

## VGK Bracket System

The console bracket for infrastructure and building construction

### Versatile

One system – many applications

### Safe and convenient

Mounting pre-assembled platforms

### Plannable

Simple app that enables you to design a type-tested system on your own



Formwork  
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# VGK Bracket System

## The cantilevered parapet bracket for new construction and refurbishment

**VGK stands out on account of its benefits as a cantilevered parapet bracket in the construction of new bridges up to 200 m long. The VGK Cantilevered Parapet Bracket is a safe, economical and efficient solution for this application. VGK is a type-tested system. Another benefit is the VGK Design App, which enables you to plan your project independently.**

### All-round safety

Working platforms and formwork units are separated, which is why a closed platform deck is in place at all times. As a full enclosure can be achieved, work can be carried out safely. The traffic below is protected at all times by the impenetrable deck. Units pre-assembled on the ground can be suspended from the structure without any difficulty.

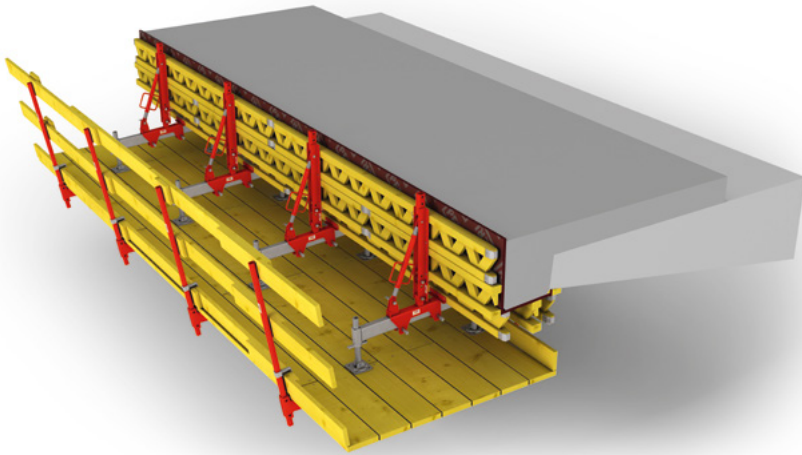
### Efficient work processes

At a maximum of 22 kg, the single components are comparatively lightweight, thus facilitating manual assembly. An additional degree of safety is provided by the fact that the pre-assembled units can be hooked onto the structure in their entirety.

### Maximum schedule and execution reliability

The VGK system can be rented as part of the VARIOKIT Engineering Construction Kit. The VGK system is a type-tested solution and all anchoring solutions have Building Inspectorate Approval.

In addition, the VGK Design App enables independent planning, which provides a result protocol that can be used for a verifiable structural analysis.



The VGK Cantilevered Parapet Bracket is characterised by its safety, versatility and ease of installation.



A full enclosure ensures the safety of the traffic below.

**VGK solutions can also bring their advantages into play in bridge renovation projects. The high load-bearing capacity and the generous working platform with impenetrable deck are of elementary importance in parapet demolition tasks. A key component in this respect is the refurbishment anchor. It is used with the VARIOKIT VGK Cantilevered Parapet Bracket when renovating bridges or retaining walls. The two-piece composite anchor consists of an internal threaded sleeve and an Anchor Bolt. The connecting element can be re-used numerous times and only the sleeve remains as a lost component with the required concrete cover in the structure.**

The flexible and highly efficient VGK Cantilevered Parapet Bracket was developed especially for refurbishment projects. In connection with the innovative refurbishment anchor for subsequent installation, this results in a coordinated solution for the respective renovation work. The anchor has General Building Inspectorate Approval. This closed system solution provides maximum flexibility in planning operations and application, increases planning reliability and work safety as well as ensuring easy assembly. This leads to quality improvements and ultimately to cost savings during execution.

