



PRODUCT BROCHURE

COMMITTED TO
EXCELLENCE



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FOREWORD

FROM THE CHIEF EXECUTIVE OFFICER

Partners in Our Customers' Success

At Kirby, we understand the complex challenges that our customers face as they conceptualize, plan and execute their building projects. We also know how important it is to get it right the first time. As a leader in the industry, our experienced and dedicated team provides clients with innovative and proactive engineering solutions, adding value from start to finish.

We work with clients globally and have an extensive presence in the Middle East, Far East, South East Asia, the Indian sub-continent, Africa and Europe. With an annual capacity of over 425,000 MT and over 47 years of experience in Pre-Engineered Steel Building (PEB) design and manufacturing, Kirby has a proven track record of managing projects of any size or scope.

We see ourselves as partners in our customers' success, with a distinct and important role to play. Whether we are customizing engineering designs, creating precision drawings, providing efficient project planning, manufacturing, quality systems, or using SAP to track inventories and meet deadlines, our goal is always the same: to exceed our customers' expectations, every time. At Kirby, we provide more than just steel structures; we deliver complete building solutions.

Samir Kasem
Chief Executive Officer
Alghanim Industries



INTRODUCTION TO KIRBY

We are our customer's partners in progress. We know they have complex challenges and many responsibilities. As they are conceptualizing and executing projects, Pre-Engineered Steel Buildings (PEB) are just one part of their responsibilities. However, when it comes to the Kirby PEBs, we ensure that our customers are worry-free.

From ensuring customized engineering designs that optimize efficiencies, to accurate drawings and project planning and using of SAP to plan inventories and meet targeted timeline, we are devoted to exceeding our customer's expectations every time.

Our experienced and talented team works with our client partners to give them pre-emptive solutions that go beyond ordinary specifications to ensure efficiencies for our partners. We can handle

complex requirements and often deliver innovative engineering solutions that add tremendous value for our customers.

We bring our 47 years of experience as pioneers in the category, across manufacturing, retail, transportation and logistics to create bespoke solutions for our partners.

We have worked with clients globally and have an extensive presence in the Middle East & Africa, India, South East Asia and Europe.

With an annual capacity of over 425,000 MT, we are the undisputed leaders and pioneers in the industry and are capable of handling any project. While we deliver steel structures at one level, what we truly believe we deliver at a fundamental level - is total peace of mind for our clients.

VISION

To be recognized as the global leader for the design, manufacture, supply and erection of Pre-Engineered Steel Buildings (PEB) and Structures.

MISSION

Kirby will achieve this vision by consistently delivering high-quality products to our customers, accompanied by personalized service and a commitment to excellence.

COMPANY PROFILE

Kirby Building Systems established in 1976 is a global leader in the design and manufacturing of pre-engineered steel buildings and structures, offering customers a wide range of customized, cost-effective steel building solutions. Kirby's global spread extends across Middle East, Africa, Asia, Indian Sub-continent and South East Asia with production capacity of over 425,000 MT annually, operations across 70 countries and workforce of over 4,000 people.

Kirby globally offers one of the most comprehensive product portfolios ranging from Pre-Engineered Steel Building, Structural Steel and Storage Solutions. We offer a wide range of steel solutions tailored to our

customers' specific needs including Pre-Engineered Steel Buildings, Storage Solutions/Industrial Racking Systems, and broad array of our steel building products that cover applications in major market segments including but not limited to heavy industry, infrastructure, high-rise buildings, warehouse, factories, oil and gas and leisure structures.

Our commitment to excellence provides unmatched product quality, coupled with speed, safety and superior sales services.

VALUES

- **Straight-talking** We encourage open debate where the best ideas win.
- **Customer Centric** We put our customers at the center of our focus and initiatives with the objective of providing them with unmatched levels of services and products.
- **Teamwork** We actively share information and ideas, enthusiastically working to make those around us better.
- **Diversity and Respect** The diversity of our workforce is an asset and we treat everyone with dignity and respect regardless of status, gender, education, ethnicity or religion.
- **Empowerment** We empower people to make decisions with a bias for action.
- **Employees as Core Assets** We believe that our employees are our most valuable resource, and do whatever it takes for their continuous training, development and motivation.
- **Meritocracy** The rewards and career advancements of our people are based on their performance and capabilities, not on their wasta (influence).

MANUFACTURING FACILITIES

Mina Abdullah, Kuwait Plant

100,000 MT Annual Capacity



Hyderabad, India Plant

100,000 MT Annual Capacity



Ras Al-Khaimah, UAE Plant

75,000 MT Annual Capacity



Haridwar, India Plant

100,000 MT Annual Capacity



Ho Chi Minh, Vietnam Plant

40,000 MT Annual Capacity



CERTIFICATONS



NETWORK



MANUFACTURING LOCATIONS

Kuwait

¶ Mina Abdullah

UAE

¶ Ras Al-Khaimah

India

¶ Hyderabad

¶ Haridwar

¶ Halol

Vietnam

¶ Ho Chi Minh

KIRBY REGIONS

GCC

Middle East

India

Africa

South East Asia

Europe & CIS Countries

NETWORK

📍 Sales Offices – 70

📍 Certified Builders – 300 Across 6 Regions

PRODUCTS & SERVICES

PRE-ENGINEERED STEEL BUILDINGS (PEB)

Pre-Engineered Steel Building is a steel structure built over a structural concept of primary members, secondary members, and the cover sheeting connected to each other. The structural members are custom designed to be lighter in weight and high in strength. It can be fitted with different structural additions like trusses, mezzanine floors, fascia, canopies and crane systems as per user requirements. Pre-Engineered Steel Buildings are ideal for use in nonresidential, wide span low rise buildings. Among the advantages of PEB is lower cost, consistent quality control, durability, longevity, environmentally friendly and faster delivery to name a few. PEB buildings are used for diverse applications such as Factories, Warehouses, Offices, Shopping Malls, Aircraft Hangars, Schools, Hospitals, Shipyards, Metro Stations, community buildings and several more.

As a leading PEB manufacturer, Kirby provides the complete service of engineering and fabrication thus ensuring better quality control at every stage of the process.

STRUCTURAL STEEL

Kirby designs & supplies customized workshop fabricated Hot Rolled & Welded steel structures for Structural Steel applications such as Heavy Industries, Power Plants, Oil & Gas, Petrochemical Industry, High-Rise/Commercial Buildings, Airports and other specialized structures. We are one of the most innovative steel structures fabricators and are always looking to enhance our range of products and services including project execution.

COLD ROLL FORMED STEEL BUILDING

Cold Formed Steel members and other products are thinner, lighter, and easier to produce, and typically cost less than their hot-rolled steel members. Cold-formed steel offers versatility in building because of its lightweight and ease of handling and use. Cold Formed Steel Structures framing provides builder and consumers flexibility in design option which cannot be economically accommodated using traditional framing materials.

STORAGE SOLUTIONS

Storage Solutions help in providing effective storage to customers through maximum storage capacity with optimal floor utilization. Kirby designs & supplies steel racking systems to store materials (with or without pallets) as part of warehouse material handling storage system. These are an essential and ubiquitous element in most modern warehouses, manufacturing facilities, retail centers, and other storage and distribution facilities. Kirby product range conforms to modern modular European design.

ERECTION AND TECHNICAL ADVISORY SERVICES

Kirby has over 300 Certified Builders Worldwide. They have undergone intensive training on erecting buildings of varying complexity and for different applications. Kirby Certified Builders are highly competent and offer skilled expertise to clients. The local Kirby Certified Builder offers comprehensive services from construction to complete turnkey solutions. Kirby provides extensive technical advisory services to its clients - from selection of appropriate structures and economic design to adaptation of local building codes. To ensure excellent quality and customer satisfaction, Kirby's Technical Service representatives regularly monitor and supervise the project till completion.

SYSTEMS & PRACTICES

Kirby Building Systems has its reputation for having world class business practices. We have seamless processes across all our functions and verticals. All these are well integrated through a robust ERP system built on SAP.

Furthermore, Kirby uses the latest engineering codes and practices to design world class buildings for its customers across the globe. Kirby has the right mix of sustainable and efficient processes for planning and execution. Another initiative towards serving the delight of our customer, we source our raw materials from leading steel mills and suppliers to maintain the world class quality standards.

Putting all our processes and practices together helps us to meet ever growing demand of providing high quality and cost effective steel solutions on time.

KIRBY CENTER OF ENGINEERING EXCELLENCE

Kirby Building Systems' Engineering Center of Excellence is a world-class research and development center to enhance the company's expertise in steel for its wide range of customized and innovative products - Pre-Engineered Steel Buildings, Structural Steel and Storage Solutions.

The center provides leadership, best practices, research, support and training in focused areas to revitalize the existing products and also develop new expertise in steel.

The center addresses the significant engineering challenges associated with designing these structures to help the world develop sustainable innovations.

All the buildings are custom designed using the latest domestic / international codes and standards such as MBMA, AISC, AISI, IS, ES, BS and AWS which are most optimized & economical in nature able to meet all the customer needs. The design and detailing process is carried out using sophisticated software packages.

The centre of excellence, located in India, consists of more than 500 highly experienced structural engineers with industry domain knowledge to cater to the company's various requirements across the globe. This team ensures that all the customers receive the best of the product with very high value and minimal risk and maximize the return on investment to derive most of the benefits in each and every step of the proje



PRE-ENGINEERED BUILDINGS

PEB is a steel structure built over a structural concept of primary members, secondary members, and the cover sheeting connected to each other. The structural members are custom designed to be lighter in weight and high in strength. It can be fitted with different structural additions like trusses, mezzanine floors, fascia, canopies and crane systems as per user requirements.

