

# HSS Case Study:

## 13,000 sq. ft. Corporate Office Building

IIL's Hollow Structural Sections (HSS) were recently used to construct a Ground + 2 floor, 13,000 sq. ft. office building near Lahore. This project was completed quickly and efficiently, which serves to further highlight the benefit of using IIL's HSS.

### PROJECT:

To complete a 13,000 sq. ft. corporate office building with a span of 28 ft.

### OBJECTIVES:

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



### CHALLENGES & SOLUTIONS:

CHALLENGES	SOLUTIONS
<ul style="list-style-type: none"> <li>- To reduce the structural weight of the 1st and 2nd floor while maintaining strength.</li> </ul>	<ul style="list-style-type: none"> <li>- Optimizing the mix of sizes and thicknesses of the HSS that was used without compromising structural integrity.</li> </ul>
<ul style="list-style-type: none"> <li>- Transportation of completed trusses to construction site was difficult due to their size.</li> </ul>	<ul style="list-style-type: none"> <li>- Trusses were fabricated &amp; welded on-site.</li> </ul>
<ul style="list-style-type: none"> <li>- To ensure timely delivery of all construction materials.</li> </ul>	<ul style="list-style-type: none"> <li>- Close coordination between IIL &amp; the construction contractor to meet on-site requirements.</li> </ul>

### MATERIAL:

- ⚙️ 12" IIL HSS were used as main columns.
- ⚙️ 8"x8" & 6"x6" IIL HSS were used for turrsses.
- ⚙️ 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 3 months, which is at least half the time it would have taken using RCC + Re-bar.
- ③ The construction is such that IIL HSS is clearly visible on the exterior and interior of the office building which adds to the aesthetic appeal.



## 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](http://www.iil.com.pk/HSS)

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## 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 741,200 tons and annual revenues of almost Rs. 25 billion.

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