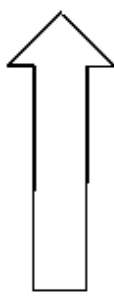
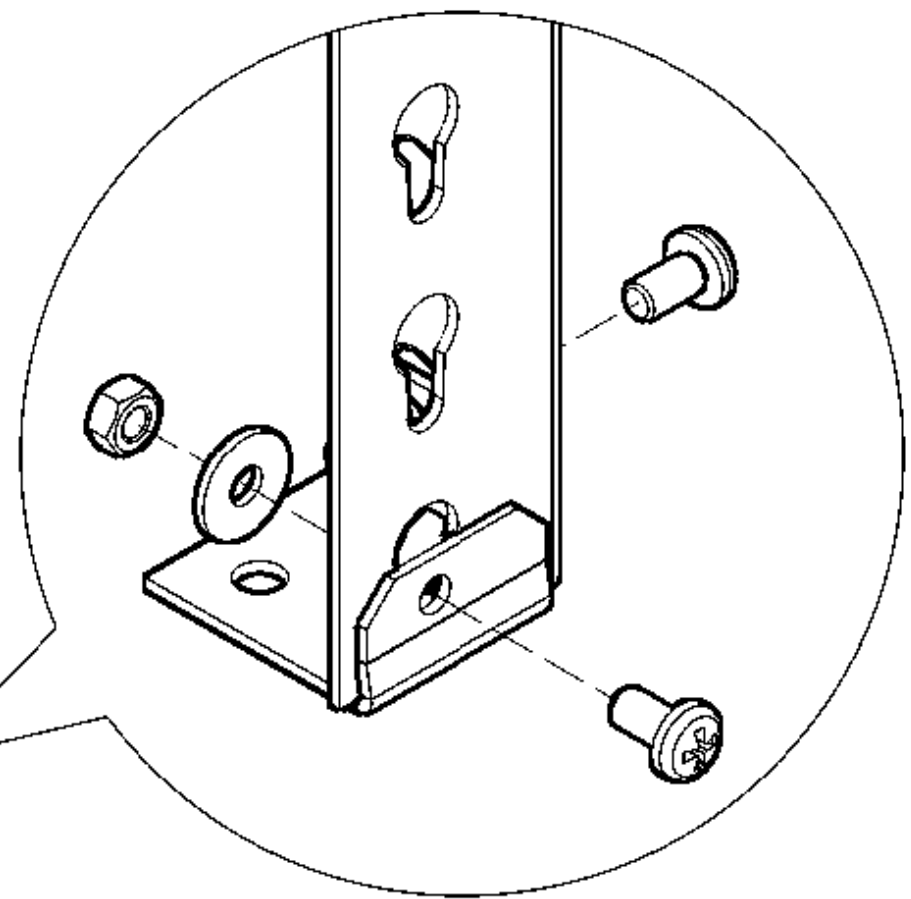


