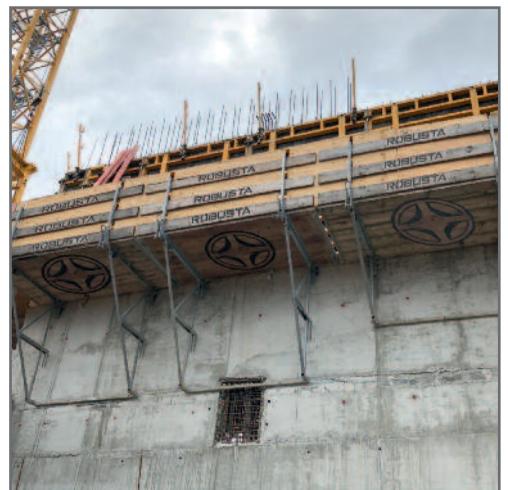


3

3.1. FOLDABLE WORKING PLATFORMS and accessories



SAFETY TECHNOLOGY

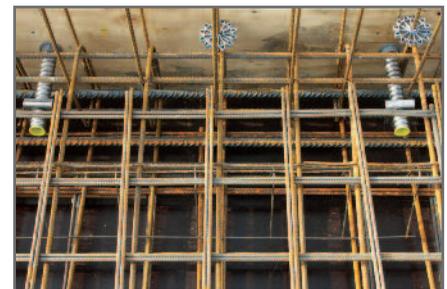


ROBUSTA
GAUKEL

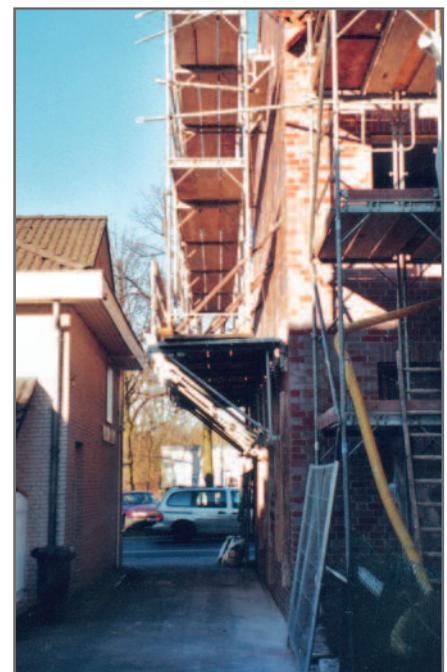


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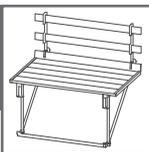


Installation-kits nailed to the shuttering of the slab



Subsequent use of the working platforms for reorganization purposes with mounted front scaffolding, free passing of vehicles during stage of working.





Your benefits at a glance:

- Can be utilised as working or protective scaffolding
- Can be utilised to support wall formwork
- Standard platform lengths: 1.50 m – 2.00 m – 2.50 m – 3.00 m – 3.50 m
- Right-hand and left-hand corner platforms can be supplied
- Corner platforms can be used with both inside and outside corners
- Universal corner platform for restricted conditions
- Tread width: 1.50 m; wooden parts made from timber grades customary in trade
- Platform can be raised unproblematically without other accessories
- All steel components are galvanised for a long service life
- Approved to load class 5 according to DIN EN 12811-1 (corresponds to 450 kg/m²)
- Delivered with the appropriate plug-in railing for ensuring stability and maintaining the correct distance from the wall

The **ROBUSTA-foldable-working-platform system** (according to DIN 4420) can be used for all kinds of site protection. Your advantage: with only **one working platform system** there is professional and secure protection possible for **concrete construction** as well as for **brickwork construction**.

The combination of standard working platforms in different standard lengths guarantees a comprehensive and secure scaffolding of all building ground plans.

The special folding technology developed by **ROBUSTA** with automatic lock enables an easy handling for transport, installation and storing.

Our working platform system is available with a short or long base frame.

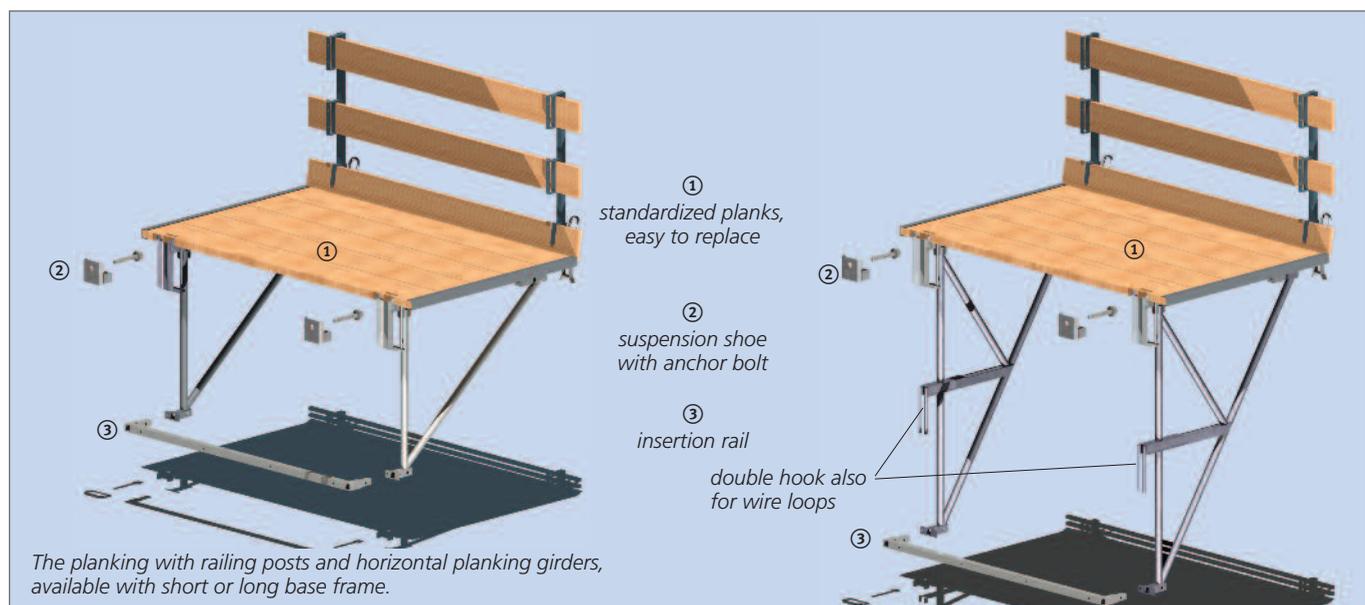
An easy and self-explaining technology prevents from handling faults.

With the universal anchoring technology the system can be anchored to ceilings and walls.

And best of all:

Our anchoring system is **extremely inexpensive**.

With the accessories a later secure fixing to already existing buildings (for example for renovation work) is possible as well.

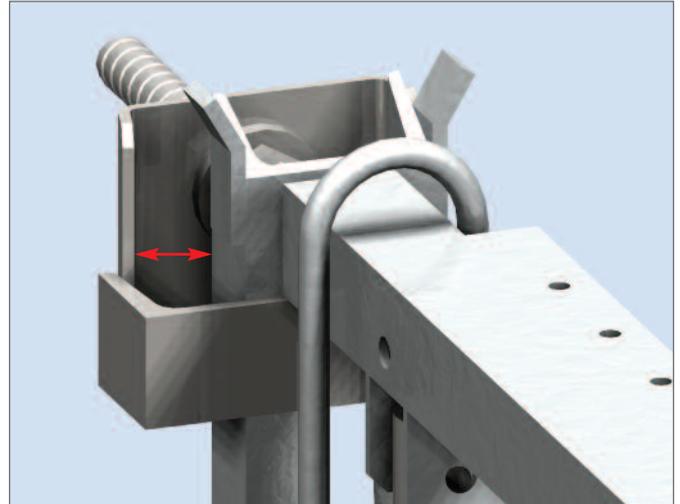
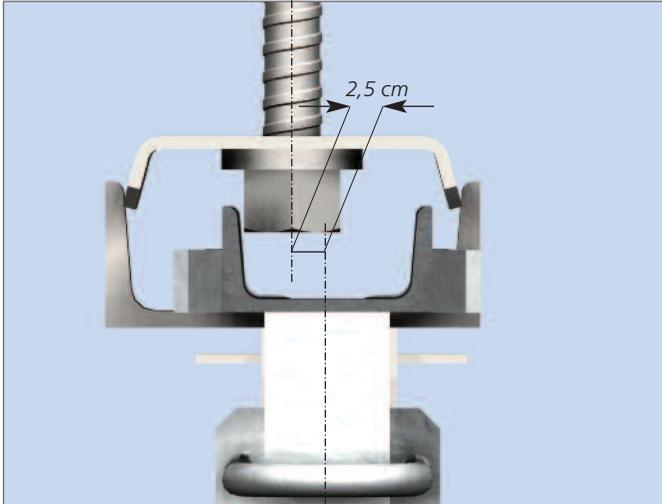




ADVANTAGE NO. 1: big lateral tolerance inside the anchor point

Suspension shoe

The reality on sites shows that an exact installation of the anchoring points to within a millimeter is not always possible. For this reason the **ROBUSTA-suspension shoe** offers a **lateral tolerance** of $\pm 2.5 \text{ cm} = 5 \text{ cm}$. The premounted working platform can be hung on without any problem also when the anchoring points are inexact.



Detaildrawing: the necessary tolerance for the fixing in the suspension shoe

→ technical data see page 21

ADVANTAGE NO. 2: practical anchoring with officially approved building supervisory authority

Installation-kits Ø 26.5 mm

With this 26.5 mm diameter we are offering a very inexpensive anchoring sleeve to fix scaffoldings.

The supporting power corresponds to scaffolding groups 3 – 5.

Especially for huge sites with thousands of lost anchors the enormous advantage of saving costs has been proven repeatedly.

The sturdy hexagonal bolt with coarse thread guarantees multiple use with very little loss, that's why we offer it also for rent with our ROBUSTA-foldable working platform system.

For anchoring in walls with exposed concrete:

Recoverable clamping flange and fine-grained concrete cone for a homogeneous concrete surface.



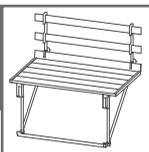
standard clamping flange

recoverable clamping flange for exposed concrete



→ technical data see pages 26 – 29





ADVANTAGE NO. 3: self locking automatic safety folding mechanism

The folding mechanism enables **space-saving storage** and **easy transport**. Stable guide-plates guarantee a secure hold of the piled working platforms. Side protection and base frames are folded in a space saving way. All swivelling parts lock themselves into the final position automatically.

Highest piling for truck transportation = 7 working platforms, equal to $H = 2.45 \text{ m}$



The rigid base frames are fixed to only 2 joints. Because of that a high stability is reached at a very small clearance. A dangerous lateral flexure of the compression diagonal strut is impossible!

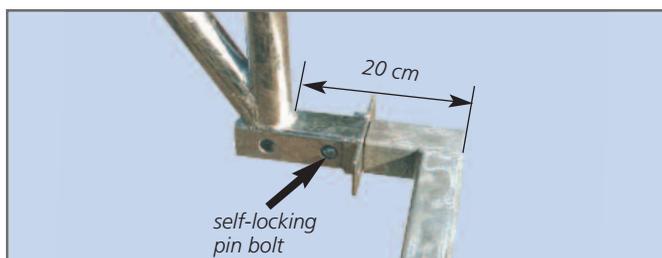
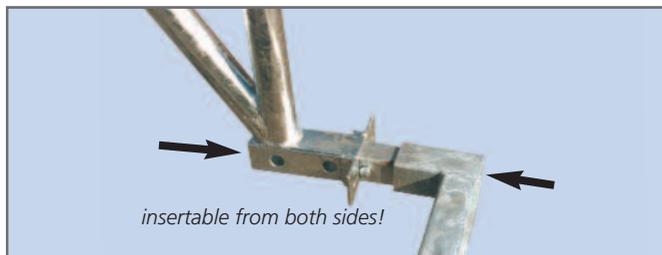
ADVANTAGE NO. 4: insertion rail with multiple functions

The **insertion rail** is **inserted easily** after swinging out the base frames. At the same time it guarantees the correct distance to the wall and prevents the base frame from swinging apart due to square insertion tubes. The easy self locking technology with pin bolts, without any lost single parts to be lost, prevents handling faults.



A mounted insertion rail guarantees a distance of 20 cm, thus any standard wooden beam H20 placed upon the rail is suitable to bridge window openings.

→ technical data see pages 12 und 16.



