MODERN EXPO

SHELVING SYSTEM «SG50»

PASSPORT

Contents

Modern-Expo company is grateful to you for choosing our products.

Before installation and operation, please read the Technical Passport!

1. GENERAL INFORMATION AND PURPOSE OF EQUIPMENT

1.1. This Technical Passport applies to all shelving of the SG50 system (hereinafter – shelving).

1.2. The Technical Passport contains a description of the shelving, the principle of use, specifications and other information required for installation and proper operation.

1.3. The manufacturer JV Modern-Expo constantly improves their products and therefore reserves the right to make structural changes with the preservation of technical characteristics.

1.4. Shelving of the SG50 system with middle back panel are designed for displaying, storing and selling of goods on shelves.

1.5. It is possible to expand the scope of use of the shelving, but this may require changes to the design or additional elements, and is permissible only after approval by the manufacturer for each individual non-standard case.

2. DECLARATION OF CONFORMITY

All shelvings are manufactured under conditions of controlled quality management system certified according to ISO 9001:2015, which ensures stable quality and guarantees the safety of further use. The production is carried out on modern high-tech equipment, all products and conditions of its production are certified according to Ukrainian and international standards of safety and quality.

3. SPECIFICATIONS

3.1. Shelving is a demountable structure, assembled from individual elements.

The upright is perforated in increments of 50 mm and has a demountable structure with a base foot.

The number of crossbars for uprights is:

• H ≤ 2100mm — 2 pcs.; • H ≥ 2200mm — 3 pcs.

Height of the upright

Table 3.1

Upright profile	Height of the upright, mm											
60x30	1110	1210	1410	1610	1810	2010	2110	2210	2410	2610	2810	3010
80x30	1110	1210	1410	1610	1810	2010	2110	1930	2410	2610	2810	3010
110x30	1110	1210	1410	1610	1810	2010	2110	2210	2410	2610	2810	3010

Depths of the shelving elements

Table 3.2

Name of the element	Depths of elements, mm									
Reinforced shelf	200	250	300	370	420	470	570	620	670	770
Bracket	200	250	300	370	420	470	570	620	670	-
Base foot	-	-	-	370	-	470	570	-	670	770

Length of sections with shelves, back panels and plinths — 500, 665, 800, 1000, 1250 та 1330 mm.

Universal brackets are installed at an angle of 00, 200 або 350 horizontally.

Base foot SG50 PN has — 160 mm height.

Number of shelf reinforcements in standard version

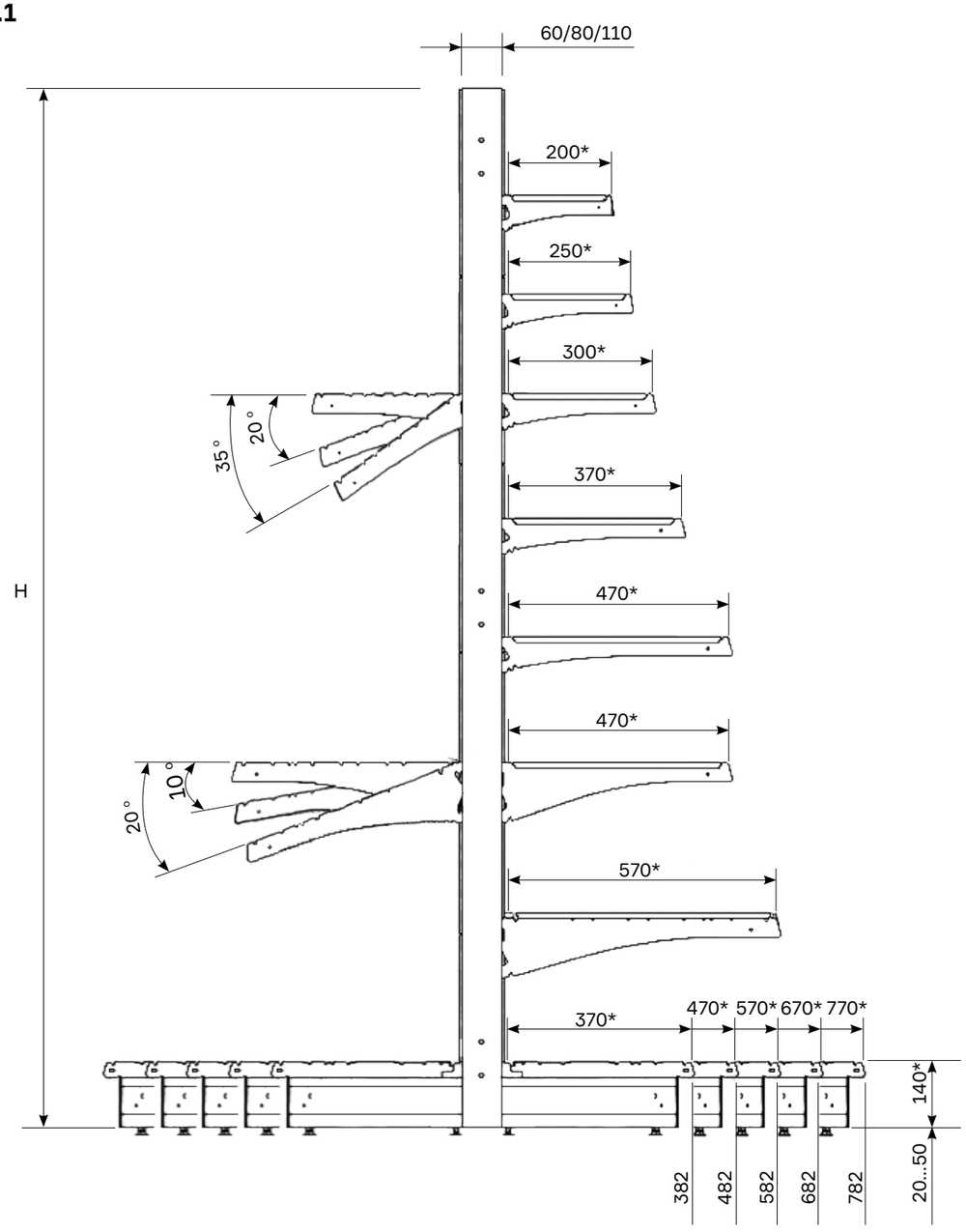
Table 3.3

Shelf depth, mm / Shelf length, mm	200	250	300	370	420	470	570	620	670	770
500	1	1	1	2	2	2	3	3	4	4
665	1	1	1	2	2	2	3	3	4	4
800	1	1	1	2	2	2	3	3	4	4
1000	1	1	1	2	2	2	3	3	4	4
1250	1	1	1	2	2	3	3	3	4	4
1330	1	1	1	2	2	3	3	3	4	4

* All dimensions are stated in millimeters and are conditional

3.2. Dimensional line of the system SG50

Pic. 3.1



*All dimensions are stated in millimeters and are conditional

3.3. Materials and thickness of the elements

Table 3.4

№	Element	Material	Thickness, mm
1	Upright	S275JR	2,5
2	Base foot	S235JR	1,5
3	Back panel	S235JR	0,6
4	Universal and reinforced brackets	S235JR	2,5 (200...350) 3,0 (420...670)
5	Shelf	S235JR	0,8/0,8 (reinforcement)
6	Plinth	S235JR	0,8

Precise interval between axes

L, mm	L_1, mm
500	500
665	666,5
800	800
1000	1000
1250	1250
1330	1333

L – nominal size; $\mathbf{L_1}$ – precise size.

3.4. The adjustable leg has a range of adjustments 30 mm.

The value of the floor level difference shall not exceed 30 mm.

4. PAINTS AND SHADE DIFFERENCES

Deviations from the RAL standard are allowed for powder coating standards for products.

