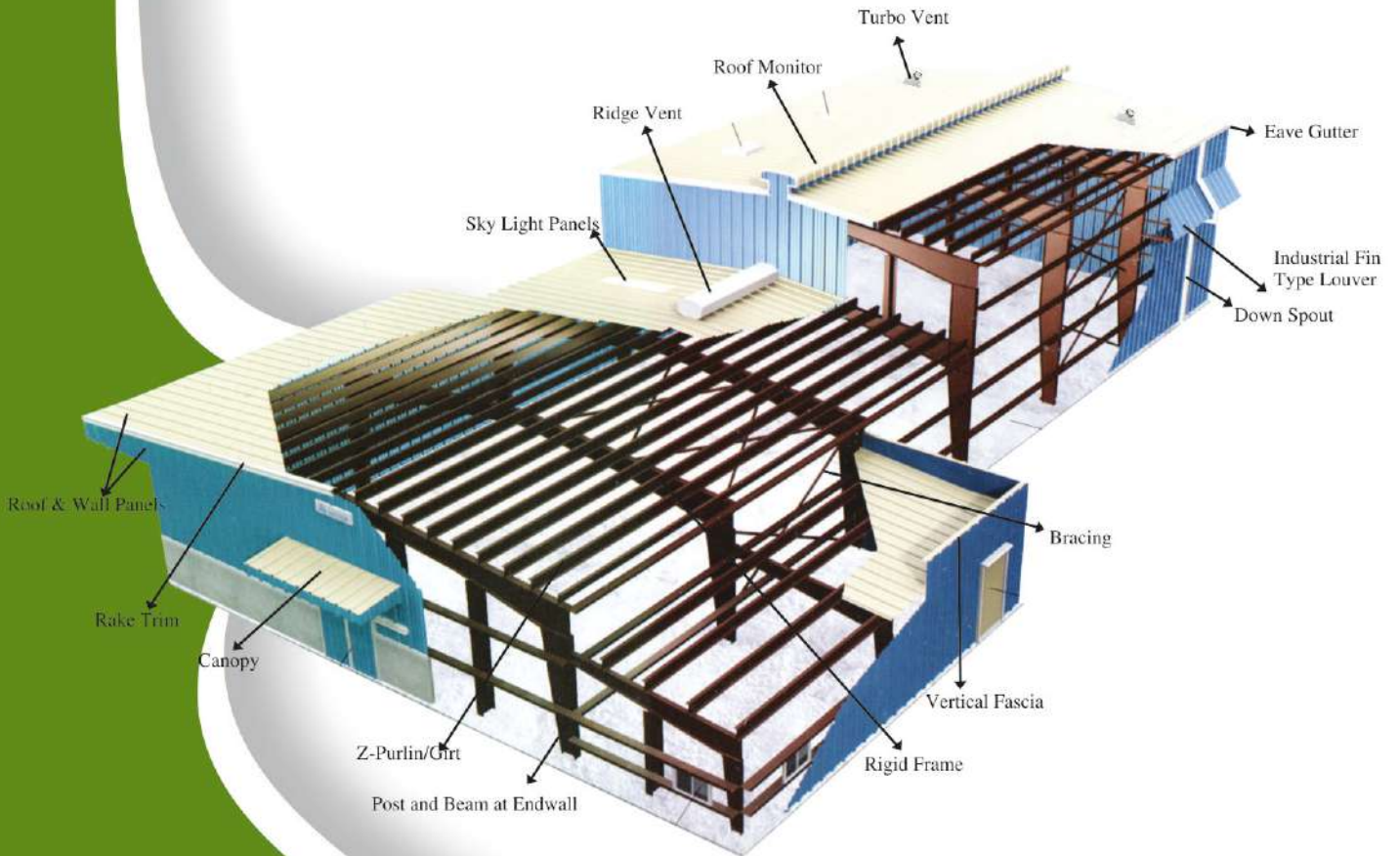




*Structuring Dreams from Steel*

# Bansal Roofing Products Ltd.

## Pre-Engineered Building



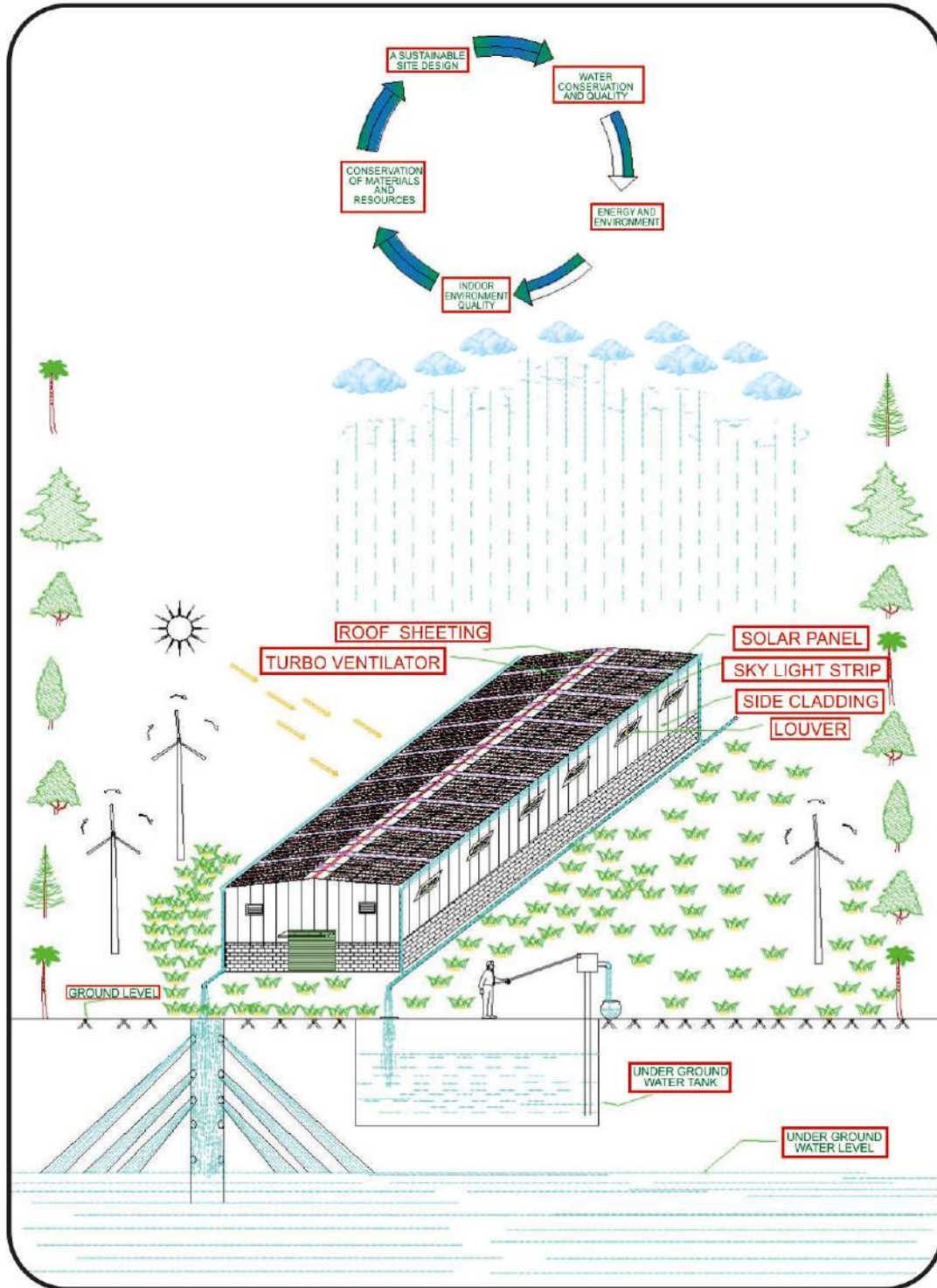
Call Now : +91 99250 50913  
Email : [inquiry@bansalroofing.com](mailto:inquiry@bansalroofing.com)  
[www.bansalroofing.com](http://www.bansalroofing.com)

An ISO 9001-2015 Certified Company



*Lets go green to get our globe clean*

## OVERVIEW ELEMENTS OF A GREEN BUILDING PROJECT





Structuring Dreams from Steel

## Bansal Roofing Products Ltd.

An ISO 9001-2015 Certified Company



### Overview

- Bansal Roofing Products Ltd. (BRPL) was established by experienced technocrats having 23 years of experience in the field of Production, Marketing and Project Management. It is listed on Bombay Stock Exchange (BSE) SME platform.
- The Company was incorporated in 2008, initially foraying into business of marketing of roofing sheets. It then moved into trading and later on into manufacturing of roofing sheets & accessories and today it is full fledged infrastructure company offering complete Pre-Engineering Building (PEB) solution.
- The company started its commercial production in the year 2012. Since then Its has grown rapidly to become a one-stop solution provider for steel Structures, warehouses, factory sheets and allied products.

### General Details

- Production Capacity of Company** - 1400 tonnes p.m.
- Number of employees** - 59
- Factory Located at** - **Taluka:** Jarod, **District-** Samlaya,  
**City-**Vadodara, **State-**Gujarat

### Key Strengths

- Experienced Management Team.
- Necessary qualification in place for tender business.
- Exhaustive Range of Products, Strong Brand Image.
- One-stop solution for steel structures, shed and roof coverings.
