

# Construction of a new sprinkler control centre in Bensheim: Goldbeck relies on innovative connection technology

In a world where the need for productivity and cost efficiency is constantly increasing, the integration of innovative technologies and solutions is moving to the fore. In the context of this change, the use of BT technology can prove to be crucial. One example of this is the construction of a new sprinkler control centre in Bensheim, in which connection technology played a central role. With the BT-Spannschloss® (turnbuckle), an essential component of a simple bolted connection, precast concrete construction in building construction and underground construction can be accelerated and optimized.

## Accelerated construction projects and increased productivity

The Bielefeld-based construction and service company Goldbeck continuously anticipates innovative solutions in order to maximise efficiency and quality. For a current project to build a sprinkler control centre, Goldbeck therefore decided on the BT-Spannschloss® (turnbuckle). The turnbuckle as a connecting element not only accelerated the assembly of precast concrete elements. The grouting of these parts was also omitted, which led to considerable time and cost savings.

## Connection system: BT-Spannschloss® (turnbuckle)

The approved BT-Spannschloss® (turnbuckle) enables the connection of up to three precast concrete elements with bolted connections. It forgives tolerances of up to two centimetres, allowing construction to proceed smoothly even with minor deviations. The installation is possible almost independent of the weather without time-consuming welding or grouting work. Construction phases and projects can thus be significantly accelerated. This means easier assembly, less time spent connecting the precast elements and more projects in less time.

## Building project: grout-free construction of a new sprinkler control centre

Goldbeck also used the BT-Spannschloss® (turnbuckle) at a sprinkler control centre in Bensheim to mount precast concrete parts independently of the weather and at an accelerated rate. In addition, a RubberElast® compression sealant tape was used. This was installed in the area of the joint between the base plate and the precast wall as a pressure-tight seal of component joints. The installation was carried out by



Fully assembled BT-Spannschloss® (turnbuckle)



Sealing with RubberElast

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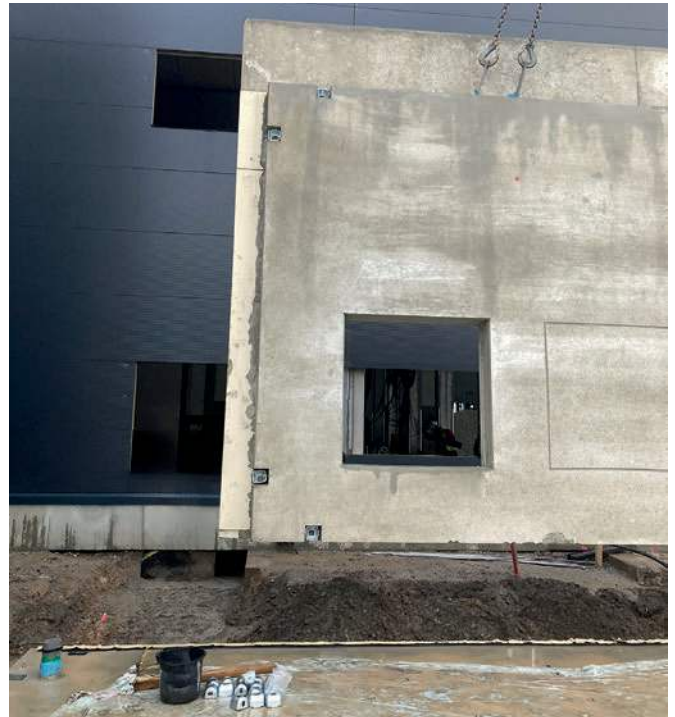
*RubberElast installed and compressed*

gluing the RubberElast onto the base plates and then placing the precast wall on the joint tape.

Due to the dead weight of the wall, a compression of 80 per cent of the joint tape was achieved. The RubberElast seals joints against pressing water up to 0.5 bar. Such projects show how modern technology can speed up the construction process without compromising structural stability.

**Use of the BT-Spannschloss® (turnbuckle) under dynamic load**

BT innovation is a company with over 30 years of experience in the construction and precast concrete industry. The



*Finished wall*

BT-Spannschloss® (turnbuckle) was developed over ten years ago, successfully established on the market and continuously developed further. The approval of the BT-Spannschloss® (turnbuckle) previously covered the effect of static and quasi-static loads. The ETA-19/0013 will soon be extended to include dynamic loads so that the BT-Spannschloss® (turnbuckle) can also be used in areas where there is a risk of earthquakes. ■

FURTHER INFORMATION



GOLDBECK GmbH  
 Ummelner Straße 4-6  
 33649 Bielefeld, Germany  
 T +49 521 94880  
[info@goldbeck.de](mailto:info@goldbeck.de)  
[www.goldbeck.de](http://www.goldbeck.de)



B.T. innovation GmbH  
 Sudenburger Wuhne 60  
 39116 Magdeburg, Germany  
 T + 49 391 73520  
[info@bt-innovation.de](mailto:info@bt-innovation.de)  
[www.bt-innovation.de](http://www.bt-innovation.de)



*Sprinkler control centre fully assembled*