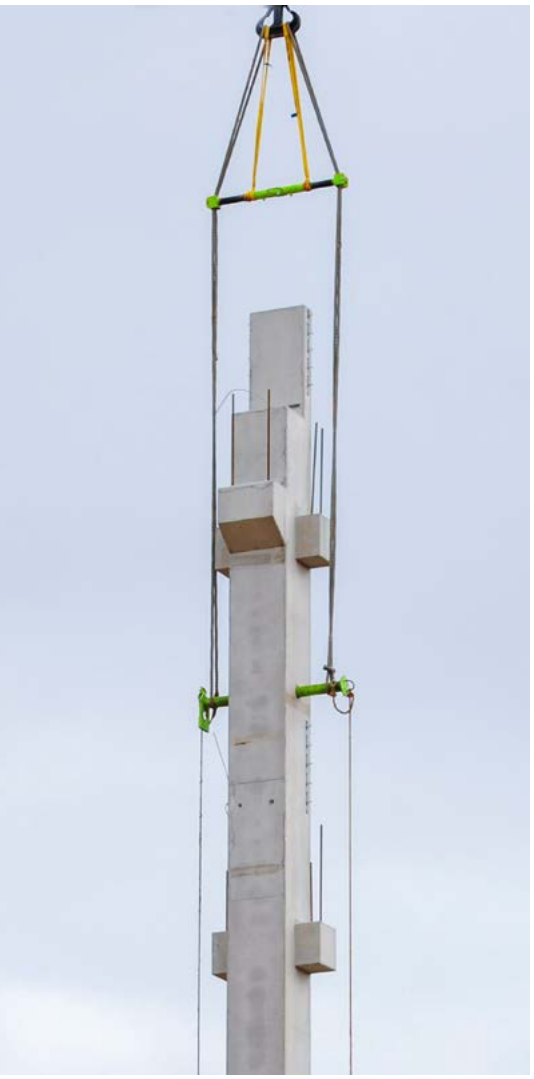
COLIFT ENSURING FAST AND EASY ASSEMBLY

OF THE LOGISTICS FACILITY FOR AUDI

Car manufacturing giant Audi is expanding production capacity in its logistics and goods transport center in Ingolstadt, Germany, by adding a two-story logistics building known as Hall B. The building has around 30,000 square meters of floor space and two truck lifts, and a construction period of only a few months is envisaged.

