



Case Study

Redefining Industrial Construction - "Concept to Completion in 60 Days"



Hindustan Unilever Limited's Mega Project Delivered in 60 Days

Client:	Hindustan Unilever Limited
Location:	Haridwar
Country:	India
Project Size:	20277 m ²
Consultant :	Aker Power Gas Pvt. Ltd., Pune
Solution Offered:	BUTLER™ BUILDING SYSTEMS
Duration:	60 Days
Year of Completion :	2009

The CLS Project of Hindustan Unilever Limited is one of the largest projects located in the developing industrial area of Haridwar, which is setting an example for its Project Management, Design and Engineering brilliance. This massive project has also impressed its local and corporate neighbourhood for being erected barely in 60 days on an open, barren land.

Hindustan Unilever Limited, one of the leading FMCG companies in India wanted to complete their greenfield CLS - Project that spanned across a vast area of 20,000 sqmt in an ambitious time frame of just 60 days from order date. This was something unheard of in the Indian Construction industry and nearly impossible with conventional building techniques. The project timelines implied that the time of each PEB project execution activity will have to be reduced by more than 70 percent.

Tata BlueScope Building Solutions was awarded the contract for design, manufacturing, supply and erection of the project. However, the contract involved some very stringent penalty/bonus clauses against each milestone of the project execution.

Hindustan Unilever Limited wanted a leak-proof roof with 10 years warranty and an assurance for the structural stability for 20 years. Considering all the project requirements, BUTLER™ Building Systems with MR-24® Roof System was selected for the project. MR-24® Roof System is the world's leading standing seam roof system, which involves intrinsic roof seaming process at site to achieve the 100% leak proof performance for critical industrial applications.

On receipt of the order from Hindustan Unilever, the BUTLER™ team set about the task of redefining paradigms for industrial construction. The team did not flinch in the face of this daunting task, and worked closely to ensure the project was delivered in the given time frame. War room meetings were organised for the daily project progress reviews among all departments to ensure that there were no bottle necks and to flush out the job quickly through each department.

The project started with a set of drawings and a barren piece of land for which BUTLER™ team submitted the anchor bolt plan and column reactions for preparing the foundations. The design team then worked on a design, which could be swiftly manufactured, shipped and built in a shorter than normal time frame. Monsoons were approaching, which meant that any delay would have a significant impact on the deadline.

However, time was not the only challenge that the team faced. Building loads and design parameters were given in STAAD Software as per relevant IS and AISC Codes followed by Hindustan Unilever Limited. The BUTLER™ design team adapted to STAAD, which is not the regular software for Tata BlueScope Building Solutions. The project requirement of multiple numbers of stiffeners as per IS 800: 1984 meant that production could be delayed. Heavy collateral loads with complex locations and elevations were duly considered to facilitate the pipe racks, cable trays, header pipes, etc.

Procurement of raw materials was also done in a short time frame. Alongwith procuring the raw materials in time, the team had to secure logistics support for ensure minimum delivery time considering the distance of the site from plant was more than 1,500 kms. During the smooth mobilisation of resources at construction site, the team was constantly alert in ensuring safety - the most important value of the company - was not compromised in the pursuit to complete the project quickly. The site was completed on time in 125,000+ safe man-hours and was completely LTI-free till building completion.

Schedule for Designing, Manufacturing, Supply and Erection

The dates shown above Week Starting dates		Day 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Preparation of Shop Drawings, Fabrication, Delivery and Erection											
Sr. no.	Task Description										
1.	Receipt of Letter of Intent	◆									
2.	Supply of Anchor Bolts & Templates										
3.	Approval GA drawings										
4.	Preparation of Detailed Shop Drawings										
5.	Fabrication										
6.	Supply of Erectable Materials at Site										
7.	Painting of Primary Steel at Site										
8.	Erection of Primary & Secondary Steel										
9.	Roof System Installation										
10.	Wall Sheeting Installation										
11.	Completion of Building Envelope										◆

The Final Result

The project was completed and handed over on June 15, '09, five days ahead of delivery schedule. This was made possible because of the efficient project management of the Building Solutions team at every stage of manufacturing and erection. Looking at our exemplary performance in design, manufacturing, supply and erection of the pre-engineered building, Hindustan Unilever Limited awarded a performance bonus of INR 60 Lacs to Tata BlueScope Building Solutions. They also appreciated the safety performance at site in an official letter. However, the biggest reward for the team was a repeat order placed by Hindustan Unilever Limited on September 20, 2009, which reinforced their trust in Tata BlueScope Building Solutions.