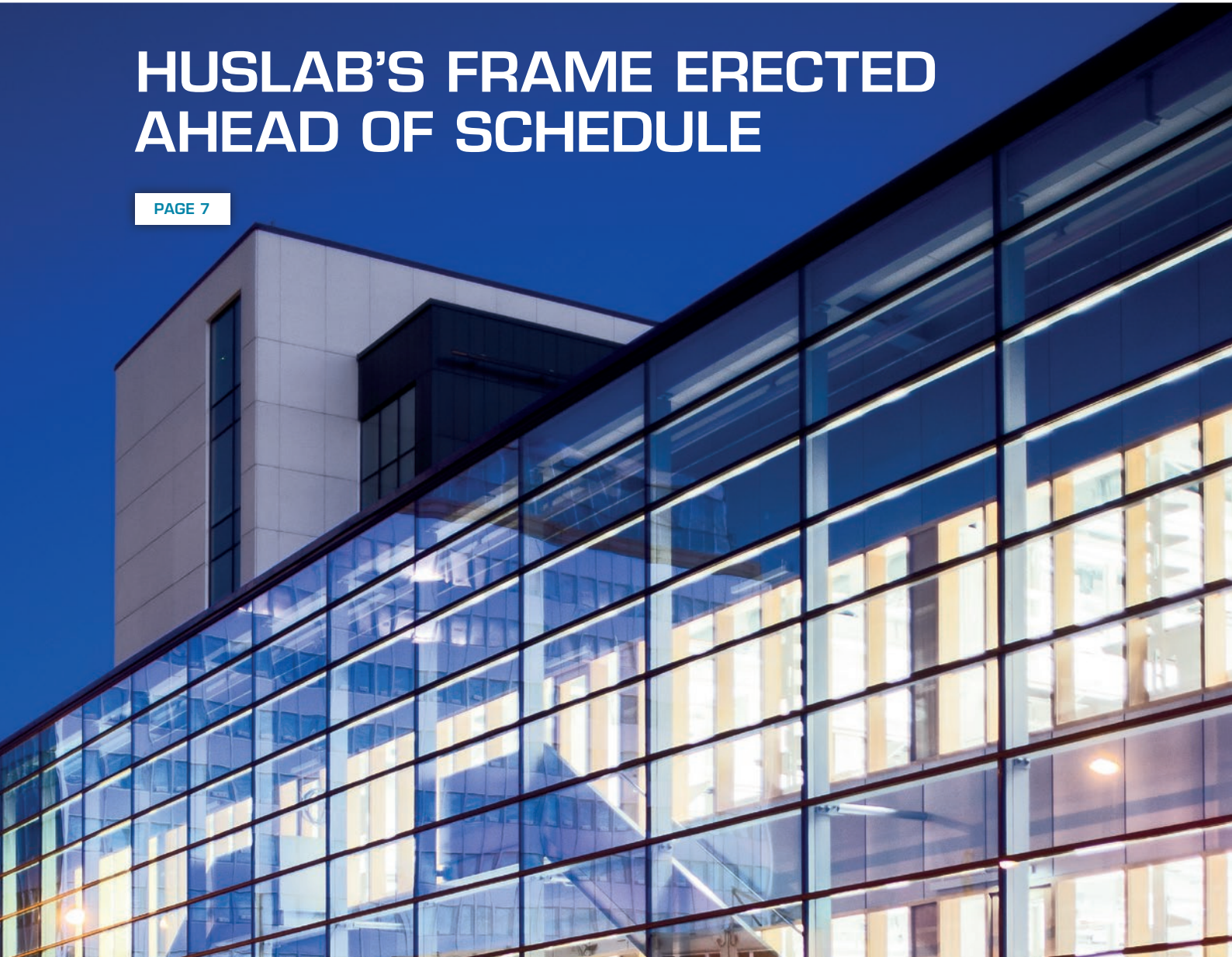


HUSLAB'S FRAME ERECTED AHEAD OF SCHEDULE

PAGE 7



**DELTABEAM® USED IN
SCT LUBRICANTS OFFICE
IN KLAIPĖDA, LITHUANIA**

PAGE 4



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Voimakatu 3
FI-15101 LAHTI, FINLAND
peikko@peikko.com

EDITOR-IN-CHIEF
Molli Nyman
molli.nyman@peikko.com

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ON THE COVER:
The laboratory center of Meilahti
hospital complex in Helsinki, Finland,
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designers alike. The geometrically
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situ concrete structures of the
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Sincerely,

Topi Paananen
CEO, Peikko Group Corp.
topi.paananen@peikko.com

NEW IDEAS ANYONE?

At Peikko we have a policy to encourage our own employees to make their own innovations. In this so called “Employee Invention Incentive Policy” Peikko staff members are rewarded when they bring their own innovations and ideas on the table. We have been lucky as we have been able to reward members of our staff like this many times in the past.

In the team evaluating the innovations of our employees, we started to wonder why could we not have this kind of a system at place also for our customers and other interested parties. We searched the internet and, to our surprise, could find only a few companies collecting and rewarding ideas in a similar way.

But why are companies traditionally so inward-looking? We at Peikko would like to change this. Future will show whether we will succeed in this or not. But at least, we will have given it a fair try!

Please read on page 23 of this magazine or online at www.peikko.com/innovations on how your idea could be put into use at Peikko and thus serve the construction industry as a whole.