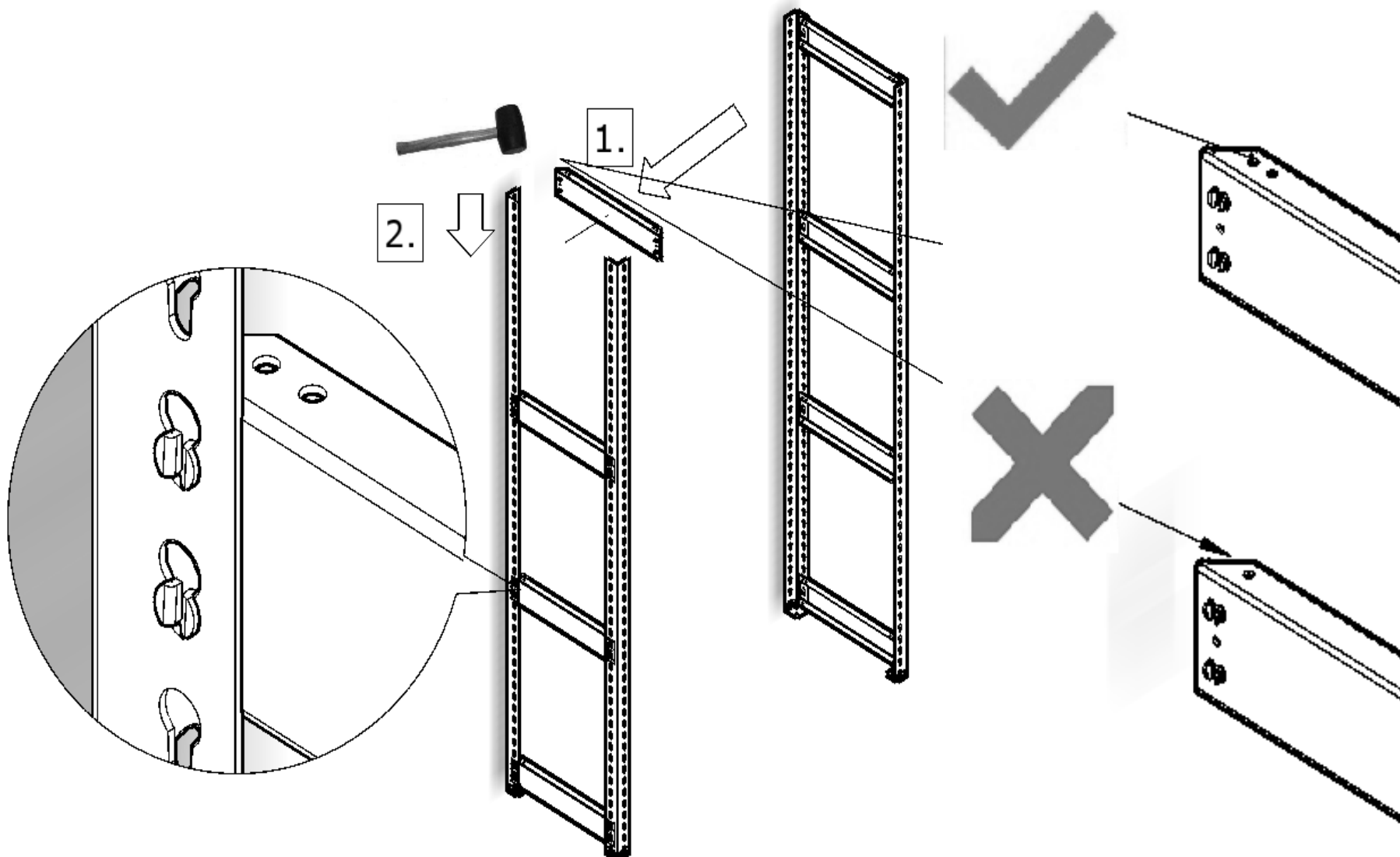


