

2000 SERIES SHELVING



ASSEMBLY INSTRUCTIONS



PRELIMINARY WARNINGS AND PRECAUTIONS

- 1) FLOOR: make sure that floor or slab is strong enough to carry the shelf capacity, flat and even, without holes or height difference. If necessary, arrange for any required restoring.
- 2) alignment: check structure levelness both crosswise and lengthwise. A tolerance of 10 mm for $h = 1000$ is allowed (where h is upright height in mm).
- 3) SAFETY: for the assembly operations, wear suitable protection gloves to avoid accidental injury. Wear clothes covering arms and legs. The structure is preset for manual operations, do not use transpallet or fork lift trucks. Do not climb on the structure to reach the goods on the top shelves otherwise accidental fall or damage to the shelving might occur. Shelving must compulsorily be wall-mounted by means of the suitable fastener hooks, use steel dowers (not supplied).
Should it not be possible to fasten structure to the wall, please request the adjustable ceiling-foot or the top link bars. In case of a run back to back shelving positioned in the middle of the room, it is also compulsorily to fasten shelvings uprights using the relevant U-bolts. Goods must be stored on shelving from bottom up, by first loading the bottom shelves and evenly spreading all load on the available shelves.
- 4) LOAD CAPACITY: capacity of every shelf is for evenly distributed load, on shelving installed as explained below. Always request the shelves and shoulders capacity charts in order to correctly calculate the load capacity for the required structure. Once assembled, stick the "LOAD CAPACITY" tag, duly filled out, in a visible area on shelving. In no circumstances, do not load shelves beyond their given capacity.



CREMONINI VIRGILIO SRL	DATE 02/01/2006	TECH. MAN.
METAL SHELVINGS	REV.2	Roberto Borghi

CAPACITY CHART - SHOULDERS FOR "2000 SERIES" SHELVING									
CROSS BARS	NR.	2	3	4	5	6	7	8	9
SHOULDERS 200 cm H	KG	1340	1440	1540	1620	//	//	//	//
SHOULDERS 250 cm H	KG	1270	1360	1450	1540	1620	//	//	//
SHOULDERS 300 cm H	KG	1220	1300	1380	1460	1540	1620	//	//
SHOULDERS 350 cm H	KG	//	1240	1320	1400	1480	1560	1620	//
SHOULDERS 400 cm H	KG	//	1200	1270	1340	1410	1480	1550	//
SHOULDERS 450 cm H	KG	//	//	1220	1290	1360	1420	1480	1540
SHOULDERS 500 cm H	KG	//	//	1170	1220	1270	1320	1370	1420
SHOULDERS 550 cm H	KG	//	//	//	1170	1220	1270	1320	1370
SHOULDERS 600 cm H	KG	//	//	//	1120	1170	1220	1270	1320

NOTES:
 1) THE SPECIFIED LOAD CAPACITY VALUES ARE GIVEN WITH REFERENCE TO THE FIRST LOADSURFACE ANCHORED TO THE 3rd SLOT FROM THE BOTTOM ON UPRIGHTS
 2) SHOULDERS MUST BE MOUNTED TO THE WALL
 3) LOAD MUST BE EVENLY DISTRIBUTED FROM BOTTOM UP AND SHELVES MUST BE MOUNTED AT THE SAME DISTANCE ONE FROM THE OTHERS

CREMONINI VIRGILIO SRL	DATE 15/01/2004	TECH. MAN.
METAL SHELVINGS	REV.2	Roberto Borghi

SHELVES CAPACITY CHART FOR "2000 SERIES" SHELVING

	W/OUT REINF.	1 REINF.	2 REINF.	3 REINF.
CM 60X30*	110	140	160	//
CM 80X30	105	135	155	//
CM 100X30	100	125	145	//
CM 120X30	90	120	140	//
CM 140X30	75	105	125	//
CM 60X40	105	135	155	//
CM 80X40	100	130	150	160
CM 100X40	95	125	145	155
CM 120X40	85	115	135	150
CM 140X40	70	100	120	140
CM 60X50	100	130	150	//
CM 80X50	95	125	145	155
CM 100X50**	90	120	140	150
CM 120X50	80	110	130	145
CM 140X50	65	95	115	135
CM 60X60	95	125	145	//
CM 80X60	90	120	140	150
CM 100X60	85	115	135	145
CM 120X60	75	105	125	140
CM 140X60	60	90	110	130
CM 80X70	85	110	130	140
CM 100X70	80	105	125	135
CM 120X70	70	95	115	125
CM 140X70	55	75	85	100
CM 80X80	75	95	115	135
CM 100X80	70	90	110	130
CM 120X80	60	80	100	120
CM 140X80***	50	60	80	95

Unit of measurement for specified capacity values is kilogram

* TESTED BY CATAS, SEE TEST REPORTS No. 33786/1,2,3; 34700/1

** TESTED BY CATAS, SEE TEST REPORTS No. 33787/1,2,3,4; 34701/1

*** TESTED BY CATAS, SEE TEST REPORTS No. 33788/1,2,3,4; 34699/1

Specified load capacity values are for evenly distributed load, with shoulders well secured to the wall. Do not overload shelves beyond given limit. Boxes indicating "//" mean that for that size, it is not physically possible to fit the specified number of reinforcements. CATAS test certificates can be downloaded from <http://www.cremoniniscaffall.it>



Spett.le
CREMONINI VIRGILIO SRL
Via di Mezzo Levante 1711
40014 CREVALCORE BO

13 maggio 2004

OGGETTO: Dichiarazione

In seguito a vostra richiesta, dichiariamo di aver sottoposto a prove, nel febbraio 2003, tre campioni denominati "scaffalatura serie 2000" di dimensioni d'ingombro rispettivamente 640x310x3000 mm, 1000x500x3000 mm e 1400x800x3000 mm con i relativi ripiani.

Le prove eseguite erano conformi alla norma UNI 10988/2002 - Arredamento per esercizi commerciali. Scaffalature. Terminologia, requisiti di sicurezza e metodi di prova - e riguardavano la resistenza a flessione dei ripiani, la resistenza dei supporti dei ripiani, la stabilità e il carico totale massimo.

I risultati ottenuti sono riportati nei rapporti di prova n° 33786/1, 2 e 3, 33787/1, 2, 3 e 4 33788/1, 2, 3 e 4, 34699/1, 34700/1 e 34701/1.

Distinti saluti.

dott. ing. Angelo Speranza
direttore

TRANSLATION:

CATAS

TO:
CREMONINI VIRGILIO SRL
Via di Mezzo Levante, 1711
40014 CREVALCORE BO
ITALY

13th May 2004

SUBJECT: Declaration

Further to your request, we hereby declare we tested, in february 2003, three samples called "2000 series shelving" of size 640x310x3000 mm with the relevant shelves.

We carried our tests complying with UNI 10988/02 standard (Shop furniture-Storage units-Terminology, safety requirements and test methods) and the aim was to test shelves bending strenght, shelves support strenght, stability and maximum overall load.

Obtained results are detailed in the test reports no. 337896/1,2 and 3, 33787/1, 2,3 and 4, 33788/1,2,3 and 4, 34699/1, 34700/1 and 34701/01.

Best regards

Dr. Eng. Angelo Speranza
Director

DESCRIPTION OF COMPONENTS

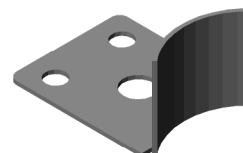
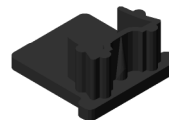
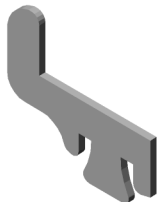
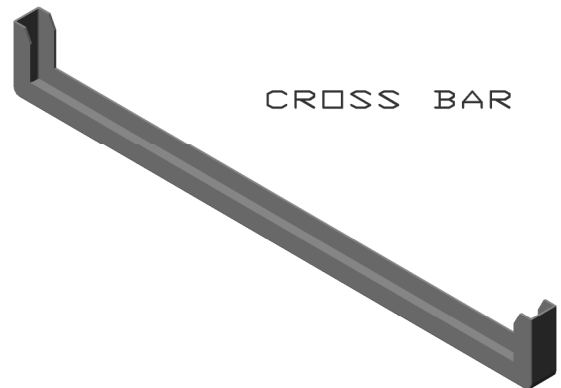
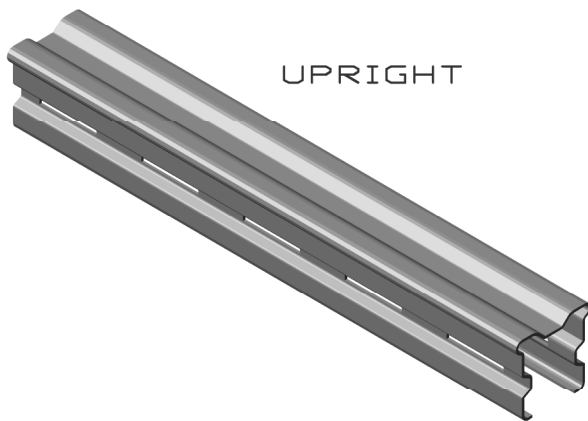
Upright is made by cold forming of a steel strip of the sendzimir type, galvanized or pre-coated, 12/10 thick and slotted at a 50 mm pitch (vertical slot 20x3 mm) for housing the hook. The profiled upright has a C-shape with 38 mm base and two 35 mm sides. The profiled upright features stiffening ribs.

The cross bar is made by forming and pressworking of a steel strip of galvanized sendzimir type, 15/10 thick. It is U-shaped and is inserted into uprights grooves until fully home against support hooks, in order to connect uprights and supply rigidity to the assembled structure.

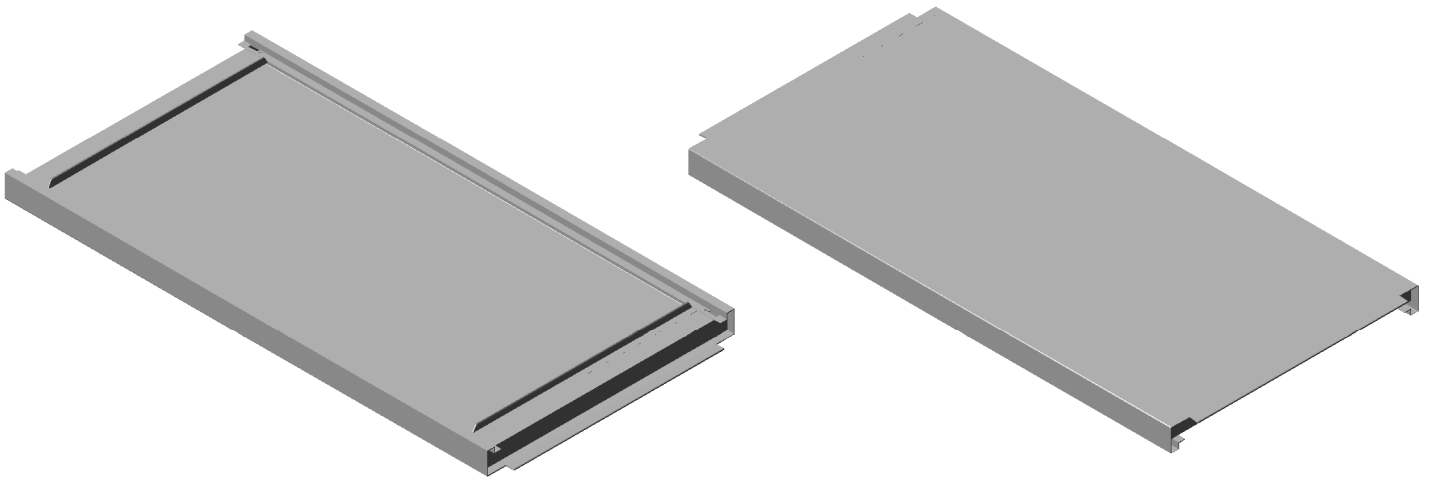
The extruded PVC foot is pressure-fitted into uprights bottom and top end; a metal sheet foot is used in case of considerable load since plastic foot can support lower load.

Shelf support hooks (simple hooks for the terminal shoulders and double hooks for central side shoulders) are made by presswork of a raw steel strip, 25/10 thick, and then galvanized.

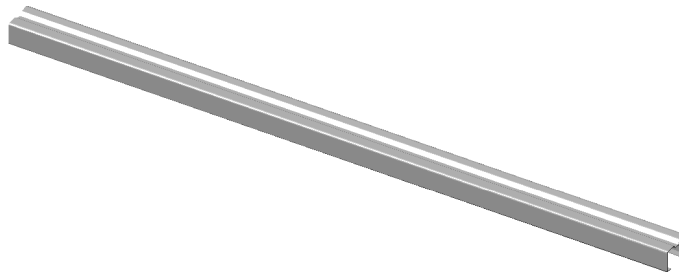
A standard shoulder consists of two uprights, 2 cross bars, 4 hooks and 2 feet. To be able to achieve higher capacity, the number of cross bars per shoulder is increased.



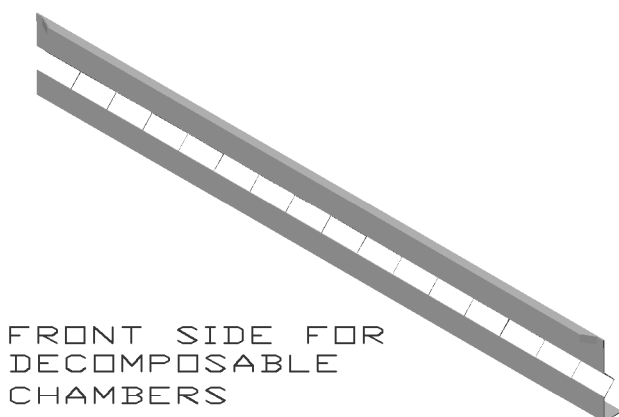
Shelves are made by shearing and folding (with automatic machines) of metal sheet coils, 8/10 thick, galvanized or pre-coated, of the sendzimir type. They are shaped so as to form a 35 mm edge all around and preset for fastening to structure by means of 4 slots at the bottom side. At the head side, metal sheet is double and is preset for insertion of the omega-shaped reinforcement profile (optional).



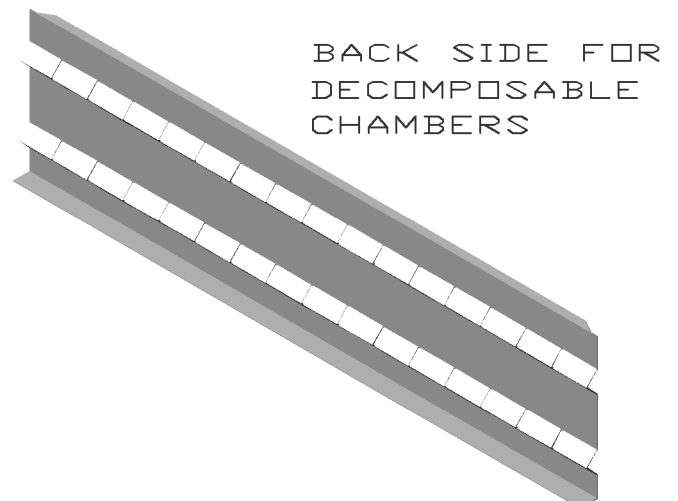
The reinforcement profile is made by cold forming a galvanized or pre-coated metal sheet strip of the sendzimir type, 8/10 thick. It is omega-shaped with a 36 mm base and two 24 mm vertical sides. It is fitted under the shelf to increase potential load capacity.



The parts below are all made by shearing and folding galvanized or pre-coated metal sheets of the sendzimir type, 8/10 thick. Separators are available in various lengths: 300, 400, 500, 600, 700, 800 mm. The sides making up the decomposable chambers are available in various lengths: 600, 800, 1000, 1200 mm.