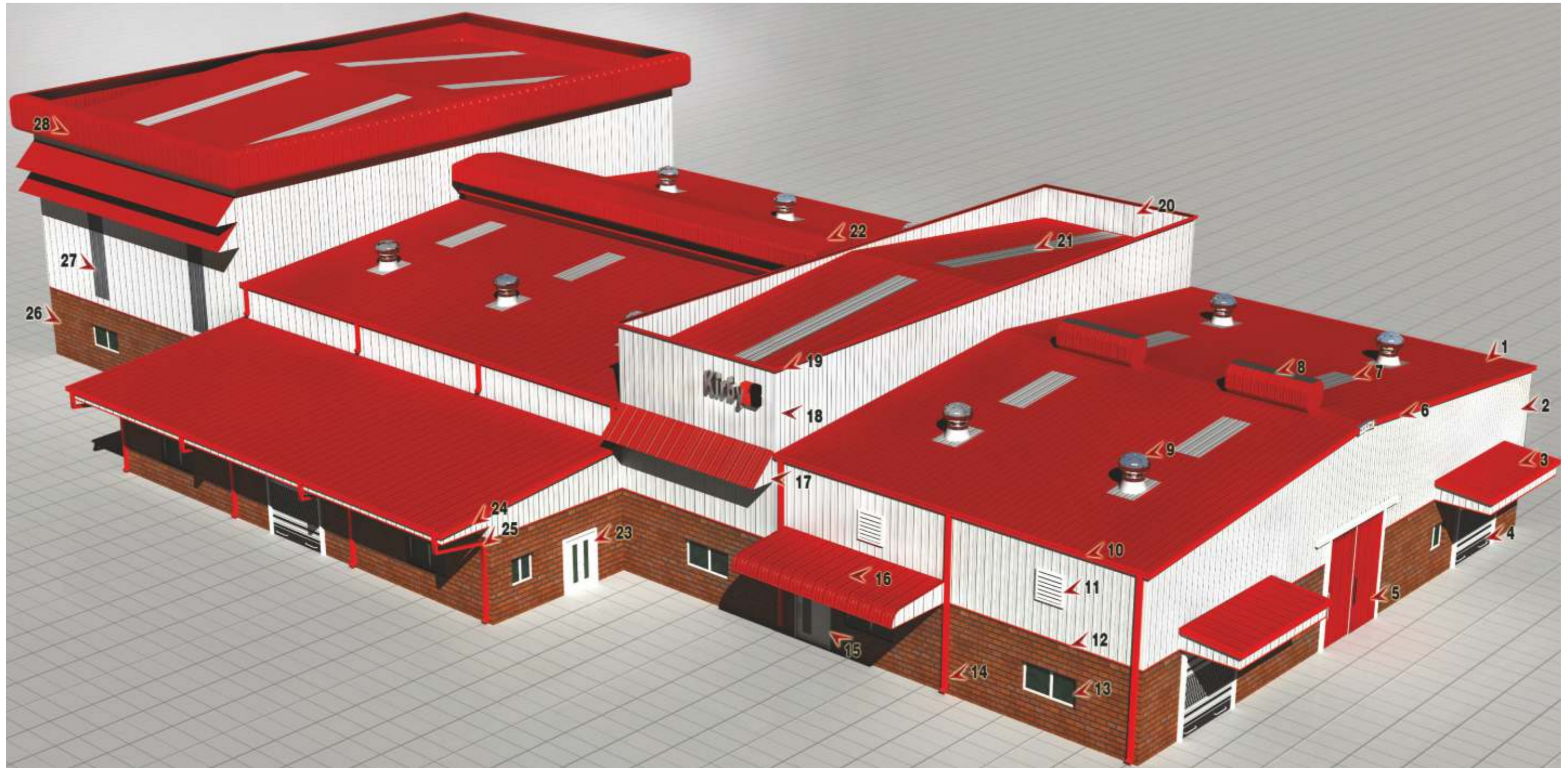
There are many advantages of PEB as mentioned below

- Single source responsibility
- Faster installation
- Economical
- Factory- controlled quality (ISO 9001/14001 Certified)
- Practically maintenance free
- Clear spans exceeding 90 M
- Flexibility in expansion
- Energy efficient roof and wall systems
- Earthquake- resistant

There are various applications of PEB as mentioned below

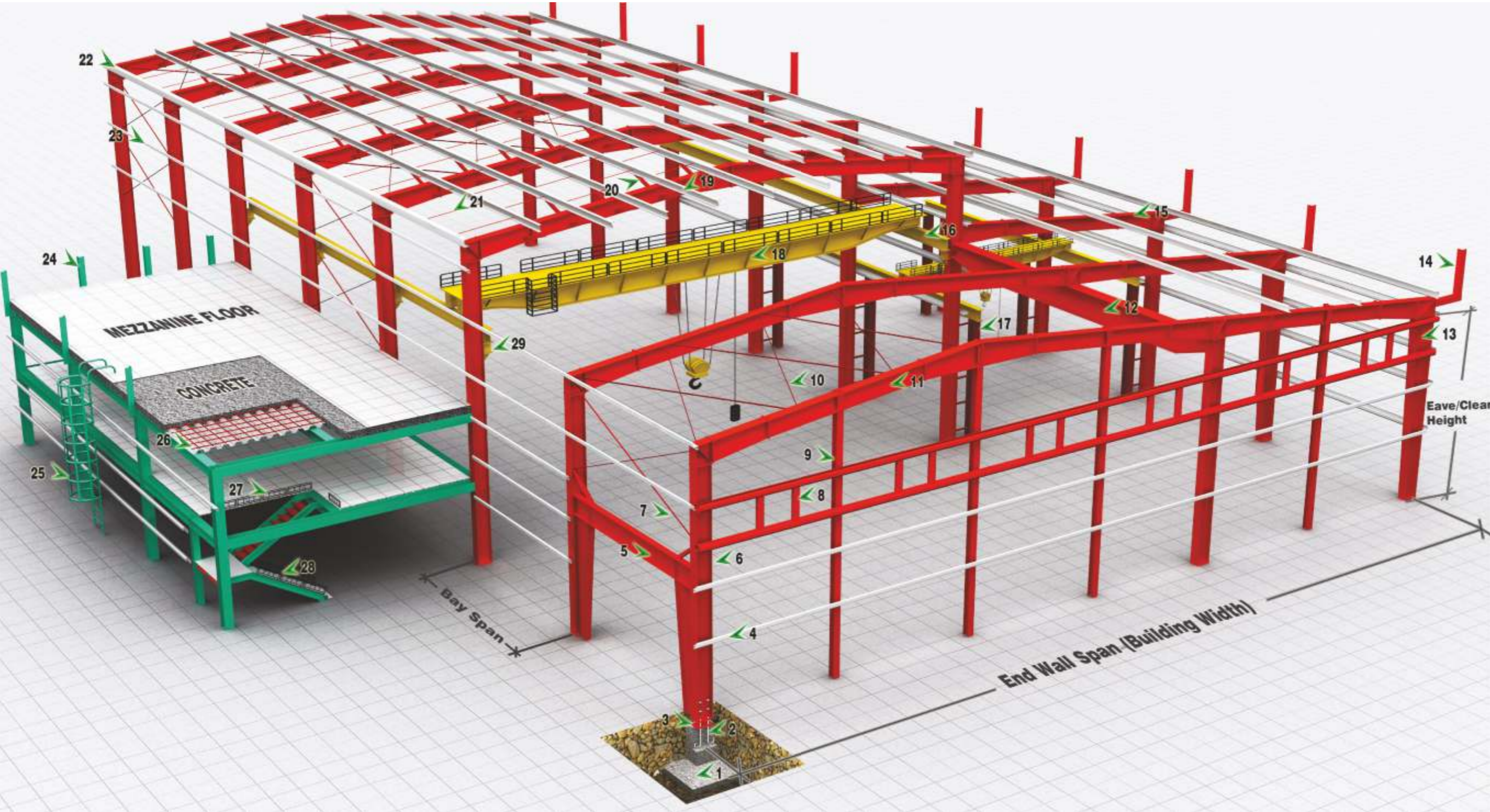
- Warehouses / Cold Storages
- Factories / Industrial Buildings
- Low Rise Office Buildings / Supermarkets
- Showrooms / Workshops
- Aircraft Hangars / Metro Stations
- Shipyards / Ports
- Sports Stadiums / Auditorium
- Petrol Stations / Car Parks
- Schools / Colleges / Hospitals
- Community / Recreational Buildings

Building Components



- | | | | |
|-------------------------------------|--------------------------------------|-----------------------|------------------------------------|
| 1. Kirby Roof Panel | 8. Ridge Ventilator (With Bird Mesh) | 15. Single Walk Door | 22. Roof Monitor |
| 2. Kirby Wall Panel | 9. Power Ventilator | 16. Curved Eave | 23. Double Walk Door |
| 3. Canopy | 10. Eave Gutter | 17. Industrial Louver | 24. Roof Extension |
| 4. Roll Up Door (Manual/Electrical) | 11. Louver With Bird Mesh | 18. Corner Trim | 25. Return Downspout |
| 5. Double Slide Door | 12. Masonry Trim | 19. Eave Trim | 26. Brick Wall |
| 6. Rake Trim | 13. Window With Insect Screen | 20. Flush Fascia | 27. Wall Light (Translucent Panel) |
| 7. Sky Light (Translucent Panel) | 14. Downspout | 21. Strip Skylight | 28. Curved Cantilever Fascia |

Building Components (contd.)



