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Racks with integration The NX Mini System 55×40

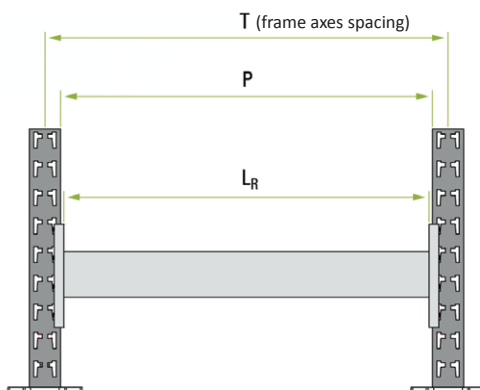
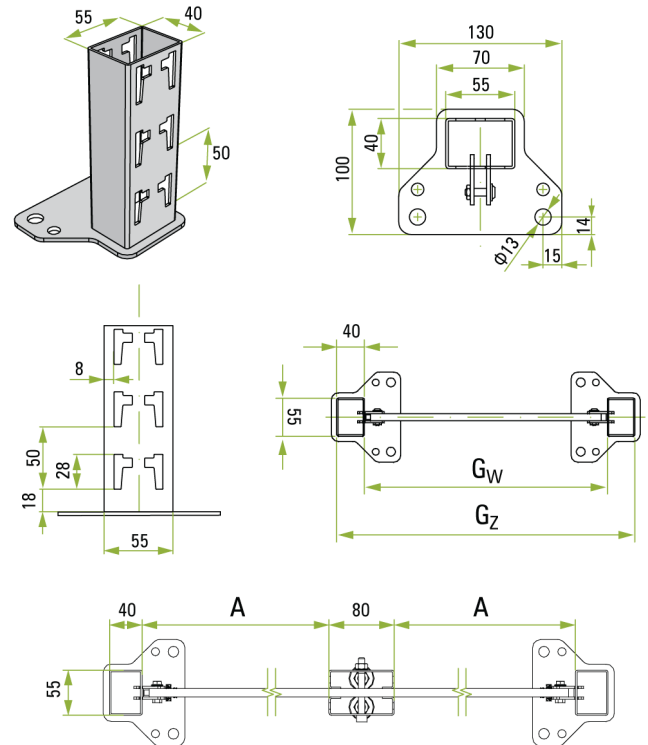
IPS 55x40 - Basic dimensions



Racks include a type series of structures built on the basis of frames made with columns with the rectangular cross-section of 55x40 mm.

Frames are the basic element of the load-bearing rack structure.

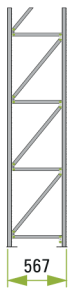
Basic construction dimensions of IPS 55x40 racks are shown in the drawings below.



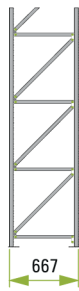
Travers [Lh]	T [mm]	P [mm]	Lr [mm]	Lh shelf
1250	1275	1220	1209	1250
1330	1358	1303	1292	1330
2000	2025	1970	1959	2x1000
2500	2525	2470	2459	2x1250
2660	2691	2636	2625	2x1330
2730	2761	2706	2695	-
3000	3025	2970	2959	3x1000

Frame [Gh]	Gz [mm]	Gw [mm]	A [mm]	Gh shelf
600	567	487	-	470
700	667	587	-	570
800	767	687	-	670
950	934	854	387	370+370
1150	1134	1054	487	470+470
1350	1334	1254	587	570+570
1550	1534	1454	687	670+670

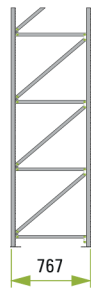
Arrangement scheme of braces in frames built on 55 x 40 mm columns.



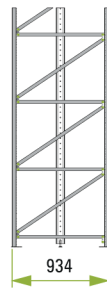
G-600



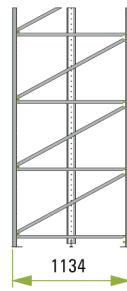
G-700



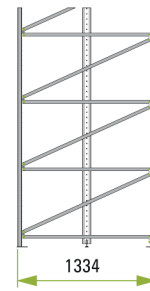
G-800



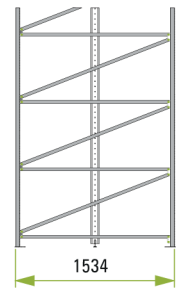
G-950



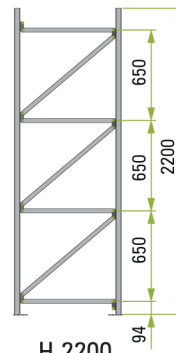
G-1150



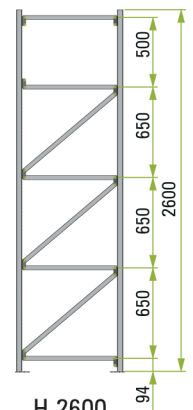
G-1350



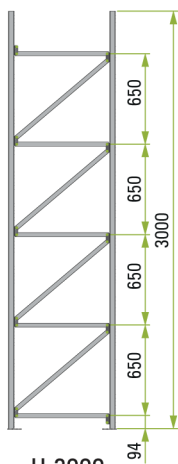
G-1550



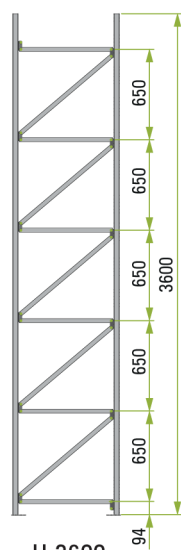
H-2200



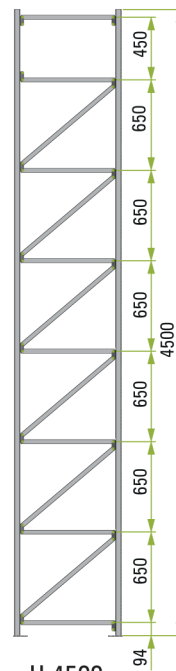
H-2600



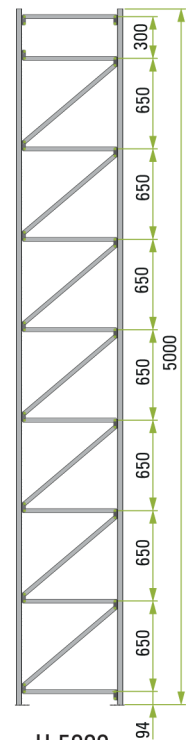
H-3000



H-3600



H-4500



H-5000

03 IPS 55x40

Load capacity of the structure. Frames (legs) with 55 x 40 mm columns

Permissible loads for racks built on frames made of 55 x 40 mm profiles, depending on the vertical distance between consecutive crossbeams (storage levels).

Information presented in Table 1 applies to racks built of at least three segments (four frames).

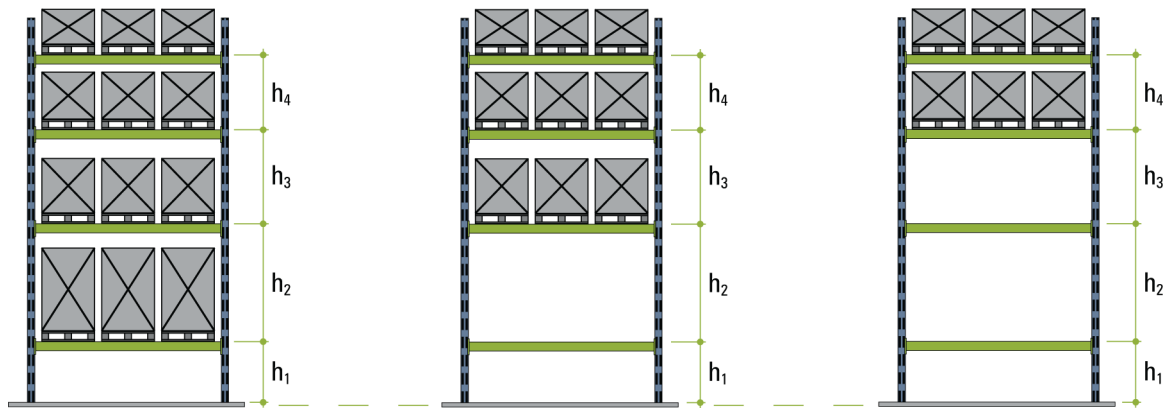


Table 1. Permissible loads of a pallet type rack over a bay with the height h

	h (h1, h2, h3, ...)- distance between subsequent crossbeams (storage levels)					
55x40	750	1000	1250	1500	1750	2000
	4800	3800	3000	2200	2000	1900