Will your own idea will be the first one? I will be personally in contact with all those who introduce new ideas to us. ■



DELTABEAM® USED IN SCT LUBRICANTS OFFICE IN KLAIPĖDA, LITHUANIA

Text: Reeta Paakkinen

New premises for SCT Lubricants office will be completed in Lithuania this year. Peikko's DELTABEAM® was used in the construction of the premises in order to cover big openings with minimal beam height. The construction site of the SCT Lubricants office is located in the Southern part of Lithuanian Port city Klaipėda.

COVERING LARGE OPENINGS WITH MINIMUM BEAM HEIGHT

In the construction of the SCT Lubricants office, the main challenge was to cover large openings with minimum beam height. Cantilevers holding the facades were 4.6 meters (15 ft) long. The biggest span between floors totalled 18.35 metres (60.2 ft). DELTABEAM® Composite Beams were placed in level with floor slabs. The longest beam on the top floor was 23.1 meters (75.8 ft) long. Various reinforcement products and connections, PSB Punching Prevention System

and Bolted Connections of Peikko were also used. They helped to reduce the thickness of the slabs and made its reinforcement installation faster and easier.

"DELTABEAM® did the covering job perfectly," said **Martynas Urbikas**, owner and Chief Structural Designer at Struktūra ir Forma, responsible for the buildings structural design and project management. "There are no equally good solutions in the local market compared to DELTABEAM® in terms of load bearing capacity and light weight of the beam. These solutions were gladly accepted by architects, investors and construction companies here," he added.

Martynas Urbikas, owner and Chief Structural Designer at Struktūra ir Forma, UAB.



TEN YEARS OF COOPERATION

Peikko Group's Lithuanian subsidiary Peikko Lithuania has been working with Struktūra ir Forma since 2006, and has completed many different projects together. "We first met Peikko Lithuania in 2006, during first common project at Birutės al. 26, in Palanga city. I approached Peikko as I needed special solutions and had come across DELTABEAM® on the internet. We have now been using Peikko's solutions for 10 years already - including Column Shoes, DELTABEAM®, various fastening items, lifting items, PETRA Hollow-Core Slab Hangers and so on," said Urbikas.

He also noted experience in using DELTABEAM®, a solution familiar for himself, made the process at Klaipėda particularly smooth. "For the SCT Lubricants Office I used Peikko's solution knowing its possibilities and advantages very well. Therefore tackling architectural challenges of the project was much easier. DELTABEAM® solution provides new possibilities in design of different and interesting buildings, and save construction time and costs," Urbikas said.



INSTALLING THE VERY LONG DELTABEAM®

Some 365 meters (1,200 ft) and 30 pieces of DELTABEAM® were used for the project together with Peikko's Punching and Shear Reinforcement Systems, and Fastening Plates. DELTABEAM® Composite Beams were manufactured in Peikko's factory at Kralova nad Vahom, Slovakia. All deliveries were oversize, which caused a few logistical challenges. For example, when the longest DELTABEAM® which was 23.1 metres (75.8 ft) long was delivered, some part of street next to the building site had to be temporarily closed while truck reached the construction site.

„DELTABEAM® solution provides new possibilities in design of different and interesting buildings, and saves construction time and costs.“

The biggest challenge at the construction phase, was to install the longest of DELTABEAM®, a 23.1 meter (75.8 ft) long beam at a height of 21.5 meters (71 ft).





At the construction phase, the biggest challenge, however was to install the longest of DELTABEAM®, a 23.1 meter (75.8 ft) long beam at a height of 21.5 meters (71 ft). Two cranes were used at the same time for the installation work. DELTABEAM® was combined with cast in-situ concrete beams, holding together hollow-core slabs.

SCT LUBRICANTS OFFICE FACTS

- Developer SCT Lubricants, UAB
- General Contractor Embritas, UAB
- Structural design Struktūra ir Forma, UAB
- Architectural design Architektas LT, UAB
- Project size 3,500 m² (4,200 sq yd), 5 floors
- Planned completion 04/2016

SOLVING STRUCTURAL CHALLENGES

DELTABEAM® calculations were done by Peikko Lithuania, it is part of Peikko's service to structural designers in the DELTABEAM® design process. "We have very powerful internal calculation and dimensioning tools in use and it makes it possible for us to visualize deflections of the whole beam, a fact that turned out to be very handy in this particular project," said **Linas Lelesius**, Sales Manager at Peikko Lithuania. Senior Structural Engineer **Paulius Kugelis** of Peikko Lithuania notes it was very challenging to design column-DELTABEAM® connection as eight pieces of main reinforcement bars of column passed through the DELTABEAM® cross-section.

"It was also challenging to calculate the deflections of DELTABEAM® cantilevers, which were 4.6 meter (15 ft) long and make design of those beams. Deflection of cantilever end had to be within special range, because of façade elements, which had to be used. Another very demanding task was to calculate the natural frequency of the floor slab which had to be acceptable for vibration performance," Kugelis explained.

Martynas Urbikas noted cooperation with Peikko proceeded smoothly. "All products we ordered were delivered on time and were of expected quality. With all my good experience in those years and trust in Peikko, I see no obstacles in the future working with them together solving challenging structural situations," Urbikas concluded. ■



HUSLAB'S FRAME ERECTED AHEAD OF SCHEDULE

Text: Vesa Tompuri, translation Lionbridge Oy

Images: construction site: Matti Vuohelainen, completed building: Patrik Rastenberg / Design Office RE Group

The laboratory center of Meilahti hospital complex in Helsinki, Finland, is a masterpiece of builders and designers alike. The geometrically convoluted frame, designed for a cramped plot, consists of Peikko's DELTABEAM® Slim Floor Structure solution combined with cast-in-situ concrete structures of the underground floors.

