Folding Platform
System FB 180-3

Erection and Dismantling Instructions

Edition 12/2003
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Key

⚠ Important safety precaution

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⬇ Limitations
A1 Main platform

Overview

1 Bracket
2 Lifting eye
3 Lifting and locking pin
4 Crane lifting eye
5 Standard mounting head or loop mounting head
6 Staging
7 Safety coupler
8 Rear safety handrail frame
9 Horizontal member
10 Universal coupler (in middle of bracket frame)
11 Rigid strut connected with pins
The FB 180 work and protective access platform system consists of a folding main platform with struts, an intermediate platform without brackets, a separate bracket and a corner platform conversion frame.

The platforms are preassembled; stackable scaffold platforms for work and protective access in accordance with DIN 4420 Part 1. They are used in German scaffold group 4 (imposed UDL of 300 kg/m²) or in group 5 for special applications (imposed UDL of 450 kg/m² on main platforms only).

The main platforms, in combination with the intermediate platforms, allow a uniform bracket spacing of 2.50 m.

It is also possible to infill any gap with closer bracket spacings between the main platforms with the intermediate ones.

The corner frame transforms the main platform into a corner unit and turns the FB 180 work and protective access platform system into a complete system.

Either the standard or the loop head can be used for mounting, and there is a useful range of accessories available.

The platforms consist of:
- folding brackets with captive bracing and easily fitted struts
- 45 mm thick 15-ply staging
- a folding handrail frame

All steel components are galvanised. The corner platform frame and all of the safety parts have a red powder-coated finish.

Intended use

These erection and dismantling instructions contain information on proper handling and the intended use of the FB 180 work and protective access platform system. Safety notices and load indications must be strictly followed.

Any other application than the one stated here is subject to prior approval by PERI and additional assembly instructions.

Only equipment in perfect condition may be used. Damaged components are to be exchanged. Only original PERI spare parts may be used.

The newest version of the local safety and environmental regulations valid in the respective countries must be followed when this product is used.

The erection and dismantling instructions and PERI’s preliminary drawings and final drawings do not substitute the operational work and erection instructions.
Storage and handling

The platforms can be stored in stacks of up to 20. To prevent damage, they must be offset longitudinally (see sticker) Fig. 1.

The external lifting eyes allow stacks of up to 10 platforms to be lifted at the same time using the crane. Fig. 2

Stacks can also be moved with a forklift truck. They are picked up from the longer side. Fig. 3

It is also possible to take individual platforms from the stack with the FB 180 transportation fork. Fig. 4

Folding corner platforms can be stacked together with ordinary folding platforms without affecting the stacking dimension.

Ensure the platforms are evenly secured on lorries but not too tightly.
**A1 Main platform**

**Erection**

With four-chain lifting gear:
The platform is unloaded from the lorry suspended by the lifting eyes 2 and lifting and locking pins 3. Fig. 5

2. Raise handrail frame 8.
3. Lower latches 7.
4. Attach four chains of the lifting gear to crane lifting eyes 4.
5. Raise latches 7.
6. Lift platform with crane.
7. Lower latches 7.
8. Unfold platform completely.

Alternatively with transportation fork:
Insert the fork under the staging and slide lifting chain to position B, see manual of transportation fork FB 180. Take platform from stack and unload it.

1. Lift latches 7.
2. Raise handrail frame 8.

Omit steps 3 - 5 above!
7. Lower latches 7.
8. Unfold platform completely.

Connect the struts 11 to the horizontal member of the bracket 1.1 first with the captive pin 11.1. Then to the vertical member 1.2 of the bracket with pin 11.1. Fig. 8

Locking fingers point downwards.

When first delivered, connect the standard mounting heads or loop mounting heads 5 to the brackets with the 16 mm dia x 150 mm pins and 4/1 cotter pins provided. The platform can be mounted up to 70 cm higher in 5 cm increments by fitting the heads accordingly.
**A1 Main platform**

**Transportation**
Attach four chains of the lifting gear to crane lifting eyes 4.
Lift platform and transport it.

**Dismantling**
Lower the platform suspended by the crane lifting eyes 4 until it rests on a level surface.
Pull out pin 11.1 from the vertical member 1.2.
Strut will swing down into vertical position.
Pull out pin 11.1 from the horizontal member 1.1 and remove strut.
Lower platform right down onto the surface with the crane.
Fig. 9

⚠️ **Workers are to be secured against falling from a height during erection and dismantling!**
- Loose scaffold parts, intermediate platforms or construction material are to be removed!
- Subject to approval by the supervising authority and in compliance with the valid safety regulations, the personnel might remain on the platform during transportation!

Disconnect crane lifting gear.
Lift latches 7.
Fold handrail frame down.

The latches will fall back and lock the platform in its folded position.
Fig. 10

ゾ Inspect the latches to check that they are in the locked position!
200 support extension

Erection

Hook the 200 support extension 12 onto the 25 mm dia bottom pin from behind and allow it to swing back into the vertical position. Fig. 11

The support’s latch 12.1 drops down and locks. Fig. 11a

Dismantling

Open the support’s latch 12.1. The 200 support extension is then dismantled in the reverse order.

Example:
For bridging wall openings with the work and protective access platform. Fig. 12
300 support extension

Erection

⚠️ The 300 support extension may only be used in combination with the compression strut 14!

Hook the 300 support extension 13 onto the 16 mm dia top pin from behind. Fig. 13a

Hook the compression strut 14 onto the top projecting pin 11.2 from behind. Fig. 13b

⚠️ Lift the platform with the crane to allow the 300 support extension 13 and the compression strut 14 to swing down into the vertical position where they cannot be taken off the pins. Fig. 13

Turn compression strut’s locking washer 14.1 up.

Hook compression strut onto 300 support extension and turn locking washer 14.1 down again. Fig. 13c

Dismantling

The 300 support extension is dismantled in the reverse order.

Example:

For bridging wall holes with the protective access platform. Fig. 14
**A3 Finishing platform**

**Erection**

The finishing platform 15 can be mounted on the 200 and 300 support extensions at the height required.

- Set the finishing platform down on a pair of trestles. Raise handrail frame 15.1. Fig. 15
- Safety hook 15.2 will drop into vertical position and lock. Fig. 15a

Release captive locking pins 15.3; bring main platform, with support extensions fitted, up to finishing platform with the crane and introduce into the openings in the staging. Insert pins at height required.

**Example:**
Finishing platform on 200 support extension

**Dismantling**
Open safety hook 15.2. The finishing platform is then dismantled in the reverse order.
16 Intermediate platform handrail frame
17 Crane lifting eyes
18 Crane lifting eye
19 Locking bolt 19 mm across flats
**A4 Intermediate platform**

**Erection**

Use intermediate platforms only where main platforms can be safely accessed during erection and dismantling, e.g. through wall openings or by means of a simple ladder put up on a safe surface. Observe valid safety regulations!

Unload intermediate platforms from the lorry and set them down on a flat surface.