- | | | | |
|------------------------------------|-------------------------------------|-------------------|---|
| 1. Concrete Footing | 8. Framed Opening (Window/Louver) | 15. Lean To Frame | 22. Eave Strut |
| 2. Anchor Bolts | 9. End Wall Wind Column | 16. Crane Beam | 23. Side wall Girt |
| 3. Base Plate | 10. Roof Bracing (Angle/Rod/Cables) | 17. Crane Column | 24. Flush Fascia Frame |
| 4. End Wall Girt | 11. Main Frame Rafter | 18. EOT Crane | 25. Cage Ladder |
| 5. Portal Bracing | 12. Jack Beam | 19. Roof Purlin | 26. Deck Panel with Steel Mesh |
| 6. Main Frame Straight Column | 13. Main Frame Tapered Column | 20. Flange Brace | 27. Hand Rail (Steel) |
| 7. Wall Bracing (Angle/Rod/Cables) | 14. Cantilevered Fascia Frame | 21. Sag Rod | 28. Staircase (Checker plate/C channel) |
| | | | 29. Crane Bracket |

STRUCTURAL SYSTEM

Structural systems are the main load carrying and support members of a pre-engineered building. The shape and size vary based on application and requirements.

The main frame members are the main load carrying member of a structural system which include columns, endwall posts, rafters and other main support members.

All structural steel sections and welded plate members shall be designed in accordance with the applicable sections, relating to design requirements and allowable stresses, of the latest edition of the American Institute of Steel Construction "Specification for the Design, Fabrication and Erection of the Structural Steel for Buildings"

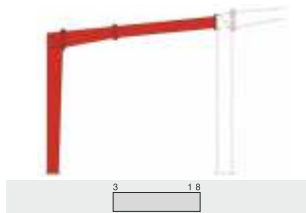
General guidelines on recommended frame types for different widths are given below:

Main Frames

■ L-CANOPY (L-CAN)



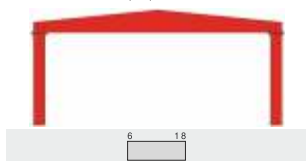
■ LEAN-TO (L-TO)



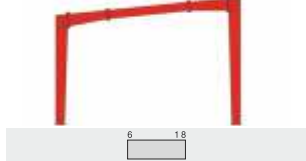
■ BUTTERFLY CANOPY (T-CAN)



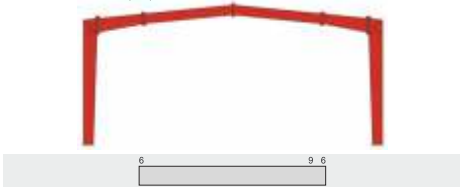
■ SPACE SAVER (SV)



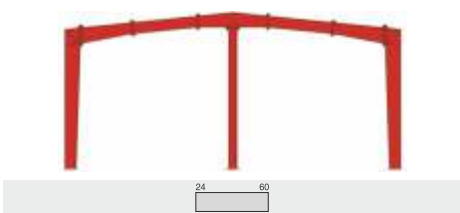
■ SINGLE SLOPE (SS)



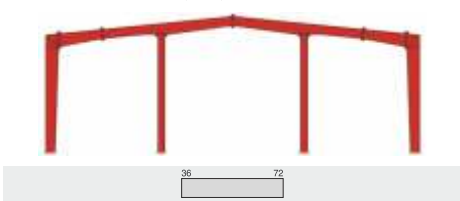
■ RIGID FRAME (RF)



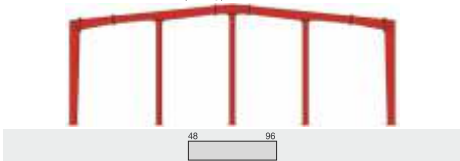
■ BEAM AND COLUMN (BC-1)



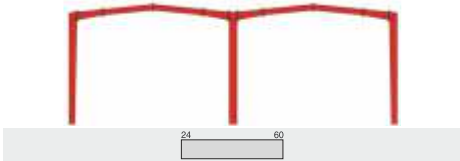
■ BEAM AND COLUMN (BC-2)



■ BEAM AND COLUMN (BC-3)



■ MULTI-SPAN (MS)



■ Suggested width range (meters) for most economical buildings
Standard Eave Height: 3M-8M; Std Bay Spacing: 6M/7.5M/9M;
Standard Loadings: Live Load: 0.5/0.6/1.0 KN/M²; Wind load: 0.75/1.0/1.25 KN/M²

Mezannines

Standard Mezzanine Floor Systems consist of galvanized profiled steel deck, joists, beams and intermediate support columns. Main beams can span in lateral directions and joists in longitudinal directions.



Crane Support Systems

Buildings can be designed to support any required crane system. Generally, overhead travelling cranes up to 15 MT are supported on brackets. For higher capacities, an independent support system is provided. Crane support for overhead travelling cranes includes brackets, beams and bracings. In addition, buildings can be designed to carry JIB - Carnes, Mono Rail Cranes, Wall Travelling Cranes, Semi - Gantry Cranes as well.



Fascias



Fascias are used for architectural purposes to conceal the gable of the building. A variety of fascias either straight or inclined can be provided. Fascias are cantilevered from the main frame columns on the sidewall and from the wind columns on the end wall. Flush Fascias or Parapet Fascias can also be provided.

Kirby provides fascias specially designed to your requirements. These fascias can have vertical, horizontal or curved sheeting to enhance the architectural look of your building.

Canopies



Wall canopies over doors and windows at sidewall or end wall are available.

Sidewall canopies are supplied without soffit panel and end wall roof extension canopies are supplied with K.R. soffit panel unless noted otherwise.

End wall roof extension canopies are not to be supplied with soffit panel if the building remains open all around. Canopy brace angle should be supplied for bay spacings over 7000 mm or as required.

Trusses

The KIRBY Truss System is one of the company’s most popular and highly economical products. It is a rigid structure, ideal for large span roof systems, multiple bay buildings and as mezzanine floor framing.

Significant reductions in building heights are possible by running service pipes/ducts through the trusses. Foundation costs also are reduced due to fewer columns being required to support larger spans.

The KIRBY Truss System structures are individually designed to meet the specific requirements of each building and are fabricated utilizing high quality efficient fixtures. The system allows for easy erection as all connections are field bolted. Except for field splices on very large spans, no site welding is required.



Curved Beams (Segmental or Continuous)

Kirby provides curved sections with variable depth and tapered members and capability of providing the curvature in 3 dimensions.

Flange ranges from 125 mm x 5 mm to 400 mm x 16 mm, and Depth ranges from 200 mm to 1200 mm



SECONDARY MEMBERS

Secondary structural framing refers to purlins, girts, eave struts, wind bracing, flange bracing, base angles, clips and other miscellaneous structural parts.

Purlins, girts and eave struts are cold form steel members which have a minimum yield strength of 345 MPa (50,000 psi) and will conform to the physical specifications of ASTM A1011 (Grade 50) or ASTM A-653 (Grade 50).

Purlins & Girts

Purlins and girts are roll formed Z sections, 200 mm deep with 64 mm flanges shall have a 16 mm stiffening lip formed at 45° to the flange



Eave Strut

Eave struts are 200 mm deep with a 104 mm wide top flange, a 118 mm wide bottom flange, both are formed parallel to the roof slope. Each flange has a 24 mm stiffener lip. Structural members are located along the sidewall; at the intersection of the planes of the roof and wall. It is constructed from cold formed 'C' sections and is rolled to suit the roof slope. This member transmit longitudinal wind force on the end walls from roof brace rods to wall brace rods.



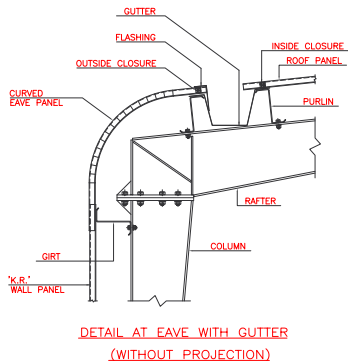
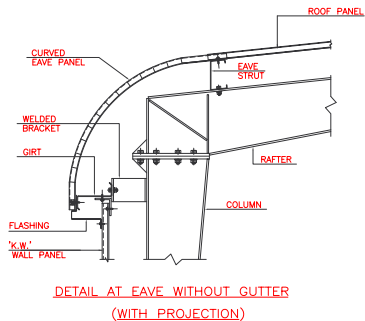
C-Section

C- Sections are 200 mm deep with a 100 mm flange. The flanges are perpendicular to the web and have a 24 mm stiffening lip.



Curved Eaves

Curve Eaves can transform the look of any building. Curved canopies and walkways provide an inviting entryway into commercial establishments. Curved eaves eliminate seam lines and provide a smooth line for the eye to follow. Our crimping-curving process increases the rigidity of the Curved panels making this choice of panels not only visually appealing but also practically durable.



Open Web Joists

The Open Web Steel Joist is a secondary steel truss member fabricated from crimped angles welded onto top and bottom chords. The elements of the open web joist are made of hot rolled as well as cold formed Grade 50 steel. Open Web Steel Joists are used as mezzanine joists, roof purlins, among others.

Advantages

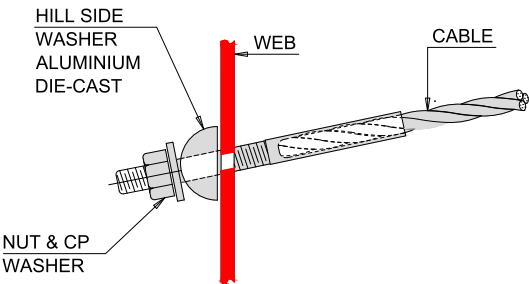
- 1. Offers an economical solution for long span carrying heavy load or light load compared to conventional steel structure.
- 2. Allows more clearance to the building by minimizing the mezzanine overall depth by designing beam at the short direction and the joists at the long direction without increasing the weight.
- 3. Ducts and mechanical accessories can be installed in between the web openings.
- 4. Cambering prevents tiles, partitions or any other delicate finishing from cracks by maintaining the finish floor level straight.