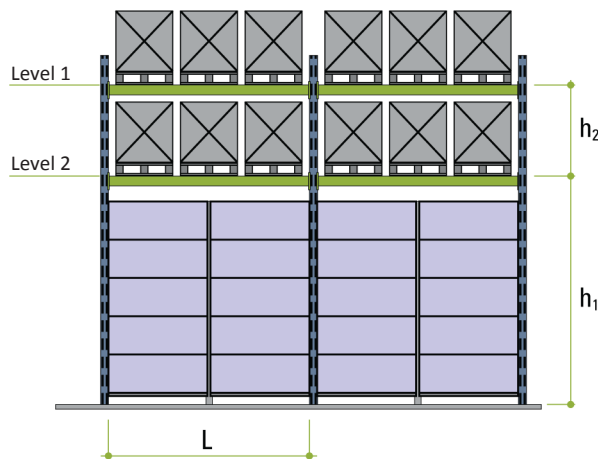


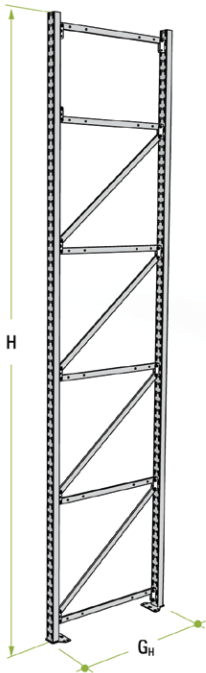
Table 2. Permissible loads for a rack with integration

integration height	h2- distance between subsequent crossbeams (storage levels) in the part above (!) the integration				
h1 [mm]	750	1000	1250	1500	1600
2200			1400		
2400			1150		
2600			950		

IPS 55x40 04

01.01

Frames for one-sided integration



NOTE:

Building of an integration with a shallowing requires the use of an adapter [01.03.] or [01.04.]

Frames G-600

Gh	H	Symbol	Integration Gh shelf
600	2200	IPS55401006220	
	2600	IPS55401006260	
	3000	IPS55401006300	
	3600	IPS55401006360	470
	4500	IPS55401006450	
	5000	IPS55401006500	
	6000	IPS55401006600	

Frames G-700

Gh	H	Symbol	Integration Gh shelf
700	2200	IPS55401007220	
	2600	IPS55401007260	
	3000	IPS55401007300	470
	3600	IPS55401007360	570
	4500	IPS55401007450	
	5000	IPS55401007500	
	6000	IPS55401007600	

01.02 Levelling pad

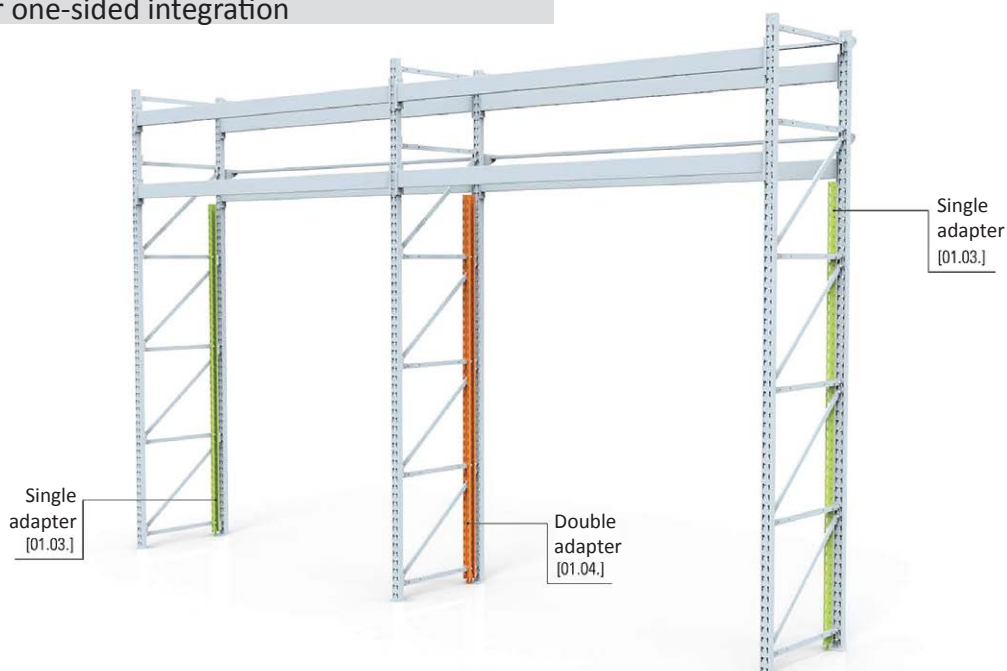


b [mm]	Symbol
1	IPS55401022
2	IPS55401023
6	IPS55401024

Frames G-800

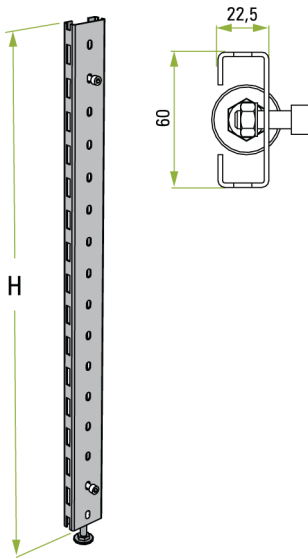
Gh	H	Symbol	Integration Gh shelf
800	2200	IPS55401008220	
	2600	IPS55401008260	
	3000	IPS55401008300	470
	3600	IPS55401008360	570
	4500	IPS55401008450	670
	5000	IPS55401008500	
	6000	IPS55401008600	

Adapters for one-sided integration



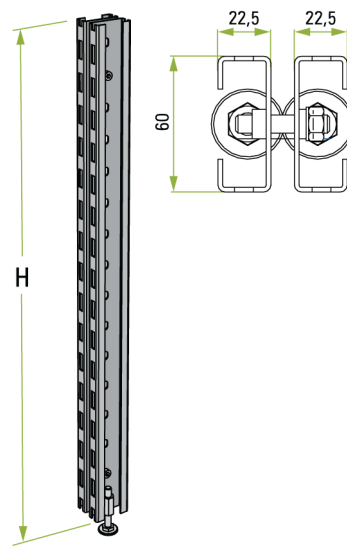
05 IPS 55x40

01.03 Single adapter for one-sided integration



H [mm]	Profile symbol
2200	IPS55401025220
2300	IPS55401025230
2500	IPS55401025250
2600	IPS55401025260
2900	IPS55401025290
3000	IPS55401025300
3500	IPS55401025350
3600	IPS55401025360
4000	IPS55401025400
4500	IPS55401025450
5000	IPS55401025500

