

Joint research project on the practical design of higher strength steel started

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FRILO wins ZÜBLIN as cooperation partner

With Ed. Züblin AG, FRILO Software GmbH, provider of innovative solutions for statics and structural design, has won one of the largest German construction companies as a research partner. The cooperation came about through the collaboration of both companies in the Technical Committee "Design and Construction". The aim of the joint project is to confirm the practical suitability of the FRILO software solution Reinforced Concrete Column B5+ for the dimensioning of reinforced concrete columns with high-strength reinforcement.

ZÜBLIN has been using the high-strength reinforcing steel SAS 670/800 of Stahlwerke Annahütte Max Aicher GmbH & Co. KG for years. "This steel is much more efficient than classical reinforcing steel and allows in connection with the corresponding type approval much higher reinforcement degrees. This leads to higher load-bearing capacities of the reinforced concrete columns", explains Martin Benz, Head of Technical Office for Structural Engineering at ZÜBLIN Central Technology. In order to illustrate the time-dependent load-bearing behavior of a reinforced concrete column with high-strength reinforcement, a calculation tool based on Excel was used so far. "With the implementation of the higher-strength steel SAS 670/800 in the FRILO solution reinforced concrete column B5+, we now have a fully-fledged software solution for the dimensioning of the column load-bearing capacity", says Benz.

"By means of comparative calculations and comparisons of already existing calculations, the suitability for practical use is to be checked before other FRILO customers can also benefit from the solution", Peter Fritz, Head of Product Management at FRILO, explains the approach of the research project. The focus is on the verification of the accuracy and efficiency of the column design.

First results are already available

The FRILO solution already convinces in practice with its user-friendliness. "The B5+ software has a clearer and more comprehensible program interface with corresponding graphic representation and an attractive design. As a result, we enjoy a higher input comfort and more possibilities in the illustration of dimensioning relevant aspects such as the modelling of multistory columns or a greater flexibility in the load input", says Benz.

Research at ZÜBLIN is carried out in an application-oriented manner during ongoing project operation in order to obtain results that are suitable for practical use. It is also a tradition to work with brands from the Nemetschek Group, to which FRILO has belonged since 1999.

About the Nemetschek Group

The Nemetschek Group is a globally leading software provider for the digital

transformation in the AEC/O and media industries. Its intelligent software solutions cover the entire lifecycle of construction and infrastructure projects and allow creatives to optimize their workflows. Customers can plan, construct, and manage construction projects more efficiently and sustainably, and develop digital content such as visualizations, films, and computer games in a creative way. The software company drives new technologies such as artificial intelligence, digital twins, and open standards (OPEN BIM) in the AEC/O industries to increase productivity and sustainability and continuously expands its portfolio, including through acquisitions and investments in innovative start-ups. More than 7 million users are currently using the customer-focused solutions. Founded by Prof. Georg Nemetschek in 1963, the Nemetschek Group today employs more around 4,000 experts.

The company, which has been listed in the MDAX and TecDAX since 1999, achieved a revenue of EUR 995.6 million and an EBITDA of EUR 301.0 million in 2024. Since the end of 2024, the Nemetschek Group is certified in accordance with ISO 27001, the internationally recognized standard for information security management systems (ISMS).

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