Raise handrail frame 16 until it reaches the stop. Attach three chains of lifting gear to crane lifting eyes 17 (always from the inside of the handrail frame) and 18. Fig. 17

Alternatively, the intermediate platform can be lifted with the transportation fork.

Set platform down centrally between two main platforms on the structure attaching the intermediate platform's handrail frame 16 to the handrail frame of the main platform 8. Fig. 18

**Dismantling**

The intermediate platform is dismantled in the reverse order.
Erection

Raise the handrail frame 16 and connect the three chains of the lifting gear as before.

Put one folding bracket down on level surface with handrail post raised and position intermediate platform over it with the crane.

Screw intermediate platform with folding bracket into universal couplers 10.

Fig. 19

Accessories:

Two DW 15/115 screw plates 20 or two FBP end posts 21

To ensure the plywood staging is horizontal, the standard mounting head or loop mounting head on the end platform brackets must be positioned 1 increment = 5 cm lower than on the brackets of the main platform.

The end handrail boards are provided from site material and connected:

a) as shown in the case of 3 x 15 cm boards or

b) with 48.3 mm dia scaffold tubes and couplings.

Fig. 20

- Scaffold parts provided from site material must be in accordance with the valid safety regulations (for Germany DIN 4420)!

- Wooden components must at least meet the sorting class S10 according to DIN 4074!

- Fix rear safety handrail boards with nails!

Alternatively two 55 end handrail frames can be used.

Dismantling

The intermediate platform is dismantled in the reverse order.
**A4.2 Intermediate platform as internal corner**

**Erection**

This platform is erected in the same way as the end platform with DW 15/115 screw plate.

The end platform erected in this way is shifted into the internal corner of the façade and supported on the neighbouring main platform. Once the next main platform has been erected, the handrail frame 16 of the FBZ intermediate platform is removed in the 45° position and attached to the handrail frame of the main platform temporarily until the platforms are taken down. Gaps in the plywood staging are to be infilled, and the closing board between internal corner platform and next main platform provided from site material. Fig. 21

- **Scaffold parts provided from site material must be in accordance with the valid safety regulations** (for Germany DIN 4420)!
- **Wooden components must at least meet the sorting class S10 according to DIN 4074**!

**Removal of handrail frame:**
1. Slacken off locking bolt 19 (19 mm across flats) with the handrail frame in the 45° position.
2. Push the frame to the left as seen from the platform.
3. Raise the left-hand side.
4. Push it to the right and remove the handrail frame. Fig. 22

**Dismantling**

The intermediate platform is dismantled in the reverse order.
**Erection**

Any main platform can be converted into a folding corner platform at any stage by replacing the horizontal member 9 (see overview main platform) with the corner platform frame 22. The corner platform frame is connected with the M 16 x 45 bolts and nuts (2 x 3) provided.

Fig. 23

The height can be adjusted by 5, 10, 15, 60, 65 and 70 cm only.

The folding corner platform is folded similarly to the main platform.

⚠️ **Swing out the support 23 completely (position a)!**

With the support 23 retracted (position b) and using the external mounting points 5, the folding corner platform can be employed on straight sections of wall without modification.

Fig. 23a

**Left-handed external corner:**
- Platform projecting to the left
- Standard mounting heads 5 in position 5L

Fig. 24a

**Right-handed external corner:**
- Platform projecting to the right
- Standard mounting heads 5 in position 5R

Fig. 24b
Erection

Close the open end of the folding corner platform with the FBP end post 21 screwed into the universal coupler 10, and 3 x 15 cm handrail boards or 48.3 mm dia scaffold tubes with couplings provided from site material.

The gap in the plywood staging between the folding corner platform and the main platform around the corner is closed with site material.

Fig. 25 + 26

- **Scaffold parts provided from site material must be in accordance with the valid safety regulations** (for Germany DIN 4420)!
- **Wooden components must at least meet the sorting class S10 according to DIN 4074**!
- **Fix safety handrail boards with nails**!

⚠️ **Do not impose any additional loads, e.g. from bridging boards or supported intermediate platforms, on the cantilevering part of the folding corner platform!**

Dismantling

The folding corner platform is dismantled in the reverse order.
A6 Height adjustment, mounting extension for loop

Erection

Instead of the loop mounting head, the mounting extension for the loop 24 is connected with the two pins and cotter pins provided.

After platform has been mounted, lift latch 24.1 and turn. The mounting extension for the loop can no longer be lifted unintentionally. Fig. 27

Using the mounting extension allows the FB 180 – 3 to be mounted 600 mm, 650 mm or 700 mm lower.

A7 Handrail extension

Erection

Push the FB handrail extension 25 fully home into the hollow tops of the handrail posts. Use the scaffold tube coupling 25.1 fitted at the top to bolt the 48.3 mm dia scaffold tube 27 threaded into the safety net 26 (600 x 200 cm).

A 48.3 mm dia scaffold tube 27 threaded into the safety net at the bottom end is positioned on the platform for stabilization. Fig. 28
1. Anchoring with wall scaffold hinge and FB standard mounting head

**Caution!**
Do not load the anchoring system until the concrete reaches a strength of 10 N / mm².

**Maximum anchor loads:**
See tables in Part B

Check the structure and its individual members to ensure they are strong enough to withstand these design loads.

Compensate lateral dimensional tolerances of up to ± 2.5 cm by slightly turning the FB wall scaffold hinge. Fig. 29a

* When used with FBZ intermediate platform and erection of formwork.

** Reinforce each anchor point with bolt anchor sleeve with two 8 mm dia U-bars, if suitable edge reinforcement has not already been provided.
Anchor point formed with M 24 anchor bolt sleeve
Nail M 24 positioning stud onto formwork. Screw M 24 anchor bolt sleeve on and tie with wire through holes provided in order to keep the anchor point in the right position during concreting. Reinforce the sleeve with two 8 mm dia U-bars if suitable edge reinforcement has not already been provided.

After striking, unscrew the M 24 anchor positioning stud with 14 mm Allen key. Then bolt FB wall scaffold hinge into anchor bolt sleeve with M 24 x 70 hex bolt, ISO 4014-10.9.

Anchor point formed with M 24 screw-on cone
Nail M 24 anchor positioning stud onto formwork. Screw cone onto threaded anchor plate 20 until fully home. Tie the threaded plate 20 with wire to keep the anchor point in the right position during concreting. Reinforce the threaded plate with two 8 mm dia U-bars if suitable edge reinforcement has not already been provided.

After striking, unscrew the M 24 anchor positioning stud with 14 mm Allen key. Then connect scaffold mounting ring 15 into screw-on cone with M 24 x 120 hex bolt, ISO 4014-10.9. Alternatively, the FB wall scaffold hinge can be mounted with M 24 x 70 hex bolt, ISO 4014-10.9.

Anchor point formed with climbing cone 2
Nail M 24 anchor positioning stud onto formwork. Screw climbing cone 2 onto threaded tie rod and anchor plate 15 until fully home. Tie the threaded plate 15 with wire to keep the anchor point in the right position during concreting. Reinforce the threaded plate with two 8 mm dia U-bars if suitable edge reinforcement has not already been provided.

