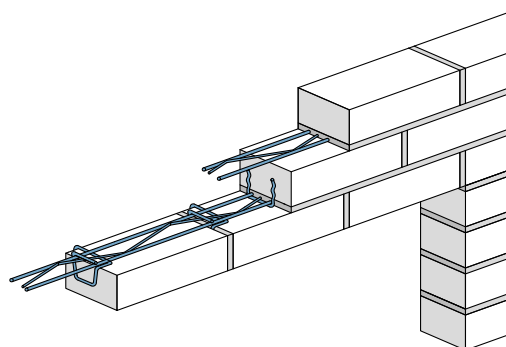


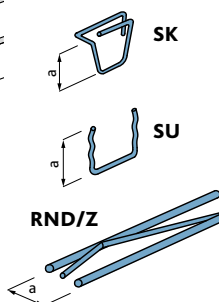
BRICK LINTELS

STRETCHER COURSE BRICKWORK



Lintel consist of at least three courses of bricks bonded with mortar. The first course of bricks, each vertical joint, has anchors inserted. Between the first and the second horizontal seams, and between the second and the third courses of bricks there is a longitudinal rebar reinforcement Murfor RND/Z-50. The longitudinal rebar at horizontal joints shall go outside the edges of the opening at 250 mm and 500 mm at the corners of the building.

In this way lintels up to 2,00 m are mounted. If bigger apertures need to be made the same way, bracket suspensions GSP or KP-M are used.



MAKE	Ø, mm	a, mm	Material
SK 50 - 40 - 1	3.0	40	zinc coating
SK 50 - 40 - 2	3.0	40	1.4301
SK 50 - 75 - 1	3.0	75	zinc coating
SK 50 - 75 - 2	3.0	75	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50*	4.0	50	zinc coating

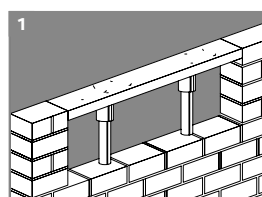
* here and further the reinforced truss MURFOR® manufacturer NV Bekaert SA

LINTEL KIT IN BOXES

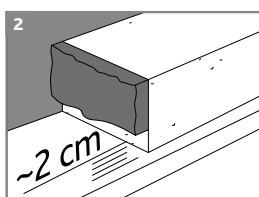


MAKE	opening, m	Set, pcs.	Material
BL-H-1,0	1.0	SK 50-40 x 4 SU 50-45 x 3	zinc coating / 1.4301
BL-H-1.5	1.5	SK 50-40 x 6 SU 50-45 x 4	zinc coating / 1.4301

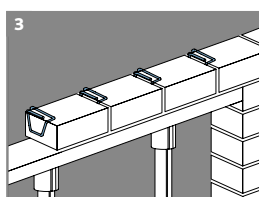
MOUNTING OF LINTELS UP TO 2 M



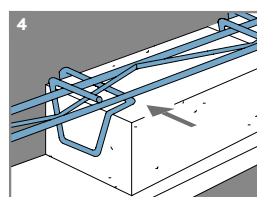
1 Construction of formwork



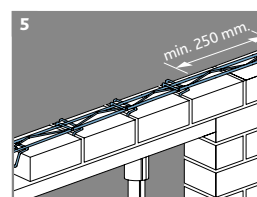
2 Mortar does not reach the bottom of the brick about 2 cm. After lintel mounting and formwork disassembly the joints shall be fixed



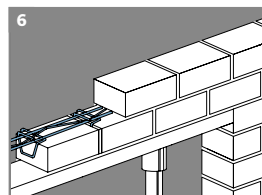
3 Lintel hooks SK 50-40 in every vertical joint of the first course



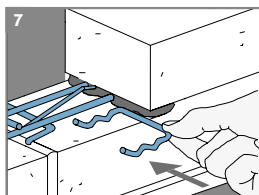
4 Reinforcement Murfor RND/Z-50 is inserted through grooves of lintel hooks



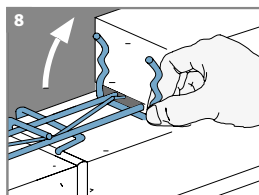
5 Reinforcement rods extend beyond the opening edges by at least 250 mm in both sides



