



We Don't Supply Buildings. We Deliver Projects.

Pre-Engineered Buildings For The Food Process & FMCG Industries

INTERARCH BUILDING PRODUCTS NEWSLETTER

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Future Prospects of The Food Process & FMCG Industries in India

Food Process & Fast moving consumer goods (FMCG) are the leading sector in the Indian economy. Both the industry sectors have emerged as a high-growth and high-profit sector due to its immense potential for value addition, Growing awareness, easier access, and changing lifestyles in Rural & Urban areas. The FMCG sector has grown from US\$ 31.6 billion in 2011 to US\$ 52.75 billion in 2017-18. The sector is further expected to grow at a Compound Annual Growth Rate (CAGR) of 27.86 percent to reach US\$ 103.7 billion by 2020.



The Government of India has been instrumental in the growth and development of these two sectors and making all efforts to encourage investments in the business.

The focus on joint ventures (JV), foreign collaborations, industrial licenses, export-oriented units, agriculture, health care, infrastructure and tax rebate under the Union Budget 2019-20 is expected to directly impact the Food Process & FMCG Industries.



Possibilities of Interarch Pre-Engineered Buildings for the Food Process & FMCG Industries

Food Process & FMCG Industries are much focused to invest in energy efficient plants to benefit society and lower costs in the long term. Interarch provides a customized Pre Engineered steel construction solution, offers engineering & design from concept to completion.

We take innovation in engineering and strive to go beyond the realm of conventional construction with our team of leading engineers, quality manufacturing and efficient project handling capabilities.

Pre Engineered Building is designed keeping in mind various applications in the Food Process & FMCG Industries manufacturing facility like

Process Building	Canteen Building
Packaging Hall Building	Office Building
Manufacturing Block	Retail Outlets
Raw Material & Finished Good Warehouse	Amenity Blocks
Cold Storage	Utility Area

Project Spotlight - ITC Ltd, Odisha

ITC is one of India's foremost private sector companies with a market capitalisation of US \$ 50 billion and a turnover of US \$ 8 billion.

ITC Ltd, a multi-business conglomerate, has diversified presence in the FMCG, Hotels, Paperboards, and Packaging, Agribusiness and Information Technology.

The new plant is a part of 550 Cr investment plans that were announced earlier. The FMCG major will manufacture some of its food brands like 'Aashirvaad', 'Sunfeast', 'YIPpee!' and 'Bingo!' in the integrated unit in Khurda.

To ensure the world-class quality of work, commitment to the schedule and adherence to safe work at the site, ITC Ltd partnered with Interarch as their preferred vendor for the Food Park at Khurda, Odisha

Interarch delivered a turnkey solution including design & engineering, manufacturing, and erection of their Greenfield Food Park with a project area of over 28,000 SqM.



Project Location	Khurda, Odisha
Building Usage	Integrated Food Park
Project Area	28,000 Sq M
No. of Buildings	1
Length	253.2 M
Width	94.4 M for Grid (X1 to X22)
	104.27 M for Grid (X22 to X25)
	130.4 M for Grid (X25 to X36)
Height	12 M

Advantages of Pre Engineered Building for Multilevel Process Building:

Multilevel Process Structure demands the use of heavy and durable yet strong materials. Steel, by virtue of its high strength to weight ratio, enables large spans and lightweight construction. Taller buildings also face higher wind loads, and hence steel being flexible, allows the building to move and deflect with the wind forces, rather than making it rigid like concrete.