Meilahti hospital complex in Helsinki is already a densely built complex of numerous buildings in the heart of the Finnish capital. Creative architecture provides here a prime example how hospitals can be expanded in busy central locations. Construction of the HUSLAB laboratory center began in 2013 and is completed in summer of 2015.

More than 19.5 million laboratory tests are done at HUSLAB laboratories a year. So far, laboratory tests and results have been done and diagnosed in several different sites, but after the new building is completed, they will be concentrated under the same roof.

All building and hospital infrastructure needed in a modern laboratory will be installed under the ceiling, which is invisible above a suspended ceiling.

"There is a lot of hospital technology, which is why we must think of use of space. One of the benefits of using DELTABEAM® is that there is more space for hospital technology," says Site Manager **Jukka Nikkola** from SRV Construction Ltd, the company responsible for project management.

According to Nikkola, cost was a criterion even more important than space in this project, too.

"We compared carefully all the options, and a composite frame solution, that is Peikko's DELTABEAM® Slim-Floor structure

with DELTABEAM® Composite Beams and Composite Columns, proved to be the most economical solution," he says. It enables slender and light structural solutions that provide savings in volume and costs.

PEIKKO IN CHARGE OF THE ENTIRE FRAME

The bidding contest on the frame solution was held in 2013. As always, Peikko's Finnish subsidiary Peikko Finland made careful calculations before submitting its tender. The goal was to find the optimum solution for the project, one of the most ambitious Peikko has undertaken.

“One of the benefits of using DELTABEAM® is that there is more space for hospital technology.



Elmo Krallé installs ventilation pipes. The amount of hospital and building infrastructure, and the space needed, were exceptional at HUSLAB. This further underlined the benefits of DELTABEAM® Composite Beams.

"We offered a composite frame structure based on DELTABEAM®, following the main structure plan devised by Ramboll. In addition to our own products, we decided to include also complementing products, such as fire-protected ventilation machine room frame structures," says Peikko Finland's Composite Frame Business Manager **Tomi Tuukkanen**.

HUSLAB comprises three subterranean stories and three or seven above-ground stories. Total area is some 22,000 square meters (26,000 sq yd) and total volume some 23,000 cubic meters (30,000 cu yd). Due to abundant hospital technology, the rooms are higher than normal; the most common ceiling height is 4.5 meters (15 ft), some extending to 5.5 meters (18 ft).

This obviously impacted the dimensions of the columns; they had to be unusually robust for office building.

"All in all, we delivered about 250 tons (275 US tons) of Composite Columns and 500 pcs equaling 3.3 kilometers (2 miles) of DELTABEAM® Composite Beams to the site," says Tuukkanen.

What is special about the HUSLAB frame is, that at several points, it had to be joined to existing buildings surrounding it. This made mounting the frame an extremely demanding entity that included not only composite structures but plenty of concrete structures. The buyer wanted to sign a contract with just one operator for all mounting work, and chose Peikko from among all those submitting tenders.

"This was legitimate if for no other reason than because there was no scheduling leeway. In a way, all stages were equally important from the vantage point of total schedule management. Everything went fine, and by September the ten-month work on the frame was fully completed," says SRV Construction's Site Manager **Kai Elo**.

In the HUSLAB project Peikko was responsible for the entire frame erection, including the installation of some 2,000 hollow-core slabs, some 900 wall elements and roughly 550 facade elements. The hollow-core slabs were manufactured by Parma, the other precast elements by Betset.

HUSLAB is one of Peikko's biggest deliveries of all times.

"The role of Peikko in both manufacturing and erecting the Composite Frame Solution was absolutely crucial. Their range of composite structures and connection items used in concrete construction is extensive," says Structural Designer **Esa Ikäheimonen** from Ramboll Finland, the engineering company responsible for the structural design of the HUSLAB project.

Ikäheimonen sees the unusual dimensions stemming from the cramped plot as something that sets the projects apart from others. The building is diverse, especially its cellar facilities extending three stories under ground level.

"As a structural designer, the biggest challenge was to direct the load of upper structures reliably onto the foundation. Peikko's Composite Frame came to the rescue," Ikäheimonen says.

BIM WAS OF GREAT HELP

Due to the meandering shape of the frame and the tight schedule, it was

essential to create building information models of all plans, designs of structural parts and erection on-site. HUSLAB is an exceptionally progressive example of this.

"The world of steel structures is where computational modeling has its origins. Clearly, Peikko was here, too, ahead of the curve," says Jukka Nikkola.

Use of Building Information Modeling both on-site and at the drawing board and workshop ensured Peikko got it right the first time. When there is as much crisscrossing technology and convoluted forms as in HUSLAB, it is hardly a surprise that a detail or two needs fixing. Often this becomes clear only at the building site. Now all work on the frame succeeded nearly perfectly, and to top that, the frame was completed almost a month ahead of time.

The building was finished in summer 2015 and in late 2015 it was successfully taken into use on the whole. ■

SRV Site Manager Jukka Nikkola is happy with Peikko: "They have delivered." SRV Foreman Kai Elo thanks Peikko for a good job manufacturing and mounting the frame.



