

HSS Case Study:

Industrial Warehouse with 3 Ton crane

The pace of growth in the industrial sector has resulted in a need for the prompt construction of industrial warehouses, factories and workspaces.

Due to this reason, IIL's hollow structural sections (HSS) were used to construct a 150,000 sq. ft. warehouse near Lahore to be used for storage as well as manufacturing.

PROJECT:

To complete a 150,000 sq. ft. industrial warehouse with a total span of 240 ft and a weight bearing capacity of at least 3 tons.

OBJECTIVES:

-  Fast & non-disruptive project completion.
-  Durable, cost effective & structurally stable solution.
-  Flexibility for expansion.
-  Increased torsional capacity.



CHALLENGES & SOLUTIONS:

CHALLENGES	SOLUTIONS
- To ensure that the weight bearing capacity & structural integrity of the warehouse would be maintained despite considerable span of 240 ft.	- Ensured that appropriate sizes & thicknesses of the specified HSS were used. - Vetting of design and specifications with IIL's panel of structural engineers & architects.
- Transportation of completed trusses to construction site was difficult due to their size.	- Trusses were fabricated & welded on-site.
- To ensure timely delivery of all construction materials.	- Close coordination between IIL & the construction contractor to meet on-site requirements.

MATERIAL:

-  8x8" IIL HSS were used as main columns
-  6" & 4" IIL HSS were used for tursses
-  ISL Galvanized Sheets were used for roofing

EXECUTION:

- ③ IIL's HSS was used for the columns, beams, purlins & trusses.
- ③ **The structure was erected in less than 3 months, which is at least half the time it would have taken using RCC + Re-bar.**
- ③ Strength of steel was proven as the 3-ton crane ran seamlessly on the steel structure.



ACHIEVEMENT:

- ③ Completion of structure in shorter time frame.
- ③ Multiple costs-saving including, including labor & fabrication.

PROJECT VIDEO:

To watch the video, kindly visit our exclusive HSS section on our website | www.iil.com.pk/HSS

ABOUT THE COMPANY

International Industries Limited (IIL) is Pakistan's largest manufacturer of steel, stainless steel and plastic pipes with an annual manufacturing capacity of 750,000 tons and annual revenues of almost Rs. 25 billion.
