

Lusail Plaza Towers: Facade Design and Execution Excellence



Located in the visionary Lusail City, Qatar, the Lusail Plaza Towers represent a pinnacle of modern architecture and urban planning. Comprising four impressive skyscrapers, with the two tallest reaching heights of 306 meters and the other two at 225 meters, these towers are designed not only as architectural marvels but also as symbols of luxury and engineering advancement. The GEODE unitized curtain wall system by TECHNAL is at the heart of these towers, enhancing their structure, aesthetics, and environmental sustainability.







The towers are a key component of the broader Lusail City development, which is planned as a smart city with residential, mixed-use, entertainment, and commercial districts. The Lusail Plaza itself is strategically positioned as a commercial and administrative hub, making the towers both a focal point and a functional asset in Qatar's expansion and modernization efforts.

Each of the four towers boasts unique design characteristics that are supported and enhanced by the GEODE system. This includes 271,000 meters of unitized curtainwall framing and 23,432 façade panels, which enclose 85,340 square meters of cold bent glazing. These elements come together to form the towers' distinct, fluid façades, which not only offer panoramic views of the Arabian Gulf but also significantly contribute to energy efficiency and indoor environmental quality.

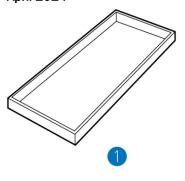


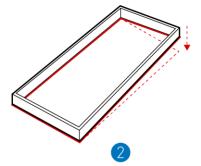
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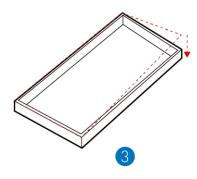


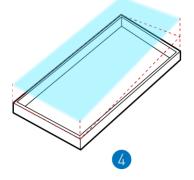
The GEODE system's cold bending capability is particularly noteworthy. It enables the creation of the towers' distinctive curved and twisted forms, providing each skyscraper with a unique silhouette against the Lusail skyline. This technology allows for dynamic building exteriors without repetitive panel geometry, highlighted by the maximum out-of-plane cold bent panels, which measure 44mm. Furthermore, the system is capable of handling large dimensions, supporting panel sizes up to 12 meters, thereby enabling expansive and visually striking façades.

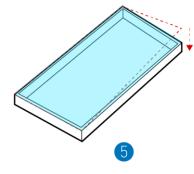


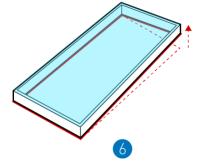










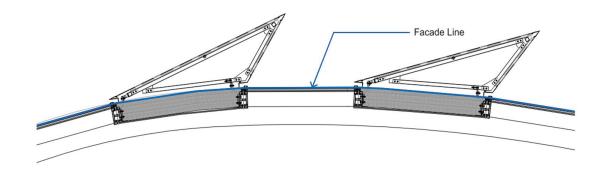


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Incorporating large sun-shading aluminium fins, the GEODE system enhances the facade's functional performance by optimizing energy consumption. This is critical in the harsh desert climate of Qatar, where temperature control and sun protection are paramount.

Structurally, the GEODE system complements the towers' robust engineering, accommodating and distributing loads to enhance overall stability and resilience. From an environmental perspective, the advanced glazing optimizes energy efficiency, seamlessly working with the buildings' climate control systems to maintain comfortable interior conditions.



Aesthetically, the curtain wall is designed to harmonize with the building's overall design language. It adapts in style, colour, and texture, contributing to a unified and striking architectural expression. The system also houses essential systems like lighting and ventilation, integrating functionality into the facade while facilitating easy access for maintenance and repairs.

The Lusail Plaza Towers, through their towering presence and innovative facade technology, not only mark a significant milestone in the development of Lusail City as a hub of luxury, sustainability, and architectural innovation but also exemplify the cutting-edge of urban architectural design. The GEODE unitized system by TECHNAL, with its flexible design, environmental credentials, and efficient execution, plays a crucial role in this landmark project, showcasing facade design and execution excellence at its finest.



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About TECHNAL

With over 60 years of experience, Technal stands as a leader in delivering state-of-the-art aluminium building systems that epitomize both high-end design and sustainable innovation. Our products, crafted from 75% recycled materials and 95% recyclable, cater to diverse markets including public, commercial, and residential sectors. We are committed to meeting the most sophisticated architectural demands with minimalist designs, customized with an exclusive array of colours and handles.

Our mission is to transcend the ordinary and maximize user comfort through limitless imagination, top-tier design, and groundbreaking innovations, all underpinned by sustainable practices. Technal is recognized for its reliability and creativity, continually fuelled by an insatiable curiosity and a fervent passion to explore new possibilities.

Our dynamic brand personality is attuned to the constantly evolving global landscape, driven by a vision to positively impact lives through innovative and reliable solutions, enriched with a touch of creative flair. Technal's designs foster openness and connectivity with the



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environment, creating spacious and luminous living spaces that integrate seamlessly into your lives.

By collaborating closely with a network of trusted partners and creative minds, including architects and aluminium fabricators, Technal offers bespoke solutions that combine durability, functionality, and aesthetic excellence.

For more information, visit www.technal.asia

Photos: https://we.tl/t-UQM5V9vRyH