

## **RUNDFLEX**

## Continuous and quickly adjustable circular formwork for radii greater than 1.00 m

Product Brochure









## **Content**

## RUNDFLEX system advantages

- 4 The continuous and quickly adjustable circular formwork for diameters greater than 1.00 m
- 6 Low installation effort
- 8 Fast adjustment
- 10 Extremely variable

#### System overview

2 RUNDFLEX at a glance

#### Standard applications

- 14 Height extensions, working and concreting platform, guidelines for constructing a radius template
- Push-pull props,stopend formwork,T-junctions,straight wall connection

#### Edition 07 | 2016

#### Publisher

#### PERI GmbH Formwork Scaffolding Engineering Rudolf-Diesel-Strasse 19

89264 Weissenhorn Germany Tel. +49 (0)7309.950-0 Fax +49 (0)7309.951-0 info@peri.com www.peri.com Project examples

B RUNDFLEX in use

#### Components

22 RUNDFLEX system components

#### Important notes

Without exception, all current safety regulations and guidelines must be observed in those countries where our products are used.

The photos 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. Modifications and deviations require a separate static proof.

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







## **RUNDFLEX**

The continuous and quickly adjustable circular wall formwork for radii with diameters greater than 1.00 m

The RUNDFLEX Circular Wall Formwork provides pre-assembled standard panels for circular walls which can be quickly adjusted without any complicated panel modifications in order to achieve the required radius. Therefore, the circular formwork is particularly effective for realizing structures such as wastewater treatment plants, spiral ramps for multistorey parking facilities, silos or oriels where radii are constantly changing.

This results in low utilization rates per formwork element and radius. In order to be able to efficiently form these structures, formwork elements must be quickly and flexibly adjusted to suit different radii. RUNDFLEX solves this problem with standard elements and fast radii adjustment. Material costs and time requirements can be significantly reduced with RUNDFLEX – even for radii of 1.00 m.

With a permissible fresh concrete pressure of 60 kN/m², RUNDFLEX also allows high concreting speeds.



#### Low installation effort

through pre-assembled units and the proven BFD Alignment Coupler



#### Fast and precise adjustment

through a simple adjustment procedure by means of a template and spindles



#### Extremely variable

through the flexible adjustment of wall internal radii of 1.00 m and larger – also for complicated geometries

## Low installation effort

Fast forming operations through pre-assembled standard elements and the proven BFD Alignment Coupler



RUNDFLEX elements are pre-assembled at the assembly hall and are available in 3 different panel widths and 6 panel heights.

In order to reduce transportation space to a minimum, elements are bundled together in a straight form and then adjusted on the construction site to suit the required radius.



## Element connections and required compensations up to 10 cm are carried out quickly and simply with the BFD Alignment Coupler.

When connecting the elements, ensure that the elements (external and internal) are aligned on their axis.

For the use of filler timbers up to a maximum of 10 cm between the external and internal elements, corresponding tables are available. For smaller radii, filler timbers are to be cut to a suitable trapezoidal shape.

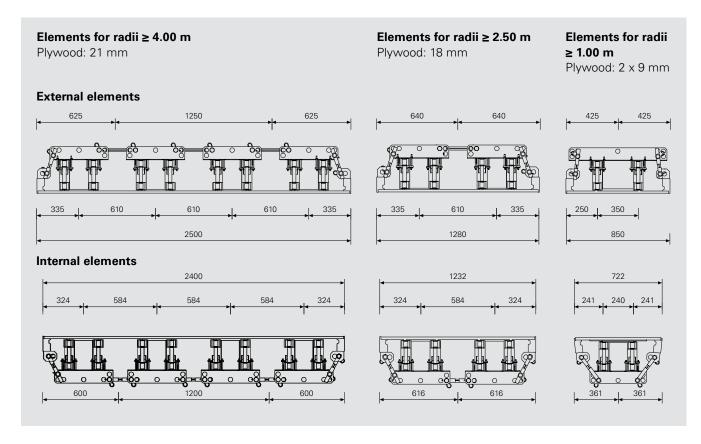
The alignment coupler can also be used for connecting RUNDFLEX with the elements of other formwork systems (e.g. with TRIO).



For connecting the elements, the BFD Alignment Coupler ensures flush, aligned and tight panel connections.



The BFD Alignment Coupler connects the panels; the Adjusting Spindle is only required when the element units are moved.



## Fast and precise adjustment

Simple setting of the radii with adjustable spindles and templates

The pre-assembled RUNDFLEX elements can be quickly adapted to changes in the radii with a minimum of effort.

By means of the self-cleaning Adjusting Spindles, the formwork is easily adjusted to fit the required curvature using a Ratchet Spanner and template. PERI delivers the ready-to-use customized radii templates to the construction site. Complicated geometries with constantly changing radii are also quickly and easily formed in this way using RUNDFLEX.

In the process, the adjustable spindles are installed so that the yellow chromated parts are always facing the same direction. Through the same turning direction in each case, the adjusting procedure is uncomplicated and fast.

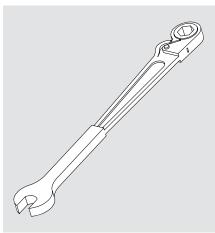


Checking the required curvatures is carried out by placing the radius template on the formwork girders.

#### How it's done

Radii adjustment basically begins with the spindles in the middle of the element and then work outwards in a uniform sequence.





The "combi" Ratchet Spanner for quick adjustment of RUNDFLEX elements.



The adjustable spindle for adjusting the edge profile is also operated by means of the "combi" Ratchet Spanner.