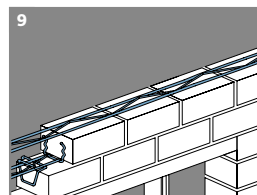
6 Second course of brickwork



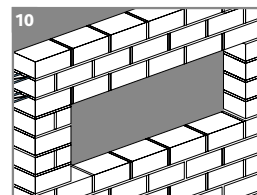
7 Mounting of lintel hooks SU 50-45



8 Lintel hooks SU 50-45 in every second vertical joint of the second course



9 Reinforcement Murfor RND/Z-50 in the second course of brickwork. Further throughout the height, 1 reinforcement rod at every 300...500 mm

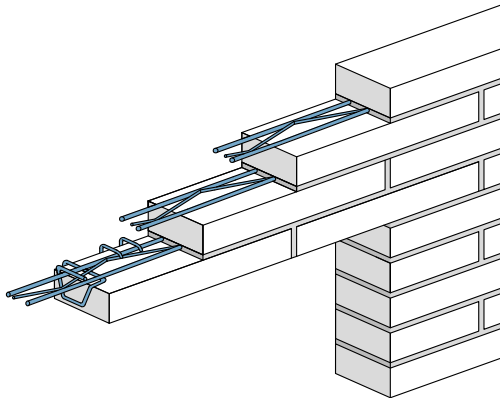


10 Formwork should be dismantled after 2 weeks.

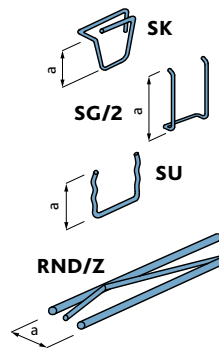
ATTENTION! The bricks of the first course should be full.

HERE AND FURTHER. Seeking to reach the nominal strength making lintels during hot season, it is recommended to moistened them for 2 weeks.

Mortar marking should be at least 100



LINTEL FROM LONG BRICK

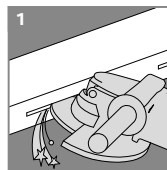


MAKE	Ø, mm	a, mm	material
SK 50 - 40 - 1	3.0	40	zinc coating
SK 50 - 40 - 2	3.0	40	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
SG/2 single	3.0	80	1.4301
RND/Z-50	4.0	30	zinc coating

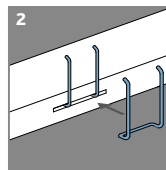
Lintel mounting from long brick is analogous to the lintel mounting from standard brick with the addition of connections SG/2, estimating 1-2 connections for the brick at the first row.

ATTENTION! Before laying bricks the first row, the ends of the bricks shall be processed with primer (quartz based). It is necessary for a better mortar, brick and metal adhesion.

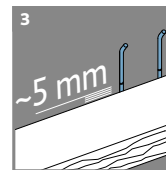
ATTACHING SG/2 CONNECTIONS ON LONG BRICKS



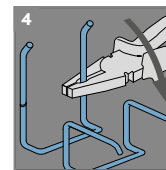
At the back wall grooves are made (~5 mm wide, ~150 mm long, and ~15 mm depth)



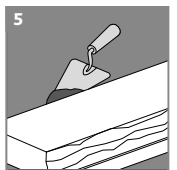
SG/2 connections introduced



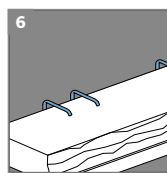
The connections are marked ~5 mm above brick surface



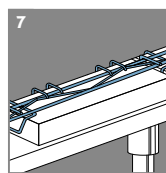
The connections are folded



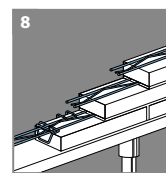
The grooves are filled with mortar



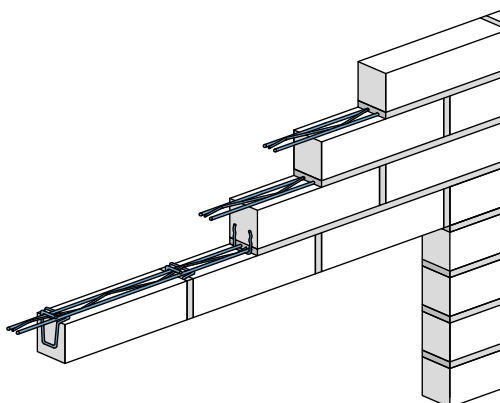
SG/2 connections are introduced into the mortar



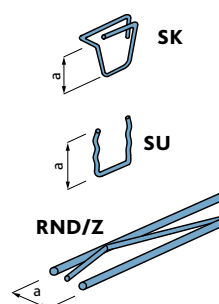
Lintel hooks SK 50-40 in every vertical joint of the first course