- Extensive and Cost effective Manufacturing Facility.
- Quality Assurance and Standards (ISO 9001:2008 certified Company)
- Strong product basket- Foundation bolt to Roof top products from one place.

### Product Basket

BRPL is a quality manufacturer of roofing products like:

- Pre-engineered Building
- Color Coated Metal sheets (PPGI, PPGL, Bare galvalume, Aluminum)
- FRP Plain & Profile sheets
- Polycarbonate sheets
- Perforated sheets
- Turbo ventilators
- "Z" & "C" purlin
- Metal Deck sheets

### Some of 'PEB' Project Undertaken by us.



GMM -VV NAGAR-ANAND



TATA MOTORS (Show Room at Rajkot)



Greenwich Industries, Ghana



Processing Plant (PEB),  
Panchmahal, Gujarat

## INTRODUCTION OF PRE-ENGINEERED STRUCTURES :

- Pre-engineered building is a concept of steel structure having high structural strength, economical designs while it supersedes the conventional fabrication, it lowers down the conventional fabrication, it lowers down the stress of foundation, hence there is less cost on civil construction as well.
- Tailor made building based on client's requirement and actual design calculation using tapered sections. An efficiently designed Pre-Engineered Building can be lighter than the conventional steel building by upto 30%.
- BRPL is well equipped to produce Pre-engineered buildings as per clients' requirements. The company has all the latest machineries to support this segment. The entire design of column, rafters and other accessories is based on International structural standards and involve high technical welding and quality production.
- These are the structures basically produced at the factory with the high tensile steel material by collecting complete information of shed/building (viz; Length, width, Height etc.)