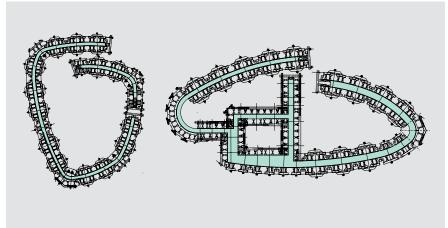
## **Extremely variable**

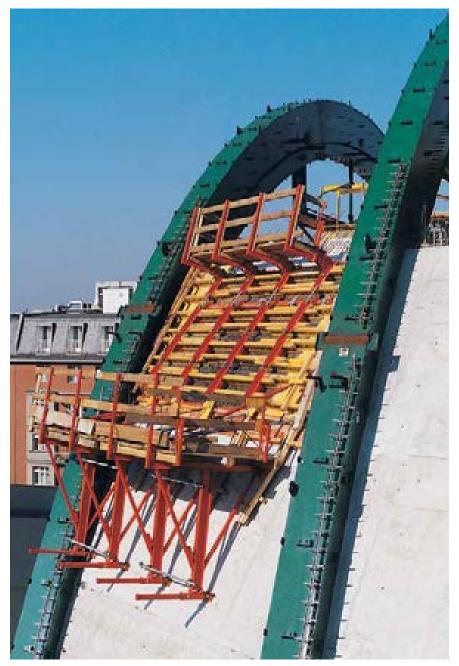
Flexible adjustment of wall internal radii of 1.00 m and larger – also for complicated geometries



RUNDFLEX is an enormously versatile and adaptable circular wall formwork. The system provides a solution for virtually any challenge in connection with curvatures, changing radii, roundings and arches.

Through the possible combination of RUNDFLEX with other formwork systems, complicated ground plans can also be cost-effectively realized. Using the BFD Alignment Coupler, RUNDFLEX elements can be effortlessly combined with TRIO Panel Formwork.





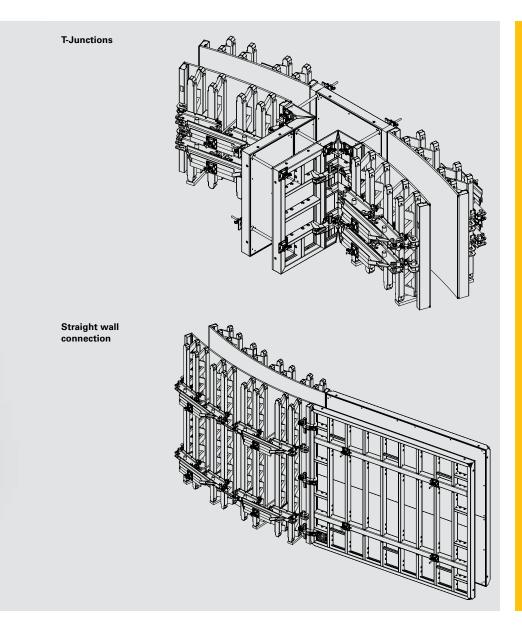
For applications such as tunnel portals or other arched forms, RUNDFLEX can also be used horizontally.

Elliptically-shaped tunnel portal with RUNDFLEX elements and accessories from the VARIO programme. The problem of constantly changing radii and inclination was solved by means of conically-cut filler timbers.



## **RUNDFLEX** at a glance





#### A well-rounded success

RUNDFLEX provides a fast solution in the system for all standard applications. The right accessories are available for height extensions and stopend formwork as well as wall connections. Last but not least, the portfolio includes system supplements for realizing safe working and concreting platforms on the formwork.

## Height extensions, working and concreting platform, guidelines for constructing a radius template

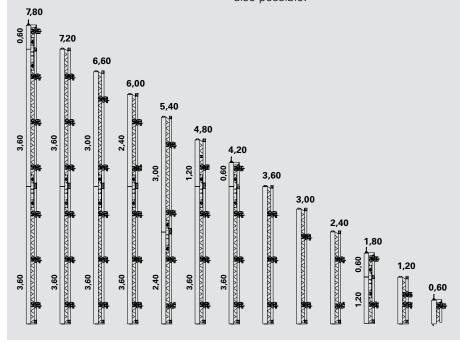
#### **Height extensions**



RUNDFLEX elements can be extended in 60 cm increments.

RUNDFLEX elements can be extended horizontally up to a length of 7.80 m and then erected as one unit. For extending in a vertical position as well as transporting vertically, higher units are also possible.

Horizontal extensions take place in a straight line; one extension splice is to be mounted per girder joint.



#### **Working and Concreting Platform**

## For the installation of safe working and concreting scaffold, RUNDFLEX provides all required system components.

The scaffold bracket can be mounted at each nodal point of the Lattice Girder GT 24. Platform lining, side and rear protection are supplemented in accordance with respective national regulations.

Assembly of components takes place on a horizontally-positioned element. In addition, an access ladder can be mounted to the first and last element of a set of formwork.



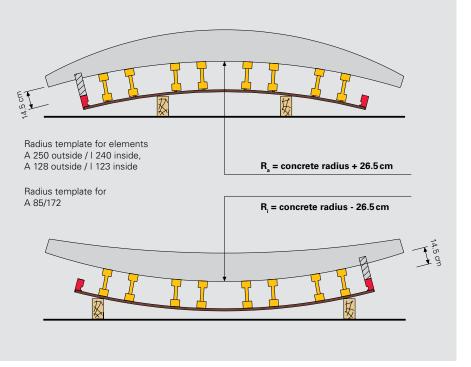
#### Guidelines for constructing a radius template

#### For the external formwork

Radius = concrete radius + 26.5 cm (for 21 mm plywood thickness and 4 mm formlining strip on GT 24 girders).

