

Memo for storage and slinging of reinforced concrete products

1. Prefabricated concrete and reinforced concrete products are transported to construction sites in operating position (except for columns and some other products).
 2. Reinforced concrete products are stored on a well-levelled firm substrate.
 3. On a construction site, products are stored in stacks with wooden girders placed between them. Girders are placed in a single vertical stack one above the other.
 4. Pallet height must exceed that of a lifting pallet by 20 mm. Minimum thickness of a pallet is 30 mm.
 5. Gaps of 0.2 m between stacks and 0.7 m wide tracks are made in every two stacks.
 6. The maximum height of stacks must not exceed the following respectively: of substrate blocks – 2.25 m, of spans and overlay panels – 2.5 m, and of stairways – 1.2 m.
 7. Within a stack the number of columns without brackets must not exceed four.
 8. Height of lifting loops must be sufficient to provide safe slinging of a slinging equipment hook and must not be lower than 65 mm in the light.
 9. Unstable reinforced concrete products (wall panels, under crane beams, 12, 15, 18 and 24 m overlay beams) are stored in dedicated racks, in operational position.
 10. Products are stored in operational position not obstructing factory signs.
 11. Products are slung (lifted) using specially mounted lifting loops.
 12. Products are lifted with dedicated slings or crossarms. Holding power of slings must meet the weight of arms between sling ropes. Angle between sling rope arms must not exceed 90°.
 13. Products can also be slung by using assembly holes (columns) or specially formed edges (sockets), i.e. hollow overlay panels.
11. During installation of prefabricated structures, stability of installed building part must be ensured during all stages of installation. During installation of separate elements, it is necessary to fix them prior to detaching from lifting mechanism hook. Temporary fixing must allow, if needed, to specify the position of the installed structure and install coupling assemblies following the requirement of the project.
12. Hollow reinforced concrete panels are stored and transported in horizontal stacks. If possible, panels of identical length and type are stored and transported in a single stack. Panels are stored on dedicated levelled platforms with thickened soil and on dedicated pallets. Pallets are placed a maximum distance of 400 mm from each end of the pallet. Panels (in the span) must not be supported by soil or any other gasket supports.

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Panels must be supported by pallets with full weight. Wooden gaskets of 50x50 cross-section are placed between panels. Gaskets are placed with an equal distance of maximum 400 mm from the end of panels at the support of the bottom panel. Gaskets are placed through the entire width of a panel. Gaskets are placed in a single vertical stack one above the other. Relocation of gaskets is forbidden. Height of the stack for stored panels must not exceed 1800 mm. Dedicated grips are used for the installation of panels. Lifting of panels is not allowed without special protective chains. The chains may be removed in cases when the height from the support does not exceed 100 mm. When lifting pallets, the distance from the centre of each grip to the end of a panel must not exceed 800 mm.

13. S235JR steel lifting loops are to be imbedded in narrowed panels and, in some cases, in panels with pockets. It is always mandatory to sling a product by using lifting loops when provided. The slinger who is attaching chains or grips must have a respective valid qualification certificate.

Director of Production and Technology

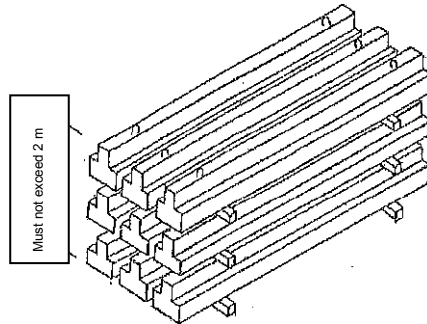
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Raimundas Judickas

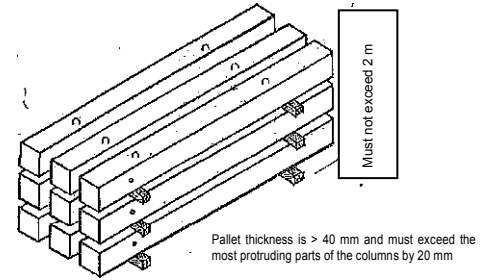
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Diagrams for slinging and storage of reinforced concrete products

