RCS Rail-Climbing System
As Shuttering Scaffold
or Climbing Protection Panel
The new PERI RCS climbing system combines the advantages of various available climbing systems to form a new construction kit system.

Two climbing options are available – the type of application must also be taken into consideration – either by crane or crane-independently using the mobile hydraulic climbing device. The RCS construction kit allows simple adaptation of standard solutions to specific building site requirements. For the type of utilisation, a distinction is made between:

RCS Shuttering Scaffold
Climbing formwork scaffolding complete with carriage for wall formwork support.

RCS Climbing Protection Panel
The climbing protection panel which completely encloses floors under construction – particularly on high-rise structures.
Self-Climbing Device RCS

The mobile self-climbing device and hydraulic pump allow crane-independent climbing as and when necessary. With this concept, the cost of self-climbing technology has been minimized as well as ensuring cost-effective implementation for structures with lower heights.

Through the climbing rail, the scaffold unit is always connected to the building by means of the climbing shoe for the entire climbing procedure. Furthermore, it is impossible for the RCS climbing unit to "drift" during strong winds and can be climbed safely and quickly at any time.

Advantages:
- The climbing rail has a guiding function when climbing and is not climbed in advance but, instead, is part of the load bearing system.
- Wall openings are easily bridged by the climbing rail.
- The mobile self-climbing equipment can be retrofitted at any time and has also proved to be cost-effective for medium-high buildings.

The unit climbs in 50 cm steps whilst the pawl in the climbing shoe functions reliably together with the climbing device.

The hydraulic cylinder, with 5 t lifting capacity, weighs only 25 kg which means it is easily moved by hand.

The mobile PERI RCS hydraulic pump saves on materials and costs.
**RCS Shuttering Scaffold**

The formwork scaffolding with carriage for wall formwork support

For use as formwork scaffold, floor heights from 2.70 to 4.50 m are possible.

Adaptation takes place through the combination of 4 RCS climbing rails of different lengths. The 125 mm hole arrangement on the climbing rails allows platform adjustment to match the floor heights of the building. During the moving process, this guarantees safe and almost continuous transition to those platforms not yet climbed.

The static system consists of two bracket units which are connected by a hinge in the climbing rail and a spindle.

If the whole unit is enclosed for protection against the wind and weather, timbers serve to attach the netting, tarpaulin, plywood or profiled sheeting.

The guardrail of the main working platform is 2.0 m high and can be equipped with either boards or scaffolding tubes.

The RCS construction kit system allows concreting heights up to 4.50 m.
Climbing Shoe RCS

The climbing shoe RCS guides the climbing rail during the moving process to the next concreting section. For wall offsets, vertical climbing rail inclinations of up to 4° can be compensated through the hinged bearing. The integrated climbing pawl automatically engages the connection bolts of the climbing rail and secures the unit at a distance of 50 cm. Already on the first concrete section, the upper part of the shuttering scaffold is easily mounted to the hinged climbing shoe.

Carriage RCS

The formwork is firmly mounted on the carriage and can be retracted by 90 cm without the use of a crane. The carriage itself is mounted on roller bearings, has a self-locking bevel-gear drive and is easy to operate without any jerking. For supporting the formwork on the carriage, an SRU steel waler serves as a strongback and an SLS heavy-duty spindle as an adjustable strut.
With the RCS climbing protection panel, the slab edges on the upper floors are completely enclosed. Site personnel are secure against falling at all times and protected against strong winds at great heights.

Anchoring to the building is carried out by means of slab shoes together with climbing shoes of the system which guide the panel up the building during the climbing process.

A fast and safe moving procedure is ensured through the rail-guided climbing in any weather.

A further positive side effect is the advertising area available on the outer surface.

The RCS climbing protection panel can also be tailored to suit the requirements of the contractors.

Through the enclosure, a covered working area is formed which provides protection from wind and weather as well as significantly raising work productivity of the construction crews due to the increased feeling of safety.

The RCS climbing protection panel guarantees effective working conditions also on slab edges.

Large usable advertising surfaces – a positive side effect of the RCS climbing protection panel.

Safe working conditions also at large heights thanks to the PERI RCS climbing protection panel.
Special applications, such as landing platforms for the slab formwork, can be realised with standard parts.

Anchoring to the building is carried out by means of slab shoes together with climbing shoes of the system which allow the optional application of the self-climbing device.

RCS climbing protection panel
With a high projecting enclosure shield for covering two floors in advance.

RCS climbing protection panel
Standard assembly with extended working platforms for slab post-tensioning, for storey heights 2.80 – 4.50 m.

RCS climbing protection panel
Standard assembly with smaller platforms for easy assembly of the facade panels.
PERI Product Range

Wall Formwork
- Panel Formwork
- Girder Formwork
- Circular Formwork
- Facade Formwork
- Brace Frame

Climbing Systems
- Climbing Scaffold
- Self-Climbing System
- Climbing Protection Panel
- Platform Systems

Column Formwork
- Square
- Rectangular
- Circular

Scaffold, Stairways,
Working Platforms
- Facade Scaffold
- Working Platform
- Weather Protection Roof
- Stairway Access

Slab Formwork
- Panel Formwork
- Beam Grid Formwork
- Girder Formwork
- Slab Table
- Beam Formwork

Bridge and Tunnel
Formwork
- Cantilevered Parapet Carriage
- Cantilevered Parapet Platform
- Engineer’s Construction Kit

Shoring Systems
- Steel Slab Props
- Aluminium Slab Props
- Tower Systems
- Heavy-Duty Props

Services
- Formwork Assembly
- Cleaning / Repairs
- Formwork Planning
- Software
- Statics
- Special Constructions

Additional Systems
- Plywood
- Formwork Girders
- Stopend Systems
- Pallets
- Transportation Containers

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