01.04 Double adapter for on



H
2200
2300
2500
2600
2900
3000
3500
3600
4000
4500
5000

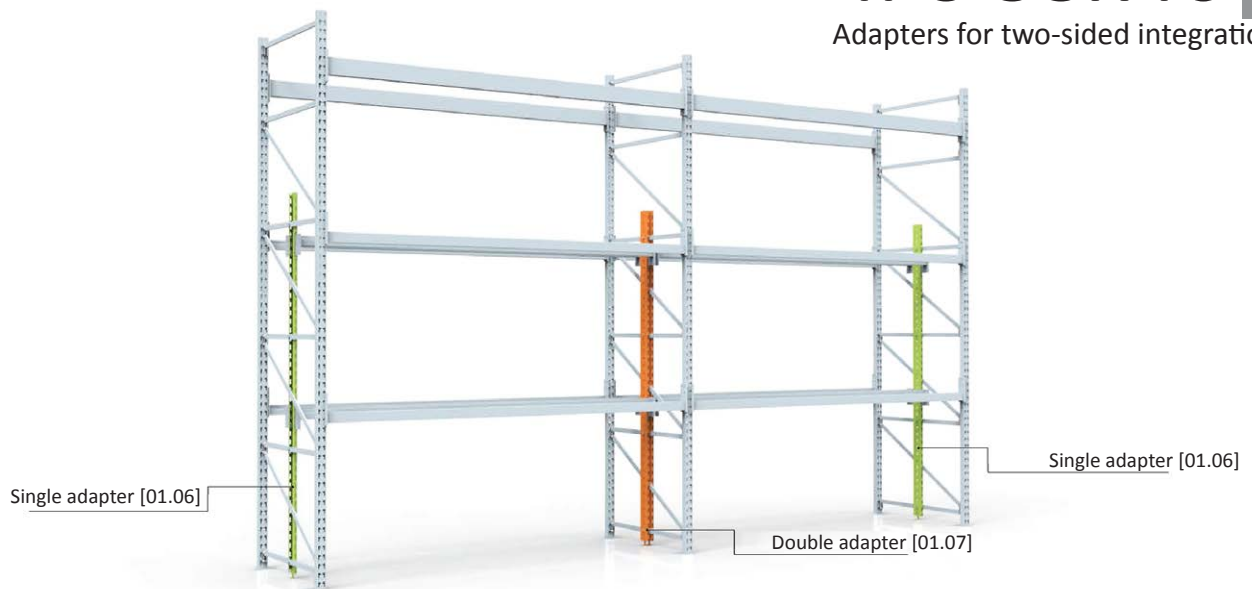
01.05 Frames for two-sided integration



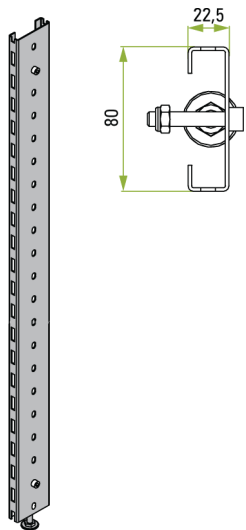
Gh	H	Symbol
	2200	IPS55401045220
	2600	IPS
	3000	IPS
950	3600	IPS

IPS 55x40 06

Adapters for two-sided integration

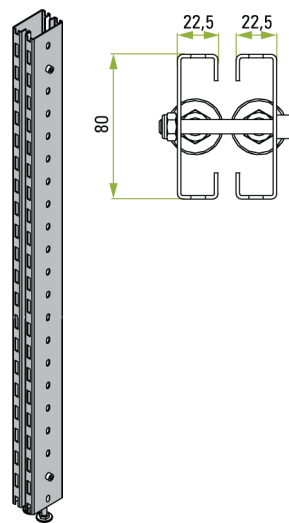


01.06 Single adapter for two-sided integration



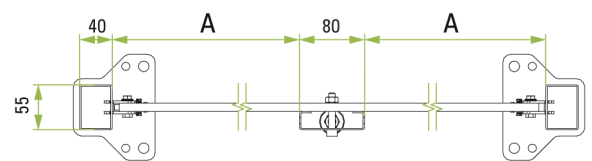
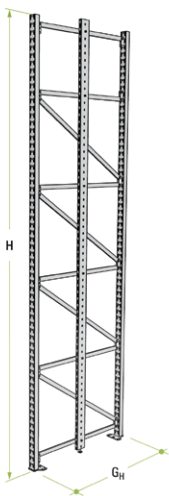
H [mm]	Profile symbol
2200	IPS55401075220
2300	IPS55401075230
2500	IPS55401075250
2600	IPS55401075260
2900	IPS55401075290
3000	IPS55401075300
3500	IPS55401075350
3600	IPS55401075360
4000	IPS55401075400
4500	IPS55401075450
5000	IPS55401075500

01.07 Single adapter for two-sided integration



H [mm]	Profile symbol
2200	IPS55401085220
2300	IPS55401085230
2500	IPS55401085250
2600	IPS55401085260
2900	IPS55401085290
3000	IPS55401085300
3500	IPS55401085350
3600	IPS55401085360
4000	IPS55401085400
4500	IPS55401085450
5000	IPS55401085500

01.08 End frames for two-sided integration



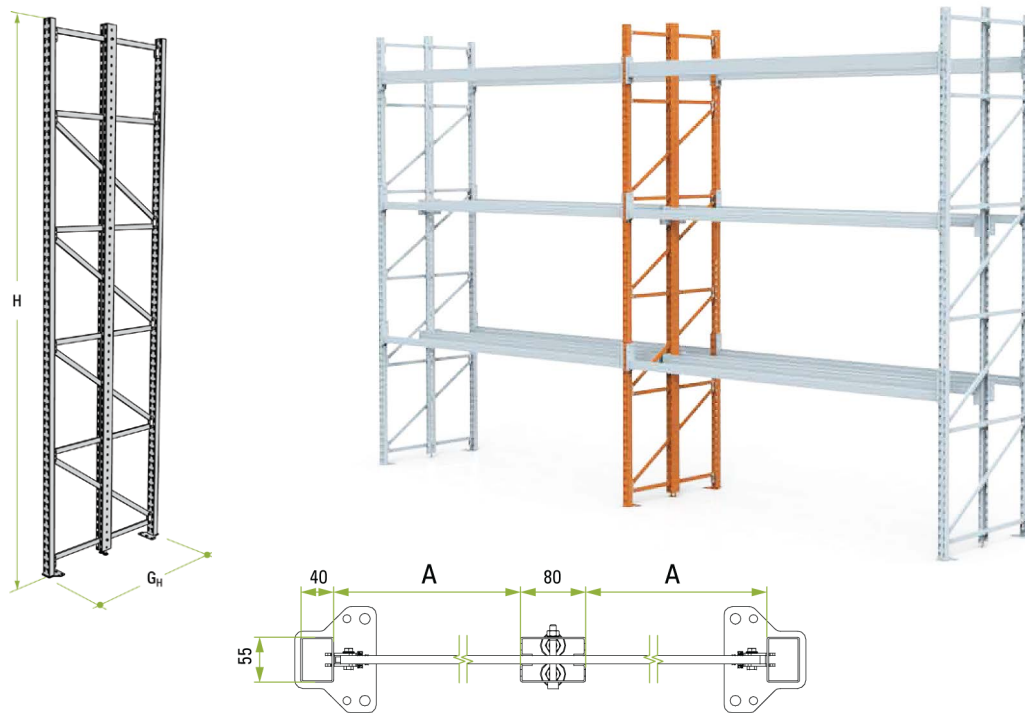
Gh	A	H	Symbol	Integration Gh Shelf
		2200	IPS55401095220	
		2600	IPS55401095260	
		3000	IPS55401095300	
950	387	3600	IPS55401095360	370+370
		4500	IPS55401095450	
		5000	IPS55401095500	

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Gh	A	H	Symbol	Integration Gh Shelf	Gh	A	H	Symbol	Integration Gh Shelf
1150	487	2200	IPS55401100220	470+470	1350	587	2200	IPS55401105220	570+570
		2600	IPS55401100260				2600	IPS55401105260	
		3000	IPS55401100300				3000	IPS55401105300	
		3600	IPS55401100360				3600	IPS55401105360	
		4500	IPS55401100450				4500	IPS55401105450	
		5000	IPS55401100500			5000	IPS55401105500		

Gh	A	H	Symbol	Integration Gh Shelf
1550	687	2200	IPS55401115220	670+670
		2600	IPS55401115260	
		3000	IPS55401115300	
		3600	IPS55401115360	
		4500	IPS55401115450	
		5000	IPS55401115500	