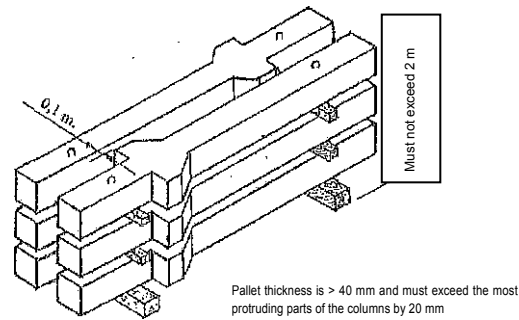
STORAGE OF BEAM HEADERS



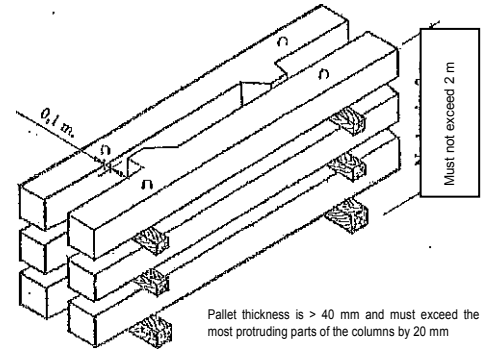
STORAGE OF COLUMNS



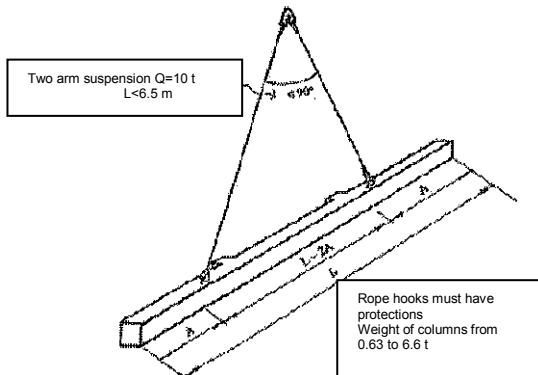
STORAGE OF COLUMNS



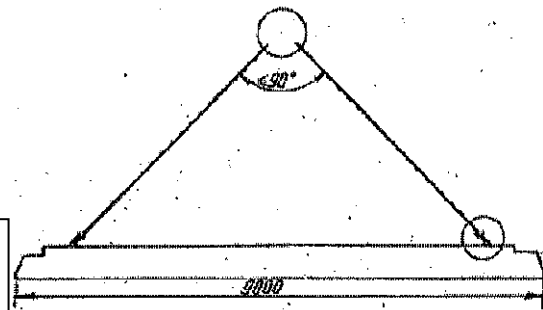
STORAGE OF COLUMNS



Storage of columns



Storage of beam headers



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DIAGRAM FOR SLINGING OF 18 M BEAM

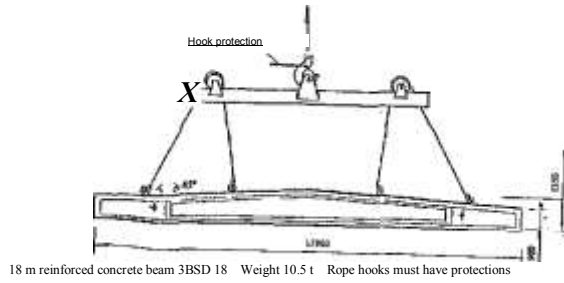
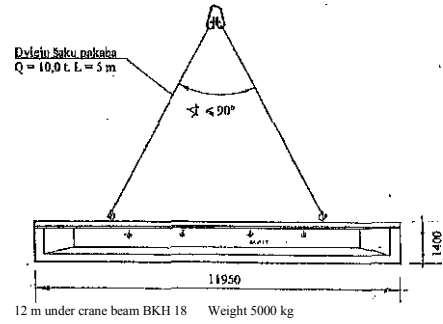
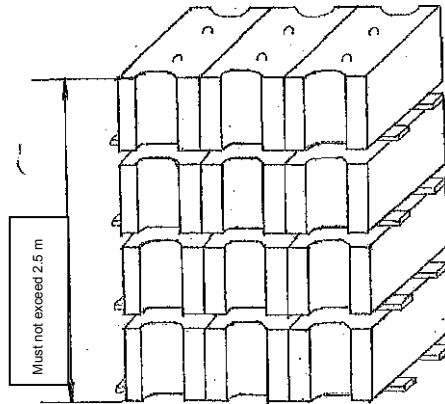