#### For the internal formwork

Radius = concrete radius - 26.5 cm (for 21 mm plywood thickness and 4 mm formlining strip on GT 24 girders).



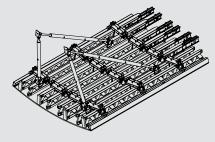
## Push-pull props, stopend formwork, T-junctions, straight wall connections

#### **Push-pull props**

#### RUNDFLEX elements are supported with push-pull props and kickers.

Girder headpieces allow push-pull props and kickers to be fixed on Lattice Girders GT 24 as well as in the area of the extension splices. Push-pull props and kickers are mounted by means of pins and cotter pins.

Push-pull props are also mounted on horizontally-positioned elements.

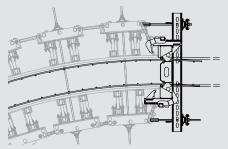




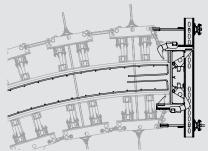
#### Stopend formwork

## Stopend formwork can be realized with and without continuous reinforcement.

TRIO Stopend Panels – with and without water bar installation – are suitable for the stopend formwork of RUNDFLEX elements. Alternatively, stopend formwork complete with steel walers is provided by the contractor, or SRS Circular Columns can also be used as stopend formwork.



Stopend formwork for RUNDFLEX with the TRIO Stopend Panel and continuous reinforcement.



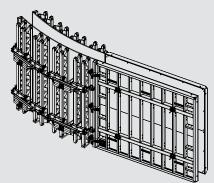
Stopend formwork for RUNDFLEX with the TRIO Stopend Panel without continuous reinforcement

#### Connecting panel formwork

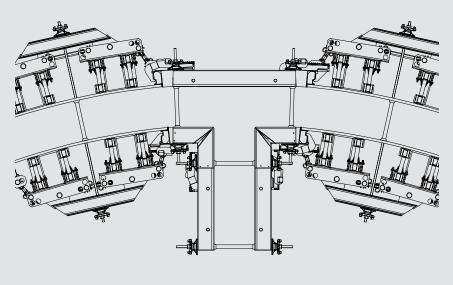
The edge profile of the RUNDFLEX element allows PERI panel formwork to be connected to the circular formwork by means of BFD-suitable profiles.

In this way, the transition to straight wall sections can be quickly and easily realized. Depending on the radius, the use of filler timbers may be required.





Straight outgoing walls can also be easily realized. For normal wall thicknesses, a 90 cm wide frame panel is used for this purpose on the outer side of the formwork; on the inner side, two articulated corners or two internal corners are connected.



## **RUNDFLEX** in use

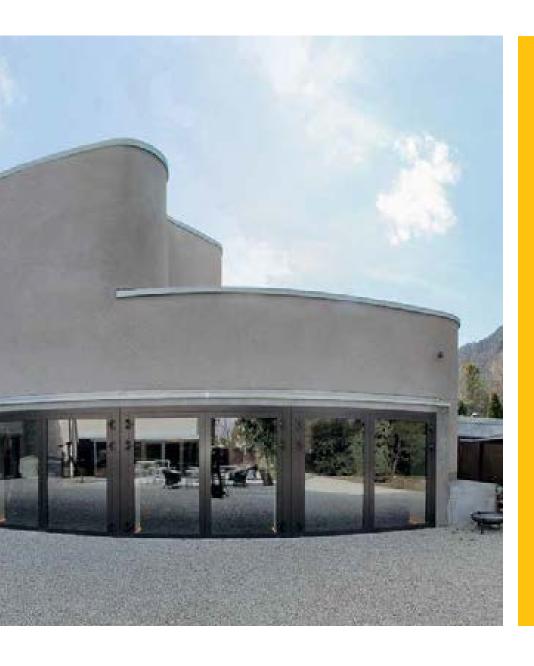


#### MAC Museum, Singen, Germany

With the Museum Art & Cars (MAC), the town of Singen in Baden-Württemberg has a unique and unmistakable museum building. In the style of the the nearby Hohentwiel fortress, the

walls and roof landscape of the structure are repeatedly curved. In addition to the range of specific architectural requirements, high demands were placed on the static through the earthquake-resistant design of the museum. For the complex shapes, RUNDFLEX

proved itself to be the optimal solution. With the easily adaptable formwork system, the various merging radii were continuously and quickly realized without any problems.



## **RUNDFLEX** in use



Text-book execution: the in-situ concrete curvatures feature variable radii.



Exceptional challenge in housing construction: reinforced concrete walls with constantly changing radii and offset residential floors.

#### Secondary School, Bochum, Germany

The new secondary school in Bochum, with approx. dimensions of  $125 \text{ m} \times 70 \text{ m}$ , required a tight schedule with a construction period of only seven months. The three-storey complex consists of two interlocking, ring-shaped structures. In the process, the radii of the two rings continuously change.

For forming the multiple curved shape of the structure, the continuous adjustment option of the RUNDFLEX elements proved to be enormously time saving. The fact that the TRIO Panel Formwork could be easily and simply connected for the straight wall sections, also accelerated formworking operations.

#### Single-family house, Tuttlingen, Germany

The basement and residential floors of this single-family house consist almost entirely of circular-shaped walls with constantly changing radii and offset living areas. Just the 2.75 m high basement walls alone feature ten different radii and were formed with RUNDFLEX and TRIO in seven cycles.

