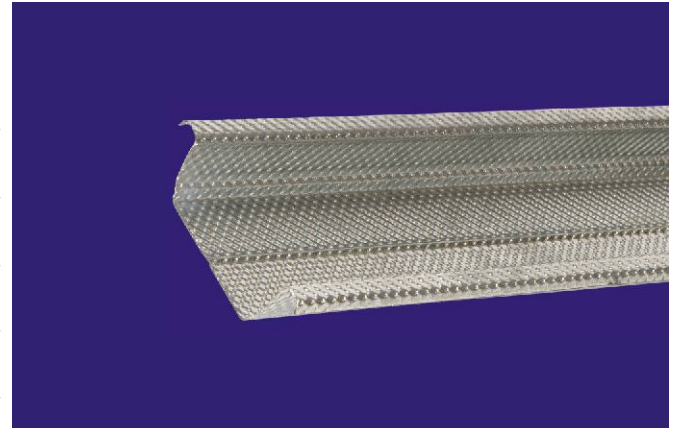
GYPSUM CEILING SECTION

CEILING SECTION

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.50 mm
Length	3660 mm
Flange	Two equal flanges of 26 mm each and knurled web of 51.5 mm

Application : It is a main supporting member which is suspended from the soffit with raw plug, soffit cleat and MS Flat from the soffit with rawl plug, soffit cleat and MS Flat at 1220 mm c/c in one row in 1220 apart.

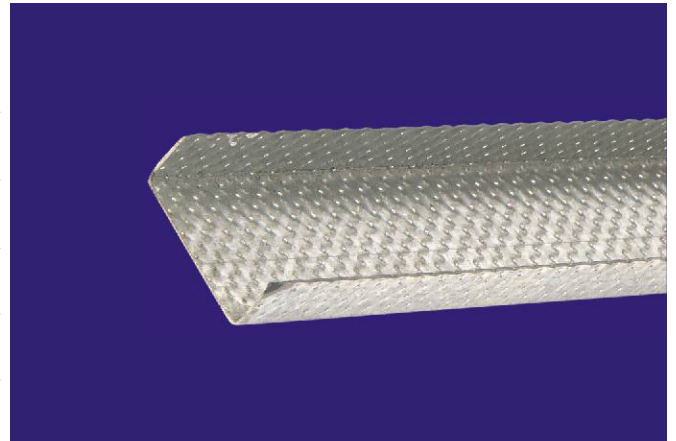


INTERMEDIATE CHANNEL

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.80 mm / 0.90 mm
Length	3660 mm
Flange	Two equal flanges of 15 mm each
Web	45 mm

Application : Used on intermediate support to ceiling sections. it is used as a main supporting member at 1220mm c/c and is suspended from the soffit with the help of metal plugs and soffit cleat at 1220 mm apart.

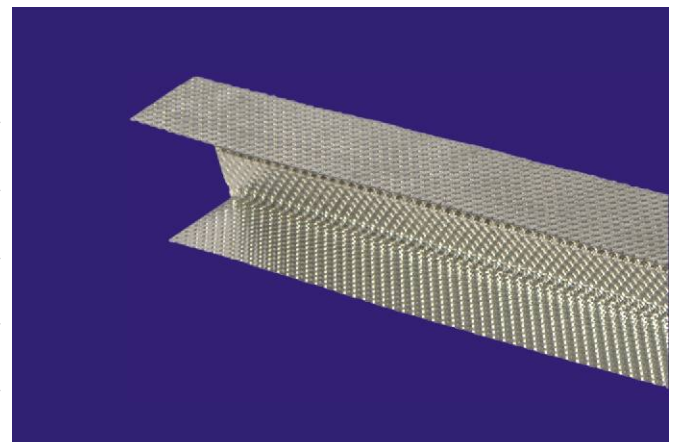


PERIMETER CHANNEL

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.50 mm
Length	3660 mm
Flange	Two equal flanges of 20mm & 30 each
Web	26 mm

Application : It is used at the perimeter of the ceiling on to the wall/partition with the help of nylon sleeves and screw at 610 mm c/c.