As the refurbishment anchor has a very high load-bearing capacity, only a minimum number of anchor points are required. The anchors are inserted in drilled holes of 22 mm in diameter. Due to its undercut, the refurbishment anchor can be loaded immediately after installation so that the console bracket can be mounted immediately. The full load-bearing capacity of the refurbishment anchor is reached after the composite mortar has hardened.

**High anchor load-bearing capacity**

Large widths of influence and resulting reduced costs for anchoring, assembly and on-site material requirements

**Immediate assembly of the VGK Cantilevered Parapet Bracket**

The undercut allows the suspension head and console bracket components to be mounted without any waiting time; immediately after the composite mortar has hardened, the mounted console bracket is also accessible

**Cost-effective realisation of the required concrete cover**

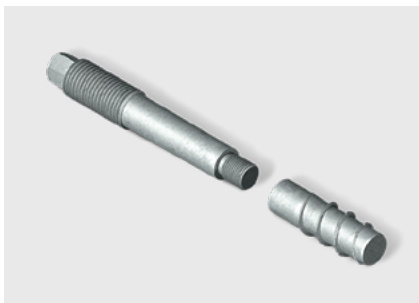
The refurbishment anchor provides the required concrete cover for the lost component. No costly stainless steel solutions are necessary

**Reusable Anchor Bolt**

The refurbishment anchor consists of two pieces, of which only the internal threaded sleeve is lost. The tie bolt can be unscrewed after use and be re-used many times over.



The refurbishment anchor has General Building Inspectorate Approval.



The connecting element is re-usable and does not remain in the concrete.



VGK solutions can bring their advantages into play in bridge renovation projects. They ensure safety, even below the construction site, and facilitate demolition work, for example.



# VGK 160

## As a working platform for infrastructure or building construction

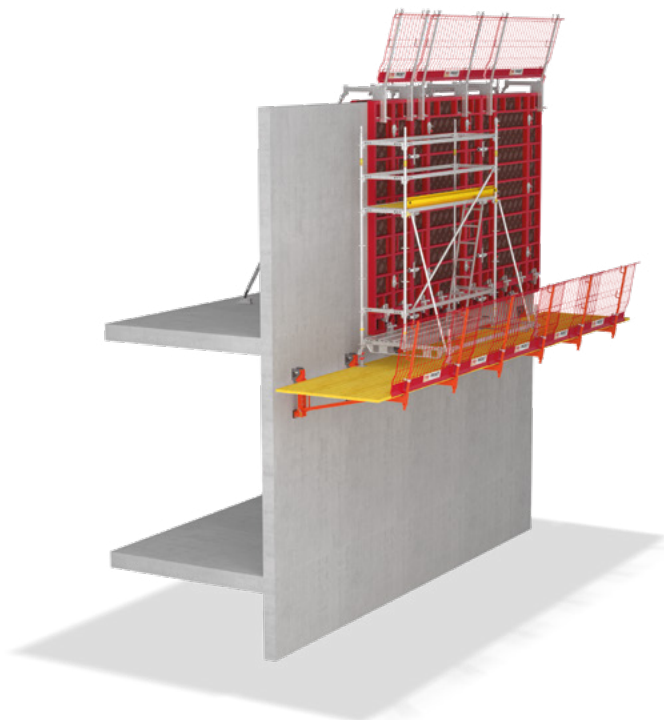
**VGK console bracket solutions can also be used as working platforms, whether it's in building construction or in the infrastructure sector. In addition to the general advantages of VGK solutions, their width provides sufficient space for work to be carried out safely on structures.**

VGK 160 solutions are characterised above all by their large working area. With a platform width of 160 cm, they offer enough space to work comfortably. You will be able to operate formwork conveniently and from a safe position, and there is also plenty of safe space to carry out other work on the platform.

In addition, a reinforcement scaffold can be placed on the working platforms, rendering the use of a facade scaffold unnecessary. Another safety aspect is the assembly process, since the console brackets can be hooked into the structure as pre-assembled platform units. As no intermediate platforms are required and the lateral protection is already mounted, the workflow becomes even safer.