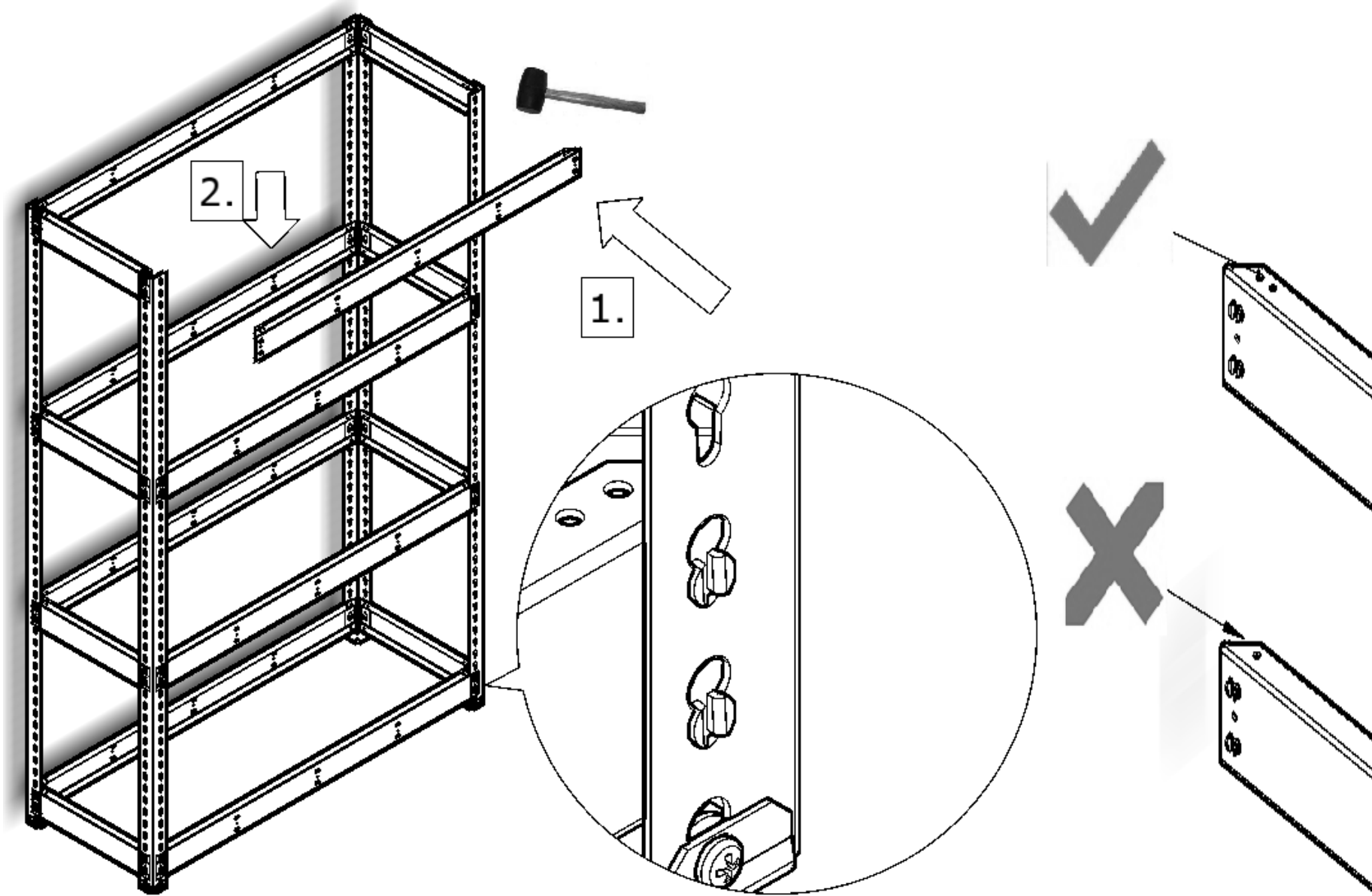
1.