Bracing Systems

Cable Bracing

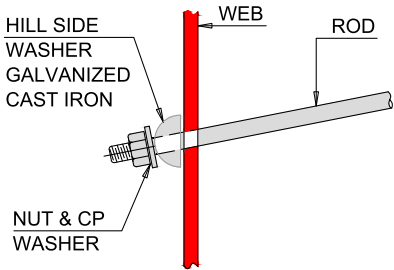
This member is designed to ensure the stability of the building against forces in the longitudinal and lateral direction due to wind, cranes, and earthquakes. It is made of a cable which is forged into a rod terminal and this arrangement is then fixed on a structure using a hill side washer, nut washer and a nut.



CABLE END CONNECTION

Rod Bracing

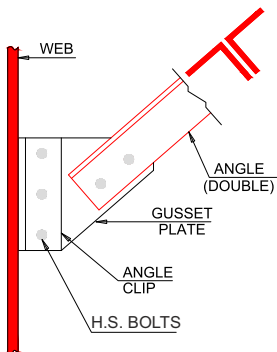
Rod bracing shall have a minimum yield strength of 250MPa (36,000 psi) and will conform to the physical specifications of ASTM A-36 or equivalent.



BRACE ROD CONNECTION

Angle Bracing

Angle Bracings are used to withstand the actions of longitudinal forces (tension only). These angles shall have minimum yield of 250 Mpa(36,000 psi) or 345 Mpa(50,000 psi)



ANGLE BRACE CONNECTION

CLADDING SYSTEMS

Panel Profiles

Kirby standard steel panel are available in 26 or 24 gauge thickness and have a minimum yield strength of 550 MPa. Steel panels are hot dipped and galvanized with zinc or zinc-aluminium coating. Galvanized materials conform to G90 for 275 grams per square metre according to ASTM A653. Zinc - Aluminium coated materials conform to AZ150 according to ASTM A792.

Kirby panels are prepared with a multilayered coating system to ensure long life and optimum coating adherence. The base material is pretreated, before applying a corrosion resistant primer and top coat. The combined thickness of the painted film is 25 microns on the front side and 12 microns on the reverse side.

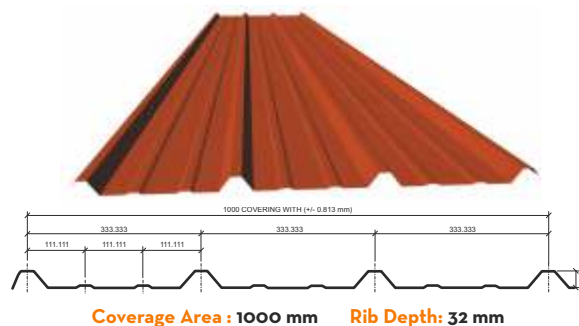
Kirby Roof (KR)

Kirby Roof profile is strong and cost effective and was developed specifically for roofing applications. The bearing leg design permits easier installation and maintenance, support thicker layers of insulation and allows easier curvature for a visually appealing finish

KR 32

This profile is having pitch of 333 mm and depth of 32 mm. It is available for 345 MPa coil in 26 GA and 24 GA thicknesses.

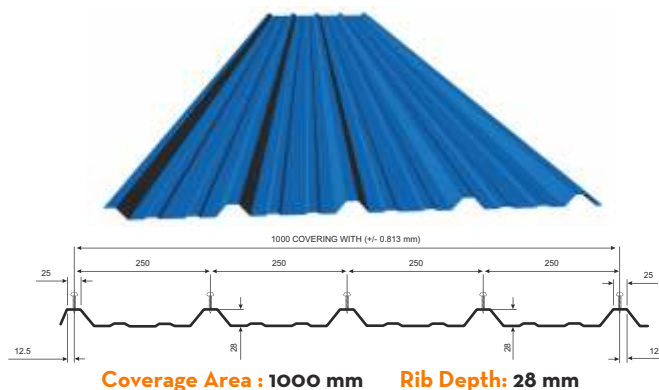
Coverage Area: 1000 mm
Rib Depth: 32 mm



KR 250/28 (India region only)

This profile is having pitch of 250 mm and depth of 28 mm. It is available for 345 MPa and 550 MPa coils in 26 GA, 25 GA and 24 GA thicknesses.

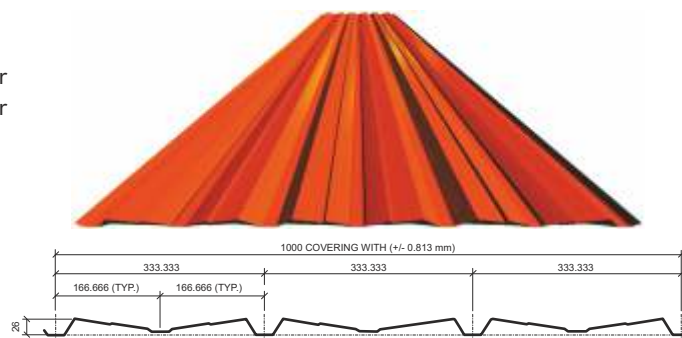
Coverage Area: 1000 mm
Rib Depth: 28 mm



Kirby Wall (KW)

Kirby Wall is a cost effective, partially concealed fastener panel with a sculptured valley shape between the major ribs for a superior architectural look for external walls.

Coverage Area: 1000 mm
Rib Depth: 26 mm

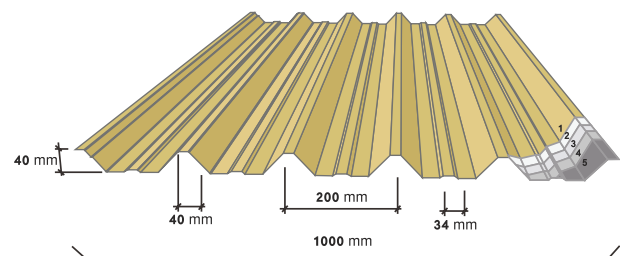


Kirby Cladding Systems (KCS)

(Middle East & Africa region only)

KCS profile offers extra strong resistance to wind & gravitational loads and can be used for roofing, wall and decking applications. KCS was developed by Kirby specifically to meet more stringent design load requirements.

Coverage Area: 1000mm
 Rib Depth: 40 mm

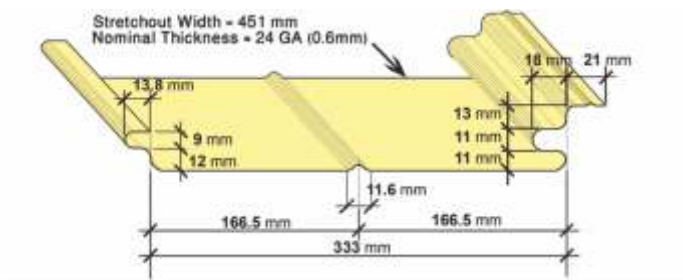


Kirby Concealed Fastener

(Middle East & Africa region only)

The concealed fastener single skin cladding type KC is used for exterior wall cladding and internal wall and roof liners. The panels have interlocking tongue and groove joints.

Coverage Area: 1000mm

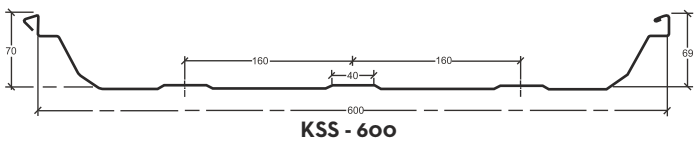
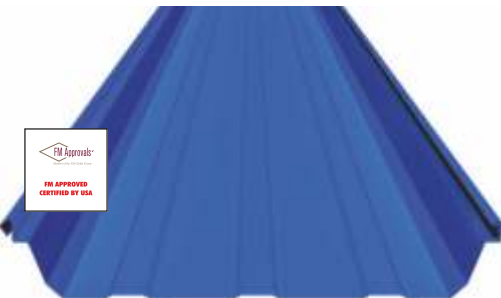


Standing Seam Roofing System

KSS 600 (India region only)

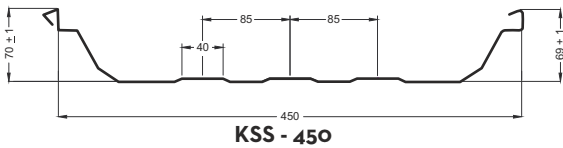
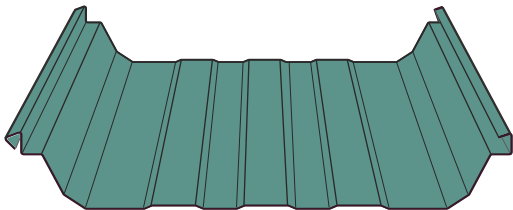
Kirby Standing Seam Panel systems (KSS-600), with double lock standing seam, eliminates the risk of leakage at fasteners at side and end laps due to the concealed fastening system and provides excellent protection in all weather conditions. It assures consistent weather tightness with virtually maintenance free performance for many years. The

KSS-600 roof system is the most specified standing seam roof system in the market since many years. Kirby's KSS-600 Standing Seam Roof System has received the prestigious Factory Mutual Approval (FM approval) from USA. The FM approval is a certification for the high product quality and reliability of this roofing system.



