



GALVA COAT
INDUSTRIES

STRUCTURAL
STEEL

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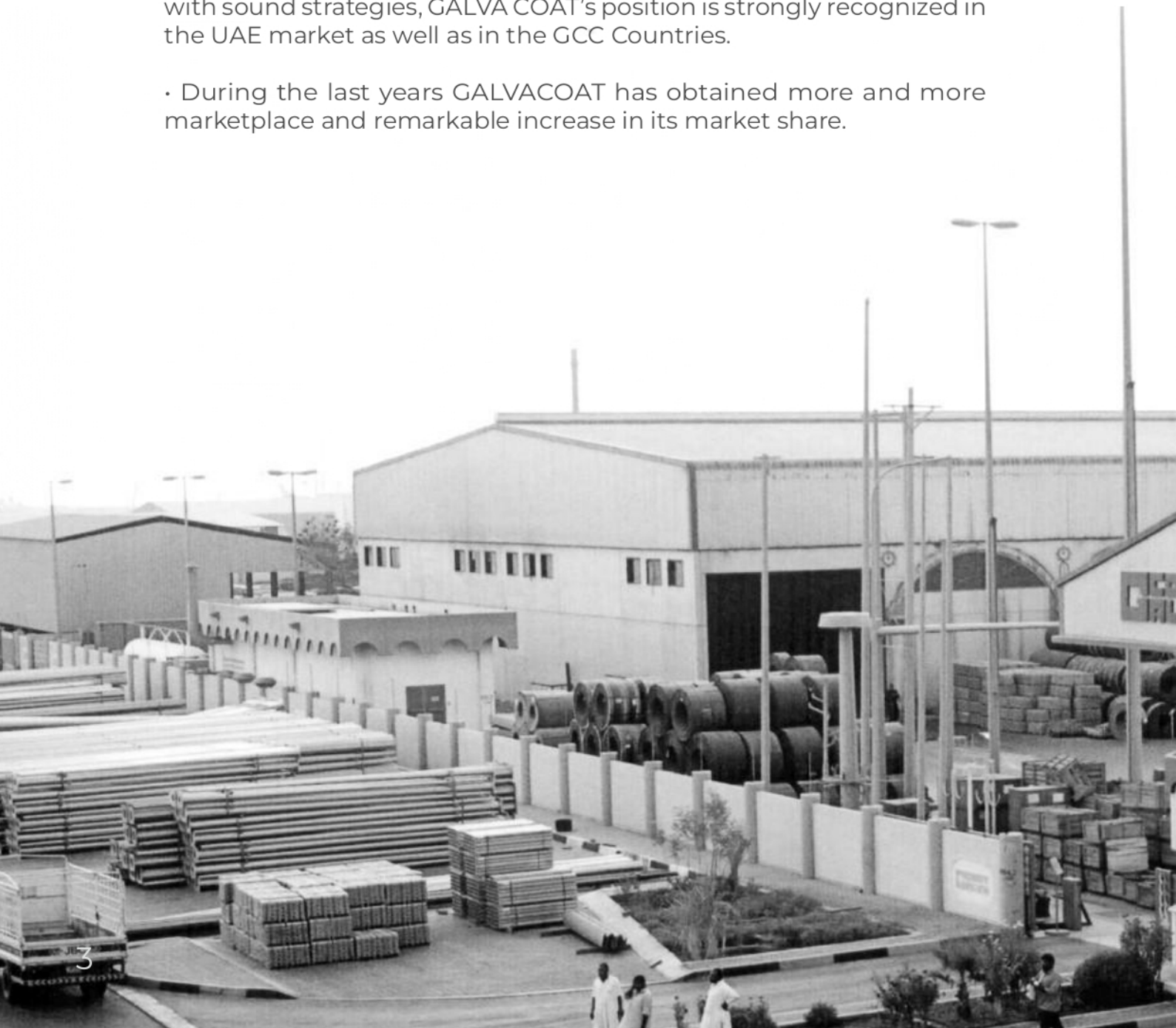
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The finest
STEEL
*has to go
through the*
HOTTEST FIRE

▶ ABOUT **GALVA** **COAT INDUSTRIES**

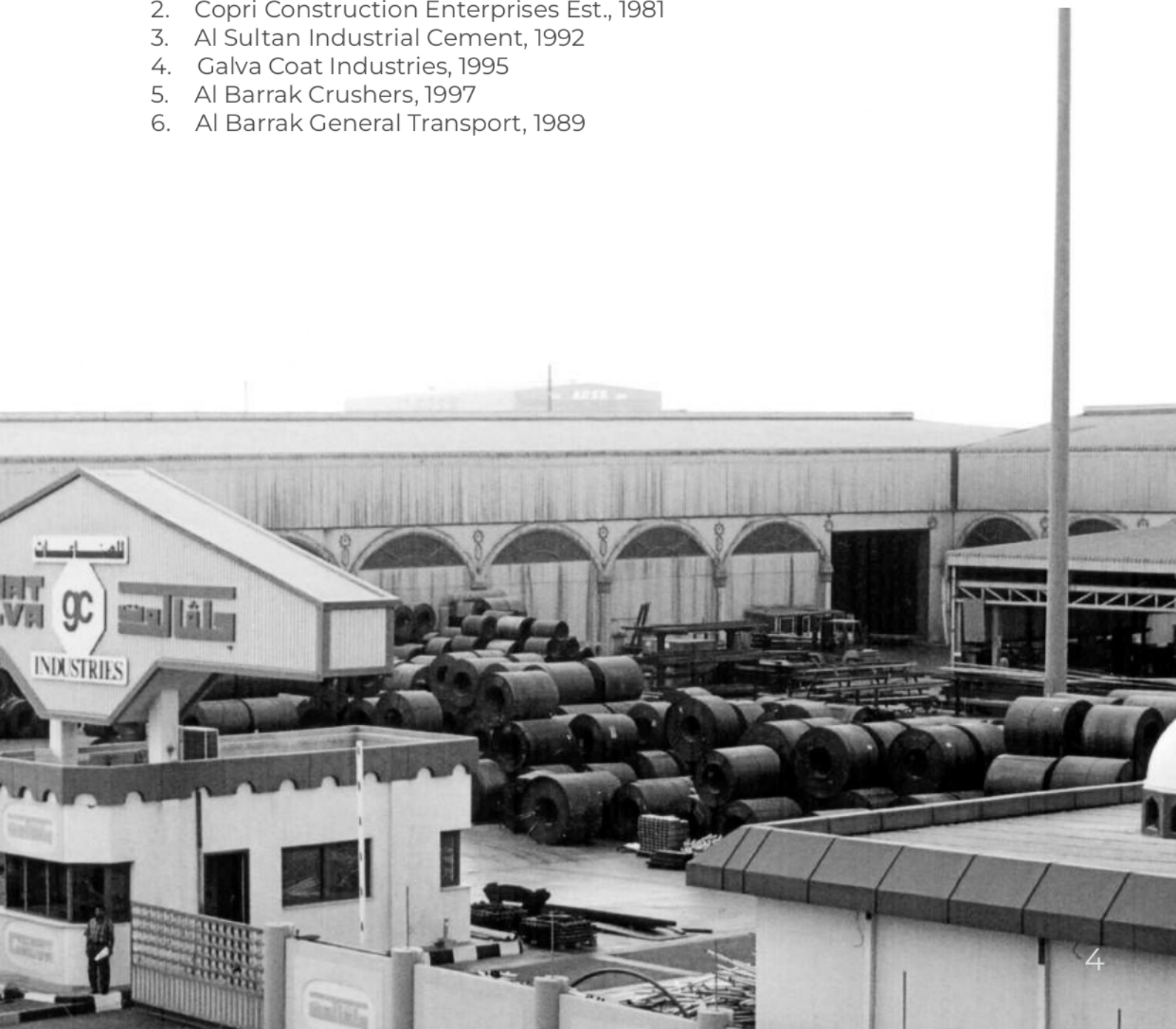
- Galva Coat Industries was established in 1995 in the industrial city of Abu Dhabi is one of the major manufacturing organizations not only in U.A.E but in the entire region.
- Due to the rigorous quality of our products and service, supported with sound strategies, GALVA COAT's position is strongly recognized in the UAE market as well as in the GCC Countries.
- During the last years GALVACOAT has obtained more and more marketplace and remarkable increase in its market share.



GALVA COAT began to meet the demands of the urban requirements and economic advancement in the United Arab Emirates in 1995 by the late Mr. Fatallah Abdulla Ikhdayer, who was inspired by the determination of His Highness Sheikh Zayed Bin Sultan Al Nahyan to develop our prosperous nation in a way no country had seen before.

Mr. Ikhdayer devoted his efforts to contribute to the development of the United Arab Emirates. He was successful in establishing several infrastructural companies in the UAE, including the following specialized companies:

1. Al Barrak Electrical Contracting Co, 1976
2. Copri Construction Enterprises Est., 1981
3. Al Sultan Industrial Cement, 1992
4. Galva Coat Industries, 1995
5. Al Barrak Crushers, 1997
6. Al Barrak General Transport, 1989



HISTORY

For the last 25 years, Galva Coat Industries has been operating as an Emirati National Organization.



Due to the rigorous quality of our products and services, Galva Coat Industries has received a remarkable increase in market shares and market place value, claiming more than 7,800 clients! We have exported our products to:

- Saudi Arabia
- Jordan
- Oman
- Kuwait
- Qatar
- Africa
- Bahrain
- India
- The United Kingdom (UK)

We are very proud to have been an integral part of the growth of the UAE, and now many other countries around the world; we will continue to do so with the same quality, passion, and determination as we have done to date.







Our Vision

Our VISION is to maintain and improve our position in the market as a leading supplier of galvanized steel products in the U.A.E. and the Middle East by providing our clients with the best quality products and services of the highest international standards.

Our Mission

- Provide safe and environmentally friendly working conditions.
- Protect the Environment throughout all our operations.
- Ensure business sustainability.
- Provide our Customers with a Complete Solution for their steel projects.
- Develop partnerships with key customers to become their preferred supplier of galvanized steel products.
- Supply quality products with enhanced service.
- Operate efficiently and become cost competitive.
- Develop the skills and engagement of our employees.

Our Values

- Safety First
- Quality
- Environment Protection
- Career Builders
- Trust
- Integrity

Our Team



In 2008, Mr. Islam Ikhdayer proudly joined our office as Managing Director of Galva Coat Industries and is an existing member of our Group since 2012. Mr. Islam believes that a company's workforce and ethical values are its most important assets. Under his leadership, our company has remained in a strong position in both local and regional markets. Mr. Islam is known for his ambition, as he is always striving to achieve excellence in all aspects of our business. He is passionate and qualified, allowing him to strengthen relationships and trust with our stakeholders. Mr. Islam's thoughts are inspired by the UAE Leader's Philosophy, that there is nothing impossible when it comes to achieving our objectives.

In addition to impeccable management, Galva Coat has committed itself to hiring the most talented candidate for each staff position.





Business Development Staff

Our sales department consists of a talented team of well-trained individuals, groomed to fulfil our customer's queries and requirements adequately.



Estimation Staff

Consists of highly competent engineers to ensure competitive pricing and reasonable costs against the quality of our products, to provide customers with more than what they pay for.



Customer Service Staff

Our Customer Services Team has been trained to attend to our customer's requirements and are always striving to increase our customer's satisfaction by addressing questions, queries, and any other needs.



Engineering & Design Staff

Galva Coat is proud to have invested in a highly talented design and engineering team. Each member has strong hands-on experience of designing various types of steel products.

Our Design Engineers are equipped with the most advanced software such as STAADPRO for Structural Design, custom-made spreadsheets for connections and TEKLA structures, and AutoCAD for structural steel detailing.



Materials Planning & Procurement Staff

This team specializes in planning and procuring the best quality of raw materials used in our steel products. They work endlessly to find the best quality items to ensure your satisfaction.



Purchase Staff

Galva Coat deals with suppliers via our certified procurement team and ensures that we are provided with supplies that comply with authority requirements to utilize green resources and ensure environmental protection.



HSE Staff

Galva Coat maintains a strict 'safety first' philosophy among all the operations in the factory, and we believe that our laborers are the most valuable asset for our business continuity. Each and every step in our operations is well evaluated to eliminate the risks and ensure the safety of our workers.



HR Staff

Our HR Staff are professionals and experienced in managing our human resources department. They strive to always have qualified and competent staff and workers in our operation, by implementing a well-organized training system.

► Manufacturing Excellence

We are equipped with the most modern manufacturing machineries from reputable European Companies with advanced technology comprising of but not limited to De-coilers, Shearing machines, Folding machines, Robotic welding machines, Guard Rail Machines, CNC Punch Machines, Laser Cutting Machines and Hot Dip galvanizing processes combined with state- of-the-art Enterprise Resource Planning (ERP) system tailored to this industry and well trained professional staff and the expertise to offer you:

- Street lighting poles, Decorative poles & Garden poles.
- High masts with fixed head frame & High masts with raising and lowering gear.
- Transmission masts for 11 & 33 KV.
- Communication Masts (Mono Poles – Etisalat Poles).
- Corrugated Double Wave Guard Rails (Crash Barriers), Beams, posts, spacers, and Guard Rails Accessories.
- Hot Dip Galvanizing process.
- Fabrication of Steel Structures.
- Cable Management System
- Cable Tray & Accessories
- Cable Ladder & Accessories
- Cable Trucking & Accessories
- C-Channel Fittings
- Laser Cutting Services of Flat bars/tubes, etc

“

The road to
SUCCESS
is always under
CONSTRUCTION

We are also proud to have one of the biggest FOLDING MACHINES in the world with the below mentioned capacity:

- * *Folding Length 15 meters.*
- * *Maximum thickness of 50 mm Steel Plates*
- * *Variable Punch, Die Setting & Bending*





Structural Steel



According to information published by the American Institute of Steel Construction, structural steel comprises 47% of all construction materials, making it highly likely that any building, bridge, or structure you encounter owes part of its design to structural steel.

Structural steel is regulated and must meet industry standards for composition and dimensional tolerances.

There are a variety of structural steel grades, the most popular being ASTM A36 and ASTM A572. These, and other structural steel grades, are used in the construction of:

- Frames for Buildings & Bridges
- Truck Steel Frames
- Transmission Towers
- Crane Booms

Raw steel material is converted into finished structural steel sections in our fabrication facilities, which have a high-estimated combined fabrication capacity. Our reliable history to deliver many concepts reflects our strength to meet complicated requirements.

The Galva Coat Engineering Team provides a comprehensive technical and an end-to-end range of design services, from conceptual design, connection design, to erection engineering for various types of structures, by highly qualified and experienced Design Engineers & Detailers using state-of-the-art design and detailing software. We also have design service expertise required for complex innovative structures and geometrical shapes, which are built using a wide variety of sections.



Our Engineering Team is equipped with software computer aided structural design tools such as:

A. STAAD Pro is the main structural analysis software used in the structure department in Galva Coat. When the concept dictates, 3D model generation analysis and multi-material design are used. It is available in accordance with various design codes such as, AISC and Euro code for steel construction. Version: STAAD Pro.

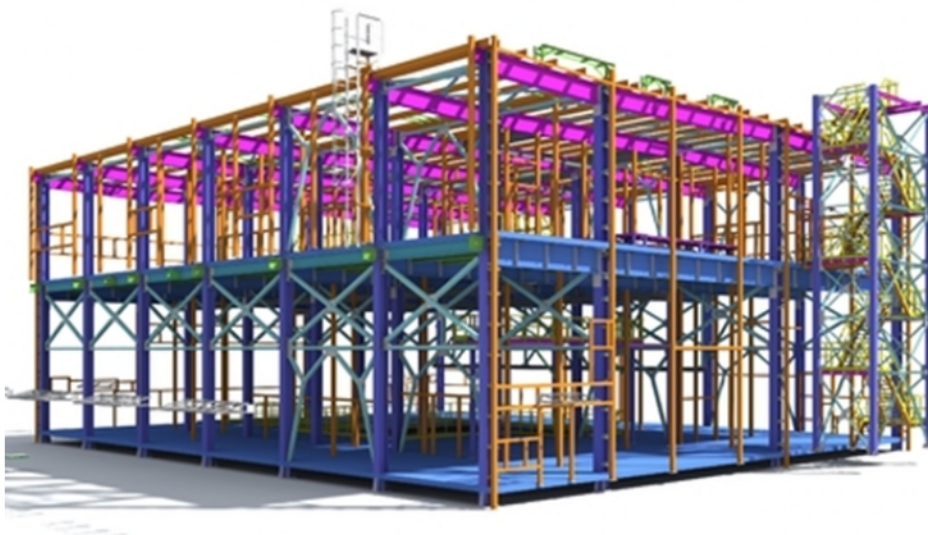
B. SAP2000 is a major structural analysis software used in the structure department in Galva Coat. When the concept dictates, 3D model generation analysis and multi-material design are used. It is available in accordance with various design codes such as, AISC and Euro code for steel construction.