This is due to a number of factors, including:

- **Variations in paint production** – different batches may have slight differences due to the peculiarities of the formulation and technology for manufacturing dyes.
- **Type of coating** – the shade may vary depending on the structure of the paint (glossy, matte, semi-matte, etc.).
- **Lighting conditions** – the color may look different under the influence of daylight, artificial or mixed light.
- **Subjective perception of color** – the peculiarities of human vision can affect how the consumer sees the shade.
- **External factors** – prolonged exposure to climatic conditions or ultraviolet radiation can cause the color of the coating to change over time.
- **Technological processes** – temperature, humidity and other production parameters can affect the final shade of the powder coating.

These features are natural for production and do not affect the quality and durability of the products.

5. OPERATION OF STORE FIXTURE EQUIPMENT

Dear Customers! The following conditions will allow operating your shelves for a long period of time, maintaining their appearance and operability throughout their use time.

5.1. Shelving must be installed on an even surface with all legs and operated exclusively in an upright position.

5.2. Recommended air temperature for operating the shelving is +10 ... +25°C. The distance to the heating units and other heat sources shall be at least 1 m. Avoid prolonged thermal effect, which causes the heating of the shelving surface, as well as direct contact with objects with temperature exceeding +80°C. Do not install shelving close to permanently damp and cold walls and do not subject to a sharp temperature drop, as there is a risk of damage to the product or its components.

5.3. It is recommended to operate shelving at a relative humidity of air from 45% to 70%. Do not expose shelving to conditions of the limit values of humidity in the room for a long period, much less their periodical change. Subsequently, such extreme conditions can adversely affect the shelving. In case of such conditions, we recommend frequent ventilation of the room.

5.4. Avoid direct sunlight.

5.5. Load on the shelving components (base feet, shelves) shall be distributed uniformly and not exceed the permissible limit.

5.6. Data presented in this Technical Passport do not take into account seismic activity.

5.7. Protect shelving from mechanical damage (impacts with solid objects, do not place objects with sharp edges on the surface, do not scratch the surface with a cutting tool, etc).

5.8. Avoid direct (especially prolonged) contact of the shelving surface with water. If moisture accidentally appeared on the product, it must be wiped dry with a soft cloth.

5.9. Shelving care shall be done using only soft non-abrasive cleaning agents for the elements covered with powder paints. Difficult contaminations are recommended to clean with a soft bristle brush. Regularly remove dust using a dry cloth (flannel, plush) or a vacuum cleaner.

5.10. During operation of the shelving, it is prohibited:

- Non-intended use of the shelving.
- Moving the shelving in the assembled condition.
- Exceeding the allowable loads specified in the Table 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7.
- Exposing the shelving and their elements to unproductive loads (throwing goods on the shelves, standing on the shelves with feet, etc).
- Operating the shelving that is not set with adjusting legs according to vertical and horizontal levels.
- Expose the shelving to external forses (hits, shocks, etc).
- Using shelving components not corresponding the dimensions (for example, a shelf 470 mm deep with a bracket 370 mm long, etc).
- Using abrasives, sharp objects, chemicals, etc.. to clean shelving surfaces.
- Allowing contact of any shelving elements with an open flame or high temperature.
- Allowing contact of shelving details with chemically active preparations and liquids of organic origin.
- Allowing direct contact with food.

Significant deviation from the specified operating modes leads to a major deterioration in the consumer characteristics of the shelving.

6. INSTALLATION INSTRUCTION

Wrench:
- 13–14 mm
- 17–19 mm

Hand rubber hammer

Cordless tool

Levelling gauge

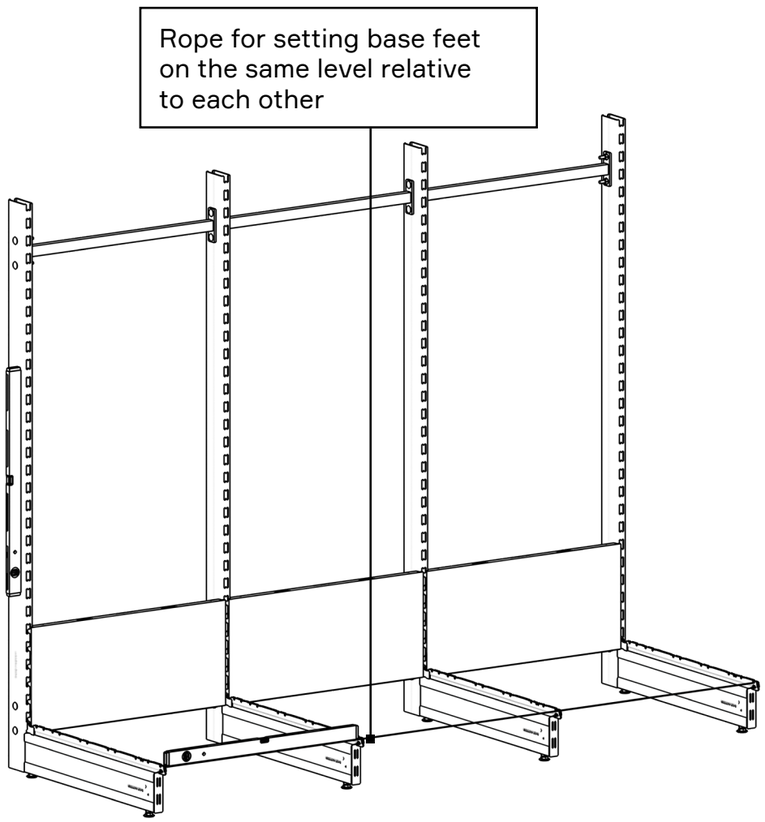
Rope

Hex key

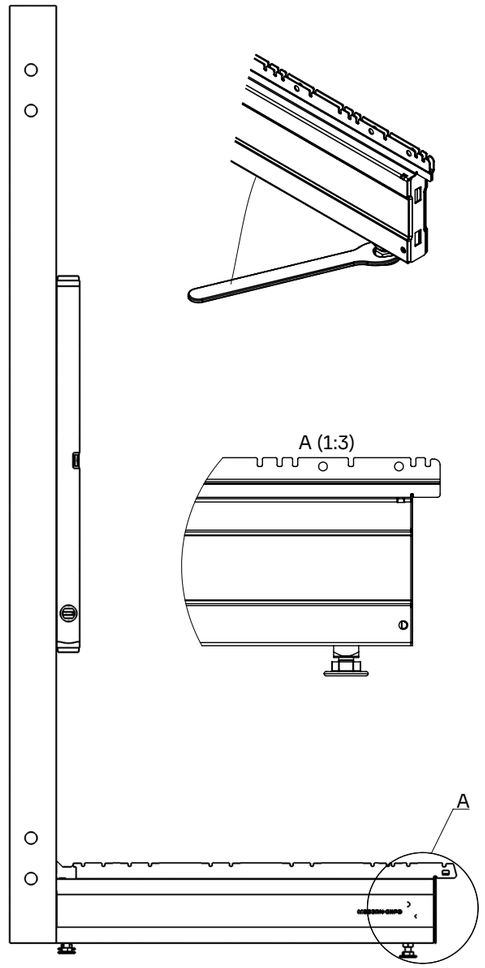
When assembling shelving, observe the following rules:

- The installation of shelving must be carried out by at least two persons authorized to perform this type of works.
- Installation shall be carried out according to safety rules and using appropriate means.
- Follow the order of operations.
- Tighten up each mounting element thoroughly.
- The shelving shall be assembled from the bottom to the top.
- If it is necessary to move the shelving structure, disassemble it into separate components.
- During and after installation, be sure to place the shelving vertically to the floor with the help of the water level gauge and the adjustment legs. Base feet shall be on the same level relative to each other (see pic. 4.1, 4.2, 4.3, 4.4).