PRODUCTION OF TENLOC® PANEL CONNECTOR HAS BEEN DISCONTINUED

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In 1965 Peikko started to produce Diagonal Ties. Peikko's PD Diagonal Tie still provides its users with the same benefits that have guaranteed the products continued success as a connecting solution for sandwich wall panels. Around the world, about one million square meters (1,2 million sq yd) of precast sandwich wall panels are built using Peikko's PD Ties every year.

This 50-year-old innovation still holds its place. Peikko has commissioned studies on 40-year-old sandwich wall panels from

demolished buildings. The findings confirm that the 40-year-old PD Ties are still in good condition and can bear the designated loads. The technical properties and design principles of the PD Ties are presented in the following technical article.

View the renewed Technical Manual of PD Ties:



PRODUCTION OF TENLOC® PANEL CONNECTOR HAS BEEN DISCONTINUED

Authors:

Jan Bujnak,
PhD,
R&D Manager at
Peikko Group



Jakub Mečár,
M.Sc. Civ. Eng.,
R&D Engineer at
Peikko Group



INTRODUCTION

One of the most common building techniques to meet energy efficiency demands in many countries around the world is to create building facades out of precast concrete sandwich panels. The precast sandwich panels are typically composed of an outer and inner concrete layer with a thermal insulation layer (polystyrene, polyurethane, mineral wool or others) in between (Figure 1). Peikko Diagonal Ties and Pins are one of the most efficient techniques available on the market to create structural connections between the different layers of the sandwich panel while having only a negligible effect on the thermal efficiency of the panel.

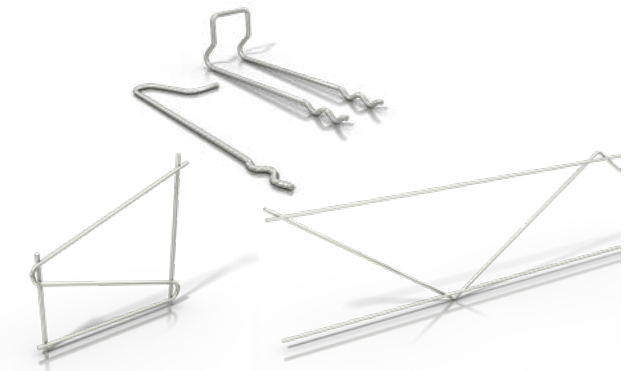


Figure 2. Types of Ties and Connectors: Diagonal Tie, PPA Beam Tie, PPI and PDQ Connector Pin.

Figure 1. Typical arrangement of a sandwich panel with Peikko Diagonal Ties.



Diagonal Ties and Pins were developed by Peikko in the 1960s and are nowadays widely used, especially in Finland and Scandinavia (Figure 2). A certain number of detailing rules that regulate the use of Diagonal Ties and Pins in sandwich panels have been developed over the past 50 years of the products' history. These rules are mainly related to the environmental and climactic conditions of the Nordic countries – the main market area for these products up to now.

Although they are mainly used in the Nordic countries, the benefits of Diagonal Ties and Pins are universal and, as such, demand for these types of products in different areas of the world (continental Europe, the middle-east) has been growing together with the development of Peikko Group's international activities. In order to improve technical support for its customers, Peikko's R&D team has recently developed new design recommendations for the design of Diagonal Ties and Pins. These design recommendations refer to the harmonized European design standards (Eurocodes) and are supported by experimental push-out tests performed on sandwich panels. The new design recommendations are summarized in the new Technical Manual for Ties and Connector Pins, available at www.peikko.com.

DESIGN PRINCIPLES

Diagonal Ties are used to provide a structural interaction between concrete layers of the sandwich panel and enable the effects of structural actions imposed on the sandwich panel either as loads (self-weight of the panel, wind) or deformations (temperature variations, shrinkage of concrete) to be resisted (Figure 3). The resistances of Diagonal Ties against the effects of critical combinations of structural actions are verified during manufacturing, transportation and normal use of the sandwich panel. Even though there are multiple loads to be considered, designing the correct Diagonal Tie layout in sandwich panels is an effortless task. Most typical applications can be verified from design curves in the Technical Manual. When limiting of deformation is essential, the Diagonal Tie connection can be supplemented with Peikko's PPI Connector Pins on the edges of the panel.

The resistance of Diagonal Ties in sandwich panels may be verified using resistance curves available in the technical manual. Figure 4 shows an example of such a resistance curve.