The RUNDFLEX elements could be accurately and quickly adjusted on the construction site for the next cycle. At the same time, element connections with the BFD Alignment Coupler system allowed timber compensations up to 10 cm thick as well as the combination with the TRIO Panel Formwork.



RUNDFLEX also for architactural concrete: depending on requirements, the very best surface qualities can also be achieved with the circular formwork.



RUNDFLEX in use for the shaft of a pump station with a diameter of 25 m.

#### Arena Stage, Washington, USA

The refurbishment and expansion of the Arena Stage Theater includes, among other things, an elliptically-shaped structure whose walls feature 4° inclinations and reach a height of 23 m. Furthermore, very high architectural concrete requirements were placed on the surfaces of these walls.

RUNDFLEX formwork was used which included high-grade formlining. For the higher-positioned areas, the construction team combined the wall formwork with the CB 240 Climbing System. The units were climbed from concreting cycle to cycle by crane.

#### **Pump Station, Preston, England**

As part of a major project for improving the sewage system in Preston, a central pumping station was built in Penwortham which, after it was completed, directs rain water among other things to the wastewater treatment plant in Clifton Marsh.

The excavated shaft for the station has a diameter of over 25 m and a depth of 36 m. For the shaft mantle and dividing walls, 5,000 m² of heavily reinforced concrete was used. The formwork solution for the mantle of the shaft consisted of a combination of RUNDFLEX and TRIO elements.

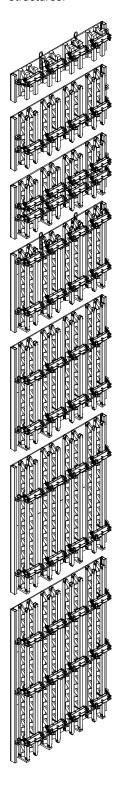


Item no.	Weight kg
021800	127.000
021820	176.000
102856	231.000
126073	292.000
021840	342.000
021400	422.000
021880	513.000

Outside Panels A 250
Outside Panel A 250 x 60
Outside Panel A 250 x 120
Outside Panel A 250 x 120 2R
Outside Panel A 250 x 180
Outside Panel A 250 x 240
Outside Panel A 250 x 300

Outside Panel A 250 x 360

Ready-to-use formwork panel for circular structures.

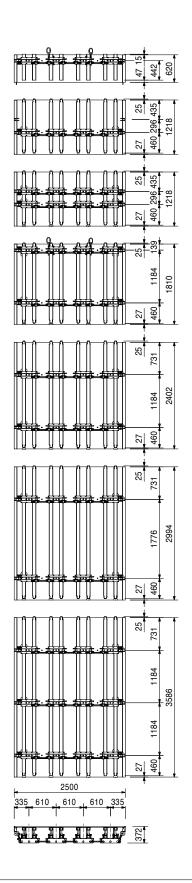


#### Note

Element without distribution waler. Panel A 250  $\times$  60 and A 250  $\times$  180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 4.0 m. Plywood 21 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.

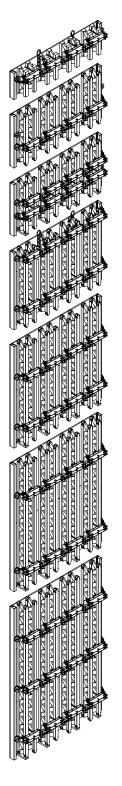




Item no.	Weight kg
021810	124.000
021830	169.000
102855	219.000
126043	283.000
021850	335.000
021410	408.000
021890	499.000

Inside Panels I 240
Inside Panel I 240 x 60
Inside Panel I 240 x 120
Inside Panel I 240 x 120 2R
Inside Panel I 240 x 180
Inside Panel I 240 x 240
Inside Panel I 240 x 300
Inside Panel I 240 x 360

Ready-to-use formwork panel for circular structures.

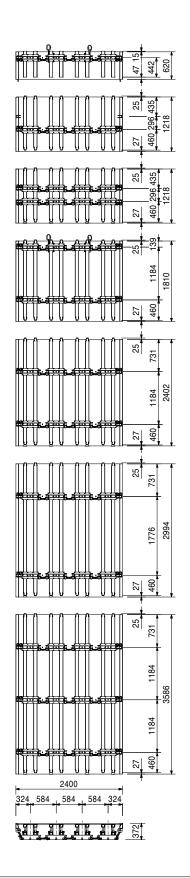


#### Note

Element without distribution waler. Panel I 240 x 60 and I 240 x 180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 4.0 m. Plywood 21 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.



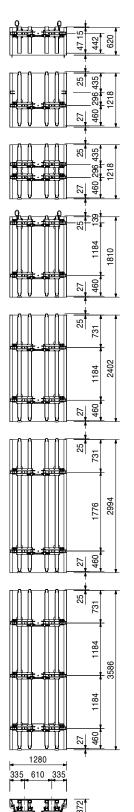


Item no.	Weight kg
021900	72.500
021920	99.000
102854	128.000
126075	167.000
021940	194.000
021420	243.000
021960	289.000

Outside Panels A 128
Outside Panel A 128 x 60
Outside Panel A 128 x 120
Outside Panel A 128 x 120 2R
Outside Panel A 128 x 180
Outside Panel A 128 x 240
Outside Panel A 128 x 300

Outside Panel A 128 x 360

Ready-to-use formwork panel for circular structures.

