

# Quartz Processing Plant

Lindapter FloorFast® provided a solution for securing steel checker plate flooring.

## Project Background

**Location:** Haltern am See, Germany  
**Product:** Type FF FloorFast®  
**Market:** Mining  
**Client:** Quarzwerke GmbH  
**Contractor:** MAW - Stahlbau Eulberg GmbH & Co. KG



The Quarzwerke Group is an independent family-owned company with over 137 years of experience in the extraction, processing and refining of industrial minerals. Their main locations are in Germany and Central Europe and have a product portfolio that includes raw materials such as quartz, kaolin and feldspar.

## Client Requirement

As part of their continued growth strategy, Quarzwerke were planning an expansion of their quartz processing plant at Haltern am See. The expansion included the construction of a seven-story steel framed tower, designed to house six huge silos, on the side of the existing building. They needed a practical solution for fastening approximately 15,000ft<sup>2</sup> of steel checker plate flooring on five of the seven floors. Due to the heights involved above the silos on four of the floors it was imperative, for safety reasons, that drilling in the field was avoided.



*FloorFast installed underneath the finished floor*



*FloorFast stepped cast body securely clamps to the steel*

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## Design Solution

The contractor approached Lindapter to find out if there was a solution for fastening the steel checker plate flooring to steel without drilling. Lindapter were able to quickly confirm that the Type FF FloorFast was the perfect product and arranged to meet the project manager to provide further information and give a product demonstration.

During the meeting it was explained that the Type FF FloorFast was an innovative floor connector designed to eliminate drilling in the field. FloorFast consists of a cast body with stepped clamping face which locks under the steel, providing outstanding clamping force and a secure connection.



## Installation

Before delivery to the construction site, each sheet of steel checker plate flooring was drilled and countersunk at the contractor's fabrication shop. Once the steel flooring had been delivered to site the FloorFast fixings were pre-assembled into each hole with the stepped cast body on the underside held from above by a countersunk socket setscrew with locking nut. The sheets of steel flooring were then hoisted to the required floor level by crane and laid flat into position. To complete the installation each countersunk socket screw was tightened down using a hexagon key ensuring the stepped body underneath was locked under the steel.

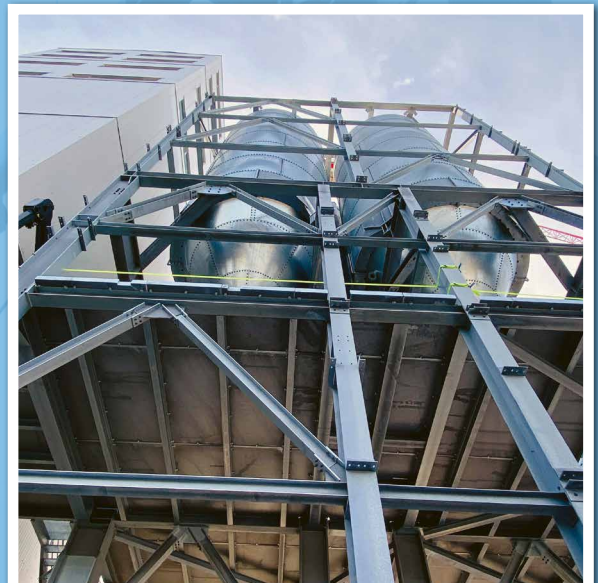


[Click here to watch the installation video](#)

## Result

Type FF FloorFast provided an easy to install solution that required no drilling in the field which in turn made the whole installation of the steel flooring over five floors much quicker and safer whilst working at height.

FloorFast also has Lloyd's Register Type Approval for resistance to shock and vibration, and whilst vibrations in the tower were low, the addition of a locking nut on each connection provided peace of mind to the contractor. It would also allow them to lift the steel flooring sheets without dropping the cast body so they could easily refit the steel flooring if necessary.



*The new seven-story steel tower and silos were attached to the existing building*

## Key Benefits

- ✓ No drilling in the field
- ✓ Safer installation at height
- ✓ Quick and easy to install
- ✓ Vibration resistance approval