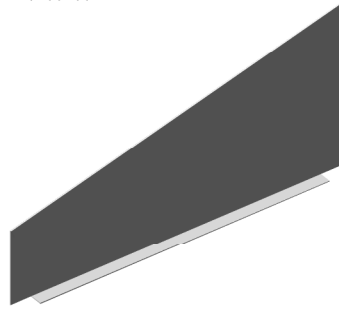


FRONT SIDE FOR
DECOMPOSABLE
CHAMBERS

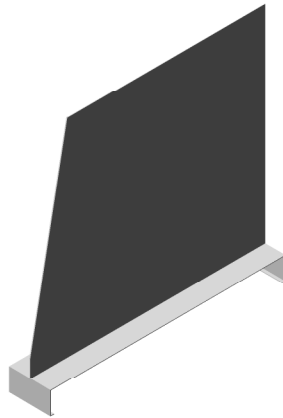


BACK SIDE FOR
DECOMPOSABLE
CHAMBERS

Trapezoidal separator for decomposable chamber, is inserted with an up-down movement (guillotine), in the relevant slots of front and back sides, to obtain partition every 50 mm.



Shelf vertical separator has a standard height of 350 mm but other heights are available on request. Separators can not be installed when back-closures are mounted.

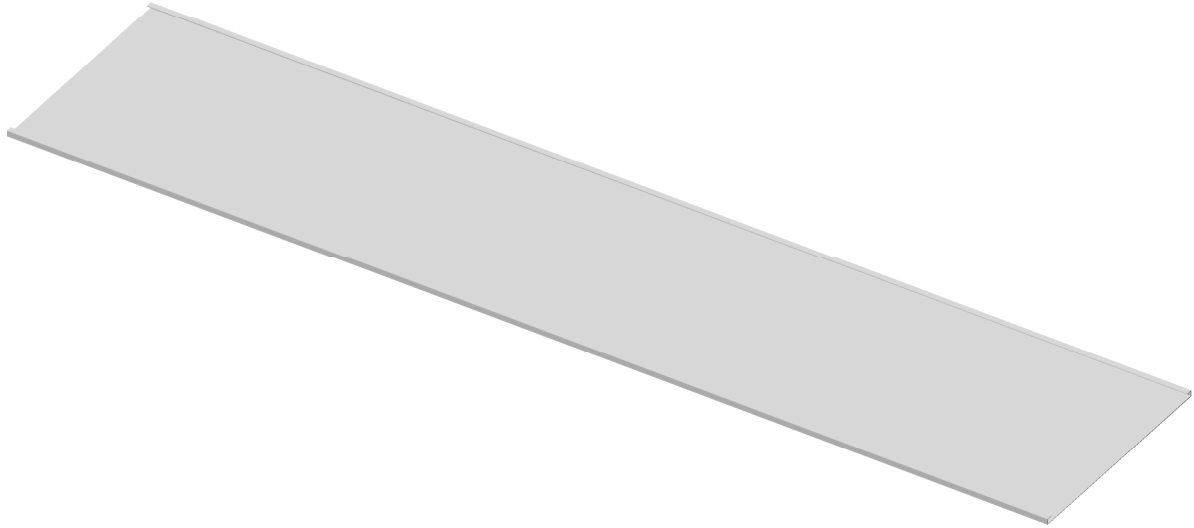


The parts described below are sold separately, individually or as kits, to complete the shelving up to building a real cabinet with lock.

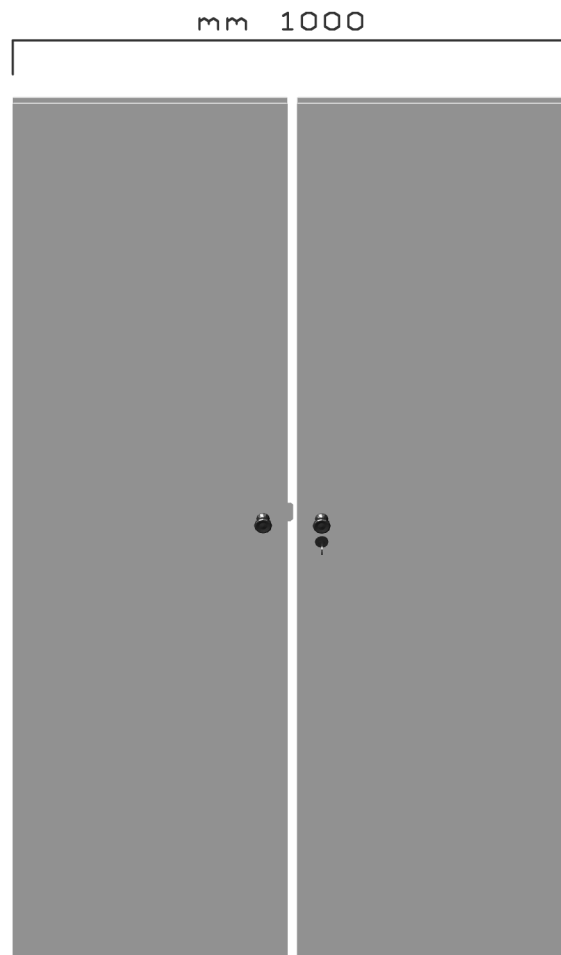
The back closure is made in 8/10 metal sheet, galvanized or pre-coated grey and white. It is available for shoulders 1000, 1500, 2000 mm high and for any multiple of 500 mm. Offering includes lengths of 600, 800, 1000, 1200 mm. The rounded shape of the 4 corners allows insertion in the back of the upright, with an up-down movement (guillotine).

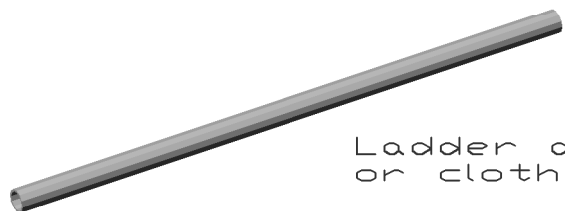


The side panel is in 8/10 metal sheet, galvanized or pre-coated white or grey, is available for:
Shoulders 1100 h (panel 1000 mm high)
Shoulders 2000 h (panel 1850 mm high)
Shoulders 2500 h (2 panel 1175 high jointed with an h-shaped PVC profile)
Shoulders 3000 h (panel 1850 mm high + panel 1000 mm high jointed with an H-shaped PVC profile)
Install it by sliding it in the uprights grooves, fully home against lower cross bar.

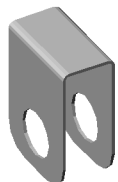


The front closing door is in 8/10 metal sheet, galvanized or pre-coated grey, and is available only for 1000 mm length.
For shoulders h 2000 mm, we offer a door 1885 mm high, while for shoulders h 1100 mm we offer a door 990 mm high and for shoulders h 3000 mm is necessary to install a door 1850 mm high and a 990 one, one on top to the other.





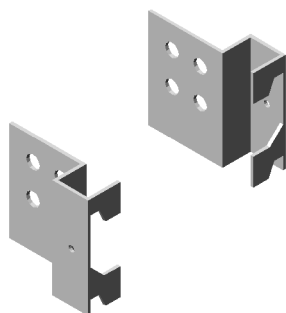
Ladder docking tube
or clothes hanger tube \varnothing 21



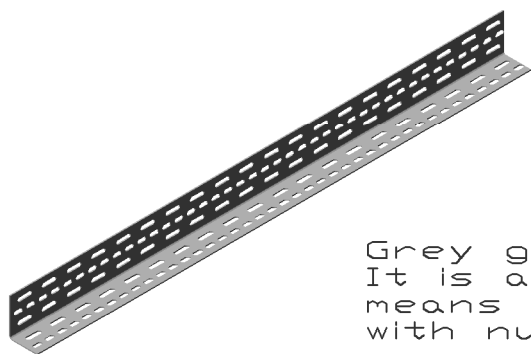
Fastener for clothes hanger \varnothing 21



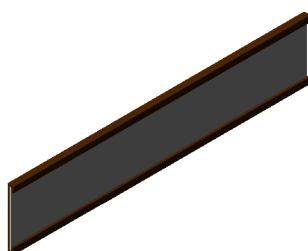
Fastener for ladder docking tube \varnothing 21



(RH and LH) Fastener for grid
support L-bar or top link rod.



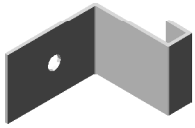
Grey grid support L-bar, 20/10 thick.
It is attached to fasteners by
means of 8x20 socket head screws
with nut.



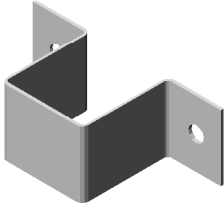
Magnetic label for filling, to be stuck
on shelf edge.



U-bolt for fastening uprights in case of back to back shelving

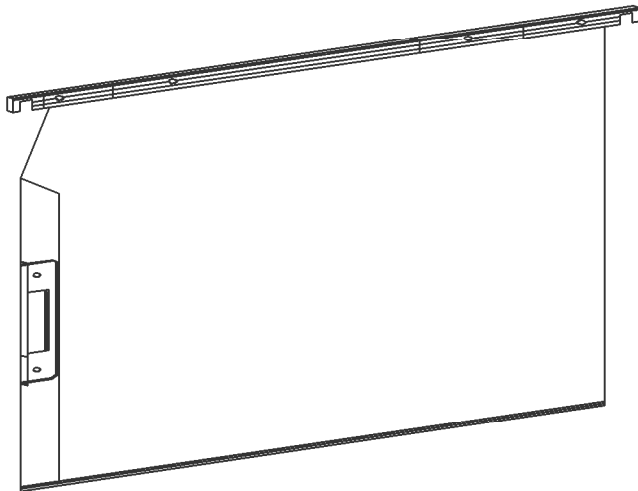


Simple wall fastener
(for one steel dower)




Omega-shaped wall fastener
(for two steel dowers)

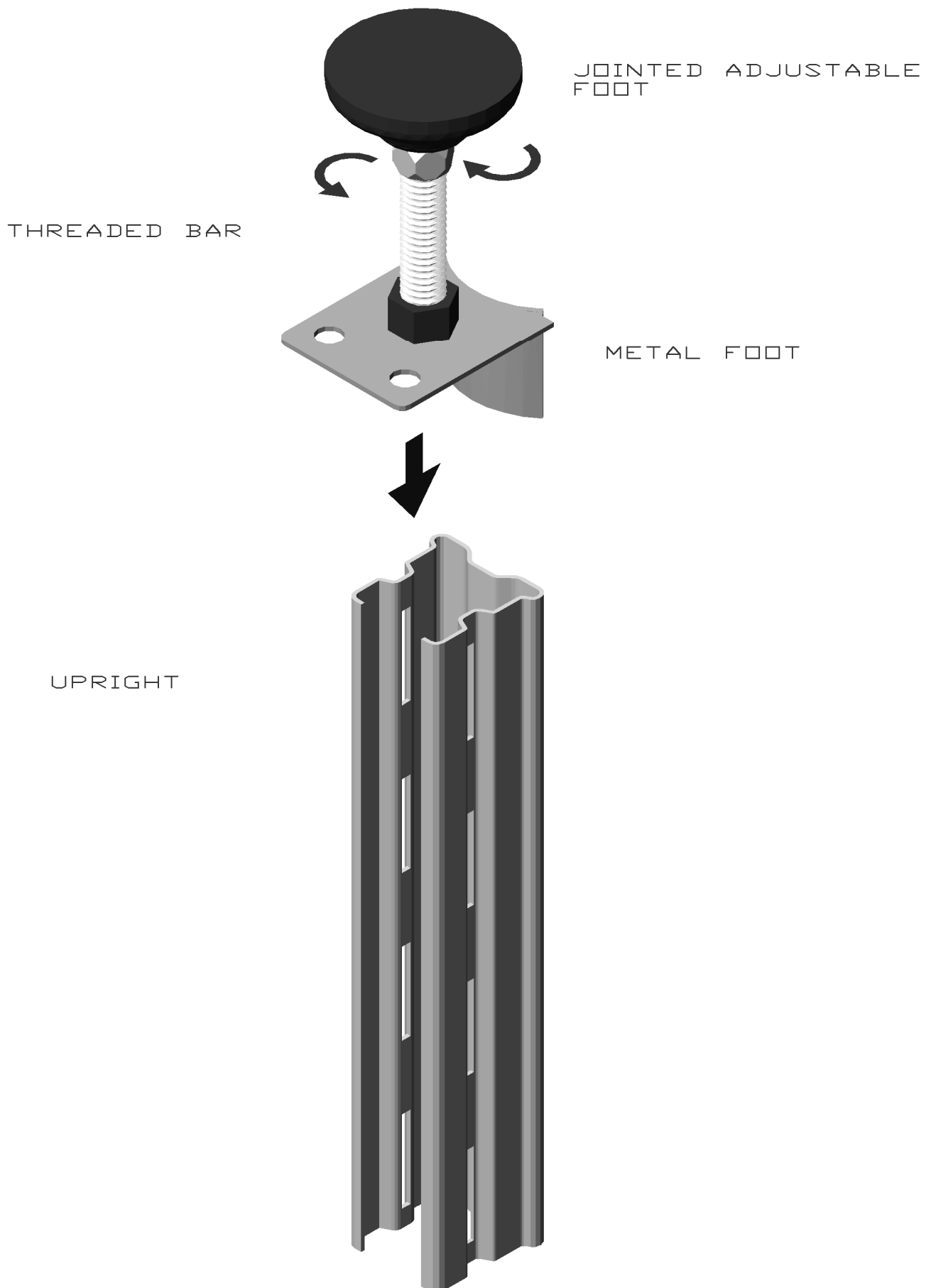
Hanging file folder
(dimensions 350 x 275mm h).
Only available for shelves 400 mm deep.



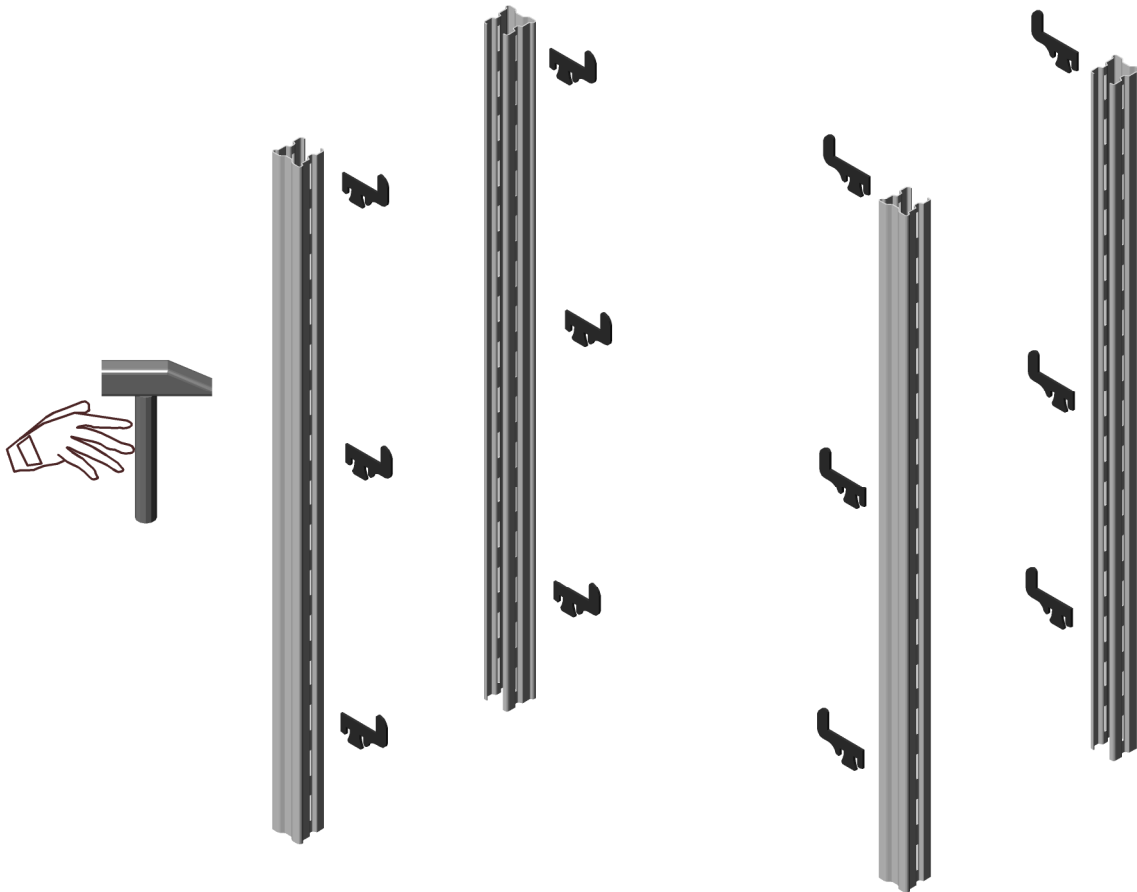
Load capacity plate to be filled out and applied on shelving, in a visible area.