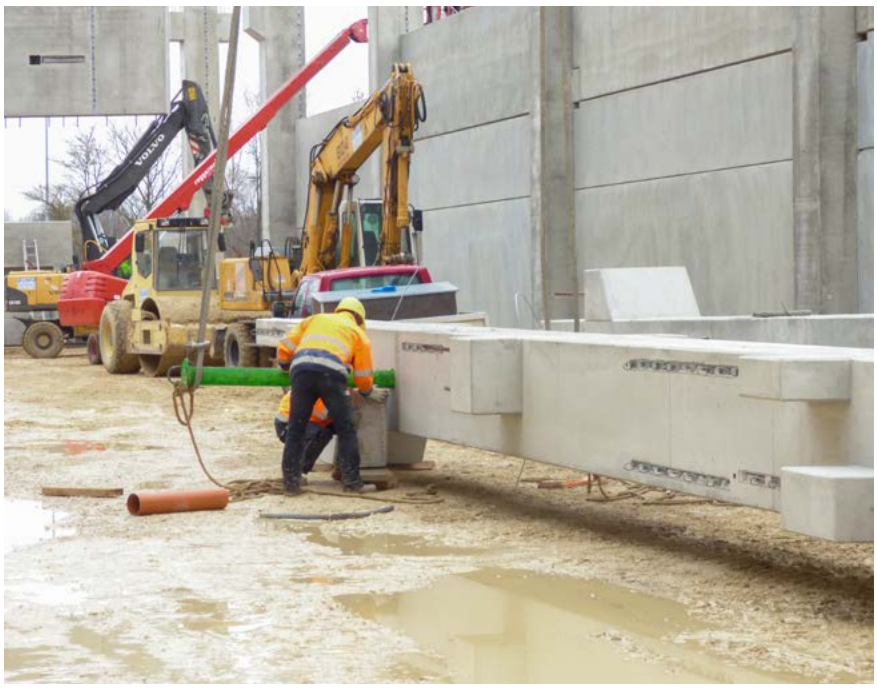
Text: Heike Laue



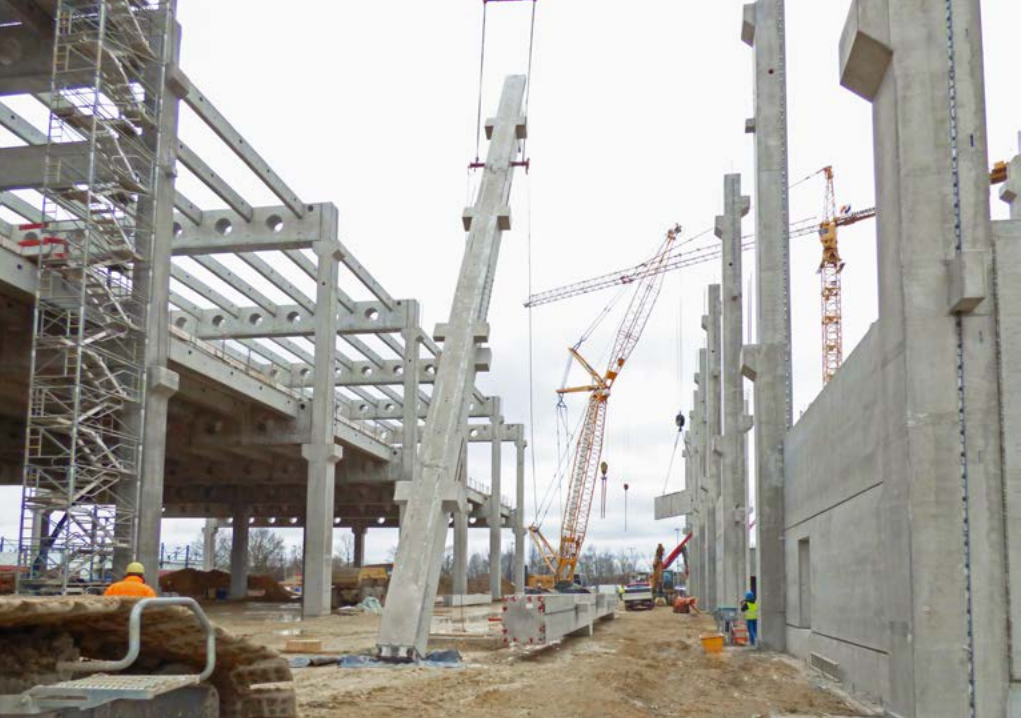
COLIFT Mounting System.

The multi-million-euro project will be taken into use in early 2017 after construction began at the end of December 2015. Around 800 employees will supply parts for rear axles and cockpit modules to Audi's production facilities next door. Peikko's CE-marked COLIFT Mounting System is being used for rapid and safe installation of precast columns. pbb Planung + Projektsteuerung GmbH was commissioned by the investor and owner, IFG Ingolstadt, to conceive and design this sophisticated building.

"For this building, we produced extremely large parts – up to 100 tons," says **Christian Lehmeier**, Site Manager of the construction company, Klebl



The COLIFT mounting shaft is inserted into the column.



COLIFT is suitable for precast elements up to 120 tons.

The huge precast columns were erected within an hour with COLIFT.

