Located at the heart of Madrid’s business district, the 120-meter high Torre Europa is one of the most emblematic and tallest buildings in Madrid’s skyline. Originally constructed in 1985, it has recently undergone an extensive renovation to enhance the overall appearance of the building and become one of the smartest office complexes in the world.

Glass plays a major part of the new look for this iconic building. The open and transparent new entrance hall has been built using the very latest glass construction techniques. The cube shaped entrance 10x10x12 m is self-supporting through the seamless integration of tall glass panels, and interconnected glass fins and beams. A glass and steel canopy overhangs the lobby and wraps around the side of the building to connect the plaza to the main entrance.

The glass panes that form the façade on two sides, measuring 10 meters high and 3 meters wide, stand on the ground floor slab and are stabilized by vertical glass fins. The connection between the façade panes and the fins is resolved with laminated titanium inserts. The top end of the fins is connected to a horizontal glass beam that extends along the two façades, thus forming an L-shape with both ends fixed to the primary structure of the building.

The structurally independent roof of the cube is composed of solar control insulating glass panes supported by extra-narrow glass beams with a length of 12 meters in order to preserve the maximum transparency. At the same time, the north façade self-supporting revolving doors 5.5 meters high allow maximum vision and minimal obstruction to the entrance.

The limited space on site and the tight installation tolerances for such large and heavy glass panels was a challenge that was achieved by a highly skilled installation crew and the creation of custom made tools to handle the lifting and placing.