### PEB comprises of –

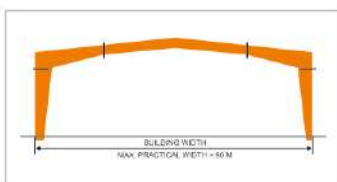
- Primary Member includes:**  
Rafter, Columns, Crane beams, etc.
- Secondary Member includes:**  
Purlins, bracings, tie rods, Angle bracings, High Tensile Bolts and washers etc.
- Roofing, Cladding & Accessories includes:**  
Top Roof, Side Cladding, Skylights, Ventilators, Louvers, Down spouts, etc.

### Applications:

1. Factory
2. Warehouse
3. Workshop
4. Community hall
5. Commercial showrooms

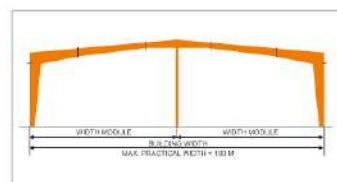
### Characteristics :

- ❖ It is designed using international standard considering weather, wind, seismic zone, of location.
- ❖ We design Energy Efficient building using skylight sheets, cladding louvers, Self-driven ventilators, Ridge vents, monitor design and many more.
- ❖ High aesthetic appeal using latest design of Gable End, Curves, Bracket less Gutters etc.
- ❖ Flexibility in expansion
- ❖ Saving in construction time.



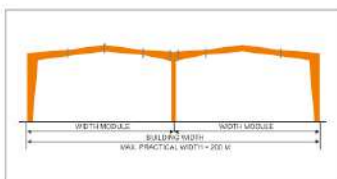
#### CLEAR SPAN OPTIONS (CS) :

Span : 6 to 90 M  
Height : 3 to 15 M  
Slope : 1 : 10  
Bay : up to 9 M



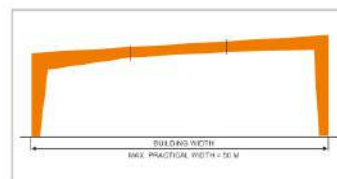
#### MULTI SPAN FRAMES (MS) :

Span : 24 to 180 M  
Height : 3 to 15 M  
Slope : 1 : 10  
Bay : up to 9 M



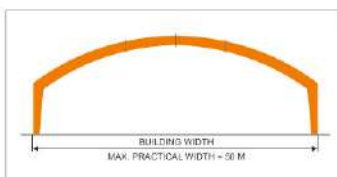
#### MULTI GABLE FRAMES (MG) :

Span : 18 to 200 M  
Height : 3 to 12 M  
Slope : 1 : 10  
Bay : up to 9 M



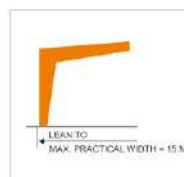
#### SINGLE SLOPE (SS) :

Span : 6 to 50 M  
Height : 3 to 12 M  
Slope : 1 : 10  
Bay : up to 9 M



#### CURVED RAFTERS FRAMES (CR) :

Span : 6 to 50 M  
Height : 3 to 15 M  
Bay : up to 9 M



#### LEAN TO :

Span : 3 to 15 M  
Height : 3 to 12 M  
Slope : 1 : 10



#### T-CANOPY (CS) :

Span : 4-6 M  
Height : 3 M  
Slope : 1 : 10

# GENERAL SPECIFICATIONS OF 'PEB'

## APPLICABLE DESIGN CODES:

We at "Bansal" use international design codes for making steel building. It is in accordance with the following codes:

- The 2006 Edition of Low Rise Building system Manual of Metal Building Manufacturer Association (MBMA)
- All Applicable loads are designed as per MBMA
- Hot rolled and build up section are designed in accordance with Manual of steel construction 9<sup>th</sup> Edition of American Institute of Steel Construction (AISC)
- Cold formed members are designed in accordance with 1996 edition of cold formed steel design manual of American Iron and Steel Institute (AISI)
- Welding is applied in accordance with Structural steel welding code of American Welding Society (AWS D1.1)
- We also undertake jobs as per Indian Standard.

## STANDARD MATERIAL SPECIFICATIONS

### Primary Members

Primary structural framing shall include the transverse rigid frames, lean-to-rafters and columns, canopy rafters, interior columns (beam and column frames), bearing frame rafters and corner columns and end wall wind columns.

### Secondary Members

Secondary structural framing shall be including purlins, girts, eave struts, wind bracing, flange bracing, base angles, clips and other miscellaneous structural members.