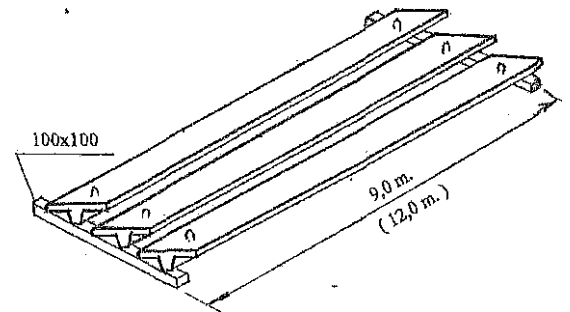
DIAGRAM FOR SLINGING OF 12 M BEAM



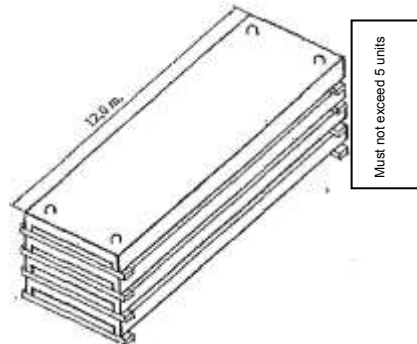
STORAGE OF SUBSTRATE BLOCKS



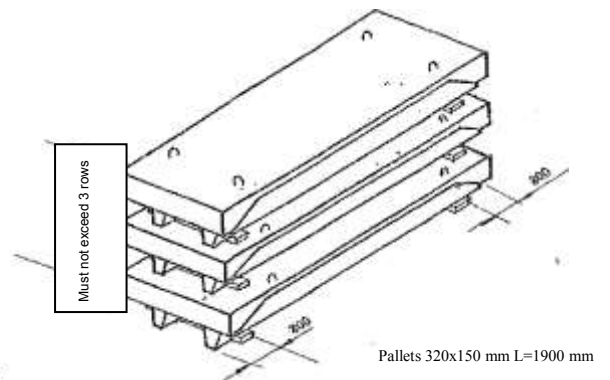
STORAGE OF T TYPE PANELS



STORAGE OF 3X12 OVERLAY PANELS



STORAGE OF TT TYPE PANELS



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Storage of overlay panels

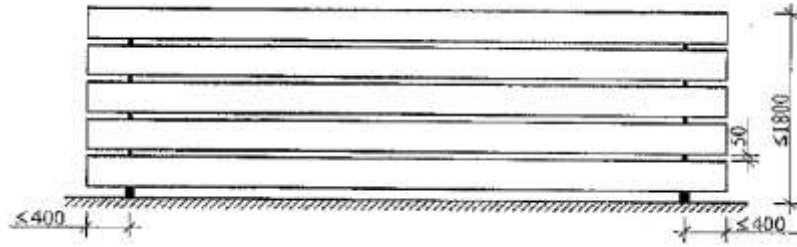


Diagram for lifting hollow panels of less than 10 m in length

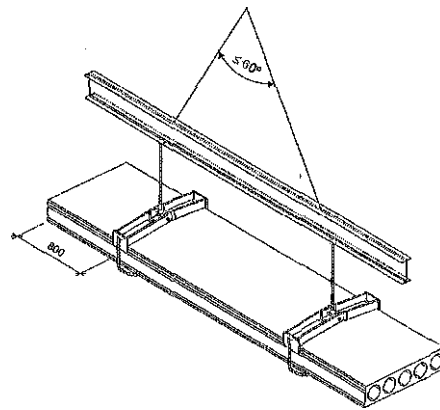
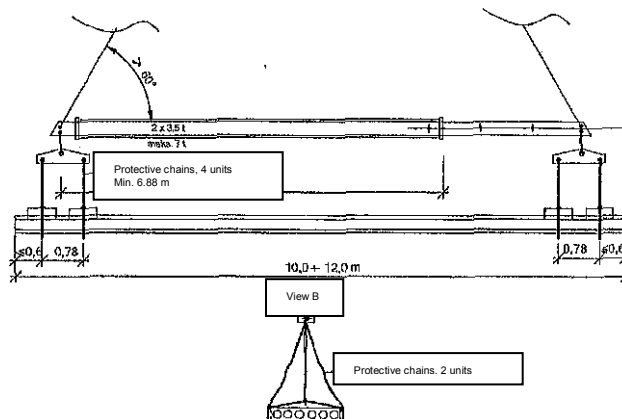
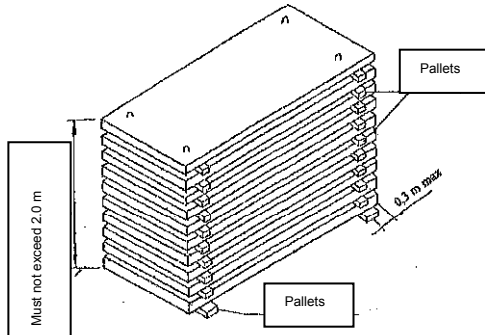


Diagram for lifting hollow panels of more than 10 m in length

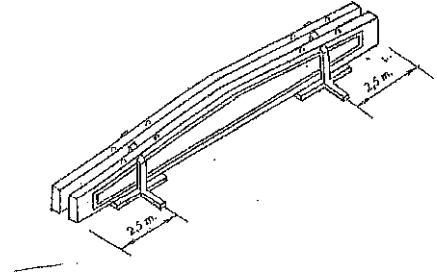


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STORAGE OF FLAT PANELS

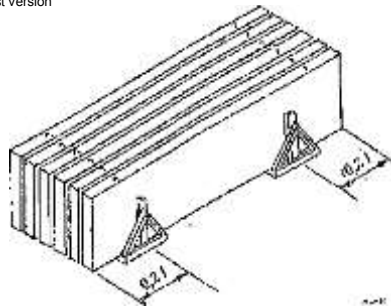