3

FOLDABLE WORKING PLATFORMS AND ACCESSORIES

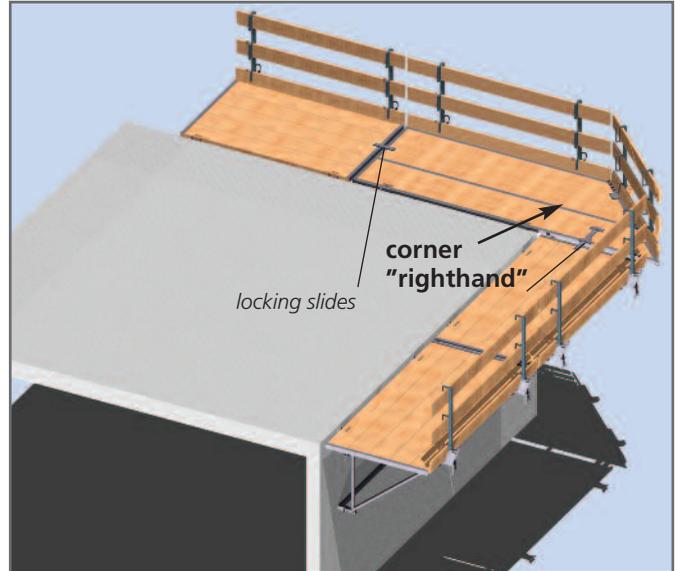
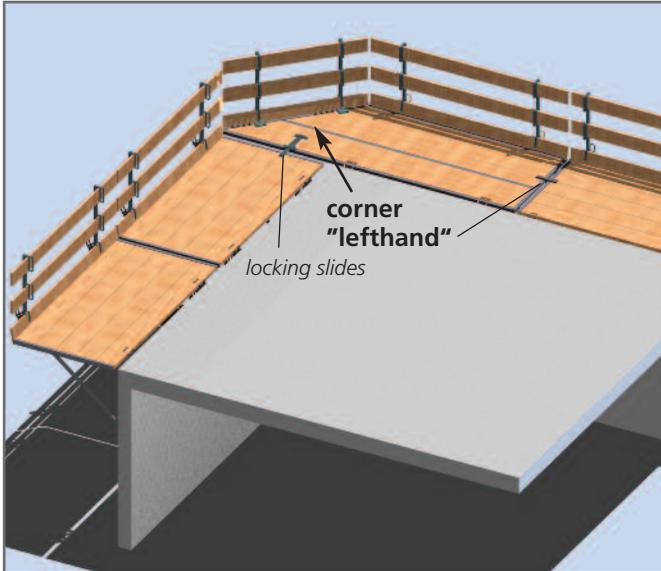


ADVANTAGES

ADVANTAGE NO. 5: universal corner solutions

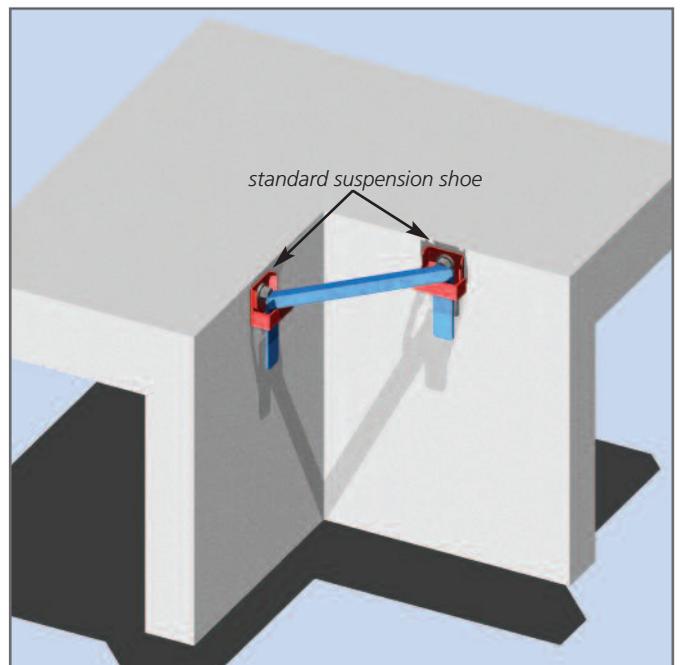
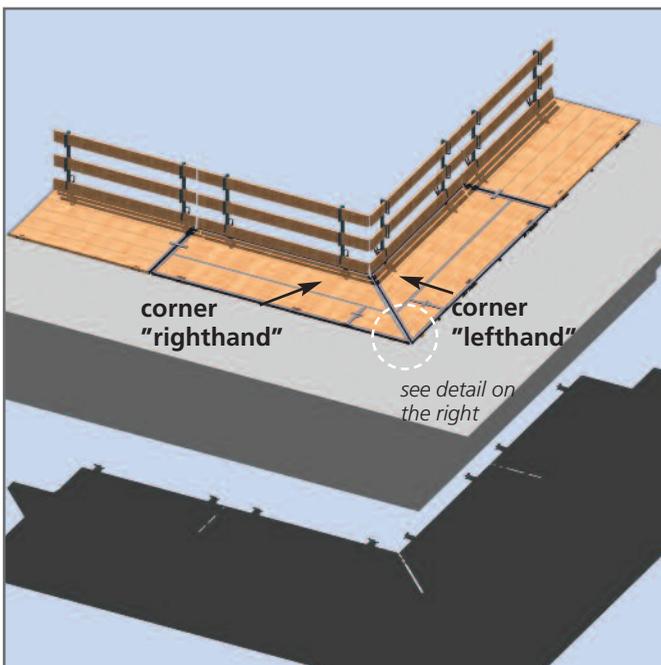
One foldable working platform system for **outer-** and **inner** corners

Utilization as outer corners:



The universal corner working platform, based on a 3.00 m working platform with a cantilever of 1.50 m to the lefthand or righthand side can be used for all rectangular outer- or inner- corner areas. If the working platforms are used as outer corners, the stabilizing is done with locking-slides, which secure the corner platform onto the working platforms next to them.

Utilization as inner corners:



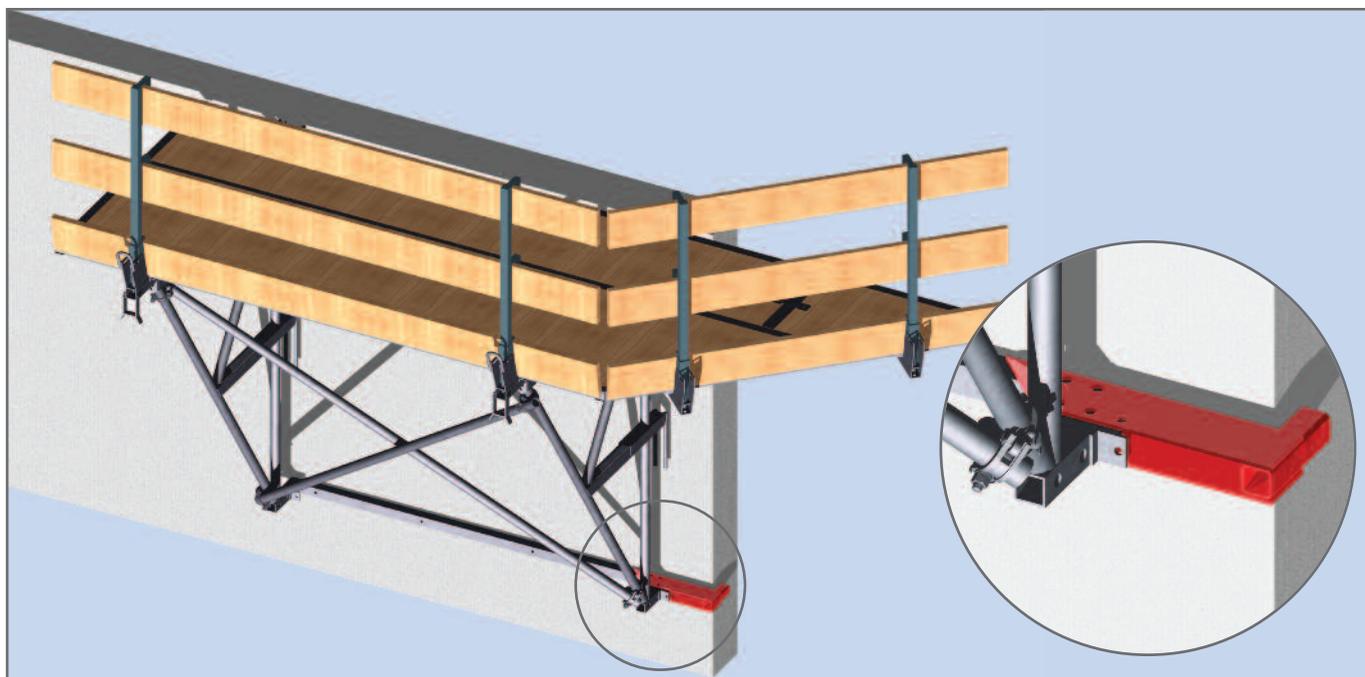
For the use as inner corner the cantilever planking will be secured with an additional inner corner-beam. This beam will be fixed diagonally to two standard suspension shoes.

→ technical data see pages 13 and 17.



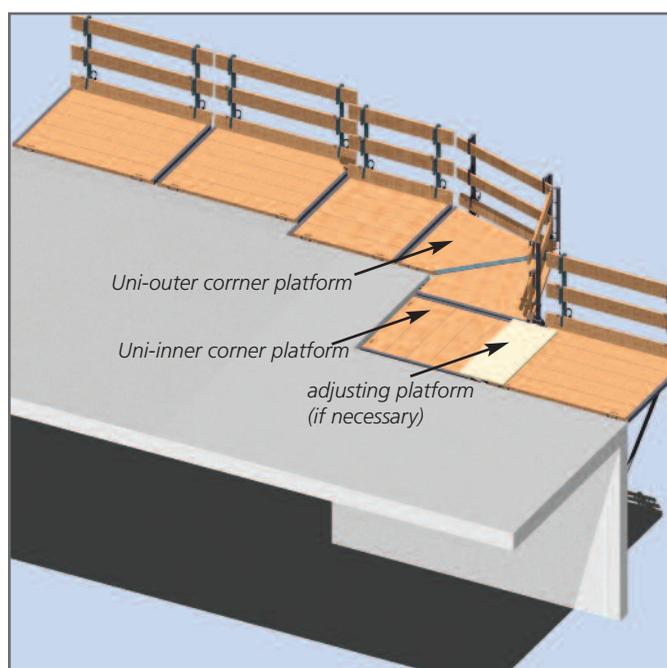


ADVANTAGE NO. 5: universal corner solutions



If the corner working platform is hung up without working platforms next to it, for example on the front side of a wall, the stabilization is done with a securing hook, which is mounted to the insertion rail. The bracing of the base frames results from 2 standard scaffolding tubes with turning couplers for diagonal bracing.

Outer corner for use in narrow areas:



If the standard corner working platforms with 4.50 m are too long, the UNI-corner working platform is the alternative solution for narrow areas. In connection with single brackets or the short standard working platforms the securing of oriels or wall backfillings is possible without any problem.

→ technical data see pages 14/15 and 18/19.



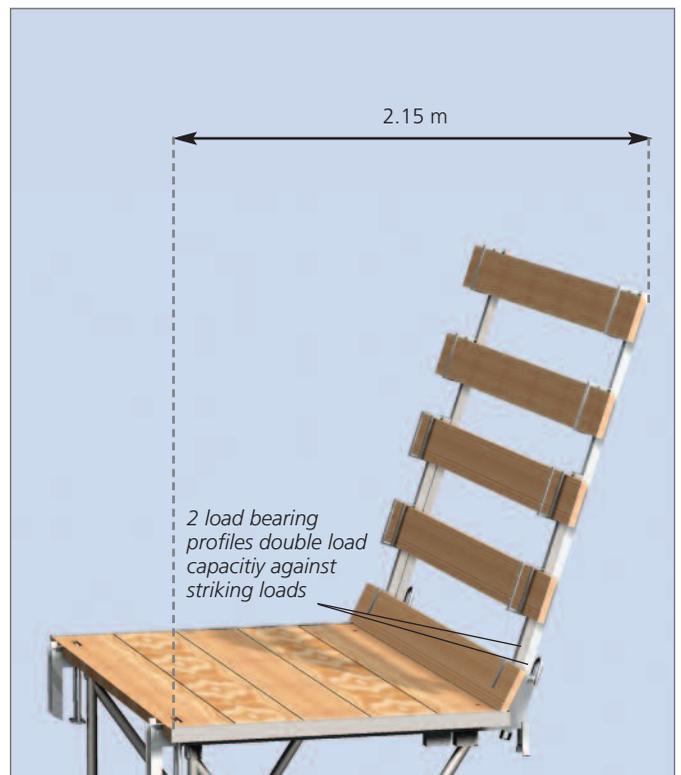
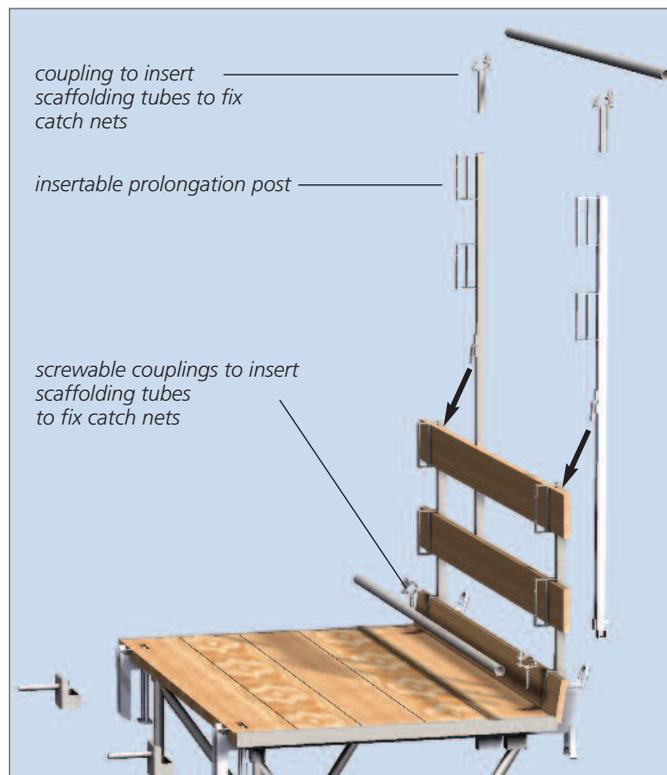


ADVANTAGE NO. 6: hinged side rail posts, also with extension

The additional insertable side rail post enables the extension of the **side protection from 1.05 m to 2.00 m**.

