



Dear Readers,

The Indian Economic Growth is expected to remain strong, thanks to firm domestic demand. The IMF has projected 7.5 per cent as GDP growth for India in 2016-17. As we step into the next financial year, we wish all our readers all the best for upcoming year and hope the government embarks on requisite measures to ensure the growth in India excels all expectations.

We would like to all our readers a very happy and joyful Holi in advance!

Best Regards,

Arvind Nanda & Gautam Suri

DIRECTOR'S EPISTLE



Arvind Nanda
Founder Director & CEO

Gautam Suri
Founder Director & CTO

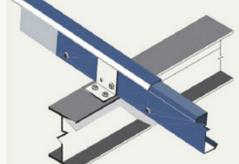
Know your Pre-Engineered Buildings: What are Purlins

Roof Purlins

Roof purlins are cold-formed Z profiles, normally 200 to 250 mm deep out of 1.6 to 3.15 mm thick steel. These are fixed to the top flanges of the rafters by means of clips bolted to the rafters, and the purlin web bolted to the clips. Purlin ends overlap to act as continuous beams.

Types of purlins majorly used:

- C Purlins:** The shape of these types of purlins is that of a square 'C'. C Purlins are used as Purlins over walls, rafters, floor joists and studs for walls.
- Z Purlins:** Z purlins resemble the alphabet Z and are also called as Zed Purlins. This shape helps the Purlins to overlap joint and is stronger and sturdier than the C purlins. As a result, they tend to be used for large-scale structures.

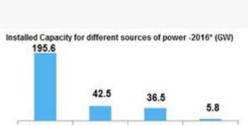


Sector Watch: Power Sector in India

Power is one of the most critical components of infrastructure crucial for the economic growth and welfare of nations. The Planning Commission's 12th Five-Year Plan estimates total domestic energy production to reach 669.6 million tonnes of oil equivalent (MTOE) by 2016-17 and 844 MTOE by 2021-22. As of November 2015, total thermal installed capacity stood at 196.2 gigawatt (GW), while hydro and renewable energy installed capacity totaled 42.6 GW and 37.4 GW, respectively. At 5.8 GW, nuclear energy capacity remained broadly constant compared with the previous year.

The Indian power sector has an investment potential of Rs 15 trillion (US\$ 237 billion) in the next 4-5 years, thereby providing immense opportunities in power generation, distribution, transmission, and equipment, according to Union Minister. The government's immediate goal is to generate two trillion units (kilowatt hours) of energy by 2019. This means doubling the current production capacity.

The Government of India is taking a number of steps and initiatives like 10-year tax exemption for solar energy projects, etc., in order to achieve India's ambitious renewable energy targets of adding 175 GigaWatts (GW) of renewable energy, including addition of 100 GW of solar power, by the year 2022. The cumulative installed capacity of solar power in India has crossed the 4 Gigawatt mark as of June 30, 2015. The government has also sought to restart the stalled hydro power projects and increase the wind energy production target to 60 GW by 2022 from the current 20 GW.



Source: Ministry of Coal, NTPC, Central Electricity Authority (CEA), Corporate Catalyst India, TechSo Research Notes, M/S - Magnet, GW - Digawatt
* - Data is for April-October 2015



Projects Spotlight: Asian Paints Ltd, Haryana



Interarch recently delivered a brownfield expansion projects for Asian Paints Ltd, the turnkey projects execution included engineering & design, supply and erection of nine Pre-Engineered Steel Buildings in Rohtak, Haryana. In totality the combined area of all the 9 buildings is over 23,800 Sqm.

Project Name	Asian Paints Ltd.								
Location	Haryana								
Project Area	23,840 Sq.M								
Usage of Building	Building 1	Building 2	Building 3	Building 4	Building 5	Building 6	Building 7	Building 8	Building 9
Building Area	8500 Sqm	2700 Sqm	2300 Sqm	3700 Sqm	3700 Sqm	780 Sqm	650 Sqm	900 Sqm	610 Sqm
Height	26 M	28.83 M	7.5 M	8.5 M	Area 1 & 2 -8 M	8 M	8 M	4 M	4.5 M
Special Features	<ul style="list-style-type: none"> 0.15 kN load was taken at center of each purlin span for lighting fixtures by others & 0.5 kN/m2 on columns 0.15 kN/m2 extra loading was taken for solar panels Life line support system considered below canopy 50 mm thick fiber glass insulation having density of 32 Kg/m3 								