Pic. 4.1



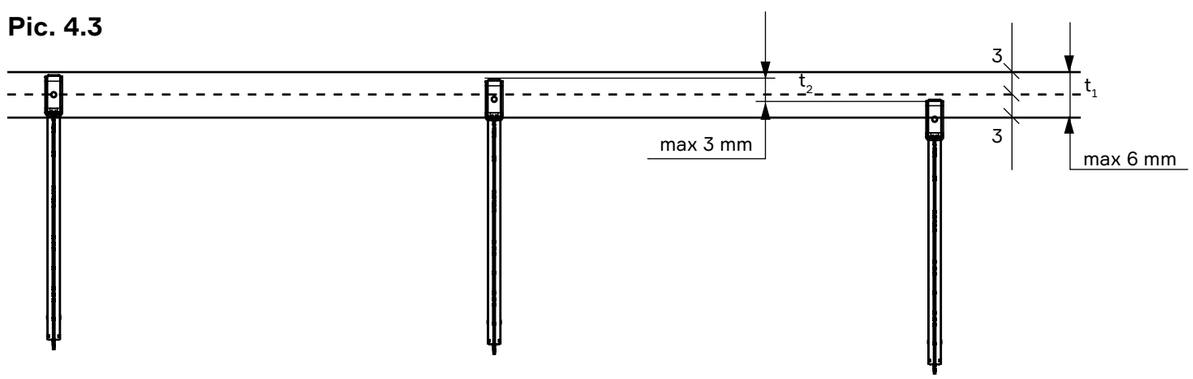
Pic. 4.2



When aligning shelving in row construction, the maximum allowable values of inter-axial deviations are:

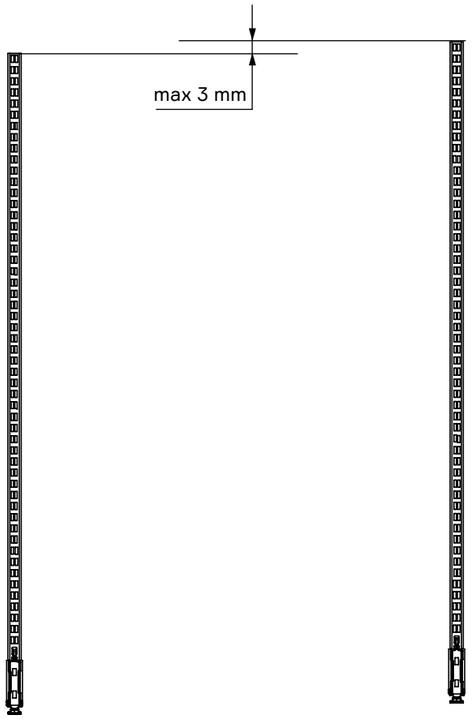
- deviation 6 mm – along the whole construction (from the first upright to the last)
- deviation 3 mm – between two consecutive uprights

Pic. 4.3

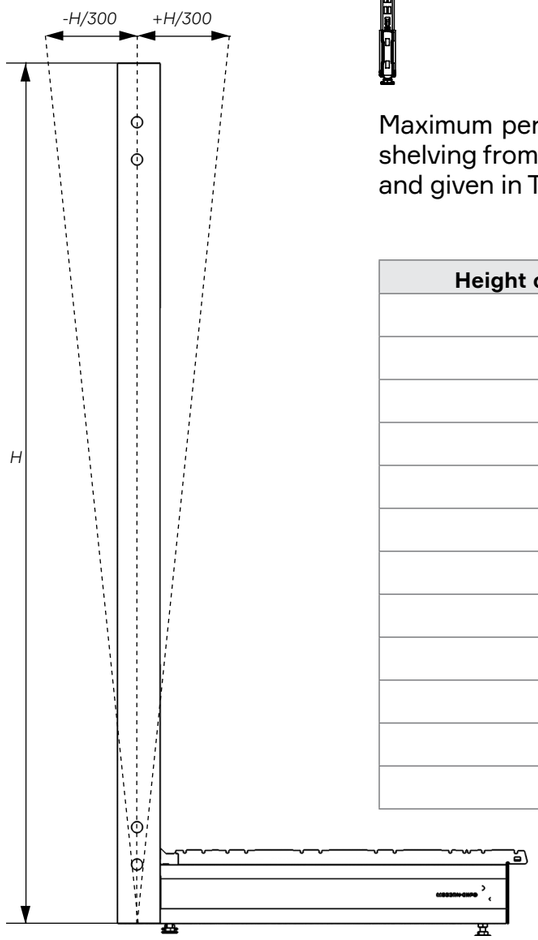


The tolerance for vertical alignment of two consecutive uprights shall not exceed 3 mm (pic. 4.4).

Pic. 4.4



Pic. 4.5



Maximum permissible deviation of the upright of the wall-adjacent shelving from the axis of symmetry without loads is shown in pic. 4.5 and given in Table 4.1.

Table 4.1

Height of an upright, H	Deviation of an upright H/300, mm
1110	3.7
1210	4.0
1410	4.7
1610	5.4
1810	6.0
2010	6.7
2110	7.0
2210	7.4
2410	8.0
2610	8.7
2810	9.4
3010	10.0

Pic. 4.6

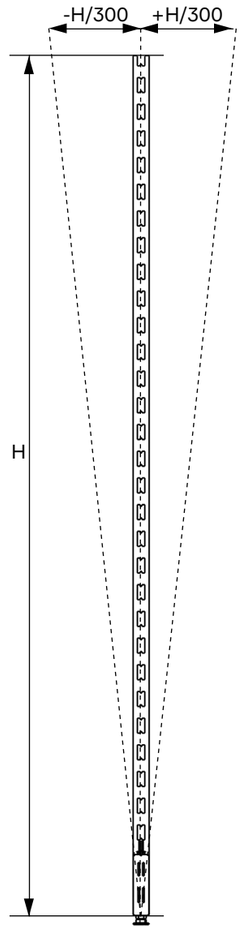


Table 4.3

Height of an upright, H	Відхилення ноги H/300,мм
1110	3.7
1210	4.0
1410	4.7
1610	5.4
1810	6.0
2010	6.7
2110	7.0
2210	7.4
2410	8.0
2610	8.7
2810	9.4
3010	10.0

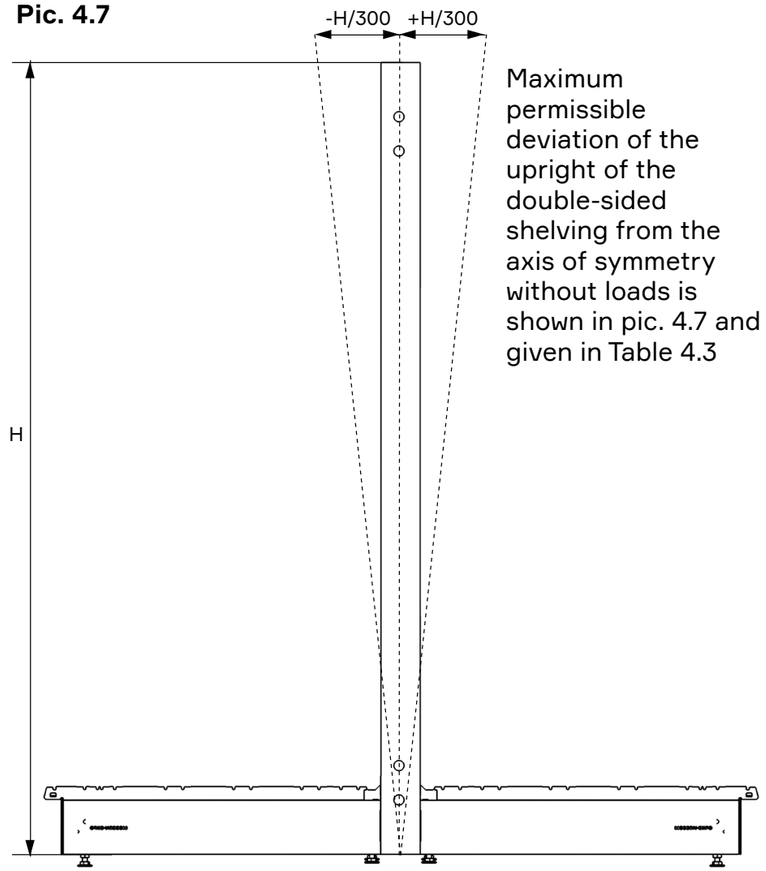
On the pic. 4.6 shows the longitudinal deviationm relative to the axis and given in Table 4.2.