For the user the following advantages result:

- Edge protection for roof work according to relevant regulations.
- Two supporting railing tubes offer **higher stability** against striking loads.
- Complete side protection is **permanently available already during the mounting**.
- For an enlargement of the catching width of the working platform the whole side protection can be hinged outwards. Thus you reach a **catching width of 2.15 m**.
- Increased safety when working at wall shutterings.



*Quick mounting:
Insert prolongation rail post, fix security bolt to prevent removing – finished!*

→ technical data see page 20





ADVANTAGE NO. 7: wall formwork with automatic protection



The maximum height of the wall formwork is 4.50 m for the wind load 0.2 kN/m².

The forces imposed by the push-pull prop onto the bracket are held by the bracket alone without any additional propping to the horizontal concrete slab.

For the safe installation and support with push-pull props only two accessory parts are necessary.

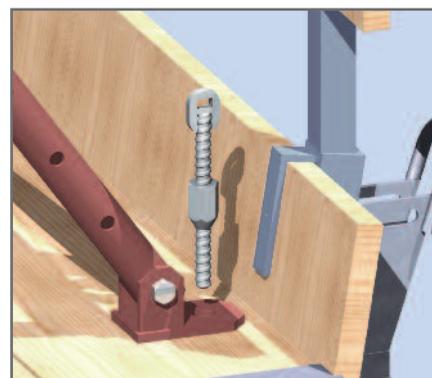
This means: **minimum effort for maximum security!**

Screw-in set

A **nut with a D&W-thread is fixed** in the steel frame of the bracket.

This guarantees an uncomplicated propping of the mounted wall formwork on the foldable working platform.

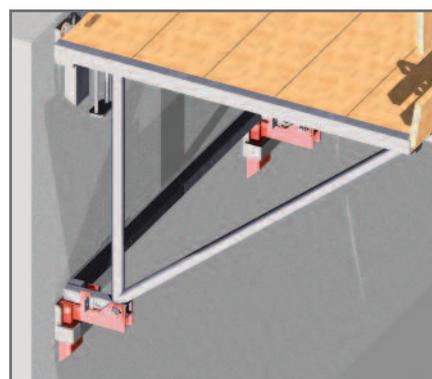
With the **screw-in set** (available as accessory) **all types of push-pull props with a borehole diameter of 22 to 30 mm** are easily to be fixed without a special tool (second screw-on-set for fixing is enough).



Securing hook

The **securing hook** automatically grips into the second suspension shoe when hung into the working platform. No finishing platforms underneath the main platform are necessary to fix the anchoring.

Therefore a removing of the platform at the lower anchoring point is prevented effectively and easily.



→ technical data see page 23





ADVANTAGE NO. 8: extension girder for use at office buildings with pier façades

Extension girder

In construction work at buildings without external walls the extension girder makes it possible to extend the base frame of the platform to lean against the edge of the horizontal slab below.

The mounting is easy and quick with 2 crossbolts. Diagonal struts are not necessary.

The well planned technique enables an easy mounting with highest possible flexibility.

That way floor heights up to 4.30 m can be scaffolded without any problems.

The 3 m double girder can be extended with the variable insertion tube, which can be adjusted in steps of 5 cm. That way an exact adjustment to the floor height is possible.



Foldable working platform with long base frame and extension girders at pier façades, suspended one meter above floor level.



Extension girder, connected, for bridging from up to 6 m window openings

→ technical data see page 20





ADVANTAGE NO. 9: long base frame for extended use in brickwork construction

The long base frame was developed especially for the demands in brickwork construction as a catch- and security platform.

The special advantage for the user is, that the long base frame can be used for the classical concrete work.

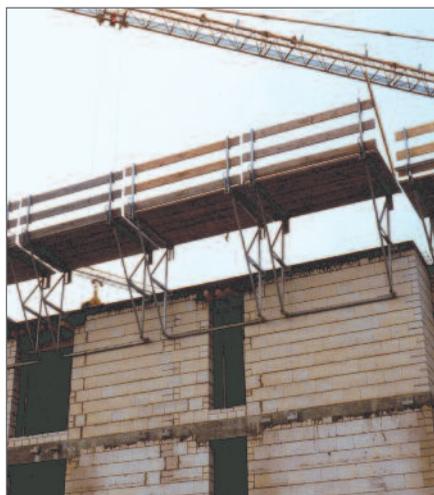
To reduce the falling height when doing brickworks the working platform can be placed higher to 1 m with the additional pair of hooks without any additional spare parts necessary.

That way, at a floor height up to 4 m, the falling height will be reduced to the permissible height of 3 m, inexpensively and without any problems.

For the reinforcement and concrete work at the slab above no additional security measures are necessary.

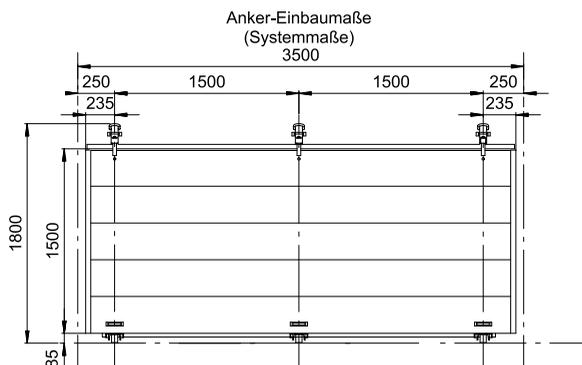
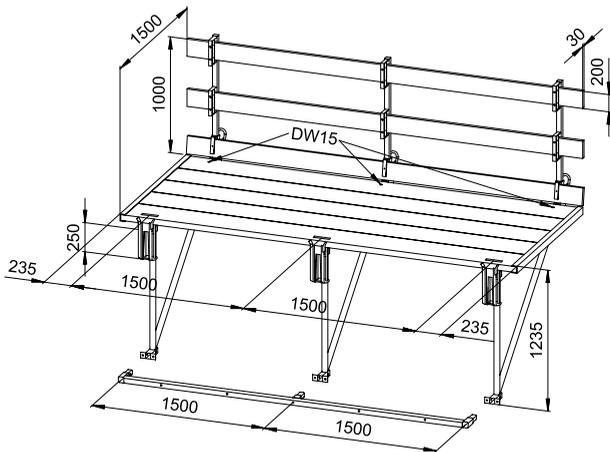
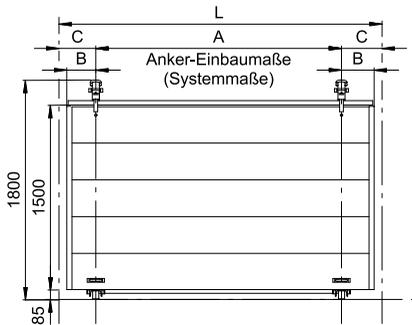
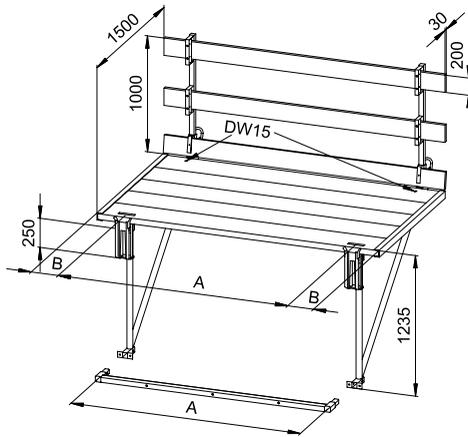


If the roof overhang is too big or the eaves are too low it is necessary to install the lowering rail. With this rail the platform can be attached and lowered in a raster of 50, 75 or 100 cm.





TECHNICAL DATA:



Foldable working platforms with 2 consoles

Length* [mm]	A [mm]	B [mm]	C [mm]	Weight [kg/unit]	Item No.
1500	1000	235	250	183.0	312015
2000	1500	235	250	212.0	312020
2500	2000	235	250	241.0	312025
3000	2000	485	500	270.0	312030

All steel parts completely galvanized. Platform complete with mounted wooden planking and side protection boards. Delivery includes insertion rail, which is inserted into base frames when mounted on the site.

Insertion rails suitable for all standard lengths

A [mm]	Weight [kg/unit]	Item No.
1000	8.0	319903
1500	10.0	319904
2000	12.5	319905

Foldable working platforms with 3 consoles

Length* [mm]	Weight [kg/unit]	Item No.
3500	341,0	312035

Insertion rails with 3 anchoring points

A [mm]	Weight [kg/unit]	Item No.
2 x 1500	18,0	319916

* Length L = theoretical raster



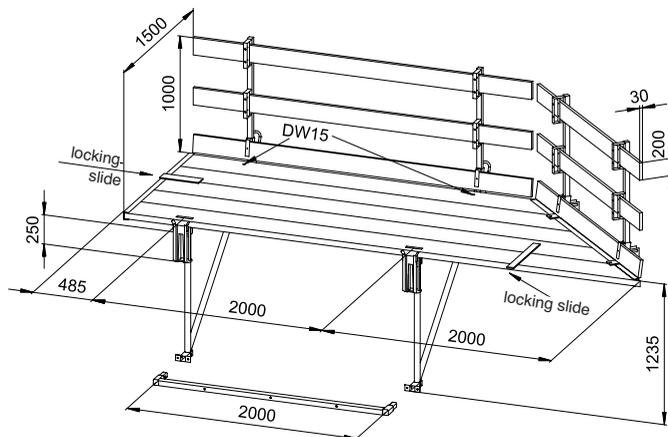


FOLDABLE WORKING PLATFORMS AND ACCESSORIES

3

WORKING PLATFORM WITH SHORT BASE FRAME

TECHNICAL DATA:

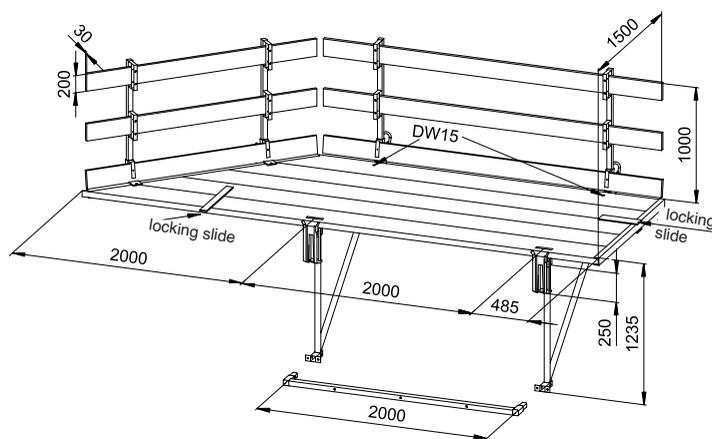
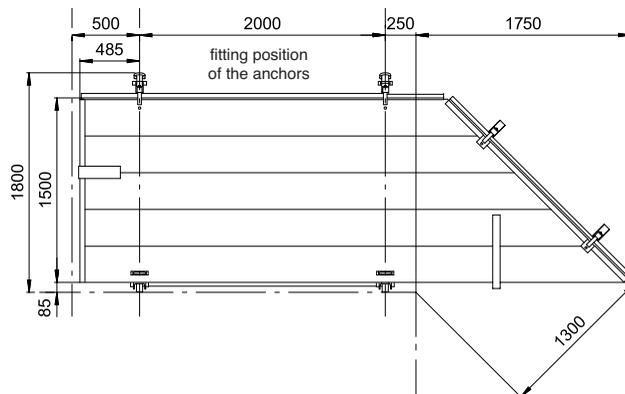


Working platform "righthand" for inner and outer corners

Length* [mm]	Weight [kg/unit]	Item No.
4500	400.0	312036

Separate parts: pair of railing posts with side protection boards (bolted). When mounting the platform they will have to be inserted into the intended boreholes at the 45° inclination and have to be secured with cross bolts.

