

RCS - GANG FORM

The effective combination of hydraulic climbing and steel formwork solution for safe working at all heights

Reference Documentation



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Important notes

All current safety regulations and guidelines must be observed in those countries where our products are used.

The images shown in this brochure feature construction sites in progress. For this reason, safety and anchor details in particular cannot always be considered as conclusive or final. These are subject to the risk assessment carried out by the contractor.

In addition, computer graphics are used which are to be understood as system representations. For ensuring a better understanding, these and the detailed illustrations shown have been partially reduced to certain aspects. The safety installations which have possibly not been shown in these detailed descriptions must nevertheless be available.

The systems or items shown might not be available in every country.

Safety instructions and load specifications are to be strictly observed at all times. Separate structural calculations are required for any deviations from the standard design data.

The information contained herein is subject to technical changes in the interests of progress. Errors and typographical mistakes reserved.

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Overview RCS Rail Climbing System

PERI RCS (Rail Climbing System) combines the advantages of different climbing systems to create one single construction kit. The rail climbing system can be used as climbing formwork as well as a climbing protection panel and can easily be adapted to meet specific site requirements.

As climbing formwork as well as climbing protection panel, RCS is the most cost-effective solution for a wide range of projects. Through the rail guidance, the climbing procedure is fast and safe, even in windy conditions. The climbing units are moved with the crane or optionally using mobile climbing hydraulics. In addition, the RCS components can be used for countless, site-specific solutions. In combination with components of the VARIOKIT Engineering Construction Kit, this results in e.g. landing platforms for transporting materials or optimized project-specific truss constructions.

 Safe rail-guided procedure The moving unit is connected to the building at all times by means of climbing shoes

Flexible mounting

The climbing shoe can be attached to walls as well as slab edges

Variable assembly Due to the 125 mm hole arrangement of the climbing rails, the platforms can be optimally adapted to suit the respective storey heights

RCS Climbing Protection Panel combining with Gang Form formwork in the project Incheon The Sharp Sky Tower in South Korea.



RCS core components

RCS Climbing Rail

The universal steel profile for climbing applications and as a core component in the VARIOKIT Engineering Construction Kit available in lengths from 1.48 m to 9.98 m.

RCS Climbing Shoe

Guidance and bearing support for RCS Climbing Rails with foldable guidance skids and self-acting bearing pawl.

RCS 50 Climbing Device For crane-independent climbing of RCS climbing units with 5 t lifting force.



RCS C Climbing Formwork

Rail-guided and optional self-climbing platforms with retractable wall formwork

RCS P Climbing Protection Panel

Windshield, anti-fall protection and protection against falling objects

RCS for special applications

Here as self-climbing shaft platform with shaft internal formwork







Overview Combination of RCS - Gang form

The RCS C Rail Climbing Formwork is the system for standard applications with 2.70 m to 4.50 m high wall formwork.

The climbing procedure with RCS C is fast and safe at all times because the moving unit is always connected to the building by means of climbing rails. The 125 mm hole pattern of the climbing rails allows optimum adaptation of the platforms to suit the floor height. The climbing units can be quickly and safely moved with the crane through the continuous climbing rail. As an option, the mobile self-climbing hydraulics provide crane-independent climbing to the next floor.

The formwork is securely installed on a smooth running, roller-mounted carriage which can be retracted by up to 90 cm.

The formwork

Both the Girder Wall Formwork as well as the panel formwork such as Gang form can be adjusted in all directions when mounted on the strong-back.

The working platforms

The position of the working platforms is adjusted to suit the floor height. This results in safe and fast access possibilities to the platforms through openings in the building.

The guardrails

Handrail boards or scaffold tubes provide the required level of safety when working on the platforms. 2.00 m high guardrails on the main working platform guarantee an enhanced level of safety. Alternatively, a complete enclosure is possible.