These VGK components are also part of the VARIOKIT Engineering Construction Kit. Therefore, you can also rent or buy VGK 160 solutions. You will receive a type-tested solution for your project that can be used for various requirements.

You can also plan the VGK 160 solutions yourself in the VGK Design App.



VGK components can also be used as working platforms. They can be easily attached to the structure following pre-assembly on the ground.

The platforms offer enough space for working safely and comfortably.

# VGK Flex

## Also suitable for sloping walls as a versatile working platform

**With VGK Flex, it is possible to construct safe working platforms even on forward and backward sloping walls, such as pier heads. They can be readily combined with VGK standard components and are therefore a safe and efficient solution that can also be designed with the VGK Design App.**

### Numerous applications

VGK Flex offers a greater number of applications with the same components. The same components are used for cantilevered parapets and working platforms. This leads to noticeable material and cost savings, as different applications can be handled with the same components, and the compatibility with conventional VGK components leads to additional efficiency gains.

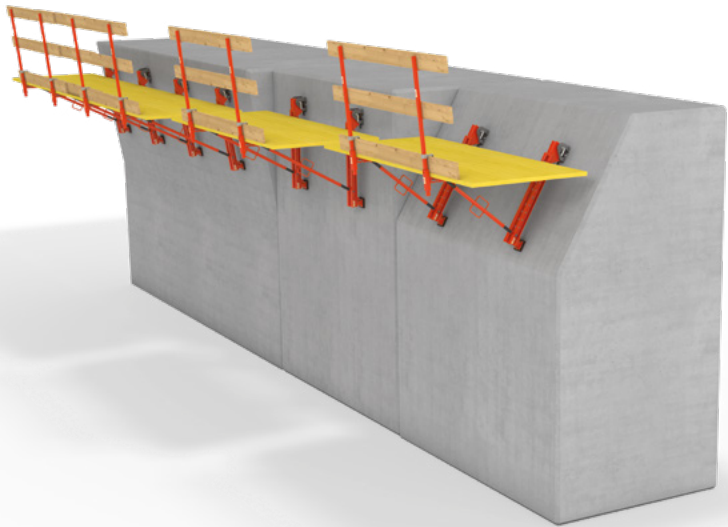
### Flexible configurations

VGK Flex solutions can be used for forward and backward sloping walls, and cover angles from 60° to 110° steplessly. Furthermore, they can be used to build working platforms with a width of 70 cm, 90 cm or 120 cm.

### Secure suspension

The VGK Flex components are also characterised by their low weight. For this reason, manual assembly on the ground is possible. The pre-assembled platforms can then be easily suspended from the structure thanks to the new suspension head.

The new VGK Flex components can also be planned independently in the VGK Design App, making the system even more versatile and efficient.



Pre-assembled working platforms can be hooked onto the structure easily.



VGK Flex also enables the use of flexible working platforms for forward and backward sloping walls and is compatible with the standard VGK components.

# VGK Bracket System

## Independent planning with the VGK Design App

**The VGK Design Tool enables you to plan your VGK project independently. The app's result protocol can be used for verifiable structural analysis. The tool can be accessed easily via the PERI website and does not need to be installed. The VGK app is an important step towards a more digitalised future for the construction industry.**