C. RAM Connection is the main design software for steel to concrete and steel to concrete connections.

D. CFS Devoted to design of cold formed sections in accordance with the AISI code.

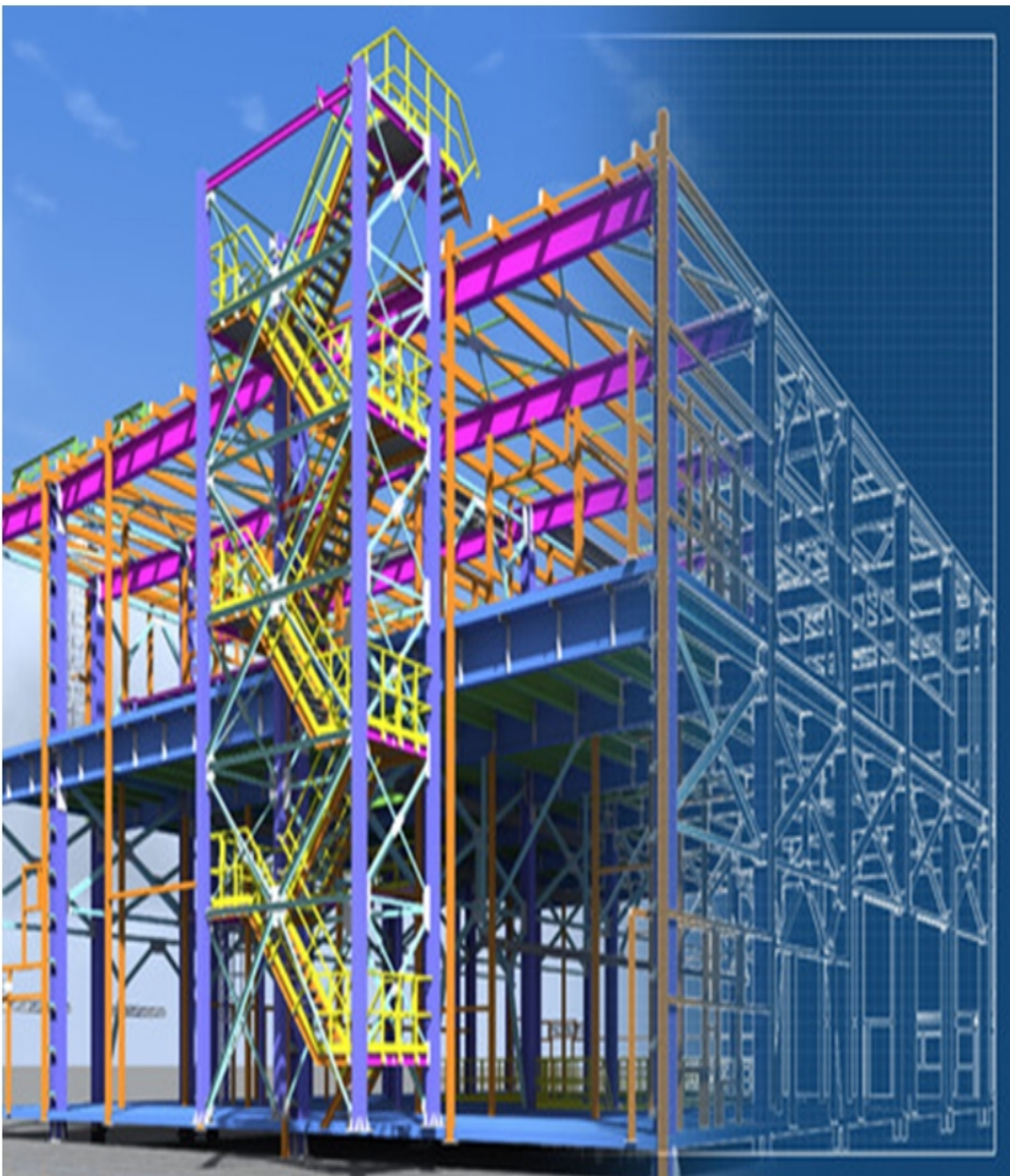
E. TEKLA Structures The main program used to create engineering 3d models, drawings, and bill of materials. Version: Tekla Structures 2021.

F. AutoCAD is a major program used to create engineering drawings.





Our expertise and experience in the construction of process plants for the oil & gas industry enables us to provide multi-disciplinary project solutions. We can provide holistic services and cater to the project management needs of our clients.



PROCESSES OF THE PROJECT

- Estimation & Quotations
- Engineering & Design
- Review of Drawings
- Detailing
- Fabrication
- Shipping to Site
- Installing Process

Estimation & Quotations

Our team will study the functional and architectural requirements and come-up with most efficient solution. At this stage, our professionals will ask for and request all details and functions affecting the design of the steel structure. Following this, our team will prepare a technical and commercial offer.

Engineering & Design

The design department is a blend of seniors as well as junior engineers with vast experience and highly trained professionals to make safe yet economic design solutions and Structural design of a project will proceed after receiving project information made available to Galva Coat project study team. Galva Coat uses the state latest versions of the art software in accordance with the relevant building codes required for each territory.

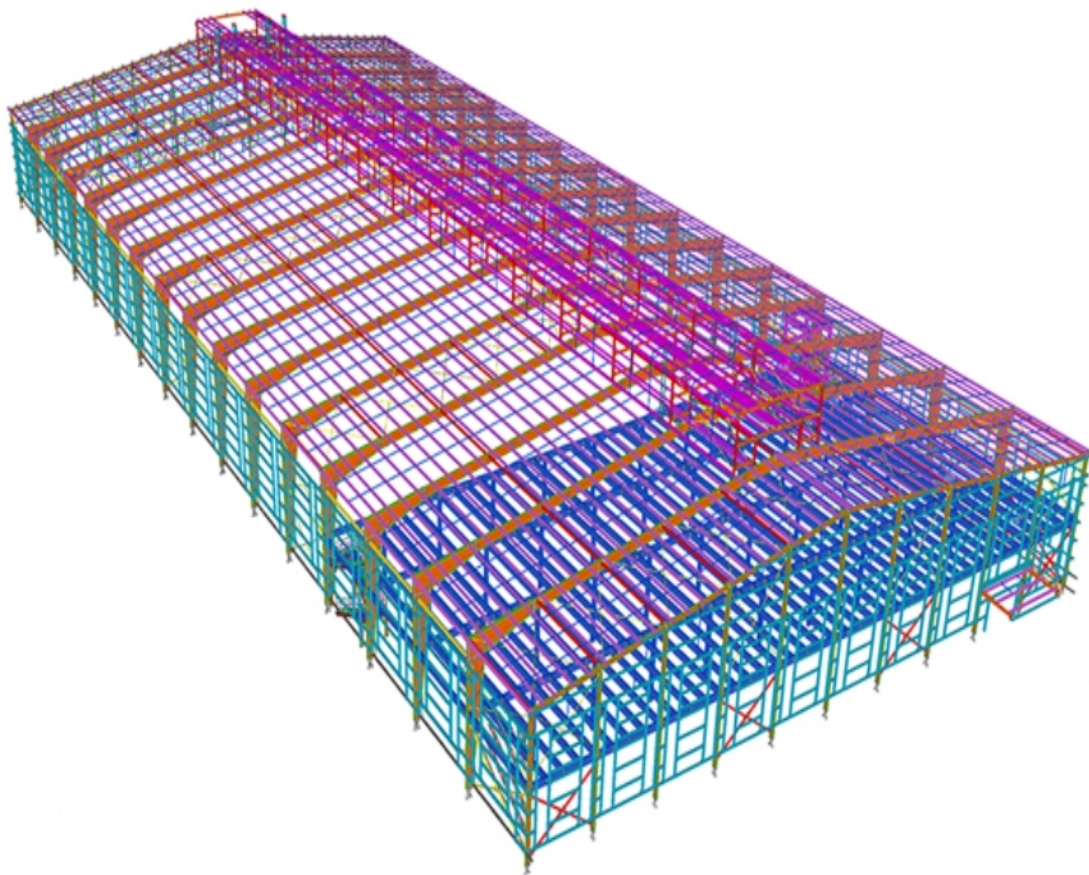


The following include such computer aided structural design tools:

A. STAAD Pro. v8i is the main structural analysis software used in the structure department in Galva Coat. When the concept dictates, 3D model generation analysis and multi-material design are used. It is available in accordance with various design codes such as, AISC and Euro code for steel construction. Version: STAAD Pro v8i.

B. AutoCAD The main program used to create engineering drawings. Version: AutoCAD 2010

C. CFS Devoted to design of cold formed sections in accordance with the AISI code.



Detailing

In this stage, the shop details, bill Materials and erection drawings will be produced. Following the client's comments on design drawings, our detailers will proceed to issue fabrication shop details and erection drawings.

Fabrication

Our factory is equipped with machines with the latest CNC technology such as CNC Cutting Machines, CNC to produce all types of structural steel project. Also, we have one of the biggest FOLDING MACHINES in the world with the below mentioned capacity:

- * Folding Length 15 meters.
- * Maximum thickness of 50 mm Steel Plates
- * Variable Punch, Die Setting & Bending





Our Fabrication team consists of Competent Production Engineers, Steel Fabricators, and certified welders of all positions 2G, 3G, 4G, and 6G and they are expert in all types of welding to help the Fabrication team in producing all the structural steel parts of the project.

Shipping to Site

At this stage, the focus on small details leading to bill of materials for the project, fabrication shop details to enable the plant to produce the materials for the erection, assigning part numbers for the erector to follow on site. Our detailing team uses the latest state-of-the-art Tekla software to model and detail the project in accordance with client's approved design.



Installation & Erection at Site

The installation stage is composed of two phases:

- Assembly and installation of skeleton structure
- Installation of roof and wall cladding including trims.

▶ PRE-ENGINEERED BUILDING TYPES

▶ Crane beam and bridge

A Top Running bridge crane is the most common type of overhead bridge crane. It is a versatile bridge crane that can be utilized for a wide variety of industries. TRSG cranes can be built with capacities up to 15 ton and spans up to 98 ft. Typically, TRSG crane capacities vary between 5 and 10 ton. With these capacities, the bridge beam is typically a wide flange structural member. Most cranes that exceed a capacity of 10 ton with a span greater than 60 ft will utilize a box girder bridge beam.



▶ *Skeleton System before the cladding erection*

Skeleton system consists of a steel truss, preferably in tubular sections supported on steel columns positioned by holding down bolts embedded in RCC pedestal or stone/burnt brick masonry. All the members viz. purlins, trusses and columns are connected with nuts-and-bolts assembly to form a single unit.





A skeleton frame is a framed structure often used for the construction of multi-storey buildings. It incorporates a network, or system, of columns and connecting beams which support the building's interior floors and exterior walls and carries all loads to the foundations.

There are different types of framed structure that are used in civil construction; among projects, among them, the most commonly used frame structure is a skeleton frame.

In a Frame structure where a connection of columns and beams that support the civil structure is incorporated is known as Skeleton Frame.

► **Skylight of the PEB**

A Skylight or a Roof light is a transparent/translucent sheet installed on the roof of a building that is used for natural lighting purposes. Skylights are used in residential as well as commercial buildings due to their various advantages. They improve the indoor aesthetics of the building and help in energy savings.

Skylights have thus become an important part of the building and can be found in most industries and commercial spaces.



Advantages of Having Skylight in Building:

► **Improve Occupants' Well-being:**

Skylights allow natural sunlight to come into the building which is used to illuminate the space inside the building. Studies have found that daylight improves the mental well-being of employees and increases productivity. Daylight also helps keep the mood fresh and reduces stress levels. It helps with memory and mental functioning. It creates an overall positive work environment.



► **Increases Energy Savings:**

Natural light is the best source of lighting in any environment. By installing skylights, you can use natural sunlight to illuminate the work environment and consequently reduce the use of artificial lighting. This can result in tremendous energy savings.

Now it might appear that allowing sunlight inside the premises can result in generating more heat and eventually add more cost in cooling the environment. But using well-insulated skylights can block the heat entering through the environment and only allow natural light to pass in so barely any heat can pass through. On the contrary, if you don't have provisions for natural lighting, then artificial lighting equipment can generate a considerable amount of heat which increases the cooling costs of the building.

So, installing a skylight can reduce lighting costs as well as cooling costs of the building. This helps in massive cost savings.



▶ **Reduce Illnesses:**

A damp environment that is devoid of sunlight can breed all kinds of diseases. Installing skylights improves the physical health of employees and helps them stay fresh and energetic. Natural lighting also minimises symptoms of depression and anxiety. So, allow as much light to come into the building premises as possible.

▶ **Improve the Aesthetics of the Building:**

Natural lighting makes your building look spacious from the inside and eliminates any claustrophobic feeling. Spacious buildings attract more value and look much more aesthetically pleasing. If your space is relatively small, adding a skylight can make all the difference. It can help you make your premises look more attractive and hospitable.



▶ FEW PROJECTS COMPLETED BY GALVA COAT



Factories
Sheds





Pre-Engineered Building
(Fabrication Stage)





Factories
Machines
Structures





Factories
Machines
Structures





Factories
Machines
Structures





▶ **CLADDING DIVISION**

▶ **Cladding System**

Cladding basically is roof and wall covering in steel or aluminium sheeting or a combination of both for any type of building, mainly pre-engineered buildings which use a combination of built-up sections, hot rolled sections, cold formed sections, and sheeting with or without insulation.

Our cladding system range consists of different types of corrugated profiles each has a specific function and offering the contractor and specifies a range of unique features and can be used on all types of construction which are all available in steel and aluminium of varying thickness, length, and colours.

Continued research and development, together with extensive investment into modern technology, has now enabled man to develop severe weather enduring types of cladding. At Galva Coat Industries, our cladding comes with complete sets of accessories and flashings, with the most effective erection and fixing details, to make the final building architecturally attractive and well protected.



General

Aluminium sheets used for cladding will be produced from aluminium

Alloy

An aluminium alloy of AA 3105 is used in the production of profiled alum. A sheet which conforms to BS 4300/6 alloy NS 31, and DIN 1725 alloy ALMn 0.50 MG 0.50 with the following properties. Min. Yield strength = 180 N/mm², Modulus of elasticity = 70.000 N/mm².

Strength

Our profiled sheets are designed to carry the allowable live loads as per the following data sheets.

Finishes

Our profiles are available in different finish pattern.



Mill Finish

This is the natural surface of the aluminium as it leaves the mill and, when exposed to the atmosphere, quickly forms a layer of oxide which provides natural protection to the aluminium. Inhibiting further corrosion.

Stucco-Embossed Finish

This is mill finish appearance by rolling to produce an irregular raised finish. Stucco-Embossed surface is to diffuse the direct reflection of the sun glare without reduction in the total reflectivity.

Paint Finish

A protective paint is applied over the base metal to give more corrosion resistance sheet in addition to better appearance. It can be one of the following:

- Polyester Paint

With coating thickness of polyester of 25 microns applied to external sides and 7 microns applied to internal sides.

- PVF2 Coating

This is an exceptionally long-life finish with semi-matt surface. PVF2 has great elasticity at all temperatures and coated sheets can be cut, bent, or folded without cracking.



Durability

A thin layer of protective oxide coating is formed on the natural aluminium surface when it is exposed to atmosphere. This is formed quickly and evenly, the roofing element is adequately protected against corrosion under normal conditions of exposure to atmospheric conditions, especially in coastal and industrial areas. Aluminium sheeting performs very well in marine atmospheres, mill finish sheeting has been used successfully over a period of 20 years to clad a covered dock where the internal relative humidity is maintained at 100%.

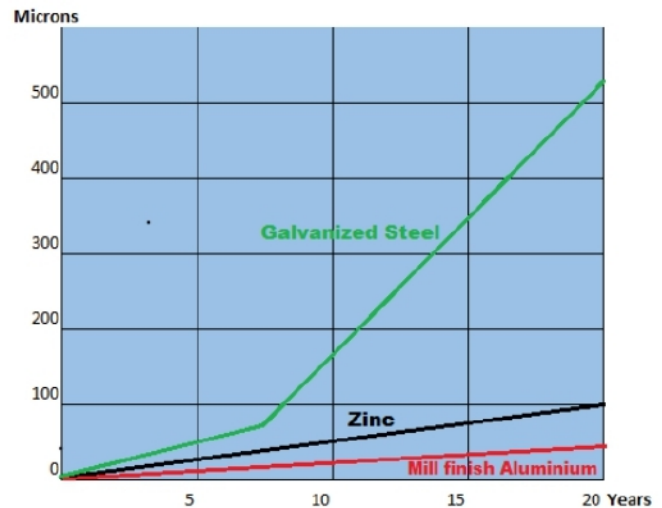


Figure 1: Average Corrosion Depth comparison between Galvanized Steel and Aluminium

Fire Resistance

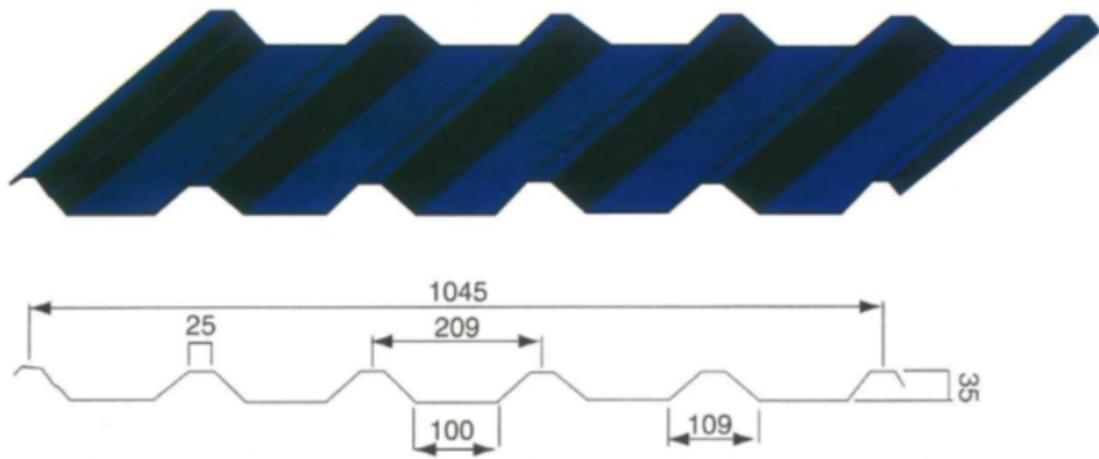
Mill finish and standard pre-painted sheets are non-combustible materials as defined by BS 476: part 4:1970, hence, it may be used as part of total fire-resistant construction, such as facing to a suitably designated back-up material.

Thermal Insulation

Aluminium sheets may be used in combination with other materials to produce the required thermal insulation U of the total construction. The achievement of a specified U value expressed in $W/M^2 C$ for a material. This material may be integral with the cladding or forms part of layered construction.



▶ **Aluminium Singl Skin 35/209**



Application Specifications

- : Rood and Wall Sheets.
- : Standard Sheets are 0.5mm and 0.7mm colour coated aluminium.
- : Base material conforms to AA 3105, Temper H16.
- : Density of aluminium is 2710 kg/m³.
- : Yield Strength is 180 N/mm².
- : Modulus of elasticity is 70.000 N/mm².
- : Thickness from 0.5 to 1.0mm.
- : Coating is regular polyester 25mic/7mic.
- : Colours-wide range of colours subject to availability.
- : Sheet length can be produced up to 15m.

Profiled Sheet Allowable Loading Table

Thick (mm)	Span Shape	PURLINS CENTER TO CENTER (m)							I xx cm ⁴	Z xx cm ³	Weight kg/m ²
		1.00	1.25	1.50	1.75	2.00	2.25	2.50			
0.5	S	193.1	123.5	72.5	45.7	30.6	21.5	15.7	9.109	3.943	
	C	241.3	154.4	107.3	78.8	60.3	47.7	38.6			
0.6	S	231.7	148.4	87.1	54.8	36.7	25.8	18.8	10.93	4.732	1.885
	C	289.7	185.3	128.7	94.6	72.4	57.2	46.3			
0.7	S	270.3	173.0	101.6	64	42.8	30.1	21.9	12.75	5.521	2.2
	C	337.9	216.2	150.2	110.3	84.5	66.7	54.1			
0.8	S	308.9	197.7	116.1	73.1	49	34.4	25.1	14.58	6.309	2.514
	C	386.1	247.1	171.6	126.1	96.5	76.3	61.8			
0.9	S	347.5	222.4	130.6	82.2	55.1	33.7	28.2	16.4	7.098	2.728
	C	434.4	278.0	193.1	141.8	108.6	85.8	69.5			
1.0	S	386.1	247.1	145.1	91.4	61.2	43.0	31.3	18.22	7.886	3.142
	C	482.6	308.9	214.5	157.6	120.7	95.3	77.2			

Where:

S = Single Span
C = Continuous Span

Deflection Limit IS L/200



▶ **STEEL CLADDING**

▶ **General**

Galvanized Steel Sheet used for roof and wall cladding will be produced from hot dip galvanized steel coils to cover small and large areas of wall and roof covering.