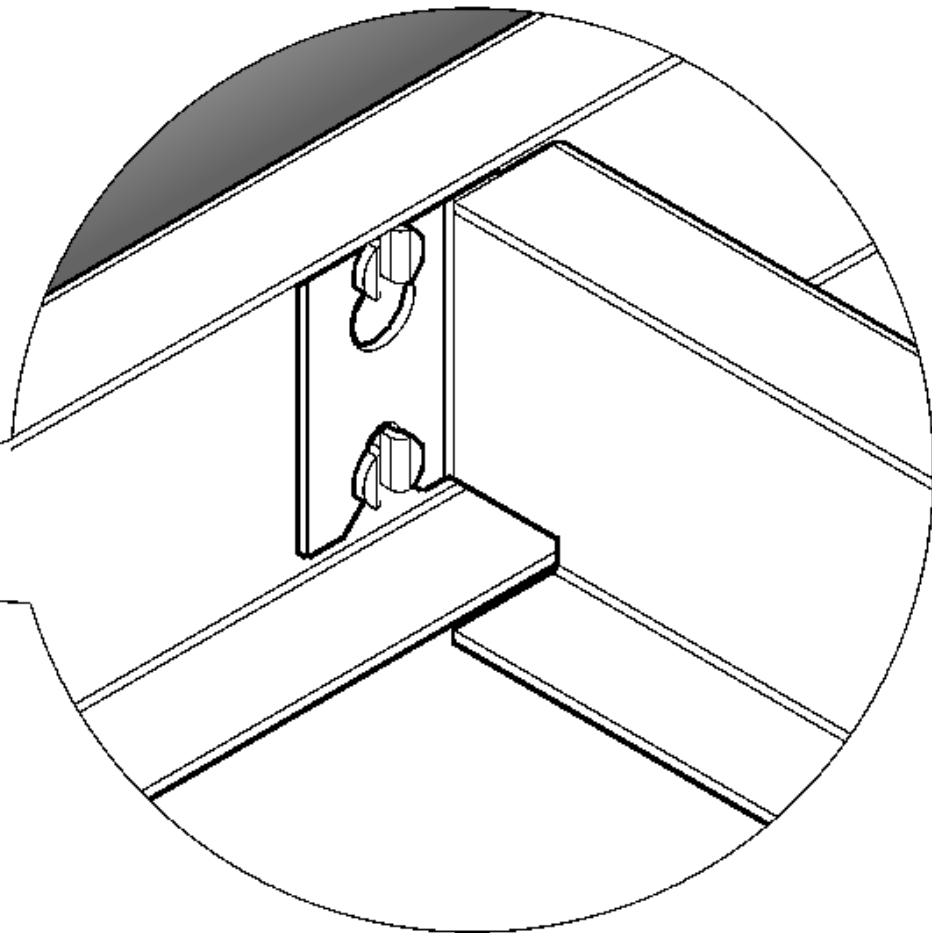
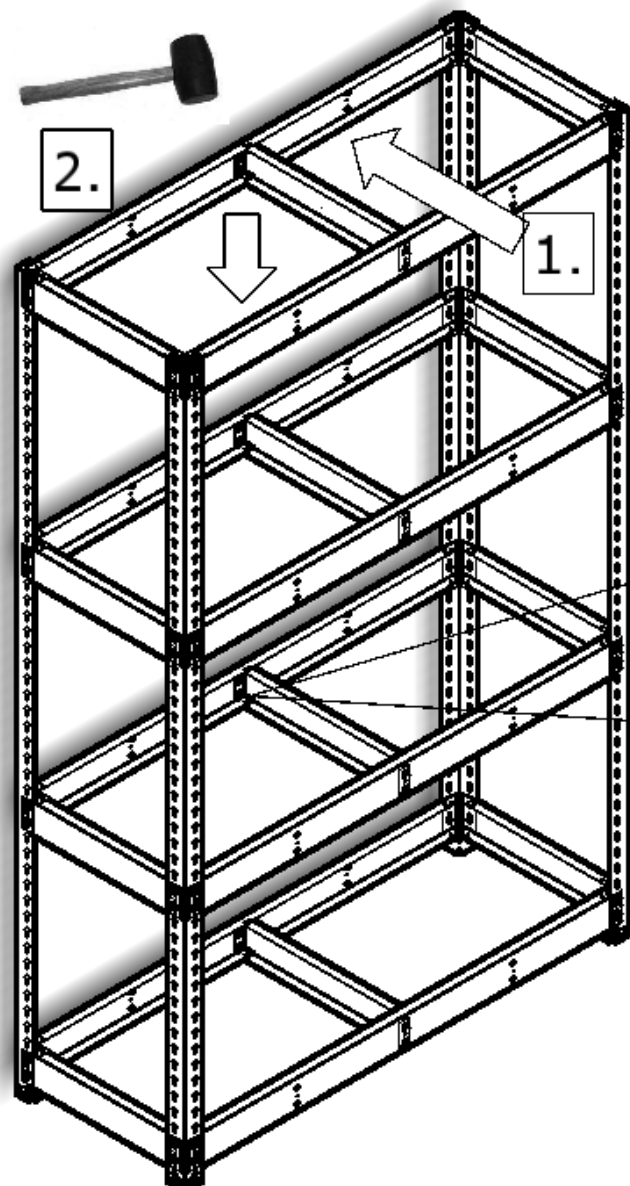