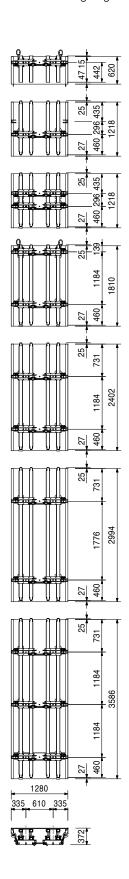


#### Note

Element without distribution waler. Panel A 128  $\times$  60 und A 128  $\times$  180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 2.5 m. Plywood 18 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.





Item no.	Weight kg
021910	71.200
021930	95.300
102853	122.000
126067	160.000
021950	186.000
021430	235.000
021970	275.000

Inside Panels I 123 Inside Panel I 123 x 60 Inside Panel I 123 x 120 Inside Panel I 123/120 2R Inside Panel I 123 x 180 Inside Panel I 123 x 240 Inside Panel I 123 x 300 Inside Panel I 123 x 360

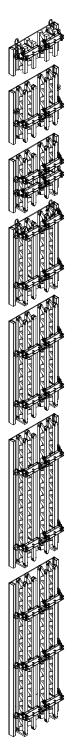
Ready-to-use formwork panel for circular structures.

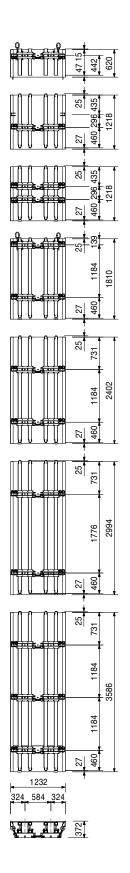


Element without distribution waler. Panel I 123  $\times$  60 and I 123  $\times$  180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 2.5 m. Plywood 18 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.





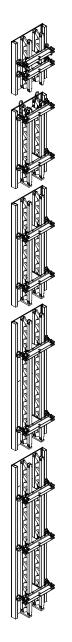


Item no.	Weight kg
020820	91.300
126079	120.000
020840	136.000
020860	175.000
020880	203.000

Outside Panels A 85
Outside Panel A 85 x 120
Outside Panel A 85 x 180
Outside Panel A 85 x 240
Outside Panel A 85 x 300

Outside Panel A 85 x 360

Ready-to-use formwork panel for circular structures.

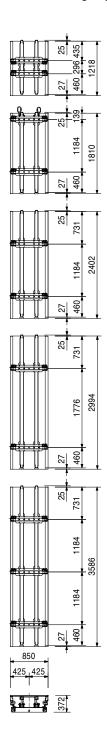


#### Note

Element without distribution waler. Panel A 85 x 180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 1.0 m. Plywood 2 x 9 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.





Item no.	Weight kg
020830	74.300
126070	101.000
020850	116.000
020870	153.000
020890	173.000

Ready-to-use formwork panel for circular structures.

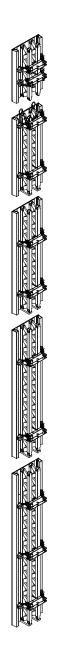
#### Note

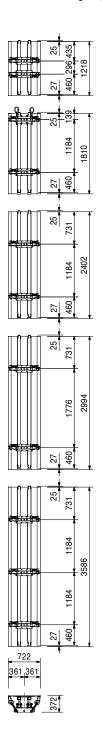
Element without distribution waler.

Panel I 72  $\times$  180 complete with crane eye on the left and on the right side.

#### **Technical Data**

Minimum radius 1.0 m. Plywood 2 x 9 mm. Permissible load-bearing point capacity 700 kg with crane sling angle  $\leq$  15°.





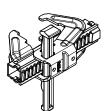


 Item no.
 Weight kg

 023500
 4.580

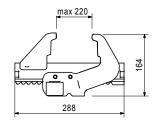
Alignment Coupler BFD, galv.

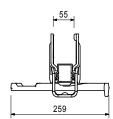
For all panel connections for MAXIMO, TRIO and RUNDFLEX. Fillers up to 10 cm.



#### **Technical Data**

Permissible tension force 20.0 kN.





023940

6.080

#### Alignment Coupler 38, galv.

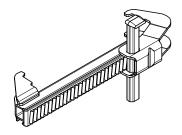
For element connections with RUNDFLEX.

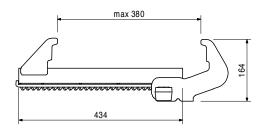


Compensation up to 26 cm.

#### **Technical Data**

Permissible tension force 20.0 kN.





021620

3.770

#### Adjusting Spindle 500, galv.

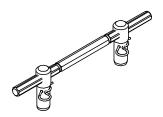
For aligning RUNDFLEX external elements. For panel joints of external and internal elements.

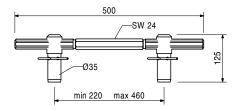
#### Complete with

2 pc. 022230 Cotter Pin 5/1, galv.

#### Note

With self-cleaning hexagonal thread.





021610

2.830

#### Adjusting Spindle 210, galv.

For aligning RUNDFLEX internal elements and the edge profiles on external and internal elements.

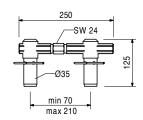
#### Complete with

2 pc. 022230 Cotter Pin 5/1, galv.

#### Note

With self-cleaning hexagonal thread.



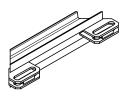


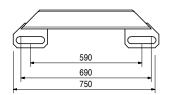


Item no. Weight kg 021630 18.300

**Distribution Waler** 

For transferring anchor forces on two adjacently positioned T-walers.







Accessories

021640 1.260 Waler Bolt for RUNDFLEX, galv.