STORAGE OF GABLE BEAMS



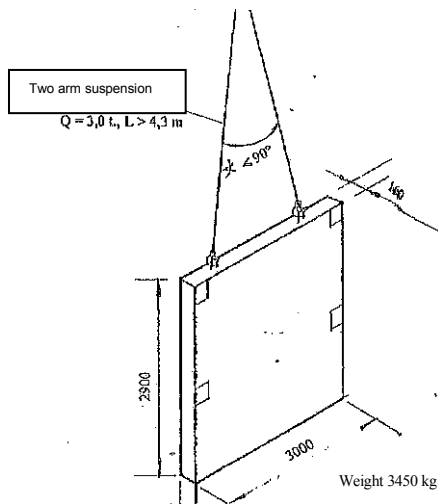
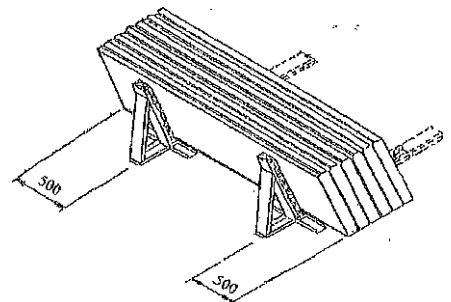
STORAGE OF WALL PANELS

1st version



STORAGE OF WALL PANELS

2nd version



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Lifting of HCS overlay panels without crossarm

HCS panel of length up to 8 m may be lifted without using crossarm. In such cases a safe angle of at least 60 degrees must be maintained between the surface of the product and sling.

For example:

- 1) If the length of the panel exceeds 6 m and does not exceed 8 m, grips are to be installed with a distance of 80 cm from the ends, minimum length of a single sling arm is 6.4 m.
- 2) If the length of a panel is less than 6 m, grips are to be installed with a distance of 80 cm from the ends, minimum length of a single sling arm is 4.4 m.