KSS 450

(India and South East Asia region only)

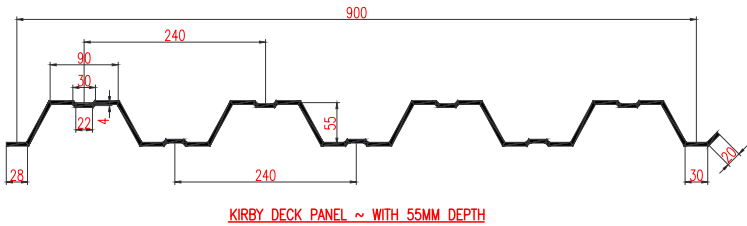
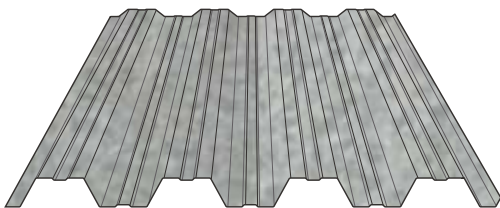


Kirby Deck

Kirby Deck Panels are used in high rise buildings, office buildings and mezzanine floors in industrial buildings and warehouses. These decks can be used as a permanent shuttering to support the wet concrete and help in creating composite slabs and floor beams. The continuous flange stiffeners and deep embossments increase the load carrying capacities. They provide for a stable and rigid working platform without any need of propping. These panels are roll formed from hot dip galvanized coils of 345 MPa with thickness starting from 0.6 mm to 1.2 mm.

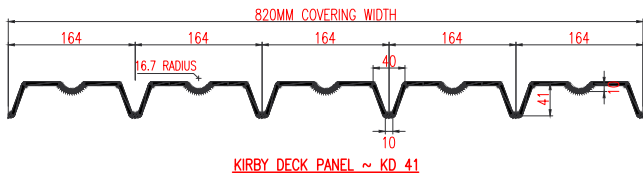
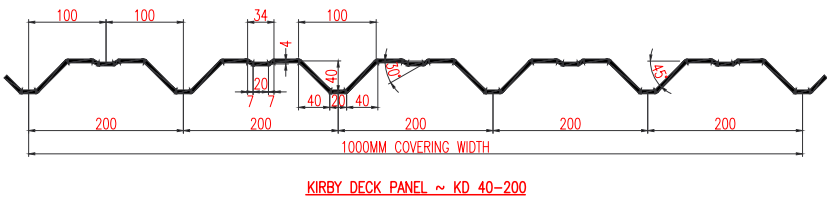
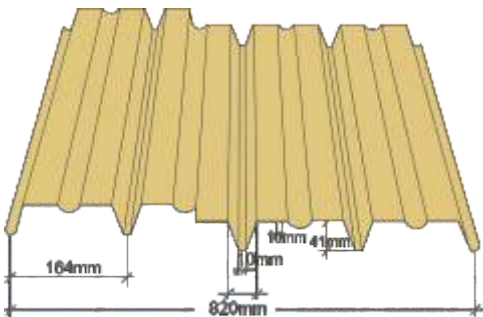
With 55 mm depth

(South East Asia region only)



With 40 mm depth and 41 mm depth

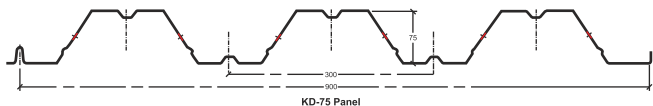
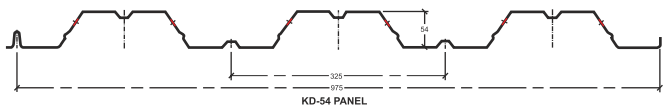
(Middle East & Africa region only)



With 54 mm depth & 75 mm depth (India region only)

Profile steel decking brings greater economy and freedom in design of intermediate floors, both as permanent shuttering and composite concrete floor / composite beams with excellent composite performance. The deck panels are roll formed from hot dip galvanized coils of 345 Mpa, with thickness starting from 0.6 mm to 1.2 mm. These panels are available in 54 mm and 75 mm depth with span of 975 mm for KCD 54 and 900 mm for KCD 75 resulting in lesser overlaps. Some of the applications are high rise buildings - residential / commercial, power plants, offices, mezzanine floors in industrial buildings and warehouses.

Deep deck when used only as permanent shuttering saves up to 15% of steel and when used as composite floors saves up to 25% of steel in comparison to normal decking. Deep deck when used as a composite slab / beam helps in reducing the overall thickness of the floor thereby reducing the height of the high rise building. They can be designed for upto 1.5 to 2 hrs of fire rating when used in composite floors.

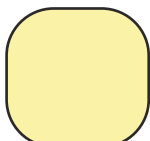


Kirby Standard Colors

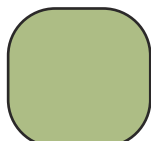
Kirby offers a wide range of top coats including polyester, silicone-modified polyester and

Polyvinylfluoride (PVF2) in six standard color options. We can support requirements for RAL colors on request.

Middle East & Africa / South East Asia



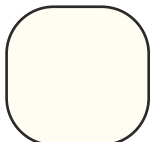
Sun Gold



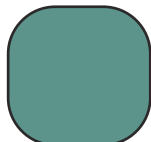
Autumn Green



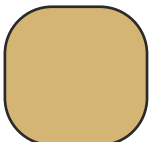
Galvalume/AluZinc



Arctic White

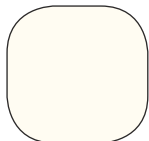


Caribbean Blue

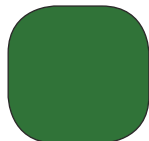


Desert Beige

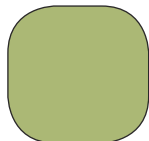
Indian Sub-Continent



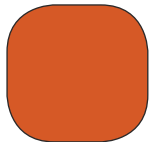
Arctic White



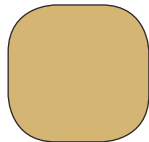
Cottage Green



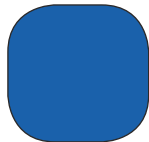
Autumn Green



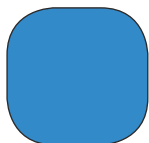
Tile Red



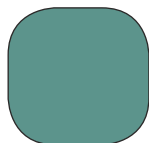
Desert Beige



Traffic Blue
(RAL 5017)



Sky Blue
(RAL 5012)



Caribbean Blue

Insulation (Middle East & Africa region only)

Mineral Wool

Mineral wool is made from mineral rock. It is used for insulation and fire-protection of tanks, boilers, pipes, equipments and acoustic system, density: 50 - 200kg/m³ • Our associate company produces mineral wool under **Rockwool** brand.

Mineral wool are designed for a wide range of applications, at both high and low service temperatures. It can be used on flat or slightly curved surfaces for thermal and acoustic insulation. They are also suitable for thermal insulation of roofs, walls & ceilings where fire resistance is the key requirement.

| SPECIFICATIONS | MINERAL WOOL | GLASSWOOL |
|------------------------------|---------------------------|----------------------------|
| Density (kg/m ³) | 50, 60, 80, 100, 120, 150 | 10, 12, 16, 24, 32, 40, 64 |
| Thickness (mm) | 30, 50, 80, 100 | 25, 30, 50 |
| Length (mm) | 1200 | 30000 |
| Width (mm) | 600 | 1200 |
| Inner Diameter Range (mm) | 600 | |
| Fire - proof | Grade A | Grade A |
| Damp - proof | 95% | 98.50% |
| Applied Temperature Range | 240°C - 650°C | 240°C - 650°C |

Air Bubbles (South East Asia region only)

Air bubbles is made of typical polyethylene bubbles warps sandwiched between two layers of pure aluminum. The light silver surfaces reflect radiant heat while the bubbles prevent heat conduction and

support fast heat emittance. Besides, the bubble warps system sound wave, simultaneously get rid of reflective sound wave due to the hill surfaces and unstable shapes.

| SPECIFICATIONS | |
|--------------------------|--|
| Thickness | 4 mm |
| Thermal Insulation (FIB) | 46.6°C / 25.2°C |
| Sound Insulation (FIB) | 94 dB/ 48.1 dB (1000 Hz) |
| Temperature Range | - 50°C - 110 °C |
| Roll Width | 155 cm |
| Roll Length | 40 m (*) |
| Water Vapor Permeability | 0.0 g/m ² /24hrs |
| Tensile Strength | 23 (Min) - 29 (Max) Kg/mm ² |
| Elongation | 90% (Min) - 130% (Max) |
| Thermal Shrinkage | 1.1% (Min) - 1.7% (Max) |

* Customer can order long of roll

Polyethylene Foam

(South East Asia region only)

Polyethylene foam is an elastic product consisting all properties: thermal insulation (with three modes: blocking heat, reflecting 97% radiant heat, convection heat), noise insulation and strong.

It is produced from polymerization processing and MDI as main ingredients, they have closed cell structure.

Dimension of closed cell is very small and this leads to excellent thermal and sound insulation, negligible water absorption.