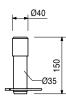
021640 1.260 Waler Bolt for RUNDFLEX, galv.

For fixing the distribution waler on the T-Waler.



Complete with

1 pc. 022230 Cotter Pin 5/1, galv.



024480 7.040 **Extension Splice 24-2** 

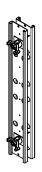
For extending GT 24 girders and VARIO GT 24 panels up to max. height of 8.00 m.

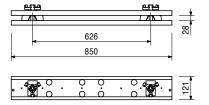
Complete with

2 pc. 030190 Three Wingnut DW 15, galv.

Note

Permissible load: see PERI Design Tables.







Item no. Weight kg 070760 4.650

Crane Splice GT 24

For transporting elements by crane with the GT 24 girder.

Complete with

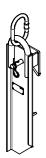
1 pc. 018050 Pin Ø 16 x 65/86, galv. 2 pc. 018060 Cotter Pin 4/1, galv.

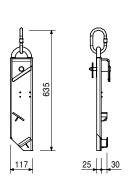
Note

Follow Instructions for Use!

**Technical Data** 

Permissible load-bearing capacity 700 kg with crane sling angle ≤ 15°.





021990 2.780 021980 2.780 Crane Eyes 24 Crane Eye 24, right Crane Eye 24, left

For transporting elements by crane with the GT 24 girder. Mounted securely to the element.

Complete with

4 pc. 710138 Bolt ISO 4014 M10 x 110-8.8, galv.

4 pc. 780356 Nut ISO 7042 M10-8, galv.

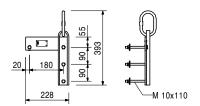
4 pc. 710139 Washer R11 DIN 440, galv.

Illustration shows Crane Eye 24, left. Follow Instructions for Use!

**Technical Data** 

Permissible load-bearing capacity 700 kg with crane sling angle  $\leq 15^{\circ}$ .





027110

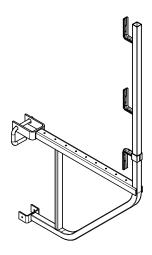
11.000

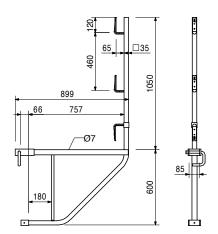
#### **Scaffold Bracket GB 80**

For assembly of a working and concreting scaffold with GT 24 girder.

#### **Technical Data**

Permissible load 150 kg/m². Maximum width of influence 1.25 m.







 Item no.
 Weight kg

 112159
 2.120

Handrail Post Holder VARIO

For assembling a guardrail with GT 24 Girder.

Complete with

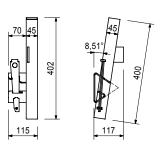
1 pc. 024250 Wedge K, galv.

1 pc. 780800 Sleeve ISO 8752 8 x 20, galv.

#### **Technical Data**

Maximum width of influence 2.00 m.





Accessories

116292 4.730

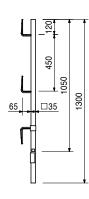
**Guardrail Post HSGP-2** 

116292 4.730

#### **Guardrail Post HSGP-2**

As guardrail for different systems.





021790 1.000

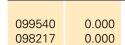
#### Ratchet Spanner SW 24 "Combi"

For adjusting RUNDFLEX Panels and Cantilevered Parapet Platform GKB.



Note

Length approx. 500 mm.



## Templates for RUNDFLEX Template for RUNDFLEX A250, I240, A128, I123 Template for RUNDFLEX A85, I72

The template is used for external and internal elements.

#### Note

Including material (formlining). Produced in accordance with project requirements.



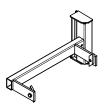




Item no. Weight kg 109411 6.450

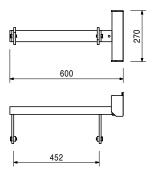
**Ladder Connector RFP** 

For connecting ladders at RUNDFLEX Plus and RUNDFLEX panels.



Complete with

2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv. 2 pc. 701763 Clamping Plate Fl 25 x 10 x 90



051410 11.700

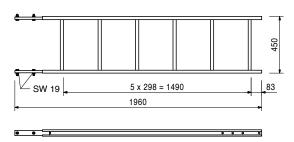
Ladder 180/6, galv.

As access for PERI Formwork Systems.



Complete with

4 pc. 710224 Bolt ISO 4017 M12 x 40-8.8, galv. 4 pc. 710381 Nut ISO 7042 M12-8, galv.



051460

2.180

Ladder Base, galv.

As bottom ladder connection and for securing ladders against sliding on the scaffold decks.



405

103718

0.684

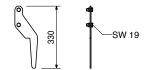
Ladder Hook, galv.

For adjusting the bottom ladder. Always use in pairs.



Complete with

2 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv. 2 pc. 710381 Nut ISO 7042 M12-8, galv.





Item no.	Weight kg
104132	15.600
051450	25.200

Ladder Safety Cages, galv. Ladder Safety Cage 75, galv. Ladder Safety Cage 150, galv.

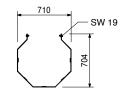
Ladder safety cage for PERI Access Ladders.

#### Complete with

4 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv. 4 pc. 701763 Clamping Plate FI 25 x 10 x 90



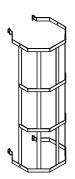




109420 27.000

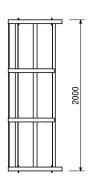
#### **Ladder Safety Cage RFP 200**

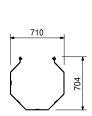
Ladder safety cage for access ladders with exit on the side.