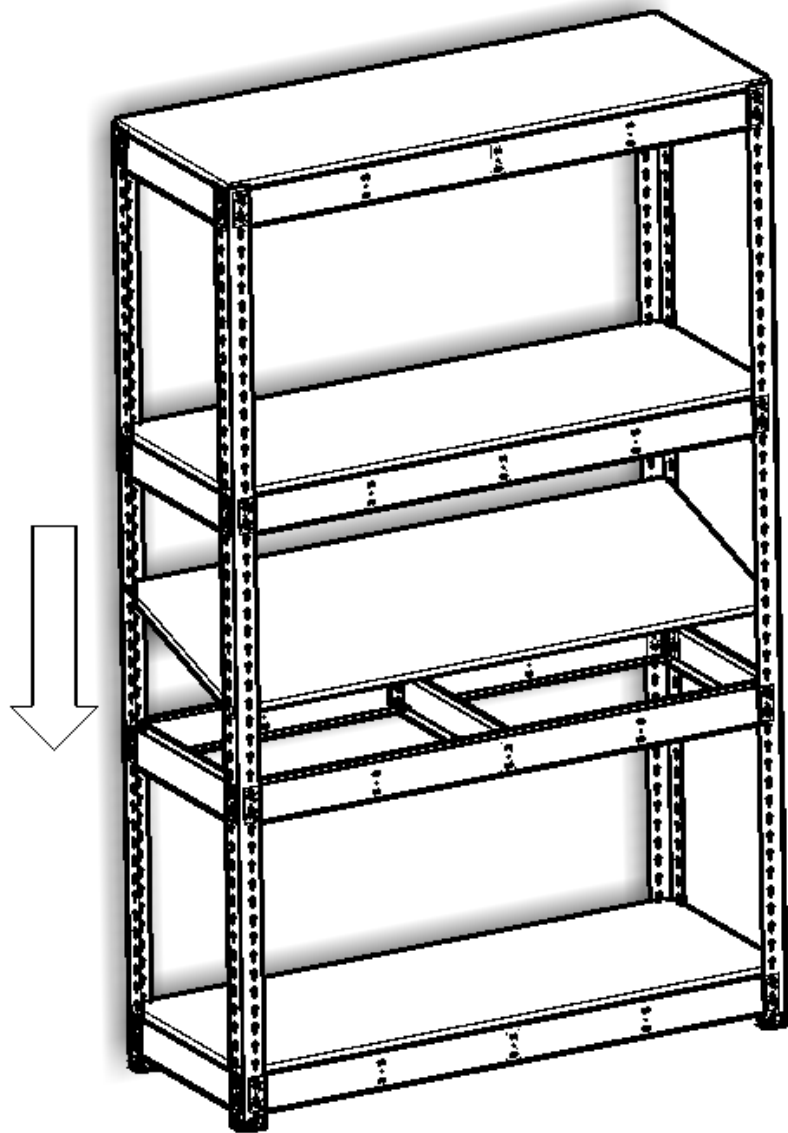
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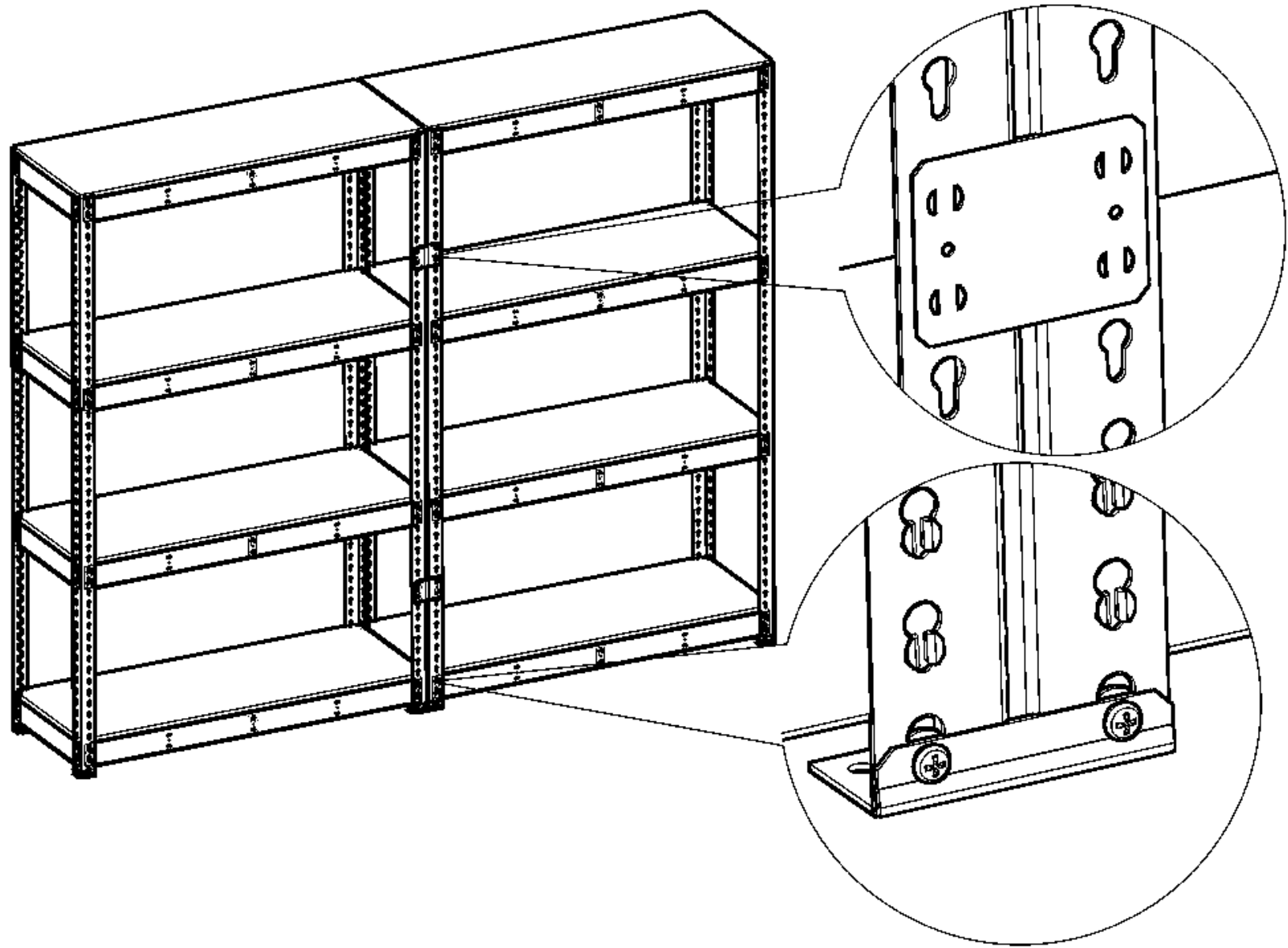