### Physical Specifications of Structural Members

- Members fabricated from plate or bar stock shall have flanges and webs joined on one side of the web by continuous welding process and will conform to the physical specifications of ASTM A570 (Grade 50) or equivalent and having a minimum yield strength of 50,000 P.S.I. (345 MPa).
- Members fabricated by cold forming process shall conform to the physical specifications of ASTM A570 (Grade- 50) or equivalent and having a minimum yield strength of 50,000 P.S.I (345 MPa).
- Members fabricated from hot rolled structural shapes shall conform to the physical specifications of ASTM A572 (Grade 36) or equivalent and having a minimum yield strength of 36,000 P.S.I. (250 MPa).
- Rod and angle bracing shall conform to the physical specifications of ASTM A36 (or equivalent) and having a minimum yield strength of 36,000 P.S.I. (250 MPa).

### Paint on Structural Members

All structural members shall be cleaned by wire brushing to remove dirt, grease, oil and loose mill scale and given one shop coat of red oxide. The finish paint touch up shall be 30 to 50 microns done at factory/site.

Sand Blasting and special color an option at client discretion.

**Connections** All field connections shall be bolted (unless otherwise specified in the approval drawings).

- Primary bolted connections shall be furnished with high strength bolts conforming to the physical specifications of ASTM A325 (or equivalent).
- Secondary bolted connections shall be furnished with machine bolts conform to the physical specifications of ASTM A307 (or equivalent).

### Roof & Wall Sheeting

Standard supply of material for Roof is 0.47 mm Bare Galvalume and for wall cladding 0.50 mm Colorcoated Galvalume Accessories shall be made from either bare galvalume or color coated galvalume as per agreement with client. All sheet shall be as per IS Standard.

### Sheeting Fasteners

Standard fasteners shall be No. 14, Type A self-tapping sheet metal screws with metal and neoprene washers. All screws shall have hexagonal heads.

### Sealer / Rope Seal

Shall be applied wherever necessary.

### Flashing and Trim- Gutters and Downspouts.

Flashing and/or trim shall be furnished as per requirement and drawing.

### Anchor Bolts and Templates

Anchor bolts will be black finish of appropriate diameter and length as per design requirements. Templates will be fabricated at the factory of dimensions matching the column base plate(s).

### Warranty

BRPL supplied products are warranted against any failure due to defective material or Workmanship for a period of 12 (Twelve) months from the date of completion of erection or 18 (Eighteen) months from the date of supply, whichever is earlier.

**Note :** Above design codes and specifications are standard and may differ if agreed upon with client.

## STANDARDS :

Design As per MBMA:	Design As per Indian Standard:	Welding is applied in accordance with:
The 2002 Edition of Low Rise Building System Manual of Metal Building Manufacture Association	IS- 1893 (Part- I) – 2002: Criteria for Earthquake Resistance Design of Structures.	Structural Steel Welding code of American Welding Society (AWS D1.1.98)
<b>Cold- Formed members are designed in accordance with:</b> 1996 Edition of Cold- Formed Steel Design Manual of American Iron & Steel Institute (AISI).	<b>Design of Tapered Built up section is in accordance with:</b> IS- 800 (1984 & 2007): Code of Practice for General Construction in Steel	IS- 216 (1969): Code of Practice for use of Metal Arc Welding for general construction in steel.
<b>Welding is applied in accordance with:</b> Structural Steel Welding Code of American Welding Society (AWS.D 1.98)	<b>Cold- Formed members are designed in accordance with:</b> IS- 801 (1975): Code of Practice for use of Cold-Formed Light Gauge Steel Structure.	IS- 875 (Part- I) – 1987: Code of Practice for Design Dead Loads for Building and Structures.
All applicable loads as per MBMA	IS 2062:2006- steel for general structural purposes.	IS- 875 (Part- II)- 1987: Code of Practice for Design Imposed Loads for Building and Structures.
<b>Hot rolled and build up section are designed in accordance with:</b> Manual of Steel Construction, 9 <sup>th</sup> Edition of American Institute of Steel Construction (AISC)	IS – 801 (1975): Code of practice for use of Cold- Formed Light Gauge Steel Structure.	IS- 875 (Part- III)- 1987: Code of Practice for Design Wind Loads for Building and Structures
		<b>Design of prismatic Hot rolled and built up section is in accordance with:</b> Manual of steel Construction, 9 <sup>th</sup> Edition of American Institute of Steel Chambers (AISC)

## OUR FACILITIES

We have following facility to cater manufacturing of Quality Pre-Engineering Building:

- Shear machine : Automatic with tapping setting and length up to 6300mm Long and thickness up to 16mm plate
  - SAW machine : For quality welding
  - MIG Welding : 05 MIG Welding machine
  - ARC Welding : 02 ARC Welding machine
  - Radial Drill : To drill up to 50mm
  - Magnetic Drill : To drill up to 50mm in any angle
  - Chaser M/c : To make foundation bolt, SAG Rods and brace rods
  - Sand Blasting, Airless Spray Painting
  - Roll Forming for 'Z', 'C', 'Sigma' Purlins.
  - Roll Forming for Roof / Side Cladding / Deck Sheet
  - Mobile Crane & Over head Crane
- and many more.....