▶ **Alloy**

The base material conforms to structural quality ASTM A 446-D or to ASTM A 527 (LFQ) with the following properties.

Minimum yield strength = 345 N/mm².
Modulus of elasticity = 210.000 N/mm².

▶ **Strength**

Our profiled GI sheets are designed to carry the allowable live loads as per the following loading data sheets.

▶ **Finishes**

Our profiled sheets are available in different finish pattern.

▶ **Hot Dip Galvanized**

The base material is hot dipped galvanized zinc coating thickness of 275 gm/m² on both sides.



▶ **Paint Finish**

A protective paint is applied over the hot dip galvanized surface to give more corrosion resistance sheets in addition to better appearance. The paint finishes can be one of the following:

- **Polyester Paint**

This enamel silicon polyester with coating thickness of polyester of 25 microns applied to external sides and 7 microns applied to internal sides, and economical long-life coating.

- **PVC Coating**

Which gives very good protection from corrosion.

▶ **Durability**

GI Steel when compared with some other material such as zinc and aluminium, it is found that it has higher corrosion rate

▶ **Fire Resistance**

Modern building codes specify a minimum fire resistance requirement based on studies by fire protection engineers. Assessment of the fire performance of building material or structure is determined by procedures laid down in BS 476:Fire test on building materials and structures.

As result of long experience and tests, the use of rigid foam panels limits the fire resistance of the panel and affects the whole covered area and gives better fire resistance results than a single skin steel construction.



► Thermal Insulation

Thermal transmittance “U” is a measure of the ability of an element of structure, comprising one or more materials to transmit heat under steady conditions.

U is expressed in W/M^2C^0 is the quantity of heat that will pass through a unit area of an element in a unit time and per unit difference in temperature between inside and outside environment. A single skin steel sheeting for instance does not provide any significant level of thermal insulation with higher U values when compared with polyurethane or polyurethane of fiberglass insulation.

► Acoustic

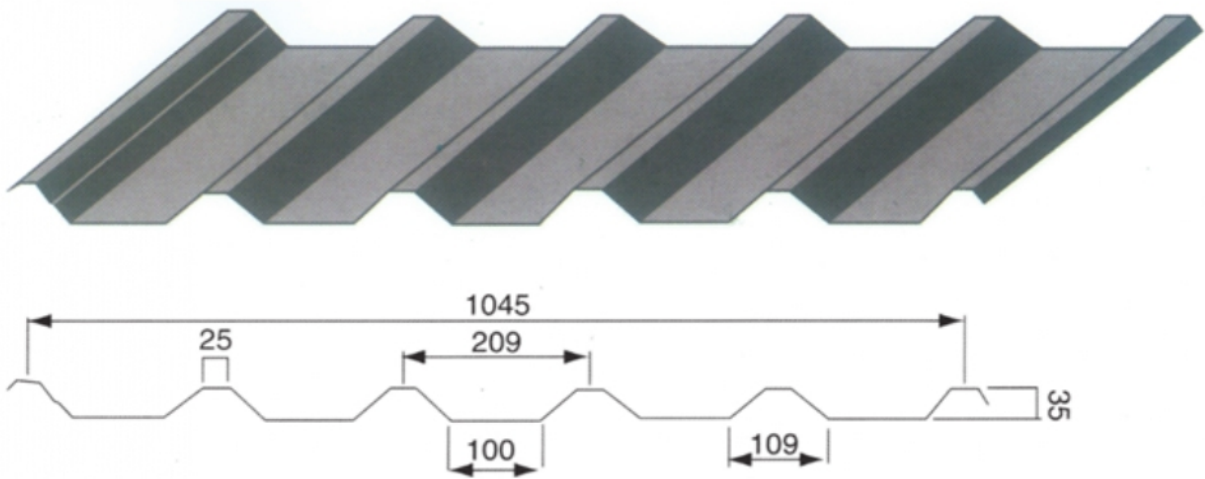
The sound absorbing quality of the complete construction is dependent on the profile, the insulation backing, its type, thickness, and surface finish. Hence it is always advisable to use insulated panels rather than single skin sheets for the reduction of noise transmission out of direct impact.

► Colours

G.I. sheets are available in standard colour, & a wide range of colours to suit your requirements.



▶ STEEL SINGL SKIN 35/209



Application Specifications

- : Rood and Wall Sheets.
- : Sheets are galvanized, and colour coated steel.
- : Hot Dip galvanized process with coating class of G 90
- : Base material conforms to ASTM A 446-D.
- : Density of Steel is 7850 kg/m³.
- : Yield Strength is 345 N/mm².
- : Modulus of elasticity is 210.000 N/mm².
- : Thickness from 0.46 to 0.90 mm.
- : Coating is regular polyester 25mic/7mic.
- : Colours-wide range of colours subject to availability.
- : Sheet length can be produced up to 15m.

Profiled Sheet Allowable Loading Table

Thick (mm)	Span Shape	PURLINS CENTER TO CENTER (m)							I xx cm ⁴	Z xx cm ³	Weight kg/m ²
		1.00	1.25	1.50	1.75	2.00	2.25	2.50			
0.46	S	345.4	221.0	153.5	112.8	84.5	59.3	43.3	8.3804	3.6278	4.1868
	C	431.7	276.3	191.9	141.0	107.9	85.3	69.1			
0.55	S	412.9	264.3	183.5	134.8	101.0	70.9	51.7	10.02	4.3375	5.006
	C	516.2	330.3	229.4	168.5	129.0	102.0	82.6			
0.65	S	488.0	312.3	216.9	159.4	119.4	83.8	61.1	11.842	5.1262	5.9162
	C	610.0	390.4	271.1	199.2	152.2	120.5	97.6			
0.7	S	525.6	336.4	233.6	171.6	128.5	90.3	65.8	12.753	5.5205	6.3713
	C	656.9	420.4	292.0	214.5	164.2	129.8	105.1			
0.8	S	600.6	384.4	266.9	196.1	146.9	103.2	75.2	14.575	6.3091	7.2814
	C	750.8	480.5	333.7	245.2	187.7	148.3	120.1			
0.9	S	675.7	432.5	300.3	220.6	165.3	116.1	84.6	16.396	7.0978	8.1916
	C	844.6	540.6	375.4	275.8	211.2	166.8	135.1			

Where:

S = Single Span
C = Continuous Span

Deflection Limit IS L/200



▶ **INSULTED PANELS**

▶ **General**

Insulated (Sandwich) panels are produced for using various insulation materials mainly polyurethane and rock wool. Our panels are produced using factory injected polyurethane foam with external and internal sheets in steel or aluminium of varying thickness coatings and colours. The corrugated profile is being fixed as an outside face whereas a shallow ribbed inner metal liner sheet is being fixed from inside face.

Physical Properties of Polyurethane

<i>Property</i>	<i>Typical Value</i>
Density	35 KG/M3
Compressive Strength	170 KN/M2
Shear Strength	170 KN/M2
Elastic Modulus	7 MN/M2
Shear Modulus	900 MN/M2

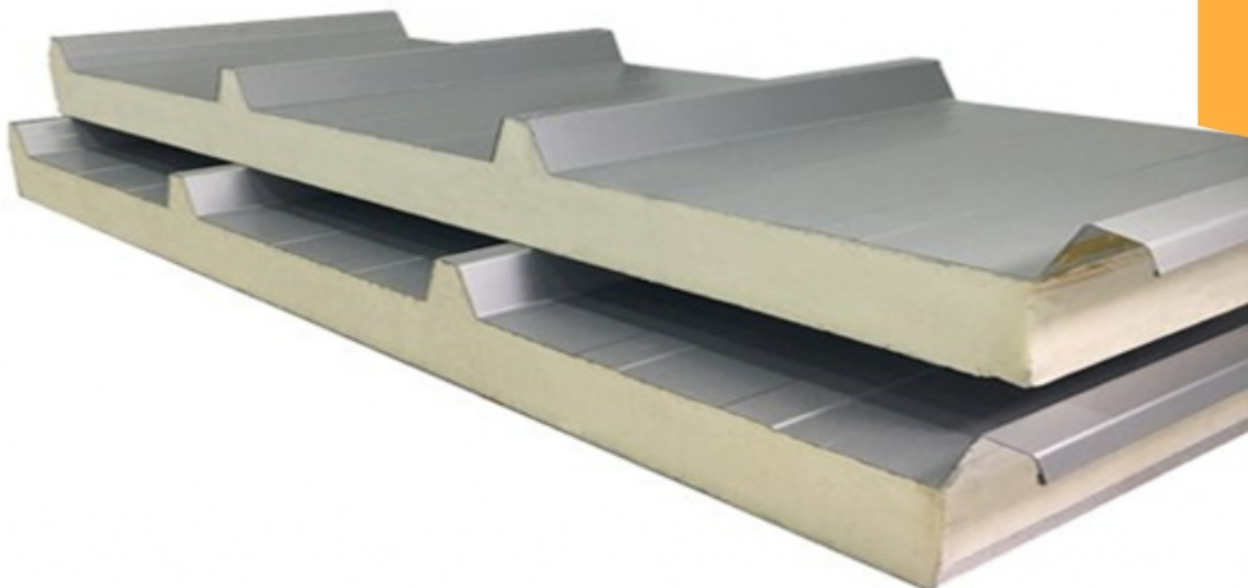


► Strength

Insulated panel is a lightweight composite structure capable of resisting high live loads and wind load. Carrying capacity of such structure is found to be more than the load carrying capacity of both individual sheets.

► Insulation

Insulated (Sandwich) panel provide good insulation from heat, cold, and sound when compared with any type of single sheet. Insulation is increased and become effective with the increase in insulation material thickness.



▶ ALUMINIUM/ STEEL INSULATION PANELS

Insulation panels are available in the profiles illustrated below. Average PU density is 35 kg/m³ of varying thickness. Panels are produced with varying sheet thickness, coating, and colours.



Physical Properties of Polyurethane

	Insulation Value			
Polyurethane core thickness	l=35 mm	l=50 mm	l=75 mm	l=100 mm
"U" value W/m ² OC	0.54	0.38	0.25	0.19
"K" value KCAL/m ² h OC	0.47	0.34	0.22	0.17
"K" value BTU/Ft ² h OF	0.095	0.069	0.05	0.03



▶ FLASHINGS

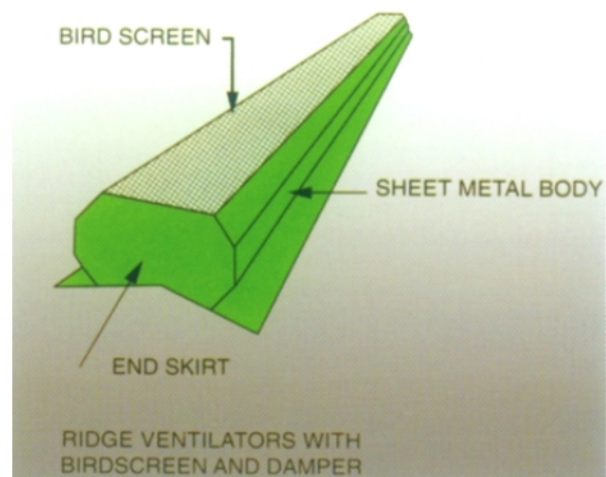
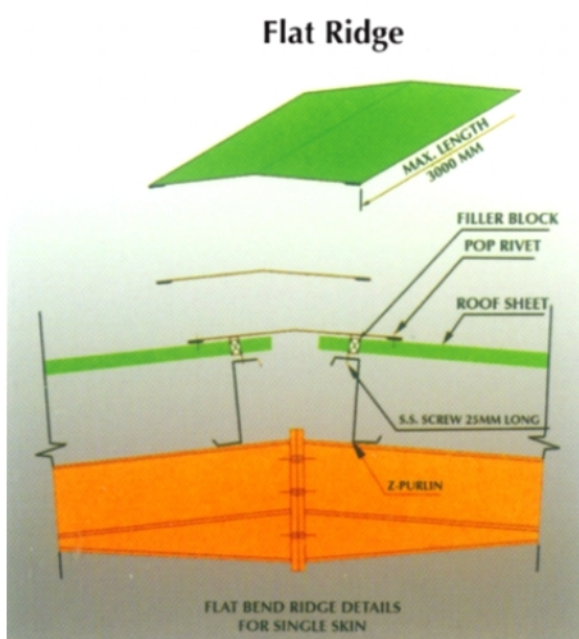
▶ General

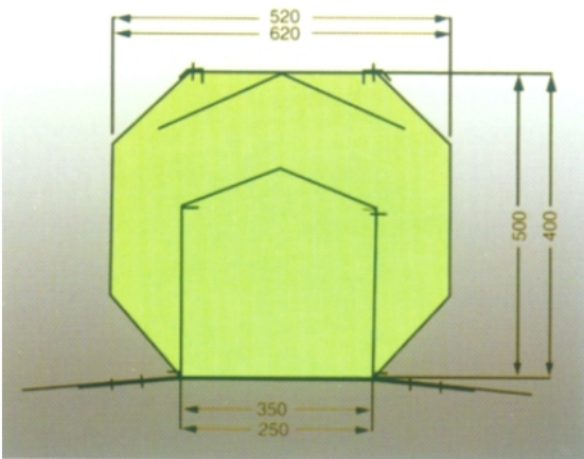
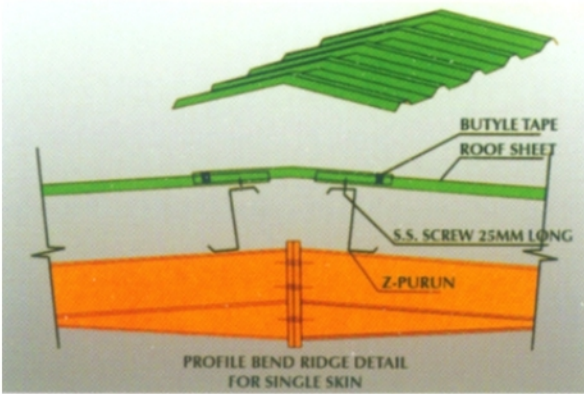
Flashings are sheet metal closures primarily to provide weather tightness and neat appearance at corners and junctions. They are mainly manufactured from pre-coated flat sheets.

Large widths of flat area should be avoided as these will tend to dimple however thick the material, to prevent this happening, flat areas wider than 200mm should incorporate rebates, bends and folds or additional support should be provided.

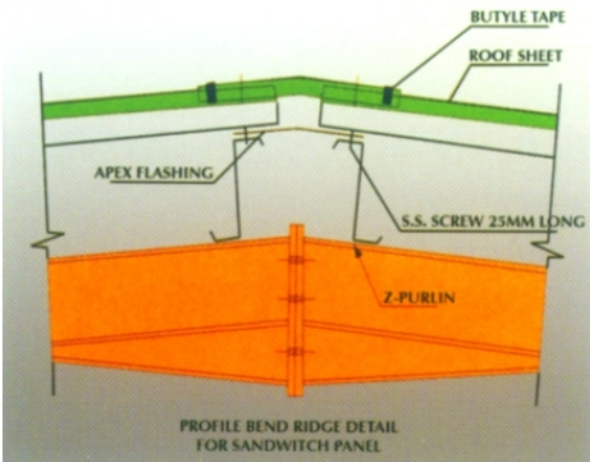
▶ Gravity Ridge Vents

Designed to be mounted on the building ridge they are fixed type with 250mm or 350mm throat dimension and 3000mm length.