This closed cell have more outstanding thermal insulation properties in comparison with glasswool, air bubbles, vulcanized rubber or other insulation.

| SPECIFICATIONS | |
|--------------------------|-----------------------------|
| Thickness | 3mm - 100mm |
| Density | 31.2 Kg/m ³ |
| Dissipation of smoke | 30m |
| Thermal conductivity | 0.032 W/mK |
| Temperature range | -50 °C +/- 100 °C |
| Ability to ignite | 500 °C |
| Roll width | 100cm |
| Roll length | 50 - 100m |
| Water vapor permeability | 0.0 g/m ² /24hrs |
| Tensile strength | 325kPa |
| Elongation | 90% (min) - 130% (max) |
| Thermal shrinkage | 1.1% (min) - 1.7% (max) |

Polyurethane Foam

Polyurethane Foams (PUR or PU) are used worldwide as insulation against temperature extremes. In the Middle-East, the building industry has adopted polyurethane insulation as one of the best materials to resist heat on building interior and to save energy. Polyurethanes are used in the manufacture of nonflexible, high resilience foam seating such as Kirbys insulated sandwich panels.

Kirbys rigid polyurethane foam is manufactured by combining polyol mixture and di- or polyisocyanate components by the press injection method between facings. It has excellent thermal conductivity and very high compressive strength as compared to other insulation materials.

| POLYURETHANE FOAM PROPERTIES | UNIT | B3 CLASS | B2 CLASS |
|--|-------------------|----------|----------|
| Moulded density | kg/m ³ | 40-42 | 42-44 |
| Compressive stress @10% relative deformation | kPa | > 100 | > 90 |
| Thermal conductivity (K-Value) @ 25 °C | W/m°K | 0.020 | 0.022 |
| Dimensional stability +70°C & -30°C for 24 Hours | % | 1% max | 1% max |
| Flammability (Fire Rating) | As per DIN 4102-1 | Class B3 | Class B2 |

Kirby Insulated Sandwich Panels (Middle East & Africa region only)

Kirby insulated sandwich panels are a cost effective solution for long lasting, modular construction of roofing, exterior wall and internal partitions.

Strong and versatile, Kirby insulated sandwich panels allow for fast on-site assembly and simple retrofit of existing buildings. Further, Kirby Insulated Sandwich

Panels deliver substantial savings on equipment and operation for the heating and cooling of buildings. Finally, Kirby insulated sandwich panels are durable and resistant to harsh weather conditions, reducing the recurring maintenance cost of the building.

Polyurethane Insulated Panel

Kirby sandwich panels use high pressure injected polyurethane foam that is CFC free, self-extinguishing, can withstand intense heat, contains extreme low temperature and offers very low rates for water absorption and vapor transmission.

The injected foam also provides excellent adhesion to the panels sheeting.



Insulation Material Properties and Performance

| INSULATION DATA: THERMAL CONDUCTIVITY AT 25 °C MEAN TEMPERATURE | | |
|--|----------------------|----------------------|
| | POLYURETHANE | FIBERGLASS |
| Density | 40 Kg/m ³ | 12 Kg/m ³ |
| BTU/ft ² h.°F | 0.140 | 0.290 |
| KCAL/m ² h.°C | 0.017 | 0.035 |
| W/m ² .K | 0.0198 | 0.041 |

Product Range

Kirby Insulated Sandwich Panels offer highly durable, light weight, sound proof panels which are quick to install or re-arrange.

Kirby Insulated Sandwich Panels can be applied to new metal building constructions, to existing substructures, or over an existing roof or wall that is in need of repair and also provide higher insulation values.

It provides smooth visual finish for your external and internal walls.

We offer five profiles of insulated sandwich panels - Kirby Roofing Insulated Panel (KRIP), Kirby Wall Insulated Panel (KWIP), Kirby Concealed Fastener Insulated Panel (KCIP), Kirby Fiber Glass Insulated panel (KFGIP) and Kirby Cladding & Sheeting Insulated panels (KCSIP).

The insulated sandwich panels use the regular Kirby panel profiles, and are available in Aluminum and Steel material and Kirby standard colors.

Kirby Roof Insulated Panel (KRIP)

This panel offers long life, low maintenance and excellent weather tightness. Overlap joints eliminates the possibility of water leakage along side joints. Larger panel size reduces the number of joints. These

can be applied on new metal building construction or even applied on a substructure, over an existing conventional roof.



| THERMAL HEAT TRANSMISSION (U-VALUE) FOR POLYURETHANE INSULATED PANEL | | | | | |
|---|---------|---------|---------|---------|----------|
| | KRIP 40 | KRIP 50 | KRIP 60 | KRIP 75 | KRIP 100 |
| BTU/ft²h. °F | 0.085 | 0.070 | 0.059 | 0.048 | 0.037 |
| KCAL/m²h. °C | 0.414 | 0.340 | 0.288 | 0.234 | 0.179 |
| W/m².K | 0.482 | 0.396 | 0.335 | 0.273 | 0.208 |

Kirby Wall Insulated Panel (KWIP)

These are used where creation of a cost efficient controlled environment is valued. KWIP can be used as external walls for commercial buildings or industrial applications, with new metal building

construction or overlaid on to existing conventional construction to produce a renovated appearance and provide additional higher insulation values.



| THERMAL HEAT TRANSMISSION (U-VALUE) FOR POLYURETHANE INSULATED PANEL | | | | |
|---|---------|---------|---------|---------|
| | KWIP 40 | KWIP 50 | KWIP 65 | KWIP 75 |
| BTU/ft²h. °F | 0.071 | 0.060 | 0.049 | 0.043 |
| KCAL/m²h. °C | 0.347 | 0.293 | 0.238 | 0.211 |
| W/m².K | 0.404 | 0.341 | 0.277 | 0.246 |

Concealed Fastener Sandwich Panel Cladding Type KCIP

The Kirby concealed fastener insulated panel cladding system KCIP consists of insulated panels with generally flat outer and inner facings. The panels have interlocking tongue and groove joints with fasteners concealed within the joints. The specification of the panel facings is same as for

single skin KC panels. This system has very low heat transmission values, a high strength to weight ratio and are quick to assemble, hence provide a cost effective solution on a wide range of cladding applications.



| THERMAL HEAT TRANSMISSION (U-VALUE) FOR POLYURETHANE INSULATED PANEL | | | |
|---|---------|---------|----------|
| | KCIP 50 | KCIP 60 | KCIP 100 |
| BTU/ft²h. °F | 0.077 | 0.065 | 0.038 |
| KCAL/M²K | 0.378 | 0.315 | 0.189 |
| WATT/M².K | 0.440 | 0.367 | 0.220 |

Fiber Glass Insulated Panel

Fiber Glass insulation is a thermal and acoustic insulation that consists of intertwined and flexible glass fibers, which enables it to package air, resulting in low density that can be varied through compression.

It is fire safe and CFC free which does not emit toxic smoke. Fiber Glass insulation is laminated to steel facings with special chemical glue, completely filling the insulation cavity.

| THERMAL HEAT TRANSMISSION FOR FIBER GLASS INSULATION (U-VALUES) | | | | |
|--|-------------|---------|---------|----------|
| | | KFGIP50 | KFGIP75 | KFGIP100 |
| At Roof | KCAL/m²h.°C | 0.500 | 0.371 | 0.295 |
| | BTU/ft²h.°f | 0.102 | 0.076 | 0.06 |
| At Wall | KCAL/m²h.°C | 0.548 | 0.397 | 0.311 |
| | BTU/ft²h.°f | 0.120 | 0.081 | 0.064 |

Trims / Flashing

Kirby Standard trims & flashing match the same specification as panel materials. They are furnished for rakes, corners, eaves, and framed openings to provide weather tightness and a smooth finished appearance.

We also supply a wide range of coordinated accessories for complete insulated panel roof and

walls installations, consists of translucent panels, ventilators, roof curbs, roof jacks, doors (personnel, sliding and roll-up), windows and louvers.

Panels can be specially ordered to meet a wide range of base metal specification, coating, finish, color and thickness.

ACCESSORIES

Roofing Accessories

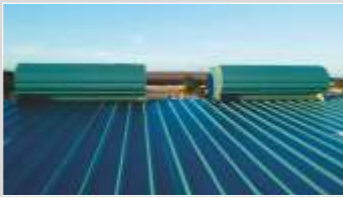


KRV 300

RIDGE VENTILATORS

These are available with bird screen and with a standard length of 3000mm and can be supplied as single or continuous modules.

Throat widths are available in 300mm with mechanical damper and 600mm without damper.



KRV 600



SKYLIGHTS AND WALL LIGHTS

Made of translucent GRP to match Kirby roof and wall panels, with an estimated light transmitting capacity of 60%.



ROOF JACKS

Enclosure for pipes or stacks projecting from the roof; 2mm thick GRP to fit Kirby roof panel.

Available in opening sizes for 50 mm to 300 mm diameter.



ROOF CURBS

Enclosure for ducts or other roof projections. 2 mm thick glass fibre reinforced plastic fitting Kirby Roof panels.

Available in opening sizes 600 mm, 900 mm and 1200 mm squares.



POWERED VENTILATORS

Kirby C whirlwind low silhouette extract ventilator with spun aluminum non-return shutter and one piece base and throat. Mounted on GRP roof curb moulded to suit Kirby Roof panels.



TURBO VENTS

Turbo ventilators are round metal vents with fins in them and are powered by the wind to rotate for creation of effective ventilation to suck out the stale hot air from inside of the building. These are flexible to install anywhere on the roof without any structural changes.

Windows and Louvers



LOUVERS

Adjustable louvers are with overlapping blades allowing free air flow. Size is 1 m x 1 m. incorporating insect screen, hand crank and blade adjustment lever.



SAND TRAP LOUVERS

This louver consists of different form of flashings arrangement in a predetermined manner in order to create a sand trap. The dual advantage of the sand trap louver is not only to help in natural ventilation but also act as a sand trap at the same time sizes is 1 m x 1.0 m and 2 m x 1.0m



ALUMINIUM WINDOWS

Designed for installation with Kirby wall panel, double slide, self flashing with pre-glazed clear glass and removable half insect screen. Standard size is 1 m x 1 m. Multiple windows can be formed by joining the jamb fins together.

