

Damas Tower Footbridge – Dubai, UAE



Heavy lifting of footbridge



▲ Footbridge during lifting to final height of 165m

High rise buildings designed as twin towers often need a connecting footbridge at a high level. In this case the Damas Towers are connected by two small footbridges, positioned on level +22m and +165m. The most effective solution for the higher level is Heavy Lifting of the complete footbridge in its final position.

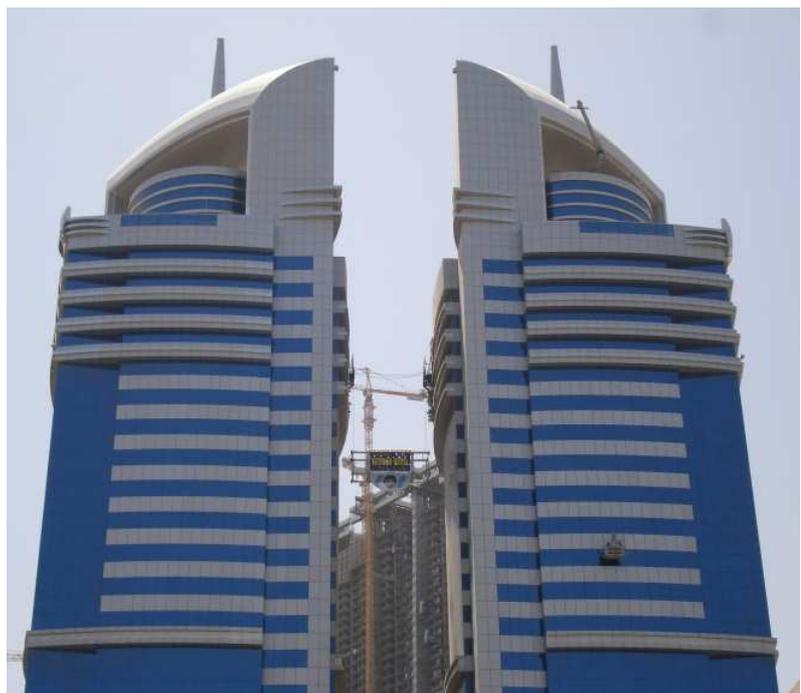
The lifting was realized by 4 lifting units SLU 10/200 with an average speed of 13m/h during the lift.

Scope of work performed

Lifting of a footbridge, weighing 5t and lifting distance 165m.

Equipment:

4 lifting units type SLU 10/200



▲ Footbridge reaching final position



▲ *Crossed guide cables*

The lifting operation up to +165m was a 13 hours work, due to a rising strong wind during the first hours of lifting.

To prevent swinging of the footbridge during lifting operation 4 guiding cables have been spanned crossed to ground and progressively released during the lifting.

The movements of the footbridge have been controlled during the entirely operation, and also fixed during braking times.

This system secured the footbridge (and the building) against accidental damages.

OWNER
Sheik Bin Zayed

MAIN CONTRACTOR
Techno Steel

VSL ENTITY
VSL Heavy Lifting Department

DATE
2008



▲ *Oversight and detail of Damas Tower Footbridge*

In this case of high rise lifts, they can be executed in a safe way using the 3-point-lifting method. This economical way to erect footbridges, girders, and similar structures at high level favours visions of modern architecture.

A quite difficult job to realize is the guiding of the structure on it's way up, without clashing against the finished façade of the building, especially if it's made of glass.

In case of towers standing side by side turbulences are created even from the normal air flow (wind – furnace effect) and uncontrolled movements of the lifted structure, if not guided would be a risk.

Even in good weather conditions, there's always to count with rather high wind forces on the upper levels.



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