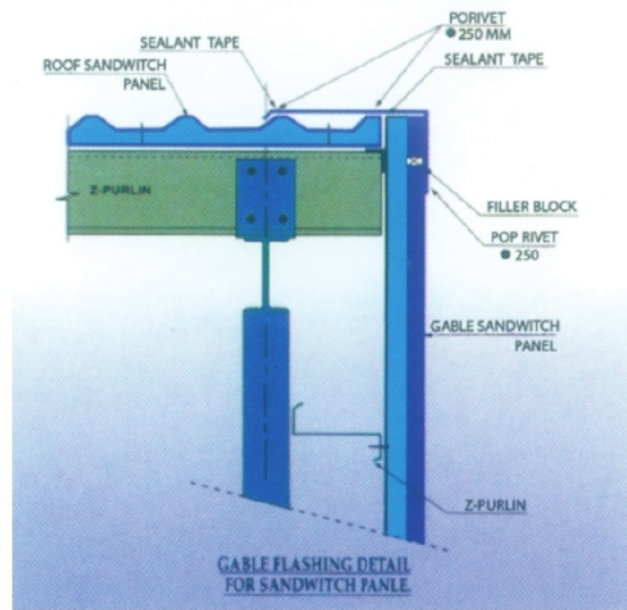




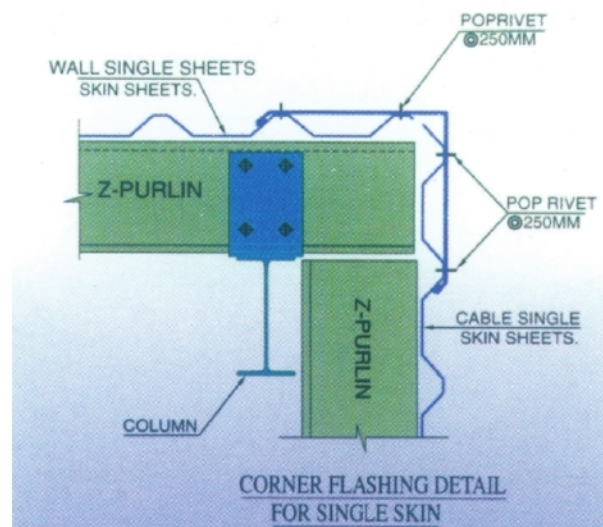
Profile Ridge

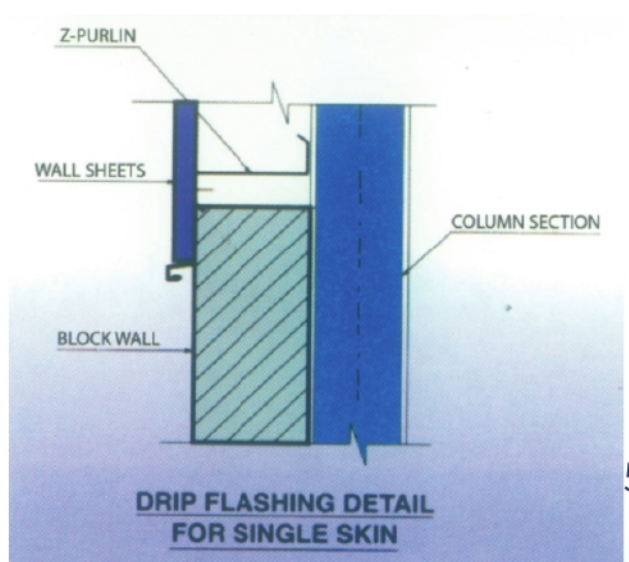
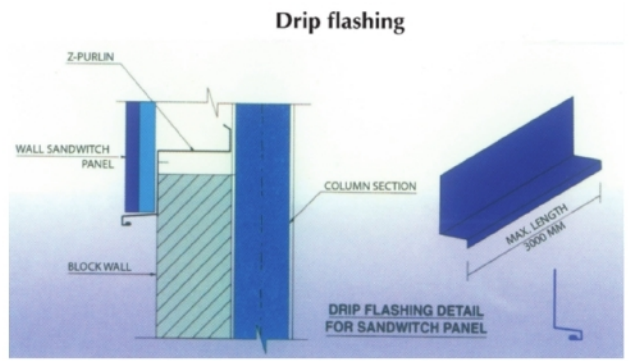
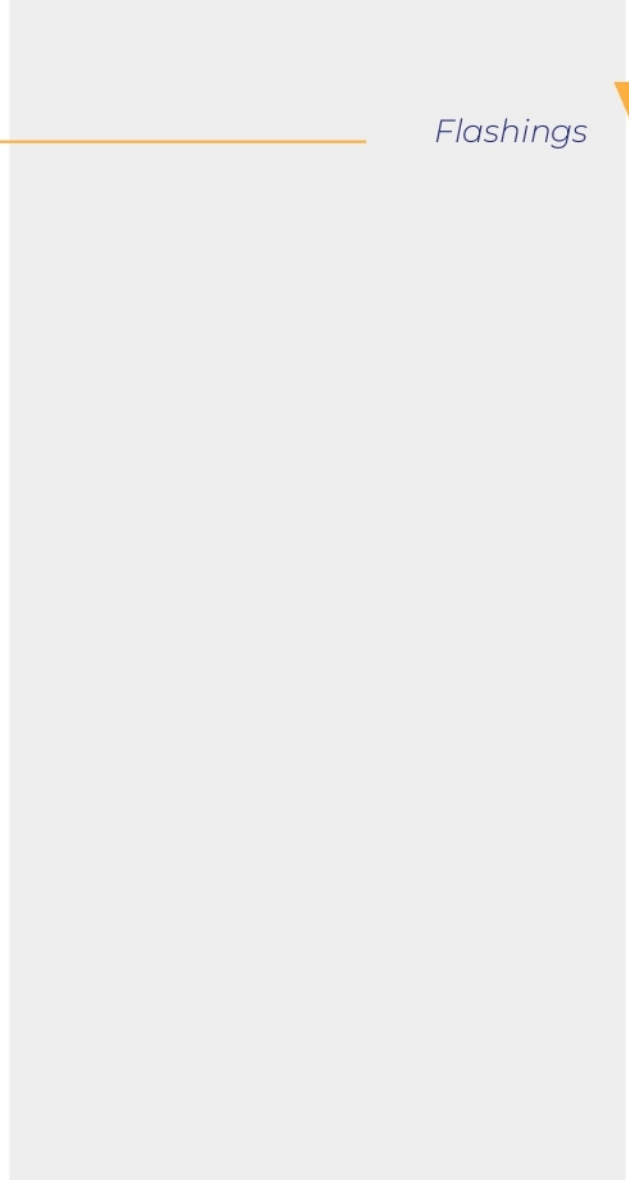
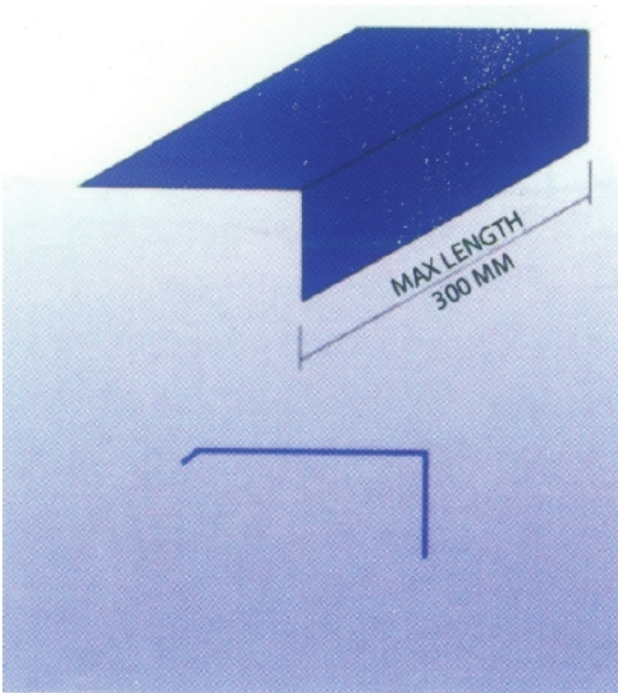
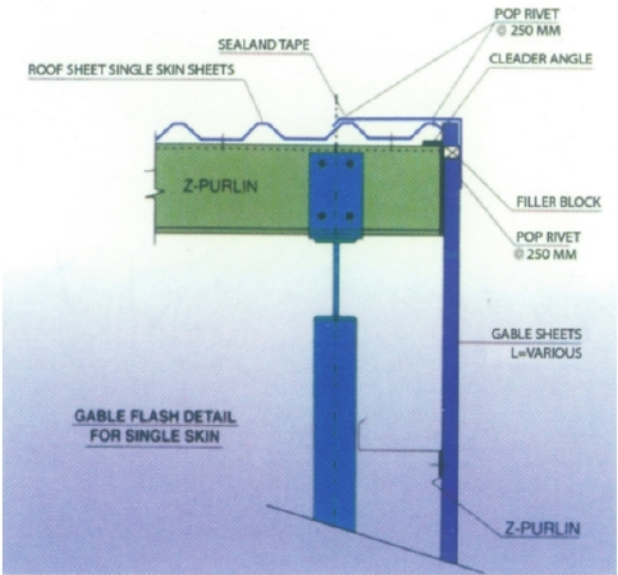
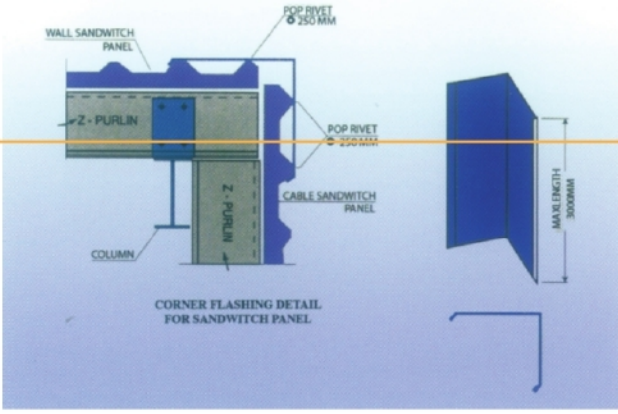


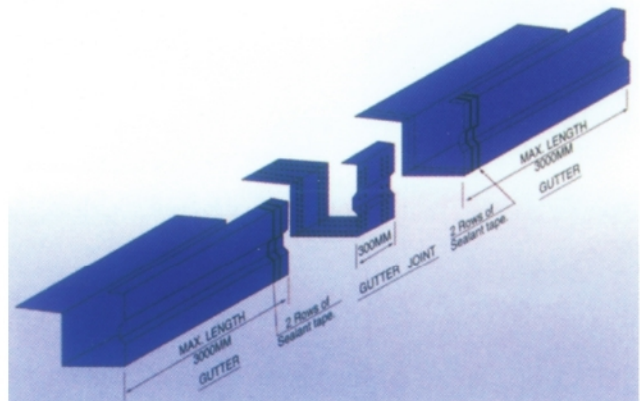
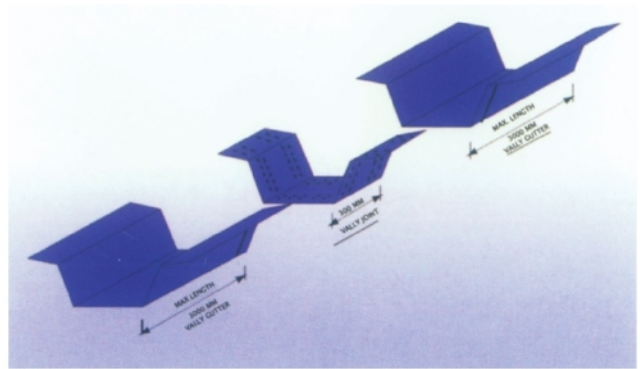
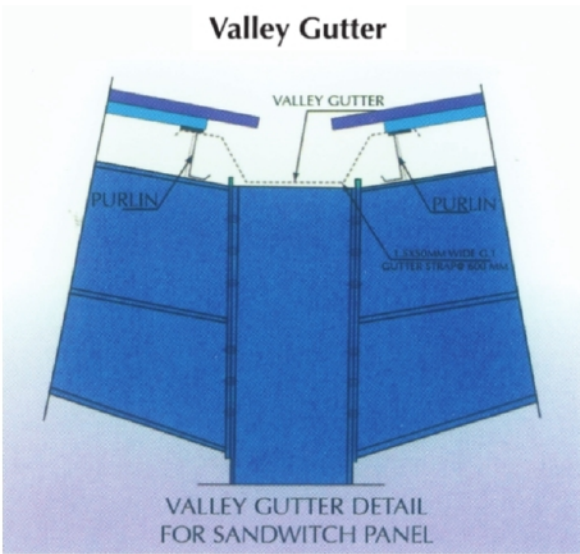
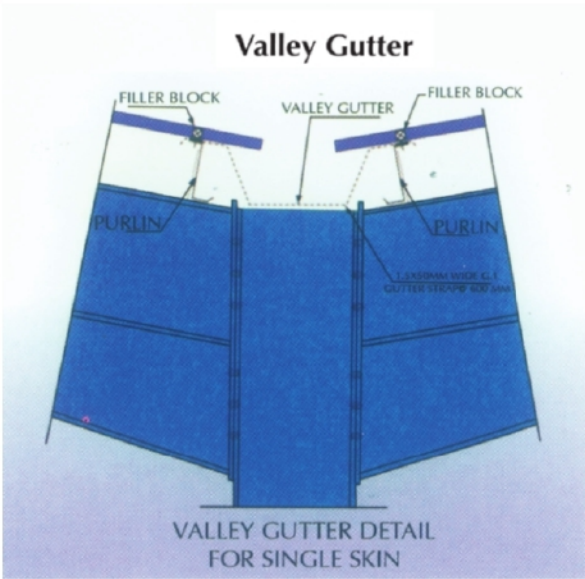
Gable Flashing

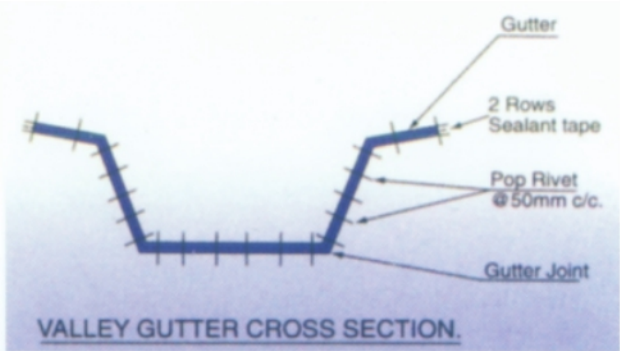
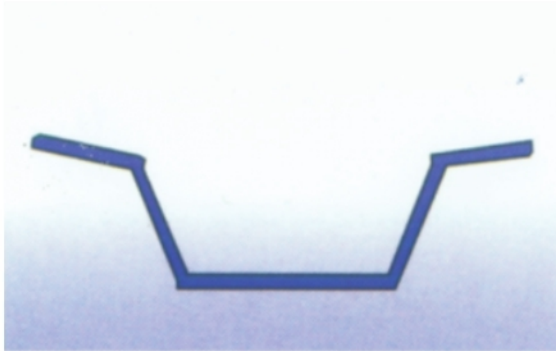


Corner Flashing

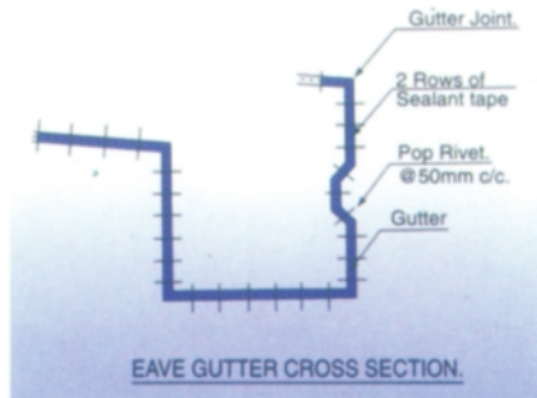
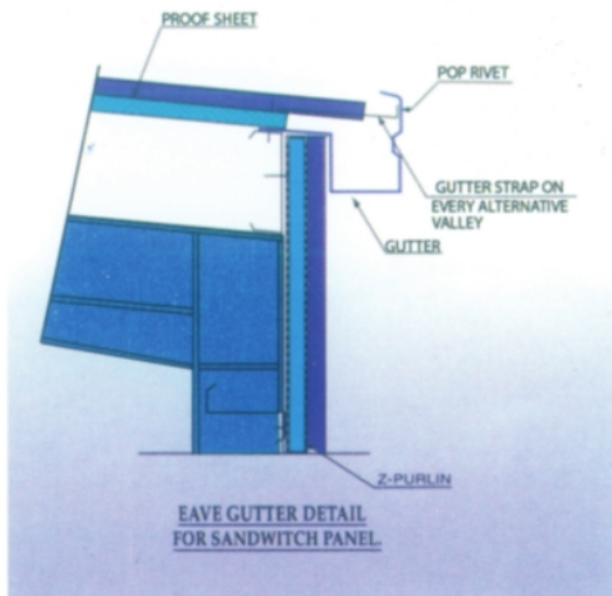
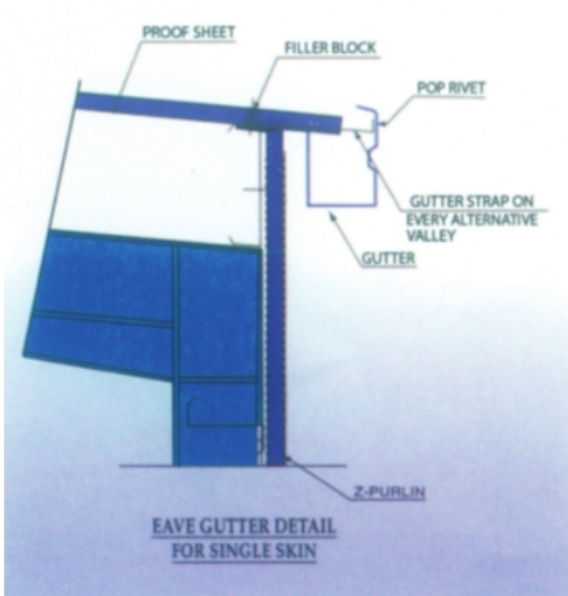








Eave Gutter

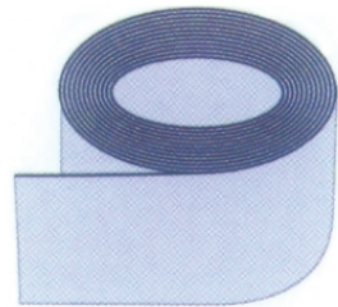


▶ ACCESSORIES

▶ **Purlin Tape**

Polyester/Cotton cloth laminated to polyethylene backing with a high tack, natural adhesive available mainly in silver colour.

Sizes available are 2" X30 yards and 3"X30 yards. It is to be applied directly on top flange of G.I. purlins when profiled are sheets on top are of different material (i.e. Alum.)



▶ **Butyl Strip**

Roofing and cladding – gutter joints, side, and end laps – good and effective adhesive sealant mainly in grey colour sizes available are 2.5 x 9mm x 19m and 3.0 x 12mm x 15m.



▶ **Filler Blocks**

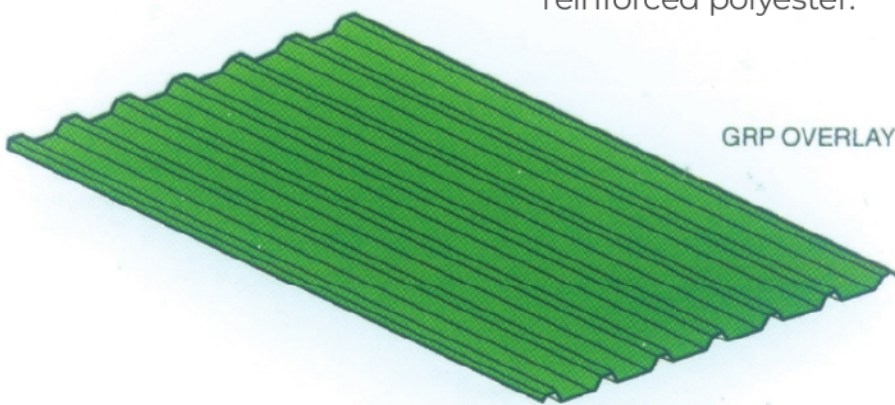
Sealing all roofing/cladding profiles against water / water vapours, roof light fillers black synthetic rubber is available to fit our profiled sheets.





▶ GRP translucent sheets

Our translucent sheets are available in same width as corrugated alum./ steel sheets mainly in. They are ideal for reducing electrical lighting requirements by utilizing natural sun lighting. Their corrugation should match sheet corrugation. They are made from glass reinforced polyester.

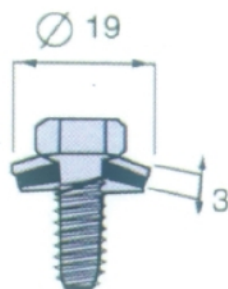


▶ Stainless Steel Self Tapping Screws

Used for fixing single skin and sandwich panel sections with purlins and a min. of 20mm as depth of penetration.

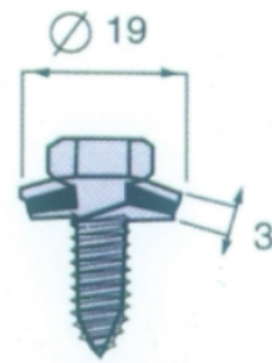
Type – A – A thread of 2.54 – coarse thread / pointed end. On wood and steel purlins less than 3 mm. Screw with dia 19mm S.S. washer bonded to EPDM seal.