Permissible transverse deviation of the upright of the wall-adjacent shelving, without load.

Table 4.2

Height of an upright, H	Deviation of an upright H/300, mm
1110	3.7
1210	4.0
1410	4.7
1610	5.4
1810	6.0
2010	6.7
2110	7.0
2210	7.4
2410	8.0
2610	8.7
2810	9.4
3010	10.0

Pic. 4.7

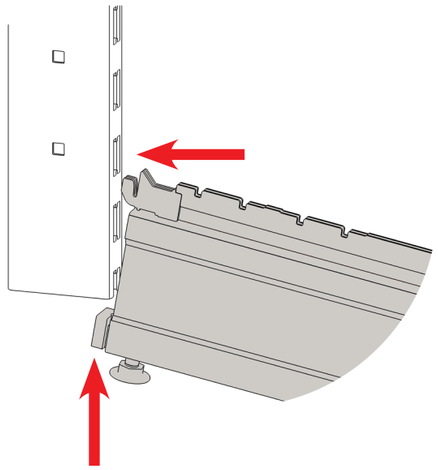


Maximum permissible deviation of the upright of the double-sided shelving from the axis of symmetry without loads is shown in pic. 4.7 and given in Table 4.3

6.1 UPRIGHT INSTALLATION

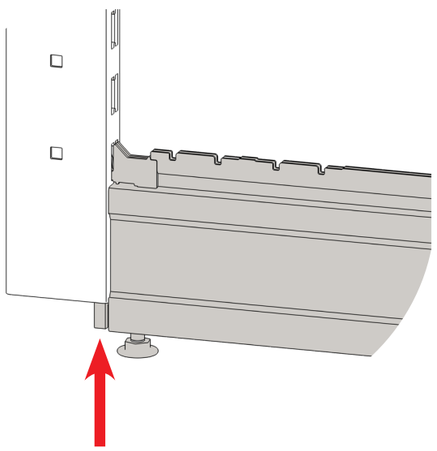
6.1.1 Put the top hitch of the base foot in the perforation of the upright, and the lower hitch – in the lower groove (pic. 4.8).

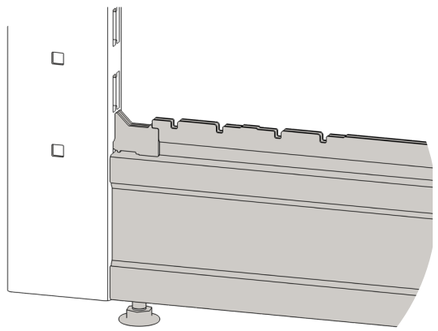
Pic. 4.8



6.1.2 Place the base foot into the upright up to the stop (pic. 4.9).

Pic. 4.9

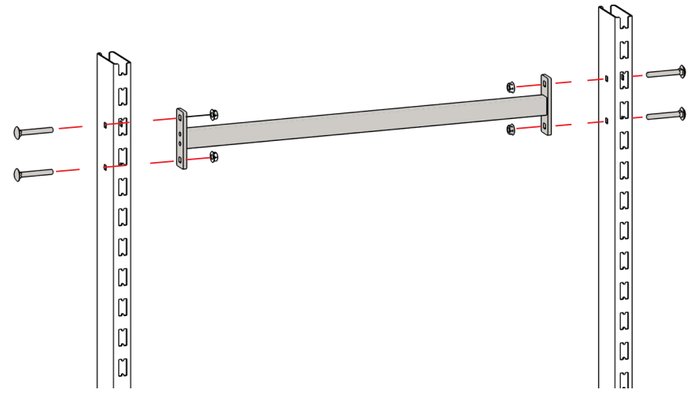




6.2. SHELVING INSTALLATION

6.2.1. To ensure the rigidity of the shelving construction, the crossbar is installed between the two uprights, which is secured with screws and nuts.

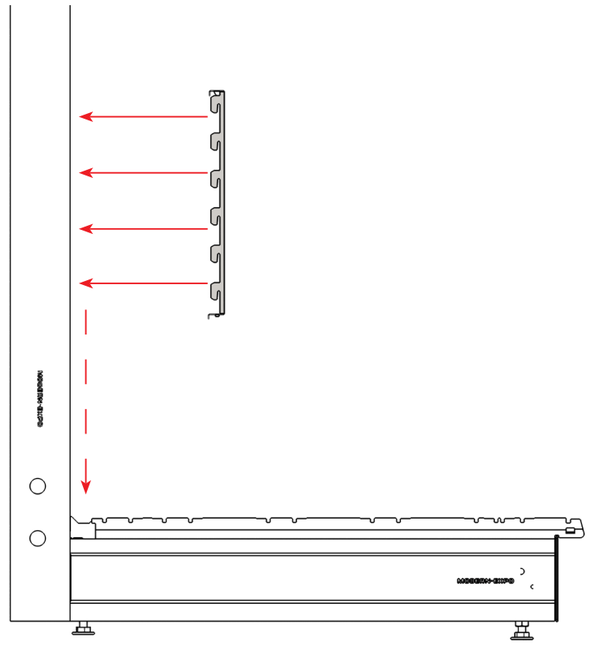
Pic. 4.10



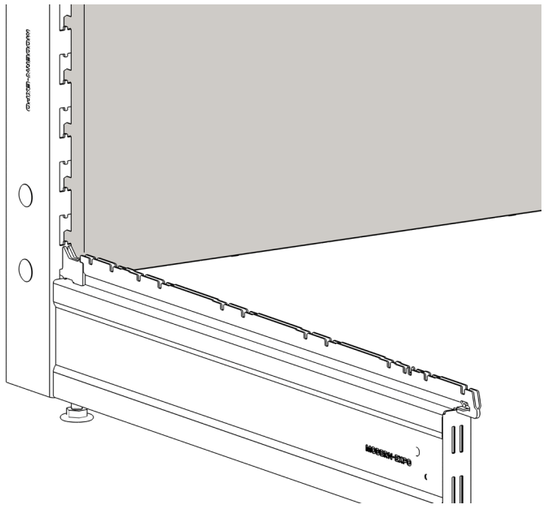
6.2.2. The back panels needed to hang from the bottom (pic. 4.11).

Pay attention that the lowest hook of bottom back panel went into the first hole of the upright, after base foot (pic. 4.12).