 VIRGILIO Cremonini <small>CREVALCUREFORE</small> s.r.l.	
REF. No°	YEAR
SHOULDER CAPACITY : KG	
SHELF CAPACITY : KG EVENLY DISTRIBUTED LOAD	
MEZZANINE FLOOR CAPACITY : KG/mq	
1st LEVEL HEIGHT:m.	No. of levels:
Note: STRUCTURE SHALL BE PUT PERPENDICULAR TO FLOOR	

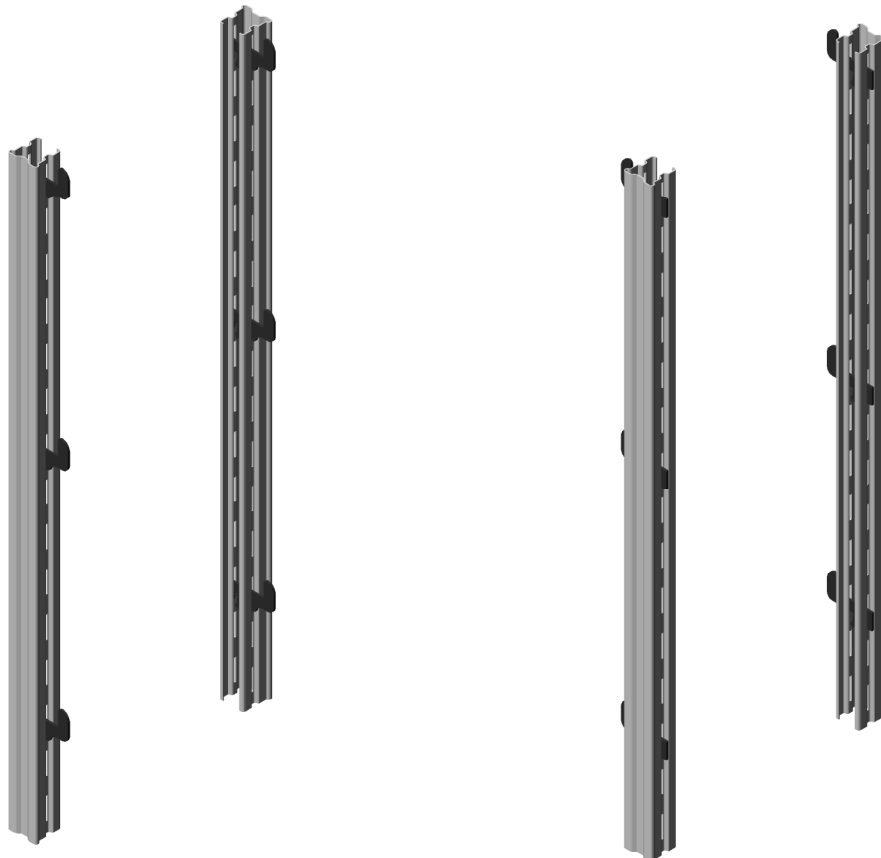
The adjustable ceiling foot shall be installed to upright end to fasten shelving whenever wall fixing is not possible. The threaded bar allows you to adjust the distance between ceiling and upright top end (up to 80 mm).



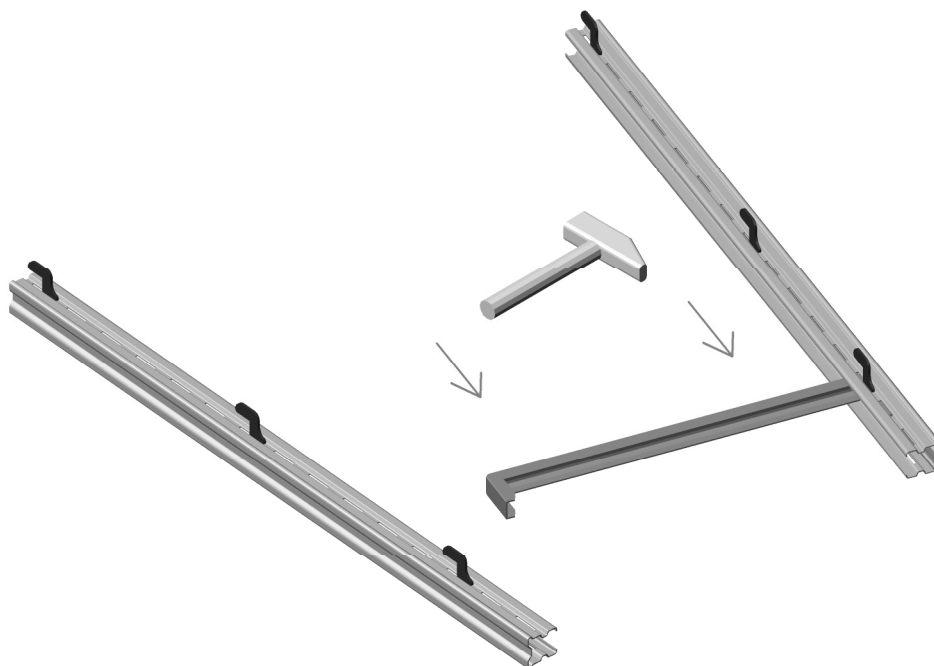
1. Assembly sequence of a standard shoulder. Insert the first hook in the upright third slot using a hammer to set it fully home.



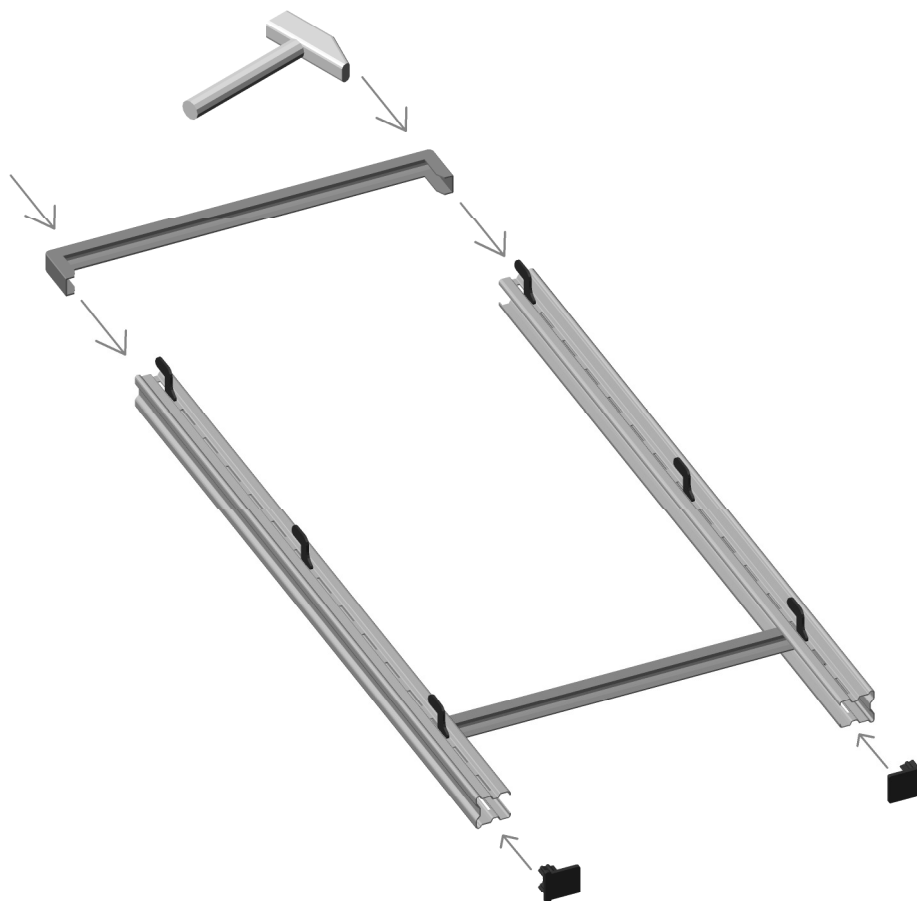
2. Insert the other pairs of hooks at the same height for both shoulders, as shown below. The last hooks are usually set in the last top slot on uprights.



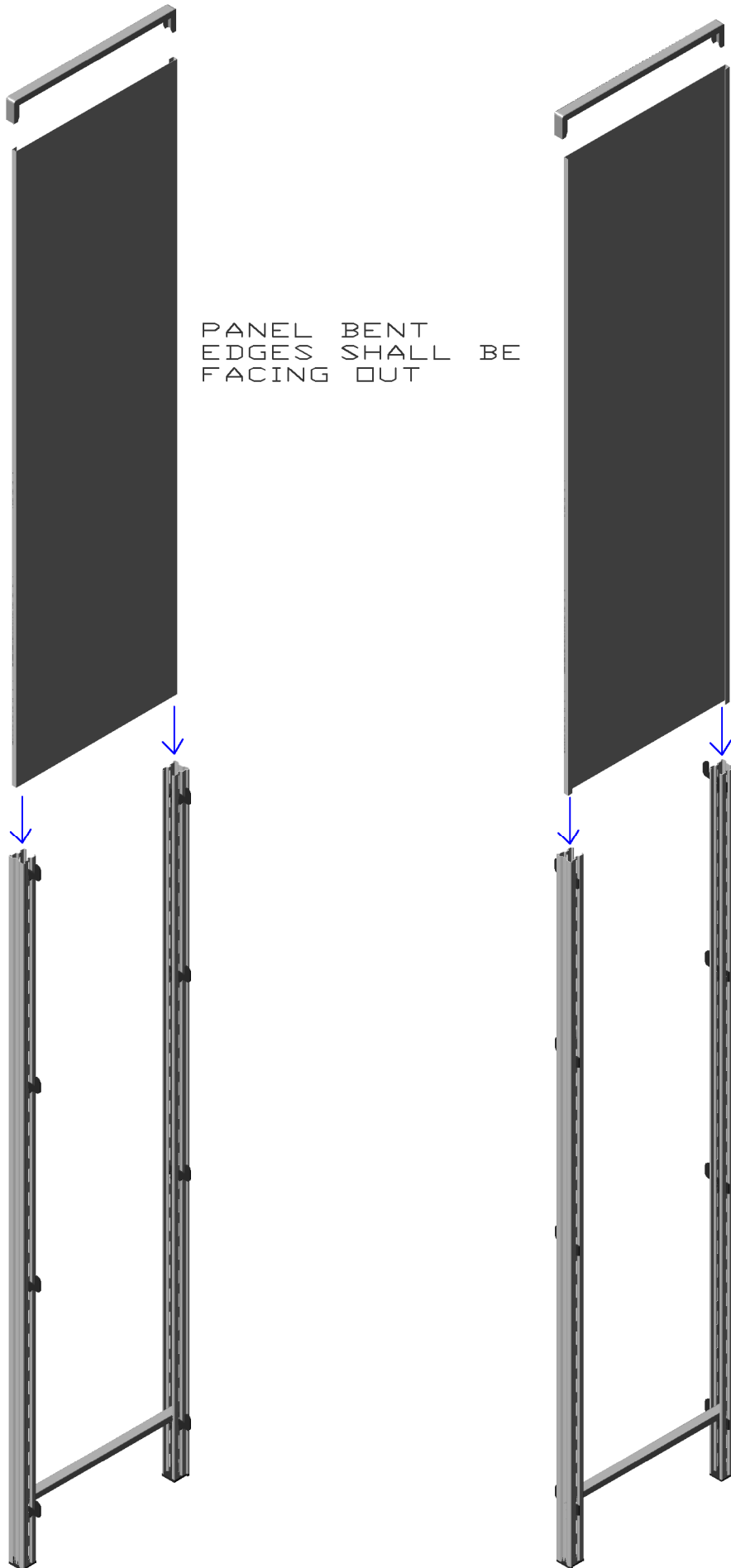
3. Insert the cross bar in the upright groove and push it with a hammer until fully home against the hook (previously set). The cross bar is hence installed between hook and upright back side and grant shoulder rigidity.



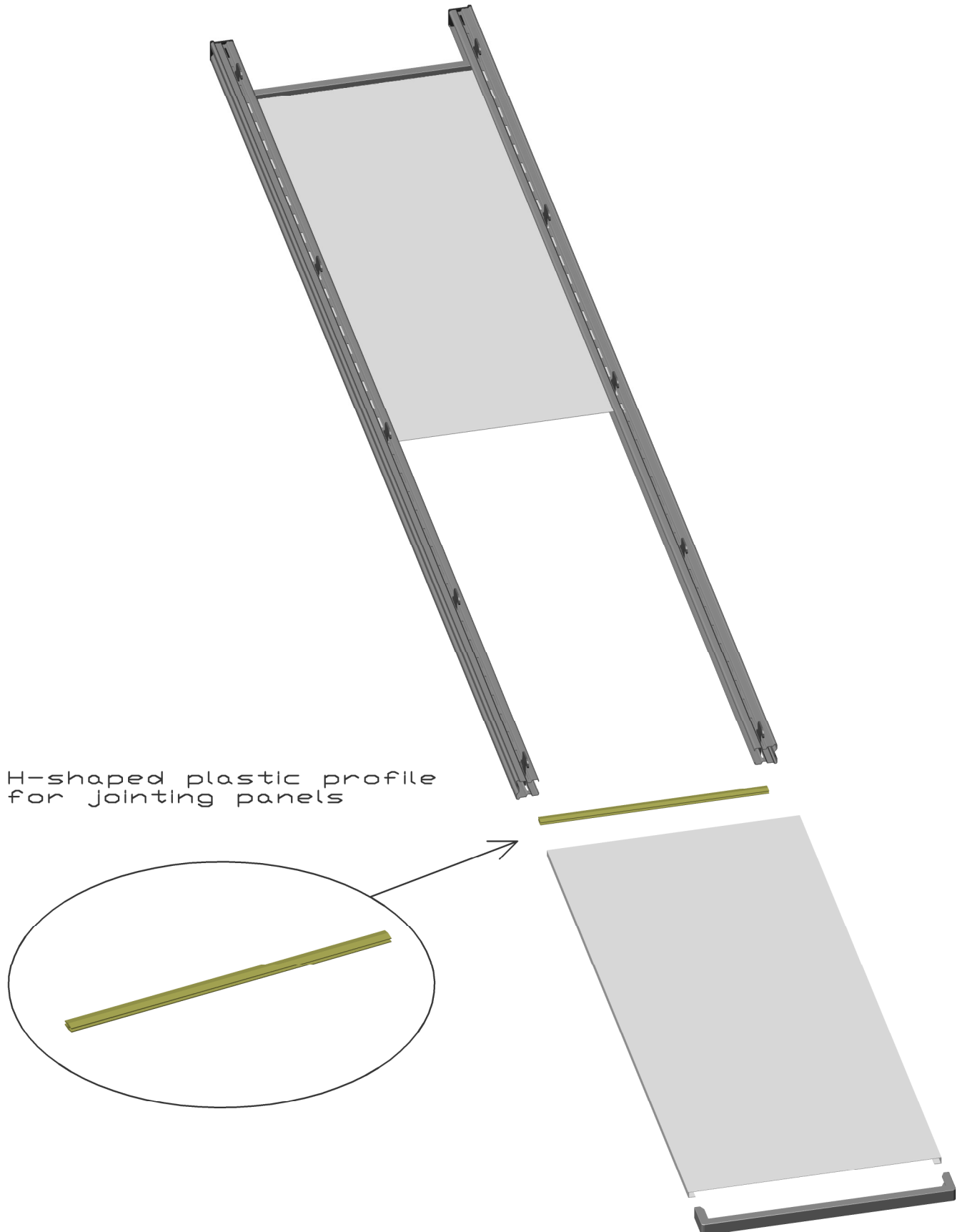
4. Repeat the procedure described under the previous step to set the cross bar in place, completing shoulder installation by positioning the plastic or metal foot.