After striking, unscrew the M 24 anchor positioning stud with 14 mm Allen key. Then connect scaffold mounting ring 15 into screw-on cone with M 24 x 120 hex bolt, ISO 4014-10.9. Alternatively, the FB wall scaffold hinge can be mounted with M 24 x 70 hex bolt, ISO 4014-10.9.

1. Anchoring with FB standard mounting head

To ensure the most efficient construction sequence when shifting the folding platform, double the quantity of recoverable components on site.

NB Safety notice!
Only use the parts indicated by PERI for scaffold anchoring.

<table>
<thead>
<tr>
<th>Mounting variant</th>
<th>Recoverable parts</th>
<th>Lost parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB standard mounting head Item no. 026632</td>
<td>Hex bolt M 24 x 70 10.9 Item no. 026430 FB wall scaffold hinge Item no. 026990 M24 anchor positioning stud Item no. 026420</td>
<td>Cone for Bolt anchor sleeve M 24 Item no. 026240 M 24 anchor bolt sleeve Item no. 026230</td>
</tr>
<tr>
<td>FB standard mounting head Item no. 026632</td>
<td>Hex bolt M 24 x 120 10.9 Item no. 029560 Scaffold mounting ring 15 Item no. 029470 M 24 anchor positioning stud Item no. 026420 Screw-on cone M 24 / DW 20 Item no. 030960</td>
<td>Threaded anchor plate 15 Item no. 030860</td>
</tr>
<tr>
<td>FB standard mounting head Item no. 026632</td>
<td>Hex bolt M 24 x 120 10.9 Item no. 029560 Scaffold mounting ring 15 Item no. 029470 M 24 anchor positioning stud Item no. 026420 Climbing cone 2 M 24 / DW 20 Item no. 031220 DW 15 tie rod Item no. 030030</td>
<td>Threaded anchor plate 15 Item no. 030840</td>
</tr>
</tbody>
</table>

Table 1
2. Anchoring with FB loop mounting head

**Table 2**

<table>
<thead>
<tr>
<th>Mounting variant</th>
<th>Recoverable parts</th>
<th>Lost parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 FB loop mounting head</td>
<td></td>
<td>FB mounting loop Item no. 026636 Use in pairs</td>
</tr>
<tr>
<td>Item no. 026645</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Caution!**
Do not load the anchoring system until the concrete reaches a strength of 10 N / mm².

**Max. anchor loads:**
See tables in Part B

Check the structure and its individual members are strong enough to withstand these design loads.

Lay the mounting loops in pairs and tie to the bottom layer of slab reinforcement with wire. Ensure that the encastré end of the loop hooks around a reinforcing bar.

Take care not to damage parts of building (e.g. windows) with flying sparks when cutting the loops off after the platforms have been used.
1. Standard applications

**Mounting:**
FB standard mounting head or FB loop mounting head
Fig. 32

**Permissible load:**
up to German scaffold group 4 (300 kg/m²)
Table 3

**Limitations:**
When used in German scaffold group 4 with 200 support extension, the height adjustment of the folding platform is limited to a maximum of 20 cm. Fig. 33

---

**Maximum anchor loads**

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>150 kg/m²</td>
<td>( V = 10 \text{ kN} ) ( H = 8 \text{ kN} )</td>
</tr>
<tr>
<td>3</td>
<td>200 kg/m²</td>
<td>( V = 11 \text{ kN} ) ( H = 10 \text{ kN} )</td>
</tr>
<tr>
<td>4</td>
<td>300 kg/m²</td>
<td>( V = 16 \text{ kN} ) ( H = 14 \text{ kN} )</td>
</tr>
</tbody>
</table>
2. Special applications

**Mounting:**
FB standard mounting head
or FB loop mounting head
Fig. 34

⚠️ **NB!**

FBZ intermediate platform and
FEB folding corner platform
may not be used in German
scaffold group 5.

⚠️ **Permissible load:**
German scaffold group 5
(450 kg / m²)
Table 4

⚠️ **Limitations:**
When used with 200 support
extension, the height adjustment
of the folding platform is limited
to a maximum of 20 cm.

---

### Maximum anchor loads

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>450 kg / m²</td>
<td>V = 16 kN H = 14 kN</td>
</tr>
</tbody>
</table>
**B2 Use as shuttering scaffold**

**Case 1:**
*With formwork erected on scaffold*

⚠️ **NB!**
*Do not prop formwork off the folding platform with push-pull props!*

The valid safety regulations are to be observed when the formwork is used. The following regulations are, among others, applicable to Germany:

- Forms 3.00 m or higher also require a safety handrail system on the opposite side of the formwork to where the work is being carried out.
- If ladders are used: the maximum permissible stand height for applying formwork anchors is 2.0 m! If necessary, mount intermediate platforms!

⚠️ **Permissible load FB / FBZ:**
German scaffold group 3 (200 kg / m²)
Table 5

**Mounting with FB standard mounting head:**
Maximum height of formwork 5.40 m
Fig. 35 + 36

**Mounting with FB loop mounting head:**
Maximum height of formwork 2.70 m

### Maximum anchor loads

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Height of formwork</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5.40 m</td>
<td>200 kg / m²</td>
<td>V = 25 kN H = 12 kN</td>
</tr>
<tr>
<td>3</td>
<td>2.70 m</td>
<td>200 kg / m²</td>
<td>V = 21 kN H = 8 kN</td>
</tr>
</tbody>
</table>
Case 2:
With formwork propped off scaffold, without tension anchor Fig. 37

Reinforcement from the inside.

⚠️ NB!
Prop the formwork off the structure before taking a break or finishing the shift, or if work is to be interrupted for a long time!
See B2, Case 4
The valid safety regulations are to be observed when the formwork is used. The following regulations are, among others, applicable to Germany:
- Forms 3.00 m or higher also require a safety handrail system on the opposite side of the formwork to where the work is being carried out.
- If ladders are used: the maximum permissible stand height for applying formwork anchors is 2.0 m!
  If necessary, mount intermediate platforms!

⚠️ Permissible load:
German scaffold group 2
(150 kg / m²)
Table 6

Maximum height of formwork
See B2 Chart 1, Section I.
The permissible wind force can be increased if a tension anchor is mounted.
See B2, Case 3

⚠️ Limitations:
The height adjustment is limited to a maximum of 20 cm. Mounting of a propped off formwork only with FB standard mounting head.

Push-pull prop connection:
Bolt the push-pull prop to the base plate in the rear universal coupler of the bracket with a DW 15 tie rod and cam nut.