* Length L = theoretical raster



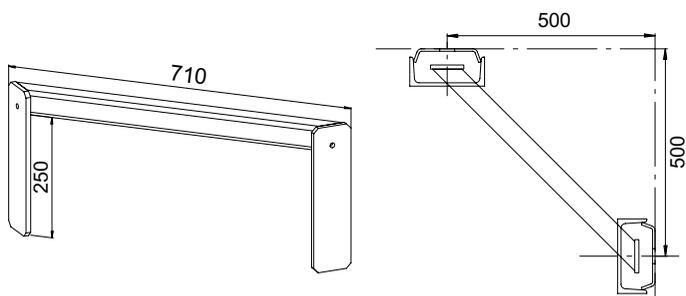
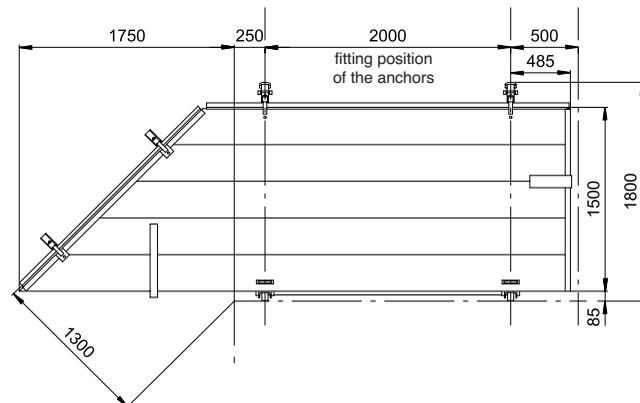
Working platform "lefthand" for inner and outer corners

Length* [mm]	Weight [kg/unit]	Item No.
4500	400.0	312037

Separate parts: pair of railing posts with side protection boards (bolted). When mounting the platform they will have to be inserted into the intended boreholes at the 45° inclination and have to be secured with cross bolts.

* Length L = theoretical raster

Insertion rails (item no. 319905) see page 12



Inner corner beam to secure the inner corner platforms

Length [mm]	Weight [kg/unit]	Item No.
710	6.50	319919



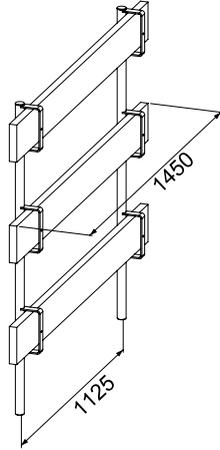
3

FOLDABLE WORKING PLATFORMS AND ACCESSORIES

WORKING PLATFORM WITH SHORT BASE FRAME

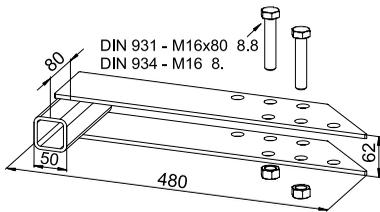


TECHNICAL DATA:



Edge protection for front side at working platforms

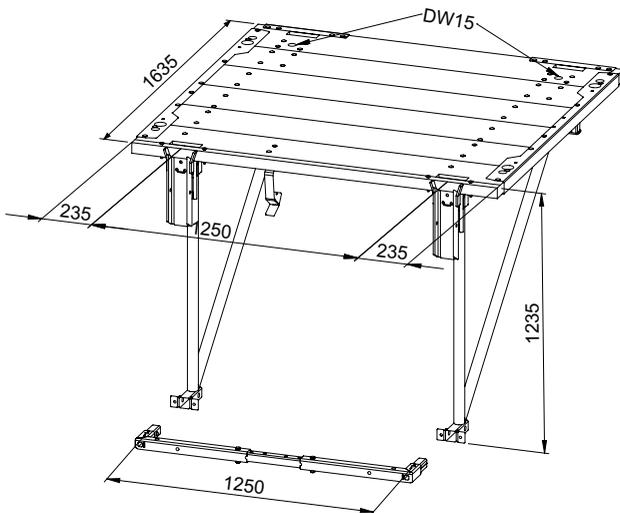
Weight [kg/unit]	Item No.
16.5	319960



Quoin angle to prevent tilting at front walls

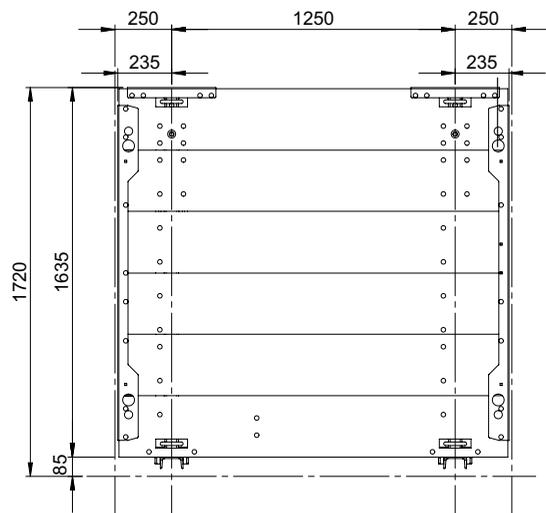
Length [mm]	Weight [kg/unit]	Item No.
480	6.5	319920

Delivered mounted to the insertion rail. Also includes two separate scaffolding tubes L = 3 m and 4 couplings for diagonal bracing.



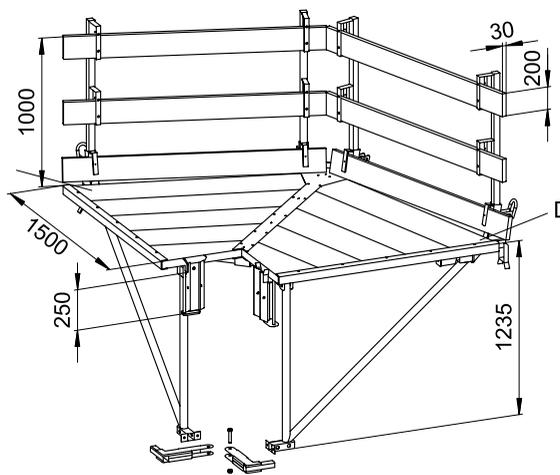
Uni-working platform for inner corners

Weight [kg/unit]	Item No.
132.0	312009



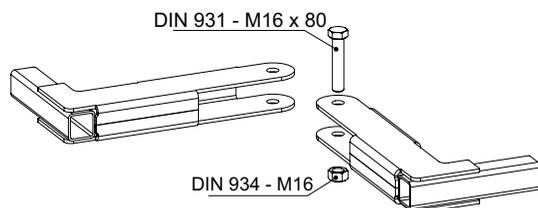
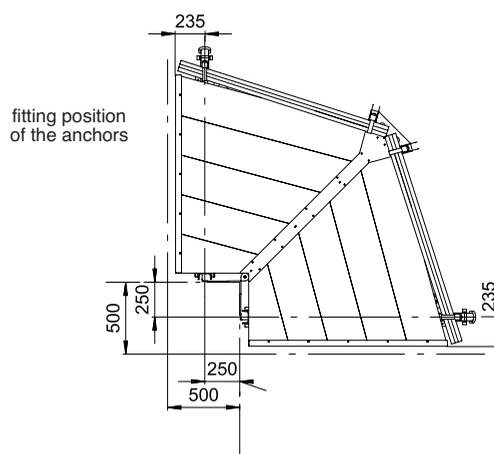


TECHNICAL DATA:



Uni-working platform for outer corners

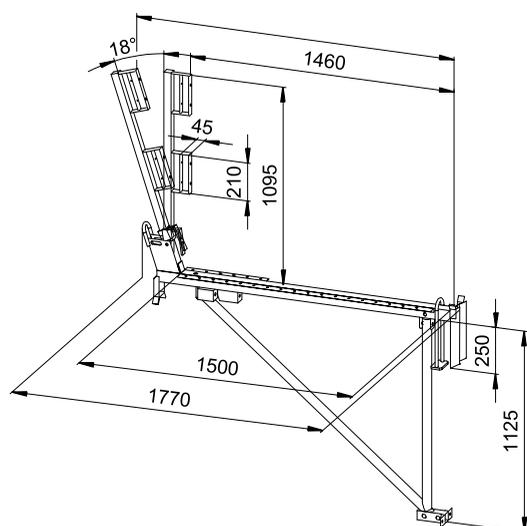
Length* [mm]	Weight [kg/unit]	Item No.
500 / 500	210.0	312005



Insertion rail two-part

Length [mm]	Weight [kg/unit]	Item No.
250 / 250	7.0	319917

* Length L = theoretical raster



Single bracket with short base frame

Weight [kg/unit]	Item No.
42.0	312000



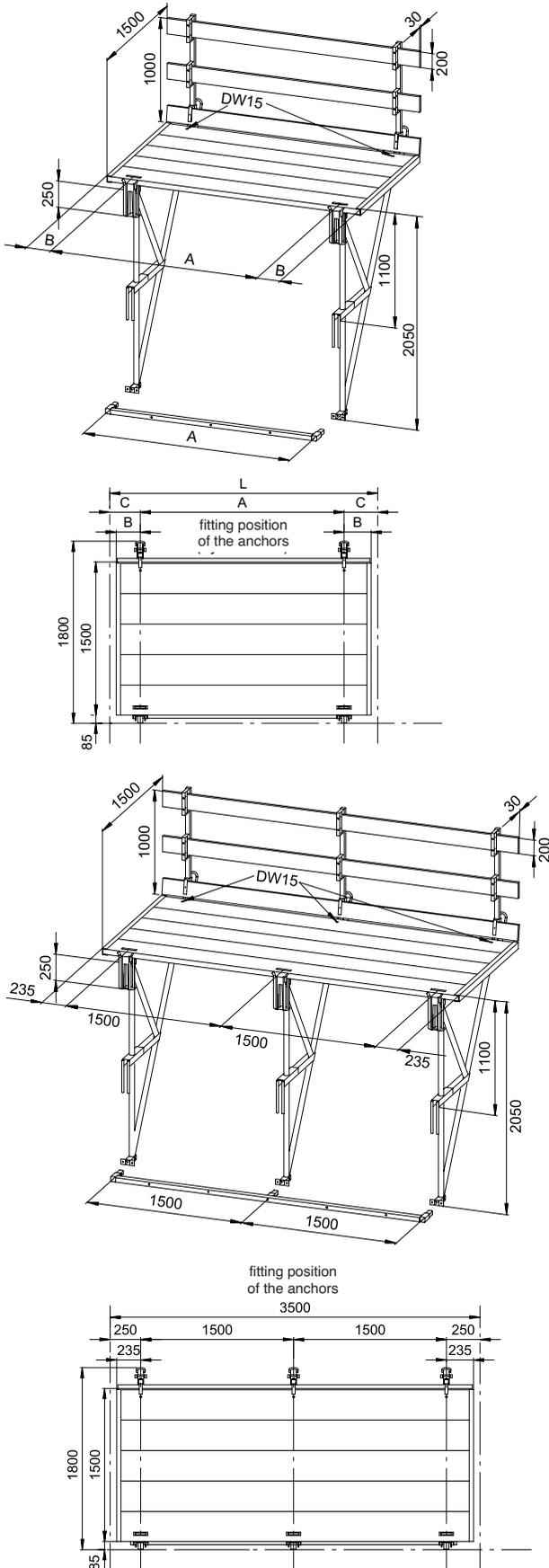
3

FOLDABLE WORKING PLATFORMS AND ACCESSORIES

WORKING PLATFORMS WITH LONG BASE FRAME



TECHNICAL DATA:



Foldable working platforms with 2 consoles

Length* [mm]	A [mm]	B [mm]	C [mm]	Weight [kg/unit]	Item No.
1500	1000	235	250	219.0	313015
2000	1500	235	250	248.0	313020
2500	2000	235	250	277.0	313025
3000	2000	485	500	306.0	313030

All steel parts completely galvanized. Platform complete with mounted wooden planking and side protection boards. Delivery includes insertion rail, which is inserted into base frame when mounted on the site.