3 masonry rows are reinforced



THIN-LAYER DECORATION MASONRY LINTEL



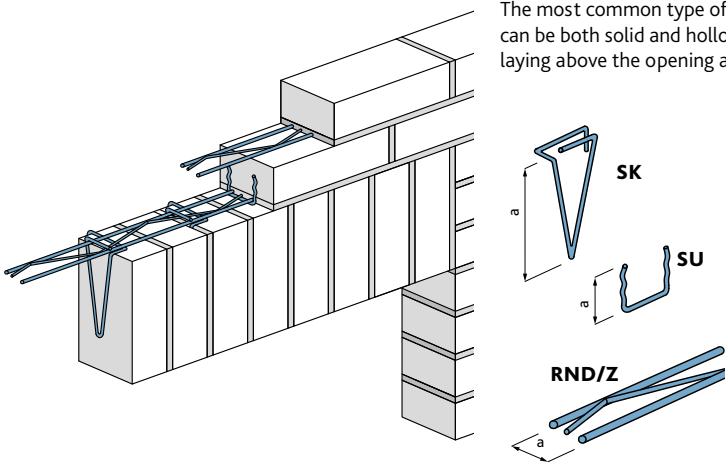
MAKE	Ø, mm	a, mm	material
SK 30 - 40 - 2	3.0	40	1.4301
SU 30 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	30	zinc coating

Mounting of narrow brick lintel is analogous to the mounting of lintel from standard brick by additionally reinforcing one masonry row. The number of reinforced lintel rows – at least 3 rows.

ATTENTION! Decorative masonry layer from bricks 50-65 mm is allowed at low-height construction, up to 2 floors.

BRICK LINTELS

SOLDIER COURSE BRICKWORK



The most common type of laying brick lintels is soldier course brickwork. In this case the bricks can be both solid and hollow. Sometimes, to achieve a better effect, 2 first courses of brick laying above the opening are soldier courses.

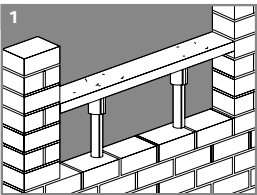
MAKE	Ø, mm	a, mm	Material
SK 50 - 170 - 1	3.0	170	zinc coating
SK 50 - 170 - 2	3.0	170	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	50	zinc coating



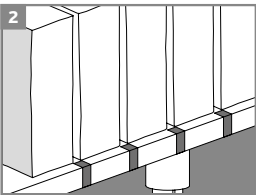
LINTEL KIT IN BOXES

MAKE	opening, m	Set, pcs.	Material
BL-V-1.0	1.0	SK 50-170 x 7 SU 50-45 x 4	zinc coating / 1.4301
BL-V-1.5	1.5	SK 50-170 x10 SU 50-45 x 5	zinc coating / 1.4301

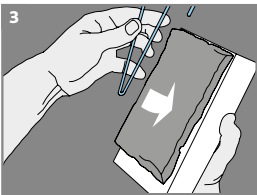
MOUNTING OF LINTELS UP TO 2 M



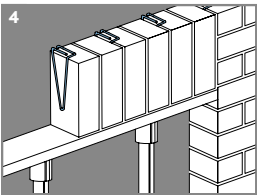
Construction of formwork



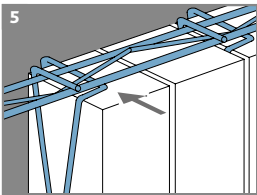
Bricks are placed on the framework. Placement of bricks is marked on the formwork.



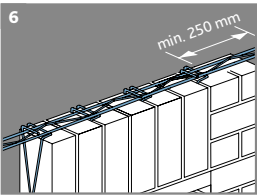
Mortar should not reach the bottom of the brick by approximately 2 cm. Upon mounting of the lintel and dismantling of the formwork, joints should be filled in.