Maximum anchor loads
Table 6

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>150 kg / m²</td>
<td>V = 23 kN H = 10 kN</td>
</tr>
</tbody>
</table>

Fig. 37
Example for case 2 showing how values are read off and used

- Height of the formwork: 2.70 m
- Utilisation height above ground level: 10 m
- Forecast wind speed to be expected during work:
  \[ \text{actual } v_1 = 35 \text{ km/h} = 9.7 \text{ m/s} \]
- Conversion of wind speed \( v \): \( 35 \div 3.6 = 9.7 \text{ m/s} \). This corresponds to a wind force of 6 on the Beaufort scale.
- An official forecast for the next day or the coming weekend is not available.
  No storm warning has been issued. Therefore maximum wind speeds of \( \text{max. } v_2 = 60 \text{ km/h} = 16.7 \text{ m/s} \)
  must be expected for the night or the weekend.

**Remark:** In general, storm warnings are issued for wind speeds of 60 km/h = 16.7 m/s or more. This corresponds to a wind force of 8 on the Beaufort scale.

**Reading off values from the chart:**
- Permissible wind speed at ground level without tension anchor: \( \text{perm. } v \approx 14.0 \text{ m/s} = 50 \text{ km/h} \)
- Conversion of wind speed: \( 14.0 \text{ m/s} \times 3.6 = 50 \text{ km/h} \). This corresponds to a wind force of 7 on the Beaufort scale.

**Remark:** The reading has been interpolated between the lines for \( H = 0 \) and \( H = 24 \text{ m} \).
  The line for \( H = 24 \text{ m} \) may also be chosen to be on the safe side.

**Measures:**
- \( \text{actual } v_1 < \text{perm. } v \)
  The use as shuttering scaffold with formwork propped off scaffold is possible without any additional tension anchors.

**Remark:** If, contrary to all expectations, the wind force increases to 7 or more on the Beaufort scale during work, the formwork is to be propped off the structure from the inside.

- \( \text{max. } v_2 > \text{perm. } v \)
  The formwork is to be propped off the structure from the inside after the shift has been finished or over the weekend.

---

**Chart 1**

**Section I:**
- Without tension anchors

**Section II:**
- Tension anchors necessary

**Section III:**
- Props to the inside necessary

**Maximum wind speed at ground level**
\( v = 31.0 \text{ m/s} \) acc. to DIN 4420 with exposure time factor = 0.7

**Height of the formwork in m**

- 0.00
- 0.90
- 1.80
- 2.70
- 3.60
- 4.50
- 5.40

**Wind speed at ground level in m/s**

- 10.0
- 14.0
- 15.0
- 20.0
- 25.0
- 30.0
- 35.0
Case 3
With formwork propped off scaffold, with tension anchor
Fig. 38
Reinforcement from the inside.

⚠️ NB!
- Before taking a break, or if work is to be interrupted for a long time, prop the formwork off the structure, if higher wind forces than the ones indicated in chart 1 are to be expected! See B2, Case 4
- Forms 3.00 m or higher also require a safety handrail system on the opposite side of the formwork to where the work is being carried out.
- If ladders are used: the maximum permissible stand height for applying formwork anchors is 2.0 m! If necessary, mount intermediate platforms!

⚠️ Permissible load:
German scaffold group 2 (150 kg / m²) Table 7

Maximum height of formwork
See B2 Chart 1, Section II

⚠️ Limitations:
The height adjustment is limited to a maximum of 20 cm. Only the 300 version of the support extension with compression strut may be used.
Mounting of a propped off formwork only with FB standard mounting head.

Push-pull prop connection:
Bolt the push-pull prop to the base plate in the rear universal coupler of the bracket with a DW 15 tie rod and cam nut.

Top tension anchor connection:
Attach the CB tension belt’s hook to an additional 16 mm dia x 150 mm pin with 4/1 cotter pin required at the rear universal coupling (bracket). Fig. 38a

Bottom tension anchor connection:
Use an M 24 x 70 or 120 hex bolt (depending on anchor) to attach the belt connector to the anchor or the next slab down. Hook the CB tension belt’s hook into the belt connector. Tension belt. Fig. 38b

Use a finishing platform if the CB tension belt cannot be connected from the building.

Secure formwork against uplift
Influence width < 5.0 m:
30 Waler 85 Item no. 023951
31 Tie Rod DW 15 Item no. 030005
32 Wingnut Pivot Plate Item no. 030370
33 Timber
10 multi-purpose connector

Table 7

<table>
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<th>German scaffold group</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>150 kg / m²</td>
<td>V = 24 kN</td>
</tr>
</tbody>
</table>

Fig.38
Fig.38a
Fig.38b

Fig.38a
Fig.38b

Hook tension anchor into the rear hole

CB belt connector

CB tension belt

Maximum anchor loads

Table 7
Example for case 3 showing how values are read off and used

- Height of the formwork: 4.50 m
- Utilisation height above ground level: 30 m
- Forecast wind speed to be expected during work:
  actual $v_1 = 50 \text{ km/h} = 13.8 \text{ m/s}$
- Conversion of wind speed $v$: $50 + 3.6 = 13.8 \text{ m/s}$. This corresponds to a wind force of 7 on the Beaufort scale.
- A storm warning has been issued for the night with maximum wind speeds of max. $v_2 = 80 \text{ km/h} = 22.2 \text{ m/s}$.
- Conversion of wind speed $v$: $80 + 3.6 = 22.2 \text{ m/s}$. This corresponds to a wind force of 9 on the Beaufort scale.

**Remark:** In general, storm warnings are issued for wind speeds of 60 km/h = 16.7 m/s or more. This corresponds to a wind force of 8 on the Beaufort scale.

Reading off values from the chart:

- Permissible wind speed at ground level without tension anchor: perm. $v_2 = 24.2 \text{ m/s} = 87 \text{ km/h}$
- Conversion of wind speed: $24.2 \text{ m/s} \times 3.6 = 87 \text{ km/h}$. This corresponds to a wind force of 9 on the Beaufort scale.

**Remark:** The reading has been interpolated between the lines for $H = 24$ and $H = 50$ m. The line for $H = 50$ m may also be chosen to be on the safe side.

**Measures:**

- actual $v_1 < \text{perm. } v_2$
  The use as shuttering scaffold with formwork propped off scaffold is possible with additional tension anchors.

- max. $v_2 < \text{perm. } v_2$
  The formwork does not have to be propped off the structure from the inside after the shift has been finished.
B2 Use as shuttering scaffold

**Case 4**
With formwork propped off and erected on scaffold

If the formwork is propped off the structure before work is interrupted for just a break or for a long time. This is necessary if higher wind forces than the ones indicated in chart 1 are to be expected! Fig. 39

**Reinforcement from the inside.**

![Fig.39a](image)

The valid safety regulations are to be observed when the formwork is used. The following regulations are, among others, applicable to Germany:

- Forms 3.00 m or higher also require a safety handrail system on the opposite side of the formwork to where the work is being carried out.
- If ladders are used: the maximum permissible stand height for applying formwork anchors is 2.0 m!
  - If necessary, mount intermediate platforms!