Installing a shoulder 2000 mm high with side panel 1850 mm high. Set the first couple of hooks at the third upright slot, install the bottom cross bar and set panel in the upright grooves so as to leave the C-shaped edge opposite the hooks tip. Then fit the top cross bar fully home against panel top edge to secure it in place.

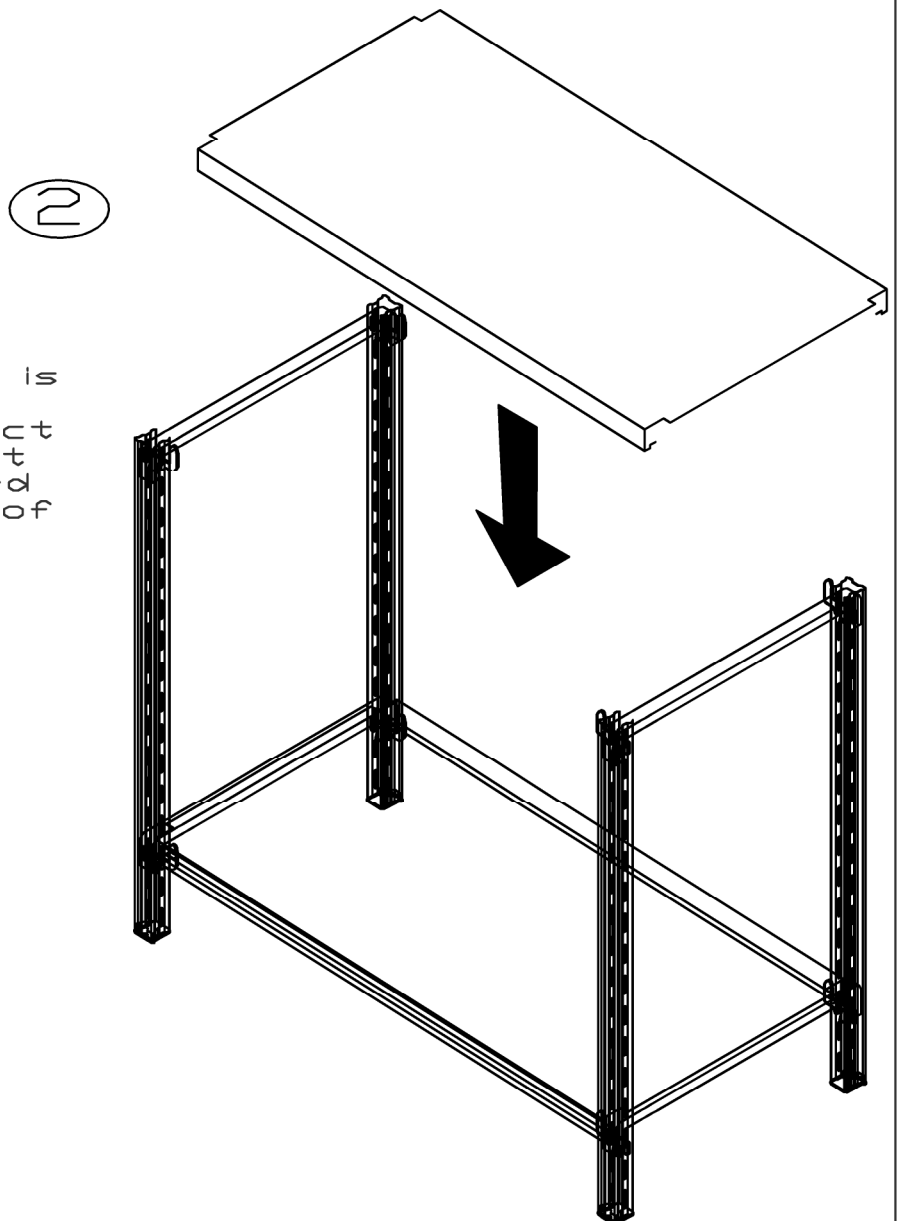
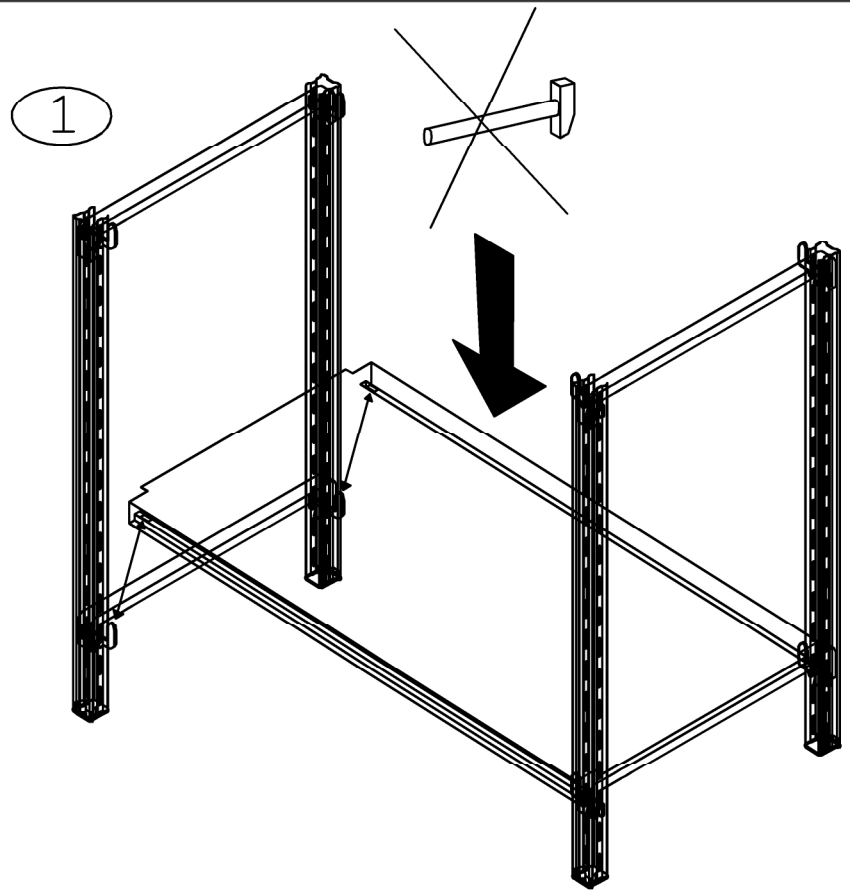


Assembly sequence of a shoulder 2500/3000 mm high when side closing panels shall be installed. Fit the first couple of hooks at the third uprights slots, then fit the bottom cross bar at the first set of hooks. Insert the first panel in the uprights grooves, position the H-shaped jointing profile and set the second panel. The side panel h 2500 is formed by two panels h 1175 mm jointed by an H-shaped plastic profile. While shoulder h 3000 is formed by one panel h 1850 mm and one panel h 1000 mm, jointed by an H-shaped plastic profile.



Once shoulders are assembled, shelves shall be mounted to complete the shelving structure.

Set shoulder in vertical position, fit shelves in the relevant hooks on the first shoulder and repeat this operation for the second shoulder. The slots under the shelf edge house the hook tips. Exert a slight pressure until shelf cannot be pushed further down, fully in place. Do not use the hammer or surface could damage, press down slightly hitting with your palm hand.

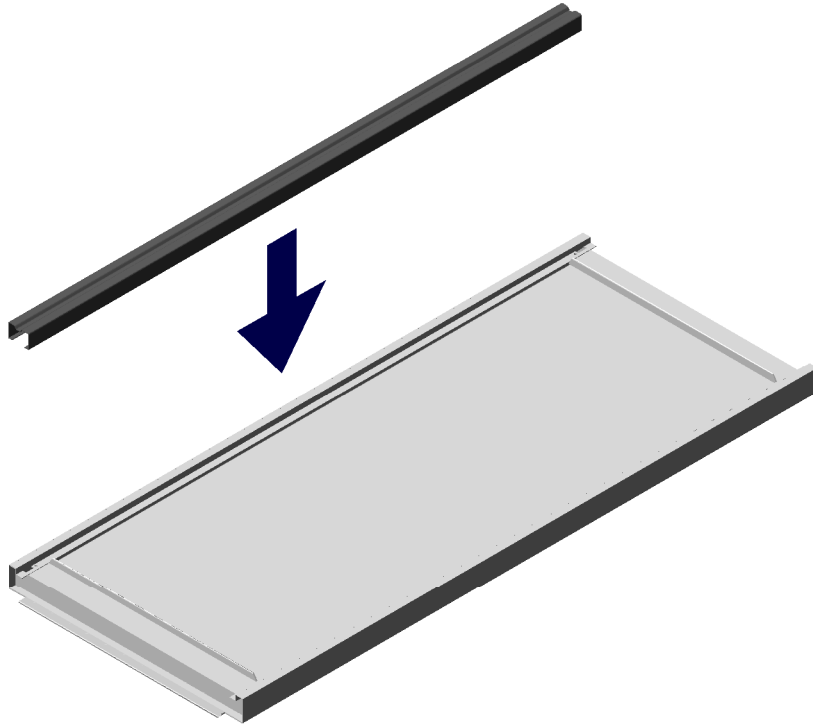


Once the first shelf is fitted, the shelving has found the correct square position and it is possible to proceed with the installation of the other shelves. Proceed from the bottom up, until finished.

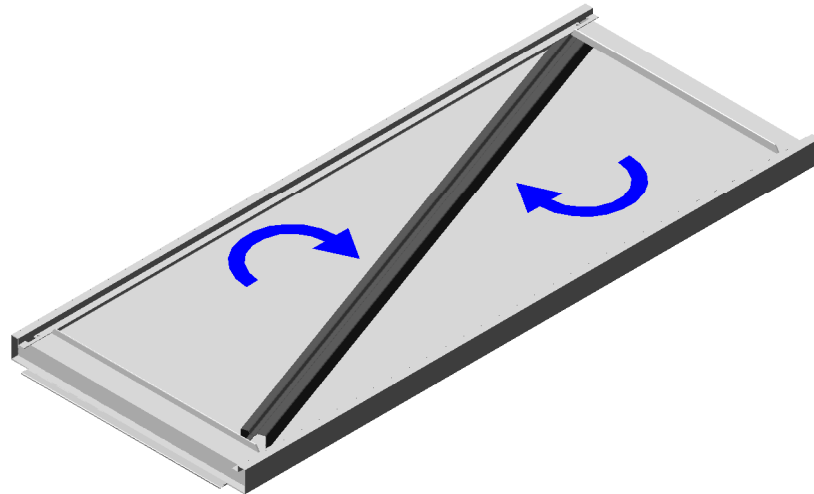
The omega-shaped reinforcement profile shall be engaged under the shelf to increase its capacity. According to shelf depth, up to three reinforcement profiles can be fitted. As shown below, the closed side shall be facing up, opposite to the shelf loading surface.

Once you engage one end of the reinforcement profile under the shelf edge, turn it as to engage it even under the opposite side of the shelf. Then set the reinforcement profile at the centre and parallel to longitudinal section of the shelf by which it is mounted to.

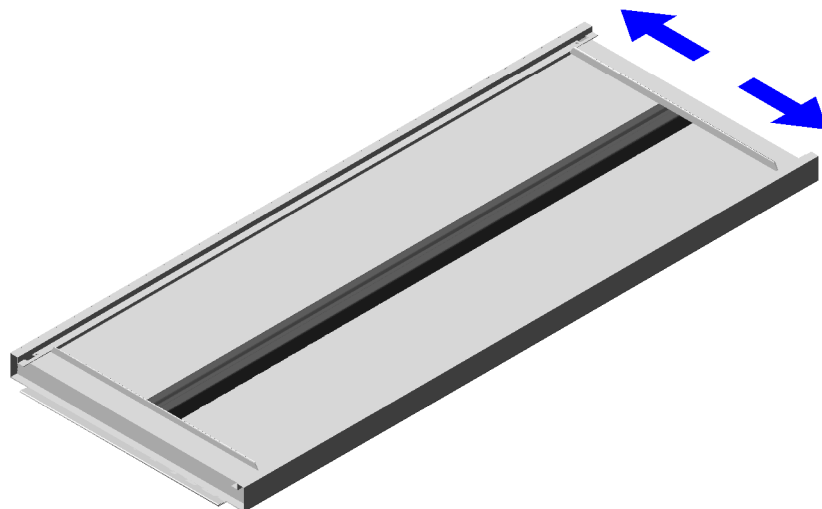
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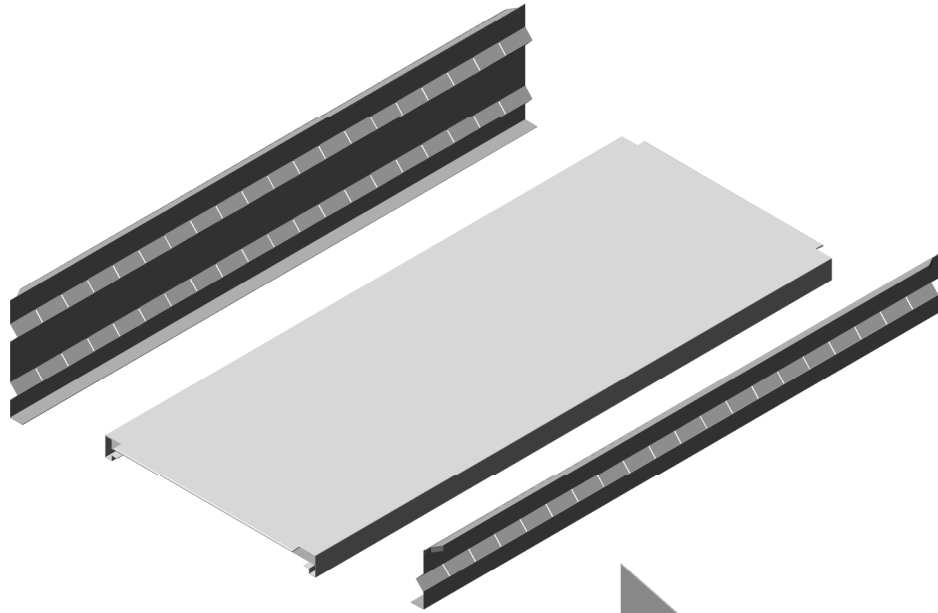


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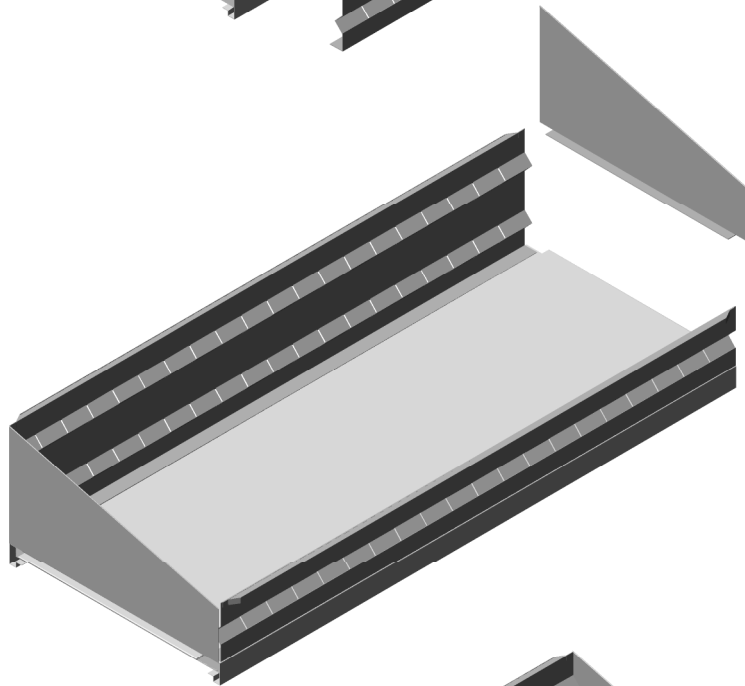


Decomposable chamber consists of a front side 100 mm high and a back side 200 mm high, with transversal partition separators. Moving separators can be inserted at 50 mm distance one from another, corresponding to the distance of the slots on the sides. If decomposable chamber shall be mounted on a shelving with back closures, we shall supply special back sides and separators in order to allow their installation. This requirement shall be specified upon order.