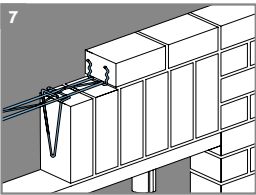
Lintel hooks SK 50-170 should be placed into the mortar, in every second vertical joint of the first row of brickwork



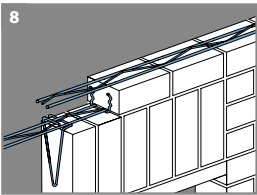
Reinforcement Murfor RND/Z-50 should be inserted through grooves of lintel hook



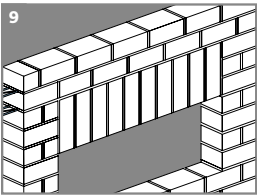
Reinforcement rods extend beyond the opening edges by at least 250 mm in both sides



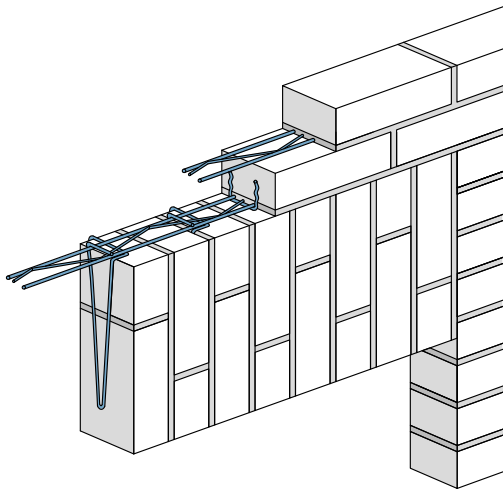
Lintel hooks SU 50-45 should be installed in every second vertical joint of the second row



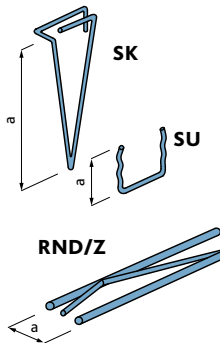
Reinforcement Murfor RND/Z-50 in the second row of brickwork. Further throughout the height, 1 reinforcement rod in every 300...500 mm



Formwork should be dismantled in 2 weeks

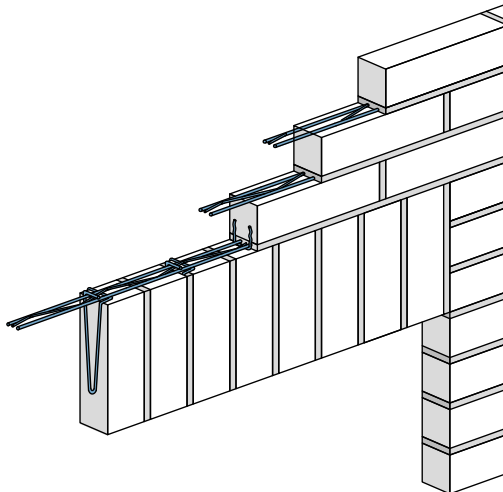


SOLDIER COURSE BRICKWORK WITH ONE AND A HALF BRICK

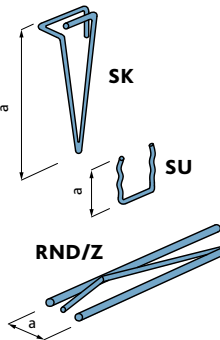


MAKE	Ø, mm	a, mm	Material
SK 50 - 270 - 1	3.0	270	zinc coating
SK 50 - 270 - 2	3.0	270	1.4301
SK 50 - 340 - 1	3.0	340	zinc coating
SK 50 - 340 - 2	3.0	340	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	50	zinc coating

Lintel mounting at one and a half brick is analogous to the mounting from full bricks.



THIN-LAYER DECORATION MASONRY LINTEL



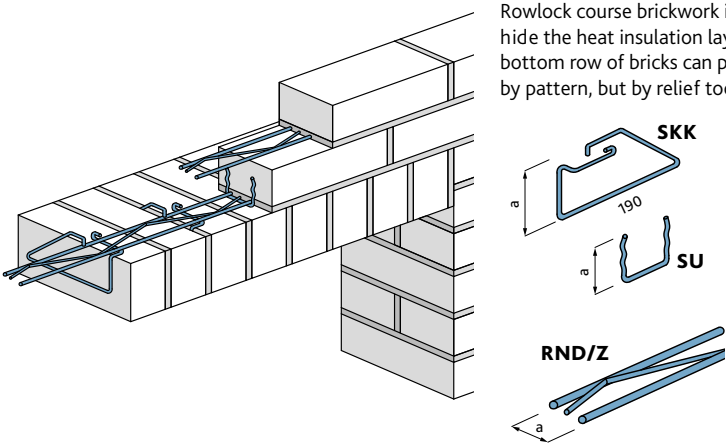
MAKE	Ø, mm	a, mm	Material
SK 30 - 170 - 2	3.0	170	1.4301
SU 30 - 45 - 2	3.0	45	1.4301
RND/Z-30	4.0	30	zinc coating

Lintel mounting from thin bricks is analogous to lintel mounting from standard bricks with additional reinforcement of one brick row. The number of reinforced masonry rows of the lintel shall be at least 3 rows.