Pic. 4.11



Pic. 4.12



6.2.3. Install the plinth, by securing it with the basefeet inserts (pic. 4.13).

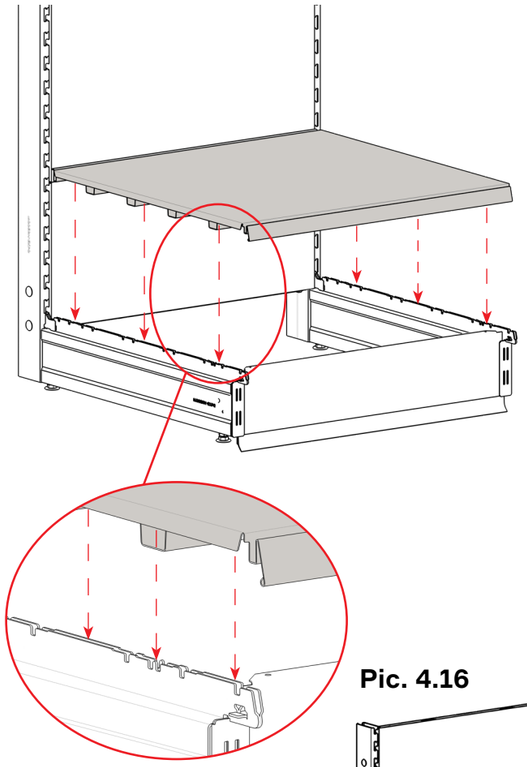
Pic. 4.13

6.2.4. Install base shelf between plates of each base feet (pic. 4.14).

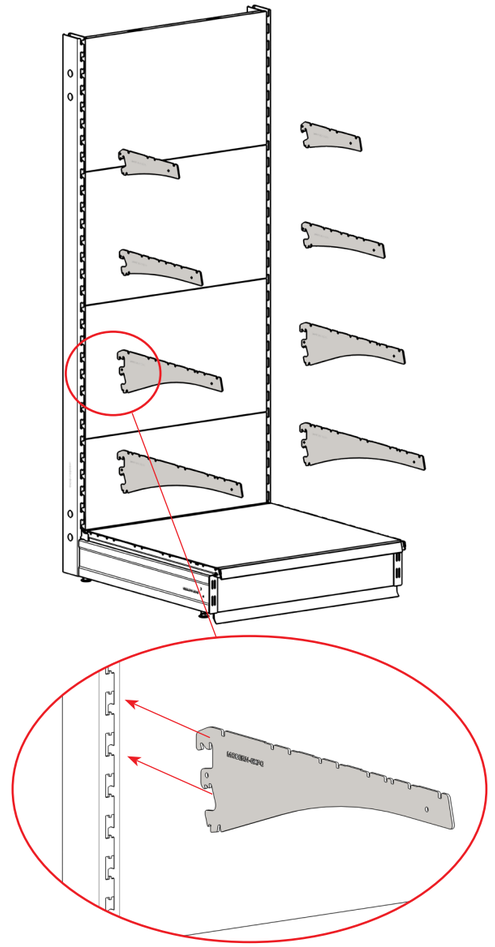
6.2.5. Fix the brackets in perforation upright holes at the required height (pic. 4.15).

6.2.6. Install shelves on the brackets (pic. 4.16).

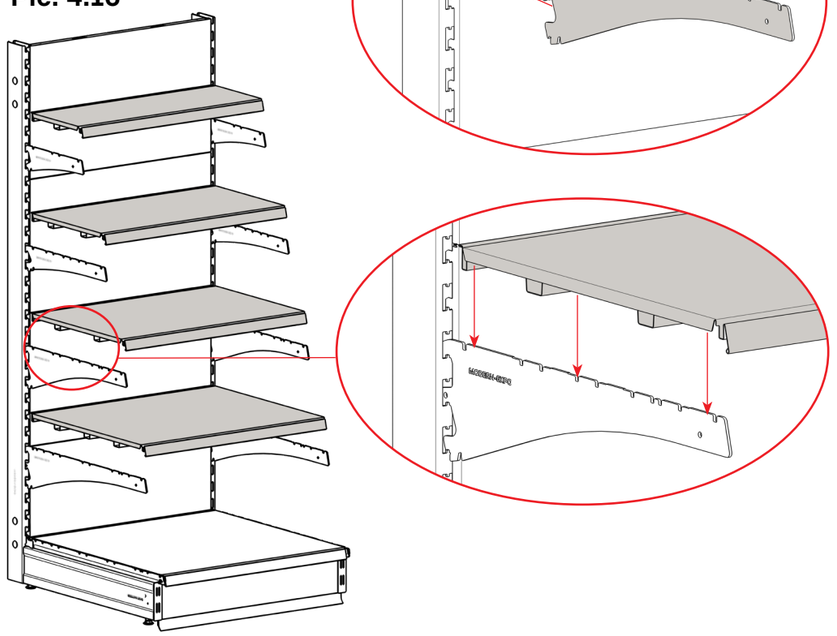
Pic. 4.14



Pic. 4.15



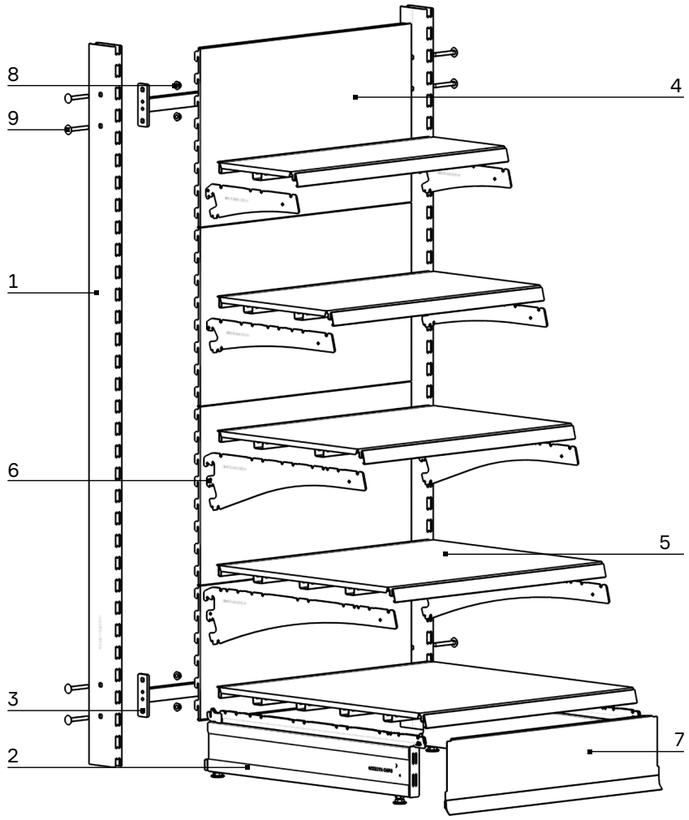
Pic. 4.16



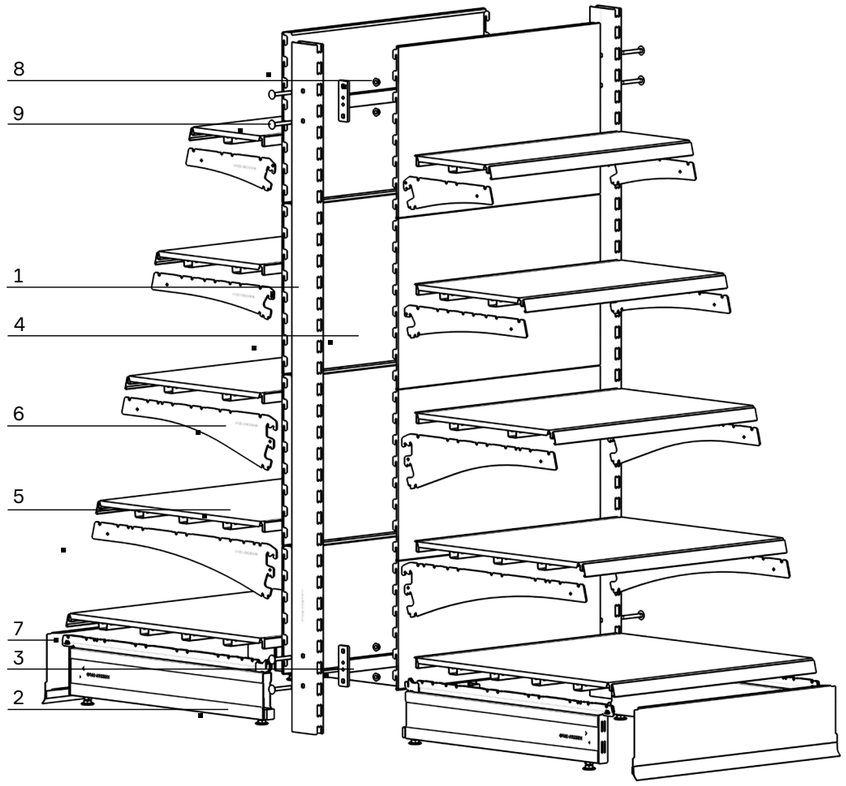
Note. The design of the universal bracket SG50 KRU XXX provides the ability to install it in three positions.