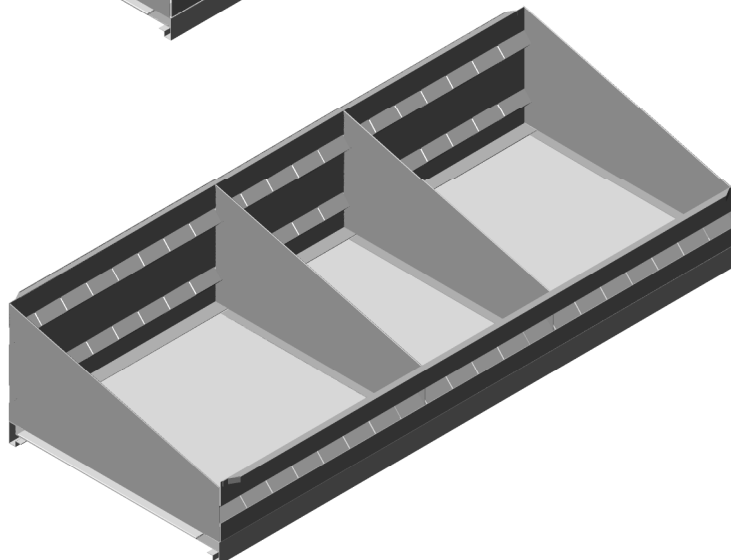
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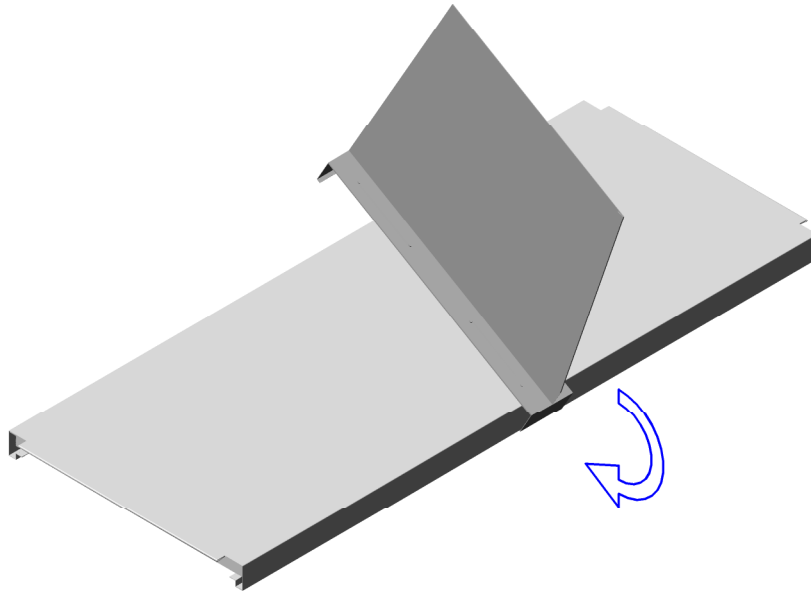


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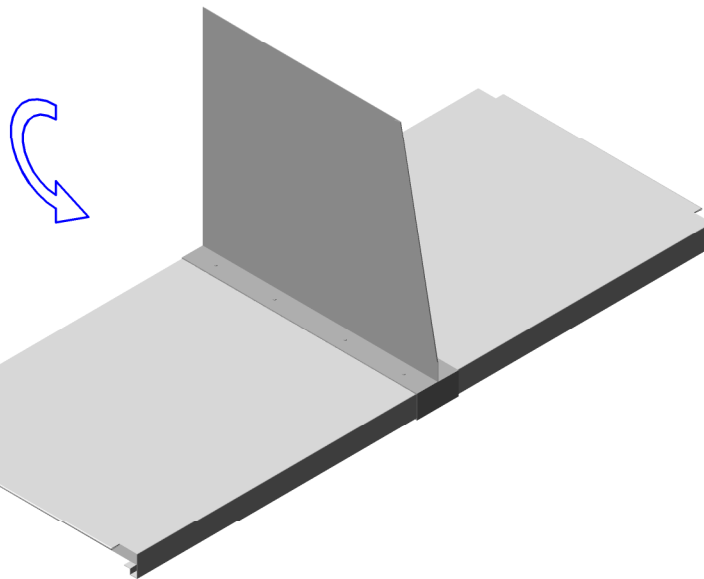


The shelf separator height is 350 mm, any other height can be supplied on request. It can not be mounted if shelving features back closures. The shelf separator is installed by interlocking to the assembled shelving; the separator base front end shall be fitted under the shelf front edge. Then press down slightly to fit the separator base rear end and engage it under shelf surface. Once it is fixed in place, slide it crosswise to share out the shelf as required.

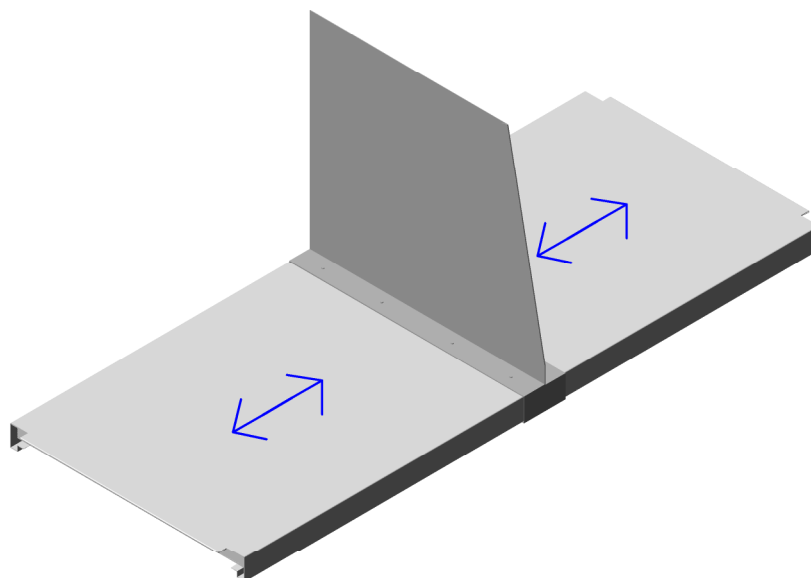
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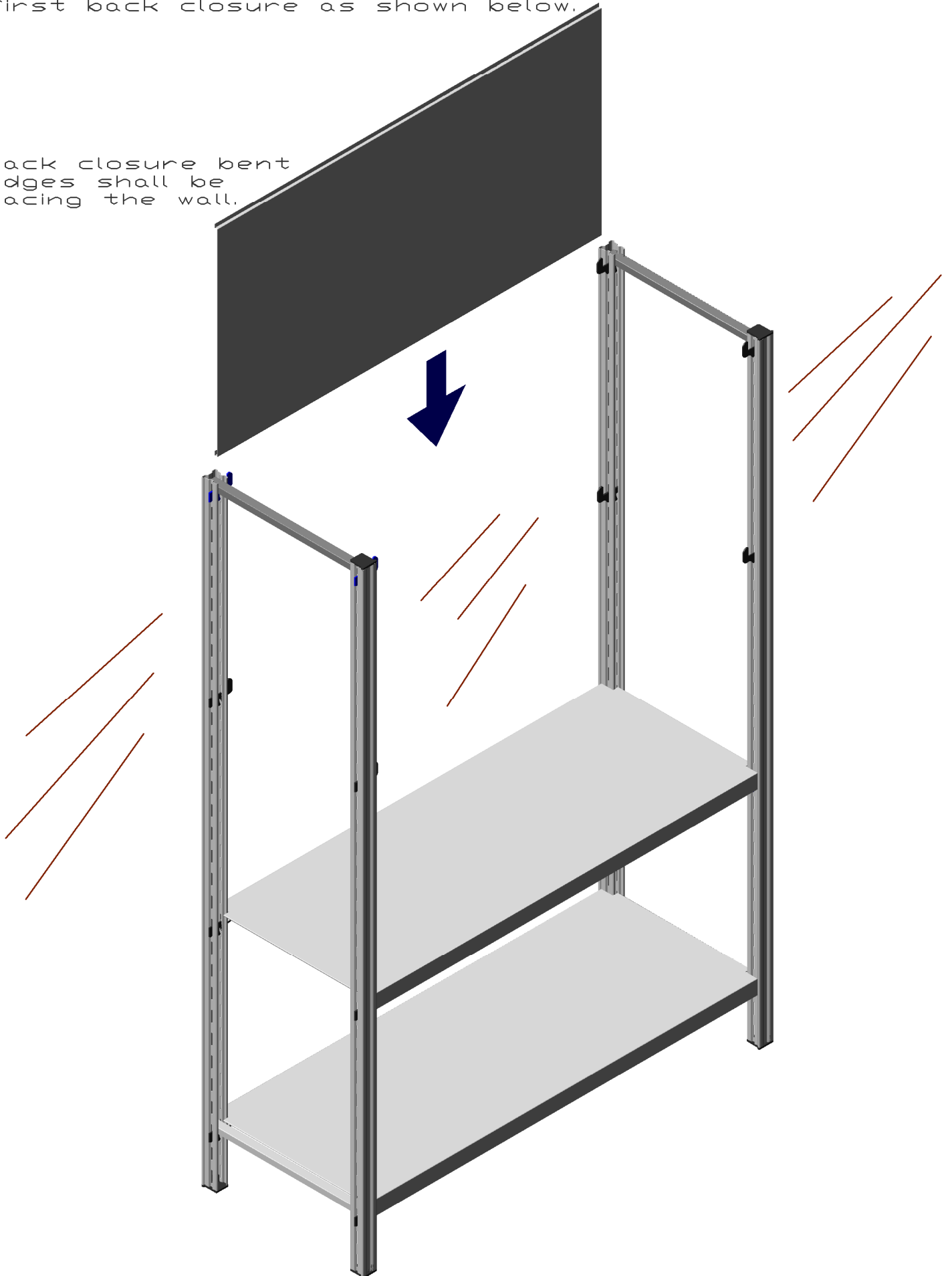


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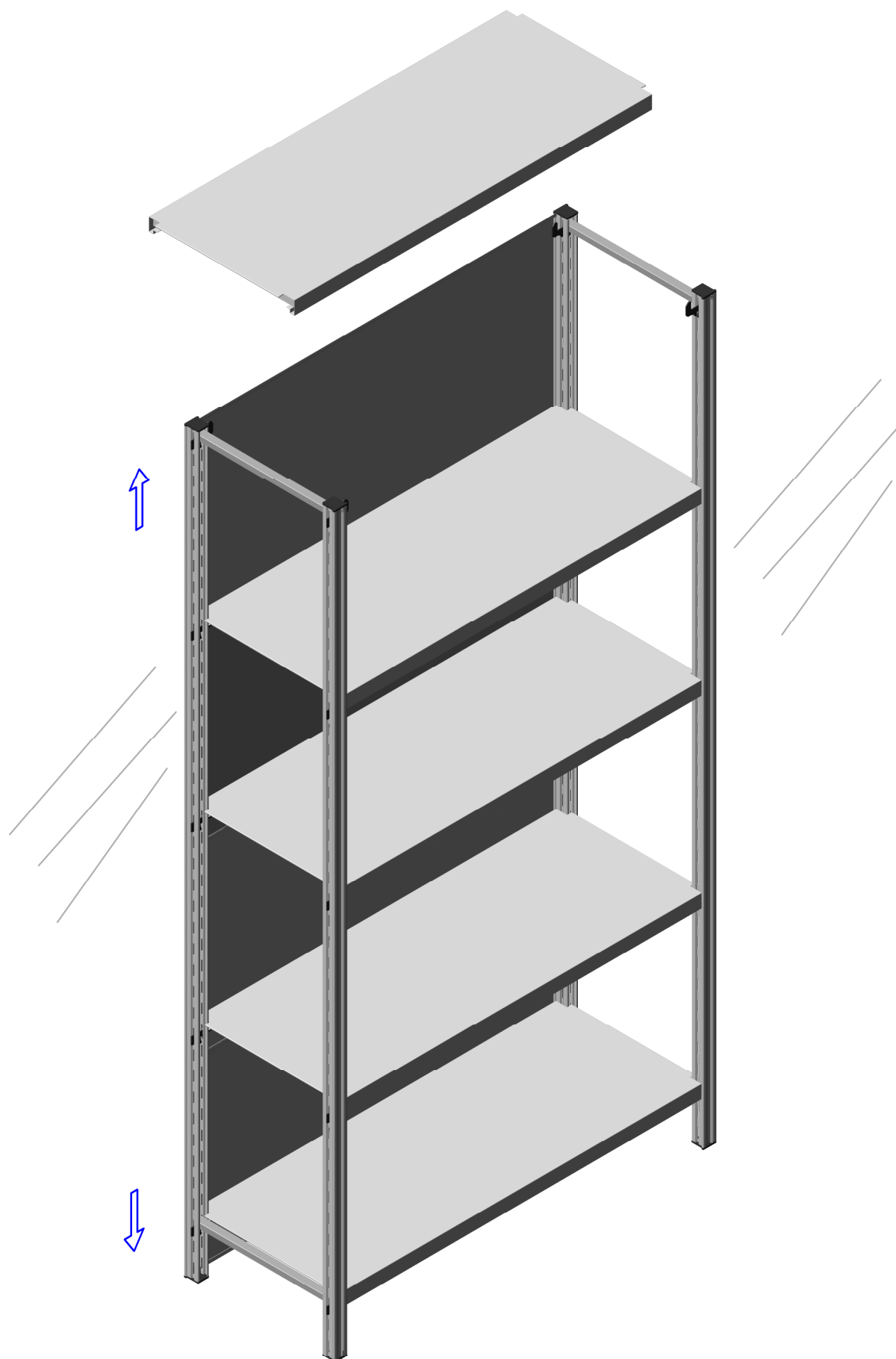


The back closure allows you to close the shelving at the back. All standard back closures are 500 mm high so that, for instance, you will need 4 back closures if shelving is 2000 mm high. For installation, it is recommended to install the first 2 shelves from the bottom up to set the structure in the correct square position, then proceed with setting up the first back closure as shown below.