ATTENTION! Decorative masonry layer from bricks 50-65 mm is allowed at low-height construction, up to 2 floors.

BRICK LINTELS

ROWLOCK COURSE BRICKWORK



Rowlock course brickwork is performed at a 90° angle to the façade because doing this it is possible to hide the heat insulation layer behind the decorative brickwork. Depending on the thickness of this layer the bottom row of bricks can protrude from the façade plane – this way the lintel will be emphasized not only by pattern, but by relief too.

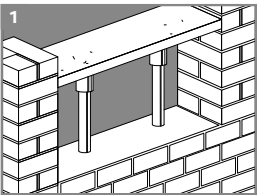
MAKE	Ø, mm	a, mm	Material
SKK 50 - 65 - 1	3.0	65	zinc coating
SKK 50 - 65 - 2	3.0	65	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	50	zinc coating



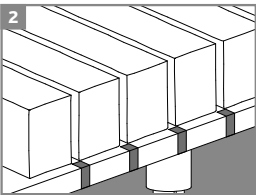
LINTEL KIT IN BOXES

MAKE	opening, m	Set, pcs.	Material
BL-S-1.0	1.0	SKK 50-65 x 7 SU 50-45 x 4	zinc coating / 1.4301
BL-S-1.5	1.5	SKK 50-65 x10 SU 50-45 x 5	zinc coating / 1.4301

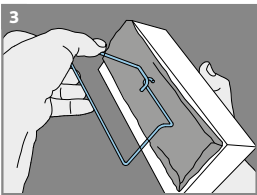
MOUNTING OF LINTELS UP TO 2 M



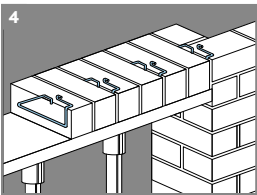
Construction of formwork



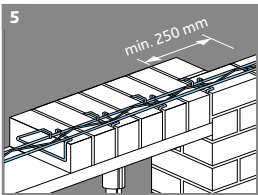
Bricks are placed on the framework. Placement of bricks is marked on the formwork.



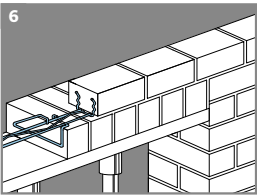
Mortar should not reach the bottom of the brick by approximately 2 cm. Upon mounting of the lintel and dismantling of the formwork, joints should be filled in.



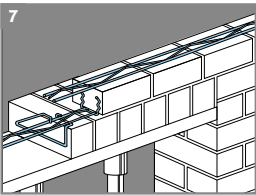
Lintel hooks SKK 50-65 should be placed into the mortar, in every second vertical joint of the first row of brickwork



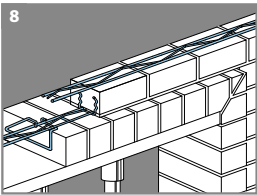
Reinforcement Murfor RND/Z-50 should be inserted through grooves and shall protrude from the opening for no less than 250 mm into both sides



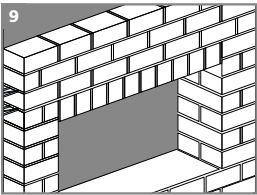
Lintel hooks SU 50-45 should be installed in every second vertical joint of the second row



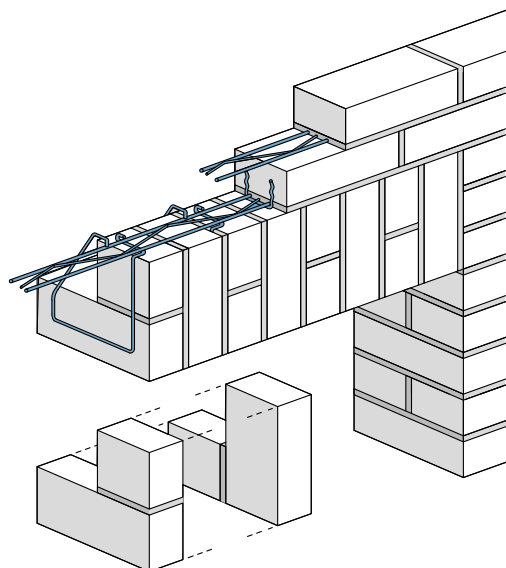
Reinforcement Murfor RND/Z-50 in the second row of brickwork. Further throughout the height, 1 reinforcement rod in every 300...500 mm