01.09 Middle frames for two-sided integration



Gh	A	H	Symbol	Integration Gh Shelf	Gh	A	H	Symbol	Integration Gh Shelf
950	387	2200	IPS55401120220	370+370	1350	587	2200	IPS55401130220	570+570
		2600	IPS55401120260				2600	IPS55401130260	
		3000	IPS55401120300				3000	IPS55401130300	
		3600	IPS55401120360				3600	IPS55401130360	
		4500	IPS55401120450				4500	IPS55401130450	
		5000	IPS55401120500			5000	IPS55401130500		

Gh	A	H	Symbol	Integration Gh Shelf	Gh	A	H	Symbol	Integration Gh Shelf
1150	487	2200	IPS55401125220	470+470	1550	687	2200	IPS55401135220	670+670
		2600	IPS55401125260				2600	IPS55401135260	
		3000	IPS55401125300				3000	IPS55401135300	
		3600	IPS55401125360				3600	IPS55401135360	
		4500	IPS55401125450				4500	IPS55401135450	
		5000	IPS55401125500			5000	IPS55401135500		



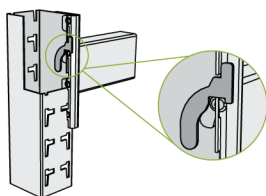
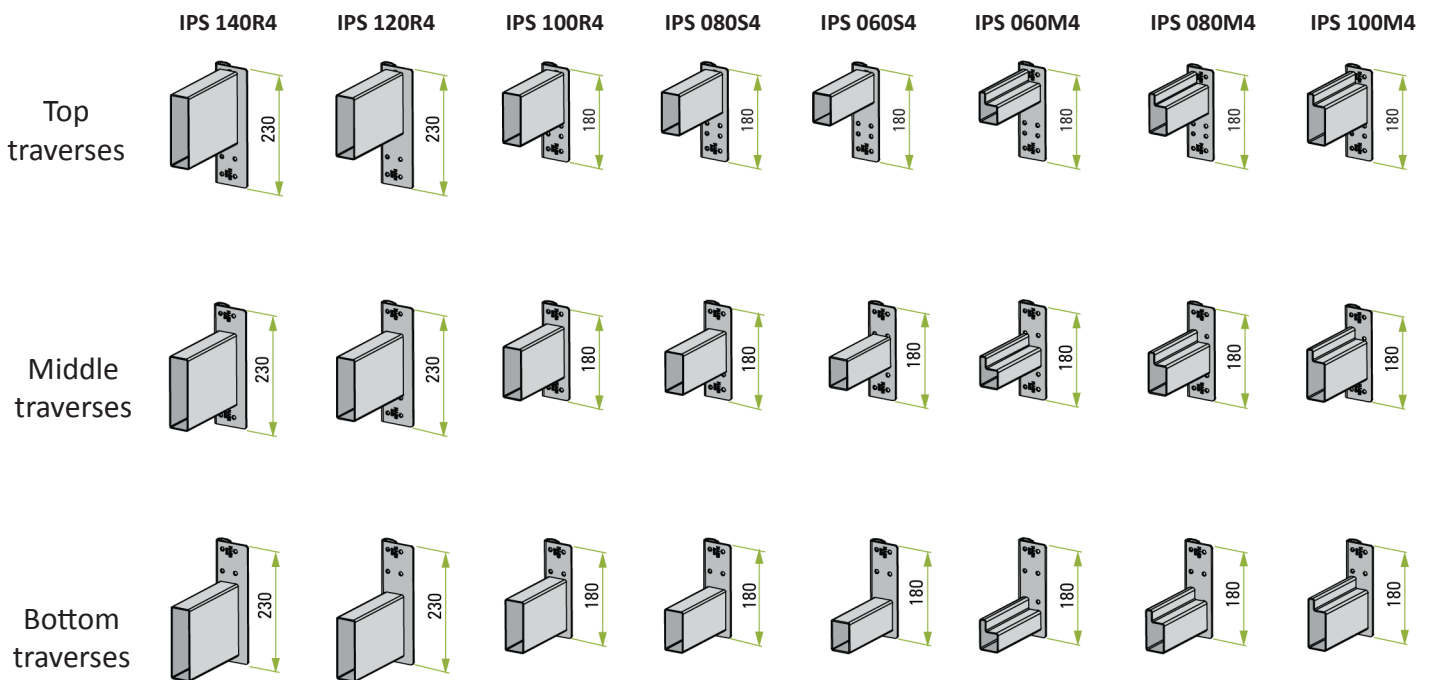
Beams (traverses) are the main longitudinal elements, building the basic load-bearing structure of IPS racks.

In terms of construction, beams (traverses) are built of different types of steel profiles, with suitably shaped claws welded to the ends, ensuring correct assembly in perforations of frame columns.

We offer a broad scope of beams (traverses), allowing to precisely adapt the rack structure to individual requirements.

Presented below is a selection of the most frequently used crossbeam sections, with suitable claws, welded in the following position:

bottom, top, and middle (standard).

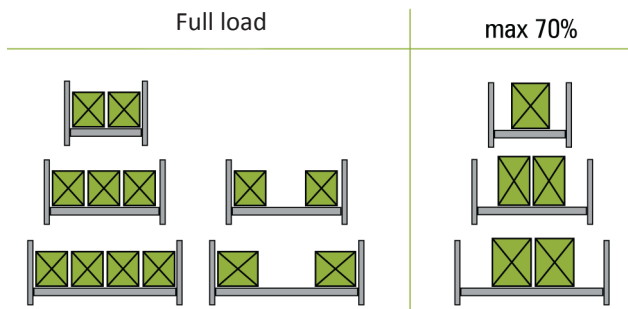


After assembly in the frame perforation, each crossbeam must be secured against falling out.

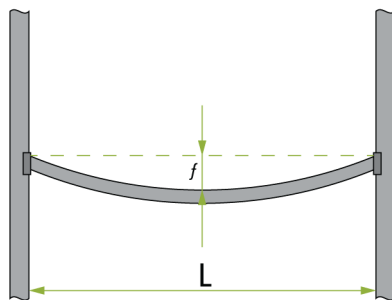
09 IPS 55x40

Tabela 3. Beams load capacity reference values.

	IPS 060M4 (60x40x2,0)	IPS 080M4 (80x40x2,0)	IPS 060S4 (6x40x2,5)	IPS 080S4 (80x40x2,0)	IPS 100R4 (100x40x2,0)	IPS 120R4 (120x40x2,0)	IPS 140R4 (140x40x2,0)
	S235	S235	S235	S235	S355	S355	S355
1250	1050	1550	1600	1880	3800	5000	5000
1330	1000	1500	1500	1800	3600	4700	5000
2000	720	1030	1050	1250	2500	3200	3900
2500	620	880	850	1050	2000	2600	3200
2660	590	850	780	1000	1800	2450	3050
2730	550	820	750	950	1750	2400	3000
3000	450	750	650	900	1450	2150	2750



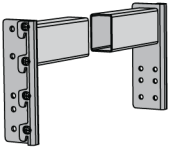
Permissible loads for pairs of crossbeams (bays) listed in tables 3 and 4 apply in the case of correctly distributed loads (full load).