Doors



SLIDING DOORS (SINGLE OR DOUBLE LEAF)

3 m, 4 m and 5 m wide and 3 m to 5.5 m high. Other sizes are available on special order.



WALK DOORS(SINGLE OR DOUBLE)

915 mm or 1830 mm wide x 2134 mm high made of 20 gauge electrogalvanised steel with a core of polyurethane insulation. Door fixture is provided.



AIRCRAFT HANGAR DOORS

Kirby provides solutions for special applications such as aircraft hangars, customized hangar doors and framing, customized support systems for special equipment and maintenance cranes.

Other Accessories



PRIMARY & SECONDARY BOLTS

High strength bolts used for main connections are manufactured as per ASTM A-325M. Material finish is Electro-Galvanized, yellow passivated. Mild steel bolts used for secondary connections are as per ASTM A-307, provided in plain finish.



SHEETING FASTENERS

Self-drilling screws are No.14 Type A, with 19mm EPDM sealing washers with hardened drill points. Screws are available in carbon steel or stainless steel (bi-metal).Material specification for the steel wire is as per ASTM A510 minimum grade 1018.



SEALANTS

Silicon sealant and rope sealants are used to provide a weather seal and has excellent gap-filling properties. These offer excellent adhesion, long life, airtight and water tight sealing solutions to all our accessories.



STRUCTURAL STEEL

Kirby Structural Steel division designs & supplies customized workshop fabricated Hot Rolled & Welded steel structures for applications such as Heavy Industries, Power Plants, Oil & Gas, Petrochemical Industry, High Rise Buildings –

Commercial & Residential, Airport Terminal Buildings and other specialized structures. We are one of the most innovative steel structures fabricators and are always looking to enhance our range of products and services including project execution.

| | ON SITE FABRICATION | WORKSHOP FABRICATION |
|-------------------|---|---|
| Practice | Preferred in heavy industries | Global model. Applicable for industrial, Commercial & Infrastructure segment. |
| Time | More time for construction | Less time for construction |
| Quality & Wastage | Quality issues due to human component & high wastage due to unorganized nature | Factory controlled environment leading to uniform quality & minimal wastage |
| Site Limitations | Cannot be employed in sites with Inflammatory restrictions or building construction sites | No such restriction |
| Labor | Availability of skilled labor across geographies is a constraint | Easier to maintain a pool of skilled workforce for in-house fabrication |

Structural Steel Delivery Models

The structural steel has traditionally been fabricated on-site mainly due to lack of infrastructure for transporting heavy sections from an off-site workshop to project site. Moreover, there is often insufficient space at a site to set up a fabrication workshop and skilled labor is available at a premium. These issues can always be mitigated by workshop made steel structures which are proving to be more efficient in terms of quality and timelines. This helps to reduce the time and cost of execution, and is expected to fuel the demand for steel structures in future. The speed of execution is a critical factor for

any large industrial or infrastructure project & is a driver for shift towards the factory made fabrication. The projects that took longer period to complete a few years ago are being executed in much lesser time thereby resulting in considerable amount of cost savings. Faster construction will propel the industry towards factory made Steel Structures and owners and consultants will realize the advantages in terms of uniformity of finish and better quality, as steel producers align their rolling sections as per the design needs.

Industrial



Steel Plants
Metal Smelters
Cement Plants
Chemical Plants
Fertilizers and Petrochem
Oil & Gas Structures etc.

Infrastructure



Power Plants
Airport Terminal Buildings
Railway Bridges
Transmission Towers
Telecom Towers
Bridge Girders

Commercial Buildings



High Rise Buildings –
Commercial & Residential
Shopping Malls
Multiplexes, etc.

Engineering

The engineering department uses the latest versions of internationally renowned industry standard 2D and 3D softwares for designing and detailing.

Kirby upholds its position at the cutting edge of the industry due to its commitment to quality and

customer satisfaction. Skilled structural engineers using the very latest in computerized engineering design and detailing systems permit the selection of the most economical, accurate and efficient framing and cladding systems.

Design Software

The Design / Engineering Department are fully computerized, utilizing the latest software packages to enable them to produce the most economical structures in the shortest time possible.

The software packages most frequently used are: STAAD PRO, PROKON, AUTO CAD, BOCAD, ETABS, and TEKLA STRUCTURES.

Welding

All welding operations are carried out in accordance with Kirby's approved welding procedures by independently qualified welders. Kirby welders are trained to perform the welding processes SAW, SMAW & FCAW and are AWS D1.1 qualified for various positions including 6GR for T, K, and Y connections. During the welding operation all welders are continually monitored to ensure that the welding parameters, as detailed in the relevant

procedure, are adhered to and that the level of workmanship is maintained.

All items, after completion of welding are visually inspected against the requirements of AWS D 1.1 for compliance. Any visual discontinuity is marked and repaired immediately. Only when the item has been fully passed and accepted it will be released to blasting and painting All welding inspections are entered onto the Piece Monitoring System.

Non Destructive Testing

Welding Inspection & Non-Destructive Testing monitoring of welding variables like voltage, amperage and welding consumables is carried out as per approved welding procedure specifications. In addition, visual inspection is carried out on 100% of each section to ensure highest quality in manufacturing.

Kirby is capable of performing UT, MPI & PT as per AWS D1.1/D1.1M requirements. Further, Kirby has the capability to carry out ultrasonic and radiography, tests and the results of all NDT examinations are entered on the Piece Monitoring System.



COLD ROLL FORMED BUILDING

Cold formed steel structures are made from structural quality sheet steel that are formed into shape either through press-braking blanks sheared from sheets or coils, or more commonly, by roll forming the steel through a series of dies.

No heat is required to form the shapes (unlike hot-rolled steel), and thus the name cold-formed steel. Cold-formed steel members and other products are thinner, lighter, and easier to produce, and typically

cost less than their hot-rolled counterparts.

CFS framing for floors and interior walls are very competitive with lumber and engineered wood products. CFS framing provides builder and consumers flexibility in design option that can not be economically accommodated using traditional framing materials (i.e., larger open space, longer spans, and doorways).

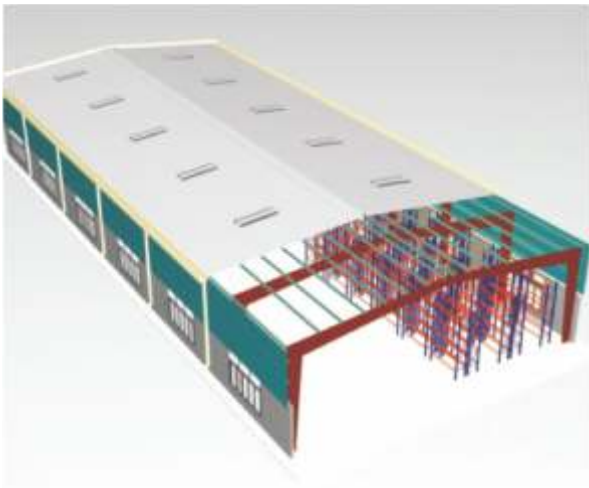
- Health Care Centres
- Community Centers
- Schools
- Site offices
- Mass Housing
- Relief Camps
- Labour Camps
- Defence Shelters
- Spans up to 15 m
- Clear height upto 3 m
- Variety of sheeting - galvalume & galvanized
- Wall Options - sheeted & block works
- Covered ceilings - roof liners
- Insulation for roof and wall
- Partition walls
- Custom designed
- Special accessories like doors, windows, ventilators, etc.

STORAGE SOLUTIONS

Kirby is a market leader in Pre Engineered Steel buildings catering to a large section of customers in the logistics, retail and various other industrial sectors. This experience has helped Kirby to understand the storage needs of its customers in a better way.

One Stop Shop

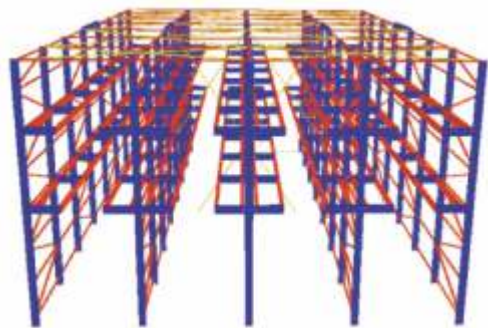
Kirby can supply the steel buildings together with the storage solutions in one project. This leads to an integrated design and project execution; simplifying the total project management. Kirby has the combined production capabilities, engineering systems and experience of PEB, Structural Steel and Storage Solutions. With its optimal use of combination of structural steel profiles, built up sections and cold rolled profiles, Kirby is your perfect partner for special design storage solutions.



Kirby design guarantees optimum space utilization, thus giving maximum storage space and a cost effective storage solution. Kirby Certified Builders ensure that the storage systems are installed to the highest possible safety standards.