'z' & 'c' Purlin Machine



Automatic Shear Machine



Roll Forming Profile Machine



Mobile Crane

## PROJECTS UNDERTAKEN BY US:



TRANSPEK INDUSTRIES LIMITED, VADODARA



TAURUS INDUSTRIES, SAVLI, VADODARA



LEVA PATEL SAMAJ,  
COMMUNITY HALL, VADODARA



SMCC, Vithapur (Honda Project)



Gujarat Organics Ltd., Jhagadiya



Super Sale Corporation, Vadodara



Siddhi Vinayak, Surat



Arcoy, Badarkha, Dholka

## PROJECTS UNDERTAKEN BY US:



Processing Plant (PEB) at Panchmahal, Gujarat



Nocil, Dahej



"GHANA" International Project



Haridarshan Protein - Vasad



Pulse Mill, Dahod



Asahi Modi, Jhagadiya



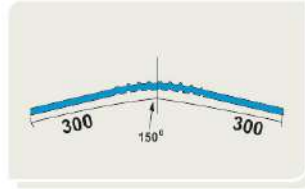
GMM Pfalder Ltd., V.V. Nagar



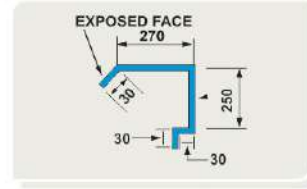
## Roofing Accessories :



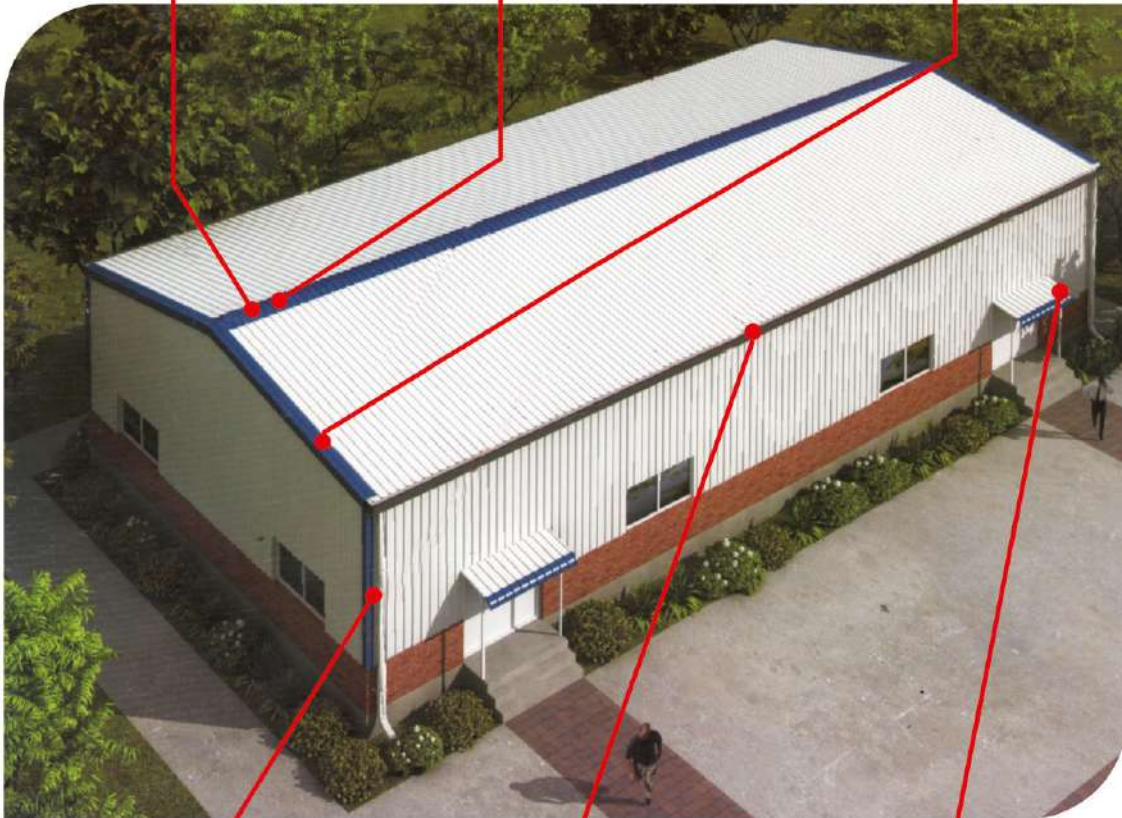
Plain Ridge



Crimped Ridge



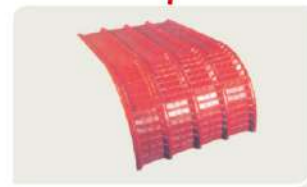
Gable End Flashing



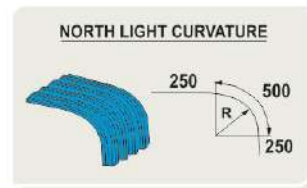
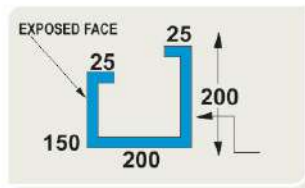
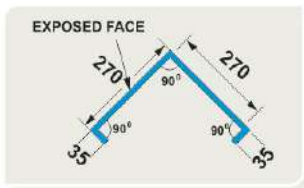
Corner Flashing