Sizes are:
6.5 x 25mm
6.5 x 70mm
6.5 x 130mm



Type – B – A thread of 1.81 – fine thread / flat end. On steel purlins exceeding 3 mm thickness. Screw with dia 19mm S.S. washer bonded to EPDM seal.

Sizes are:
6.3 x 25mm
6.3 x 40mm
6.3 x 60mm
6.3 x 75mm
6.3 x 115mm
6.3 x 130mm



▶ **Stainless Steel Self Tapping Repairing Screws**

Used for replacing fixed rusty in position screws suitable for repairing in all types of sheets Screws with 19mm S.S. washer bonded to EPDM seal.

Sizes are:
 7.2 x 19mm
 7.2 x 25mm
 7.2 x 35mm



▶ **Galvanized Self Drilling Screws**

Same application as for S.S. screws with 19mm Dia. G.I. washer bonded to EPDM seal.

Sizes are:

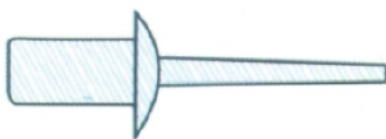
6.3 x 25mm	6.3 x 40mm	6.3 x 60mm
6.3 x 75mm	6.3 x 100mm	6.3 x 115mm
6.3 x 130mm		

▶ **Screw Caps**

Coloured plastic caps to fit hexagonal head of screw and cover washer.



▶ **Pop Blind Rivets**



Blind riveting is highly reliable and proven method for fixing materials together permanently. A sealed type /99.5% pure aluminium revert material, composition to BS 1475 Mandrel: Alum. (a), PD 68 A- 4.8 x 11.50mm.

Tensile strength = shear / Strength = 1060N.



INSTALLATION

▶ Preparation for Sheeting:

1. The building structural must be plumb and rood and walls secondary structural aligned.
2. Prior to sheeting, any damaged paint on the main frame should be repaired.
3. Mark out the sheeting along the length of the building, this will give correct overlap and avoid distortion. Use a chalk line for accurate drilling and screwing. This will give better appearance and less risk of leakage due to mis-drilling.

▶ Fixing Details

It is essential that all sheets and flashings be laid so that water is correctly shed over sheets. All sheets must overlap the adjacent sheets in the row below. To achieve this, the sheets must be laid with the lower row one or more sheets ahead of the next row up the roof (Figure A).

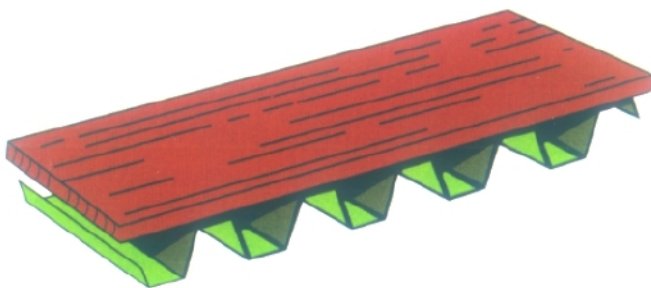


Fig. A Sheet Laying and Fastener Sequence

The first and second fasteners should be fixed in the position show in (Figure A). in all cases, it is a must that holes should be drilled, not punched, and applied at 90% angle to the sheeting.

Each sheet should be set out to its correct cover width by measuring and marking along the sheeting rail, or alternatively a template may be used to control sheet widths (Figure B).

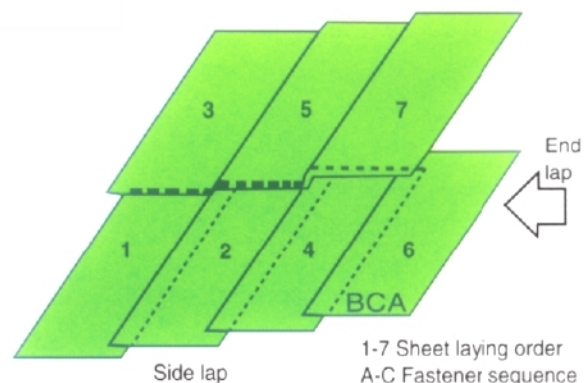


Fig. B Setting Out Template



Main fasteners (Self tapping or self-drilling self-tapping screws) are applied to the external side of the sheet, through the centre of the floor of every other trough, at every purlin. For aluminium cladding in contact with steel members purlin tape will be fixed on the purlin. For aluminium cladding in contact with still members purlin tape will be fixed on the purlins (Figure C). Roof cladding is to be fixed or placed at right angles to the purlins, starting from the lowest part of the roof towards the top ridge. Butyl sealant tape will be provided between sheets on side taps, horizontal laps (Roof only) and gutter joints. Side laps and flashings will be riveted together with rivets, at a spacing not exceeding 250mm. Laps of flashings should have a sufficient fall and overlap to prevent water penetration and should be sealed. Also overlaps must be arranged away from the prevailing wind.

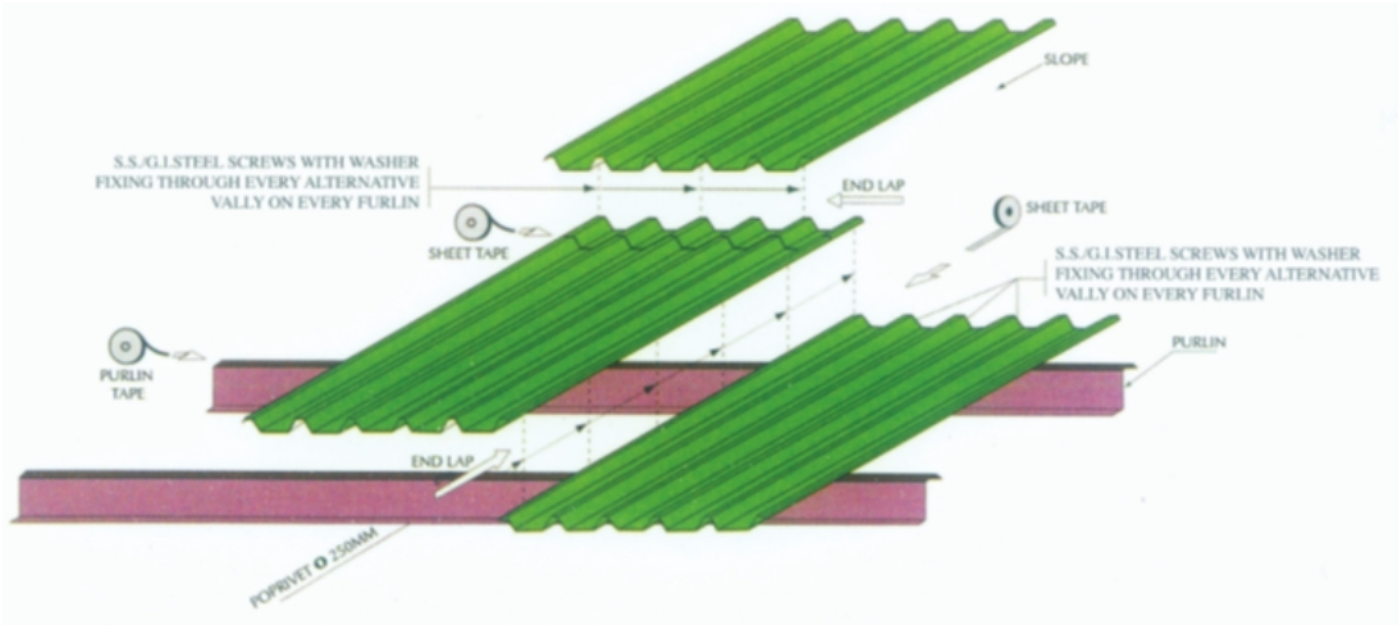


Fig. C Fixing Details





COLD STORAGE

► General

Cold storage in its types of refrigerated trucks and cold rooms is a system of storage within a specially fabricated and constructed rooms.

Floors, roofs, and wall panels of such rooms are normally insulated with polyurethane foam having density of 40kg/m³ as standard.

A system of special accessories and flashings is also applied in conjunction with panel construction to make the unit air lock and watertight as well as enhancing good appearance.

Refrigerated Trucks and Cold Rooms are tow basic types of cold storage with hinged or sliding doors.



Methods of erecting Cold Rooms

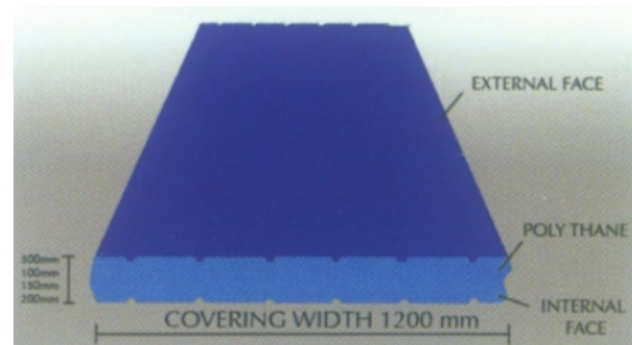
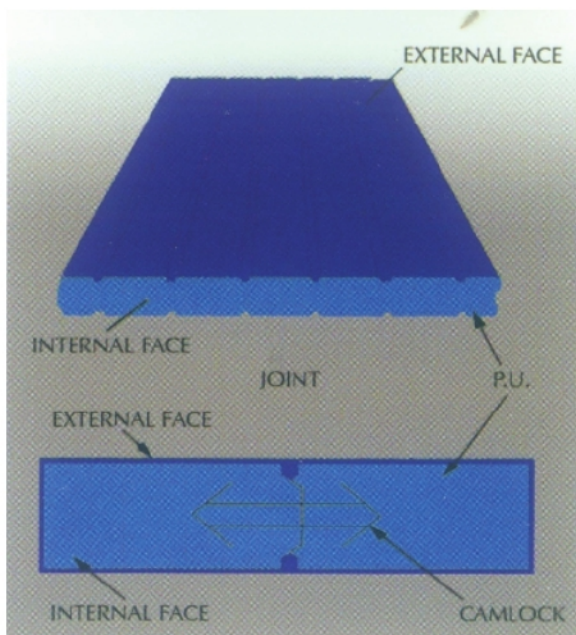
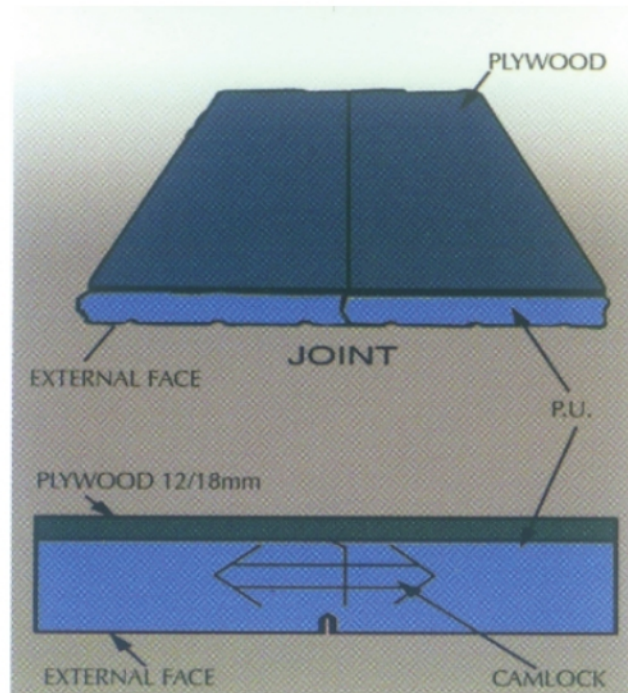
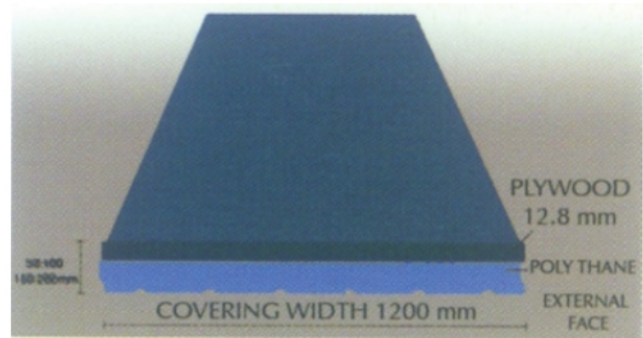


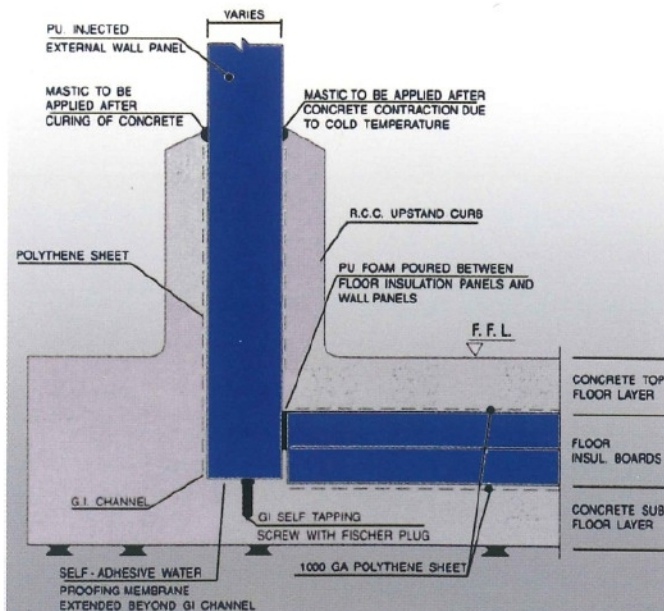
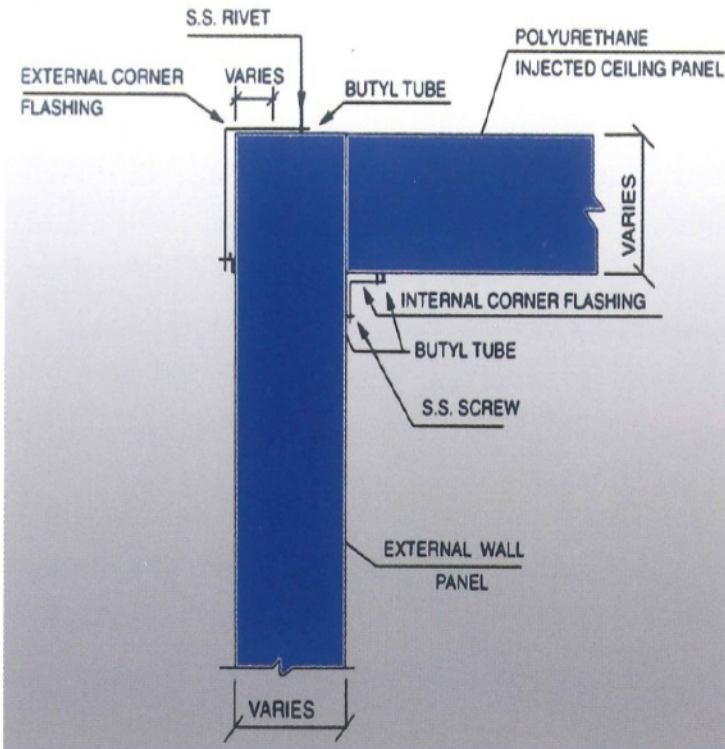
▶ Panels and joint Details

Factory injected polyurethane foam panels having marine plywood/ steel facings or aluminium/galvanized steel facings.

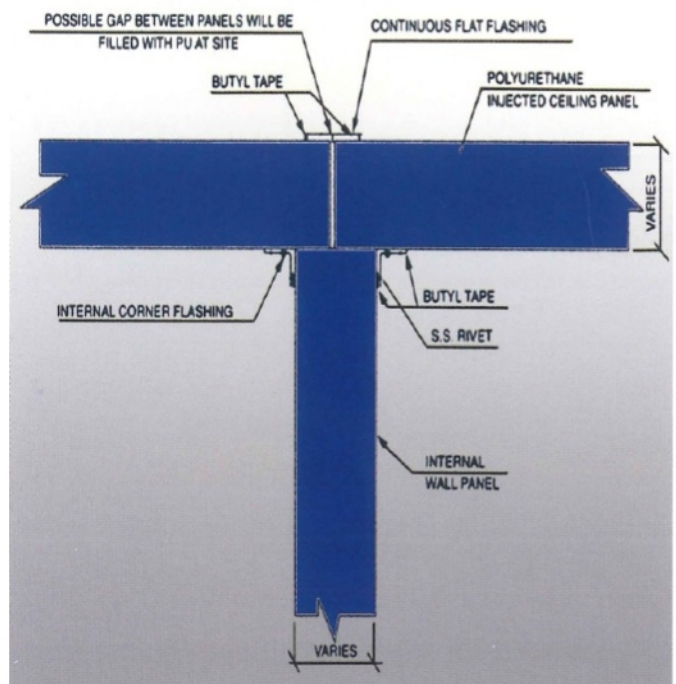
Colours available are standard, thermal value, U, for different PU thickness is as follows:

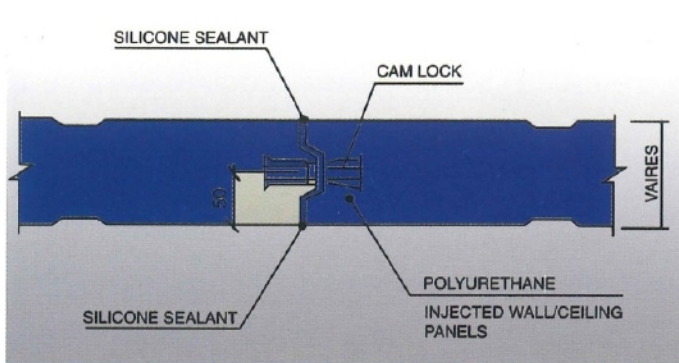
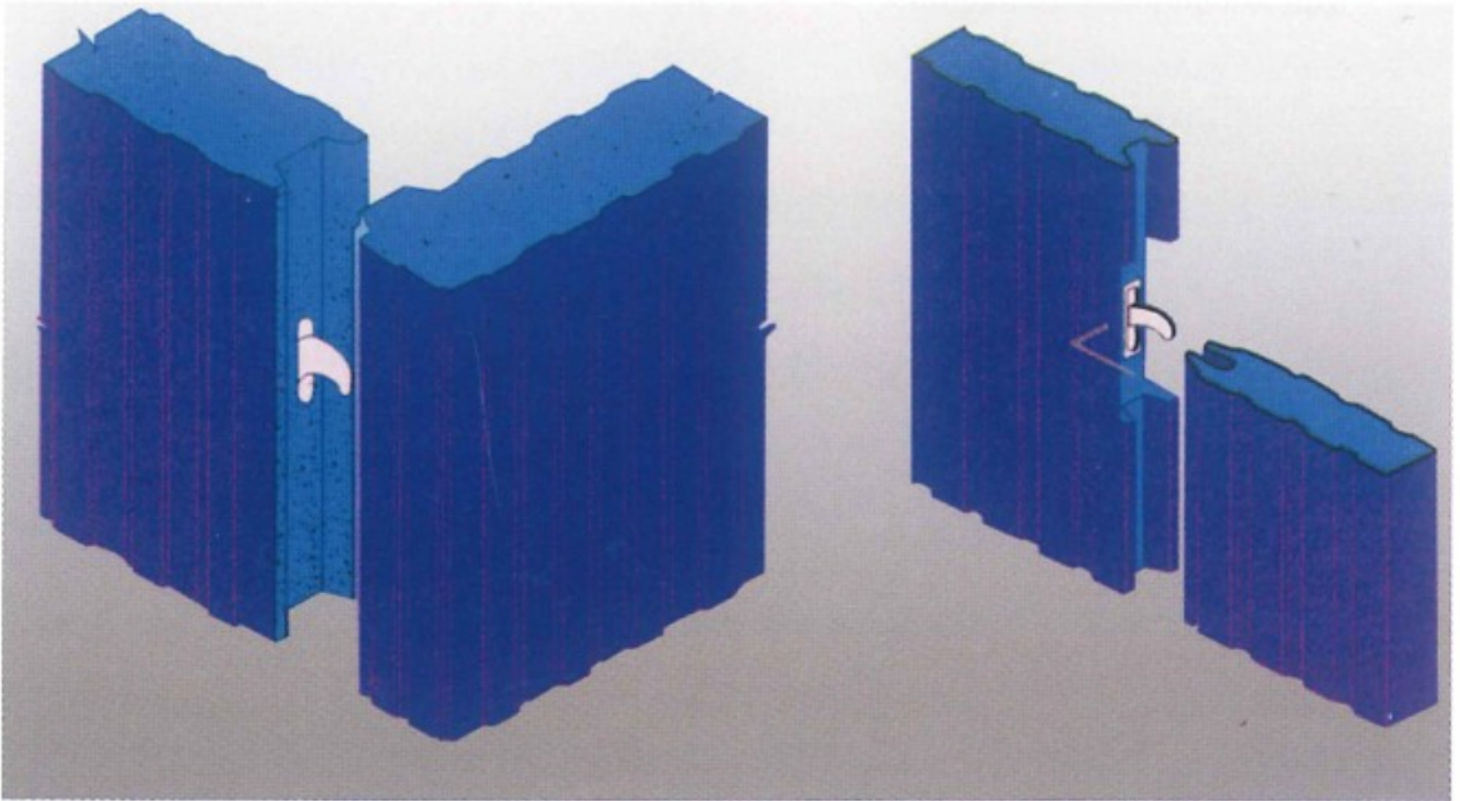
- 50mm 0.36w/m² c0
- 100mm 0.19w/m² c0
- 150mm 0.13w/m² c0
- 200mm 0.10w/m² c0



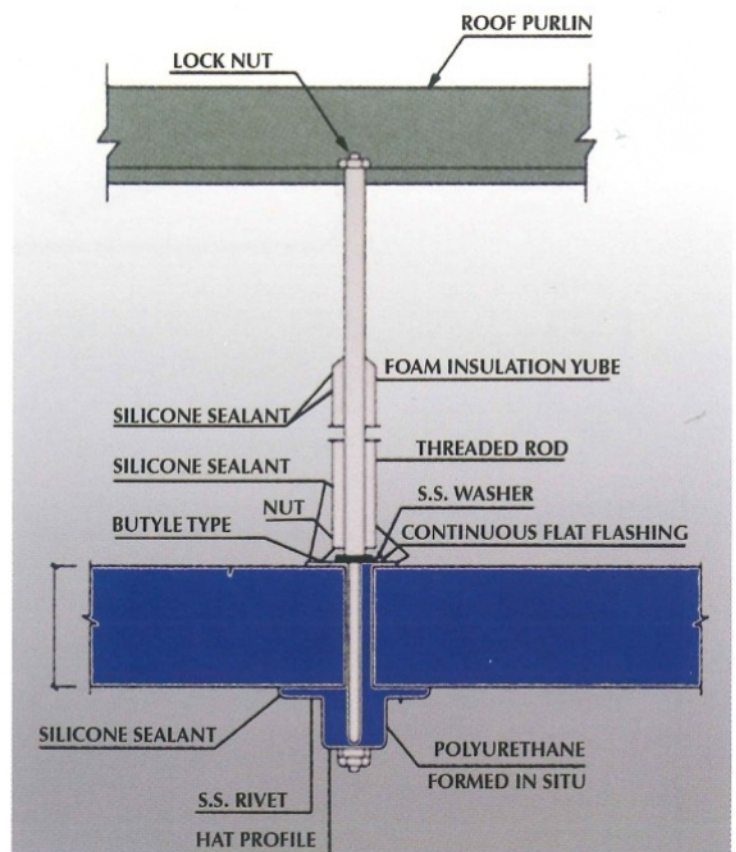


Floor and exterior wall connection detail





Airlock detail





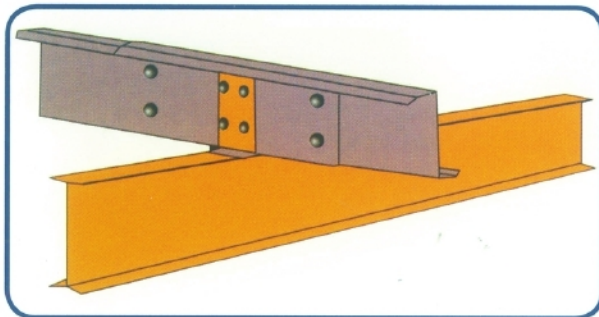
PURLINS

▶ General

Purlins are manufactured from ASTM 446 grade D pre-hot dipped galvanized steel to A 525 with a minimum yield stress of 345 N/mm². Zinc Coating of G 275 standard, but other coating weights can be supplied by arrangements.



Types of connections - Z – section



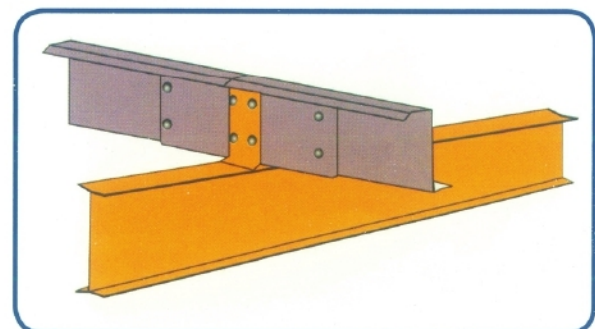
▶ Sleeved Connections

In this type of connection, Z, sections are used in buildings which are tow or more. Bays long and, are made continuous using “Purlin Sleeves”.

Sleeves should be of the same section as the purlins but used in reverse for joining. All holes are normally 18mm diameter for M16 bolts.

▶ Overlap Connections

The purlin overlap system is mostly used for long spans in large buildings as it gives additional strength and stiffness over the rafter area.

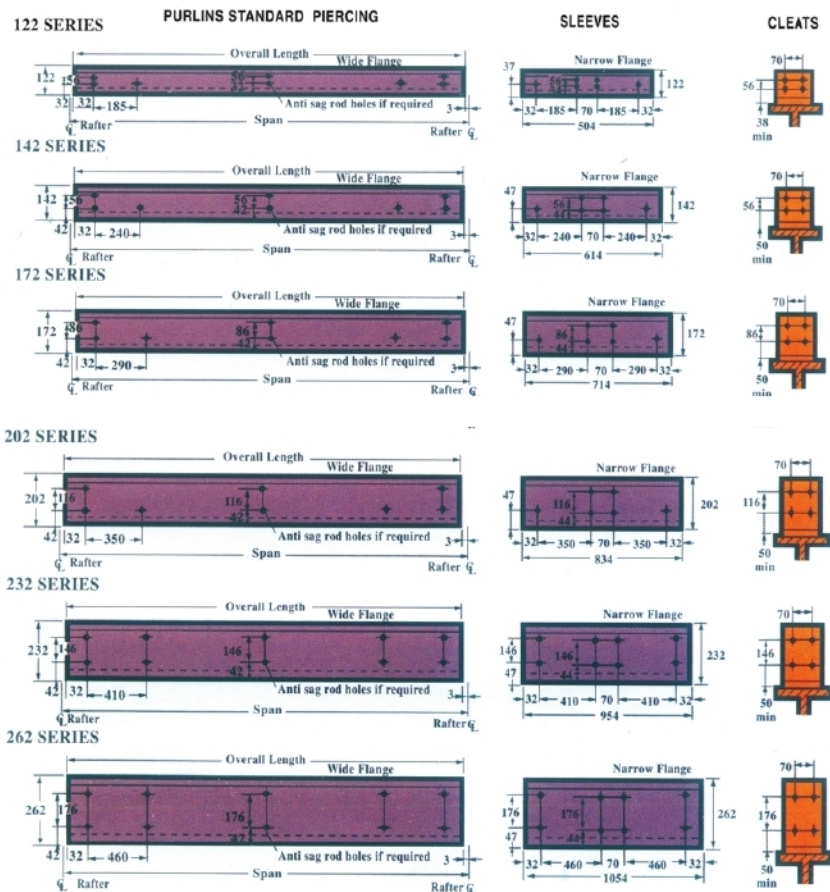




PURLINS SLEEVED SYSTEM

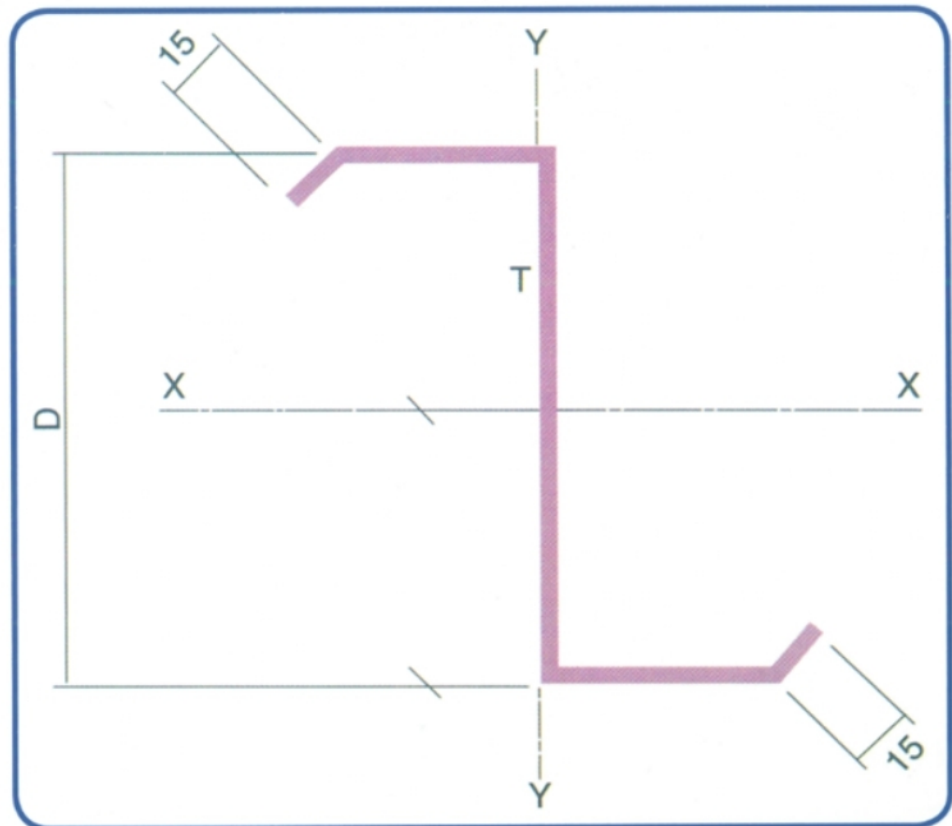
Details and Dimensions Notes:

1. All Dimensions are in mm.
2. All holes 18 dia. For 16mm dia. Bolts.
3. Clearance between purlins at all joints 6mm.
4. End fixing holes are supplied as shown.
5. Other holes normally pierced in pairs on standard gauge lines.





PURLINS DIMENSIONS AND PROPERTIES



Roll Formed Z Purlins

Section Z	Depth D mm	Top Flange mm	Dimensions			Weight kg/m ²	Zxx	Ixx	Ixx	r xx
			Bottom Flange mm	Thickness T mm	Area mm ²		cm ³	cm ⁴	cm ⁴	mm
							14.82	92.20	29.30	27.74
							19.50	121.00	38.50	27.74
122 15	122	55	50	1.5	375	2.94	16.02	115.00	17.80	21.65
12220	122	55	50	2.0	500	3.92	21.08	152.00	23.40	21.52
14215	142	45	40	1.5	375	2.94	23.36	204.00	29.40	25.37
14220	142	45	40	2.0	500	3.59	30.81	269.00	38.60	25.23
17215	172	55	50	1.5	457	3.92	29.09	298.00	29.40	24.20
17220	172	55	50	2.0	610	4.78	38.41	393.00	38.60	24.07
20215	202	55	50	1.5	499	5.23	41.89	494.00	65.20	32.78
20220	202	55	50	2.0	666	6.37	55.39	653.00	85.90	32.65
23215	232	76	69	1.5	609	4.78	43.84	581.00	36.60	24.57
23220	232	76	69	2.0	812	6.37	57.98	768.00	48.10	24.44
26215	262	60	55	1.5	609	4.78				
26220	262	60	55	2.0	812					

Notes:

1. The calculations are made in accordance with BS 5950 :V.
2. The loads above are those which may actually applied.
3. Purlin weight has already been.
4. By arrangements cleats can be supplied with additional holes in the base leg of angle cleats for bolting to rafters on site and supplied with finish hot dipped galvanized or painted with standard Zinc phosphate primer.

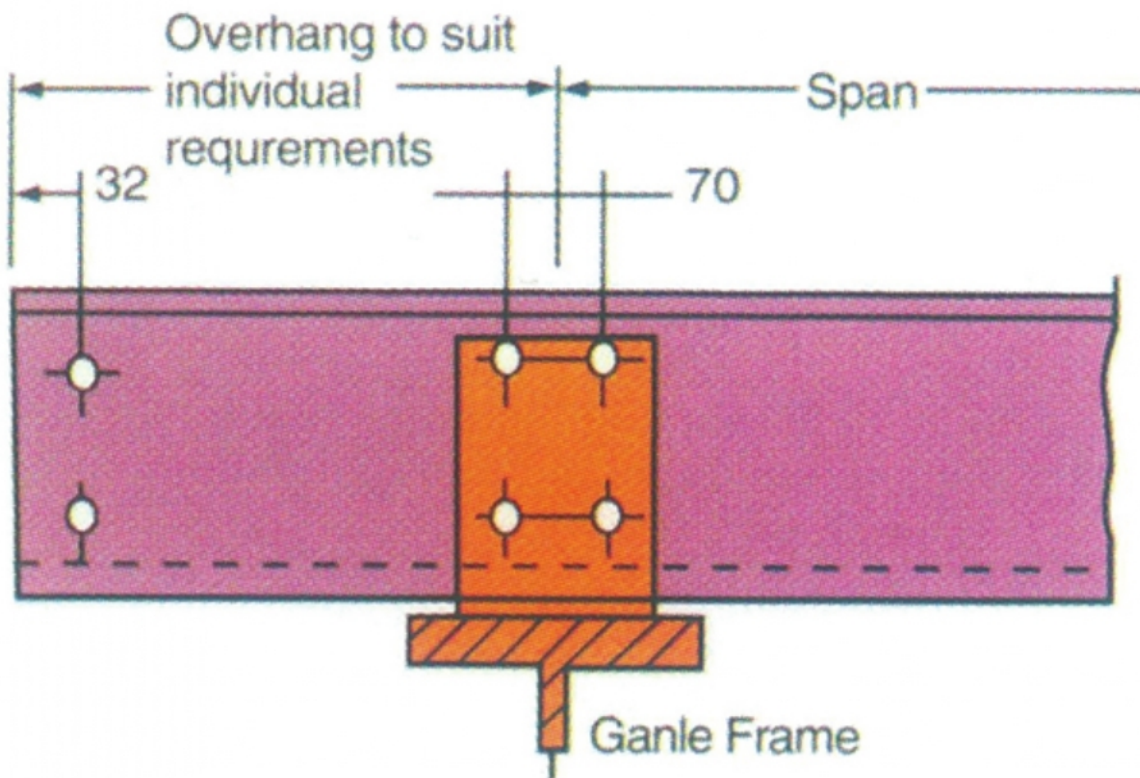


PURLIN EXTENSION

► Extension - A

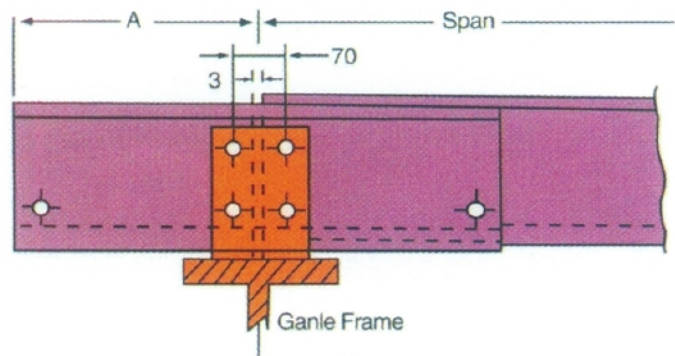
It is end extension, where purlin or side rail extended in length to suit desired overhang.

Purlins are normally produced with standard end holes in every purlin, overhang fixing holes are then added to suit individual requirements.



▶ **Extension - B**

Continuous extension where stub purlin used to achieve desired overhand where overhang is greater than half of standard sleeve length.