## TECHNICAL TERMS (User's Manual)

**NOTE:** Before installing the rack, please read the Technical Terms and the Assembly Instructions carefully and follow the manufacturer's instructions.

This User's Manual is designed to facilitate an easy installation and to provide information on the existing risks as well as their avoidance. The instructions contained herein are for your own safety.

The Assembly Instructions and the User's Manual shall be observed:

- during assembly
- during the regular checks (along with the schedule of those regular checks) and
- the measures of the item "Regular checks" are necessary for ensuring technical safety.



The Assembly Instructions and the User's Manual comply with the European Standard EN SS-15635:2008 "Steel static storage systems. Application and maintenance of storage equipment".

**Product: R110 Storage rack with shelves for medium loads**

The storage rack is available in five different widths and heights and six depths (see Technical specifications).

The crossbeam can be attached over the entire post-height in incremental steps of 38 mm.

The rack itself is made of steel-plates (powder coated with food-safe paint). The shelves consist of chipboard panels.

**Use:** The rack is simple, robust and stable, designed mainly for trading companies and warehouses.

The assembly is easy as well, with no need for further connecting elements. The combined assembling of individual sections enables various different rack-configurations.

**Technical specifications:**

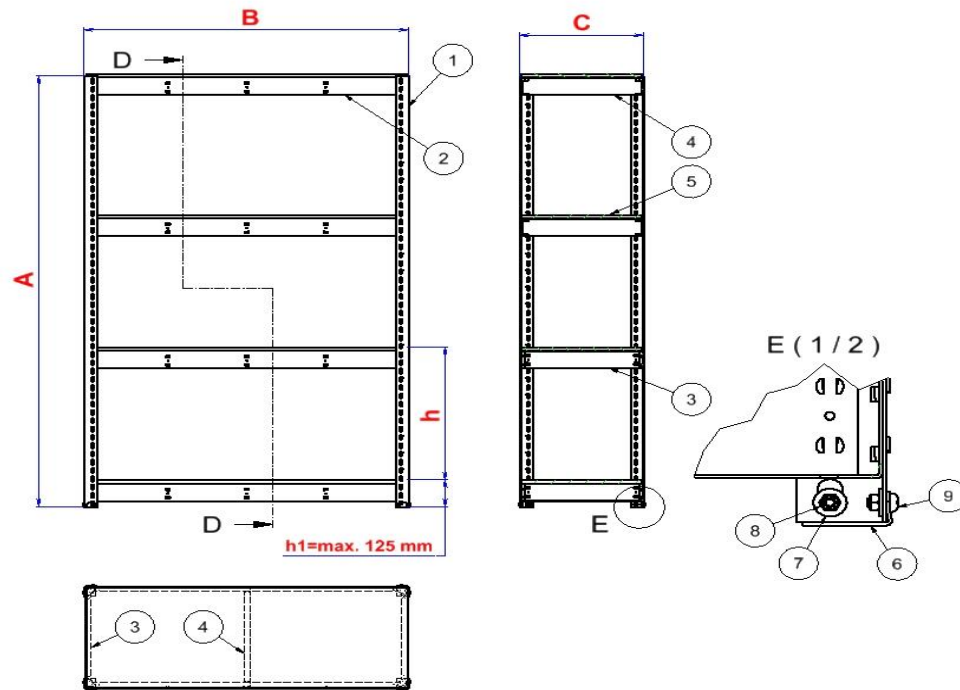
Rack height **(A)**: 595 / 912 / 1520 / 1976 / 2432 / 3040 mm