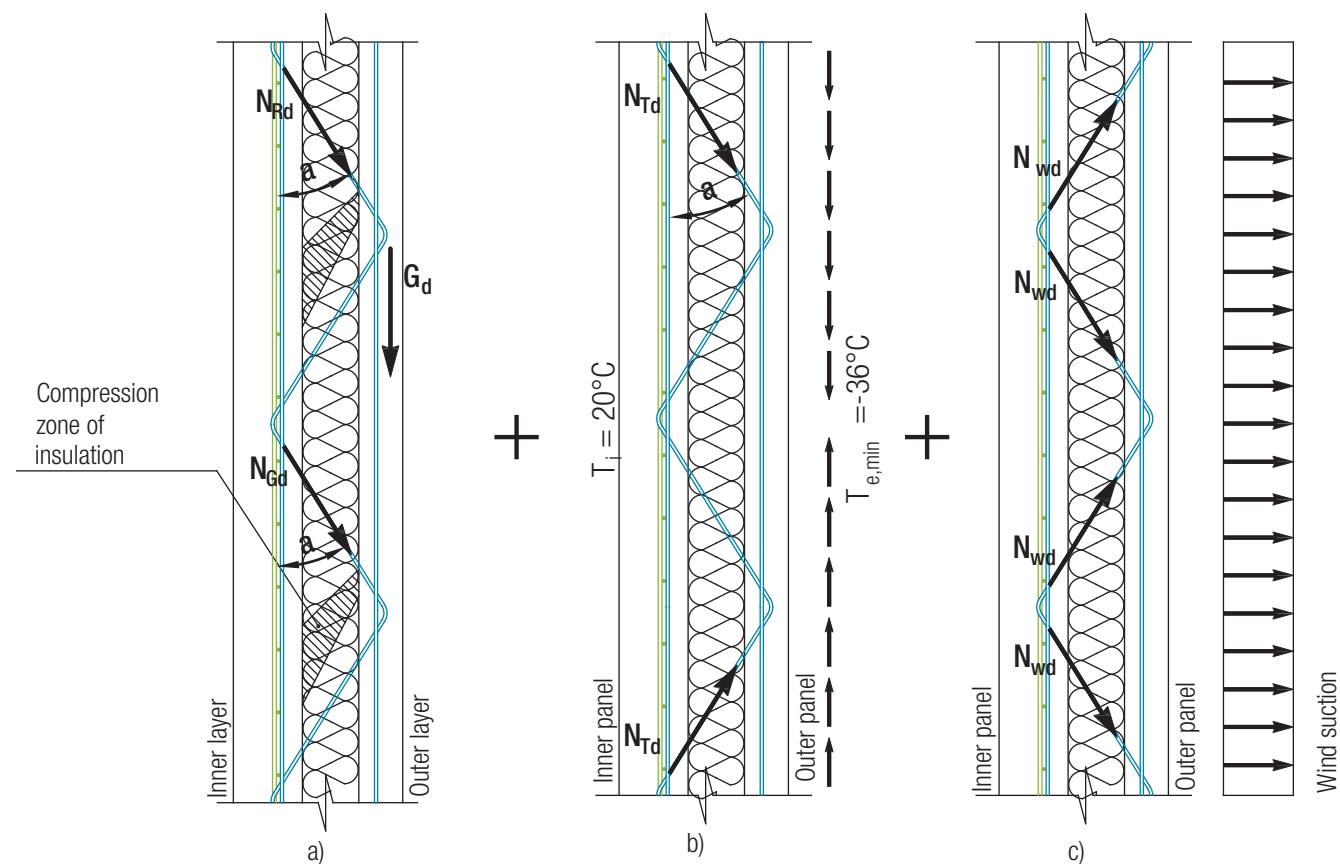


Figure 3. Example of structural action and normal forces in Diagonal ties: a) Effect of self-weight of outer layer; b) Effect of shrinkage and winter temperature deformation; c) Effect of wind suction

The resistance curves are valid for panels with common dimensions (up to 3 m (10 ft) in height and 7 m (23 ft) in length), material properties (C30/37) and arrangement of diagonal ties (spacing 400 mm (16 in) and 600 mm (24 in)). Diagonal Tie locations and dimensions for larger panels are defined by Peikko's local customer engineering service.

TESTS

During 2014 a series of push-out tests was performed on sandwich panels with Peikko Diagonal Ties to validate several assumptions used as bases for the present design recommendations. Among other properties, the tests confirmed excellent performance of sandwich panels with Diagonal Ties, both in terms of resistance and ductility. An example of test arrangements and load displacement curves is in Figure 5 and Figure 6.

CONCLUSION

The tests confirmed the widely-known facts that have made Diagonal Ties a successful solution for 50 years. Ductility against temperature and shrinkage deformations is superb. The Diagonal Tie is an adequate solution to be used in most sandwich wall panels as the only connector with 400 mm (16 in) or 600 mm (24 in) spacing. The ductile behavior of the PD Ties connectors