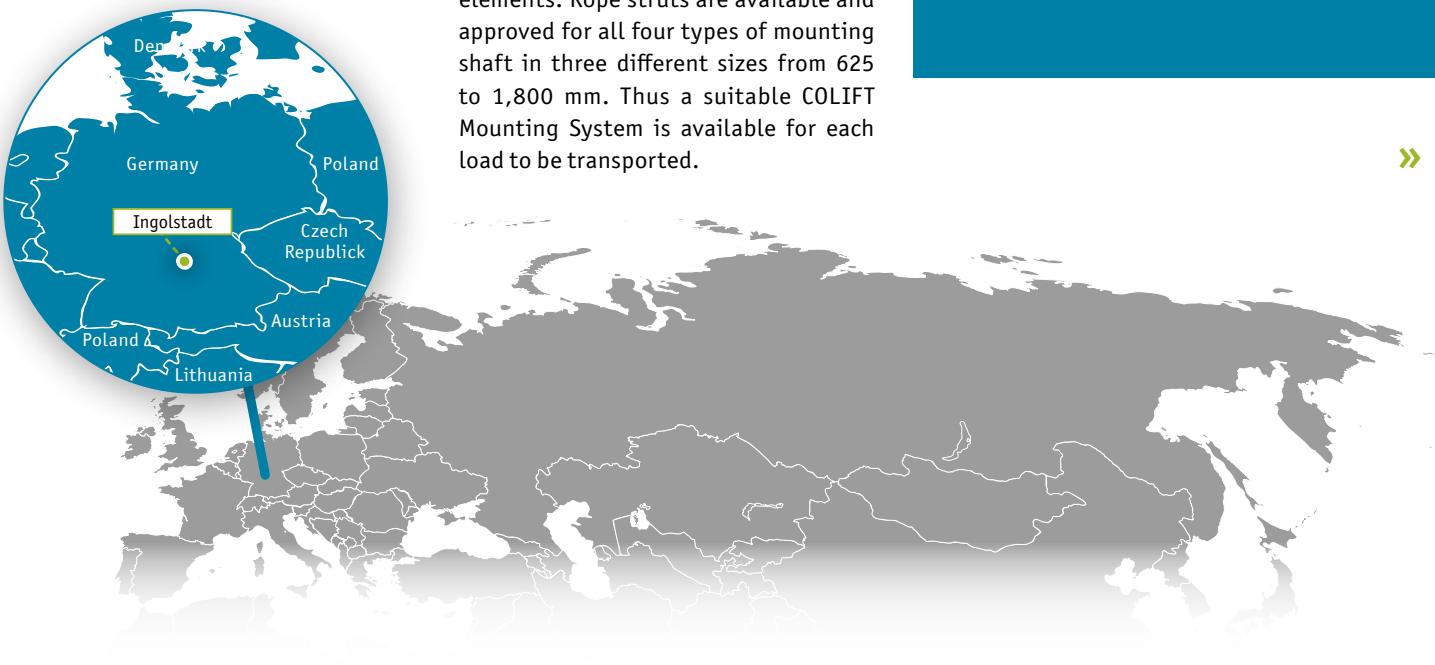
GmbH. Klebl built Hall T in 2013 on the same site with column connections by Peikko. Today, the CE-marked COLIFT Mounting System is being used to mount all heavy rod-shaped precast concrete elements at Klebl. **Matthias Wölfel**, Sales Engineer at Peikko Germany explains, "Some of the precast columns for Hall B have column connections at about 22 meters and a total height of 30 meters. The main beams weigh up to 87 tons. The demands on the capacity and safety of the lifting systems are correspondingly high." In addition to COLIFT, more than 1,500 Column Shoes and Anchor Bolts were used, as well as Installation Templates and Anchor Plates.