Roof Gutter

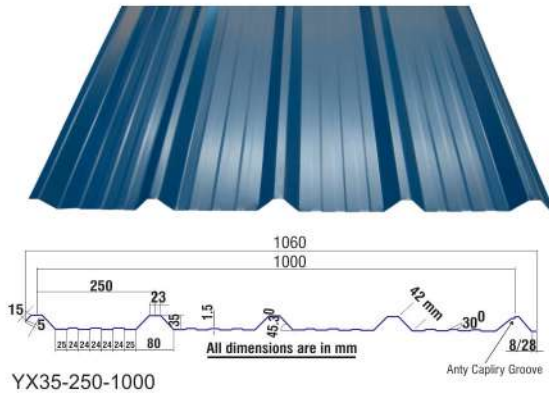


North Light Curvature

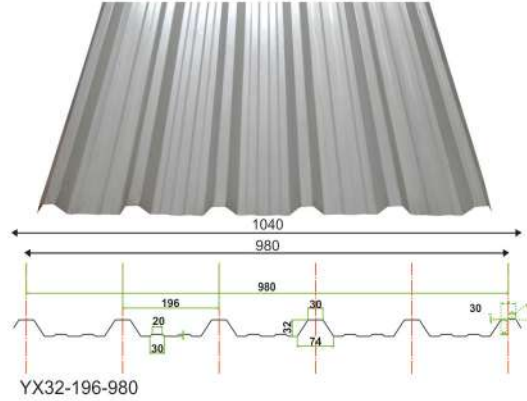


# Colour Coated Trapazoidal Roofing Sheet

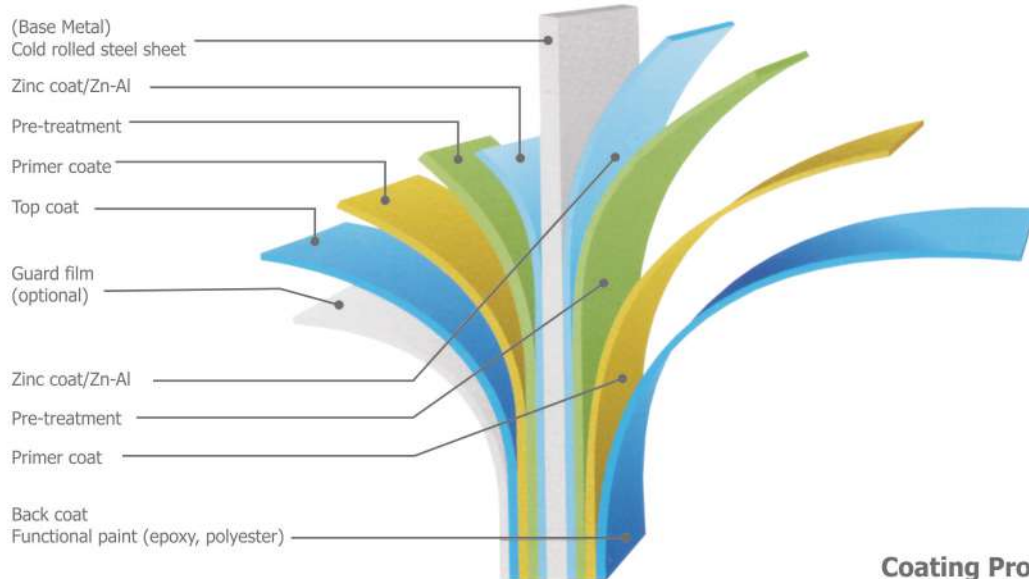
## Bansal 1000 Profile (Hicover)



## Bansal 980 Profile (Histrength)



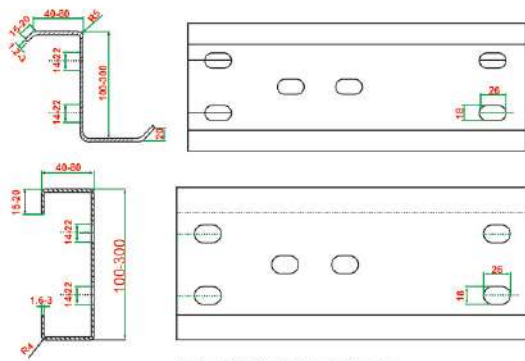
Remark : (1) Tolerances Applicable (2) For high coverage width of sheet can be made 1080 / 1090 mm.