**Permissible load:**
German scaffold group 2
(150 kg / m²) Table 8

**The maximum height of the formwork**
is 5.40 m.
See B2, Chart 1 Section III.

**Limitations:**
The height adjustment is limited to a maximum of 20 cm. Only the 300 version of the support extension with compression strut may be used.
Mounting of a propped off formwork only with FB standard mounting head.

**Push-pull prop connection top inside:**
Use cam nut to attach connection plate to tie rod. Attach push-pull prop with pin to connection plate. Fig. 39a

**top bottom:**
Attach RSS base plate with plug, e.g. PERI Multi Monti MMS 20 x 130. Attach push-pull prop with pin. Fig. 39b

### Maximum anchor loads

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Imposed load</th>
<th>Anchor loads (vertical/horizontal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>150 kg / m²</td>
<td>V = 24 kN</td>
</tr>
</tbody>
</table>
B2 Use as shuttering scaffold

Chart 1 for shuttering scaffold with formwork propped off scaffold

Maximum wind speed at ground level $v = 31.0 \text{ m/s}$ acc. to DIN 4420 with exposure time factor $= 0.7$

Section I: without tension anchors

Section II: tension anchors necessary

Section III: Props to the inside necessary

Height of the formwork in m

Wind speed at ground level in m/s

- 10 m/s
- 15 m/s
- 20 m/s
- 25 m/s
- 30 m/s
- 35 m/s

- 26 m/s, 126 km/h
- 36 km/h
- 54 km/h
- 72 km/h
- 90 km/h
- 108 km/h
<table>
<thead>
<tr>
<th>Use</th>
<th>German scaffold group</th>
<th>Permissible load</th>
<th>Anchoring with</th>
<th>Platforms used</th>
<th>Max. anchor loads in kN</th>
<th>Support extension</th>
<th>Height adjustment</th>
<th>Finishing platform</th>
<th>Mounting extension</th>
<th>Height of formwork</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use as work scaffold</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard 1</td>
<td></td>
<td>2</td>
<td>150 kg/m²</td>
<td>FB, FBZ, FEB</td>
<td>10 8 12 200 300</td>
<td>①</td>
<td>for FB only</td>
<td>for loop</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Standard 2</td>
<td></td>
<td>3</td>
<td>200 kg/m²</td>
<td>FB, FBZ, FEB</td>
<td>11 10 15 200 300</td>
<td>①</td>
<td>for FB only</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Standard 3</td>
<td></td>
<td>4</td>
<td>300 kg/m²</td>
<td>FB, FBZ, FEB</td>
<td>16 14 20 200 300</td>
<td>①, ②</td>
<td>for FB only</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Special application</td>
<td></td>
<td>5</td>
<td>450 kg/m²</td>
<td>FB, FBZ, FEB</td>
<td>16 14 20 200 300</td>
<td>②</td>
<td>yes</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Use as shuttering scaffold</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formwork erected on scaffold</td>
<td></td>
<td>3</td>
<td>200 kg/m²</td>
<td>Loop mounting head for FB only</td>
<td>FB, FBZ, FEB</td>
<td>25 12 27 200 300</td>
<td>①</td>
<td>for FB only</td>
<td>-</td>
<td>2.70 m</td>
</tr>
<tr>
<td>Formwork erected on scaffold</td>
<td></td>
<td>3</td>
<td>200 kg/m²</td>
<td>Standard mounting head for FB only</td>
<td>FB, FBZ, FEB</td>
<td>25 12 27 200 300</td>
<td>①</td>
<td>for FB only</td>
<td>-</td>
<td>5.40 m</td>
</tr>
<tr>
<td>Formwork propped off scaffold</td>
<td></td>
<td>2</td>
<td>150 kg/m²</td>
<td>Standard mounting head for FB only</td>
<td>FB, FBZ, FEB</td>
<td>23 10 25 200 300</td>
<td>①, ②</td>
<td>for FB only</td>
<td>-</td>
<td>Chart Section I</td>
</tr>
<tr>
<td>Formwork propped off scaffold</td>
<td></td>
<td>2</td>
<td>150 kg/m²</td>
<td>Standard mounting head</td>
<td>FB, FBZ, FEB</td>
<td>24 29 30 300</td>
<td>①, ②</td>
<td>for FB only</td>
<td>-</td>
<td>Chart Section II</td>
</tr>
</tbody>
</table>

① When FEB is used, the height adjustment is limited to 5, 10, 15 and 60, 65, 70 cm in general.
② When the 200 support extension is used, the height adjustment is limited to a maximum of 20 cm.
③ When the system is used as a shuttering scaffold with formwork propped off scaffold, the height adjustment is limited to a maximum of 20 cm in general.

The maximum anchor loads V and H can arise from different load cases $\Rightarrow \sqrt{V^2 + H^2} = R$
For Germany:
DIN 4420 T1, Table 9

| Drop height $h$ (m) up to | 2.00 | 3.00 |
| Minimum projection $b_1$ (m) min. | 0.90 | 1.30 |

**Permissible drop from edge of building for safety**

**Fig. 40**

**Table 10**

**Note:**
With storey heights of up to 3.70 m the maximum permissible drop onto the platform of 3.00 m is not exceeded, if the platforms are mounted 70 cm higher.
**Without handrail extension**

Maximum utilisation height above ground level: 100 m (except for in the German Bight)

Fig. 41

**Charts 2+3 for determining the permissible drop “h” from the eaves**

- **Chart 2**
  - \( \begin{array}{cccccccccccc}
  \theta & 0 & 0.1 & 0.2 & 0.3 & 0.4 & 0.5 & 0.6 & 0.7 & 0.8 & 0.9 & 1.0 & 1.1 \\
  h (m) & 0 & 0.25 & 0.35 & 0.45 & 0.55 & 0.65 & 0.75 & 0.85 & 0.95 & 1.05 & 1.15 & 1.25 \\
  \end{array} \)
  
  \( a = \text{width of eaves} \)
  
  \( h = \text{drop from eaves to staging} \)

**With handrail extension**

Maximum utilisation height above ground level: 20 m

Fig. 42

**Example:**

Drop \( h \) as a function of the width of the eaves \( a \)

- Dimension \( a = 0.80 \text{ m} \)
- Dimension \( h = 0.55 \text{ m} \) (without handrail extension)
  or 1.50 m (with handrail extension)

- **Fig. 41**
  - Clamp 48.3 mm dia scaffold tube to handrail posts with couplings
  - 48.3 mm dia scaffold tube threaded into safety net

- **Fig. 42**
  - FB handrail extension
  - 48.3 mm dia scaffold tube threaded into safety net
B5 Use as protection roof

Cover gaps in staging and side safety handrail system

- **on the folding platform**
  (minimum height of rear panel 0.60 m)

- **between structure and folding platform**

- **between main platforms**

Fig. 43
**Application**
- Safe removal of anchors
- Safe mounting and removal of tension belt
- Curing of concrete surface
- Safety handrail system for storey underneath if no parapet is provided.