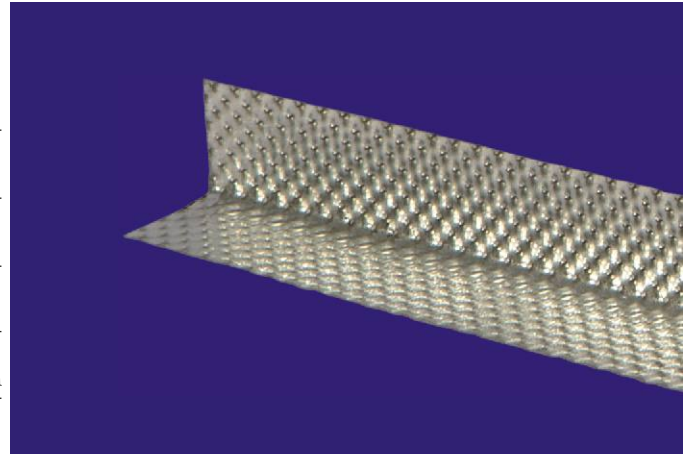


GYPSUM CEILING SECTION

CEILING ANGLE

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.50 mm
Length	3660 mm
Flange	Two flanges of 25mm x 25mm and 10mm x 25mm

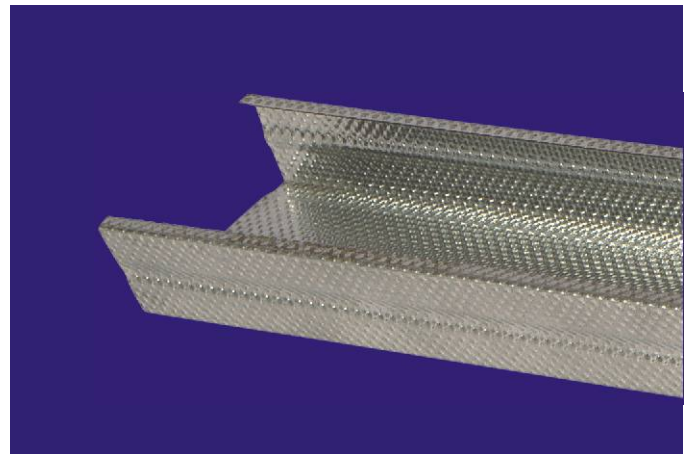


Application : It is used with gypsum board steel strapping in the column and beam encasement system at the flanges and for fixing the outer layer of a double layer partition at external angles

STUD SECTION

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.55 mm
Length	3660 mm
Flange	Two flanges of 36mm & other of 34mm
Web	48mm, 73mm, 98mm

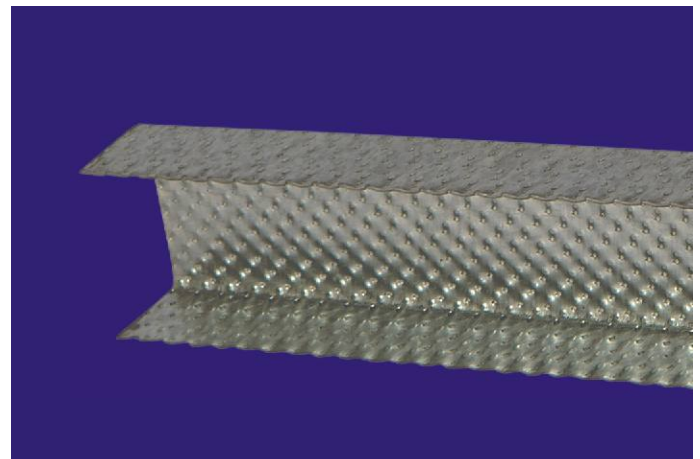


Application : It is used vertical member between the ceiling and the floor channels of metal framed partition system, it has knurling to increase strength.

FLOOR CHANNEL

Technical Specification

Basic Steel	Cold Rolled Steel
Galvanization	Hot Dip Galvanized (120 gsm)
Thickness	0.55 mm
Length	3660 mm
Flange	Two equal flanges of 32 mm
Web	



Application : It is used horizontal metal section at the ceiling and floor in metal framed partitions systems.

CHEMICAL COMPOSITION FOR ALUMINIUM ALLOY

Element	Grade Symbol	5050 Max. %	1060 Max.%	3105 Max.%
Manganese	Mn	0.1000	0.0300	0.8000
Silicon	Si	0.4000	0.2500	0.6000
Aluminum	Al	98.8999	99.7999	99.4999
Iron	Fe	0.7000	0.3500	0.7000
Chromium	Cr	0.1000	-	0.2000
Copper	Cu	0.2000	0.0500	0.3000
Magnesium	Mg	1.8000	0.0300	0.8000
Zinc	Zn	0.2500	0.0500	0.4000
Titanium	Ti	-	0.0300	0.1000
Vanadium	V	-	0.0500	-

MECHANICAL PROPERTIES FOR ALLOY

TEMPER	TEMPER TENSILE STRENGTH (Mpa)				ELONGATION %
	ULTIMATE		YIELD		
	H46	Min 186	Max 200	Min 152	Max 186



Stamp

Manraj Ceiling Products Private Limited

www.manrajceilingproducts.com