## Coating Process

Detail	Bare Zinc Aluminium (BGL)	Colour Coated Zinc Aluminium (PPGL)	Pre painted Galvanized Iron (PPGI)	Bare / Painted Aluminium Sheet
Coating Detail	55% AL, 43.5% ZN 1.5% SI as per ASTM 792M, AS1397:1993, IS15961:2012	55% AL, 43.5% ZN 1.5% SI as per ASTM 792M, AS1397:1993, IS15965:2012	99.5% ZN as per IS 277 Colour as per IS14246	AA 3015
Tensile Strength	550 MPA or Other on request	550 MPA or Other on request	550 MPA / 240 MPA	150 MPA
Coating Mass	AZ 150 GSM or Other on request	AZ 150 GSM Colour (27-30 μ) or Other on request	Z-120 Gsm Colour (27-30 μ) Other on request	—
Steel Substrate	0.47TCT & 0.50TCT IS 513	0.50/0.55/0.60 TCT AS PER IS 513	0.30 TCT TO 0.85 TCT, AS PER IS 513	05/0.6/0.71 /0.91
Paint	-----	Regular modified polyester system Silicon modified polyester system Other Coatings on request	Regular modified polyester system Silicon modified polyester system Other Coatings on request	RMP / SMP or as per requirement

## "Z" and "C" Purlins

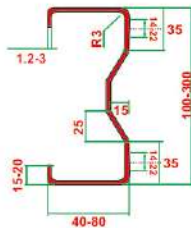


Note : All dimensions are in mm.

These purlins are most unique cold roll formed sections used to fix roof and side claddings. The advantage of using these purlins are unlimited depth and thickness option gives the designer the required freedom to design most economical Purlin.

"C" and "Z" purlins can be supplied from 100 mm to 300 mm depth (Web) and thickness from 1.2mm to 3 mm.

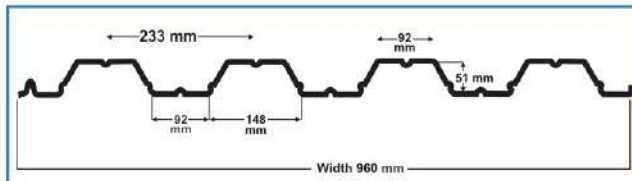
## "C" Sigma Purlin



"C" Purlins are available in Sigma design which gives extra strength at lower Web height.

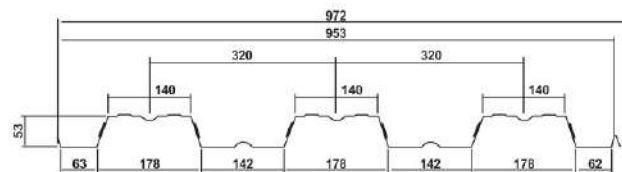
## Metal Deck Sheet

"Bansal Super Deck 51.233.960"



- Overall Width : 960mm  $\pm$  7.5mm
- Crest : 50mm  $\pm$  1.5mm

"Bansal Deck Sheet 53.320.972"



- Overall Width : 972mm  $\pm$  7.5mm
- Crest : 53mm  $\pm$  1.5mm

Designed with high precision in order to meet the market standards, deck sheet is manufactured using optimum grade materials and latest technology.

### Benefits:

- Acts as composite member and as permanent shuttering
- No major reinforcement required
- Deck can be used as working platform during construction
- Speedy construction enables faster completion of a project
- Metal deck can also be used as roofing and cladding sheet in cement, power plants and bulk material handling plants
- Decking reduces the construction time, hence the total cost

## Profiled Perforated metal Sheet

Perforated profile sheet is very versatile. Perforated metal offers unique opportunities to combine strength, functionality and beauty. Perforated Sheet are also an excellent means of achieving sustainable design objectives.

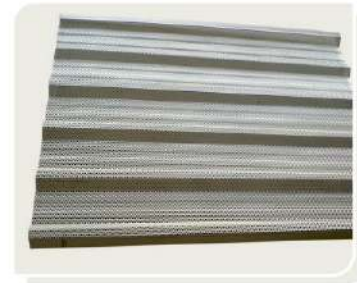
Perforated sunshades and sun screens provide privacy for building occupants without blocking the view. And they offer a comfortable level of natural lighting during daylight hours while deflecting heat to reduce the load on the HVAC system.

### Applications

- Noise Control ● Security Ceilings ● Sun Screens ● Building Facades
- In-Fill Panels ● Furnishings,

### Benefits

Perforated materials have many advantages ranging from weight reduction through acoustic noise reduction to heat dissipation and much more.



## LOW COST CABIN

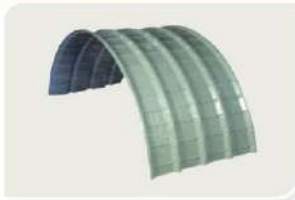
### Features of : "LOW COST CABIN"

- Low cost cabin is quick to install and dismantle.
- It's a temporary structure but rigid enough to take care of normal wind, sunlight, cold and rain.
- It is made of Mild Steel structure and PVC sheet. Can be installed or dismantled in a hour time.

Very much suitable for security cabin, temporary storage, temporary office or shelter.



## Colour Coated Curved Roof



Bansal Roofing Products Ltd. is specialized in making curved roof.

- Curved roofs are made by process of crimping after profiling of colour coated sheet with the help of ultramodern automatic PLC operated crimp machine.
- While curved roof looks stylish it gives extra strength to sheet because of ribs.
- We need to have radius from client to make curved roof.
- Required radius can be obtained by controlling punching depth and distance between two punching.

## 'S' Type Fix Louvers

"Bansal Roofing Products Ltd." is specialize in designing & manufacturing of 'S' type louvers. It is fixed on cladding side. It gives round the clock ventilation. It is very effective for the of fresh air to come in.