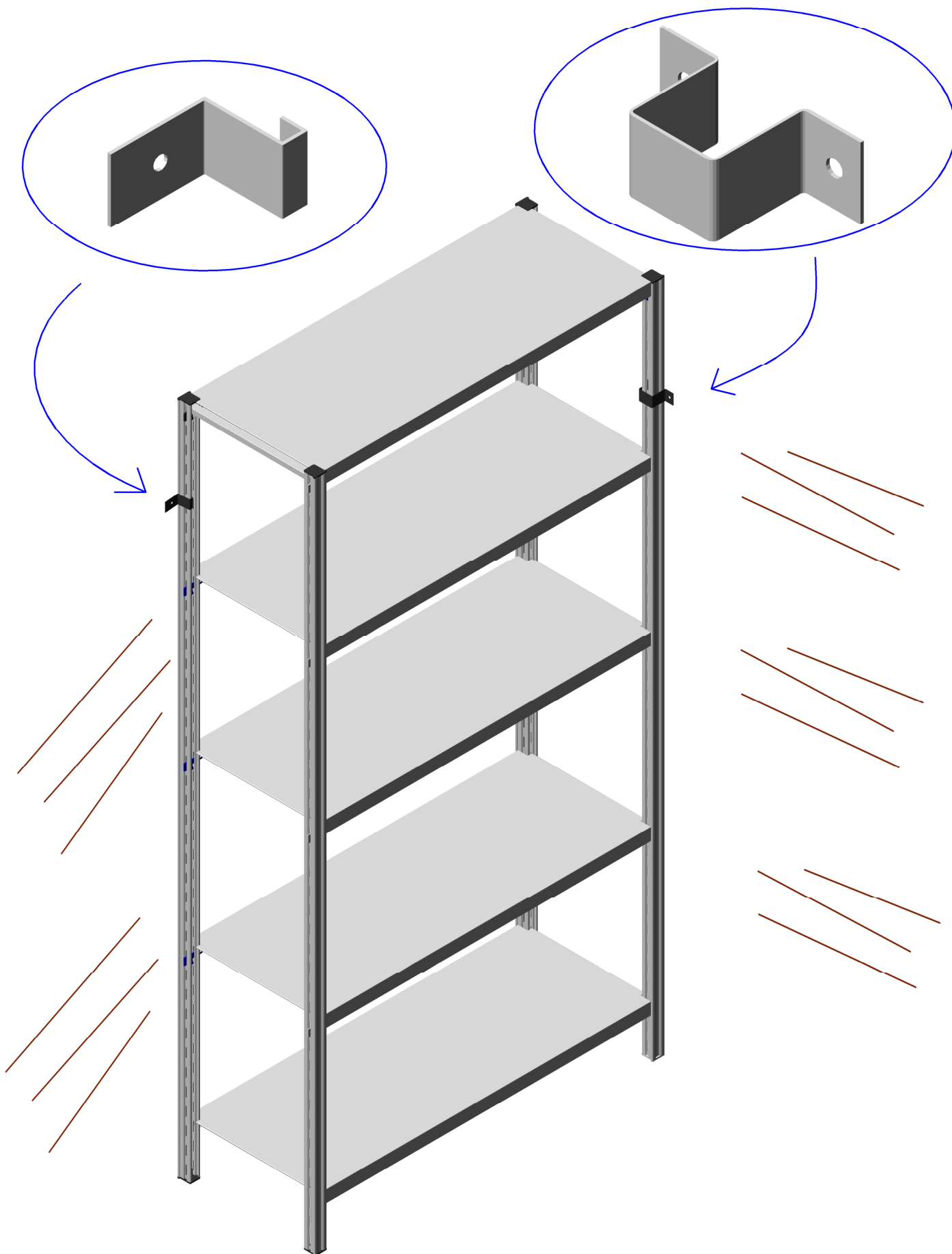
Back closure bent edges shall be facing the wall.



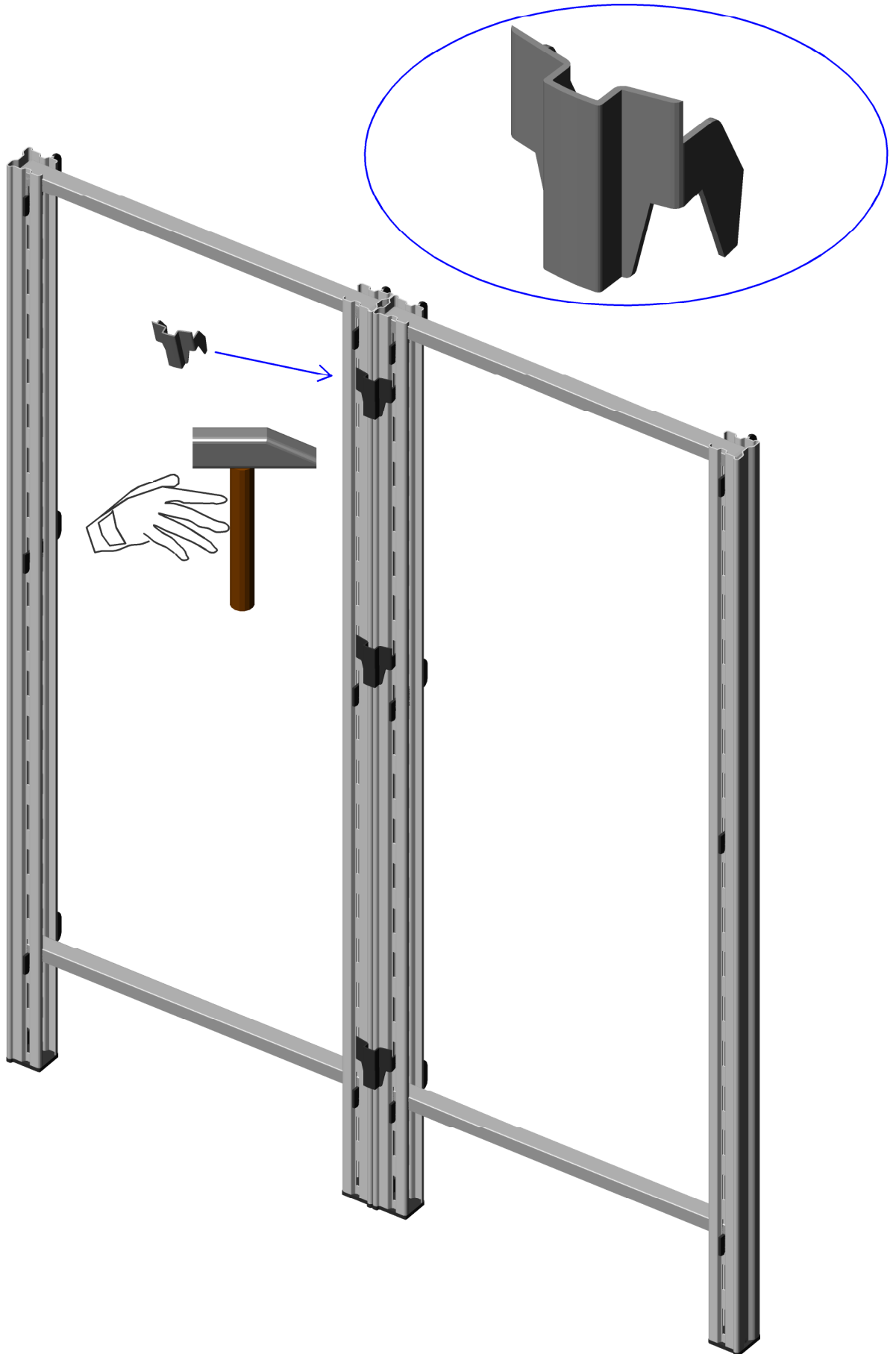
To completely close the shelving back, it is necessary to order shoulders with a height multiple of 500 mm (e.g. 1000, 1500, 2000, 2500, 3000 mm and so on). As shown in the picture below, the back closure complete the whole span (from ground to uprights top end).



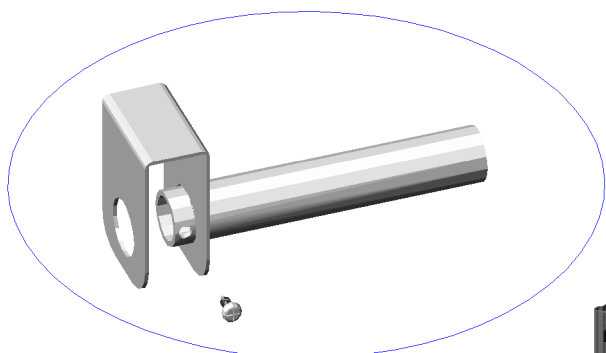
Wall-fastening is mandatory in order to avoid any risk of shelving's tipping over. We supply suitable wall-fasteners that fix on uprights and allow wall-anchoring by means of steel dowers (6 mm diameter, not supplied). The single wall-fastener is used for lengthwise anchoring, while the omega-shaped fastener is used for crosswise anchoring (depth).



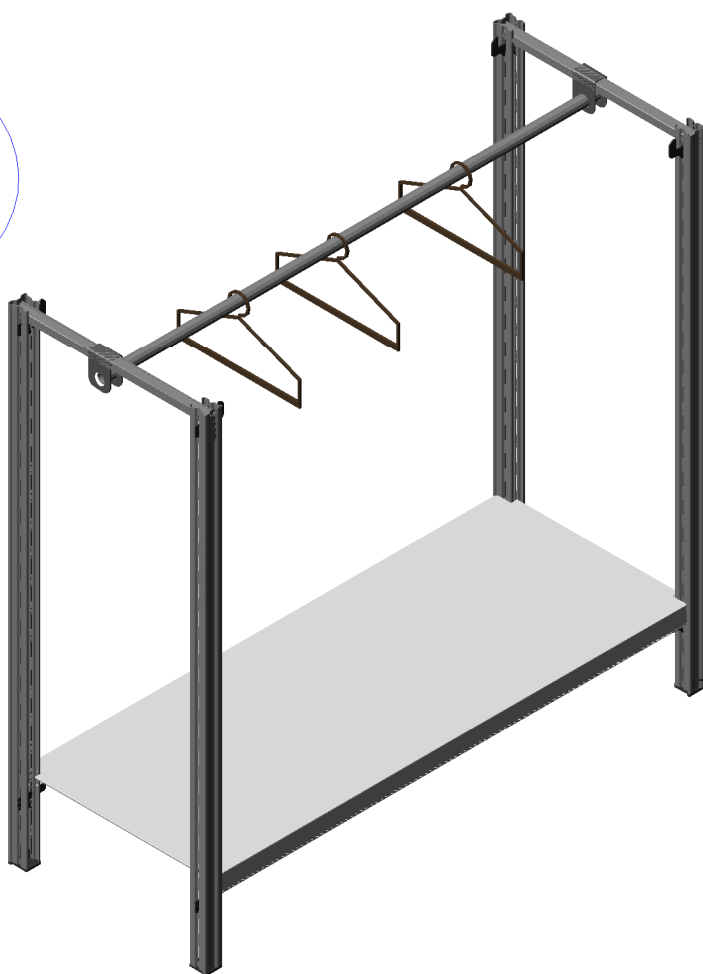
The U-bolt is used to join shelving back to back, after assembly. It is recommended to use at least 3 U-bolts per shoulder for uprights up to 2500 mm high; for higher uprights, use only one more U-bolt every 500 mm.



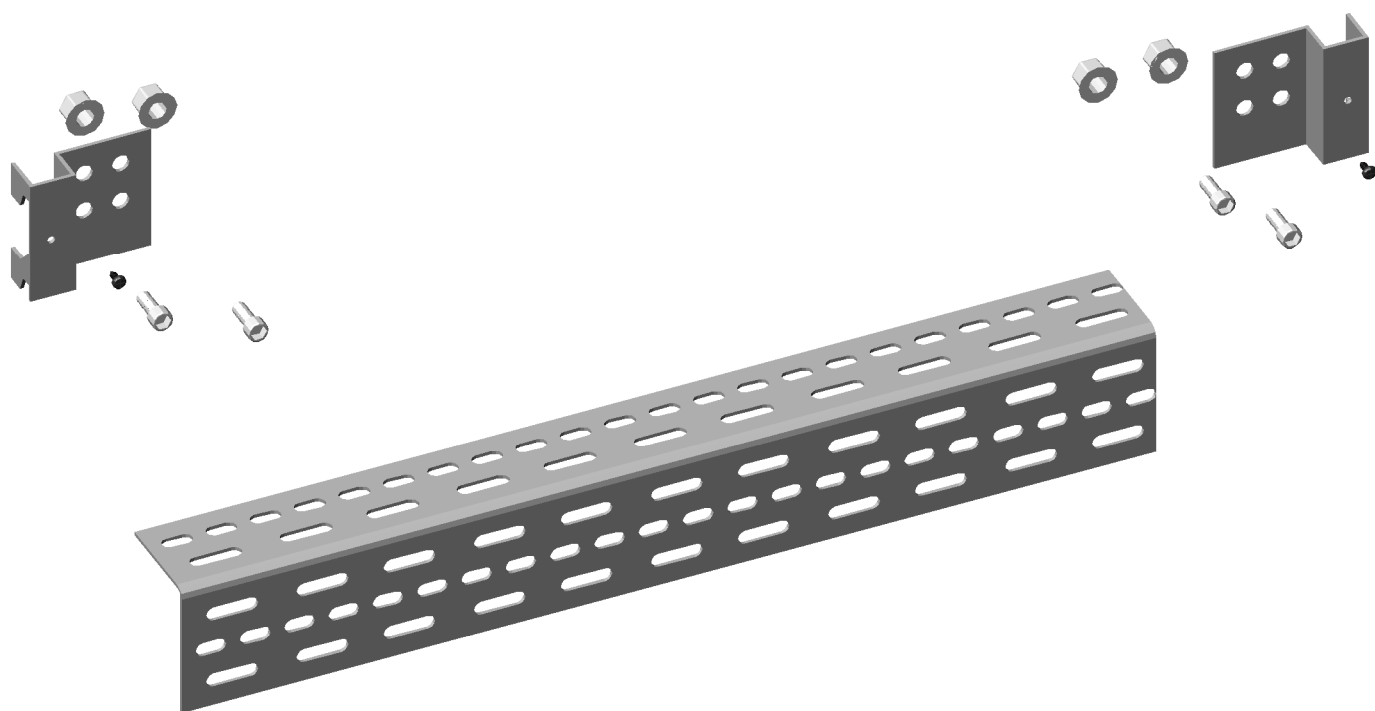
The galvanized tube \varnothing 21 mm is used as an accessory (for clothes-hangers) and is fitted by means of 2 fasteners resting on the cross bars. It is still possible to install the top shelf over the clothes-hangers.



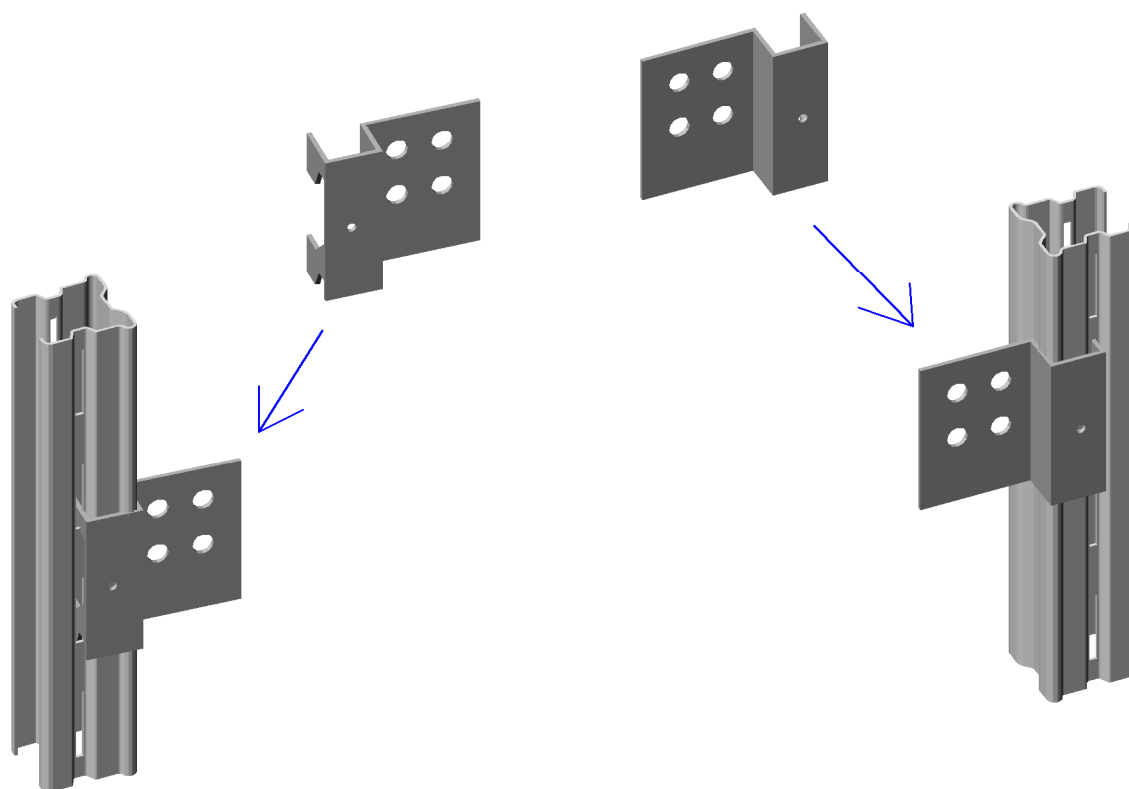
Position the fasteners on the cross bar and insert the tube, then fix using the supplied screws, so as to avoid tube sliding off its seat.