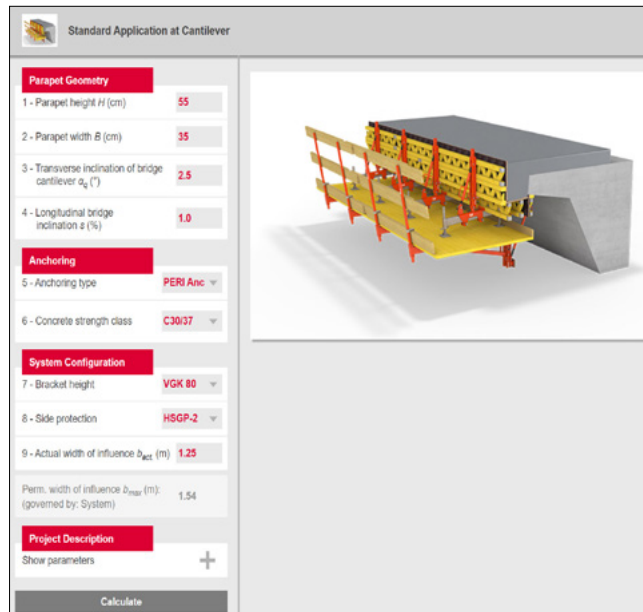
Another plus point is the fact that the VGK Design Tool is freely and readily available. The tool is browser-based and can therefore be easily accessed. Installation is not necessary, it is supported by practically every browser and can be accessed on both computers and tablets.

Thanks to the VGK Design Tool, the system guarantees additional planning security. The tool enables you to plan various VGK configurations.

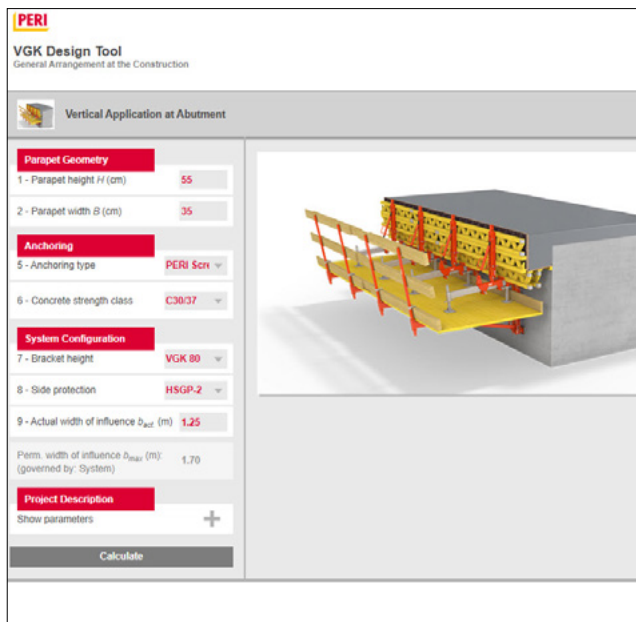
To calculate and determine the permissible influence widths for your project, you only need to enter basic data such as the height of the cantilevered parapet or the inclination of the cantilever side. The tie forces for the selected configuration are automatically determined and output. The results are based on the type calculations of the VGK system.



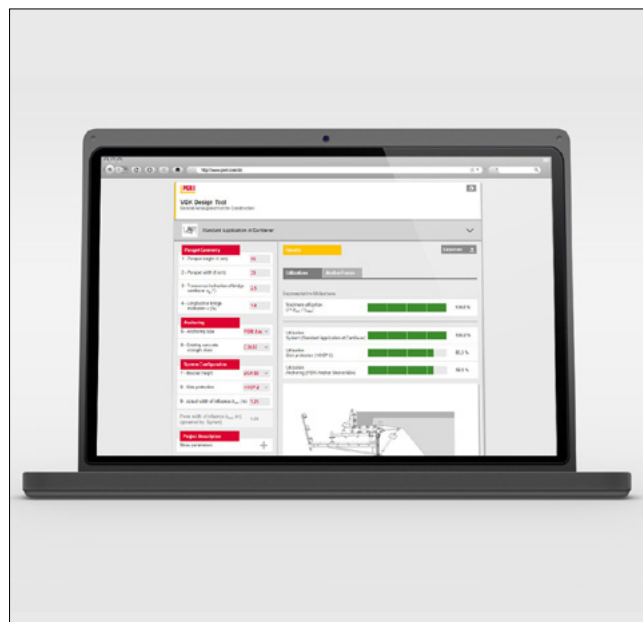
Access the VGK Design Tool directly with this QR code and design your project.



Access the VGK Design Tool directly with this QR code and design your project.