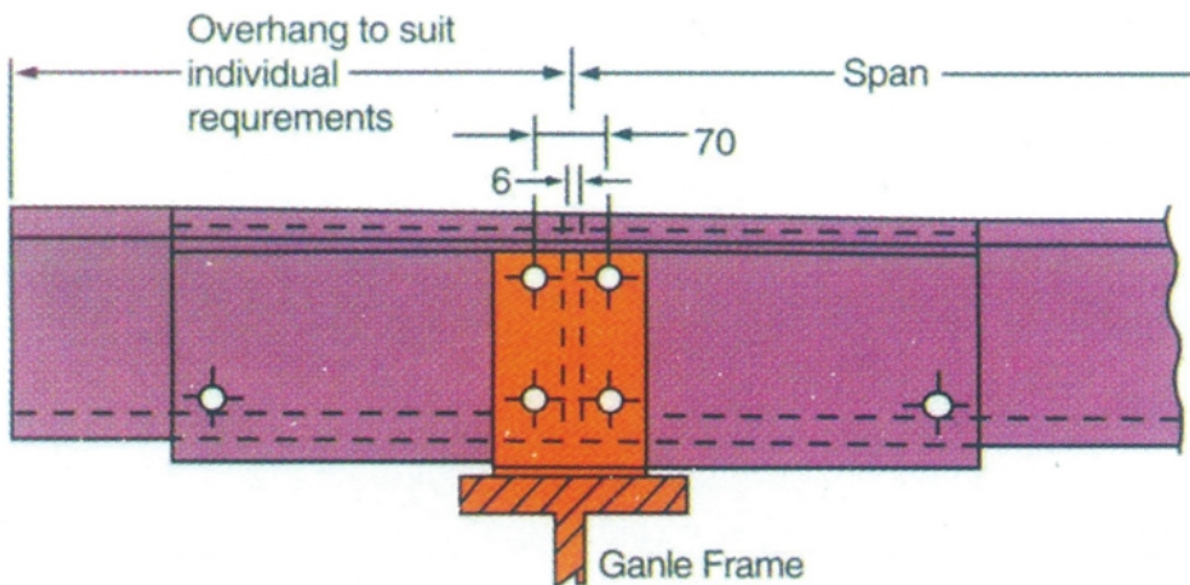


▶ **Extension - C**

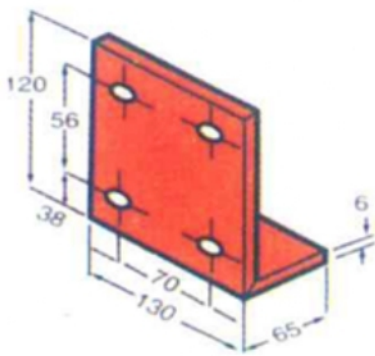
Continuous extension where standard sleeve cut down is to suit desired overhang.

Purlins or Side rail
 122 Series
 142 Series
 172 Series
 202 Series
 232 Series
 262 Series

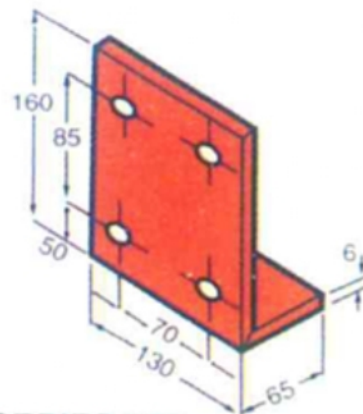
	Max Overhang dim. A
122 Series	252
142 Series	307
172 Series	357
202 Series	417
232 Series	477
262 Series	527



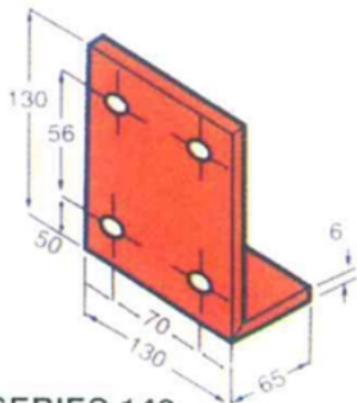
Cleats arrangements Standard Purlin/Rail Cleats



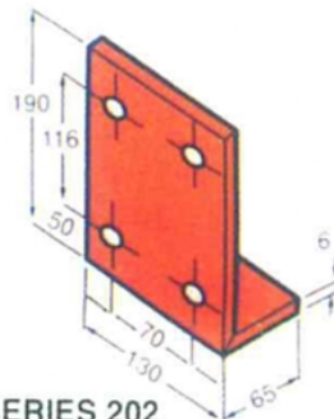
SERIES 122
Pressed Angle wt = 1.15 kg



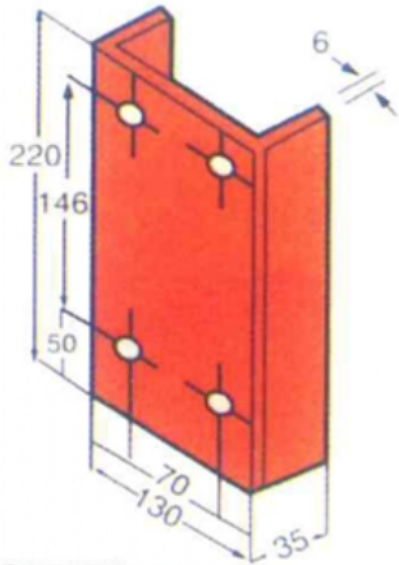
SERIES 172
Pressed Angle wt = 1.384 kg



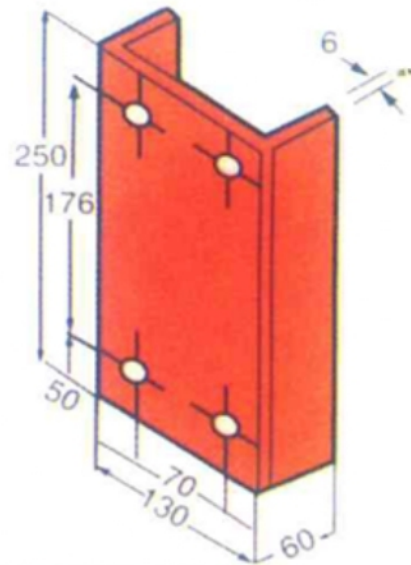
SERIES 142
Pressed Angle wt = 1.20 kg



SERIES 202
Pressed Angle wt = 2.09 kg



SERIES 232
Pressed Channel wt = 2.09 kg



SERIES 262
Pressed Channel wt = 3.07 kg

► Notes

1. All holes 18mm for 16mm bolts.
2. Standard cleats are normally supplied black bare metal suitable for welding to rafters.
3. By arrangements cleats can be supplied with additional holes in the base leg of angle cleats for bolting to rafters on site and supplied with finish hot dipped galvanized or painted with standard Zinc phosphate primer.

▶ METRIC LOAD TABLES

The loads shown are applicable to buildings two or more bays long. Loads have been calculated in accordance with BS 5950-part V.

Self-weight of the purlin has been deducted.

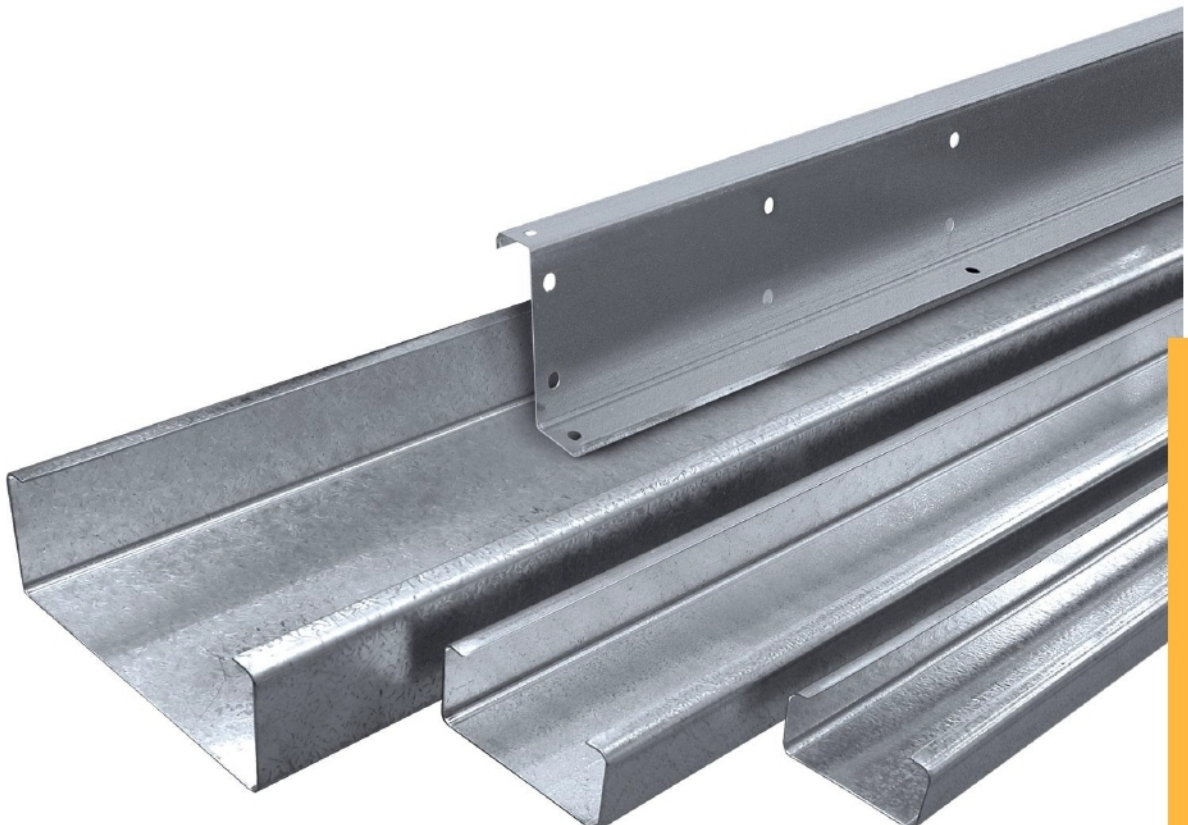
Tables are valid up to roof slopes of 25m0.

Sag rods are recommended as follows:

1 No. for span up to 5.0m.

2 No.s for spans up to 7.5m.

3 No.s for spans above 7.5m.



MAXIMUM LOAD IN KN/M ²											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000
4.0	122 15	2.94	2.176	1.741	1.451	1.243	1.088	0.967	0.869	0.791	0.725
	142 15	2.94	2.714	2.171	1.809	1.551	1.357	1.206	1.076	0.987	0.905
	172 15	3.59	4.012	3.210	2.675	2.293	2.006	1.783	1.594	1.459	1.337
	202 15	3.92	4.980	3.984	3.320	2.845	2.490	2.213	1.985	1.811	1.660
	232 15	4.78	7.285	5.828	4.857	4.163	3.643	3.238	2.914	2.649	2.428
	262 15	4.78	7.859	6.287	5.239	4.491	3.929	3.493	3.144	2.858	2.620
	12220	3.93	2.879	2.303	1.919	1.645	1.440	1.280	1.143	1.047	0.960
	14220	3.93	3.587	2.870	1.906	2.050	1.794	1.594	1.416	1.304	1.180
	17220	4.79	5.275	4.220	2.361	3.014	2.637	2.344	2.102	1.918	1.758
	20220	5.23	6.561	5.249	3.636	3.749	3.280	2.916	3.280	2.386	2.187
	23220	6.37	9.605	7.684	4.428	5.489	4.803	4.269	3.842	3.493	3.202
	26220	6.37	9.999	8.203	6.836	5.860	5.127	4.557	4.102	3.729	3.418
4.5	122 15	2.94	1.529	1.224	1.020	0.874	0.765	0.680	0.610	0.556	0.510
	14215	2.94	1.918	1.535	1.279	1.096	0.959	0.853	0.766	0.698	0.639
	17215	3.59	3.148	2.519	2.099	1.799	1.574	1.399	1.259	1.145	1.049
	20215	3.92	3.938	3.150	2.625	2.250	1.969	1.750	1.568	1.432	1.313
	23215	4.78	5.738	4.590	3.825	3.279	2.869	2.550	2.295	2.086	1.913
	26215	4.78	6.287	5.029	4.191	3.592	3.143	2.794	2.515	2.286	2.096
	12220	3.93	2.062	1.606	1.339	1.147	1.031	0.892	0.803	0.730	0.687
	14220	3.93	2.527	2.021	1.684	1.444	1.263	1.123	1.009	0.919	0.842
	17220	4.79	4.157	3.326	2.772	2.376	2.079	1.848	1.661	1.512	1.386
	20220	5.23	5.188	4.151	3.459	2.965	2.594	2.306	2.071	1.887	1.729
	23220	6.37	7.597	6.077	5.064	4.341	3.698	3.376	3.039	2.762	2.532
	26220	6.37	8.188	6.550	5.459	4.679	4.094	3.639	3.275	2.977	2.729

MAXIMUM LOAD IN KN/M ²											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000
5.0	122 15	2.94	1.120	0.896	0.747	0.640	0.560	0.498	0.445	0.404	0.371
	142 15	2.94	1.400	1.120	0.933	0.800	0.700	0.622	0.559	0.508	0.465
	172 15	3.59	2.550	2.040	1.700	1.457	1.275	1.133	1.003	0.912	0.836
	202 15	3.92	3.200	2.560	2.133	1.829	1.600	1.422	1.270	1.155	1.058
	232 15	4.78	4.660	3.728	3.107	2.663	2.330	2.071	1.857	1.688	1.547
	262 15	4.78	5.170	6.136	3.447	2.954	2.585	2.298	1.908	1.735	1.590
	12220	3.93	1.470	1.176	0.980	0.920	0.735	0.653	0.585	0.535	0.490
	14220	3.93	1.840	1.472	1.227	1.051	0.920	0.818	0.735	0.669	0.613
	17220	4.79	3.310	2.648	2.207	1.891	1.655	1.471	1.323	1.204	1.103
	20220	5.23	4.190	3.352	2.793	2.394	2.095	1.862	1.396	1.524	1.397
	23220	6.37	6.140	4.912	4.093	3.509	3.070	2.729	1.677	2.233	2.047
	26220	6.37	6.704	5.363	4.463	3.831	3.352	2.980	2.682	2.438	2.235

MAXIMUM LOAD IN KN/M ²											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000
5.5	142 15	2.94	1.050	0.840	0.700	0.581	0.525	0.452	0.420	0.381	0.350
	172 15	3.59	1.890	1.512	1.260	1.080	0.945	0.840	0.753	0.687	0.630
	202 15	3.92	2.630	2.104	1.753	1.503	1.315	1.169	1.050	0.956	0.877
	23215	4.78	3.838	3.070	2.559	2.193	1.919	1.706	1.534	1.396	1.279
	26215	4.78	4.360	3.488	2.907	2.491	2.180	1.938	1.744	1.585	1.453
	12220	3.93	1.100	0.880	0.733	0.629	0.550	0.489	0.440	0.400	0.367
	14220	3.93	1.390	1.112	0.927	0.794	0.695	0.618	0.552	0.505	0.463
	17220	4.79	2.490	1.992	1.660	1.423	1.245	1.107	0.994	0.905	0.830
	20220	5.23	3.484	2.787	2.323	1.991	1.742	1.548	1.386	1.267	1.161
	23220	6.37	5.100	4.080	3.400	2.914	2.550	2.267	2.040	1.855	1.700
	26220	6.37	5.620	4.490	3.747	3.211	2.810	2.498	2.248	2.044	1.873



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MAXIMUM LOAD IN KN/M2											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.452	1.162	0.968	0.830	0.726	0.645	0.580	0.528	0.484
6.0	172 15	3.59	1.452	1.162	0.968	0.830	0.726	0.645	0.580	0.528	0.484
	202 15	3.92	2.140	1.712	1.427	1.223	1.070	0.951	0.848	0.778	0.713
	232 15	4.78	3.240	2.592	2.160	1.851	1.620	1.440	1.289	1.178	1.080
	262 15	4.78	3.720	2.976	2.480	2.126	1.869	1.653	1.525	1.353	1.240
	14220	3.93	1.070	0.856	0.713	0.611	0.535	0.476	0.425	0.389	0.357
	17220	3.93	1.920	1.536	1.280	1.097	0.960	0.853	0.765	0.698	0.640
	20220	4.79	2.800	2.240	1.867	1.600	1.400	1.244	1.119	1.018	0.933
	23220	5.23	4.268	3.414	2.845	2.439	2.134	1.897	1.707	1.552	1.423
	26220	6.37	4.790	3.832	3.193	2.737	2.395	2.129	1.916	1.742	1.597



MAXIMUM LOAD IN KN/M2											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000
6.5	172 15	3.59	1.144	0.915	0.763	0.654	0.572	0.508	0.456	0.416	0.381
	202 15	3.92	1.670	1.336	1.113	0.954	0.835	0.742	0.667	0.607	0.557
	232 15	4.78	2.747	2.197	1.831	1.569	1.373	1.221	1.098	0.999	0.915
	262 15	4.78	3.228	2.582	2.152	1.845	1.614	1.435	1.291	1.174	1.076
	17220	4.79	1.510	1.208	1.007	0.863	0.755	0.671	0.602	0.549	0.503
	20220	5.23	2.206	1.765	1.471	1.261	1.103	0.980	0.880	0.802	0.735
	23220	6.37	3.634	2.907	2.423	2.077	1.817	1.615	1.453	1.321	1.211
7.0	26220	6.37	4.134	3.307	2.756	2.362	2.067	1.837	1.653	1.503	1.378
	20215	3.92	1.336	1.069	0.891	0.763	0.668	0.594	0.534	0.486	0.445
	23215	3.92	2.240	1.792	1.493	1.280	1.120	0.996	0.896	0.815	0.747
	26215	4.78	2.832	2.266	1.888	1.618	1.416	1.259	1.122	1.030	0.944
	17220	4.78	1.206	0.965	0.804	0.689	0.603	0.536	0.482	0.439	0.402
	20220	4.79	1.766	1.413	1.177	1.009	0.883	0.785	0.705	0.642	0.589
	23220	6.37	2.964	2.371	1.976	1.694	1.482	1.317	1.185	1.078	0.988
7.5	26220	6.37	3.620	2.896	2.413	2.069	1.810	1.609	1.487	1.316	1.207
	20215	3.92	1.090	0.872	0.727	0.623	0.545	0.484	0.434	0.396	0.363
	23215	4.78	1.822	1.458	1.215	1.041	0.911	0.810	0.728	0.663	0.607
	26215	4.78	2.420	1.936	1.613	1.383	1.210	1.076	0.907	0.880	0.807
	20220	5.23	1.438	1.150	0.959	0.822	0.719	0.639	0.573	0.523	0.479
	23220	6.37	2.410	1.928	1.607	1.377	1.205	1.071	0.964	0.876	0.803
	26220	6.37	3.100	2.480	2.067	1.771	1.550	1.378	1.240	1.127	1.033
8.0	23215	4.78	1.502	1.202	1.001	0.858	0.751	0.668	0.600	0.546	0.501
	26215	4.78	2.020	1.616	1.347	1.154	1.010	0.898	0.792	0.735	0.673
	20220	5.23	1.186	0.949	0.791	0.678	0.593	0.527	0.593	0.431	0.395
	23220	6.37	1.988	1.590	1.325	1.136	0.994	0.884	0.795	0.723	0.663
	26220	6.37	2.599	2.079	1.733	1.485	1.300	1.155	1.040	0.945	0.866