Fig. 44

**Permissible load:**
Main platform, German scaffold group 4 (300 kg/m²)
Finishing platform, German scaffold group 2 (150 kg/m²)

**Limitations:**
When intermediate platforms are used, the maximum permissible gap between the platforms is limited to 1.0 m (gap between brackets 1.50 m).
Fig. 45

- Scaffold parts provided from site material must be in accordance with the valid safety regulations!
  (for Germany DIN 4420)
- Wooden components must at least meet the sorting class S10 according to DIN 4074!
- Fix rear safety handrail boards with nails!

Tip:
20 x 3.5 cm bridging boards with a minimum length of 2.0 m.
B7 Horizontal bridging of openings

with timber or SRZ steel waler

Fixing and connection:
– Timber with nails
– SRZ 120 with M 12 x 160 DIN 601 hex bolt with nut
  A 13 DIN 125 washer
  120 x 120 x 15 x 20 dia counterplate

Fig. 46

The height adjustment of the folding platform is limited to a maximum of 35 cm.

Use as work scaffold
Permissible width of opening (m) Fig. 47

<table>
<thead>
<tr>
<th>Bridging with</th>
<th>German scaffold group 1</th>
<th>German scaffold group 2</th>
<th>German scaffold group 3</th>
<th>German scaffold group 4</th>
<th>German scaffold group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 x 120 mm timber</td>
<td>1.50</td>
<td>1.60*</td>
<td>1.30*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Two 80 x 120 mm timbers</td>
<td>3.10</td>
<td>1.90</td>
<td>1.60</td>
<td>1.90*</td>
<td>—</td>
</tr>
<tr>
<td>SRZ 120 steel waler</td>
<td>8.10</td>
<td>6.30</td>
<td>5.70</td>
<td>5.00</td>
<td>3.10</td>
</tr>
</tbody>
</table>

* Height adjustment is not permissible \( \Delta h = 0 \! \)

Use as shuttering scaffold
Permissible width of opening (m) Fig. 47

<table>
<thead>
<tr>
<th>Bridging with</th>
<th>German scaffold group 3 Height of formwork 5.40 m Formwork erected on scaffold</th>
<th>German scaffold group 2 Height of formwork 5.40 m Formwork erected on scaffold</th>
<th>German scaffold group 2 Height of formwork 2.70 m Formwork propped off scaffold</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 x 120 mm timber</td>
<td>—</td>
<td>1.40*</td>
<td>—</td>
</tr>
<tr>
<td>Two 80 x 120 mm timbers</td>
<td>—</td>
<td>1.60</td>
<td>1.70</td>
</tr>
<tr>
<td>SRZ 120 steel waler</td>
<td>5.20</td>
<td>5.80</td>
<td>6.00</td>
</tr>
</tbody>
</table>

* Height adjustment is not permissible \( \Delta h = 0 \! \)
**B8 Staging bridging alternatives**

**FBZ intermediate platform**

⚠️ **Permissible load:**
German scaffold group 4, (300 kg / m²), or as roof safety scaffold

Fig. 48

---

**Individual bracket with intermediate platform and end platform**

See erection and dismantling of intermediate platform A4.1

Fig. 49

---

**Intermediate platform as end platform at end of scaffold**

Fig. 50

**Also pay attention to:**

- A5 - Use of intermediate platform at folding corner platform
- B6 - Use of intermediate platform for finishing platform

Fig. 50
B8 Staging
bridging
alternatives

Bridging with individual scaffold boards
Fig. 51

- Scaffold parts provided from site material must be in accordance with the valid safety regulations!
  (for Germany DIN 4420)
- Wooden components must at least meet the sorting class S10 according to DIN 4074!
- Fix rear safety handrail boards with nails!

Rear safety handrail system:
48.3 mm dia x 3.2 mm scaffold tubes, L = 3.0 m attached with NK 48/48 standard coupling or 3 x 15 cm boards, 3 x 15 cm toe board.

Minimum size of scaffold boards for work platforms
(DIN 4420 T1, table 8)

<table>
<thead>
<tr>
<th>German scaffold group</th>
<th>Width of board (cm)</th>
<th>Thickness of board (cm)</th>
<th>Permissible span in m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3</td>
<td>20</td>
<td>3.0 3.5 4.0 4.5 5.0</td>
<td>1.25 1.75 2.25 2.75 3.25</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>3.0 3.5 4.0 4.5 5.0</td>
<td>1.25 1.75 2.25 2.75 3.25</td>
</tr>
<tr>
<td>5</td>
<td>20, 24, 28</td>
<td>3.0 3.5 4.0 4.5 5.0</td>
<td>1.25 1.75 2.25 2.75 3.25</td>
</tr>
<tr>
<td>6</td>
<td>20, 24, 28</td>
<td>3.0 3.5 4.0 4.5 5.0</td>
<td>1.25 1.75 2.25 2.75 3.25</td>
</tr>
</tbody>
</table>

Timber scaffold boards for roof safety platform staging
(DIN 4420 T1, table 10 with intermediate values)

<table>
<thead>
<tr>
<th>Width of board in cm</th>
<th>Drop to platform in m</th>
<th>Maximum span in m for double layer of boards with a thickness of</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>1.0</td>
<td>1.5 1.7 1.9 2.1 2.5</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>1.3 1.5 1.7 1.9 2.2</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>1.2 1.4 1.6 1.8 2.0</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>1.1 1.3 1.5 1.7</td>
</tr>
<tr>
<td>24</td>
<td>1.0</td>
<td>1.7 1.9 2.1 2.3 2.7</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>1.5 1.7 1.9 2.1 2.3</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>1.4 1.6 1.8 2.0 2.2</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>1.3 1.5 1.7 2.1</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>1.2 1.4 1.6 1.8</td>
</tr>
<tr>
<td>28</td>
<td>1.0</td>
<td>1.9 2.1 2.3 2.5 2.7</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>1.7 1.9 2.1 2.3 2.5</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>1.5 1.7 1.9 2.1 2.3</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>1.4 1.6 1.8 2.0 2.2</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>1.3 1.5 1.7 2.0 2.1</td>
</tr>
</tbody>
</table>

Boards for work scaffolds depend on the German scaffold group and the span L, table 13

Boards for roof safety scaffolds are to be chosen with respect to the drop to platform and the span. Table 14
Pay attention to: Manual of FB 180 transportation fork

- Not approved for transporting personnel!
- Safe working load: 750 kg
- Do not shift stacks!

Position A: Transportation fork without load, horizontal position
Position B: Transportation of platform

Fig. 52

Locking positions depending on type of load:
Fig. 52

- I = FB 180-3/300 or FBZ 240 without extension
- II = FB 180-3/300 with finishing platform and/or corner platform frame
- III = Transport position
B10 Designing layout

From the corner

To allow the layout to be designed, the platforms at the ends of the run (internal and external corners and returns in the façades) are specified for a length of wall. Main and intermediate platforms are used in the intermediate sections. Fig. 53 + 54
FB 180-3 and Accessories

**Folding Platform FB 180-3/300**
With continuous 45mm thick staging and folding handrail frame and brackets. Complete with strut FB 180-3 (2x) and mounting head FB (2x).
For work and protective access to DIN 4420.