The VGK Design App is browser-based and allows you to plan your projects easily and independently.



The VGK Design App produces a result protocol that can be used for a verifiable structural analysis.



# VGK Bracket System

## Project references

### Isar Bridge Bad Tölz, Germany

Even stronger after refurbishment:  
VGK in refurbishment project

The 133-m-long and over 15-m-wide Isar Bridge, south of the town of Bad Tölz, is used by around 16,000 cars every day. After a little more than 40 years, the bridge needed to be renovated. The aim of the project was not only to restore the bridge, but also to increase its load-bearing capacity. Close to 100 VGK Console Brackets were used to renovate the bridge parapets of the footpath and cycle path. They ensured a high level of safety with the fully enclosed lateral protection while demolition work was taking place above the road. This meant that traffic could continue to flow uninterrupted under the bridge. The VGK solution was installed quickly and efficiently. It is also the case that the VGK system has ties with a high load-bearing capacity, which allowed for a console bracket spacing of 1.45 m. This simplified the installation process even further.

### Neckartal Bridge Heilbronn, Germany

Success built on 800 working  
platforms

The dimensions of the Neckartal Bridge are impressive. At 1,330 m long, it is Germany's longest motorway bridge. Furthermore, the cantilevered parapets of the foreshore bridge are almost 900 m long.

The engineers used a sophisticated process to build this bridge. The first superstructure was completed, placed on temporary in-situ concrete piers and then opened to traffic. The second superstructure was then completed. Finally, the first superstructure was shifted laterally and positioned on the permanent piers.

The VGK played a decisive role in the construction of the bridge. For example, it was used as a working platform for the piers for subsequent lateral shifting and for the parapet formwork on the abutments.

### Motorway underpass Schnelldorf, Germany

One system, various inclinations

The A6 motorway from Heilbronn to Nuremberg is considered one of the most important central European west-to-east transit routes, especially for HGVs. This is why the route has been gradually widened to 6 lanes. A key project was the expansion of the Feuchtwangen/Crailsheim motorway interchange. The motorway interchange is used by around 66,000 vehicles daily (approximately 18,000 HGVs). The aim of the expansion project was to make the motorway interchange safer and to adapt it to cope with a higher volume of traffic. An underpass for the future carriageway was built, among other things. This is where the VGK Flex Working Platforms could bring their advantages into play. Assembly was carried out by hand and without a crane thanks to the lightweight components. It was possible to adapt the VGK system easily to the geometry of the structure using standard components, which meant that the working platforms provided sufficient space and were safe throughout. This resulted in a safe and speedy construction process.



VGK Console Brackets ensure safety underneath the bridge and during work operations on the bridge.

As working platforms, VGK Console Brackets provide safe and convenient working conditions.

VGK Flex is designed for forward and backward sloping walls.

**The optimal System  
for every Project and  
every Requirement**



**Wall Formwork**



**Column Formwork**



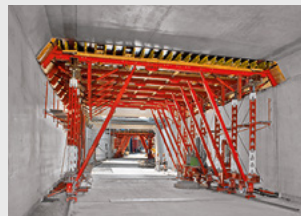
**Slab Formwork**



**Climbing Systems**



**Bridge Formwork**



**Tunnel Formwork**



**Shoring Systems**



**Construction Scaffold**



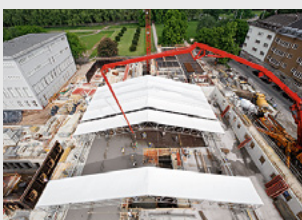
**Facade Scaffold**



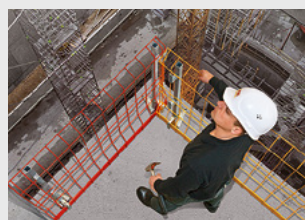
**Industrial Scaffold**



**Access**



**Protection Scaffold**



**Safety Systems**



**System-Independent  
Accessories**



**Services**



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