



Fair-faced concrete eye-catcher for new training facility

Saving humans' lives, extinguishing fires and helping with natural disasters are the main tasks of firefighters. Everyday they accomplish great things for the public good. Considering that, the right training is the cornerstone of their success. Therefore, the fire service of Velké Poříčí near Náchod, Czech Republic, receives a new education and training centre. For the outstanding architecture of the building Česká Doka developed a sophisticated formwork solution.

The design of the new 21 m high fire service training centre allows maximum and special usage of every inch of the building for various training activities. Being partly built arching over, the inner as well as the outer walls can be perfectly used for trainings in high altitudes and above free depth, thus preparing the fire service crew not only physically but for special rescue missions too. There will be well shafts, polygons with very limited space and artificial trees. Firefighters from all over the Czech Republic will undergo their education and training at the new centre.

The most outstanding element and a real eye-catcher is the monolithic climbing wall on the exterior side of the building. The basis of the building are two monolithic structures forming the front and rear façade and creating the most demanding training polygons of the facility. In total, the climbing wall is seven storeys high and offers a unique training place with its complicated shape and narrow manholes resembling a variety of shafts and wells.

Tailor-made custom formwork units for unique shape

The geometry of the design is highly complex and thus required special formwork expertise as well as an individualized approach. In total, there are seven pouring sections, all being unique in their shape. "For the construction of the climbing wall, Doka designed a tailor-made formwork solution consisting of 94 special formwork elements adding up to a total area of 700 m². On average, the individual elements are three meters high and were shored up by the Load-bearing tower Staxo 100", says Martin Paškrt, Engineer at Česká Doka.

Once formwork planning had been completed, the Doka Pre-assembly Service embarked assembling the formwork units for the seven sections and delivered them to the construction site. "Doka supplied the formwork components and special formwork units just-in-time. The formwork did not pile up on site and construction could move forward smoothly and fast. This was a great help for us", explained Petr Vinš, Construction Manager at Stylbau.

Part of the customized formwork was also used for a polygon with cramped manholes, where there is also a six-storey well with an inner diameter of 100 centimetres and a maze of circular manholes. Moreover, there are two walls only being one meter apart and thus, creating an additional training shaft. Framed formwork Framax Xlife with Xlife panels was the right solution for these vertical structures. Stair tower 250, Folding platform K and additional edge protection systems provided for safety on site.

Once construction of the training facility has been completed, parts of the building surface will be visible. Therefore, high emphasis was put on achieving a high-end surface quality in fair-faced concrete. The formwork units were fitted with high quality formwork sheets ensuring the required surface result.



Česká Doka is proud of supplying a sophisticated formwork solution for this special project. Not only because this new training facility benefits the public good but also because many of Doka's employees are volunteering in their local firefighter brigades. Thus, it is likely that some of them will return to the training centre – not as formwork experts but as firefighters undergoing trainings.

In short:

Project:	Fire Service Training Centre
Location:	Velké Poříčí, Náchod, Czech Republic
Client:	HZS of the Hradec Králové Region
Construction company:	STYLBAU, s.r.o.
Height of structure:	21 meters
Quantity of concrete used:	over 300 m ³
Products:	Load-bearing tower Staxo 40, Load-bearing tower Staxo 100, Framed formwork Framax Xlife, Timber-beam floor formwork Dokaflex, Folding platform K, Stair tower 250, Guard rails
Services:	Formwork planning, Pre-assembly Service, Assistance on site

Photos:

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The new Fire Service Training Centre will be a true eye-catcher in Velké Poříčí, Czech Republic.

Photo: Fire Service Training Centre_01.jpg
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Two monolithic structures are the basis of the new training facility. The climbing wall on the left is formed with a tailor-made formwork solution. Framed formwork Framax Xlife is in use for the construction of the polygon on the right side.

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The geometry of the building is very complex and required a special formwork solution.

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On the inside, unusual shapes too allow for various training activities.

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The arched pillar will form an internal artificial tree.

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About Doka

Doka is a world leader in developing, manufacturing and distributing formwork technology for use in all fields of the construction sector. With more than 160 sales and logistics facilities in over 70 countries, Doka has a high-performing distribution network. It ensures that equipment and technical support are provided swiftly and professionally. Doka is an Umdasch Group company with a workforce of more than 6,700 employees worldwide.

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