Interarch Multi-storey steel buildings have unmatched benefits like:

- High strength to volume/mass ratio
- Speed in construction and time-saving in comparison to RCC, resulting in an early return on investment
- Steel frames are lighter in weight in comparison to RCC frame. Lighter foundations are required for steel buildings due to less weight than RCC resulting cost advantage over civil construction
- Occupies less space and can be designed for larger span/column-free spaces, resulting in greater coverage
- Steel structures can have a variety of structural forms like braced frames and moment resistant frames suitable to meet the specific requirements of the higher buildings
- Tall Building with steel allows more floors per the total height of the building



Awards & Recognition:

Interarch has received numerous awards & appreciation for innovation, best practices and excellence in planning, design and better site management of Food Process & FMCG Manufacturing Facilities from industry leaders like HUL, Godrej & Boyce, Patanjali Ayurved, Allied Blenders and many more.



Industry Spokesperson: Mr Anshul Shah, Ducon Consultants Pvt Ltd, Ahmedabad:

Ducon Consultants Pvt Ltd is one of the most renowned enterprises in the field of Structural Design, Industrial Planning and Project Management Headquartered in Ahmedabad, having collective experience and expertise of 2,050+ successful projects. Over the years, Ducon has empowered and embellished a multitude of facilities including hospitals, recreation centers, educational campuses, public assembly buildings/spaces, malls, commercial & residential multi-storied structures, stadiums, banquets, hotels, clubs, multiplexes, townships, religious & institutional campuses as well as over 650 industrial structures.



Mr. Anshul Shah has been associated with the company since last 2 years as a Director in the firm. He graduated from CEPT University and finished his Masters from Florida State University. He feels in the long term, the trajectory of industrial development has a huge potential due to the creation of world-class infrastructure, building a healthy business ecosystem, connectivity and new Greenfield smart cities as global manufacturing hubs.

Mr. Shah feels that a Greenfield facility has its own set of challenges in terms of the design process that needs to be followed. The best practice that one should follow while designing a master layout of the Greenfield facilities project is to go from whole to part. Understand the ground levels, strata along with current and future requirements is a must. The design shall be optimized not only in terms of cost that will go in today but also the lifecycle cost.

Mr. Shah feels that Functionality is the key feature of the building. A customized design must consider energy efficient components to maximize the daylight and minimize the heat gain in the building. On focusing wide acceptability and functional advantages of Pre Engineered building, it can be widely used for application such as factories, warehouses, showrooms, simple roof structure, Tall Building, etc.

As per him in today's time, the architect should weigh out the design of the building in accordance to the IGBC norms by considering parameters like Material, water, and energy conservation along with site selection, planning, construction methods, innovation, indoor environment quality and present the pros and cons to the client.

As per him, the advantages of using Steel buildings are that it provides an opportunity to have larger spans, more height, less dead weight and speed of execution.

He believes that more emphasis must be given to fire protection rating. There are options like Intumescent fire protection paint. There are other provisions that can be made in terms fire protection such as sprinklers, internal hydrants, smoke and heat detectors, fire doors, fire exits, a separate tank for fire, the external fire hydrant system, 4-way fire brigade point.

IBPL Experience for The Food Process & FMCG Industries

Interarch has always been the first mover in terms of introducing new concepts and their application in the Indian market. Interarch has recognized as a preferred vendor to ensure the world-class quality of work, commitment to the schedule and adherence to safe work at the site.

Interarch has been an integral part of India's growing Food Process & FMCG industries. With our advanced technology and superior engineering, we have executed more than 500 Pre-Engineered Steel buildings for some of the biggest names in the Food Process & FMCG industries like Britannia Industries, Parle Agro, HUL, Patanjali Food & Herbal Park, and many more



