

American Copper Buildings

Lindapter Girder Clamps provided a solution for connecting cladding to a skybridge between two skyscrapers.

Project Background

Location: Manhattan, New York City

Market: Steel Building Construction

Product: Type AAF Girder Clamps

Quantity: 600

Contractor: JDS Development Group



The American Copper Buildings is a luxury residential development which consists of an angled pair of copper-clad skyscrapers. The two structures which stand at 41 and 48 storeys are located at 626 First Avenue, and contain a total of 761 luxury rental residences. The eye-catching buildings on the East River waterfront were designed by SHoP Architects and constructed by JDS Development.

Client Requirement

During the early design stage it became apparent that planners would not allow the two buildings to be connected at grade due to zoning, and so the solution was to connect both towers with a skybridge 90 metres above ground level.

Due to working at height, a drill and weld-free method of connecting a steel framework to underneath the skybridge trusses was required in order to attach cladding panels.



Type AAF girder clamps used in 4-bolt configuration



Three storey skybridge links the two towers

American Copper Buildings

Design Solution

Lindapter Type AAF adjustable high slip resistance girder clamps with a combination of M16 and M20 diameter grade 8.8 bolts were specified to connect the steel framework.

The design incorporated a 4-bolt, 90° angle connection with steel location plates that avoided the need to drill or weld. Type AAFs also have a hot dip galvanised (HDG) finish which provides a high level of corrosion protection. The decision to use Type AAFs was influenced by independent technical accreditations, including ICC approval for structural and seismic design.



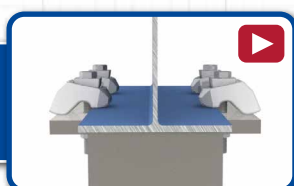
Installation

The contractor used over 600 Type AAF Girder Clamps to connect the steel framework to the main steel trusses of the 30 metres long skybridge. Installation was quick and easy as the steel beams were quickly aligned by sliding the beams into the correct position on each truss before tightening the clamp assembly.



The self-adjusting feature of the girder clamp was also beneficial as it allowed the contractor to use just one product on the whole project to suit the different flange thicknesses. Once tightened to recommended torque the steel framework was securely connected to skybridge. To complete the installation cladding panels were attached to the steel framework.

[Click here to watch the installation video >>>](#)



Result

Type AAF Girder Clamps provided a drilling and weld free connection that was quick and easy to install whilst working at height. The stunning three storey skybridge now links the two buildings and includes a fitness and leisure complex with a swimming pool on the bottom floor.



Three storey skybridge links the two towers

Key Benefits

- ✓ High slip resistance for combined loads
- ✓ Hot Dip Galvanised finish provides a cost-effective and low maintenance solution
- ✓ No drilling or welding required
- ✓ Fully adjustable on-site for easy installation



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