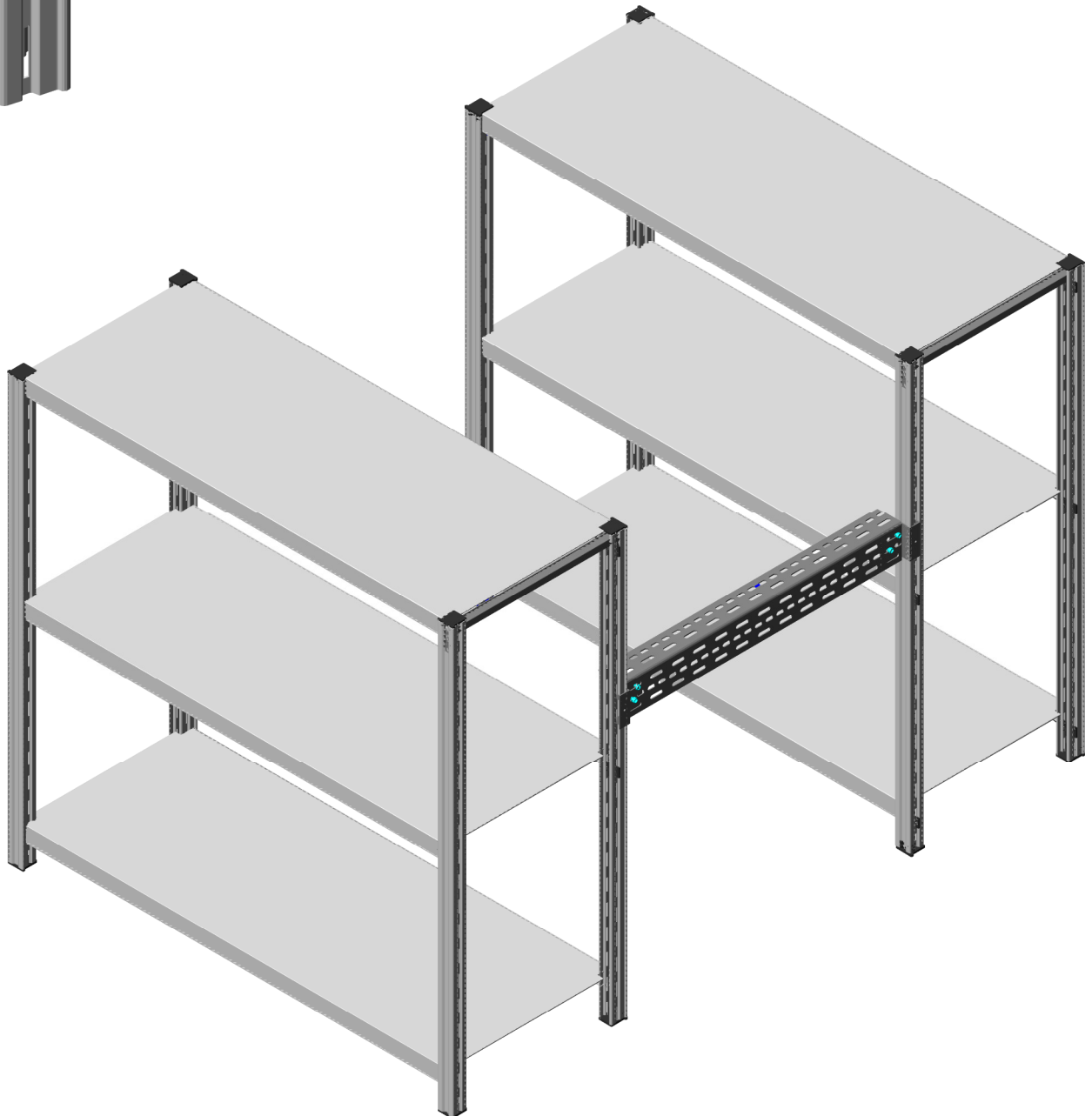
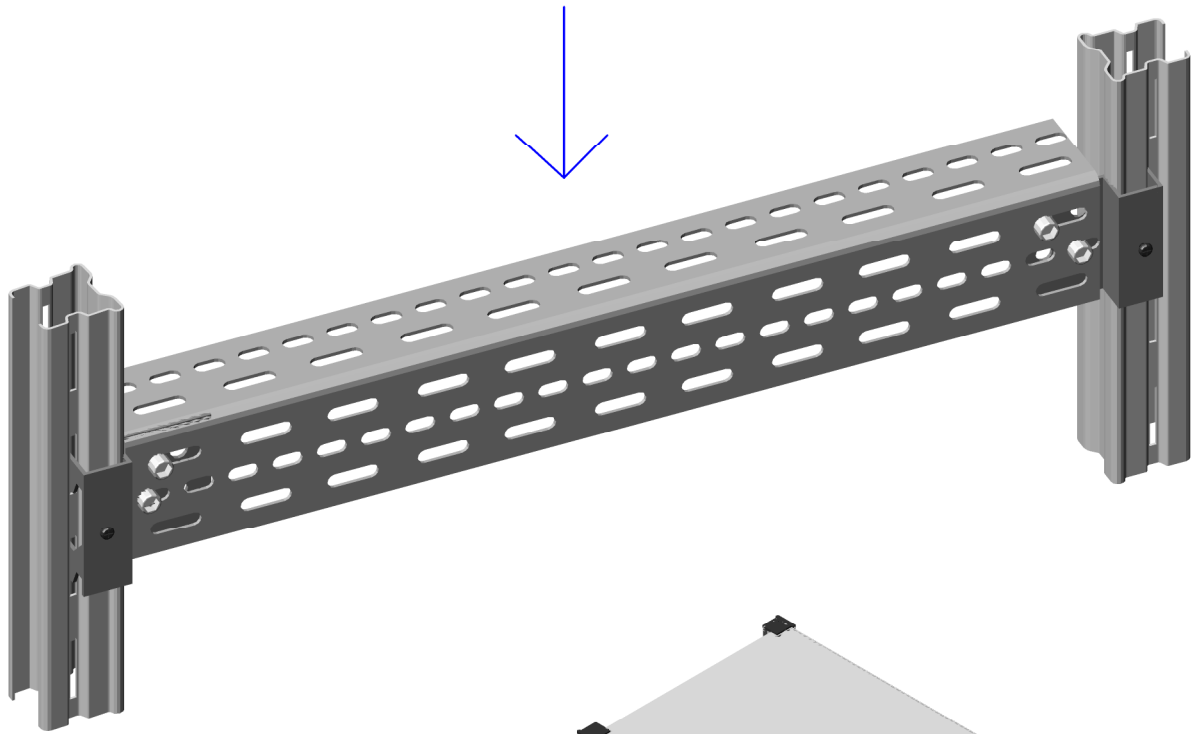
The link rod consists of a 55x75 mm L-bar and two fasteners for L bar (R11 and L11), jointed by means of 8x20 mm socket head screws with nut and 3,9x13 mm self-drilling screws, as shown below.



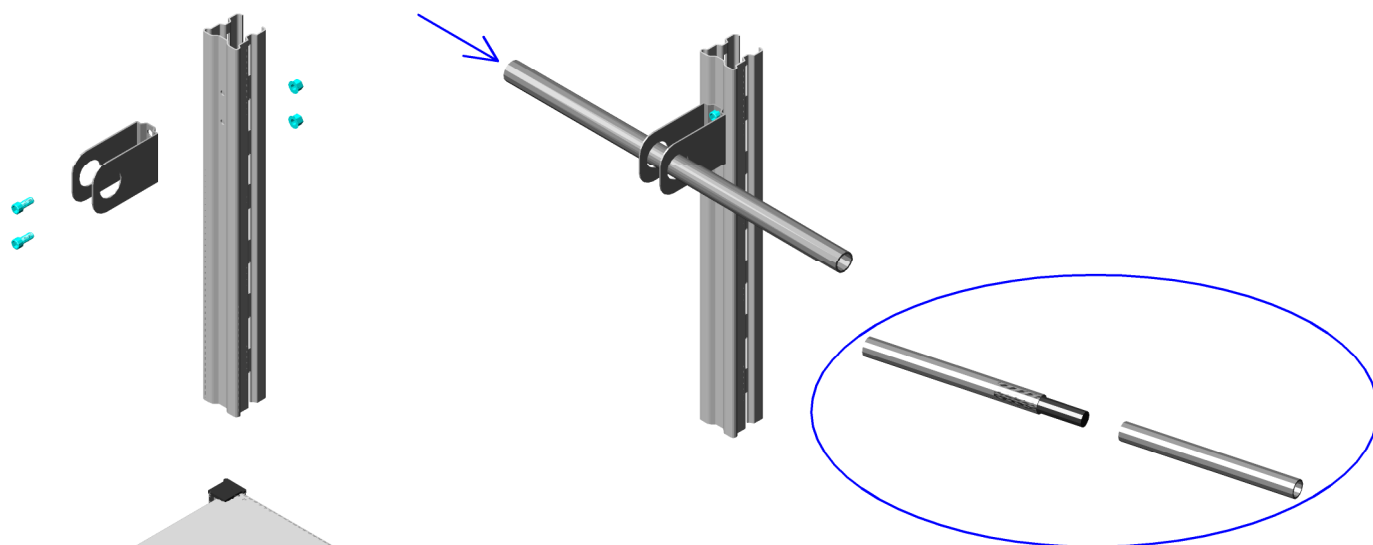
Set the fasteners in place by inserting them in the uprights slots, at the same height on the two uprights.



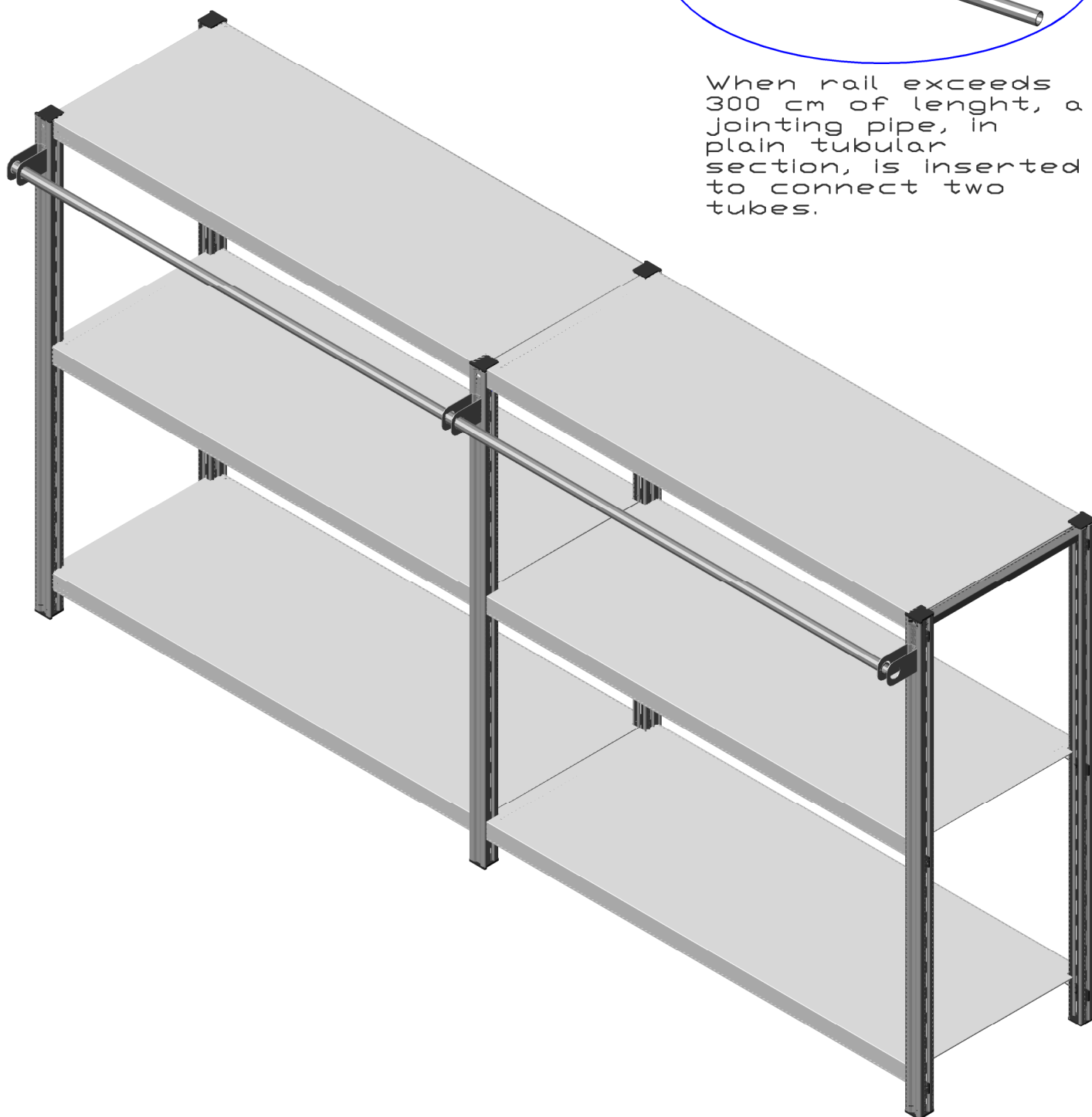
Set link rod on the fasteners and fix with socket head screws and nut. Then fix the fasteners to uprights using the self-drilling screws.



The galvanized tube \varnothing 21 mm is also used as rail to hang up sliding ladders. Drill the front uprights to fit the front fasteners and fix using two 5x20 socket head screws with nut. Then set the ladder tube in place.



When rail exceeds 300 cm of length, a jointing pipe, in plain tubular section, is inserted to connect two tubes.



If the distance from one shelf to another does not guarantee enough longitudinal stability, for shelving positioned at the centre of the room, it is possible to add a metallic cross consisting of two elements 2000 mm long and 2 mm thick. Anchoring the structure with a link rod to the wall or to the nearby shelving is yet mandatory even in this case. The metallic cross four ends are anchored directly to uprights and in the central intersection point, by means of 5 8x20 socket head screws with nut.