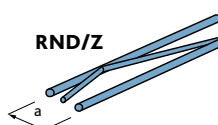
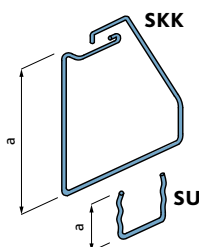
OPTION: Lintel with protrusion from the plane of the wall



Formwork should be dismantled in 2 weeks.

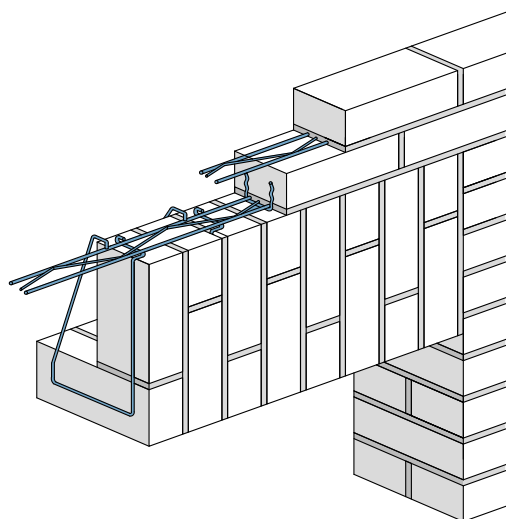


COMBINED BRICKWORK

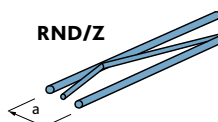
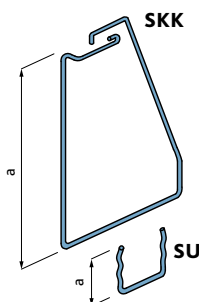


MAKE	Ø, mm	a, mm	Material
SKK 50 - 170 - 2	3.0	170	1.4301
SKK 50 - 220 - 2	3.0	220	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	50	zinc coating

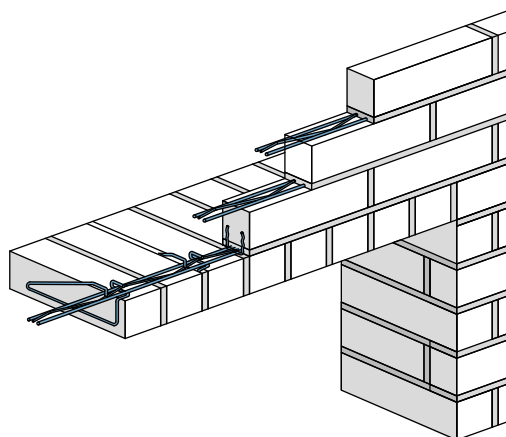
A classical type of brick lintels by altering a full brick and two identical halves. The only important condition when selecting combined brickwork is dimensions of the bricks. Their ratio shall be 2:1, e.g. 250x120x65h. The lintel should start and finish with soldier course brickwork. The layout of the lintel is identical to the lintel made in the vertical way.



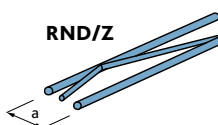
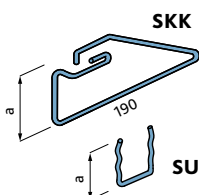
COMBINED BRICKWORK WITH ONE AND A HALF BRICK



MAKE	Ø, mm	a, mm	Material
SKK 50 - 320 - 2	3.0	320	1.4301
SU 50 - 45 - 1	3.0	45	zinc coating
SU 50 - 45 - 2	3.0	45	1.4301
RND/Z-50	4.0	50	zinc coating