S. No.	Client Name	Building Usage	Location	State
1	Hindustan Unilever Ltd	Greenfield Manufacturing Unit	Doom Dooma	Assam
2	Godrej & Boyce Mfg. Co Ltd	Greenfield Manufacturing Unit	Khalapur	Maharashtra
3	Britannia Industries Ltd	Greenfield Manufacturing Unit	Tezpur	Assam
4	Parle Agro Pvt Ltd	Greenfield Manufacturing Unit	Sitarganj	Uttarakhand
5	Patanjali Food & Herbal Park	Greenfield Manufacturing Unit	Nagpur	Maharashtra
6	SLMG Beverages Pvt Ltd	Greenfield Manufacturing Unit	Lucknow	U.P.
7	ITC Ltd	Greenfield Manufacturing Unit	Khurda	Odisha
8	Proctor & Gamble Home Products Ltd	Greenfield Manufacturing Unit	Baddi	H.P.
9	Reckitt Benckiser (India) Ltd.	Greenfield Manufacturing Unit	Sitarganj	Uttarakhand
10	Radico Khattan Ltd	Manufacturing Unit	Shrirampur	Maharashtra
11	Cargill Foods India Ltd	Greenfield Manufacturing Unit	Bhatinda	Telangana
12	Rohit Surfactants Pvt. Ltd.	Greenfield Manufacturing Unit	Haridwar	Uttarakhand

Innovation Delivered by Interarch - G+10 Storey Structure for CP India, Pune:

Interarch designed, manufactured and executed a multilevel mezzanine structure of 10 storey and conveyor bridge above that with the total bridge length of 32 M for CP India food processing plant near Pune.

The conveyor bridge is resting on steel structure and side of the other side of their RCC structure. Interarch design team has implemented a unique design for the interface using Tekla software. Tekla 3D is used for superimposing the drawing given by the client in the model designed by Interarch and then identifying the exact locations of the openings and their equipment



The structure is a multilevel 6 storey mezzanine structure supporting various silos and equipment at various levels of mezzanines having a live load of 5 Kn/M2. At the top level of the mezzanine, a conveyor bridge structure has been constructed having a live load of 3Kn/M2at a height of 45.1 m from the ground, which is spanning 32 m. The major challenge during the erection of conveyor bridge structure which is spanning 32 m was the erection of complete assembly at a time. By using the center of gravity from the Tekla model of Conveyor Bridge, lifting points are provided to ensure perfect alignments and geometry during erection.



Periodic Pre-monsoon building maintenance checkpoints to avoid any potential damage

We highly recommend to the concern person/in charge of the Maintenance department to consider a pre-monsoon check of the Pre-Engineered building roofing before the rainy season starts. Please find below following maintenance checkpoints need to be done to avoid leakage.



- Eave & valley gutter should be thoroughly cleaned. Any dry leaves, garbage or any other kind of items that can choke the gutter drainage system should be removed
- All downspout pipes should be checked properly for clear passage from top to bottom and blockages should be cleared
- A roof inspection should be done to check for any damages to roof sheets, flashings etc. due to winds, man movement or animals (Monkey) etc.
- An opening of all downspout pipes should be clear at ground level for a free flow of water from the roof. Downspout pipes should be at least one foot above the ground level.
- Any modification done on the roof sheeting by any other party, after building handover by Interarch, should be checked properly for leak proofing
- Damages due to any civil work done after handover should also be checked properly.



Project Won

- Oswal Cables Pvt Ltd in Rajasthan
- Parle Agro Pvt Ltd in Uttarakhand
- Rohan Landscape Pvt Ltd. in Maharashtra
- North Cachar Cements Ltd in Assam
- Deccan Enterprises Ltd in Telangana
- Signu Real Estate Pvt Ltd in New Delhi
- Goodyear South Asia Tyres Pvt Ltd in Maharashtra



Project Completed

- Asian Paints Ltd in Maharashtra
- Stelmec Ltd in Gujarat
- LM Wind Power Blades (India) Pvt Ltd in Gujarat
- Ashirvad Pipes Pvt Ltd in Rajasthan
- Tata Motors Ltd in Maharashtra
- Scvic Engineering India Pvt Ltd in Gujarat



Training at Interarch:

Interarch organized training on **Painting defects, reason & its remedies** for the Painting Team on 27th April, 19 at Kichha plant.



Interarch organized training on **Welding defects, reason & its remedies & Safety during welding** for the Welding Team on 18th April, 19 at Pantnagar plant.



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