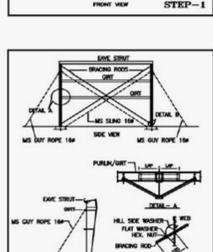
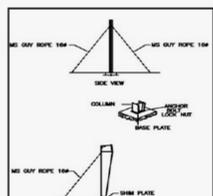
Project Management Tip: Correct procedure for building erection

Column Erection

- Column is arranged with all fixtures & painting duly completed
- Lifting sling is fixed to the column at exact position of lift
- Guy ropes are fixed to the column before lifting
- Lifting equipment lifts the structural column vertically and is positioned in the Pedestal
- Anchor bolts nuts are fixed and tightened
- Guy ropes are tied as shown in the figure
- Column plumb is checked and sling is released using boom lift or scissor lift

Braced Column Erection

- Same Procedure is followed for lifting the second column
- The portal beam is the primary tying member between the two columns. It is lifted using Crane and boom lift used for bolting the portal beam
- The eave strut is immediately erected after the erection of second Column
- Bracing rods should be lifted and fixed to the adjacent columns. Hill side washers are used to tighten the brace rods
- The same procedure is followed for erection of the columns on the other side of the grid



Application of Interarch Light Buildings: Security Guard Cabin

Interarch Light Buildings can be utilized for various applications, starting from small cabin to cafeteria, warehouse buildings to partitions in manufacturing facilities. Interarch Light buildings is ideal solution where fast and quality finish is required



Industrial Spokesperson - M.R. Warekar Pvt. Ltd., New Delhi



M. R. Warekar & Associates Pvt. Ltd. is an Architectural, Engineering and Interior Design practice established in 1963. In the past 50+ years, the practice has evolved into a multidisciplinary consulting organisation, having total staff strength of more than 40 persons. Over 1500 successful domestic and multinational projects have been successfully completed by the company, majorly for Food & Beverages, FMCG and Auto Components. Mr. Manish Shah is associated with the organization as a Director from last 22 years. He is holding Master's Degree in Structural Engineering from Delhi College of Engineering.

According to Mr. Shah, scope of green building will increase in near future as people are becoming aware of this fact and the concept should be encouraged and promoted for the betterment of the society, as also benefits to company in form of saving in water, air-conditioning and electricity. M/S MRW have designed few Green Building projects which have been appreciated at global level platform. His favorite building project is bottling plant for PepsiCo India executed in Satharia, U.P. which is first Beverage plant of its kind in India to be awarded IGBC Gold Rating. The plant has also received PepsiCo Chairman's sustainability award for 2 years.

On comparison of Indian Pre Engineered building with Global countries he thinks that Indian Pre Engineered Buildings companies needs to give more focus on Elevation design features, and emphasis on Project management capabilities. New requirements for smart cities, provision of solar panels and green in india would also be in vogue. Multistorey Buildings, Green Buildings and Light Structures would be focus areas for new type of metal buildings coming in india.

For building maintenance tips, he suggests to readers that coordination with architect is more important for any modification in building. Periodic maintenance and checking and cleaning of Gutters and down take pipes is essential, especially before monsoon.

Customer Testimonial

We appreciate the effort put in by their team at all the stages, resources deployed and cooperation extended for the satisfactory and timely completion of this project.



Projects Won

- Hindustan Unilever Limited in Uttarakhand
- Ramakrishna Forgings Ltd in Bihar
- JK Paper Limited in Odisha
- Titanium Logistics and Industrial Park LLC in Gujarat
- Everton Tea India Pvt Ltd in Andhra Pradesh



Projects Completed

- Decathlon Sports Pvt. Ltd. in Rajasthan
- Shilpi Cable Technologies Ltd. in Bhubaneswar
- Sunset Real Estate Services Pvt. Ltd. in Haryana
- Ashtavinayak Motors Ltd. in Odisha
- Sumitra Woodcraft Pvt Ltd in Uttar Pradesh



Young Builder Program

Interarch conducted "Young Builder Program" at Vishwakarma Institute of Information Technology in Pune. The session was being conducted by Mr. Sandeep Koul. The program was being attended by more than 180 students.

The program gives an insight and educates Young Architects & Engineers about the Indian Pre-Engineered Steel Industry, various applications & nomenclature of Metal buildings.

The main benefits of this program for students:

- Knowledge on Pre-Engineered Metal Buildings.
- Green Buildings
- Application of Pre-engineered Steel Buildings.
- Site Visit/Plant visit further strengthening of the concept.
- Regular Knowledge mailers.
- Invitation for few deserving students to come to Knowledge forums and meet senior architect and consultants.



Interarch In Press : CE&CR