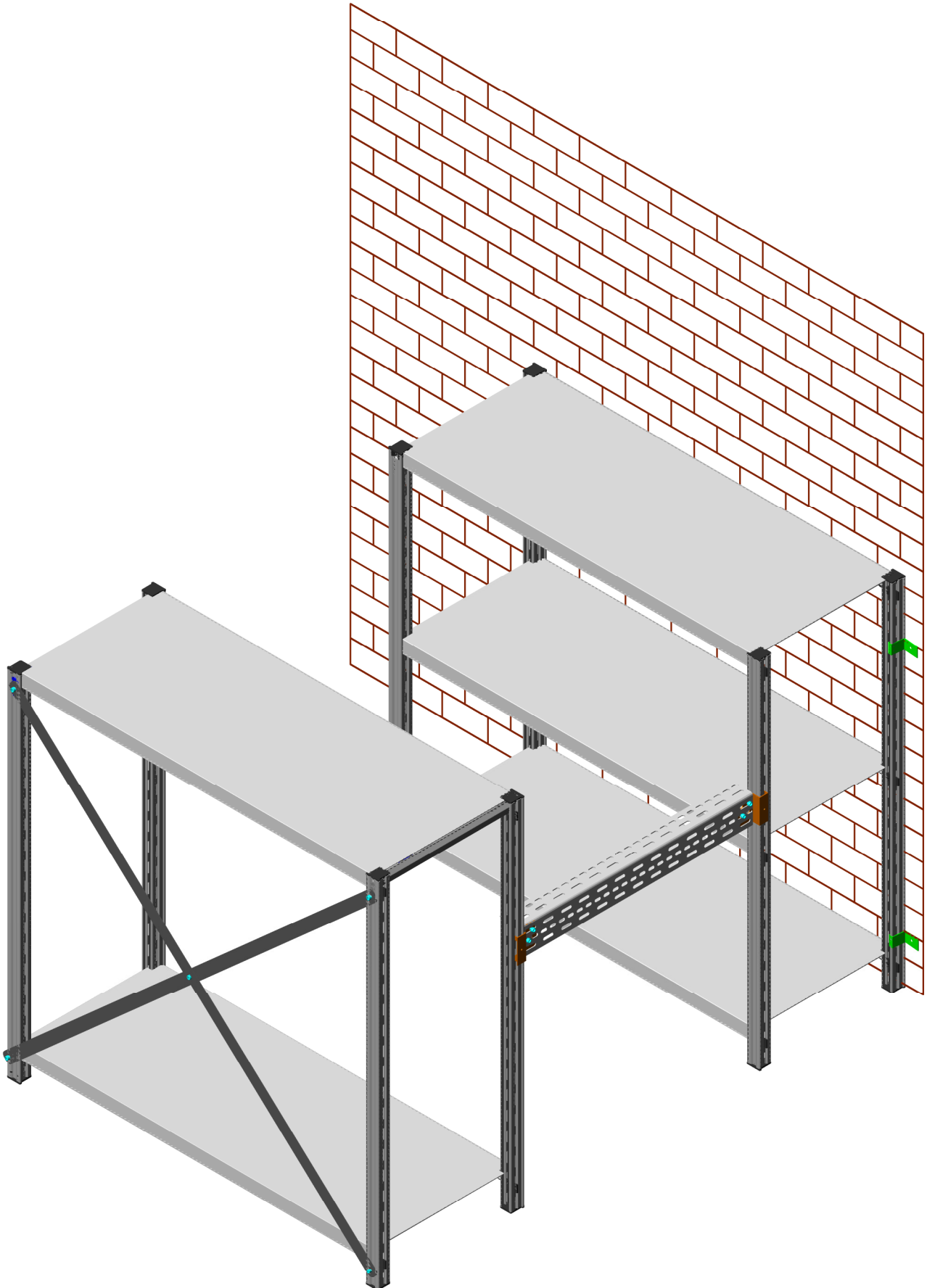


DIAGRAM FOR SHELVES INSTALLATION WHEN DOORS ARE REQUIRED. THE HEIGHT OF THE THREE INDICATED SHELVES ARE MANDATORY, ANY OTHER SHELF CAN BE PLACED AS REQUIRED.



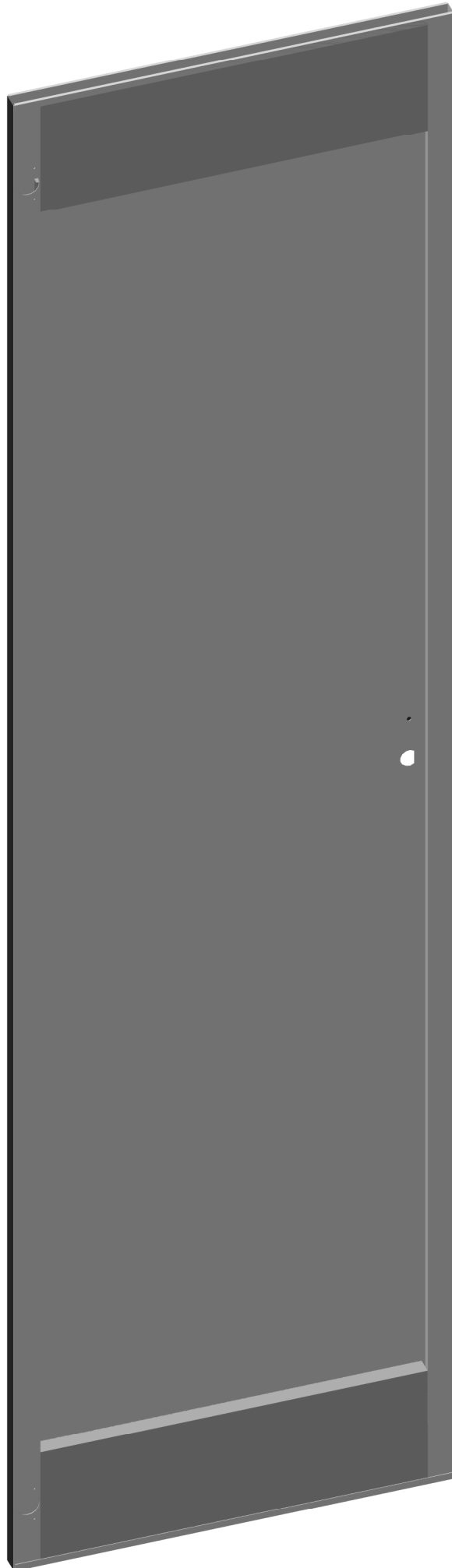
3rd SHELF AT THE
40th (AND LAST)
SLOT

2nd SHELF AT THE
22th SLOT TO
ALLOW FOR THE
LOCK TO CLOSE
THE DOORS

1st SHELF AT THE
3rd SLOT

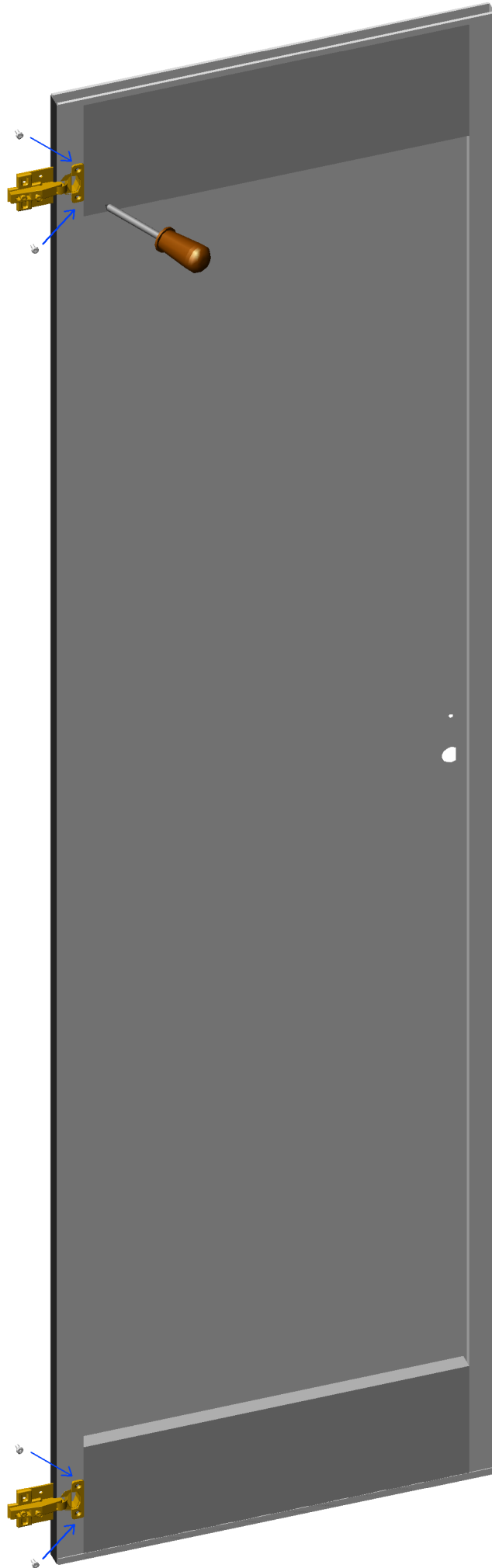
SHELVING 2000 MM HIGH WITH DOORS, AVAILABLE TO CLOSE ONLY
MODULES FEATURING 1000 MM LONG SHELVES.

ASSEMBLY SEQUENCE FOR THE FRONT CLOSING DOOR



ONCE SHELVING IS
ASSEMBLED, FIT
THE HINGES IN THE
RELEVANT HOLES
ON DOOR FRAME





FASTEN HINGES TO
DOOR USING THE
SUPPLIED SCREWS
(USE A
SCREWDRIVER)

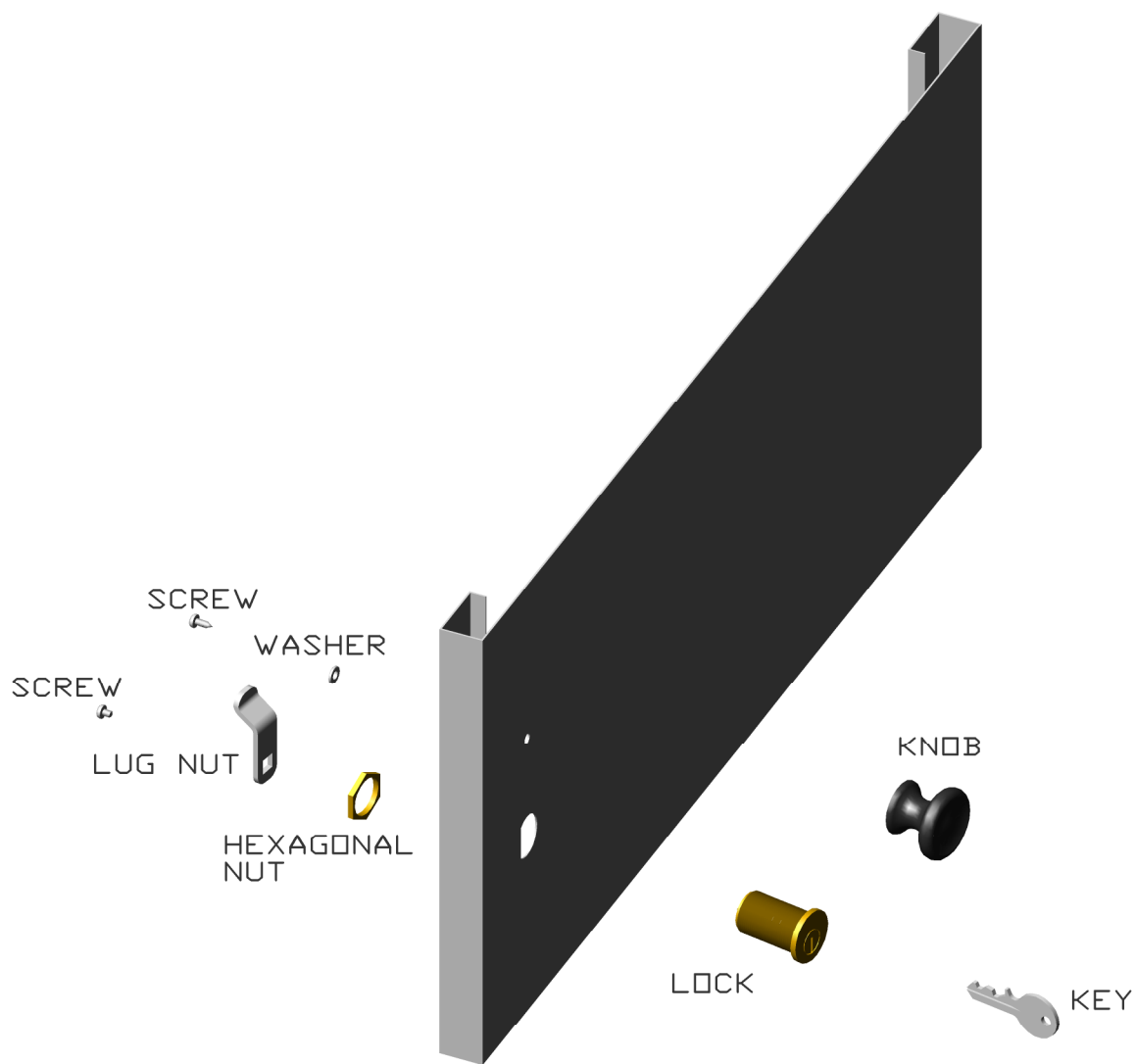
SET DOOR IN PLACE AND FASTEN IT TO UPRIGHT USING THE SUPPLIED SCREWS. THE HINGE IS EQUIPPED WITH TWO HOLES IN CORRESPONDENCE TO UPRIGHTS SLOTS. CARRY OUT THE SAME OPERATIONS FOR THE LOWER HINGE.



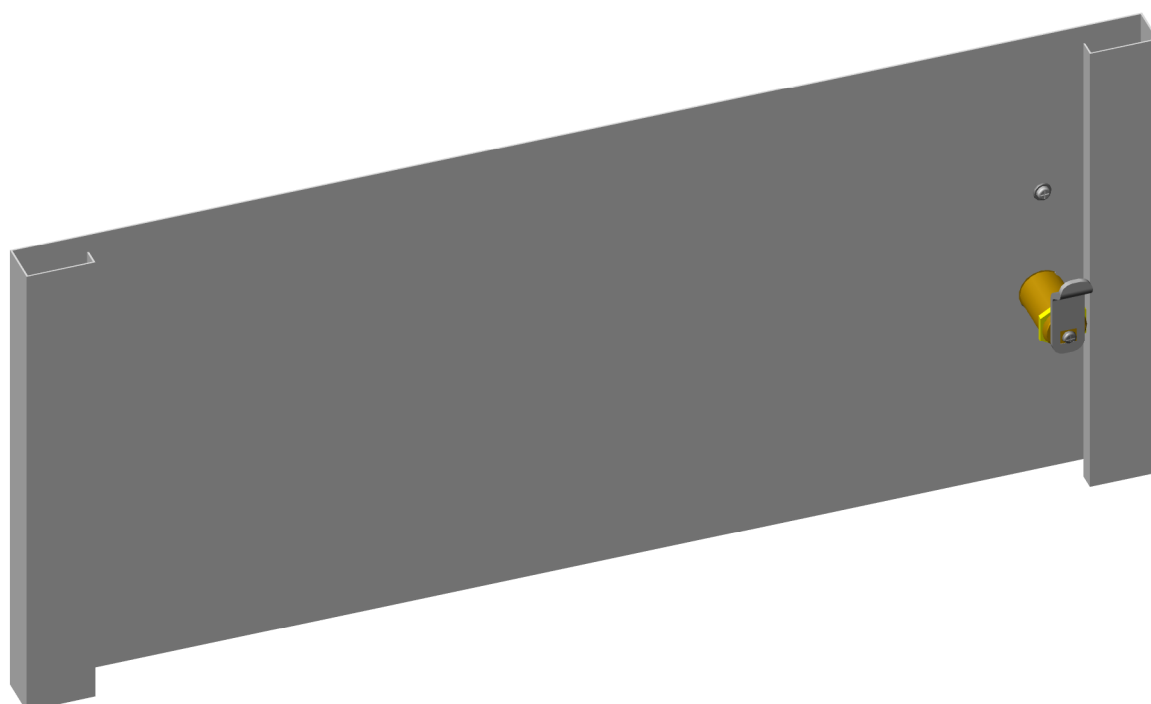
WORK THE ADJUSTER SCREW OF BOTH HINGES TO OBTAIN THE CORRECT SQUARE POSITION BETWEEN DOOR AND UPRIGHT.



REPEAT THE OPERATIONS DESCRIBED SO FAR TO ASSEMBLE THE SECOND DOOR AND THEN FIT THE LOCK.



INSERT THE KNOB IN THE RELEVANT HOLE, TIGHTEN WITH THE SCREW AND WASHER (SUPPLIED).
 INSERT THE LOCK AND FASTEN USING THE HEXAGONAL NUT, TIGHTEN THE LUG NUT AS SHOWN BELOW, USING THE SUPPLIED SCREW.



It is possible to close a span 1000x3000mm (h), with a set of doors 2000 h and another set of doors 990 h (at the top). The picture below shows assembly conditions.

5th shelf at the last available slot

4th shelf at the 50th slot, to allow for the lock to close the top doors.

3rd shelf at the 40th slot.

2nd shelf at the 22nd slot to allow for the lock to close the bottom doors.

1st shelf at the 3rd slot