Rack width **(B)**: 1230 / 1535 / 1840 / 2145 / 2450 mm

Rack depth **(C)**: 315 / 470 / 620 / 775 / 925 / 1200 mm

**Assembly:**

Assemble the rack according to the Assembly Instructions and before loading it, check the rack's vertical and horizontal alignment using a water-level. If necessary, adjust the rack using metal shims. It is of utmost importance to always observe the max. height of the first crossbeam above the floor (**h1**). The rack shall be loaded evenly from the top to the bottom. When the height-to-depth ratio (depth = **C**) reaches 1:5, it is necessary to anchor the rack in the wall or to join multiple racks to each other (if placed back-to-back to each other). When fitting the rack-rows next to each other (side-by-side), their stability may be improved by using additional connecting elements.



1 - Post; 2 – Crossbeam (front); 3 – Lateral beam; 4 - Connecting piece; 5 – Chipboard; 6 - Base;

7 – Washer D6x18.8; 8 – Nut M6; 9 – Screw M6x12

**Loading capacity:** The permissible load of the individual spans and sections is dependant on the actual distance between the crossbeams.

| Rack height     | 912 mm                            |   |                            |         | 1520 mm                           |   |                            |         |
|-----------------|-----------------------------------|---|----------------------------|---------|-----------------------------------|---|----------------------------|---------|
| Number of spans | Height between the shelves h (mm) |   | Max. loading capacity (kg) |         | Height between the shelves h (mm) |   | Max. loading capacity (kg) |         |
|                 |                                   |   | Span                       | Section |                                   |   | Span                       | Section |
| 2               | 798                               |   | 860                        | 1720    | -                                 |   | -                          | -       |
|                 |                                   |   |                            |         | -                                 |   |                            |         |
| 3               | 418                               |   | 860                        | 2580    | 722                               |   | 860                        | 2580    |
|                 | 380                               |   |                            |         | 684                               |   |                            |         |
| 4               | -                                 |   | -                          | -       | 456                               | 2 | 800                        | 3200    |
|                 | -                                 |   |                            |         | 494                               |   |                            |         |
| 5               | -                                 |   | -                          | -       | 342                               | 3 | 700                        | 3750    |
|                 | -                                 |   |                            |         | 380                               |   |                            |         |
| Rack height     | 1976 mm                           |   |                            |         | 2432 mm                           |   |                            |         |
| Number of spans | Height between the shelves h (mm) |   | Max. loading capacity (kg) |         | Height between the shelves h (mm) |   | Max. loading capacity (kg) |         |
|                 |                                   |   | Span                       | Section |                                   |   | Span                       | Section |
| 3               | 912                               |   | 815                        | 2445    | 1178                              |   | 725                        | 2175    |
|                 | 950                               |   |                            |         | 1140                              |   |                            |         |
| 4               | 608                               | 2 | 800                        | 3200    | 760                               | 2 | 700                        | 2800    |

|                        |  |   |                                   |      |     |                |     |      |
|------------------------|--|---|-----------------------------------|------|-----|----------------|-----|------|
|                        | 646                                      |   |                                   |      | 798 |                |     |      |
| 5                      | 456                                      | 3 | 700                               | 3500 | 570 | 3              | 650 | 3250 |
|                        | 494                                      |   |                                   |      | 608 |                |     |      |
| 6                      | 380                                      | 4 | 650                               | 3900 | 456 | 4              | 600 | 3600 |
|                        | 342                                      |   |                                   |      | 494 |                |     |      |
| 7                      | -  |   | -                                 | -    | 380 | 5              | 550 | 3850 |
|                        | -  |   |                                   |      | 418 |                |     |      |
| 8                      | -  |   | -                                 | -    | 342 | 5              | 500 | 4000 |
|                        | -  |   |                                   |      | 304 | 2              |     |      |
| <b>Rack height</b>     | <b>3040 mm</b>                           |   |                                   |      |     |                |     |      |
| <b>Number of spans</b> | <b>Height between the shelves h (mm)</b> |   | <b>Max. loading capacity (kg)</b> |      |     |                |     |      |
|                        |  |   | <b>Span</b>                       |      |     | <b>Section</b> |     |      |
| 4                      | 988                                      | 2 | 625                               | 2500 |     |                |     |      |
|                        | 950                                      |   |                                   |      |     |                |     |      |
| 5                      | 722                                      | 3 | 600                               | 3000 |     |                |     |      |
|                        | 760                                      |   |                                   |      |     |                |     |      |
| 6                      | 570                                      | 3 | 550                               | 3300 |     |                |     |      |
|                        | 608                                      | 2 |                                   |      |     |                |     |      |
| 7                      | 494                                      | 5 | 525                               | 3675 |     |                |     |      |
|                        | 456                                      |   |                                   |      |     |                |     |      |

|   |     |   |     |      |
|---|-----|---|-----|------|
| 8 | 418 | 7 | 500 | 4000 |
|   |     |   |     |      |
| 9 | 380 | 5 | 450 | 4050 |
|   | 342 | 3 |     |      |

