Glass Corridor in China Takes Tourists Above the Clouds

In the last decade, China has established a reputation for the audacity of its tourist attractions. The country is peppered with glass footbridges and sky walks, aimed at appealing to domestic tourists’ appetite for daredevil attractions.

The country’s latest such structural feat is the Huangtengxia Tianmen Sky Walk in southern China’s Guangdong province — a viewing platform which could not have been achieved without the resilience of its three supporting steel pillars.

These pillars of steel and concrete support a 900-m-high glass observation deck that juts out 370 m from a cliff edge.

The elongated observation deck is the work of CMCU Engineering Corp. This state-owned company, which was established in 1964, is going about transforming itself into an international engineering corporation integrating design and engineering construction with investment and financing.

The sky walk stands on a steep mountainside about two hours by car north of Qingyuan city. Its design comprises two oval structures suspended in mid-air over the valley — one a horizontal walkway, and the other a vertical “tower.” These two elements are reached via a long, narrow, open-air corridor.

The shape of the cable-stayed tower and the platform were reportedly inspired by two badminton or tennis rackets. The three steel pillars of increasing height support the structure and allow it to jut over the cliff edge, offering incredible views. These pillars also support flooring of 60-mm-thick glass, which boasts a transparency of 99.9%, making it the world’s most advanced such material. The biggest single pane is 15 m².

The glass corridor can bear a weight of nearly 400 metric tons, which equates to the weight of about 4,000 people. To make it even safer, 20 dampeners were installed to...
lessen the impact of large groups of tourists moving across the glass flooring.

The man-made waterfall flows from the underside of the circular footbridge, where 450 water nozzles have been installed.

In the morning, the structure might be above the clouds, but on a clear day there are views over the urban landscape of Qingyuan to the south and Huangteng Gorge’s forested terrain to the north.

*Shenzhen Daily* describes the water feature’s musical accompaniment: “During the daytime, the huge artificial waterfall dances to the music like it’s interpreting an elegant waltz in a formal white dress.” As night falls, the 2,000 multi-colored LEDs are switched on, and nocturnal visitors get to enjoy an extravagant light show.

**Sky-High Tourism**

The sky walk is another installment in the increasingly daring, steel-built engineering marvels that are driving tourism across China. Prior to the opening of the 500-m-high Huangtengxia Tianmen Sky Walk, the highest such structure was the Zhangjiajie Glass Bridge.

This ambitious project uses steel girders and handrails to ensure the highest safety standards are met without compromising the stunning views the installation offers to visitors. At 300 m high, this glass-bottomed bridge spans the Grand Canyon of Zhangjiajie in Hunan Province.

Also in Hunan Province, the Walk of Faith is a 60-m-long glass-paved section of the Skywalk Trail, a pathway attached to the face of Tianmen Mountain.

Across the country, thrill-seekers seem to be spoilt for choice, and given the nation’s continued appetite for altitudinous attractions, all eyes will be on Huangtengxia Tianmen Sky Walk’s engineering and construction.

No doubt its successor is already being planned. And steel, which dominates the markets for long-span bridges, railway bridges, medium-span highway bridges as well as footbridges, will have a central role to play.

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