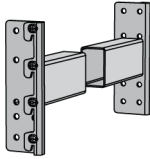
For correctly loaded crossbeams, the deflection f cannot exceed $L/200$

02.01 Travers IPS 060S4

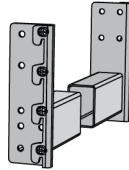
Top type



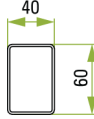
Middle type



Bottom type



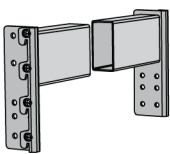
Lh [mm]	Top	Middle	Bottom
1250	IPS55401145	IPS55401146	IPS55401147
1330	IPS55401148	IPS55401149	IPS55401150
2000	IPS55401151	IPS55401152	IPS55401153
2500	IPS55401154	IPS55401155	IPS55401156
2660	IPS55401157	IPS55401158	IPS55401159
2730	IPS55401160	IPS55401161	IPS55401162
3000	IPS55401163	IPS55401164	IPS55401165



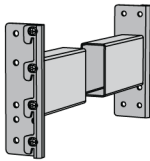
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.02 Travers IPS 080S4

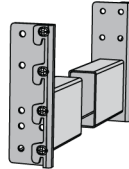
Top type



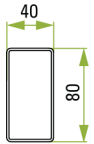
Middle type



Bottom type



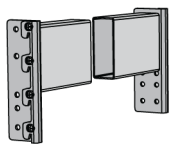
Lh [mm]	Top	Middle	Bottom
1250	IPS55401166	IPS55401167	IPS55401168
1330	IPS55401169	IPS55401170	IPS55401171
2000	IPS55401172	IPS55401173	IPS55401174
2500	IPS55401175	IPS55401176	IPS55401177
2660	IPS55401178	IPS55401179	IPS55401180
2730	IPS55401181	IPS55401182	IPS55401183
3000	IPS55401184	IPS55401185	IPS55401186



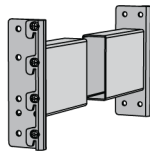
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.03 Travers IPS 100R4

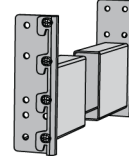
Top type



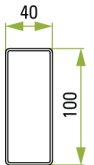
Middle type



Bottom type



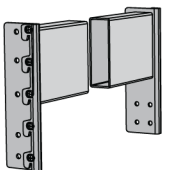
Lh [mm]	Top	Middle	Bottom
1250	IPS55401187	IPS55401188	IPS55401190
1330	IPS55401191	IPS55401192	IPS55401193
2000	IPS55401194	IPS55401195	IPS55401196
2500	IPS55401197	IPS55401198	IPS55401199
2660	IPS55401200	IPS55401201	IPS55401202
2730	IPS55401203	IPS55401204	IPS55401205
3000	IPS55401206	IPS55401207	IPS55401208



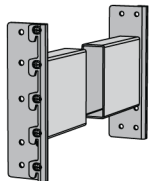
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.04 Travers IPS 120R4

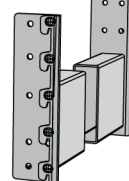
Top type



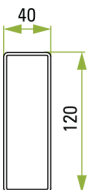
Middle type



Bottom type



Lh [mm]	Top	Middle	Bottom
1250	IPS55401209	IPS55401210	IPS55401211
1330	IPS55401212	IPS55401213	IPS55401214
2000	IPS55401215	IPS55401216	IPS55401217
2500	IPS55401218	IPS55401219	IPS55401220
2660	IPS55401221	IPS55401222	IPS55401223
2730	IPS55401224	IPS55401225	IPS55401226
3000	IPS55401227	IPS55401228	IPS55401229

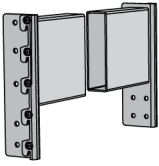


NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

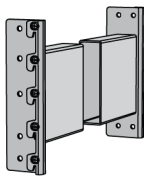
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02.05 Travers IPS 140R4

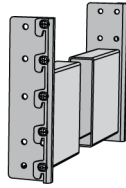
Top type



Middle type



Bottom type



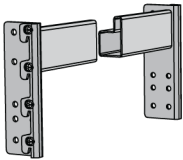
Lh [mm]	Top	Middle	Bottom
1250	IPS55401231	IPS55401232	IPS55401233
1330	IPS55401234	IPS55401235	IPS55401236
2000	IPS55401237	IPS55401238	IPS55401239
2500	IPS55401240	IPS55401241	IPS55401242
2660	IPS55401243	IPS55401244	IPS55401245
2730	IPS55401246	IPS55401247	IPS55401248
3000	IPS55401249	IPS55401250	IPS55401251



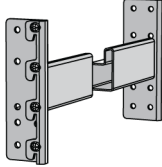
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.06 Stepped crossbeam IPS 060M4

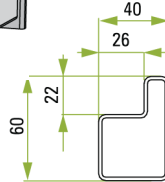
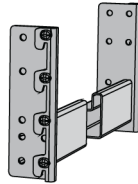
Top type



Middle type



Bottom type



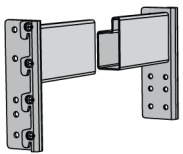
Lh [mm]	Top	Middle	Bottom
1250	IPS55401252	IPS55401253	IPS55401254
1330	IPS55401255	IPS55401256	IPS55401257
2000	IPS55401258	IPS55401259	IPS55401260
2500	IPS55401261	IPS55401262	IPS55401263
2660	IPS55401264	IPS55401265	IPS55401266
2730	IPS55401267	IPS55401268	IPS55401269
3000	IPS55401270	IPS55401271	IPS55401272



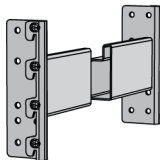
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.07 Stepped crossbeam IPS 080M4

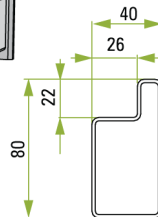
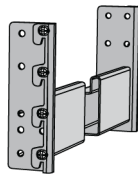
Top type



Middle type



Bottom type



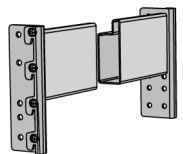
Lh [mm]	Top	Middle	Bottom
1250	IPS55401273	IPS55401274	IPS55401275
1330	IPS55401276	IPS55401277	IPS55401278
2000	IPS55401279	IPS55401280	IPS55401281
2500	IPS55401282	IPS55401283	IPS55401284
2660	IPS55401285	IPS55401286	IPS55401287
2730	IPS55401288	IPS55401289	IPS55401290
3000	IPS55401291	IPS55401292	IPS55401293



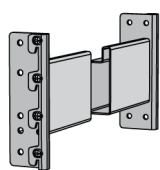
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.08 Stepped crossbeam IPS 100M4

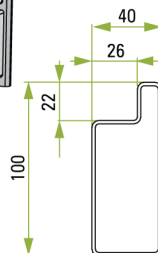
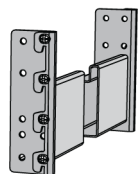
Top type



Middle type



Bottom type

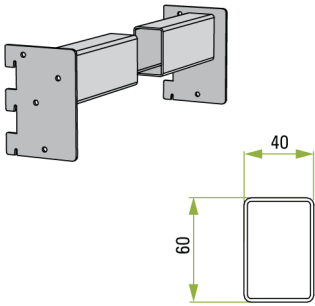


Lh [mm]	Top	Middle	Bottom
1250	IPS55401294	IPS55401295	IPS55401296
1330	IPS55401297	IPS55401298	IPS55401299
2000	IPS55401300	IPS55401301	IPS55401302
2500	IPS55401303	IPS55401304	IPS55401305
2660	IPS55401306	IPS55401307	IPS55401308
2730	IPS55401309	IPS55401310	IPS55401311
3000	IPS55401312	IPS55401313	IPS55401314



NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

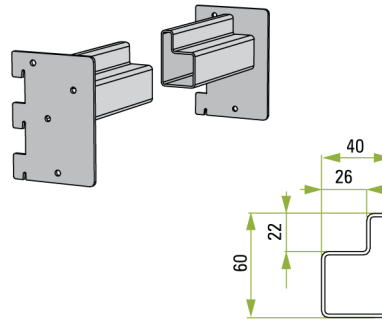
02.09 Special crossbeam IPS 060S4



Lh [mm]	Symbol
1250	IPS55401315
1330	IPS55401316
2000	IPS55401317
2500	IPS55401318
2660	IPS55401319
2730	IPS55401320
3000	IPS55401321

NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

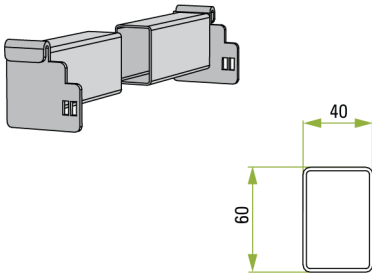
02.10 Special crossbeam IPS 060M4



Lh [mm]	Symbol
1250	IPS55401322
1330	IPS55401323
2000	IPS55401324
2500	IPS55401325
2660	IPS55401326
2730	IPS55401327
3000	IPS55401328

NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.11 Offset crossbeam IPS 060S4

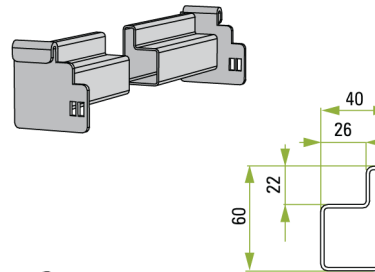


Lh [mm]	Symbol
1250	IPS55401329
1330	IPS55401330
2000	IPS55401331
2500	IPS55401332
2660	IPS55401333
2730	IPS55401334
3000	IPS55401335

NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401351

02.12 Special step crossbeam IPS 060M4

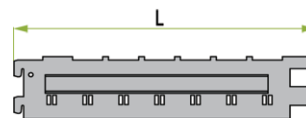
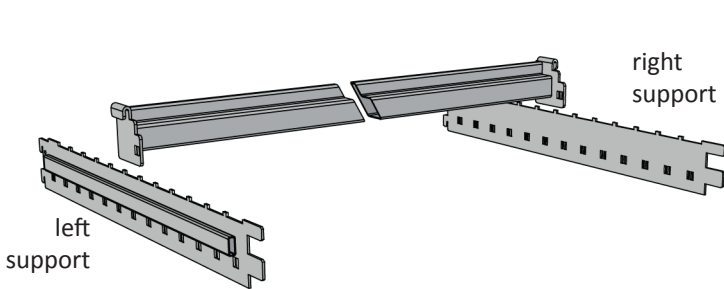
(For application with supports IPS5540...; IPS5540... ; Together with crossbeam [02.11.] IPS 060M4)



Lh [mm]	Symbol
1250	IPS55401336
1330	IPS55401337
2000	IPS55401338
2500	IPS55401339
2660	IPS55401340
2730	IPS55401341
3000	IPS55401342

NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401351

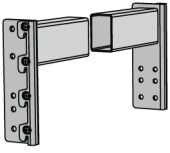
02.13 Supports for special crossbeams [02.11.] or [02.12.]



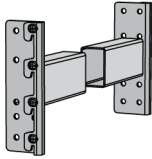
Left (support)	Râmis (G)	L	Right (support)
IPS55401343	950	420	IPS55401347
IPS55401344	1150	520	IPS55401348
IPS55401345	1350	620	IPS55401349
IPS55401346	1550	720	IPS55401350

02.01 Travers IPS 060S4

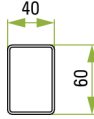
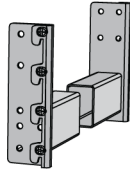
Top type



Middle type



Bottom type



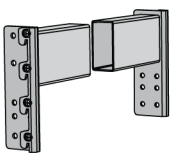
Lh [mm]	Top	Middle	Bottom
1250	IPS55401145	IPS55401146	IPS55401147
1330	IPS55401148	IPS55401149	IPS55401150
2000	IPS55401151	IPS55401152	IPS55401153
2500	IPS55401154	IPS55401155	IPS55401156
2660	IPS55401157	IPS55401158	IPS55401159
2730	IPS55401160	IPS55401161	IPS55401162
3000	IPS55401163	IPS55401164	IPS55401165



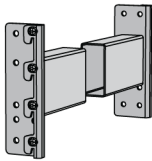
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.02 Travers IPS 080S4

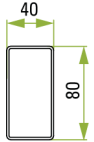
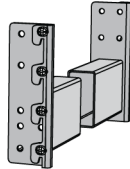
Top type



Middle type



Bottom type



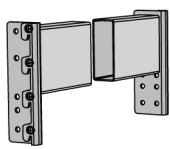
Lh [mm]	Top	Middle	Bottom
1250	IPS55401166	IPS55401167	IPS55401168
1330	IPS55401169	IPS55401170	IPS55401171
2000	IPS55401172	IPS55401173	IPS55401174
2500	IPS55401175	IPS55401176	IPS55401177
2660	IPS55401178	IPS55401179	IPS55401180
2730	IPS55401181	IPS55401182	IPS55401183
3000	IPS55401184	IPS55401185	IPS55401186



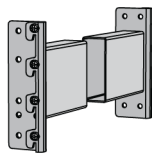
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.03 Travers IPS 100R4

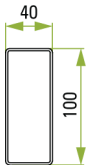
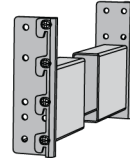
Top type



Middle type



Bottom type



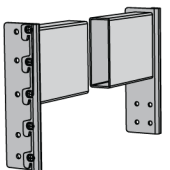
Lh [mm]	Top	Middle	Bottom
1250	IPS55401187	IPS55401188	IPS55401190
1330	IPS55401191	IPS55401192	IPS55401193
2000	IPS55401194	IPS55401195	IPS55401196
2500	IPS55401197	IPS55401198	IPS55401199
2660	IPS55401200	IPS55401201	IPS55401202
2730	IPS55401203	IPS55401204	IPS55401205
3000	IPS55401206	IPS55401207	IPS55401208



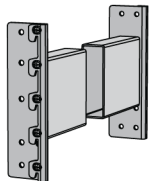
NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

02.04 Travers IPS 120R4

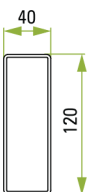
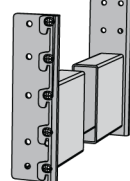
Top type



Middle type



Bottom type



Lh [mm]	Top	Middle	Bottom
1250	IPS55401209	IPS55401210	IPS55401211
1330	IPS55401212	IPS55401213	IPS55401214
2000	IPS55401215	IPS55401216	IPS55401217
2500	IPS55401218	IPS55401219	IPS55401220
2660	IPS55401221	IPS55401222	IPS55401223
2730	IPS55401224	IPS55401225	IPS55401226
3000	IPS55401227	IPS55401228	IPS55401229

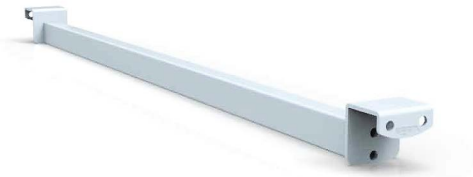


NOTE:
Two safeguards should be ordered for each crossbeam: IPS55401230

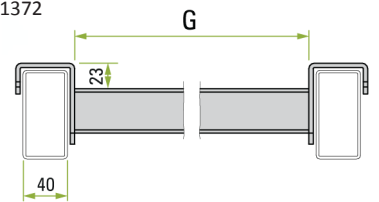
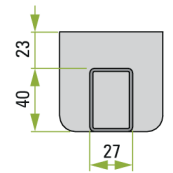
Transverse beams 50x40 for boards



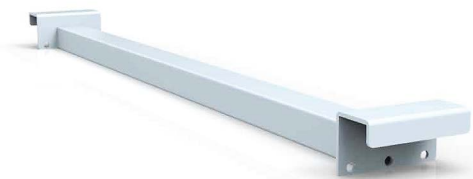
03.03 Transverse beam 27x40 for 40 mm crossbeams



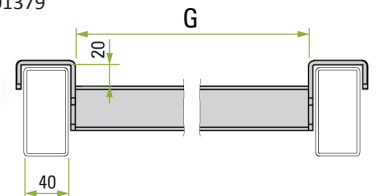
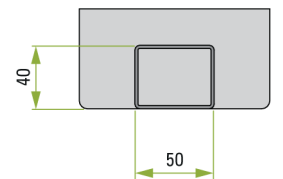
Frame		Transverse beam	
Type	Gh	G	Symbol
Mini 55x40	600	474	IPS55401366
	700	574	IPS55401367
	800	674	IPS55401368
	950	841	IPS55401369
	1150	1041	IPS55401370
	1350	1241	IPS55401371
	1550	1441	IPS55401372



03.04 Transverse beam 50x40 for 40 mm crossbeams



Frame		Transverse beam	
Type	Gh	G	Symbol
Mini 55x40	600	474	IPS55401373
	700	574	IPS55401374
	800	674	IPS55401375
	950	841	IPS55401376
	1150	1041	IPS55401377
	1350	1241	IPS55401378
	1550	1441	IPS55401379

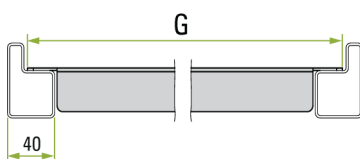
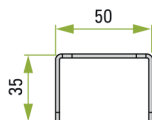


15 IPS 55x40

Beam „C”



03.05 Beam „C”



Type	Frame		Transverse beam	
	Gh	G	G	Symbol
	600	533		IPS55401380
	700	633		IPS55401381
	800	733		IPS55401382
Mini 55x40	900	833		IPS55401383
	950	900		IPS55401384
	1150	1100		IPS55401385
	1350	1300		IPS55401386

Shelves

If goods to be stored on racks are not placed on pallets, it is necessary to use additional elements from which different types of shelves are built. According to individual requirements, we supply shelves made of laminated particle boards, panel shelves made of steel sheet, as well as perforated panel shelves and steel wire lattices, allowing free flow of water from fire-fighting systems. A suitable solution should always be selected after studying the locally binding fire protection regulations.