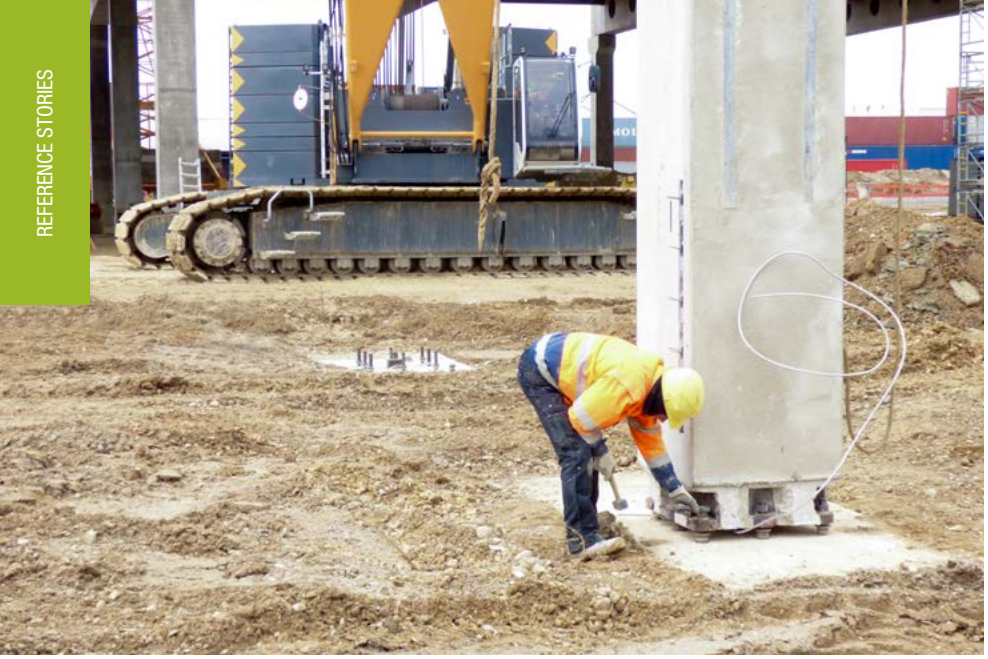
LOAD CAPACITIES UP TO 120 TONS

Four assembly crews, each equipped with a COLIFT Mounting System, installed the precast columns for the new building. COLIFT enables easy and time-saving mounting of rod-shaped precast concrete elements, such as columns. It consists of a mounting shaft with a slip guard and a rope strut and serves as a mounting device for lifting, moving and erecting precast concrete elements of up to 120 tons. Peikko offers four different mounting shafts from 1.20 to 2.00 meters in length and the corresponding slip guards (frogs) to match the precast elements. Rope struts are available and approved for all four types of mounting shaft in three different sizes from 625 to 1,800 mm. Thus a suitable COLIFT Mounting System is available for each load to be transported.

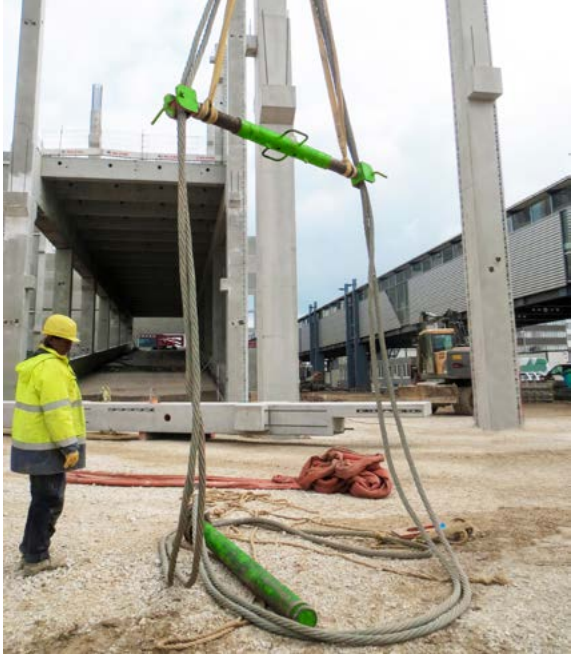
COLIFT MOUNTING SYSTEM FACTS

- CE-marked, manufactured under strict quality control
- Standardized mounting system for many load levels
- 5.8 to 42 tons with 30 cm corbel
- 15.8 to 120 tons without corbels
- Complete system
- Minimum need for maintenance





Adjusting the columns is fast and easy with Peikko's bolted column connections.



The mounting device is removed by remote triggering and ready for the next column.

COLUMN ERECTION WITHIN AN HOUR

As the construction site offers little storage space, Klebl organized delivery of precast elements "just in time", so the columns had to be mounted immediately. On average, the full assembly of each column with COLIFT, from unloading the truck up to the final grouting, was executed within an hour. The mounting system is easy to use and requires little maintenance. To lift a concrete element, the COLIFT mounting shaft and rope strut are attached onto the load cables of the crane and the assembly shaft is inserted into the precast element. Then the slip guard is attached and the concrete element can be lifted and transported. As soon as it is adjusted and fixed into its final position, the slip guard is detached by remote triggering and the mounting shaft removed. This makes for easy and secure mounting of concrete elements using the CE-marked COLIFT. The positive customer feedback Peikko receives shows how well the system proves itself in everyday use. Site Manager Christian Lehmeier on COLIFT: "The system is easy to use and simplifies our work tremendously."

PEIKKO'S COLUMN CONNECTIONS IN HALL T

During 2013, Peikko's solutions had proven themselves effective in the construction of the adjacent building, Hall T, which was also designed by pbb. Thanks to the use of column connections in the precast elements, the 70,000-square-meter, two-story Hall T was built in just nine months. The frame construction is stiffened by multiple fire walls and the shafts of three impressive truck lifts. The precast elements were manufactured in the plant and connected on-site. Due to wide spans and tremendous loads, the dimensions of the columns were required to be up to 100/90 cm. To connect the columns to their foundations efficiently, the structural designers chose column connections by Peikko.

"Peikko's Column Shoes and Anchor Bolts do not just securely connect a column to its foundation – two or more columns can also be connected, one above the other. This enables the length and weight of the items to be reduced to transportable dimensions while meeting all architectural and structural demands," **Ottmar Walter** of Peikko Germany explains.

Thanks to efficient organization of the construction process by Klebl, the COLIFT Mounting System has contributed to the fact that the assembly of Hall B is also completely on schedule. ■

The precast elements are delivered "just in time" and equipped with Column Shoes and Anchor Bolts (image) for a fast connection.