

press release

ICONSIAM – an icon in all-glass design

With the luxury shopping mall ICONSIAM, the skyline of Bangkok has been given a 750,000sqm landmark on the Chao Phraya River. Based on the draft of Urban Architects, a geometrically complex suspended glass façade with different radii was created. With a length of 300m, the glass front soars to a height of up to 24m, rendering it one of the largest all-glass façades in the world. seele was responsible for the design, production and installation of this glass front.

Bangkok, December 12, 2018. At the beginning of November, ICONSIAM was officially opened. With star guests such as Alicia Keys and Naomi Watts, the luxury retail center opened its doors in Bangkok. Urban Architects designed an impressive building that captivates with its innovative design while at the same incorporating allusions to traditional Thai culture. With a façade area of 5,300sqm across a length of approx. 300m, imposing glass fins and panes form a “colossal window” spanning 3 stories that overlooks the Chao Phraya River. The pleated arrangement of the glass panes evokes the design signature of the folded leaves in the traditional flower arranging art of “Baisri”. Besides its unique aesthetic, the suspended all-glass construction represents an outstanding technical solution. The planning, production and installation of the highly transparent façade were the responsibility of the façade construction specialist seele. This not only includes the production and installation of extremely large-format and high-precision glass components, but also the appropriate compound technologies, connection details and, last but not least, the use of load-absorbing adhesives.

One of the world's largest suspended all-glass façades soaring to a height of up to 24m

The all-glass construction of seele with a view onto the Chao Phraya River forms the main entrance to the shopping mall. The suspended all-glass design is up to 24m high; the supporting structure is formed by glass fins, which are assembled from parts with lengths of up to either 16m or 8m. Static fastening is usually on the ceiling at a height of 20m; above that, the construction cantilevers up to 4m to form a balustrade for the roof garden above. The façade comprises glass panes measuring up to 16m x 3.20m plus up to 8m x 3.20m in one piece. The dead weight of the façade panes, which are up to 3.5t, is absorbed at the lower end of each pane by cross-pieces, known as transoms. The stipulation was that all steel components directly connected to the glass had to be designed as bolted connections in order to rule out accuracy losses due to welding distortion. The glass fins have an angle of inclination of up to 12° from the vertical; the overhang of the façade panes is between 0 and 14°.

press release

There are six entrances along the façade, consisting of gold-colored stainless steel portals. These portals are necessary for static reasons in order to fix the doors and separate them from the suspended façade, so that the movements between the roof and floor can be absorbed.

Excellent craftsmanship in engineering and design

“The engineering and entire production from a single source, combined with logistics aligned to the assembly process, enabled this unique all-glass construction to be implemented with a project duration of just under two years,” says Thomas Spitzer, Managing Director of se-austria GmbH & Co. KG, a company of the seele group. The steel production of seele manufactured the steel consoles (approx. 103t) as well as the stainless steel shoes (118t). In this way, the production accuracy of the stainless steel shoes could be guaranteed as “just-in-time” deliveries. The glass fins and the corresponding stainless steel shoes were completely assembled at the seele location in Germany to ensure the highest quality of craftsmanship. “The bundled special know-how within the seele group was applied in this extremely demanding project. Hardly any other company has such a depth of manufacture combined with such a broad range of products and services,” says Thomas Spitzer.

The 333 glass fins and 333 glass panes made of 2x10mm TVG were manufactured by sedak GmbH & Co. KG with highest precision.

Specially developed assembly construction

For the assembly of the oversized glass fins and panes, two suction units with counterweight and three-axial adjustment were developed specifically for this project. Only the specially developed suction systems made it possible to lift the glass into the final, double inclined position. During assembly, the glass fins were temporarily stabilized by custom-fit timber supports that formed the contour of the façade. Only when the façade panes were inserted, did the façade become self-supporting.

“ICONSIAM is a unique project for us. A well-established team of engineers, project managers and assembly staff ensured a smooth process and a perfect result. Once again, our colleagues at seele are setting new standards in façade construction,” says Thomas Spitzer.

press release

seele group

The seele group of companies, with headquarters in Gersthofen near Munich, is one of the world's top addresses for the design and construction of façades and complex building envelopes made from glass, steel, aluminium, membranes and other high-tech materials. The technology leader in façade construction was founded in 1984 by master glazier Gerhard Seele and steelwork engineer Siegfried Gossner.

Based on a profound understanding of design and materials, seele provides everything necessary for ambitious one-off designs true to the original ideas of engineers and architects. The seele group offers its building sector and industrial customers a complete package of services, ranging from R&D, individual advice and joint conceptual design right up to the planning, detailed design and construction of their projects. seele's own production plants for technologically challenging designs and the group's own erection crews on site provide a guarantee of the very highest quality "made by seele".

About 1,000 employees work at the seele group's locations around the world, together generating an annual turnover of about €250 million.

Presse contact:

Christine Schauer

Head of Marketing

Phone: +49 821 2494 – 825

Email: christine.schauer@seele.com

www.seele.com

seele

press release

Visual material



Project film seele YouTube channel:
© seele



The luxury shopping mall ICONSIAM in Bangkok with a “colossal window” up to 24m in height and spanning 3 stories. © seele

press release



The pleated arrangement of the façade panes and glass fins alludes to the Thai leaf folding art of "Baisri". © seele

press release



Assembly of the glass panes: The specially manufactured suction unit turns the glass into the required geometry for installation into the façade. © seele

press release



Pioneering work by seele: The suspended all-glass façade spans 300m, rises three stories high and is truly a masterpiece with its inclined, outwardly sloping design.



© seele

press release



The pleated arrangement of the glass panes evokes the design signature of the folded leaves in the traditional flower arranging art of "Baisri".

© seele