7. SHELVING UNITS CONSTRUCTION

Pic. 6.1



Pic. 6.2



6.1. Wall unit

№	Name	Q-ty
1	SG 50 ND – Upright	2
2	SG 50 PN – Base foot	2
3	SG 50 RPR – Crossbar	2
4	SG 50 ST – Back panel	4
5	SG 50 PP – Reinforced shelf	5
6	SG 50 KRU – Universal bracket	8
7	SG 50 PD – Plinth	1
8	Nut M8*8	8
9	Screw M8*60	8

6.2. Gondola unit

№	Name	Q-ty
1	SG 50 ND – Upright	2
2	SG 50 PN – Base foot	4
3	SG 50 RPR – Crossbar	2
4	SG 50 ST – Back panel	8
5	SG 50 PP – Reinforced shelf	10
6	SG 50 KRU – Universal bracket	16
7	SG 50 PD – Plinth	2
8	Nut M8*8	8
9	Screw M8*60	8

8. PACKAGING, STORAGE, TRANSPORTATION

All shelving elements are supplied to the customer in the package. The type of packaging may change at the discretion of the manufacturer, depending on the type and quantity of products.

The packaging provides protection during transportation, unloading, reliable fixing on the pallet and eliminates friction of products during storage, transportation, loading and unloading operations.

The elements of the shelving structure do not pose a danger to the environment. After the expiration of the shelving service life, the elements are to be disposed in the usual manner.

The packed elements of the shelving structure can be transported by any mode of transport in accordance with the rules of carriage valid for this type of transport.

Shelving transportation shall be carried out in a vehicle protected from the influence of the environment.

Shelving storage shall be carried out in an indoor area protected from direct influence of atmospheric precipitation, on wooden pallets and shelving at a temperature of -10°C to +25°C and relative humidity not more than 70%.

9. DISPOSAL

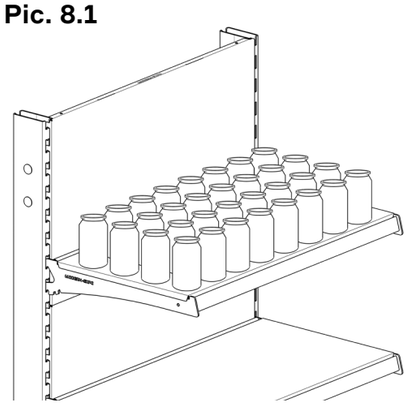
The structural elements of the shelving unit do not pose a threat to the environment. Upon completion of their service life, the shelving units must be dismantled and disposed of in accordance with the established procedure.

Disposal is carried out by disassembling the structure into its component materials, followed by transfer to the appropriate organizations for recycling or neutralization in accordance with the applicable waste management legislation.

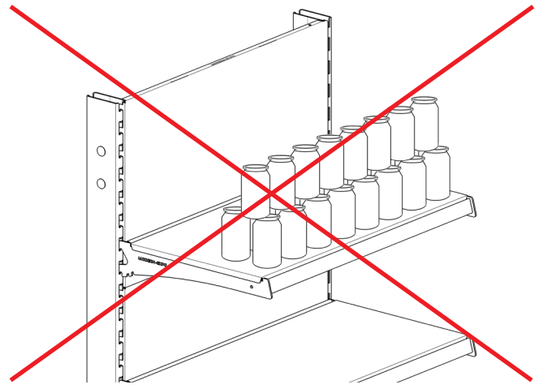
8. SAFETY AND PERMISSIBLE LOADING

Rules for distributing the loads on shelving

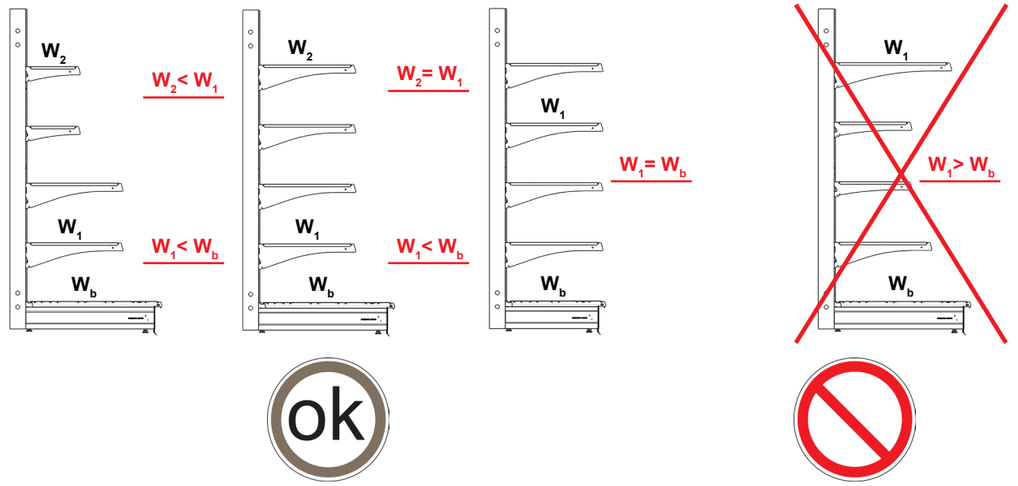
Pic. 8.1



a)

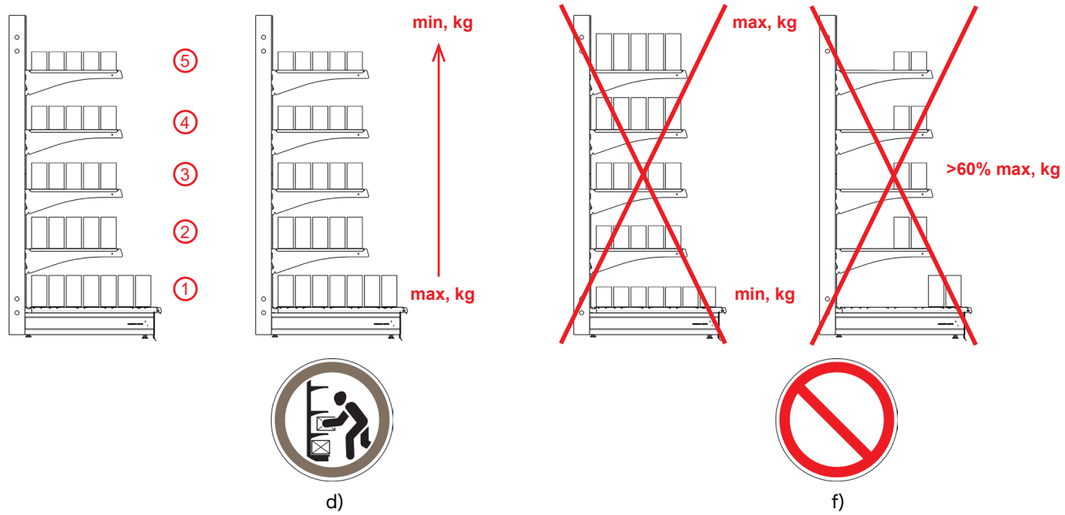


b)



c)

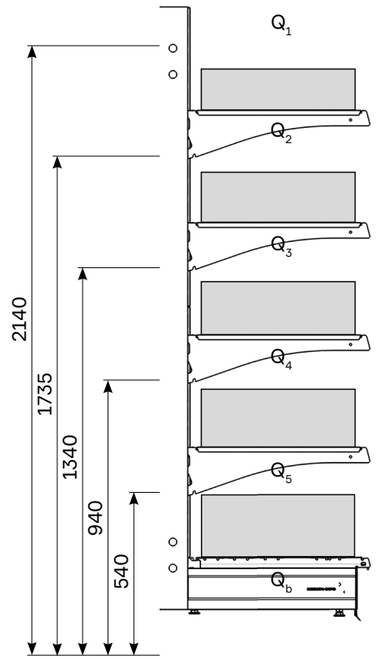
e)



d)

f)

Pic. 8.2



Maximum load on the wall unit = load on the basic shelf Qb + total load on shelves on the brackets Qh (pic. 8.2):

Qmax = Qb + Qh - wall unit

Qmax = 2Qb + 2Qh - gondola

Qh = Q1 + Q2 + Q3 + Q4 + Q5

The maximum load on the unit is calculated based on the deflection of the inner uprights of construction.