**Folding Corner Platform FEB 180-3/300**
Unit fully preassembled from FB 180-3/300 Folding Platform and FBE Corner Frame. Complete with strut FB 180-3 (2x) and mounting head FB (2x).
<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intermediate Platform FBZ 240</strong>&lt;br&gt;With continuous 45mm thick staging and folding removable handrail frame.&lt;br&gt;For work and protective access to DIN 4420.</td>
<td>117,00 026622</td>
</tr>
<tr>
<td><img src="image1.png" alt="Diagram of Intermediate Platform FBZ 240" /></td>
<td><img src="image2.png" alt="Diagram of Intermediate Platform FBZ 240" /></td>
</tr>
<tr>
<td>Uniformly distributed imposed load: 300kg/m²</td>
<td></td>
</tr>
</tbody>
</table>

**Screw Plate DW15/115, galv.**<br>For connecting the FB 180-2 Folding Bracket to the Intermediate Platform FBZ. 2 per bracket.<br> | 0,60 026647 |
| ![Diagram of Screw Plate DW15/115, galv.](image3.png) | ![Diagram of Screw Plate DW15/115, galv.](image4.png) |

**Finishing Platform FBN-2/300**<br>With continuous 45mm thick staging and folding handrail frame.<br>For work and protective access to DIN 4420. | 118,00 026625 |
<p>| <img src="image5.png" alt="Diagram of Finishing Platform FBN-2/300" /> | <img src="image6.png" alt="Diagram of Finishing Platform FBN-2/300" /> |
| Uniformly distributed imposed load: 150kg/m² | |</p>
<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Extension 200 FB-2 29.50 026623</td>
<td></td>
</tr>
<tr>
<td>Galvanized. For extending the bottom compression point by 0.60 to 2.00m. Adjustable in 100mm increments.</td>
<td></td>
</tr>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td></td>
</tr>
<tr>
<td>Support Extension 300 FB-2 42.30 026624</td>
<td></td>
</tr>
<tr>
<td>Galvanized. For extending the bottom compression point by 1.50 to 3.00m. Adjustable in 100mm increments. Compression Strut FB-2 must be used.</td>
<td></td>
</tr>
<tr>
<td><img src="image2.png" alt="Diagram" /></td>
<td></td>
</tr>
<tr>
<td>Scaffold Tube Connector, galv. 2.29 026644</td>
<td></td>
</tr>
<tr>
<td>For connecting Scaffold Tube ø 48.3mm to the bracket for special platforms with a non-standard bracket spacing. Complete with: Hex. Bolt ISO 4017 M16x45-8.8, galv. (2x) Hex. Nut ISO 7042 M16-8, galv. (2x)</td>
<td></td>
</tr>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
<td></td>
</tr>
<tr>
<td>Weight kg</td>
<td>Item no.</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Compression Strut FB-2</strong>&lt;br&gt;Required when using the Support Extension 300 FB-2.</td>
<td>21,20 026627</td>
</tr>
</tbody>
</table>

| Handrail Post FBP<br>Powder coated.<br>Screwed onto the folding bracket from above with DW15 thread. | 6,87 026628 |

| Handrail Extension FB<br>For extending handrails up to h = 2.00m.<br>Complete with: Welded-on scaffold tube coupler. | 3,74 026635 |
Corner Frame FBE
Powder coated. Complete with:
Hex. Bolt ISO 4017 M16x45-8.8, galv. and
Hex. Nut ISO 7042 M16-8, galv. (6x)
Allows any FB 180-2/300 Folding Platform
to be used as a corner platform.
The folding platform cantilevers 1.55m
past the corner of the building.

Tension Belt L = 5,70m, 25kN
Used when statically required
to resist wind load.
Connected to the Folding Bracket with
additional Pin ø 16x150,
Item No. 715357 and
Cotter Pin 4/1, Item No. 018060.
Permissible Tension Load: 25kN

Belt Connector Wall
For connecting the Tension Belt L = 5,70m, 25kN
to the remaining anchor.

Cam Nut DW15, galv.
For connecting push-pull props to
the universal coupler with DW15.
Permissible load to DIN 18216: 90kN.
Transportation Fork FB 180-2, galv.
Perm. load: 750kg
which corresponds to a folding corner platform with support extension and finishing platform.

⚠️ DANGER:
Follow Instructions for Use!
Not approved for transporting personnel.
Do not shift stacks.
Comply with the instructions for use given on the type plate.

Used in following positions:

1. FB 180-3/300 Folding Platform or FBZ 240 Intermediate Platform
2. FEB 180-3/300 Folding Corner Platform and/or FBN-2 Finishing Platform.
3. Empty
   (for entering platform stack)
4. Transportation position
   (hang from 2 handles)

Protection Net 6000x2000mm
Side protection net for roofing scaffold, of high-resistance polypropylene, 5mm thick, without knots.
Net type A2 to DIN EN 1263-1.
Energy resistance 4.2kJ
Colour: Green
Licensed by the Construction Trades Accident Association.

Scaffold Tube 48.3x4.05, galv.
Scaffold Tube Cutting Costs

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>202,00</td>
<td>026646</td>
</tr>
<tr>
<td>2</td>
<td>026646</td>
</tr>
<tr>
<td>3</td>
<td>026646</td>
</tr>
<tr>
<td>4</td>
<td>026646</td>
</tr>
</tbody>
</table>

| Protection Net 6000x2000mm | 2.40 | 026530 |
| Scaffold Tube 48.3x4.05, galv. | 3.55/m | 026415 026417 |
### Folding Bracket FB180-3, complete
Complete with:
- strut FB 180-3 (1x)
- mounting head FB (1x).

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>026652</td>
<td>82,00</td>
</tr>
</tbody>
</table>

**Accessories:**
For fitting the sheet of plywood:
- F.H. Bolt DIN 803 M8x60 Mu, galv. (8x)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>710326</td>
<td>0,03</td>
</tr>
</tbody>
</table>

### Bracket Brace FB 180-3
For assembling Folding Platform
- Folding Corner Platform
- Folding Bracket.
Complete with:
- Captive Pin ø 22 (2x)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>026651</td>
<td>11,30</td>
</tr>
</tbody>
</table>

### Finishing Platform FBN-2

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Weight kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>026631</td>
<td>15,90</td>
</tr>
</tbody>
</table>

**Accessories:**
For fitting the sheet of plywood:
- F.H. Bolt DIN 803 M8x60 Mu, galv. (6x)
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handrail Frame FB-300</td>
<td></td>
<td>34.20</td>
<td>026637</td>
</tr>
<tr>
<td>Plywood Board</td>
<td>45mm thick Plywood Boards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FB 300</td>
<td>169x298</td>
<td>108.70</td>
<td>026639</td>
</tr>
<tr>
<td>FBZ 240</td>
<td>168x236</td>
<td>85.60</td>
<td>026640</td>
</tr>
<tr>
<td>FBN-2</td>
<td>81x298</td>
<td>51.30</td>
<td>026641</td>
</tr>
</tbody>
</table>
# Anchoring FB 180-3