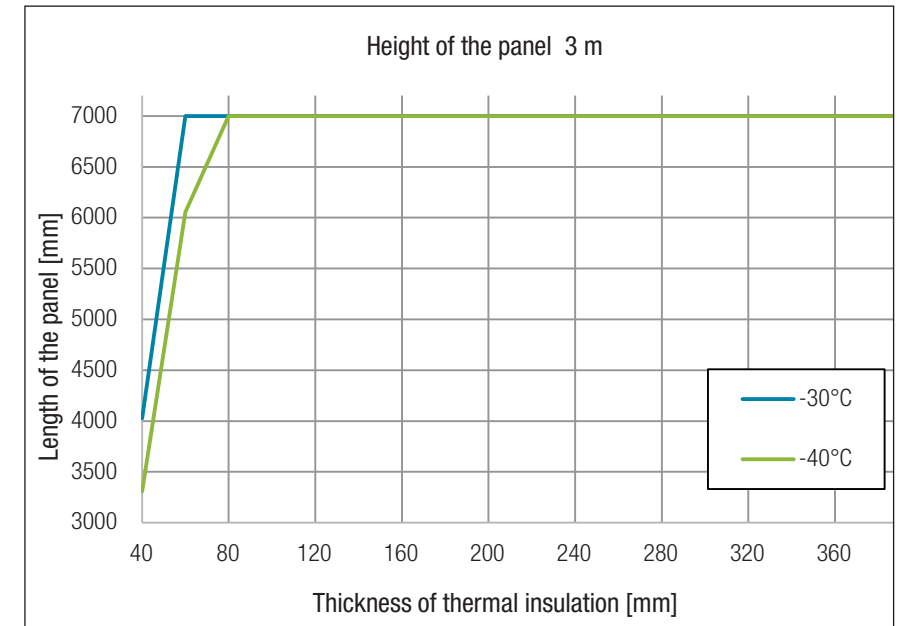


Figure 4: Example of Design chart with scope of application: Concrete grade: C30/37; Thickness of outer layer: 80 mm; Spacing of Ties: 400 mm; Maximal surface temperature: 70°C; Wind suction: -0.8 kN/m^2

secures the structural and aesthetic function of sandwich panels even under extreme environmental conditions. Its sustainability has been proven over several decades, leading to less frequent concrete renovation when Diagonal Ties are used.

The product is easy and safe to design thanks to the straightforward design and clear product range. Diagonal Ties are

an economical solution for the precast factory because only one Diagonal Tie model is needed for each insulation thickness. Investors and contractors benefit from the sustainability and fire resistance of the Diagonal Tie's all-steel structure. ■



Figure 5. Test setup arrangement.

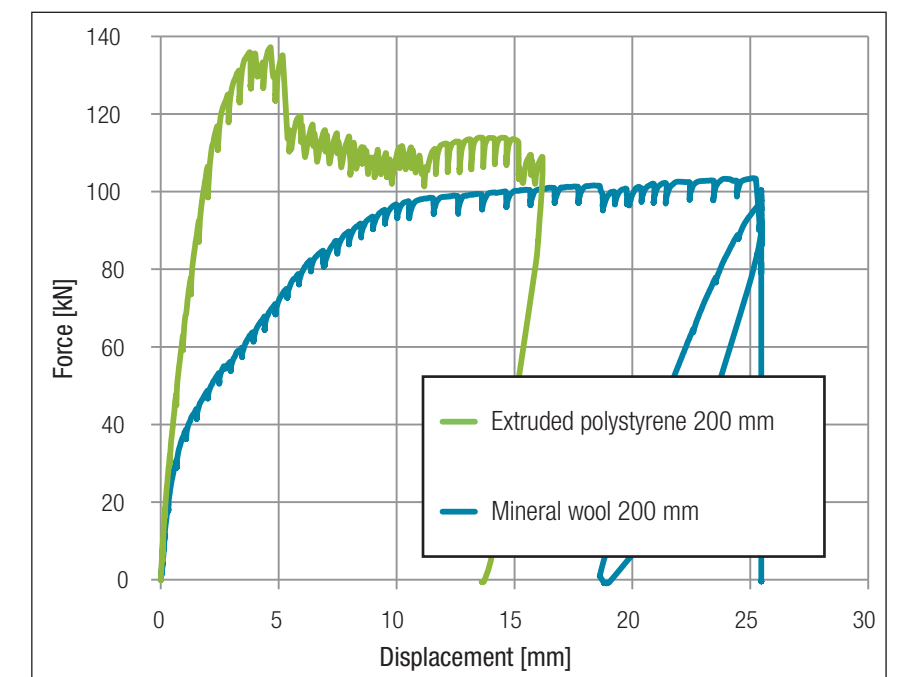


Figure 6. Example of force-displacement curves of sandwich panels.



NEW BEAM TO COLUMN CONNECTION SPEEDS UP CONSTRUCTION

OF HEAVY INDUSTRIAL CONCRETE STRUCTURES

Text: Timo Vennonen

Peikko's new BECO-COPRA connection is designed for safe and efficient moment-resisting precast beam to column connections.

Representing a new generation of bolted connections, the BECO Beam Shoe and COPRA Anchoring Coupler simplify heavy industrial structures such as racks for oil or gas pipes and large factory halls where extra stiffening is needed. A range of COPRA Anchoring Couplers ensure that the right solution is always at hand for various column shapes and sizes. Beam shoes and anchoring couplers are precast to members for faster on-site installation.

MOMENT-RESISTING CONNECTIONS INSTANTLY

BECO-COPRA is all about rapid on-site installation that swiftly creates a moment-resisting connection between precast columns and beams. Following erection on a corbel, the beam is connected to COPRA Anchoring Couplers using threaded bars and nuts included in the delivery. COPRA anchors the axial forces from the beam shoe to the precast column.

TENSILE LOAD TRANSFER

Designed to carry tensile forces, the BECO-COPRA connection provides full load transfer capacity as soon as the nuts are tight. Vertical reactions of the beam are usually transferred to the column through separate supporting systems such as steel or concrete corbels. Non-shrink grout transfers compression from beam to column. Hidden PCs Corbel connections can also be used in large cross sections for aesthetic reasons.

BENEFITS FOR PRECAST FACTORIES AND CONSTRUCTORS

Beam to column connections made with Peikko's BECO Beam Shoe and COPRA Anchoring Coupler optimize both design and assembly processes of moment-resisting connections in precast frames. Site managers appreciate the low risk of damaging the connection as the threaded bars are installed only after erecting the beam.