Laminated particle board shelves

When placing boards making up the shelves on transversal beams, a suitable number of beams must be used, ensuring correct support of the board. Table 1 lists suggested numbers of transversal beams supporting a shelf made of laminated board in the most common cases. Table 2 shows the permissible load on one beam, which allows to optimally adapt the beam cross-section to the user's needs.

In the case of placing boards directly on crossbeams with a „step” section (4M60, 4M80, 4M100), the shelf capacity is usually limited by the strength of the used board. If it is necessary to ensure additional support, special beams are used [03.05.] Table 3 presents permissible loads for a single beam depending on dimension G.

L	n
do 1500	2 – 3
1500 – 2000	3 – 4
2000 – 2700	4 – 5
2700 – 3000	5 – 6

G	27 x 40	50 x 40
do 800	400 kg	650 kg
800 – 1100	300 kg	480 kg
1100 – 1550	200 kg	320 kg

G	Q _{max}
533	190 kg
633	160 kg
733	140 kg
833	120 kg
900	110 kg
1100	90 kg
1300	75 kg

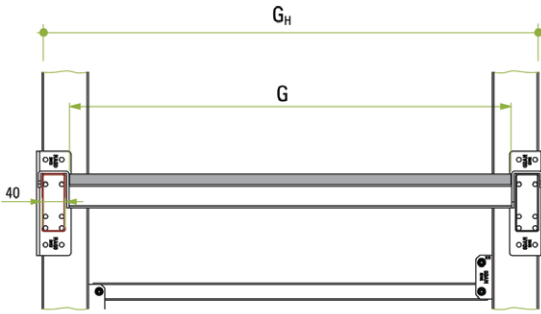
Full panel shelves.

Made of lacquered or galvanized steel sheet. Allow to build resistant and durable storage spaces supported by crossbeams. The permissible load for one panel is presented in the opposite drawing. Naturally, the permissible load of the whole shelf cannot exceed the permissible load for the respective pair of crossbeams on which the shelf is built.



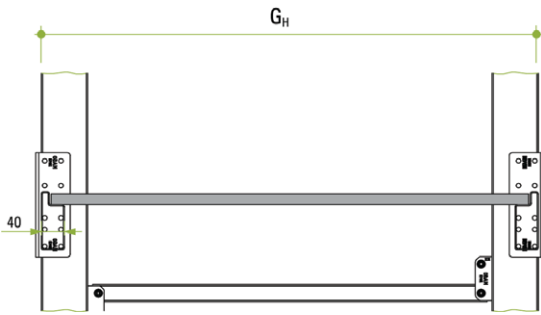
IPS 55x40 Shelf

04.01 IPS 55x40. Laminated board shelves to be used in racks equipped with 40 mm wide crossbeams



Frame Gh	Beam G	Shelf							
		1250	1330	2000	2500	2660	2730	3000	
600	474	Dymensions	470x1200	470x1280	470x1950	470x2450	470x2615	470x2685	470x1475
		Symbol	IPS55401387	IPS55401388	IPS55401389	IPS55401390	IPS55401391	IPS55401392	IPS55401393 x2
700	574	Dymensions	570x1200	570x1280	570x1950	570x2450	570x2615	570x2685	570x1475
		Symbol	IPS55401394	IPS55401395	IPS55401396	IPS55401397	IPS55401398	IPS55401399	IPS55401400 x2
800	674	Dymensions	670x1200	670x1280	670x1950	670x2450	670x2615	670x2685	670x1475
		Symbol	IPS55401401	IPS55401402	IPS55401403	IPS55401404	IPS55401405	IPS55401406	IPS55401407 x2
950	841	Dymensions	837x1200	837x1280	837x1950	837x2450	837x2615	837x2685	837x1475
		Symbol	IPS55401408	IPS55401409	IPS55401410	IPS55401411	IPS55401412	IPS55401413	IPS55401414 x2
1150	1041	Dymensions	1037x1200	1037x1280	1037x1950	1037x2450	1037x2615	1037x2685	1037x1475
		Symbol	IPS55401415	IPS55401416	IPS55401417	IPS55401418	IPS55401419	IPS55401420	IPS55401421 x2
1350	1241	Dymensions	1237x1200	1237x1280	1237x1950	1237x2450	1237x2615	1237x2685	1237x1475
		Symbol	IPS55401422	IPS55401423	IPS55401424	IPS55401425	IPS55401426	IPS55401427	IPS55401428 x2
1550	1441	Dymensions	1437x1200	1437x1280	1437x1950	1437x2450	1437x2615	1437x2685	1437x1475
		Symbol	IPS55401429	IPS55401430	IPS55401431	IPS55401432	IPS55401433	IPS55401434	IPS55401435 x2

04.02 IPS 55x40. Laminated board shelves to be used in racks equipped with step crossbeams

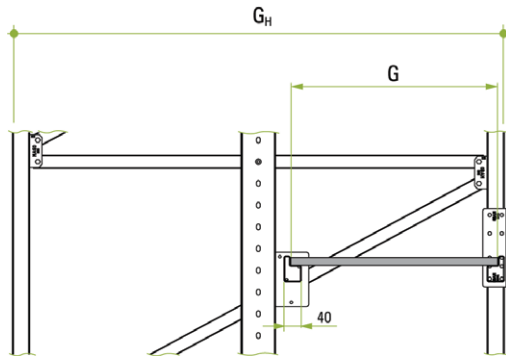


Frame Gh	Shelf	Travers							
		1250	1330	2000	2500	2660	2730	3000	
600	Dymensions	535x1200	535x1280	535x1950	535x2450	535x2615	535x2685	535x1475	
	Symbol	IPS55401436	IPS55401437	IPS55401438	IPS55401439	IPS55401440	IPS55401441	IPS55401442 x2	
700	Dymensions	635x1200	635x1280	635x1950	635x2450	635x2615	635x2685	635x1475	
	Symbol	IPS55401443	IPS55401444	IPS55401445	IPS55401446	IPS55401447	IPS55401448	IPS55401449 x2	
800	Dymensions	735x1200	735x1280	735x1950	735x2450	735x2615	735x2685	735x1475	
	Symbol	IPS55401450	IPS55401451	IPS55401452	IPS55401453	IPS55401454	IPS55401455	IPS55401456 x2	
950	Dymensions	902x1200	902x1280	902x1950	902x2450	902x2615	902x2685	902x1475	
	Symbol	IPS55401457	IPS55401458	IPS55401459	IPS55401460	IPS55401461	IPS55401462	IPS55401463 x2	
1150	Dymensions	1102x1200	1102x1280	1102x1950	1102x2450	1102x2615	1102x2685	1102x1475	
	Symbol	IPS55401464	IPS55401465	IPS55401466	IPS55401467	IPS55401468	IPS55401469	IPS55401470 x2	
1350	Dymensions	1302x1200	1302x1280	1302x1950	1302x2450	1302x2615	1302x2685	1302x1475	
	Symbol	IPS55401471	IPS55401472	IPS55401473	IPS55401474	IPS55401475	IPS55401476	IPS55401477 x2	
1550	Dymensions	1502x1200	1502x1280	1502x1950	1502x2450	1502x2615	1502x2685	1502x1475	
	Symbol	IPS55401478	IPS55401479	IPS55401480	IPS55401481	IPS55401482	IPS55401483	IPS55401484 x2	

IPS 55x40

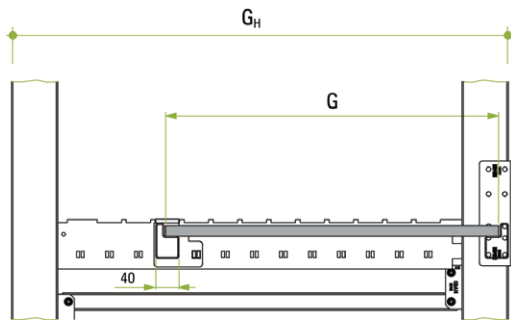
Shelf

04.03 Laminated board shelves to be used in two-sided racks equipped with special step crossbeams, type IPS5540... [02.10.]