#### Complete with

4 pc. 710266 Bolt ISO 4017 M12 x 25-8.8, galv. 4 pc. 701763 Clamping Plate FI 25 x 10 x 90



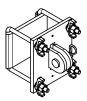


028050

4.550

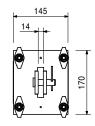
#### Girder Headpiece GT 24, galv.

For connecting push-pull props and kicker braces to GT 24 Girders



#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.



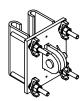


028070

4.680

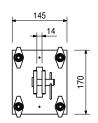
#### Girder Headpiece GT 24/A, galv.

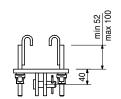
For connecting push-pull props and kicker braces to extended GT 24 Girders in the area of the Extension Splice 24-2.



#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.







Item no.	Weight kg
028060	1 9/10

Item no.	Weight kg
028060	1 940

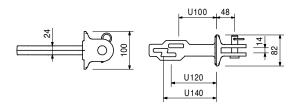
#### Wedge Headpiece SRZ/SRU

For connecting push-pull props and kicker braces to Steel Waler SRZ and SRU Profile U100 - U140.



#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.



Accessories

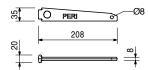
024250 0.331 Wedge K, galv.

024250 0.331

#### Wedge K, galv.

For coupling Compression Plate KDP, Wedge Head Piece SRZ/SRU and Waler Connector SB-A, B, C.





117466 10.600

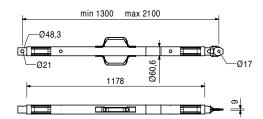
#### Push-Pull Prop RS 210, galv.

Extension length I = 1.30 - 2.10 m. For aligning PERI formwork systems and precast concrete elements.



#### Note

Permissible load see PERI Design Tables.



118238

12.200

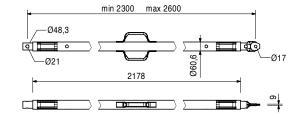
#### Push-Pull Prop RS 260, galv.

Extension length I = 2.30 - 2.60 m. For aligning PERI formwork systems and precast concrete elements.



#### Note

Permissible load see PERI Design Tables.





Item no. Weight kg 117467 15.500

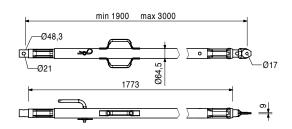
Push-Pull Prop RS 300, galv.

Extension length I = 1.90 - 3.00 m. For aligning PERI formwork systems and precast concrete elements.

#### Note

Permissible load see PERI Design Tables.





117468 23.000

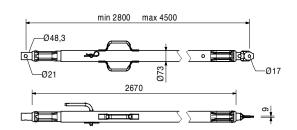
Push-Pull Prop RS 450, galv.

Extension length  $I=2.80-4.50\ m.$  For aligning PERI formwork systems and precast concrete elements.

#### Note

Permissible load see PERI Design Tables.





117469

40.000

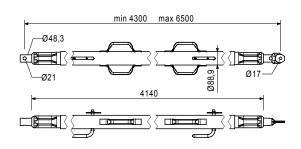
Push-Pull Prop RS 650, galv.

Extension length  $I=4.30-6.50\ m.$  For aligning PERI formwork systems and precast concrete elements.

#### Note

Permissible load see PERI Design Tables.





028990

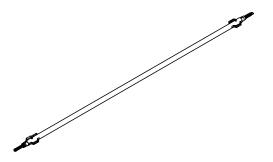
115.000

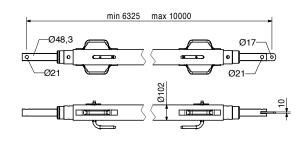
Push-Pull Prop RS 1000, galv.

Extension length I = 6.40 - 10.00 m. For aligning PERI formwork systems.

#### Note

Permissible load see PERI Design Tables.







Item no. Weight kg 103800 271.000

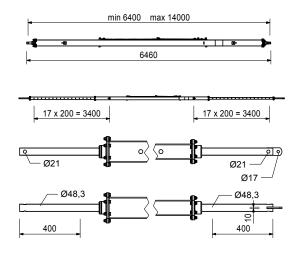
#### Push-Pull Prop RS 1400, galv.

Extension length I = 6.40 - 14.00 m. For aligning PERI formwork systems.

## Note

Permissible load see PERI Design Tables. Chain can be operated from bottom.

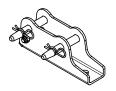




117343 3.250

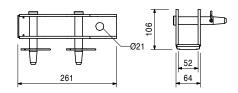
### Base Plate-2 for RS 210 - 1400, galv.

For assembly of Push-Pull Props RS 210, 260, 300, 450, 650, 1000 and 1400.



#### Complete with

2 pc. 105400 Pin Ø 20 x 140, galv. 2 pc. 018060 Cotter Pin 4/1, galv.



Accessories

Accessories

124777 0.210 Anchor Bolt PERI 14/20 x 130

126666 3.070

#### Base Plate-3 for RS 210 - 1400

For assembly of Push-Pull Props RS 210, 260, 300, 450, 650, 1000 and 1400.

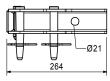
Complete with

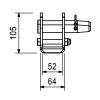
2 pc. 105400 Pin Ø 20 x 140, galv.

2 pc. 018060 Cotter Pin 4/1, galv.

1 pc. 113063 Bolt ISO 4014 M12 x 80-8.8, galv.

1 pc. 113064 Hex Nut ISO7042-M12-8-G, galv.