Safety

Safe structure is the most important aspect of any storage system. A failure during pallet handling is a real possibility in manually operated warehouse. At Kirby, safety is the hallmark of every stage of project execution. Kirby designs and products are based on European norms which provide maximum stability to the structure minimizing the chances of collapse



Advantages Of Kirby Storage Solutions

- Designed & tested as per latest European Norms and conform to ERF/FEM recommendations.
- Products are manufactured within narrow tolerances & powder coated.
- Load bearing capacity is further ensured by Kirby's in-house functionality & load testing facility.
- High Strength Steel of ASTM A 572 Standard.
- Automatic welding that ensures constant high quality

Product Range

Pallet Racking Solutions for

- Selective
- Drive In
- Double Deep
- Mobile
- Radio Shuttle
- Stacker Crane(ASRS)
- Roof Supported Warehouse (RSW)

Mezzanines

- Rack supported
- Column supported
- Built Up

Multi Tier Shelving

- Long span
- Bolt Free



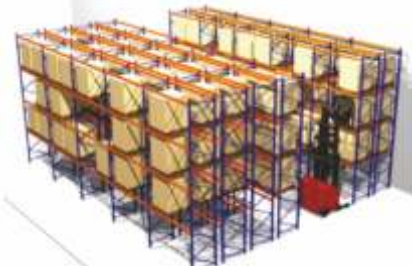
(ASRS) Pallet Racking



(Radio Shuttle) Pallet Racking



Column Supported Mezzanine



Double Deep Pallet Racking



Drive In / Drive Thru Pallet Racking



Gravity Flow Pallet Racking



High Rise Pallet Racking



Mobile Pallet Racking



Multi Tier Shelving



Rack Supported Mezzanine



Rack Supported Warehouse



Selective Pallet Racking

PROJECTS-PEB

Apollo Tyres



Location - Andhra Pradesh
Area - 160,000 sqm

MRF Limited



Location - Gujrat
Area - 95,000 sqm

Kia Motors



Location - Andhra Pradesh
Area - 50,100 sqm

Royal Enfield



Location - Tamil Nadu
Area - 100,000 sqm

Asian Paints



Location - Karnataka
Area - 23,500 sqm

Kansai Nerolac Paints



Location - Gujarat
Area - 58,000 sqm

Berger Paints



Location - Maharashtra
Area - 7,600 sqm

Fine Zeelandia



Location - Maharashtra
Area - 5,000 sqm

KPR Mills



Location - Tamil Nadu
Area - 22,000 sqm

Whirlpool of India



Location - Maharashtra
Area - 14,800 sqm

Midea India



Location - Maharashtra
Area - 62,500 sqm

OPPO India



Location - Uttar Pradesh
Area - 98,000 sqm

Salcomp Technologies



Location - Tamil Nadu
Area - 70,000 sqm

KSB Ltd



Location - Maharashtra

Area - 13,200 sqm

Ramakrishna Forgings



Location - Jharkhand

Area - 65,000 sqm

Cargill India



Location - Punjab

Area - 1,650 sqm

Shyam Sel & Power



Location - West Bengal

Area - 12,300 sqm

Adani Wilmar



Location - Gujarat

Area - 13,100 sqm

Bisleri India



Location - Karnataka

Area - 8000 sqm

Dabur India



Location - Assam

Area - 54,400 sqm

Ludhiana Beverages



Location - Punjab

Area - 42,200 sqm

Metso India



Emerson India



JCB India



Kalpataru Transmission



Chiripal Packaging



Location - Telangana

Area - 39,500 sqm

Alpla India



Location - Silvassa

Area - 24,800 sqm

Vacmet Packaging



Location - Uttar Pradesh

Area - 33,800 sqm

Meerut Packaging



Location - Uttar Pradesh

Area - 11,900 sqm

Aarush Logistics



Location - Tamil Nadu

Area - 58,800 sqm

Havells India



Location - Rajasthan

Area - 19,500 sqm

Graziano Transmission



Location - Gujarat

Area - 25,700 sqm

Hitachi ABB Power Grids



Location - TN, Chattisgarh

Area - 22,400 sqm

Nitchem Life Sciences



Location - Uttarakhand

Area - 11,100 sqm

Cipla Ltd



Location - Sikkim

Area - 29,900 sqm

Aleor Dermaceuticals



Location - Gujarat

Area - 11,200 sqm

Sun Pharma



Location - Gujarat

Area - 4,100 sqm

Dr. Reddys Laboratoris



Location - Andhra Pradesh

Area - 60,000 sqm

Exide Industries



Location - West Bengal

Area - 32,000 sqm

BASF Catalysts



Location - Tamil Nadu

Area - 15,900 sqm

Flipkart / Walmart



GLS Logistics



Logigo Developers



KSH Infra



Indospace Logistics



Location - Maharashtra

Area - 250,000 sqm

Shristi Cargo



Location - New Delhi

Area - 15,400 sqm

Reliance Retail



Location - Tamil Nadu

Area - 42,800 sqm

Zeromile Warehousing



Location - Telangana

Area - 65,000 sqm

Gati Realtors



Future Retail



KSR Motors



Hindalco



Metro Cash & Carry



Walmart India



IMTMA Exhibition Centre



Saroagi Builders Aircraft Hangar



Location - West Bengal
Area - 18,600 sqm

L&T Hyderabad Metro



Location - Telangana
Area - 150,000 sqm

Bengaluru Metro



Location - Karnataka
Area - 61,500

JSW Steel Office Building



Location - Maharashtra
Area - 4,000 sqm

STRUCTURAL STEEL

CtrlS Data Center



Location - Maharashtra
G+12 Data Center Building

Suntec



Location - Kerala
G+13 Office Building

Advant IT Park



Location - Uttar Pradesh
Shopping Mall

Phoenix Infocity



Location - Telangana
G+20 Office Building

BL Kashyap



Location - Telangana
G+5 Office Building

Gas Point



Location - Maharashtra
G+13 Office cum Residential Building

Alstom Bharat Forge



JSW Steel



Arunachal University



Prozone Shopping Mall



STORAGE SOLUTIONS

Reliance Project - Uttar Pradesh



Flipkart / Walmart - West Bengal



Future Supply Chain - Pan India



Integra Urban (Amazon) - Haryana



Future Supply Chain - Pan India



Pipavav Shipyard - Gujarat



TI Cycles - Punjab



Amazon India - Pan India



Sanathan Textiles - Silvassa
(Rack Supported Building)



Future Supply Chain - Pan India
(With Mezzanine)

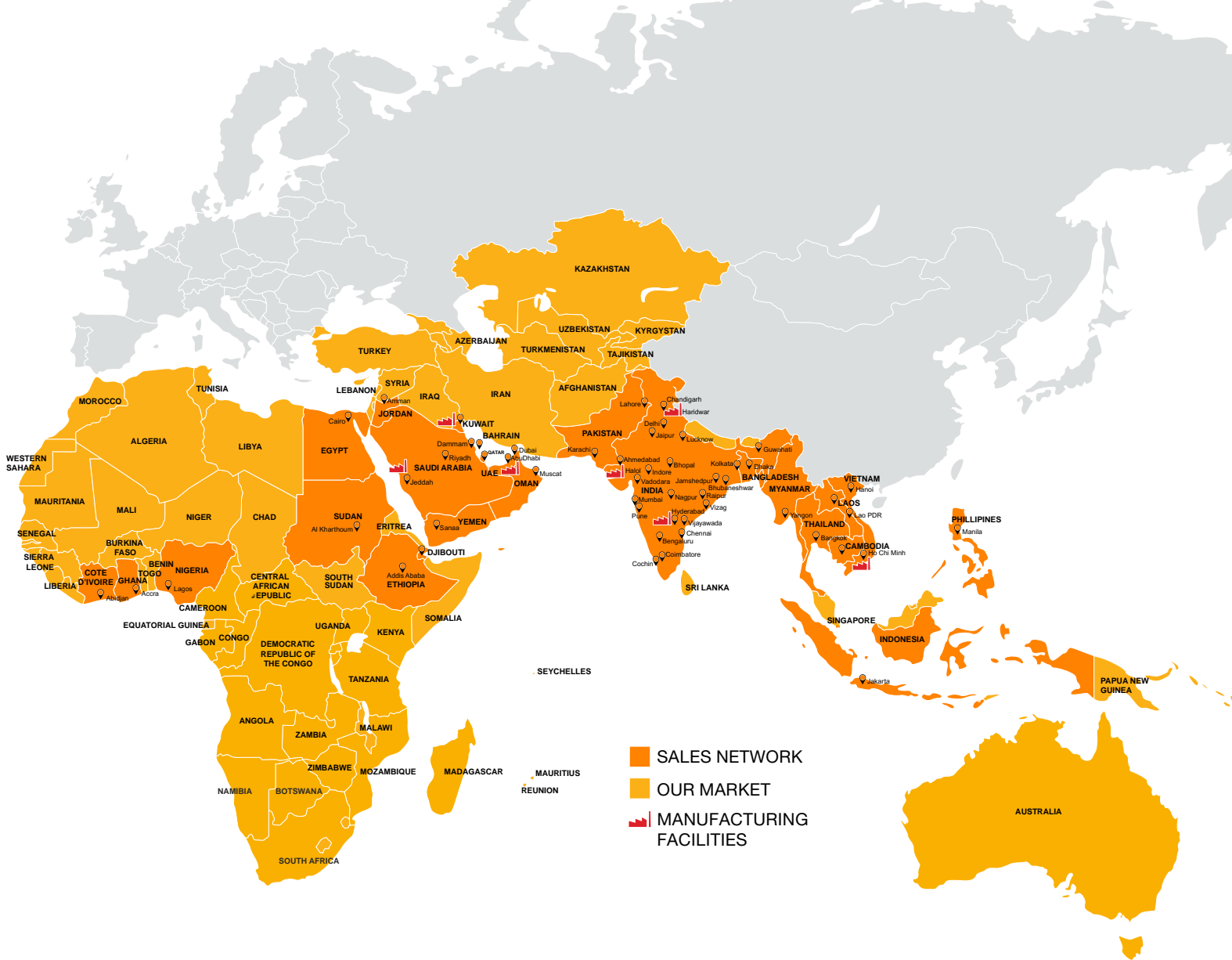


Amazon India - Pan India



Amazon India - Pan India





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