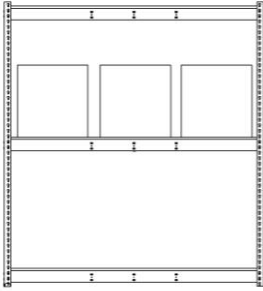
Permissible load of the individual crossbeams

|                               |      |      |      |      |      |
|-------------------------------|------|------|------|------|------|
| <b>Crossbeam length (mm )</b> | 1230 | 1535 | 1840 | 2145 | 2450 |
| <b>Max. load (kg )</b>        | 860  | 800  | 740  | 620  | 500  |

**Ways of loading/storage**

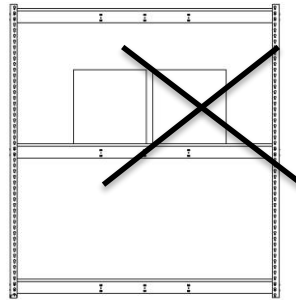
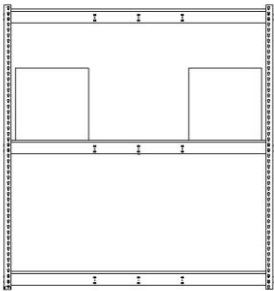
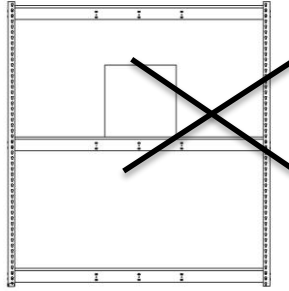
Acceptable distribution of permissible

load on individual spans



Unacceptable distribution of permissible

load on individual spans



**The acceptable load shall always be distributed evenly!**

**Never apply the load in pulses or in a concentrated way and never exceed the acceptable load specified by the manufacturer!**

**Forbidden handling:**

- Handling jeopardising the safety of persons and property
- Handling bearing the risk of shocks/impacts (e.g. caused by a forklift)
- Disregard of the load bearing capacities and the load-placement recommended by the manufacturer
- Using racks of deteriorated technical condition e.g. caused by impact etc.
- Using devices of insufficient technical condition
- Using other than prescribed crossbeams and devices
- Stepping on fully/partially loaded Racks.

**Regular checks:**

The racks shall be checked continuously and at least once a year. This check should include the search for any deterioration of the post, crossbeam and the lock-in points or any other kind of damage jeopardising the strength (rigidity) and the resulting functionality and safety of the rack. The user is responsible for ensuring the necessary checks as well as their documentation.



**Floor:**

The racks are to be installed on a level, flat and firm floor. The floor's load bearing capacity shall match at least the pressure exerted by the product with the highest load.

**Packaging:**

The racks are shipped disassembled (as a kit), with each component wrapped separately.

The shipment includes also the Technical Terms + the manufacturing plate and Assembly Instructions.

**Transport:**

The products shall be transported using a covered (roofed) means of transport. The individual components shall be properly secured against movement to prevent their damaging during transport.

**Storage:**

The rack shall be stored in dry and roofed facilities, secured against spontaneous movement and mechanical damage.

**Warranty:**

In accordance with the applicable Commercial Code.

**Marking:**

Any installation shall be marked using a "load-plate". This load-plate shall be completed following the installation and stuck visibly on the rack.



**metal design slovakia a.s., Dlhé lúky 2, Hrnčiarovce/Parnou**

**R110 Storage rack with shelves**

Section width: \_\_\_\_\_ Acceptable load per span: \_\_\_\_\_

Number of spans per section: \_\_\_\_\_ Acceptable load per section: \_\_\_\_\_

Year of installation: \_\_\_\_\_

Checked (date): \_\_\_\_\_

The load shall be distributed evenly!

The rack shall not be loaded in pulses (impacts) and a way concentrating the load!

Always follow the instructions of the Technical Terms and of the Assembly Instructions!

CE