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mounting Head FB</strong></td>
<td>6,30</td>
<td>026632</td>
</tr>
<tr>
<td>For mounting the Folding Platform on the FB Wall Scaffold Hinge FB or Scaffold Mounting Ring 15.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Loop Mounting Head-2 FB**                            | 5,30      | 026645   |
| For mounting the Folding Platform on the Anchor Loop.  |

Accessories:
| **Anchor Loop**                                        | 1,10      | 026636   |
| 2 per anchor location.                                  |

| **Height Extension for Loop**                          | 18,00     | 026638   |
| For hanging the Folding Platform 600 to a maximum of 700mm lower than with the Loop Mounting Head-2 FB. |

Accessories:
| **Anchor Loop**                                        | 1,10      | 026636   |
| 2 per anchor location.                                  |

| **Wall Scaffold Hinge FB**                              | 2,95      | 026990   |
| For mounting the FB 180-2/300 Folding Platform with Mounting Head FB. Allows mounting point to be moved ± 25mm laterally. |

Accessories:
| **Hex. Bolt ISO 4014 M24x70-10.9**                      | 0,33      | 026430   |

---

**Important Safety Note:** Only anchor the scaffold with components specified by PERI for the purpose!
### Screw-On Cone M24/DW20, galv.
Thread at formface is M24.
Thread at concrete side is DW20.

Permissible load see Type Test KGF.

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,03</td>
<td>030960</td>
</tr>
</tbody>
</table>

### KK Concrete Cone M24-67/52 scr.
For tie points with screw-on cone M24/DW20

Pack of 50
Accessories:
5kg Pack of Sealing Compound

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,26</td>
<td>031658</td>
</tr>
</tbody>
</table>

### Climbing Cone-2 M24/DW15, galv.
Thread at formface is M24.
Thread at concrete side is DW15.

Permissible load see Type Test KGF.

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,03</td>
<td>031220</td>
</tr>
</tbody>
</table>

### KK Concrete Cone M24-67/52
For tie points with climbing cone-2 M24/DW15

Pack of 50
Accessories:
5kg Pack of Sealing Compound

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,27</td>
<td>031652</td>
</tr>
</tbody>
</table>

### Scaffold Mounting Ring 15, galv.
For mounting the FB 180-2/300 Folding Platform with Mounting Head FB.

Accessories:
Hex. Bolt ISO 4014 M24x120-10.9
For connecting to Screw-on Cone M24/DW20 or Climbing Cone-2 M24/DW15.

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,73</td>
<td>029470</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,54</td>
<td>029560</td>
</tr>
<tr>
<td></td>
<td>Weight kg</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Anchor Loop</strong></td>
<td>1,10</td>
</tr>
<tr>
<td>(120)</td>
<td></td>
</tr>
<tr>
<td>Material:</td>
<td></td>
</tr>
<tr>
<td>Bst 420 S</td>
<td></td>
</tr>
<tr>
<td>Bst 500 S</td>
<td></td>
</tr>
<tr>
<td>ST 37-2 DIN EN 10025</td>
<td></td>
</tr>
<tr>
<td><strong>Threaded Anchor Plate DW20</strong></td>
<td>0,70</td>
</tr>
<tr>
<td>Permissible load to DIN 18216: 150kN</td>
<td></td>
</tr>
<tr>
<td>Dep. on conc. strength, embedment depth.</td>
<td></td>
</tr>
<tr>
<td><strong>Threaded Anchor Plate DW15</strong></td>
<td>0,60</td>
</tr>
<tr>
<td>Permissible load to DIN 18216: 90kN</td>
<td></td>
</tr>
<tr>
<td>Dep. on conc. strength, embedment depth.</td>
<td></td>
</tr>
<tr>
<td><strong>Tie Rod DW15 Special Length</strong></td>
<td>1,44/m</td>
</tr>
<tr>
<td>Not weldable!</td>
<td></td>
</tr>
<tr>
<td><strong>Cutting Cost Tie Rod DW15</strong></td>
<td>030050</td>
</tr>
<tr>
<td>Permissible load to DIN 18216: 90kN.</td>
<td></td>
</tr>
<tr>
<td>Observe certification requirements!</td>
<td></td>
</tr>
<tr>
<td><strong>Hex. Bolt ISO 4014-10.9</strong></td>
<td></td>
</tr>
<tr>
<td><strong>M24x70</strong></td>
<td>0,33</td>
</tr>
<tr>
<td><strong>M24x120</strong></td>
<td>0,54</td>
</tr>
<tr>
<td>High-strength bolts (black) for anchoring scaffolds.</td>
<td></td>
</tr>
<tr>
<td>36mm across flats.</td>
<td></td>
</tr>
</tbody>
</table>

⚠️ **Important Safety Note:** Only anchor the scaffold with components specified by PERI for the purpose!
<table>
<thead>
<tr>
<th>Weight kg</th>
<th>Item no.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bolt Anchor Sleeve M24</strong></td>
<td>1.03</td>
</tr>
<tr>
<td><strong>Accessories:</strong></td>
<td></td>
</tr>
<tr>
<td>Cone for Bolt Anchor Sleeve M24</td>
<td>0.01</td>
</tr>
<tr>
<td>Plug ø 26mm Bolt Anchor Sleeve M24</td>
<td>0.005</td>
</tr>
<tr>
<td><strong>Cone for Bolt Anchor Sleeve M24</strong></td>
<td></td>
</tr>
<tr>
<td>For Bolt Anchor Sleeve M24 and Anchor Sleeve DW15. Concrete cover 24mm.</td>
<td></td>
</tr>
<tr>
<td><strong>Plug ø 26mm Bolt Anchor Sleeve M24</strong></td>
<td>0.005</td>
</tr>
<tr>
<td>For Bolt Anchor Sleeve M24.</td>
<td></td>
</tr>
<tr>
<td><strong>Anchor Positioning M24, galv.</strong></td>
<td>0.22</td>
</tr>
<tr>
<td>For connecting the Bolt Anchor Sleeve, Threaded Climbing Cone or Climbing Cone 2 to the plywood form face, when it cannot be drilled.</td>
<td></td>
</tr>
<tr>
<td><strong>Accessories:</strong></td>
<td></td>
</tr>
<tr>
<td>Allen Key 14mm, long</td>
<td>0.45</td>
</tr>
<tr>
<td><strong>Socket Wrench SW 36</strong></td>
<td>2.46</td>
</tr>
<tr>
<td>For easy tightening and releasing of scaffold anchoring bolts M24 as well as Climbing cone-2 M24/DW15 or screw-on cone M24/DW20. Length approx. 500mm</td>
<td></td>
</tr>
</tbody>
</table>

**Important Safety Note:** Only anchor the scaffold with components specified by PERI for the purpose!