124777 0.210

Anchor Bolt PERI 14/20 x 130



 Item no.
 Weight kg

 028010
 17.900

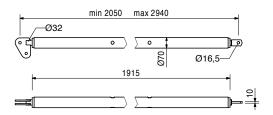
Push-Pull Prop RSS I

Extension length I = 2.05 - 2.94 m. For aligning PERI formwork systems.



#### Note

Permissible load see PERI Design Tables.



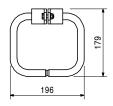
113397

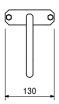
1.600

Spindle Handle RSS / AV

Spindle Handle for screwing on Push-Pull-Props RSS I, RSS II, RSS III and Kickers AV 210 and AV 190 complete with 2 bolts and nuts M8.





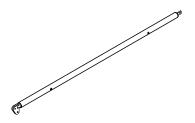


028020

22.000

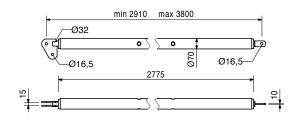
**Push-Pull Prop RSS II** 

Extension length I = 2.91 - 3.80 m. For aligning PERI formwork systems.



#### Note

Permissible load see PERI Design Tables.

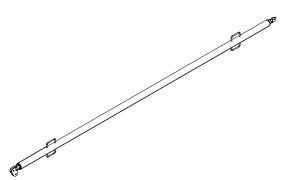


028030

38.400

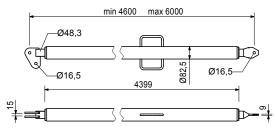
Push-Pull Prop RSS III

Extension length I = 4.60 - 6.00 m. For aligning PERI formwork systems.



#### Note

Permissible load see PERI Design Tables.





Item no.	Weight kg
106000	1 820

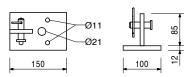
Base Plate-2 for RSS, galv.

For assembly of RSS Push-Pull Props.



#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.



Accessories

Anchor Bolt PERI 14/20 x 130

057087	3.720
057088	4.410

Kickers AV Kicker AV 82 Kicker AV 111

For aligning PERI formwork systems.

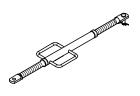
min. L	max. L
500	820
790	1110

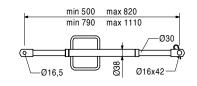
#### Complete with

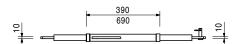
1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.

#### Note

Permissible load see PERI Design Tables.







#### 028110 5.180

Kicker AV 140

Extension length I = 1.08 - 1.40 m. For aligning PERI formwork systems.

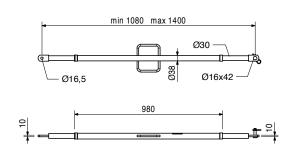
#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.

#### Note

Permissible load see PERI Design Tables.







Item no. Weight kg 108135 12.900

Kicker AV 210

Extension length I = 1.28 - 2.10 m. For aligning PERI formwork systems.

#### Complete with

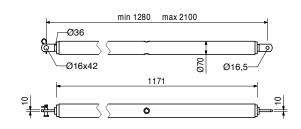
1 pc. 027170 Pin Ø 16 x 42, galv.

1 pc. 018060 Cotter Pin 4/1, galv.

#### Note

Permissible load see PERI Design Tables.





028120

17.000

#### Kicker AV RSS III

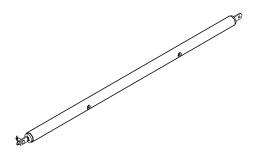
Extension length I = 2.03 - 2.92 m. For aligning PERI formwork systems.

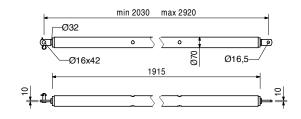
#### Complete with

1 pc. 027170 Pin Ø 16 x 42, galv. 1 pc. 018060 Cotter Pin 4/1, galv.

#### Note

Permissible load see PERI Design Tables.





124777

0.210

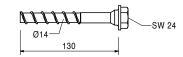
#### Anchor Bolt PERI 14/20 x 130

For temporary fixation to reinforced concrete structures.

# 

#### Note

See PERI data sheet! Drilling Ø 14 mm.



## Оптимальная система для любого проекта и любых требований



Стеновая опалубка



Опалубка колонн



Опалубка для перекрытий



Консольно-переставные леса



Опалубка туннелей



Опалубка мостов



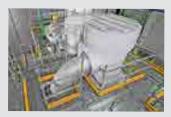
Опорные леса



Строительные леса



Фасадные леса



Промышленные леса



Лестницы, рабочие платформы



Защитные ограждения



Принадлежности



Услуги



#### Бровары

#### (главный офисно-складской комплекс)

07400, Киевская область, г. Бровары ул. Объездная дорого, 60 тел.: (044) 390-26-26 факс: (044) 390-26-99

#### Днепр

peri@peri.ua

49083, г. Днепр, просп. Слобожанський, 29, оф.104 тел/факс: +38 056.790-08-80 dnepr@peri.ua

#### Харьков

61020, г. Харьков просп. Любови Малой, 93 оф. 106 тел./факс: (057) 751-86-59 kharkov@peri.ua

#### Одесса

65125, г. Одесса ул. Большая Арнаутская, 15 оф. 30 тел./факс: (048) 728 -90-20 odessa@peri.ua

#### Львов

79035, г. Львов ул. Зеленая , 228 оф. 85 тел./факс: (032) 245-89-25 lviv@peri.ua

#### Тернополь

46001, г. Тернополь ул. Крешельницкая, 18 оф. 904 тел./факс: (035) 243-10-64 ternopil@peri.ua