Dortmund Town Hall Refurbishment

Lindapter Hollo-Bolts provided a quick, secure, and easy to install solution for the refurbishment of the glass light dome on top of the town hall.

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Project Background

Location: Dortmund, Germany Product: Hollo-Bolt by Lindapter Contractor: Implenia Fassadentechnik GmbH Quantity: 1,600

Dortmund Town Hall was built in 1989 and has an impressive glass light dome over the entrance, but after more than 30 years the town hall and dome required an extensive programme of restoration.

Client Requirement

Due to environmental changes engineers calculated that there were increased wind loads affecting the glass construction of the light dome and the existing glass panels were beginning to fail. To ensure the dome was safe and watertight the client wanted to restore the glass dome by replacing the glass panels with a modern solution but retaining the original steel dome structure.

Design Solution

The original specification was to use self-tapping screws to connect U shaped brackets to the existing hollow structural sections (HSS) of the dome frame, before attaching the new frames that would hold the glass panels.



Hollo-Bolt used to connect the U-shaped bracket to the existing HSS



New glazing frames attached to the U-shaped brackets

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Design Solution (continued)

However due to the high loads present the contractor wanted to use a stronger product. Lindapter's technical support team were approached for a solution and were happy to recommend Hollo-Bolts, size 3/8" with hexagonal head due to its high strength capacity and ability to be installed from one side of the HSS.

Installation

To begin with the old glazing panels had to be carefully removed and the old glazing beads that were welded to the base structure removed before the existing HSS was repainted. The U shaped brackets were the connected to the SHS using over 1,600 Hollo-Bolts which were quick and easy to install using hand tools.



The new glazing frames were then connected to the brackets before the new glass panels were installed to complete the installation.



Click here to watch the installation video >>>



Result

The Lindapter Hollo-Bolt solution provided a high strength connection which proved to be an efficient, secure and long-term solution. It was also quick and easy to install from one side, with no specialist equipment required, avoiding the need for welding in the field and at height.



The completed dome after restoration



Key Benefits

✓ High strength secure connection

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- ✓ Fast, convenient installation from one side
- Hollo-Bolts offer a durable and long-lasting solution
- Safer installation as no hot welding required

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