THIN DECORATION MASONRY LINTEL



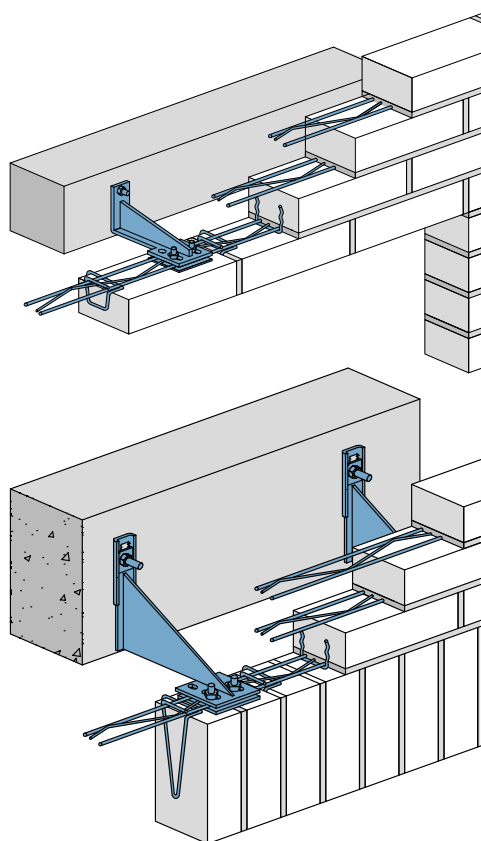
MAKE	Ø, mm	a, mm	Material
SKK 30 - 40 - 2	3.0	40	1.4301
SU 30 - 45 - 2	3.0	45	1.4301
RND/Z-30	4.0	30	zinc coating

Lintel mounting from thin bricks is analogous to lintel mounting from standard bricks with additional reinforcement of one brick row. The number of reinforced masonry rows of the lintel shall be at least 3 rows.

ATTENTION! Decorative masonry layer from bricks 50-65 mm is allowed at low-height construction, up to 2 floors.

BRICK LINTELS ON BRACKETS

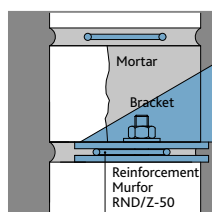
MASONRY ON THE BRACKETS REINFORCED BY MURFOR



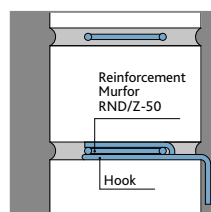
In case of large openings (>2 m), there is a risk of deflection as well as destruction of the lintel. In order to avoid this, suspended brackets GSP should be used. They are fixed to the carrying wall of the reinforced concrete lintel while the free end is inserted into the horizontal joint between the first and the second rows of brickwork. In this case, the load is transferred from decorative brickwork to the load-bearing structure through the brackets.

Quantity of suspended brackets and their arrangement above openings are calculated separately in every individual case.

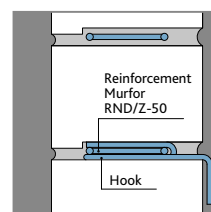
THICKNESS OF THE HORIZONTAL JOINT



Seam with brackets
12 – 15 mm



Seam with rebar and
connections 10 – 12 mm

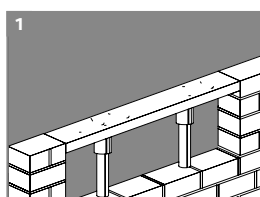


Thickness of a lowered joint
with reinforcement and lintel
hooks is 8 to 9 mm.

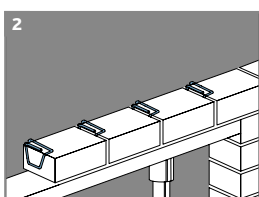


Upon mounting of the reinforcement in the horizontal joint, its thickness should not exceed 10 mm and in case of using brackets it should not exceed 12 mm. When placing reinforcement, there should be no obvious changes in the thickness of the joint, and its application should not have any influence on the general appearance of the brickwork.

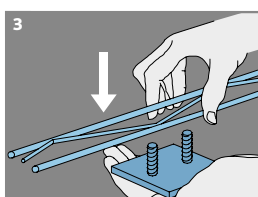
MOUNTING OF BRICK LINTELS OF OVER 2 M BY USING SUSPENDED BRACKETS GSP



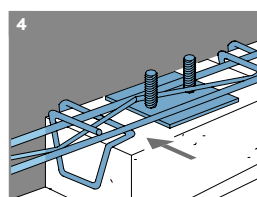
Construction of formwork



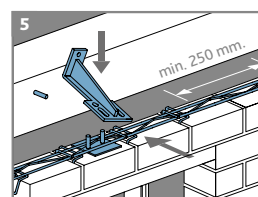
Lintel hooks SK 50-40 in every
vertical joint of the first row



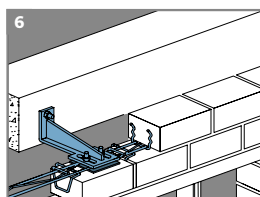
Connection of truss Murfor
RND/Z-50 with the bottom
plate AP-1



