



ArcelorMittal

Differdange Histar sections for the Hearst Tower in New York

Steel in creative dialogue with Art Deco

The Hearst Headquarters revive a dream from the 1920s, when William Randolph Hearst envisaged Columbus Circle as a vibrant new quarter for media and entertainment companies in Manhattan, New York, USA. At that time, Hearst commissioned a six-storey Art Deco block on Eighth Avenue to house his publishing empire. When it was completed in 1928, he anticipated that the building would eventually form the base for a landmark tower, though no scheme was ever advanced. Echoing an approach developed in the Reichstag and the Great Court at the British Museum, the challenge in designing such a tower at some seventy years remove was to establish a creative dialogue between old and new.

The new forty-two-storey tower rises above the old building, linked on the outside by a transparent skirt of glazing that floods the spaces below with natural light and encourages an impression of the tower floating weightlessly above the base. The main spatial event is a lobby that occupies the entire floor plate and rises up through six floors. Like a bustling town square, this dramatic space provides access to all parts of the building. It incorporates the main elevator lobby, the Hearst cafeteria and auditorium and mezzanine levels for meetings and special functions.

Structurally, the tower has a triangulated form – a highly efficient solution that limits the volume of steel for the structure. With its corners peeled back between the diagonals, it has the effect of emphasising the tower's vertical proportions and creating a distinctive faceted silhouette.



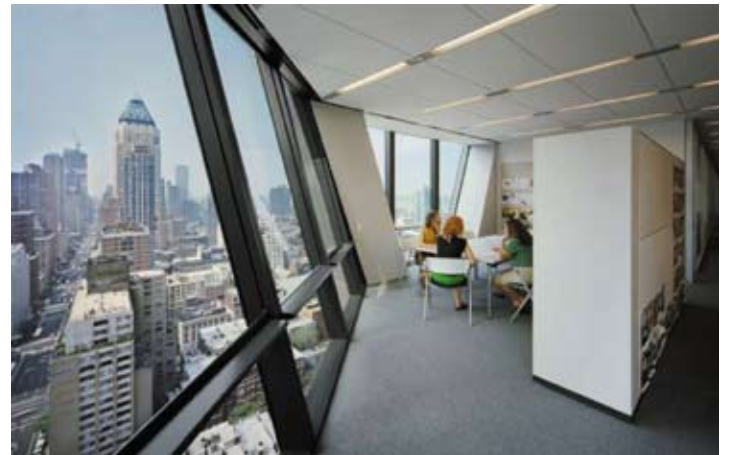
photos © Norman Foster

Hearst-Tower NewYork

Environmental and architectural recognition

The new building is also distinctive in environmental terms. It is constructed using 85% of recycled steel and designed to consume 26% less energy than a building that minimally complies with the respective state and city energy codes. As a result, it is the first new occupied office building in the city to have been given a gold rating under the US Green Buildings Council's Leadership in Energy and Environmental Design (LEED) program.

Over 85% of the steel used for the structure is recycled material. The Hystar steel sections made in Differdange (ASTM A913 grade 65, wide flange structural shapes per ASTM A6) are used in the wind bracing and gravity load system. They are visible in the facade as diagonal lines over all faces of the skyscraper. In fact, these structural members are inclined and function as bracing and column at the same time. This structural system is called a diagrid, and is extremely weight-efficient as it contains roughly 20% less steel than would a conventional perimeter frame - saving approximately 2,000 tons of steel. Structural steel tonnage is about 10,000 tons. External cladding of tower diagrid is profiled stainless steel.



On November 14th, 2008, the English architect Norman Foster was awarded the International Highrise Award in Frankfurt, Germany, for his Hearst Tower project.

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