Width	Height	Thickness	Colour	View
2500 mm	1000 mm	0.5 mm/0.6 mm	As per requirement	
1220 mm	2000 mm	0.5 mm/0.6 mm	As per requirement	

Fixed at Himgiri Casting, Halol



Fixed at Harikrishna Puls Mill, Vasad



## Eco Ventilator (Runs without Power)



Turbo ventilator is a self driven equipment installed on industrial roofs to extract inside air. Turbo ventilators are driven by wind hence no electricity or other power sources are required. As the ventilator rotates by wind, the stale inside air is exhausted through it and natural inward flow of fresh air is boosted.

### Features :

- Rigid roll formed curved vanes in Aluminium. Optional S.S. 304 vanes are also available.
- Rotor shaft & self lubricated metlon bush assembly concealed in mild steel casting.
- Light weight & durable. Approximately 5.5 to 6.5 kg.
- Top cover & bottom ring is made of stainless steel.
- Single piece U.V. Stabilised FRP base plate in different thicknesses. Option of opaque and translucent colour available.



### How does it work :

The turbo ventilator operates by utilizing the velocity of the wind to induce air flow by centrifugal action. The centrifugal force caused by the spinning vanes creates a region of low pressure area which draws air out through the vanes. Air drawn out by the vanes is continuously replaced by fresh air from the outside. The slightest breeze will cause the turbine to spin and even after the breeze has stopped, the flywheel effect of the rotor cage will use its stored energy to continuously remove air giving rise to ventilation. Suction is maintained even at low wind velocities.

### Air Change Rate :

#### TYPE OF BUILDING / HOUR

WARE HOUSE	4 TO 6
ASSEMBLY HALL	6 TO 12
LIGHT INDUSTRIES	6 TO 12
PACKING ROOM	8 TO 30
PAINT SHOP	10 TO 30
BOILER ROOM	12 TO 30

#### TYPE OF BUILDING / HOUR

AUDITORIUM	4 TO 12
TEXTILE MILL	4 TO 12
PAPER MILL	8 TO 30
HEAVY INDUSTRIES	10 TO 30
BAKERIES	12 TO 30
FURNACE	12 TO 30



Ventilator Stock



Ventilator With Polycarbonate Base

We are the Manufacturers of fibre glass" Opaque and Translucent sheets for different applications. Products Manufactured by us are U.V. Resistance, better finish and quality since it is made out of first grade chopped glass mat and polyester resin.

**APPLICATIONS :**

1. Polyfoor ® translucent sheets provide natural daylight. Light transmission is 40 % to 90% depending upon the requirement of user.
2. Polyroof ® translucent sheets can be used as :
  - A. Side cladding sheets, Glass substitute, Control Panels, Table Top, On main gate of house.
  - B. Decorative False Ceiling
  - C. Skylight area {OTS}, Green House. Canopy Car Parking Sheds.

**PRODUCT RANGE :**

1. Translucent & Opaque
  - A. Plain sheet with and without wrinkle.
  - B. Corrugated sheet in any Profile (GI, Precoated, PVC, Aluminium etc.)
  - C. Textile Sheets.
2. Water Channel System (Gutter),



FRP Translucent Sheet



Green Leaf



FRP Opaque Sheet



Geometry Print

**Polycarbonate Sheet**

BRPL offers Polycarbonate sheet in a wide range of thicknesses and colours. We offer flat sheets, embossed, corrugated and multiwall.

**Clear Compact :** These are light weights, strong flat sheets in different thicknesses. Transparency is like glass. It is very strong and available from 1.5 mm. to 12 mm. thickness.

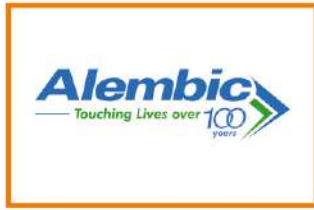
**Multiwall :** The product is light, strong, insulating and attractive. Being used widely for roofing, cladding and other applications. It is available in twin wall, triple wall, and multiple wall.

**Embossed :** These are plain sheets which is available in regular, prismatic embossing feature in different thicknesses ranging from 1 mm. to 12 mm.

**Corrugated :** Different corrugation to suit the requirement of client is available to match with A.C. Cement corrugation, Grecca, Sinus, Treford and any other profile. Sheets are available in natural transparent colours and are suitable for skylighting.



## MARQUEE CLIENTS:



.... AND MANY MORE

### Distinctive Advantages of "Bansal" PEB

- ◆ We make 95% Components of PEB inhouse, most of them are based on Green Building Concept.
- ◆ We believe in Green Building Concept, hence we suggest clients to incorporate energy saving renewable resources such as Roof top "Eco Ventilator", Day light system, Solar panels, Insulation, Air Louvers for Cool & Cross Ventilation, Rain water harvesting, Ground water recharging system.
- ◆ Structures are Designed as per National & International Standards. (IS & MBMA)
- ◆ Prompt After sales Service.

Lets go green to get our globe clean.



*Structuring Dreams from Steel*

## **Bansal Roofing Products Ltd.**

**Factory :** Plot No.6, Raj Ind. Estate, Village: Vadadala, Jarod-Samlaya Road, Ta. Savli, Dist. Vadodara, Gujarat, India. Pin 391 520.

**Corporate & Registered Office :**

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