Insertion rails suitable for all standard lengths

A [mm]	Weight [kg/unit]	Item No.
1000	8.0	319903
1500	10.0	319904
2000	12.5	319905

Foldable working platforms with 3 consoles

Length* [mm]	Weight [kg/unit]	Item No.
3500	395.0	313035

Insertion rails with 3 anchoring points

A [mm]	Weight [kg/unit]	Item No.
2 x 1500	18.0	319916

* Length L = theoretical raster



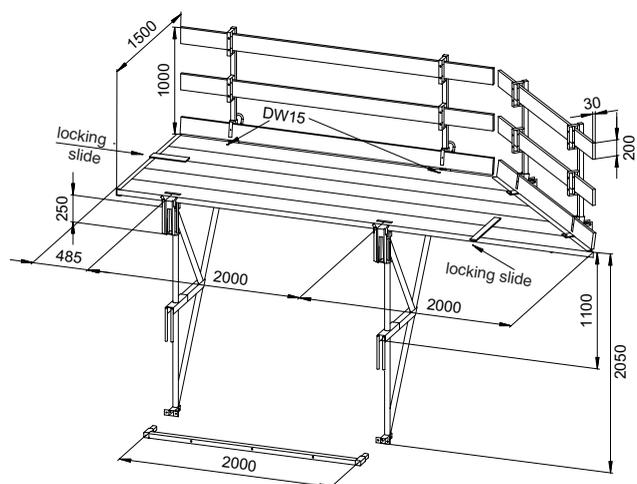


FOLDABLE WORKING PLATFORMS AND ACCESSORIES

3

WORKING PLATFORMS WITH LONG BASE FRAME

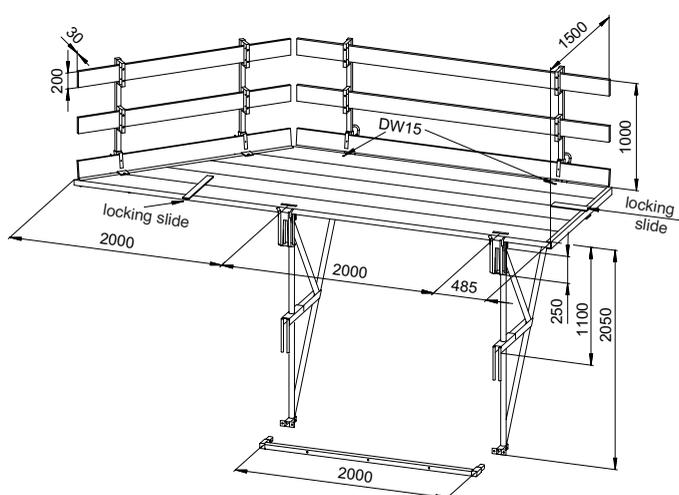
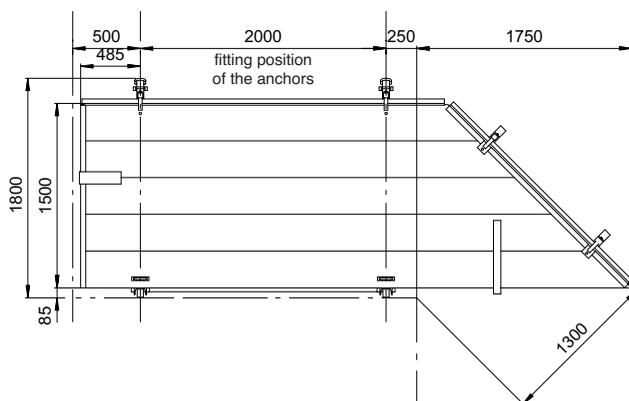
TECHNICAL DATA:



Working platform "righthand" for inner and outer corners

Length* [mm]	Weight [kg/unit]	Item No.
4500	436,0	313036

Separate parts: pair of railing posts with side protection boards (bolted). When mounting the platform they will have to be inserted into the intended boreholes at the 45° inclination and have to be secured with cross bolts.

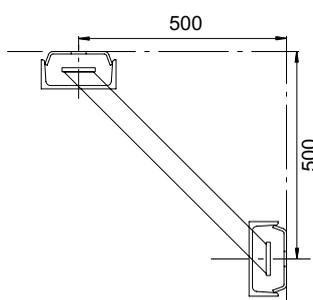
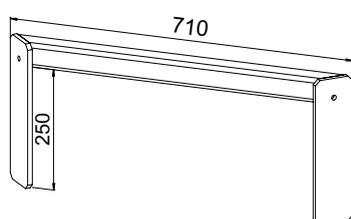
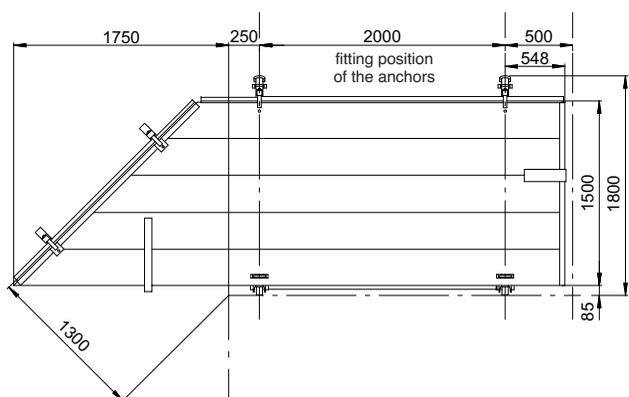


Working platform "lefthand" for inner and outer corners

Length* [mm]	Weight [kg/unit]	Artikel-Nr.
4500	436,0	313037

Separate parts: pair of railing posts with side protection boards (bolted). When mounting the platform they will have to be inserted into the intended boreholes at the 45° inclination and have to be secured with cross bolts.

Insertion rails (itm no. 319905) see page 12



Inner corner beam to secure the inner corner platforms

Length [mm]	Weight [kg/unit]	Item No.
710	6.50	319919

* Length L = theoretical raster



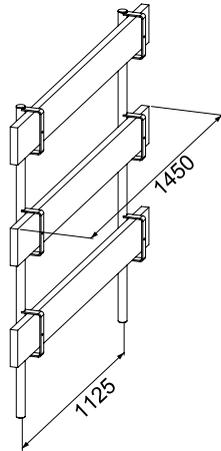
3

FOLDABLE WORKING PLATFORMS AND ACCESSORIES

WORKING PLATFORM WITH LONG BASE FRAME

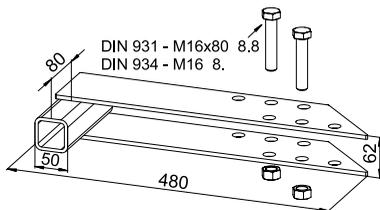


TECHNICAL DATA:



Edge protection for front sides

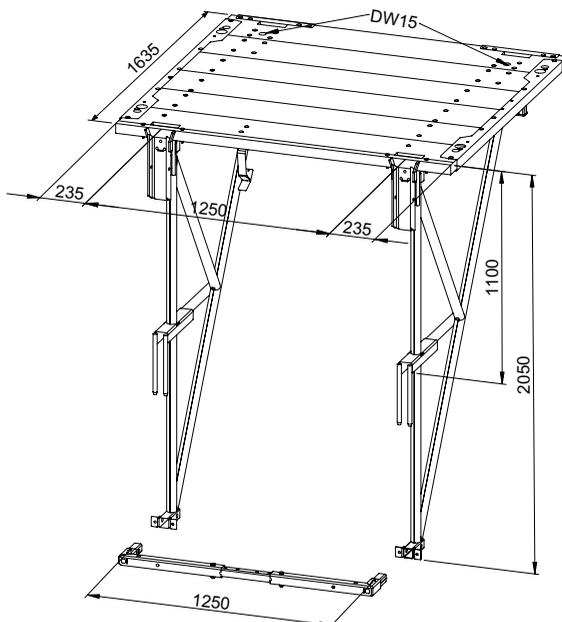
Weight [kg/unit]	Item No.
16.5	319960



Quoin angle to prevent tilting at front walls

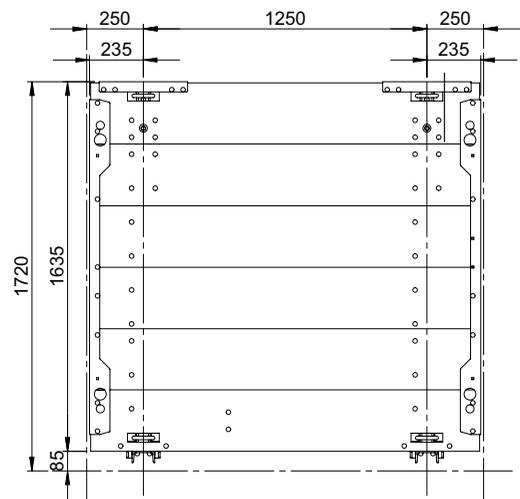
Length [mm]	Weight [kg/unit]	Item No.
480	6.5	319920

Delivered mounted to the insertion rail. Also includes two separate scaffolding tubes L = 3 m and 4 couplings for diagonal bracing.



Uni-working platform for inner corners

Weight [kg/unit]	Item No.
162.0	313009



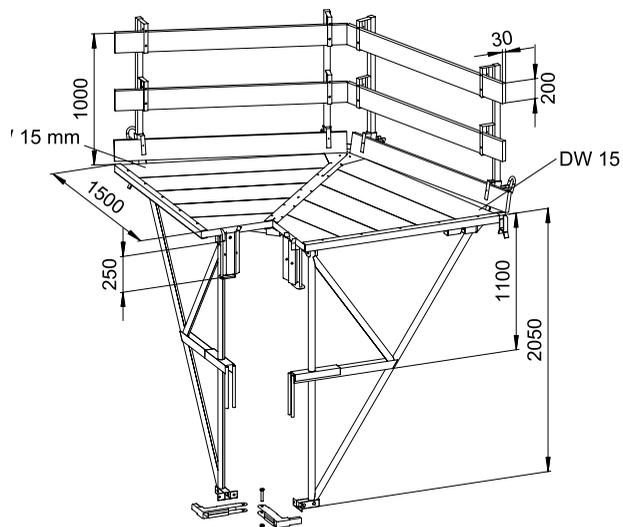


FOLDABLE WORKING PLATFORMS AND ACCESSORIES

3

WORKING PLATFORM WITH LONG BASE FRAME

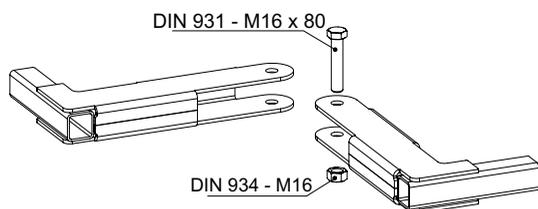
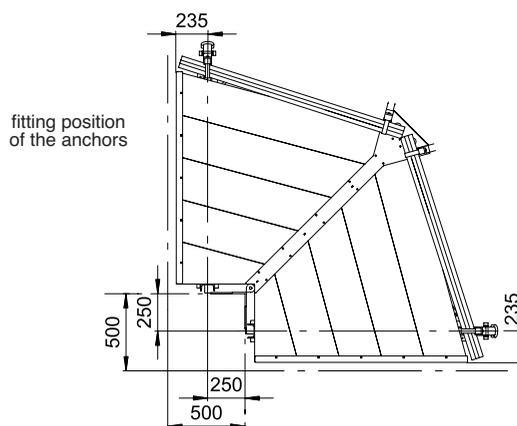
TECHNICAL DATA:



Uni-working platform for outer corners

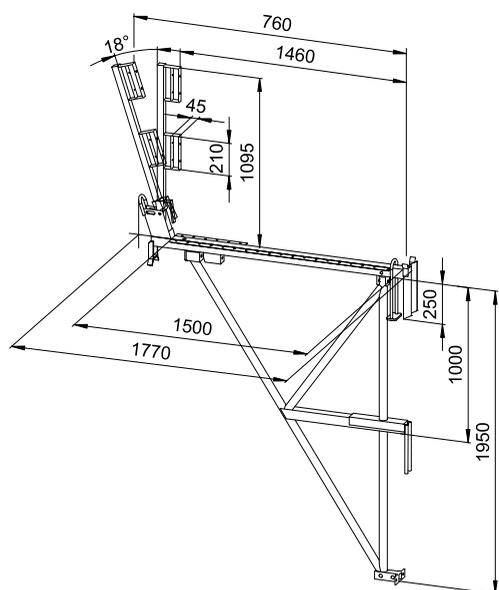
Length* [mm]	Weight [kg/unit]	Item No.
500 / 500	250.0	313005

* Length L = theoretical raster



Insertion rail two-part

Length [mm]	Weight [kg/unit]	Item No.
250 / 250	7.0	319917



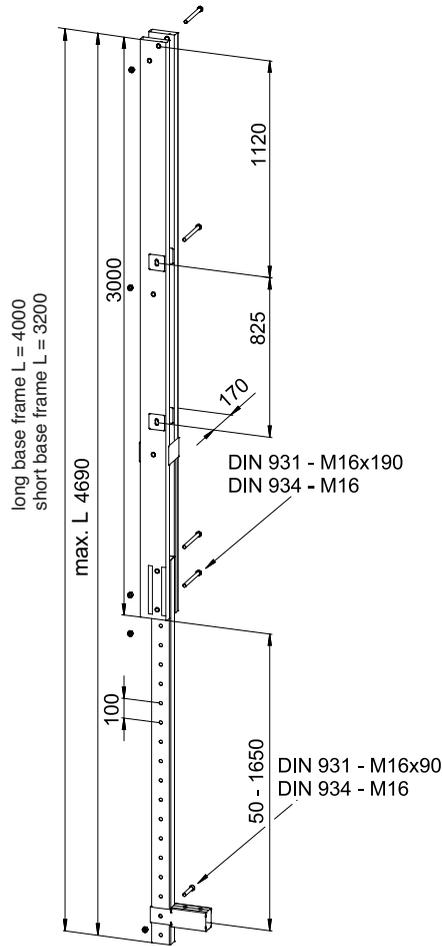
Single bracket with long base frame

Weight [kg/unit]	Item No.
60.0	313000





TECHNICAL DATA:



Extension girder

Length [mm]	Weight [kg/unit]	Item No.
max.4690	54.0	319907

Notice: also applicable for short base frame

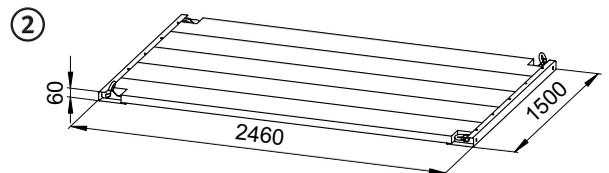
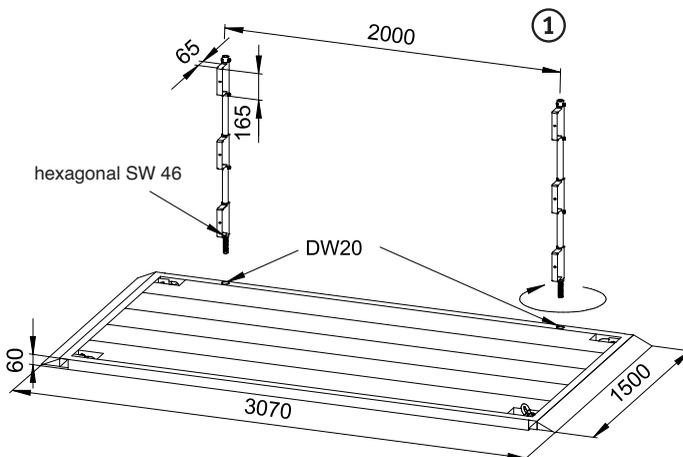
consisting of:
 2 rectangular tubes
 1 insertion tube
 1 staying leg adjustable

Adjusting platform

for adjustment of length between the working platforms

Type	Length [mm]	Weight [kg/unit]	Item No.
①	3070	220.0	319927
②	2460	100.0	319925

- ① with a steel frame and wood planking, delivery includes two railing posts to be screwed in
- ② front end steel frame, without railing posts



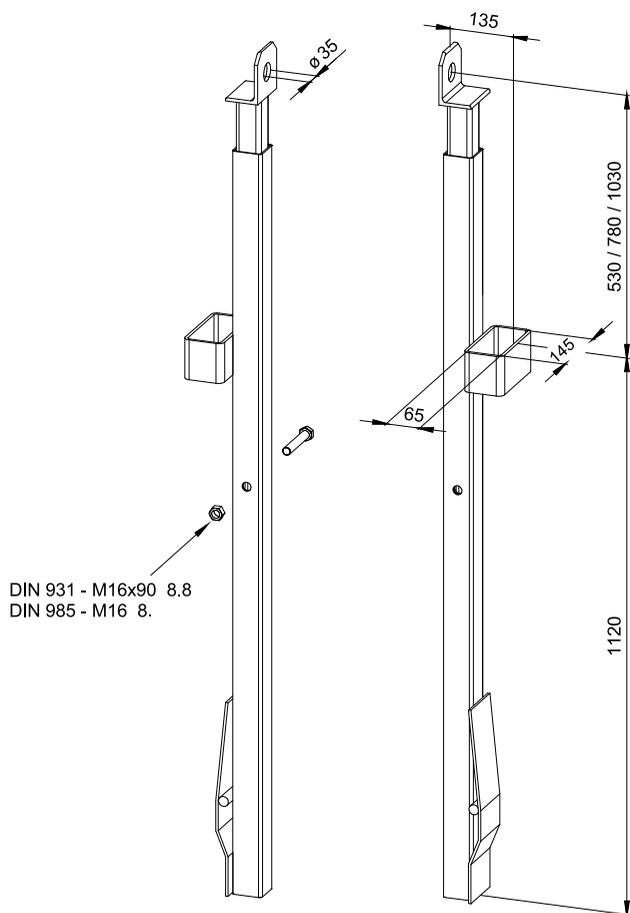


FOLDABLE WORKING PLATFORMS AND ACCESSORIES

3

ACCESSORIES FOR BOTH TYPES OF WORKING PLATFORMS

TECHNICAL DATA: ACCESSORIES FOR LOWERING / REMOVING PLATFORMS



Lowering beam

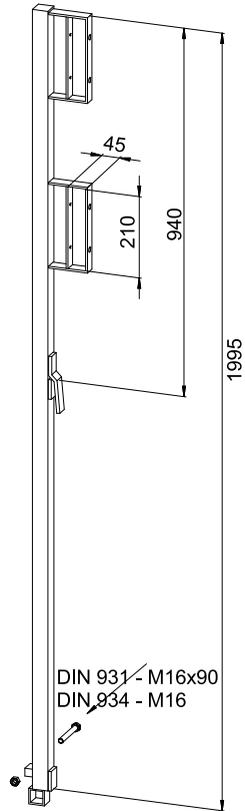
Length [mm]	Weight [kg/unit]	Item No.
min. 1120	8.0	319909

Lowering the platform is possible in rasters of 50, 75 or 100 cm.





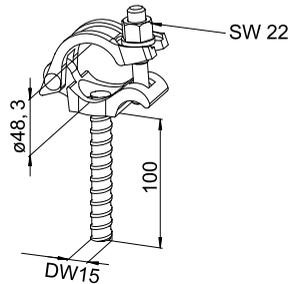
TECHNICAL DATA: ACCESSORIES FOR THE USE AS PROTECTIVE SCAFFOLDING FOR ROOF WORKS



Insertable prolongation railing post

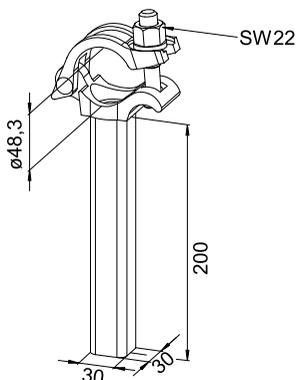
Length [mm]	Weight [kg/unit]	Item No.
1995	9.0	319908

To be attached to the standard post and secured with a bolt against being pulled out



Coupling to be screwed in to fix catch nets Ø DW15

Length [mm]	Weight [kg/unit]	Item No.
100	0.9	319912



Coupling to be inserted to fix catch nets

Length [mm]	Weight [kg/unit]	Item No.
200	1.10	319911

Scaffolding tubes

Length [m]	Weight [kg/m]	Item No.
according to situation	4,43	319800



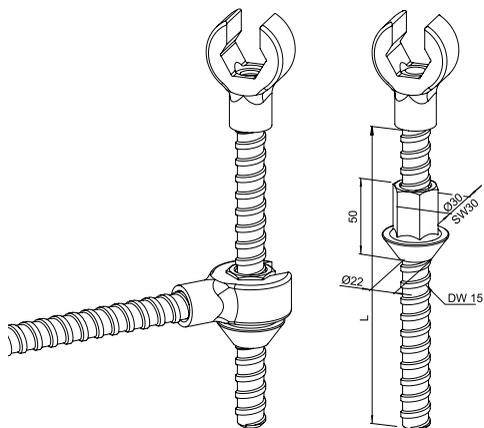


FOLDABLE WORKING PLATFORMS AND ACCESSORIES

3

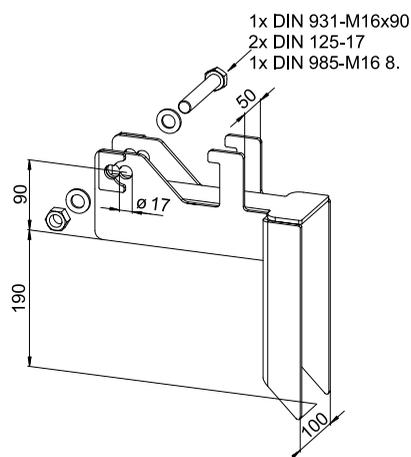
ACCESSORIES FOR BOTH TYPES OF WORKING PLATFORMS

TECHNICAL DATA: ACCESSORIES FOR THE SECURING OF WALL FORMWORK



Screw-on-set with D&W-thread

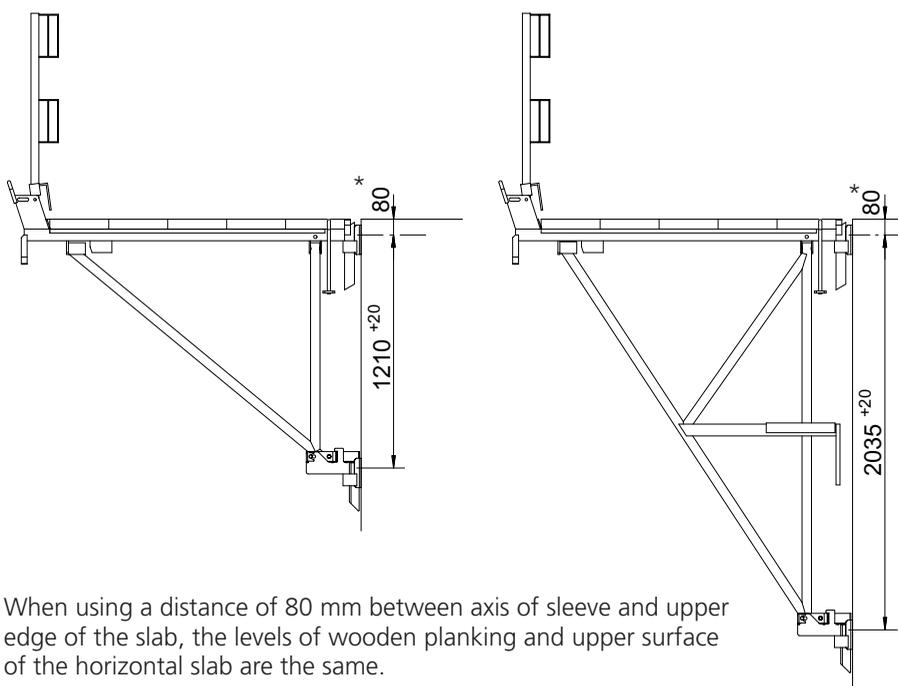
Length [mm]	Weight [kg/unit]	Item No.
180	0.66	111820



Securing hook

Weight [kg/unit]	Item No.
4.0	319918

Installation measurements for the supplementary suspension shoe to secure the bracket with securing hook.

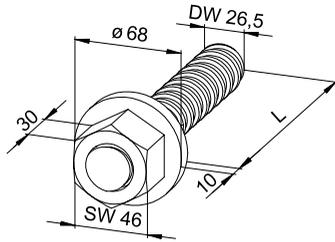


* When using a distance of 80 mm between axis of sleeve and upper edge of the slab, the levels of wooden planking and upper surface of the horizontal slab are the same.