Standard rod of RCS- Gang form connection





Lower Gang form reinforcement element





Basic system components RCS - Gang form Climbing formwork

The structural system

The RCS structural system consists of two bracket units arranged on top of each other which are connected with each other by a hinge in the climbing rail and a spindle. When extending the spindles, the movable construction tilts inwards thus allowing wall recesses to be climbed over.

The RCS Carriage

The formwork is connected to the carriage by means of SRU Strongbacks and SLS Spindles. Due to the front roller bearings, it can be easily and smoothly retracted up to 90 cm. The self-locking capability of the gear safely fixes the carriage in every position without requiring any additional tools. The SLS Spindle is used for adjusting the formwork inclination whereby the height is adjusted using the height adjustment unit.

The anchoring

Standard anchoring of the RCS Climbing Scaffold is carried out with the Wall Shoe and RCS Climbing Shoe. The components are very light and can be quickly mounted. PERI Climbing Anchors have a building authority approval, so the high loadbearing capacity and quality are certified.



Shinchon Xi-ella, South Korea.



The RCS Climbing Formwork with continuous high side protection provides safe working areas at great heights.

PERI



System advantages RCS - Gang form Climbing Formwork

Wide applicability

On one side, the Gang form panel is figured basing on the design of each particular project, thus, the system can be applied for all construction design shapes. On the other side, the climbing RCS components can serve various types of high-rise buildings. Therefore, the entire system is able to be applied for a wide-range of residential or non-residential projects.

Time- and cost-effective solution

With monolithic concreting ability, the system RCS - Gang form can provide the low materials cost and save the onsite installing and dismantling time. Besides that, with its design of one jump with three working platforms enables the concreting- and finishingwork completed at the same time. Therefore, it can fulfill all requirements on the construction schedule.



Busan Ocean Bridge, South Korea.

Flexible climbing system for fast

operation of monolithic formwork RCS climbing system can combine with various types of formwork, such as Alu-formwork; and Gang form to construct the monolithic formwork requirements.

Less crane utilization required

The whole combined system RCS -Gang form is climbed by the hydraulic pumps, independently from the crane. Therefore, it significantly reduces the crane demand at site.



Cheongju G-Well City #2, South Korea.

Ensuring the safety and meeting the urban landscape requirements for all inner-city projects

For every projects, specially the innercity projects that have strict requirements on the safety as well as the urban landscape, the combination of the RCS climbing protection panel and Gang form is a most suitable solution. Following the worldwide construction trend, this combination always brings a professional and advanced look for the jobsite.



Busan Haeundae ibis Ambassador, South Korea.



Complicated layouts can also be cost-effectively climbed with the RCS GF formwork thanks to the flexibility – rail-guided and crane-independently.

Reference projects

RCS - Gang form Climbing Formwork



Seocho Hoban Construction New, South Korea

As an alternative to complete enclosure, scaffold tubes or handrail boards also provide safe lateral protection.



Jeongja Prugio City 3 #3, South Korea. With the RCS Rail Climbing System, different wall formwork systems are used as well as the proven Gang form panel formwork.



Saigon Times Square Building, Vietnam.

Safe working conditions with continuous lateral and rear protection on and under the RCS C Climbing Formwork. Through the systematic assembly sequence, the storeys could be formed quickly and with less manpower. At the same time, the enclosure provides protection against wind and weather.



Cheongra Hanshin The Hue Canal Way, South Korea A fast and stable system was required to lift on the building within a day with a minimum number of workers and a limited crane capacity. In addition, the site-specific design (multiple open sections occurring every tow floors) was also a big challenge for the formwork supplier. The combination of Gang form and PERI RCS system provided an comprehensive construction solution and met the critical requirements of the project.



Yongsan Amore Pacific HQ, South Korea Another typical area of application for the RCS Rail Climbing System is bridge piers.



Yongin Hillstate Giheung, South Korea. The RCS-Gang form provided a safe climbing protection panel, a clean and professional look on the facade.

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

Safety Systems







System-Independent Accessories



Services



Protection Scaffold

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