The BECO Beam Shoe and COPRA Anchoring Coupler are designed to comply with harmonised European Standards (including EN 1990-1-1, EN 1992-1-1 and EN 1993-1-1). Note that the new products replace the widely used RBC Beam Shoes and MHPM/MPPM Anchors. ■

Tensile load transfer capacity immediately after the nuts are tightened.

Caption 2. Structural behaviour of the connection.

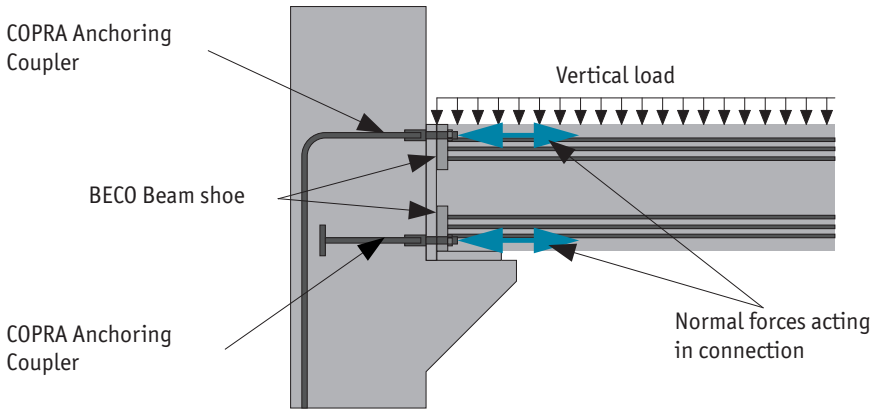
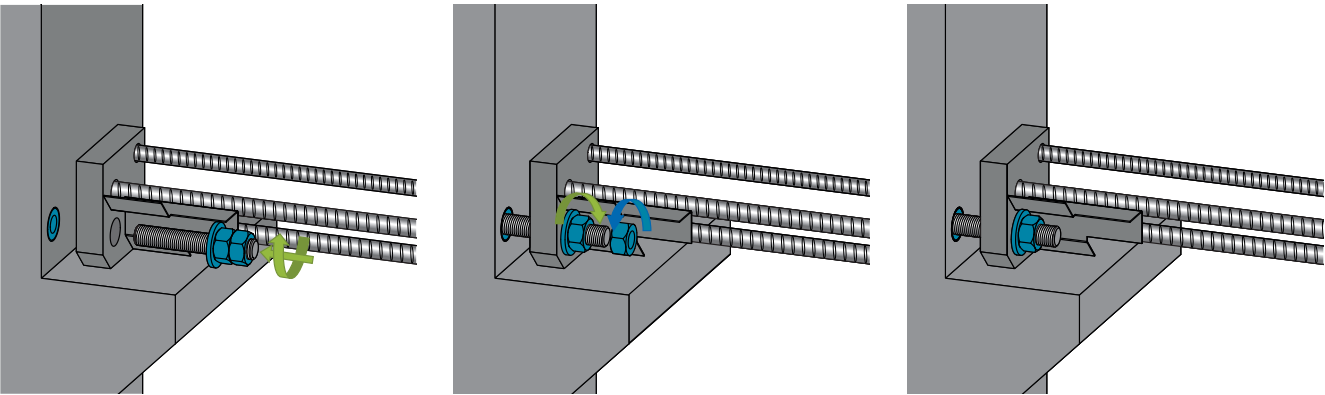


Table 1. Design values of resistances of individual BECO Beam Shoes for concrete grade C30/37. The maximum resistance of BECO Beam Shoes is based on tensile resistance of the COPRA Anchoring Couplers N_{Rd} .

Beam Shoe	Anchoring Coupler	N_{Rd} [kN]
BECO 16H	COPRA 16H	62
BECO 20H	COPRA 20H	96
BECO 24H	COPRA 24H	139
BECO 30H	COPRA 30H	220
BECO 39H	COPRA 39H	383
BECO 30P	COPRA 30P	299
BECO 36P	COPRA 36P	436
BECO 39P	COPRA 39P	521
BECO 45P	COPRA 45P	697
BECO 52P	COPRA 52P	938

Caption 1. Connection of COPRA Anchoring Coupler with BECO Beam Shoe step by step. Use threaded bars and nuts for the connection.



Caption 3. BECO Beam Shoe types.



Caption 4. COPRA Anchoring Coupler types.



PEIKKO INTRODUCES NEW TECHNICAL MANUALS FOR ITS LIFTING SYSTEMS ACCORDING TO EU MACHINE DIRECTIVE REQUIREMENTS

Peikko has published new Technical Manuals for its JENKA, KK, RR, and WRA Lifting Systems to aid in design and installation. The new state-of-the-art Technical Manuals have been prepared in accordance with the latest regulations of the EU Machinery Directive 2006/42/EC and VDI/BV-BS 6205:2012. The manuals can be downloaded at peikko.com. Peikko is the first company to implement the directive.

The completely updated manuals provide technical details and calculation examples to select a safe and reliable solution to fit your needs.

All data is based on Peikko's extensive testing program conducted in cooperation with the IfM Technical University TU Darmstadt, Germany. The resistance of steel parts and the capacity of the anchorage in concrete elements was tested in more than 800 individual tests.