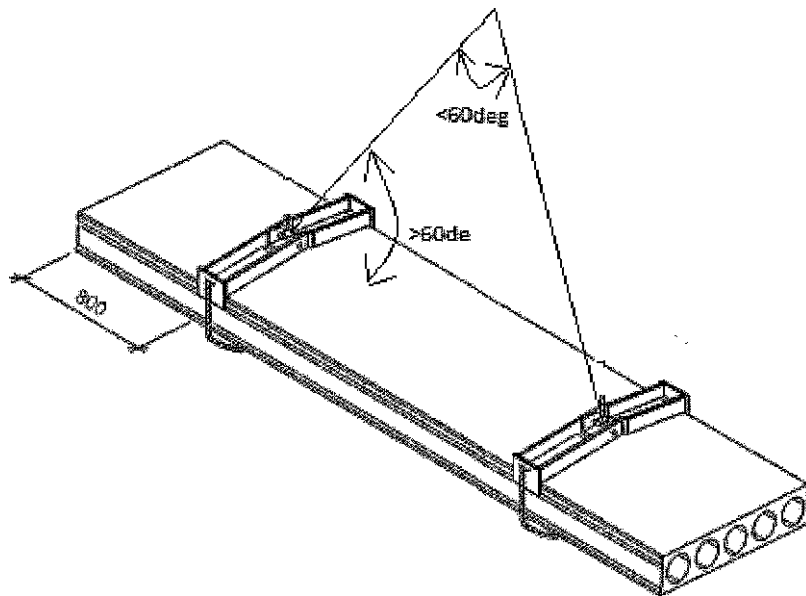
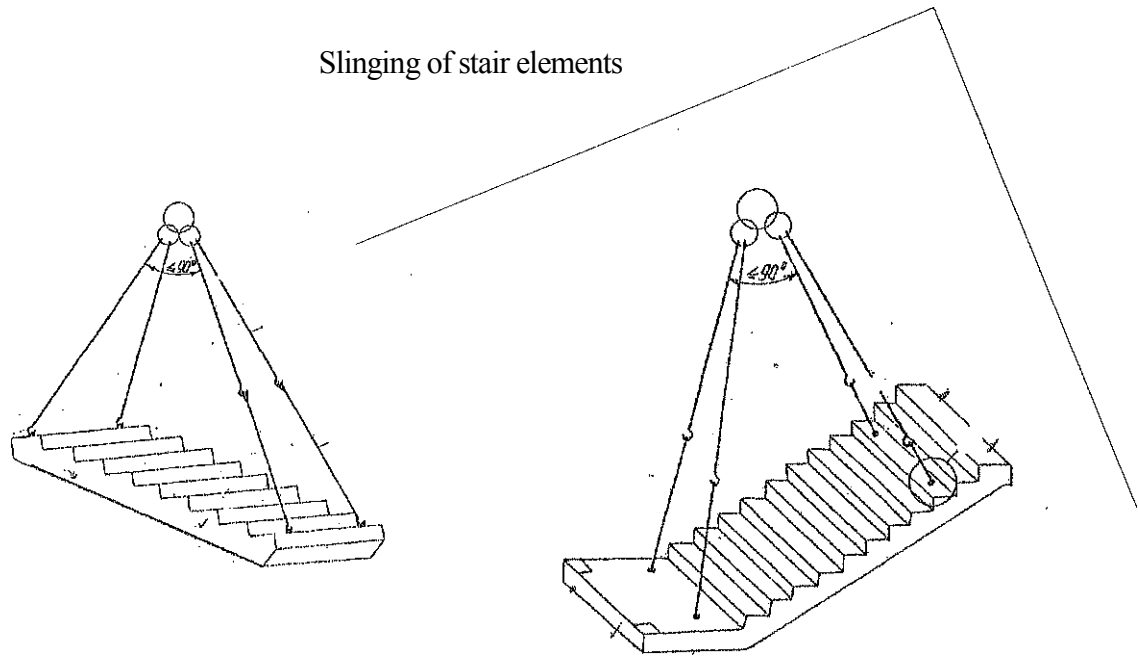


Figure 1. Lifting of HCS panels without crossarms

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Slinging of stair elements



Director of Production and Technology
Senior Technologist

/Signature/ R. Judickas
/Signature/ J. Randienė

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