MAXIMUM LOAD IN KN/M2											
Span M	Section Ref	Weight KG/M	SPAN/ DEPTH RATIO = 200 PURLIN SPACING IN M								
			1.000	1.250	1.500	1.750	2.000	2.250	2.500	2.750	3.000
8.5	232 15	4.78	1.258	1.006	0.839	0.719	0.629	0.559	0.500	0.457	0.419
	262 15	4.78	1.790	1.432	1.193	1.023	0.895	0.796	0.721	0.651	0.597
	23220	6.37	1.658	1.326	1.105	0.947	0.829	0.737	0.661	0.603	0.553
	26220	6.37	2.236	1.789	1.491	1.278	1.118	0.994	0.894	0.813	0.745
9.0	23215	4.78	1.060	0.848	1.707	0.606	0.530	0.471	0.421	0.385	0.353
	26215	4.78	1.580	1.264	1.053	0.903	0.790	0.702	0.690	0.575	0.527
	23220	6.37	1.400	1.120	0.933	0.800	0.700	0.622	0.557	0.509	0.467
	26220	6.37	1.990	1.592	1.327	1.137	0.995	0.884	0.796	0.724	0.663
9.5	23220	6.37	1.190	0.952	0.793	0.680	0.595	0.529	0.474	0.433	0.397
	26220	6.37	1.720	1.376	1.147	0.983	0.860	0.764	0.699	0.625	0.573
10.0	23220	6.37	1.040	0.832	0.693	0.594	0.520	0.462	0.406	0.378	0.347
	26220	6.37	1.528	1.222	1.019	0.873	0.764	0.679	0.611	0.556	0.509



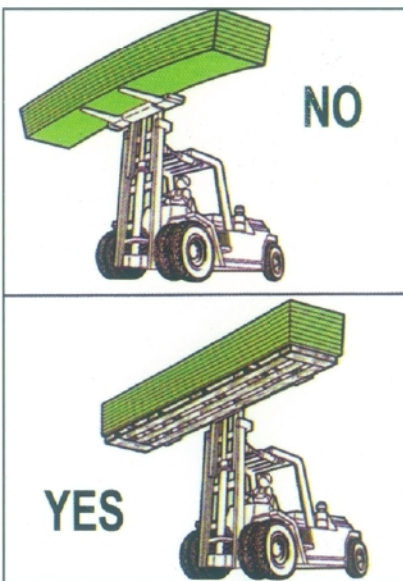
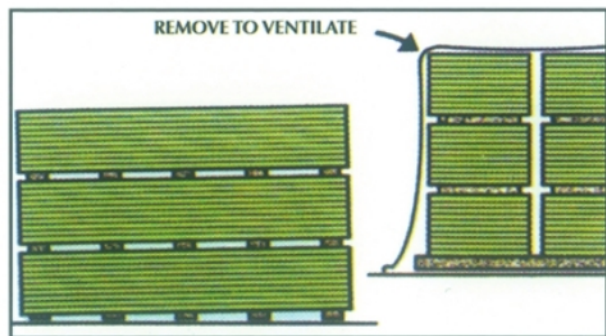
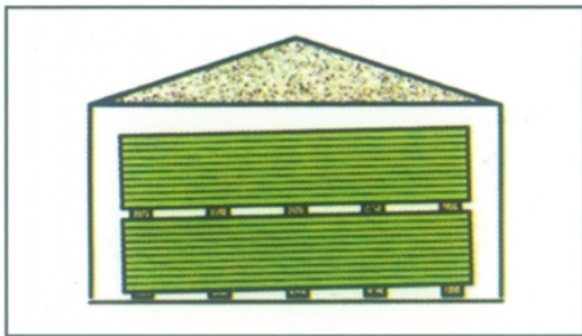
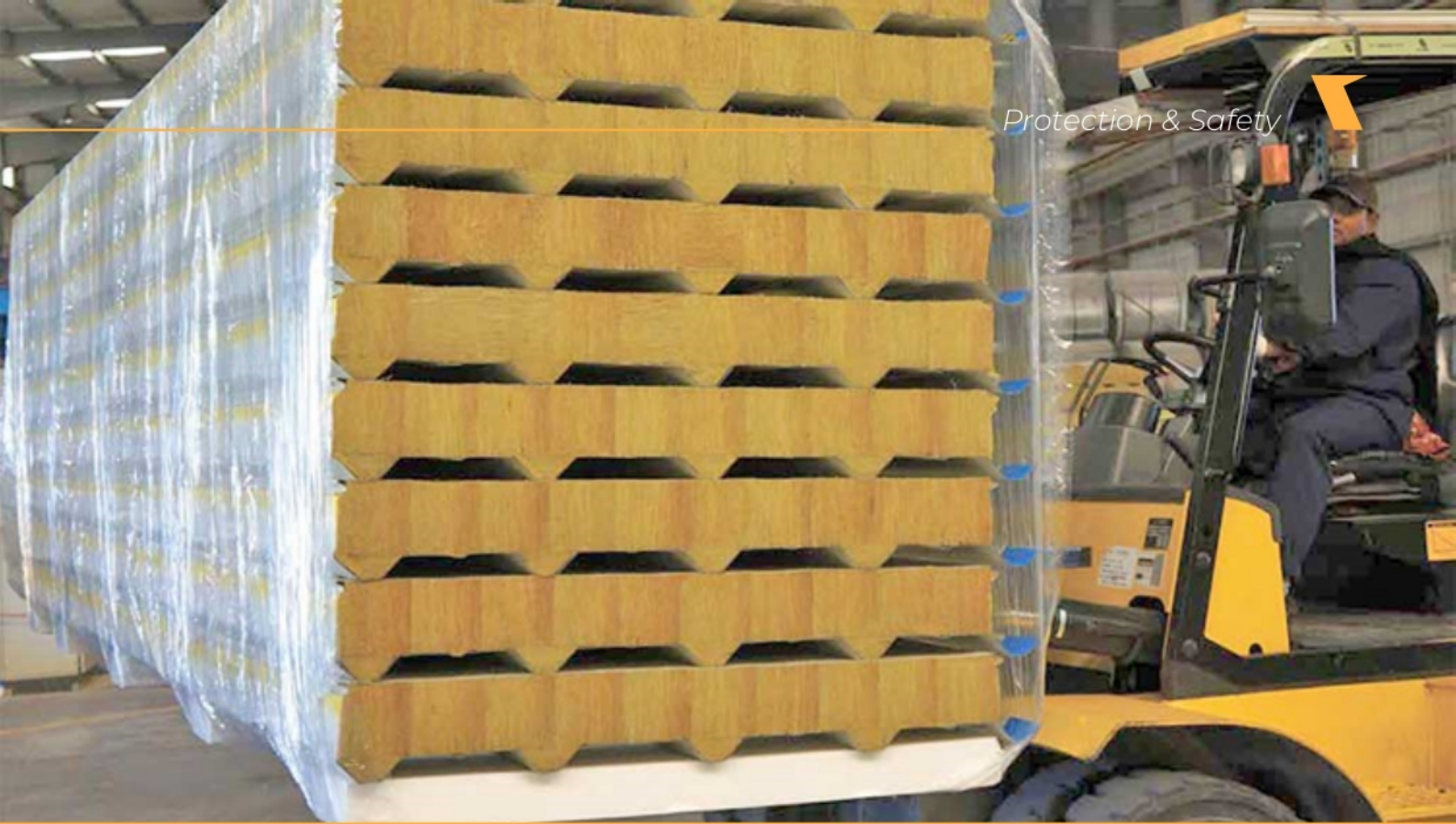
▶ **PROTECTION & SAFETY**

▶ **Storage & Assembly**

Storage must be clear of the ground on levelled slope there by reducing the rush of water collection between sheets materials and accessories. It must be covered over and well-ventilated, dust free and completely dry. To store the pack of materials piled one on top of the other, polystyrene foam spaces must be inserted across they way between the pack and the next. The packs must be placed on a surface with inclination, if storage is out of doors, materials must be covered with tarpaulins or polythene sheets in the case of rainy weather conditions but remove such covers when the sun shining to air the packs and avoid the formation of condensation. If whitish marks should be noted on galvanized sheet, clean with cloth greased with Vaseline oil.

Do not slide one end of the panel over the pack itself by pulling it out lengthwise but lift it and put it on its side beside the pack, lift it thus always on its side and carry it between two people: only relatively short panels may be carried flat.

Panels with no packing must be used as soon as possible avoiding exposure to the sun's rays to avoid the possibility of wrapping or building caused by the expansion of the metals.



▶ Packing, Loading And Unloading

Sheets should be carefully inspected before despatch; packs are delivered in wooden cradles. Off-loading should be by mechanical means (Crane, or Forklift) using special wooden pallets and lifting from beneath the pallets.

Loose panels should be lifted in pairs by hands, lifting from beneath the pallets. Packs should be off loaded with wide (100 mm min).

Soft slings, e.g. Nylon, but in no instance should chains or any metal cables be used for lifting. As a general rule secure the packs allowing about 1/5 of the length of the pack to protrude at each end.

► TOWERS

► Design

Galva coat has invested tremendously in sophisticated special design program to design the most economical Towers and supply all over the world.

Our Design engineers with their experience in this product category, in conjunction with the latest specialized software packages available, are designing Towers to give optimum performance, in line with international standards. We have an excellent blend of experienced Engineers heading the various manufacturing a supporting function The structures are designed in accordance with most recent standards such as to BS 5950, BS 6399 or TIA 222-G / TIA 222-H specifications. Designs according to other standards are also available upon request. The structure modelling and analysis are done using advanced software's.

Towers Category:

- Telecommunication Towers
- Transmission Towers
- Guyed Towers
- Rooftop Towers
- Cell on Wheels (COW) Tower



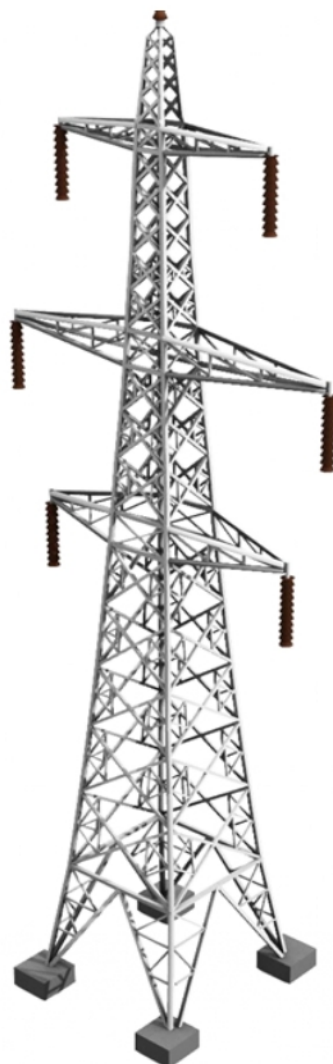
▶ **Telecommunication Towers:**

Telecommunication towers are of four-legged and three-legged, made of both Angle & Tubular materials with an overall height up to 150m.

▶ **Transmission Towers:**

Transmission tower are of different types it depends on various factors such as voltage (11kv to 800kv), configuration (vertical or horizontal), line deviation angle (Suspension, Tension & Terminal, Tee off tower).

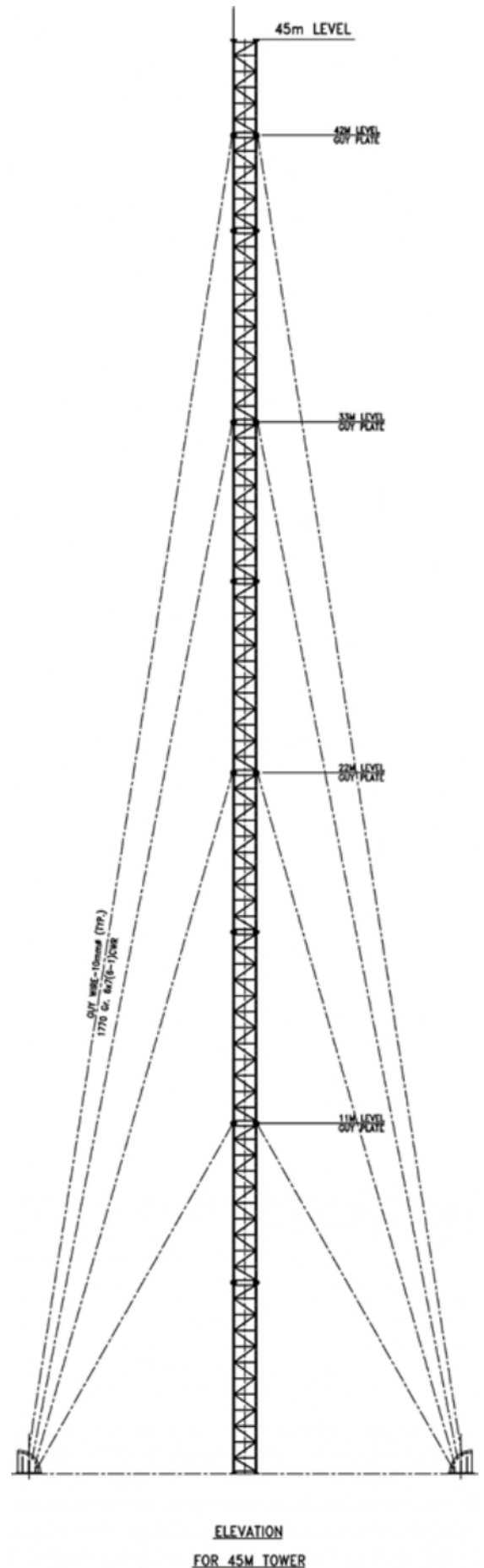
The design of Power Transmission line tower depends on, type of conductor and Earth-wire, wind zone, deviation angle and material specification.





► **Guyed Towers:**

Guyed Towers are lightweight to heavyweight towers supported by guy wires and are designed with the ability to carry light to heavy antenna loads with an overall height up to 150m.



► Roof Top Towers:

These can be both triangular & square penetrating and non-penetrating type rooftop lattice towers with various heights.

- Penetrating Roof top Towers
- Non-Penetrating Roof top Towers



QUALITY CONTROL

Quality is one of the most important functions and performance from the early begin- nine stages starting from preparing the offer to customer and ending with delivery.

Step by step checking is made in order to control material and production to be in accordance with the specifications and in line with international standards and tolerances.

Galva Coat has a big team of Quality Control Engineers and Inspectors.

Galva Coat is maintaining a Quality Control Department with latest and updated Instruments to monitor each stage and process, starting from receiving of material, until dispatch, thus maintaining quality throughout the execution of the job.





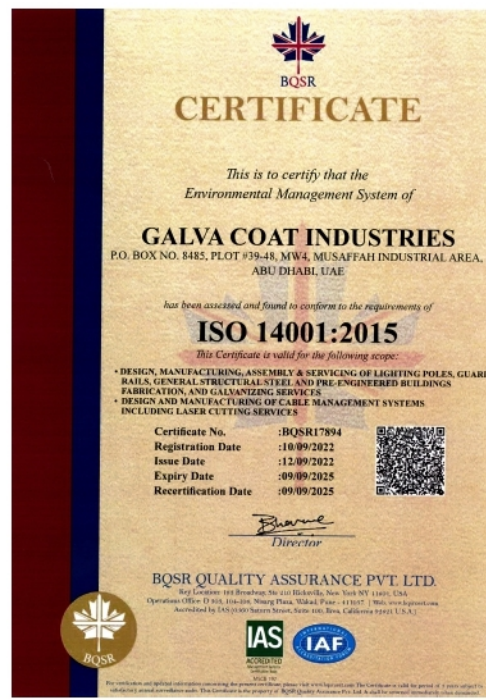
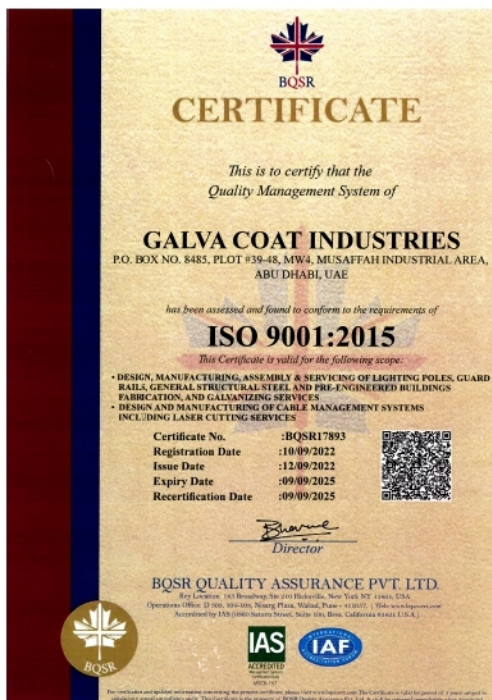
▶ QUALITY ASSURANCE

Galva Coat is committed to achieve utmost Customer satisfaction by producing consistent High-quality products that meet customer requirements and adherence to all statutory and regulatory requirements, as applicable.

Galva Coat also equally committed to adopt a pro-active approach to protect its surroundings and environment, by minimizing the level of harmful emissions wherever it's practicable and Dispose of the waste and effluents in a safe way, in line with the regulation to prevent pollution of land, water and air by exercising proper control over its activities and operations.

As an outcome of our hard work, Galva Coat been successful in obtaining ISO 9001 (Quality Management System) as well as ISO 14001 (Environmental Management System) Certification. Galva Coat is an affiliate member of Galvanizers Association-U.K.

Apart from the above Galva Coat is also in the process of achieving EHSMS (Environment, Health & Safety Management System) in line with Abu Dhabi Zones Corp Regulatory framework (OSHAD).



▶ INDUSTRIAL AWARD

As an outcome of our hard work and outstanding performance against the criteria in the Manufacturing Industry we have been successful in winning the **“Sheikh Khalifa Industry GOLDEN Award”** three times - in **1999, 2001 & 2003**, in addition to the **“Special Environment Award”**, as a recognition of our great role in maintaining a sound and safety industrial working and surrounding environment.



Sheikh Khalifa Industry Golden Award (1999)



Sheikh Khalifa Environment Award (1999)



Sheikh Khalifa Industry Golden Award (2001 - 2002)



Sheikh Khalifa Industry Golden Award (2003)

Apart from the above, in appreciation of the persistent distinguished efforts and commitment to Quality as an ideal approach towards achieving Business Excellence Galva coat was conferred with **QUALITY APPRECIATION CERTIFICATE** in the 12th cycle of **Sheikh Khalifa Excellence Award 2013**.



Sheikh Khalifa Excellence Award (2013)

Galva Coat always believe that the main ingredient of success is the Rigorous Quality of products, the reasonable price, and the satisfaction of clients, supported by a well-structured organization having sound strategies always developing the awareness of the need and the expectation of the varies customers.



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