The testing program and results were introduced in the Concrete Connections 1/2014:

[www.peikko.com/
concreteconnections](http://www.peikko.com/concreteconnections)



Peikko's local technical customer service is there to assist you with questions ranging from standard lifting cases to special requirements. Find your local contacts at: www.peikko.com/contact-us ■



HAVE A STROKE OF GENIUS – AND GET PAID FOR IT!

Peikko Group is constantly looking for new innovations which have the potential to be successfully commercialized.

Now Peikko challenges all customers and partners to take part into its quest in making construction process both faster and more efficient.

So, if you've got a bright idea that cannot be utilized by your company or employer, why not turn to Peikko?

Remember to consider your HR status and to check relevant agreements and laws before the contact. In case someone else also has rights to the innovation – for example, your employer or your business partner – you should contact Peikko together. ■

HAVE A STROKE OF GENIUS!

Consider if your idea could match with what Peikko is currently doing or what we might do in the future.

CONTACT US

See details at
www.peikko.com/innovations

FORMALITIES

We will sign confidentiality agreement and you fill in the innovation form.

WAIT FOR FEEDBACK

We will come back to you with next steps within 4 weeks.

GET REWARDED

If we buy the rights for your idea, you will get EUR 1,000. If we find the idea patentable, you will get EUR 2,000. For a commercially valuable idea, a royalty fee between EUR 5,000 and EUR 100,000 will be granted.





Blasting of DELTABEAM®.



Primer painting of DELTABEAM®.



Primer painted beams in the drying chamber.

PEIKKO INVESTS IN DELTABEAM® SURFACE TREATMENT

Sustainability and environmental thinking have been hot topics in the construction industry over the past few years. All parties of the building process have to focus on how to reach the required quality level in order to make long lasting buildings.

Simultaneously we need to respond to the increasing environmental demands. Recent global agreements targeting emission reductions will not make this any easier. For us at Peikko, maintaining and developing environmentally sustainable production processes is equally important as the ideal end product quality.

Peikko has continuously invested in its production capability in terms of cost efficiency and quality. One of our recent investment programs is the further development of the surface treatment of DELTABEAM® Composite Beams. The total investment exceeds EUR 3 million and it involves Peikko's factories in Finland and Slovakia. The surface treatment process has been streamlined and facilities expanded to create new space for new technology. Both blasting and painting processes were developed. The improved process and new primer paint type taken into use will significantly reduce VOC emissions of the DELTABEAM® production process.

DELTABEAM® surfaces and welds are normally produced to EXC2 class with preparation class P1. The surfaces of DELTABEAM® which are exposed in the

completed structure are cleaned to class Sa2.5 by abrasive blasting. This ensures ideal durability of both primer painting (under coating) and top coating. The primer painting is made with one layer of primer. The chosen primer type offers wide possibilities for top coating made on site to achieve the designed corrosion classes of the building.

DELTABEAM® doesn't require additional fire protection, and no intumescent painting is needed on site. This gives architects room to play with smooth steel surfaces. The bottom flange of DELTABEAM® can be left exposed, which sets strict demands on the surface treatment quality. Peikko can now easily respond to the increasing demands set for surface treatment. ■

The bottom flange of DELTABEAM® can be left exposed, which sets strict demands on the surface treatment quality.



FIND PEIKKO'S REFERENCES ONLINE

FIND INTERESTING INFORMATION AND IMAGES OF HUNDREDS OF GLOBAL PEIKKO REFERENCES

Narrow down your search by using different search parameters and find the references you are interested in.



www.peikko.com/references



PEIKKO'S PROJECTS FROM AROUND THE WORLD

Peikko USA delivered DELTABEAM® Composite Beams to MC Donough Dostriest Hospital's expansion in Macomb, IL, USA. The expansion project is the first hospital project in USA using DELTABEAM® Composite Beams, which enabled a slim-floor structure leaving space for modern technical installations.



© HKP Architects



Peikko Finland delivers the composite frame for the D wing extension of Iso Omena shopping center in Espoo, close to the Finnish capital Helsinki. The order comprises 2.4 kilometers (1.5 miles) of DELTABEAM® Composite Beams and about 400 tons (440 US Tons) of Composite Columns and other steel structures used in the building frame. Peikko is also responsible for the installation of the frame including precast element installations and casting.

Peikko Denmark has received two substantial orders for DELTABEAM® Composite Beams. The orders are for a new large hospital complex named DNV – Det Nye Hospital I Vest, which is under construction in Gødstrup close to Herning in western Denmark. Altogether 6.3 kilometers (3.9 miles) of DELTABEAM® will be delivered to the project.



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Peikko Sweden delivered DELTABEAM® Composite Beams, Hidden Corbels and Fastening Plates to Katscha apartment building in Norrköping, Sweden. The 7-story building has 30 unique apartments located in Norrköping center. The buildings are situated hanging over an old quay. It is nominated in the category "best residential building" in the MIPIM Awards 2016 in Cannes.



Peikko Finland delivers foundation components to Metsälä wind park which is constructed in Kristiinankaupunki, Western Finland. The wind park will have 23 turbines with gravity foundations, to which Peikko delivers anchor cages. In addition to these, Peikko makes foundation design and delivers anchoring components to the 11 turbines with rock foundation.

Peikko Germany delivers PSB Punching Reinforcement Systems and MODIX® Rebar Couplers to the skyscraper Highrise ONE in Munich, Germany. The 17-story high apartment building will be ready in the end of 2017. The building will include modern office spaces, a hotel, restaurants, and parking spaces.



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