Permissible loads on shelves and racks should not exceed the maximum permissible values for each type of construction (look table 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7).

The calculation is made for one-section and two-section shelving constructions with a height of H = 2210 mm. Above are the permissible loads when the hinged shelves are placed at the following heights: 540 mm; 940 mm; 1340 mm; 1735 mm; 2140 mm.

*** L** – *lenght of the shelf;* **** W** – *depth of the shelf*

Permissible loading per reinforced base shelf, Qb, kg

Table 8.1

W**, mm / L*, mm	250	300	370	420	470	570	620	670
665	188	220	250	287	325	350	400	500
1000	198	286	375	340	300	415	530	650
1250	140	225	315	325	335	400	460	535
1330	110	160	248	307	370	385	400	420

Permissible loading per reinforced shelf, Qp, kg

Table 8.2

W**, mm / L*, mm	250	300	370	420	470	570	620	670
665	125	200	250	250	250	250	250	250
1000	175	210	250	250	250	250	250	250
1250	130	160	240	250	250	250	250	250
1330	105	150	200	250	250	250	250	250

Permissible loading per reinforced base shelf standard, Qb, kg

Table 8.3

W**, mm / L*, mm	200	250	300	370	420	470	570	620
665	65	110	120	175	175	250	250	250
1000	65	130	140	245	245	260	300	300
1250	65	110	120	230	230	300	275	275
1330	65	135	160	200	200	260	275	275

Permissible loading per reinforced shelf standard, Qp, kg

Table 8.4

W**, mm / L*, mm	200	250	300	370	420	470	570	620
665	60	100	100	125	125	200	190	175
1000	60	130	130	140	140	200	200	185
1250	60	110	110	140	140	230	205	190
1330	60	125	125	130	130	190	175	160

Permissible hanging shelves loading in the section of gondola shelving Qh, kg

Table 8.5

W**, mm / Upright profile, mm	370	420	470	570	620	670
60x30	238	200	188	150	130	125
80x30	375	325	313	275	263	250
110x30	563	512	488	400	350	338

Permissible hanging shelves loading for a single-section shelfing Qh, kg

Table 8.6

W**, mm / Upright profile, mm	370	420	470	570	620	670
60x30	297	252	210	189	175	161
80x30	437	420	385	357	353	332
110x30	728	616	504	490	476	472

** W – shelf depth

Permissible load on the bar Q, kg

Name	SG50 SHT 20 40	SG50 SHT Z 20 40	SG50 SHTP 20 50	SG50 SHT 20 30	SG50 SHT 15 30
Q, kg	125	125	200	75	68

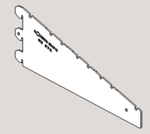
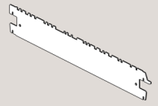
Permissible load on the shelving with front upright is – 1200 kg.

Permissible loading per pair of brackets Q, kg

Table 8.7

	SG50 KRU 2H (D)			SG50 KRU 2H (D)		SG50 KRU 3H (D)		SG50 KRP 3H (D)			
											
Bracket depth, mm	200	250	300	370	470	470	570	370	470	570	670
Permissible loading, kg	120	120	110	200	190	350	330	460	460	360	400

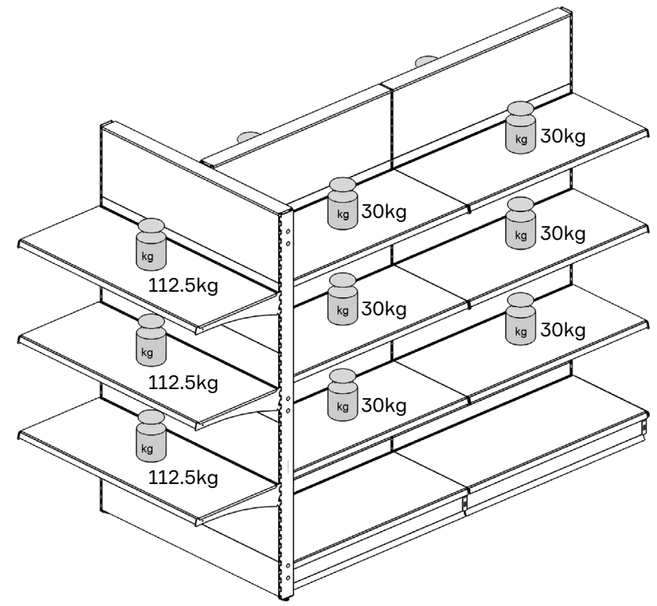
	SG50 KR 4P (D)		SG50 KRP 4H (D)				SG50 KRN 2H V (D)				
											
Bracket depth, mm	**470**	**570**	**470**	**570**	**670**	**770**	**200**	**250**	**300**	**370**	**470**
Permissible loading, kg	**240**	**180**	**375**	**300**	**350**	**250**	**100**	**150**	**140**	**125**	**100**

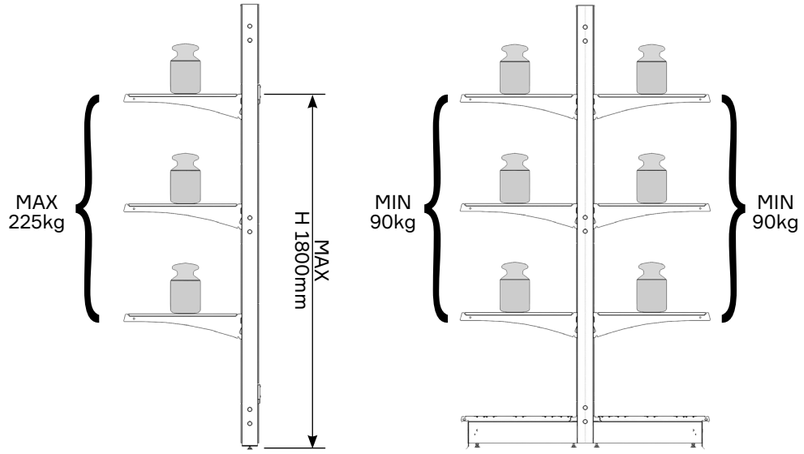
	SG50 KRPN 3H V (D)			SG50 KRPN 3H N (D)					SG50 KRDP (D) / SG50 KRD (D)		
											
Bracket depth, mm	370	470	570	370	470	570	670	770	470	570	670
Permissible loading, kg	200	250	225	150	225	250	200	190	700	700	700

Loads are applied for brackets in the straight position.