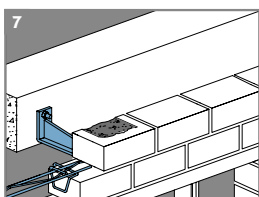
Reinforcement Murfor RND/Z-50
together with the plate AP-1 should
be inserted through grooves of
lintel hooks



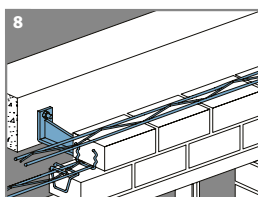
Fixation of suspended bracket



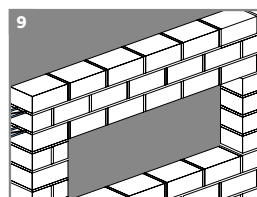
Second row of brickwork



A cavity should be cut in
the brick above the bracket
and upon fixation should be
filled with mortar.

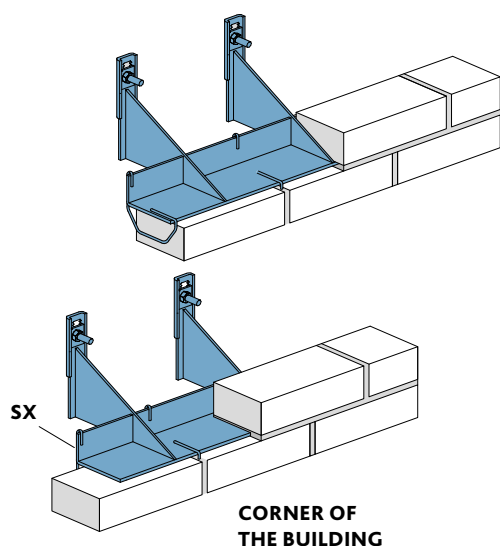
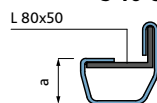
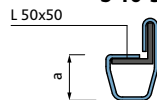
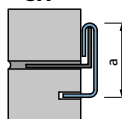


Reinforcement Murfor RND/Z-50
in the second and the third rows of
brickwork. Further throughout the
height, 1 reinforcement rod in every
300...500 mm



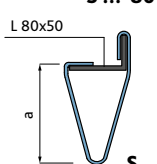
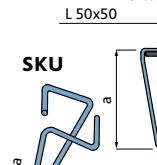
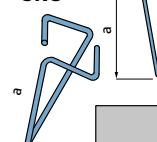
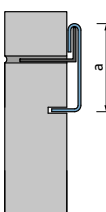
Formwork should be dismantled
in 2 weeks.

BRICKWORK SUSPENDED ON BRACKETS

**S 40-80****S 40-50****SX**

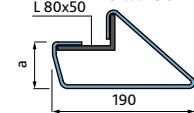
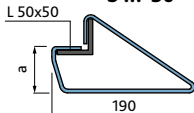
Make	Ø, mm	a, mm	Material
S 40 - 80	3.0	40	1.4301
S 40 - 50	3.0	40	1.4301
SX - 80	3.0	80	1.4301

IMPORTANT! Connections at each vertical seam.
Holes in the brick are made at place.

S ...-80**S ...-50****SKU****SX**

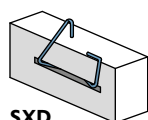
Make	Ø, mm	a, mm	Material
S 85 - 80	3.0	85	1.4301
S 165 - 80	3.0	85	1.4301
S 165 - 50	3.0	165	1.4301
S 270 - 80	3.0	270	1.4301
S 340 - 80	3.0	340	1.4301
SX - 145	3.0	145	1.4301
SKU - 165	3.0	165	1.4301

IMPORTANT! Connections at each second vertical seam.
Holes in the brick are made at place.

S ...-80**S ...-50**

MAKE	Ø, mm	a, mm	Material
S 40/190 - 80	3.0	40	1.4301
S 40/190 - 50	3.0	40	1.4301
S 85/190 - 80	3.0	85	1.4301
S 170/190 - 80	3.0	170	1.4301
S 340/190 - 80	3.0	340	1.4301
SXD - 40	3.0	40	1.4301
SXK - 40	3.0	40	1.4301

IMPORTANT! Connections at each second vertical seam.
Holes in the brick are made at place

**SXK****SXD**

It is also possible to produce non-standard hooks
for any variant of decorative masonry laying.