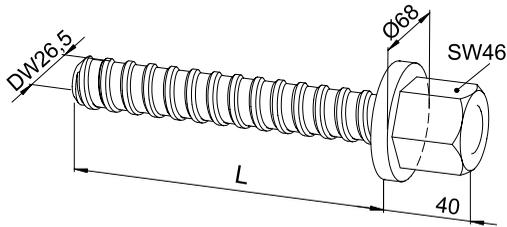


TECHNICAL DATA:

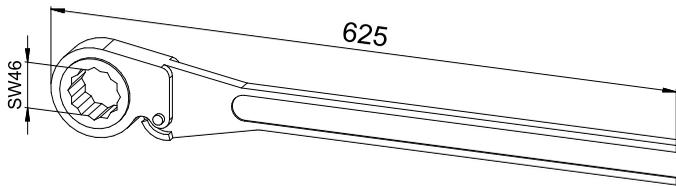


Hexagonal bolts \varnothing 26.5 to fix the suspension shoe

Length [mm]	Weight [kg/unit]	Item No.
150	1,38	112715
200	1,60	112720
250	1,83	112725
300	2,07	112730

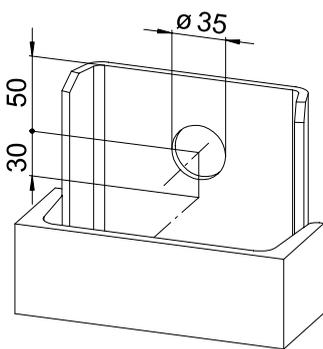


**other lengths available upon request*



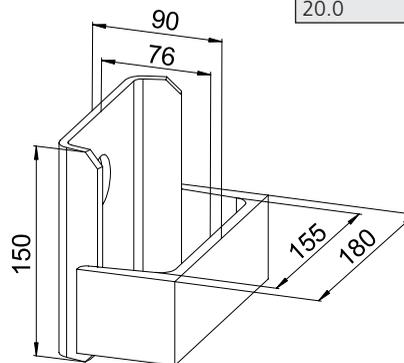
Ratchet with ring wrench, 12 teeth

Length [mm]	Weight [kg/unit]	Item No.
625	2.90	831046



Suspension shoe

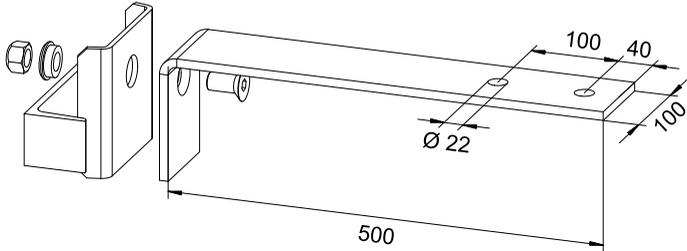
Adm. load [kN]	Weight [kg/unit]	Item No.
20.0	2.6	319901





TECHNICAL DATA:

DIN 985 - M20
 Reduzierhülse Ø35 / Ø21 mm
 DIN 7991 - M20 x 45



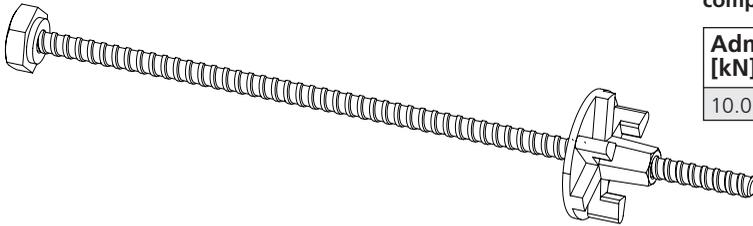
Flat iron anchor complete with mounted suspension shoe

Adm. load [kN]	Weight [kg/set]	Item No.
10.0	8.5	319921

Fixing with one dowel M20 Item No. 149220.

Watch out:
 Admissible working load of the platform may not exceed to 1,5 kN/m²!

Cold rolled anchor Ø 15 mm x 600 mm with special nut, complete with wing-nut



Adm. [kN]	Weight [kg/set]	Item No.
10.0	1.90	511660

Watch out:
 Admissible working load of the platform may not exceed to 1,5 kN/m²!





Mounting at wooden / steel shuttering without high exposed concrete requirement

Installation-kit D&W 26.5 mm

The non-recoverable clamping flange is fixed with 2 nails. The nailends which are standing out after removal of formwork are simply cut.

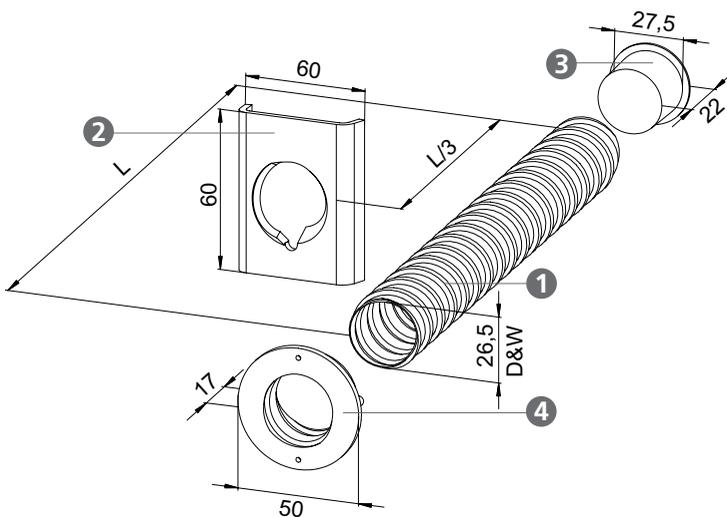
This does not matter, when the surfaces are plastered or coated afterwards.

With ceiling edges with thermal insulation the sleeve and bolt have to be longer accordingly, so that the anchoring depth into the concrete is maintained.

In such cases the carrying load of the working platform has to be reduced due to bending of the screw (please see summary pages 30 and 31).



TECHNICAL DATA:



Installation-kit D&W 26.5 mm with non-recoverable clamping flange

Length [mm]	Weight [kg/100 units]	Item No. S 235 JR	Item No. V2 A
170	18.00	102817	102867
220	19.30	102822	102872
270	20.60	102827	102877
320	21.90	102832	102882

Installation-kit consisting of:

- ① threaded sleeve (item no. 1026..* – V2 A: item no. 1027..*)
- ② threaded plate (item no. 102691)
- ③ plastic plug, yellow (item no. 102693)
- ④ clamping flange (non-recoverable) (item no. 102696)

*the last two numbers indicate the length of threaded sleeve.

All parts of the installation-kit are also available separately.

Metal fixing core

The damaging and bending of the sleeve when concreting, especially with high pouring heights, is prevented with the help of a sturdy metal core.

For quick installation and removing the core has only at the end 3 threads.

That way the sleeve can be put through the greatest length of the core without screwing.

The sturdy conical base plate has 4 nailing holes \varnothing 4 mm to be fixed to the wooden casing.

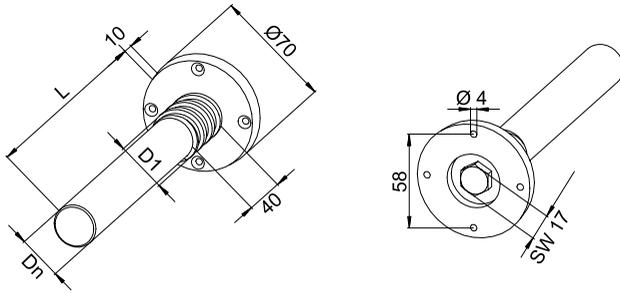
After removing the formwork the deepened hexagonal head SW 17 is accessible in the baseplate.

The removing of the fixing core with a ratchet can be managed within seconds and the core can be used again for the next concreting.





TECHNICAL DATA:



Metal fixing core Ø 26.5 mm, galvanized

Length [mm]	Weight [kg/unit]	Item No.
150	0.46	102651
200	0.92	102652
250	1.15	102653

Mounting at wooden / steel shuttering with high exposed concrete requirement

Wooden shuttering: with the **recoverable clamping flange** the sleeve is installed with a concrete covering of **3 cm**.

The fixing to the wooden shuttering is done with one central nail 38 x 100 mm, or alternatively with 4 nails 22 x 50 mm.

Generally we recommend to nail the clamping flange without sleeve at the beginning of the reinforcement works. To reduce the risk of damage, the sleeve is screwed to the base into the clamping flange only after finishing the installation of the reinforcement.

After removing the formwork the clamping flange can be regained easily and non-destructively with the help of the removing tool.

For mounting at steel shuttering we offer magnetic clamping flanges with each 2 concrete coverings from 15 or 30 mm.

The cylindrical pin has 3 spring-loaded impressable balls, which are situated according to the diameter of the thread of the sleeve.

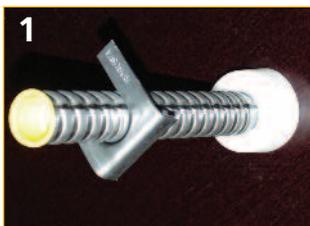


When casing out the clamping flange will not be screwed out but remains because of the strong magnet sticking on the formwork and will be drawn out of the sleeve.

This drawing out is enabled because of the impressable balls.

Afterwards an appropriate cone made of fine grained concrete is glued into the conical hole with the special two component glue. That way no steel or plastic parts remain on the surface and a homogenous exposed concrete surface emerges.

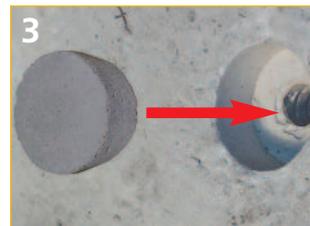
Mounting and removing recoverable clamping flange at wooden shuttering:



1
Nailing the clamping flange to the wooden casing (or fixing it to the metal casing) and then screw on installation-kit.



2
Remove recoverable clamping flange with removing tool after concreting.



3
After removing the formwork unscrew the recoverable clamping flange with the removing tool. No plastic parts will remain in the concrete.

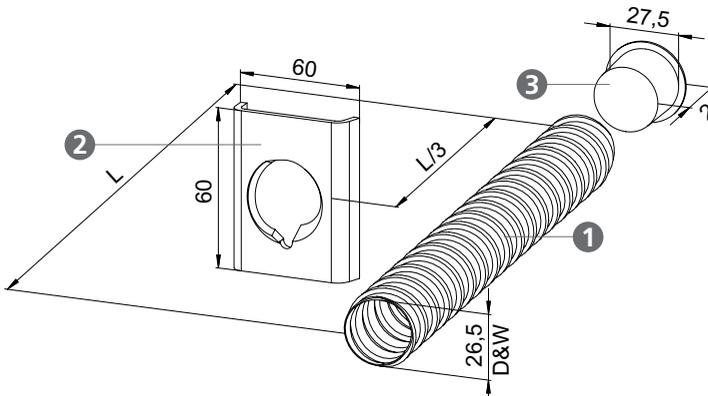


4
Glue in fine grained concrete cone, best result for exposed concrete!





TECHNICAL DATA:



Installation-kit D&W 26.5 mm

(please order clamping flange separately)

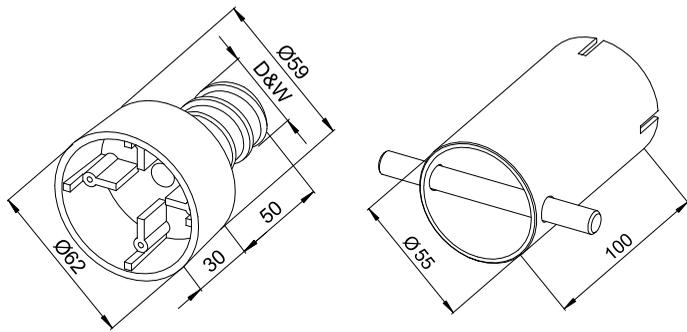
Länge [mm]	Gewicht [kg/100 Stck.]	Artikel-Nr. S 235 JR	Artikel-Nr. V2 A
140	8,90	102914	102964
190	9,70	102919	102969
240	10,50	102924	102974
320	11,30	102932	102979

Installation-kit consisting of

- ① threaded sleeve (item no. 1026..* – V2 A: item no. 1027..*)
- ② threaded plate (item no. 102691)
- ③ plastic cap yellow (item no. 102693)

*the last two numbers indicate the length of threaded sleeve.

All parts of the installation-kit are also available separately.



Clamping flange D&W 26.5 mm

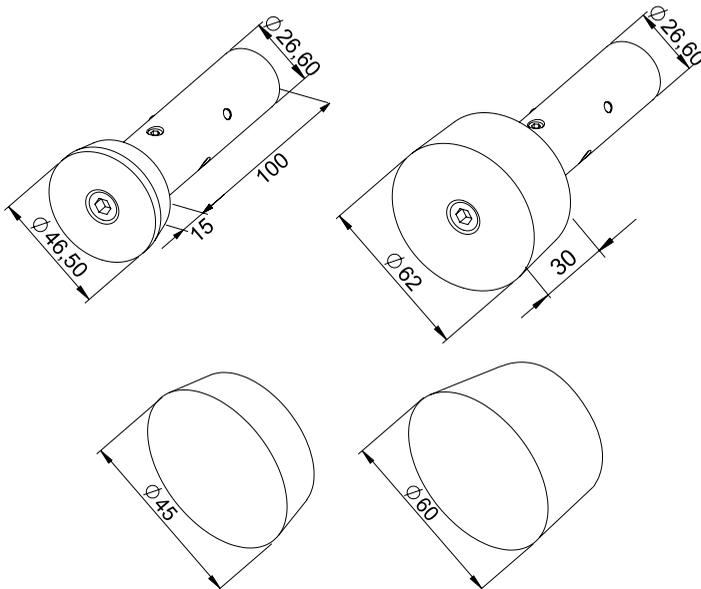
for wooden formwork, recoverable

Weight [kg/100 units]	Item No.
3.30	102695

Removing tool, galvanized

fitting for all recoverable clamping flanges

Weight [kg/unit]	Item No.
0.32	109933



Magnetic clamping flange D&W 26.5 mm

for steel shuttering, mit Neodymium high-efficiency magnet
adhesion approx. 80 kg

for concrete cover [mm]	Weight [kg/100 units]	Item No.
15 mm	60.0	102686
30 mm	106.0	102687

Fine grained concrete cone

for all recoverable clamping flanges and magnets

for concrete cover [mm]	Weight [kg/100 units]	Item No.
15 mm	4,20	109950
30 mm	14,00	109930

2-component glue

to glue in fine grained concrete cones (for approx. 40 units)