Permissible load per gondola head shelving without base

Pic. 8.3

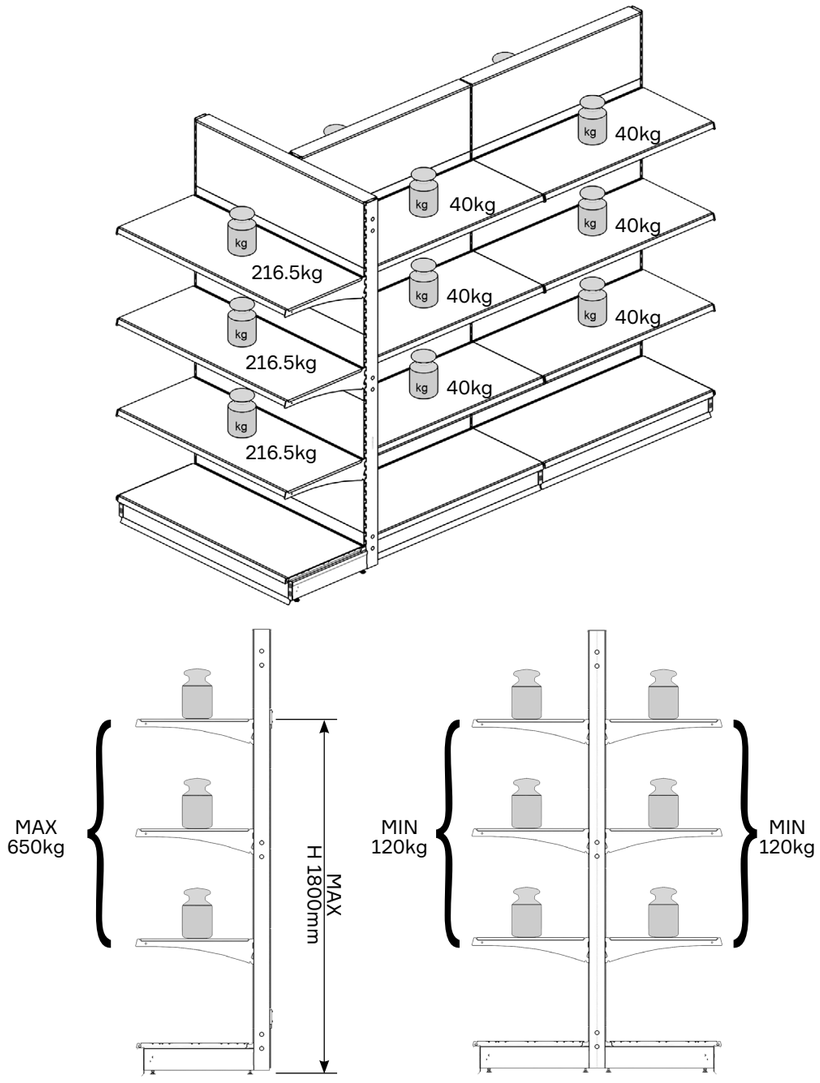




Top shelf of gondola head shelving should be located at a height of no more than 1800 mm from the floor.
Minimum weight of countermeasures for gondola head shelving without base is 180 kg.
Permissible load per gondola head shelving without base is 225 kg.

Permissible load per gondola head shelving with base

Pic. 8.4

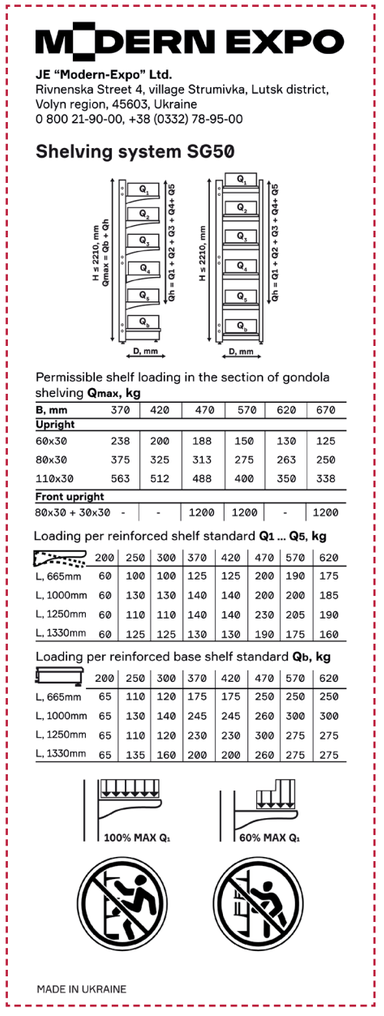


Top shelf of gondola head shelving should be located at a height of no more than 1800mm from the floor.
Minimum weight of countermeasures for gondola head shelving with base is 240 kg.
Permissible load per gondola head shelving with base is 650 kg.

9. LABELING OF LOAD BEARING COMPONENTS

Labels with information about permissible loads must be sticked on the left upright of gondola head,approximately at 1750 mm from the floor, if the shelving is lower than 1800 mm, label with information must be sticked 50 mm below the upper point of the upright.

Pic. 9.1


MODERN EXPO

JE "Modern-Expo" Ltd.
Rivnenska Street 4, village Strumivka, Lutsk district,
Volyn region, 45603, Ukraine
0 800 21-90-00, +38 (0332) 78-95-00

Shelving system SG50

Permissible shelf loading in the section of gondola shelving **Qmax, kg**

B, mm	370	420	470	570	620	670
Upright						
60x30	238	200	188	150	130	125
80x30	375	325	313	275	263	250
110x30	563	512	488	400	350	338
Front upright						
80x30 + 30x30	-	-	1200	1200	-	1200

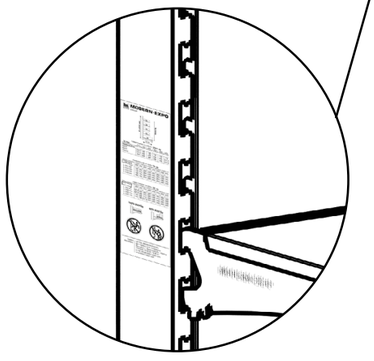
Loading per reinforced shelf standard **Q1 ... Q5, kg**

	200	250	300	370	420	470	570	620
L, 665mm	60	100	100	125	125	200	190	175
L, 1000mm	60	130	130	140	140	200	200	185
L, 1250mm	60	110	110	140	140	230	205	190
L, 1330mm	60	125	125	130	130	190	175	160

Loading per reinforced base shelf standard **Qb, kg**

	200	250	300	370	420	470	570	620
L, 665mm	65	110	120	175	175	250	250	250
L, 1000mm	65	130	140	245	245	260	300	300
L, 1250mm	65	110	120	230	230	300	275	275
L, 1330mm	65	135	160	200	200	260	275	275

MADE IN UKRAINE



Language	Article
white	
UA	1025-153-00
EN	1025-154-00
DE	1025-155-00
black	
UA	1025-156-00
EN	1025-157-00
DE	1025-158-00

12. WARRANTY OBLIGATIONS

JE “Modern-Expo” guarantees the elimination of manufacturing defects in the equipment identified during acceptance, installation, or operation within 12 months from the moment of its transfer to the buyer, provided that the installation was carried out no later than 1 month from the transfer to the buyer, and also if the installation (supervised installation) of the equipment was performed by the supplier’s representatives (authorized subcontractor by the supplier) or by specialists certified by the supplier.

In all other cases, the warranty period for the equipment is 14 calendar days from the date of delivery to the buyer.

The warranty does not apply in the following cases:

- use of the equipment for purposes other than its intended use;
- any mechanical or chemical damage;
- for damage to the paintwork resulting from violation of transportation, storage, installation or operation conditions;
- failure to comply with the storage and operating conditions described in the operating manual;
- damage incurred during transportation, unloading, storage, or incorrect installation by the buyer and/or third parties;
- in case of equipment defects as a result of force majeure;
- missing or altered factory serial number (if available);
- unapproved modifications to the equipment’s design;
- intervention in the equipment by persons not authorized by the manufacturer;
- execution of repair, adjustment, or replacement of components and other works by individuals who are not employees of the supplier or not authorized by the manufacturer;
- natural wear and tear of the structural components (e.g., discoloration, abrasions, scratches resulting from operation, etc.);
- damage resulting from using the equipment in combination with other equipment not provided or approved by the manufacturer;
- use of non-original spare parts, components, or consumables.
- damage caused by improper electrical contact
- The warranty does not cover consumables (fuses, lamps, etc.).

Any repairs or replacement of defective materials or mechanisms during the warranty period do not extend the overall warranty period.

The timeframe for eliminating defects or replacing the equipment is 30 (thirty) days from the date of the official defect report (Act).

CERTIFICATE OF RACKING ACCEPTANCE BY CUSTOMER

This confirms that the customer’s side has no claims to the supplier regarding the quality and safety of the delivered and assembled racking equipment.

Customer Representative, Full Name _____

Position _____

Date/Signature _____

MODERN EXPO

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