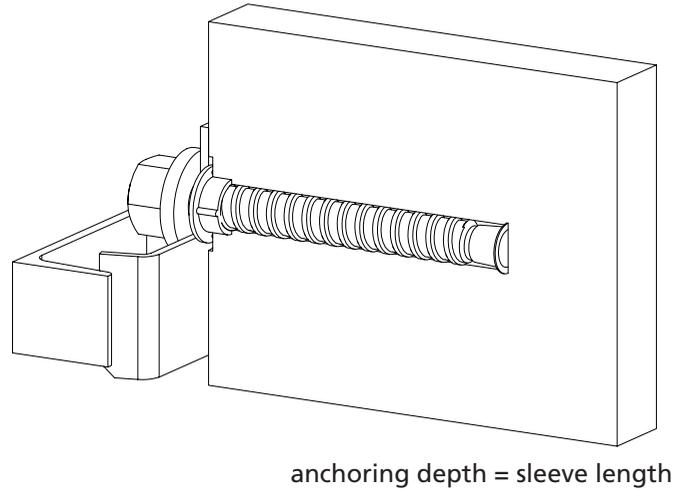
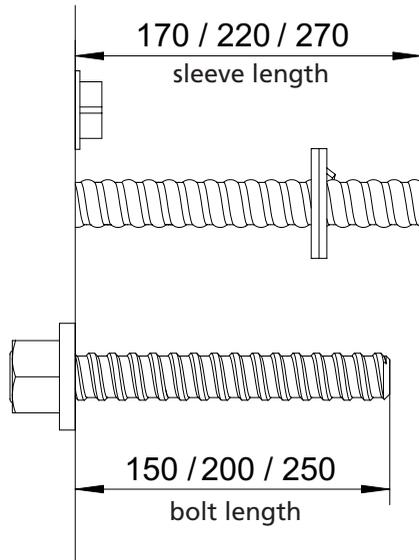
Weight [kg/units]	Item No.
2 x 0.5	109931



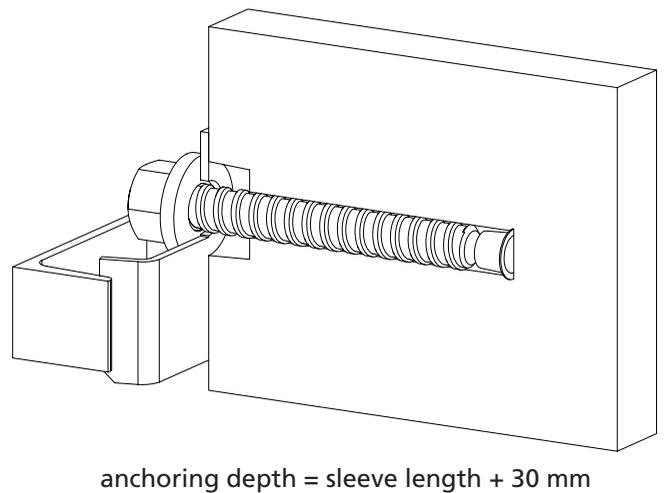
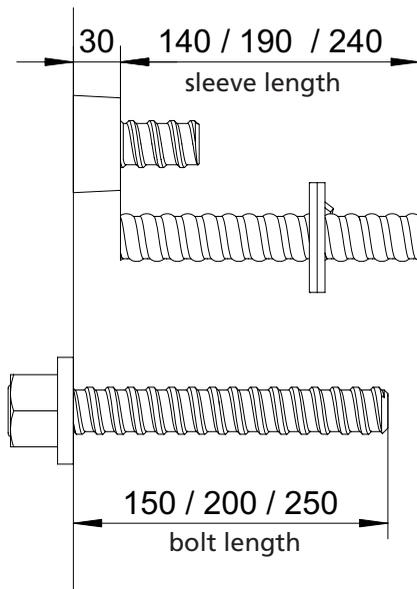


Summary: combinations of bolt lengths and corresponding sleeve lengths:

Installation-kit with **non-recoverable clamping flange**, with hexagonal bolt SW 46 mm \varnothing 26.5 mm
Sleeve length = bolt length + 20 mm



Installation-kit with **recoverable clamping flange** 30 mm, with hexagonal bolt SW 46 mm, \varnothing 26.5 mm
Sleeve length = bolt length - 10 mm



3

FOLDABLE WORKING PLATFORMS AND ACCESSORIES

SURVEY: INSTALLATION SITUATIONS AND WEIGHT BEARING CAPACITY:



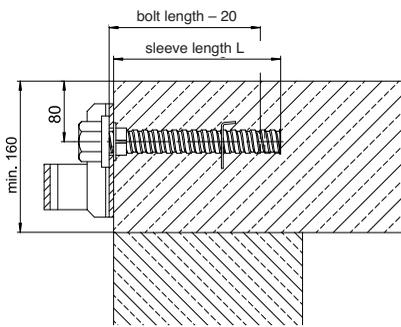
IN CONCRETE WALLS AND -CEILINGS:

- with installation-kit, consisting of ROBUSTA-threaded sleeve, threaded plate and plug as inexpensive lost parts in different lengths, according to required scaffolding group
- with suspension shoe and hexagonal bolt, side tolerance up to 5 mm
- with wire loop, without accessories (hang in hook at long base frame)

IN BRICK WORK (SPECIAL CASE):

- mit Einhängeschuhen an durchgehenden Ankerstäben oder langen Sechskantschrauben

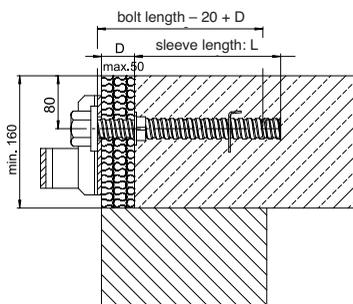
① in the concrete slab with wall underneath:



Scaffold group	Sleeve length [mm]	Bolt length [mm]	Admissible load [kN*]
3 - 5	220	200	20
3 - 5	270	250	26

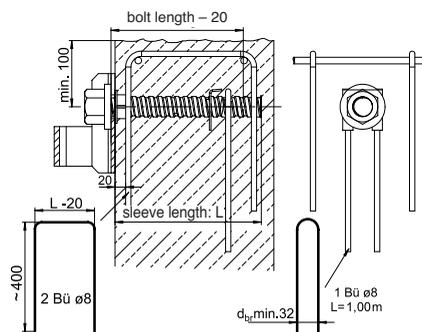
Bolt length = sleeve length - 20 mm

② in the concrete wall, with thermal insulation (max. 5 cm thickness):



Scaffold group	Sleeve length [mm]	Bolt length [mm]	Admissible load [kN*]
1 - 3	170	220	18

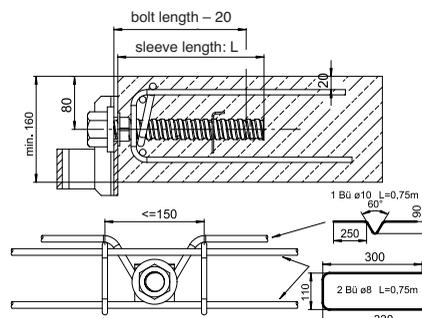
③ in the concrete wall – upper edge



Scaffold group	Sleeve length [mm]	Bolt Length [mm]	Admissible load [kN*]
1 - 3	170	150	15
3 - 5	220	200	20
3 - 5	270	250	26

Distance towards edge of the wall minimum 10 cm. To prevent breaking of the sleeve additional stirrups have to be installed.

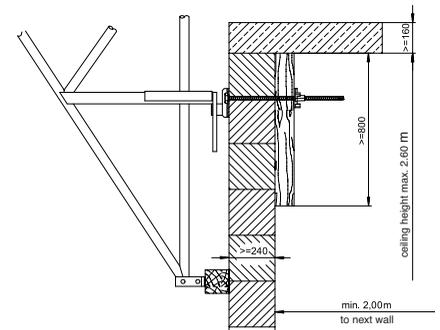
④ in the concrete slab without wall underneath (cantilever slab):



Scaffold group	Sleeve length [mm]	Bolt length [mm]	Admissible load [kN*]
1 + 3	270	250	18

Bolt length = sleeve length - 20 mm
Additional reinforcement - necessary!

⑤ special case: in the brickwork wall or concrete wall:



Scaffold group	Anchor-bar-Ø x length [mm]	Admissible load [kN*]
1 + 2	15 x 600	10

For a subsequent anchoring in the brickwork the anchor bar cold rolled is available with special head fitting to the borehole in the suspension shoe.

Attention:

At brickwork wall you have to follow instructions for installation!



→ technical data see page 21.





FOLDABLE WORKING PLATFORMS AND ACCESSORIES

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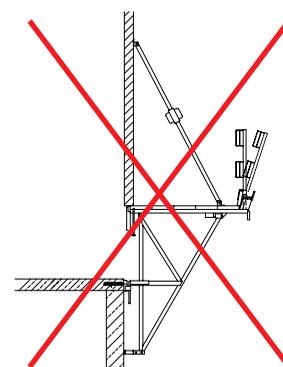
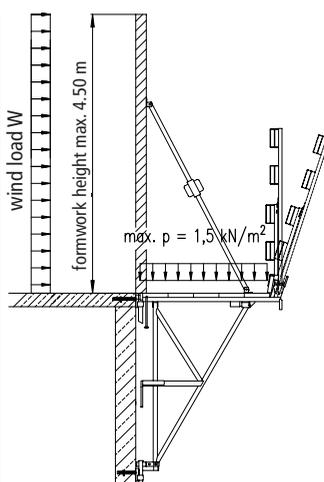
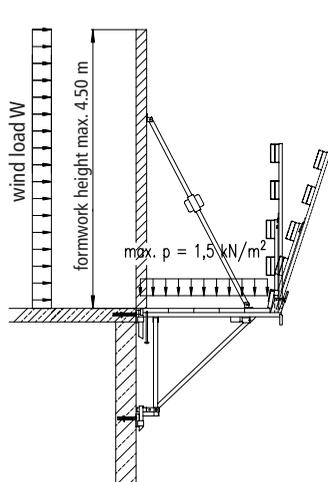
SURVEY FOR USE IN DIFFERENT SITUATIONS

1. use as working and safety scaffolding DIN 4430 T1:

standard working platforms	Scaffold group	up to 5	up to 5	up to 3
	Area load p	450 kg/m ²	450 kg/m ²	200 kg/m ²
	Point Load p1	3.0 kN within an area of 0.5 x 0.5 m	3.0 kN within an area of 0.5 x 0.5 m	1.5 kN within an area of 0.5 x 0.5 m
	Point Load p2	1.0 kN within an area of 0.2 x 0.2 m	1.0 kN within an area of 0.2 x 0.2 m	1.0 kN within an area of 0.2 x 0.2 m
	Part area load	13.5 kN within an area of 1.8 m ²	13.5 kN within an area of 1.8 m ²	–
	max. anchor loads	H = 10.9 kN V = 14.5 kN D = 10.9 kN	H = 6.2 kN V = 14.5 kN D = 6.2 kN	H = 6.1 kN V = 6.2 kN D = 5.7 kN
corner working platforms	Scaffold group	up to 4	up to 4	up to 3
	Area load p	300 kg/m ²	300 kg/m ²	200 kg/m ²
	Point Load p1	3.0 kN within an area of 0.5 x 0.5 m	3.0 kN within an area of 0.5 x 0.5 m	1.5 kN within an area of 0.5 x 0.5 m
	Point Load p2	1.0 kN within an area of 0.2 x 0.2 m	1.0 kN within an area of 0.2 x 0.2 m	1.0 kN within an area of 0.2 x 0.2 m
	Part area load	11.25 kN within an area of 1.8 m ²	11.25 kN within an area of 1.8 m ²	–
	max. anchor loads	H = 10.4 kN V = 17.7 kN D = 10.4 kN	H = 8.0 kN V = 17.7 kN D = 5.9 kN	H = 11.4 kN V = 11.5 kN D = 10.0 kN

2. using for propping of wall formwork:

Wind load
W = 0,2 kN/m²



Scaffold group	up to 2	up to 2
Area load p	150 kg/m ²	150 kg/m ²
Point load p1	1.5 kN within an area of 0.5 x 0.5 m	1.5 kN within an area of 0.5 x 0.5 m
Point load p2	1.0 kN within an area of 0.2 x 0.2 m	1.0 kN within an area of 0.2 x 0.2 m
max. anchor loads	H = 9.7 kN V = 9.1 kN D = 7.8 kN	H = 17.9 kN V = 8.1 kN D = 9.7 kN
max. anchor loads	H = 8.5 kN V = 13,2 kN D = 10.4 kN	H = 8.4 kN V = 13.2 kN D = 5.9 kN

Important: The wall formwork, propped to the working platform, must **always** be anchored to the concrete ceiling
a) after ending work each time and after long breaks and
b) at an expected storm with wind velocity of more than 18 m/s.

Exception: With the standard working platform with long base frame this additional securing is not necessary for formwork heights up to 3.30 m to max. 40 m above ground.



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