Frame	Beam	Shelf	Travers						
G _H	G		1250	1330	2000	2500	2660	2730	3000
950	381	Dymensions	377×1200	377×1280	377×1950	377×2450	377×2615	377×2685	377×1475
		Symbol	IPS55401485	IPS55401486	IPS55401487	IPS55401488	IPS55401489	IPS55401490	IPS55401491 ×2
1150	481	Dymensions	477×1200	477×1280	477×1950	477×2450	477×2615	477×2685	477×1475
		Symbol	IPS55401492	IPS55401493	IPS55401494	IPS55401495	IPS55401496	IPS55401497	IPS55401498 ×2
1350	581	Dymensions	577×1200	577×1280	577×1950	577×2450	577×2615	577×2685	577×1475
		Symbol	IPS55401499	IPS55401500	IPS55401501	IPS55401502	IPS55401503	IPS55401504	IPS55401505 ×2
1550	681	Dymensions	677×1200	677×1280	677×1950	677×2450	677×2615	677×2685	677×1475
		Symbol	IPS55401506	IPS55401507	IPS55401508	IPS55401509	IPS55401510	IPS55401511	IPS55401512 ×2

04.04 Laminated board shelves to be used in racks equipped with special step crossbeams, type IPS5540... [02.12.]



Frame	A	Shelf	Travers						
G _H			1250	1330	2000	2500	2660	2730	3000
600	377	Dymensions	377×1200	377×1280	377×1950	377×2450	377×2615	377×2685	377×1475
		Kods	IPS55401485	IPS55401486	IPS55401487	IPS55401488	IPS55401489	IPS55401490	IPS55401491 ×2
700	377	Dymensions	377×1200	377×1280	377×1950	377×2450	377×2615	377×2685	377×1475
		Kods	IPS55401485	IPS55401486	IPS55401487	IPS55401488	IPS55401489	IPS55401490	IPS55401491 ×2
700	477	Dymensions	477×1200	477×1280	477×1950	477×2450	477×2615	477×2685	477×1475
		Kods	IPS55401492	IPS55401493	IPS55401494	IPS55401495	IPS55401496	IPS55401497	IPS55401498 ×2
800	377	Dymensions	377×1200	377×1280	377×1950	377×2450	377×2615	377×2685	377×1475
		Kods	IPS55401485	IPS55401486	IPS55401487	IPS55401488	IPS55401489	IPS55401490	IPS55401491 ×2
800	477	Dymensions	477×1200	477×1280	477×1950	477×2450	477×2615	477×2685	477×1475
		Kods	IPS55401492	IPS55401493	IPS55401494	IPS55401495	IPS55401496	IPS55401497	IPS55401498 ×2
800	577	Dymensions	577×1200	577×1280	577×1950	577×2450	577×2615	577×2685	577×1475
		Kods	IPS55401499	IPS55401500	IPS55401501	IPS55401502	IPS55401503	IPS55401504	IPS55401505 ×2

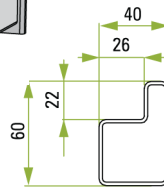
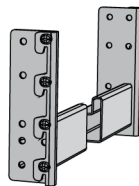
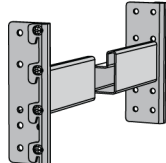
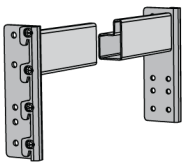


Stepped crossbeams IPS 060M4 [02.06.]

Top type

Middle type

Bottom type

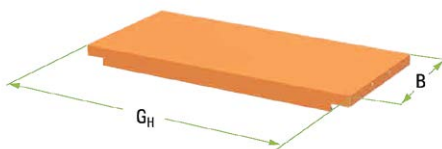


Lh [mm]	Top	Middle	Bottom
1250	IPS55401252	IPS55401253	IPS55401254
1330	IPS55401255	IPS55401256	IPS55401257
2000	IPS55401258	IPS55401259	IPS55401260
2500	IPS55401261	IPS55401262	IPS55401263
2660	IPS55401264	IPS55401265	IPS55401266
2730	IPS55401267	IPS55401268	IPS55401269
3000	IPS55401270	IPS55401271	IPS55401272



NOTE:
For every crossbeam, two securing elements IPS55401230 must be ordered.

04.05 Full panel shelves assembled in one-sided racks



Using the table. Example:

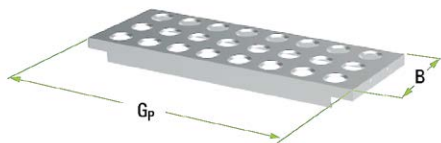
In order to assemble a shelf in a rack built on an IPS 55x40 frame with depth G-1150mm, with crossbeams L-2500 panels IPS5540... and 7 panels IPS5540... should be ordered

Frame		Shelf		Travers						
G _H	G _p	B	Symbol	1250	1330	2000	2500	2660	2730	3000
600	536	186	IPS55401513	4	1	1	5	-	12	3
		217	IPS55401514	2	5	8	7	12	2	11
700	636	186	IPS55401515	4	1	1	5	-	12	3
		217	IPS55401516	2	5	8	7	12	2	11
700	477	186	IPS55401517	4	1	1	5	-	12	3
		217	IPS55401518	2	5	8	7	12	2	11

IPS 55x40

Shelf

04.06 Perforated panel shelves assembled in one-sided racks



Using the table. Example:

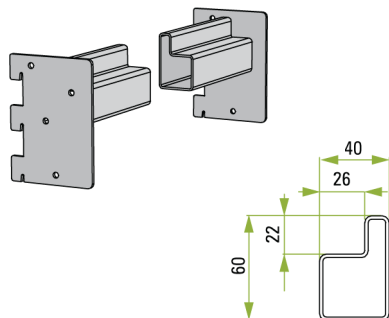
In order to assemble a shelf in a rack built on an IPS 55x40 frame with depth G-1150mm, with crossbeams L-2500 jāpasūta 5 panels IPS5540... and 7 panels IPS5540...should be ordered

Frame		Shelf		Symbol	Travers						
Gh	Gp	B			1250	1330	2000	2500	2660	2730	3000
600	536	186		IPS55401519	4	1	1	5	-	12	3
		217		IPS55401520	2	5	8	7	12	2	11
700	636	186		IPS55401521	4	1	1	5	-	12	3
		217		IPS55401522	2	5	8	7	12	2	11
700	477	186		IPS55401523	4	1	1	5	-	12	3
		217		IPS55401524	2	5	8	7	12	2	11

Full and perforated panel shelves assembled in two-sided racks Special

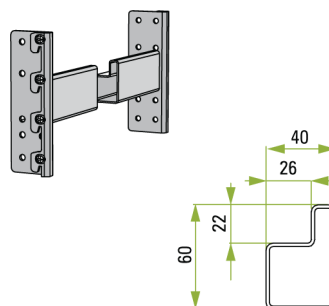


Special step crossbeam IPS 060M4 [02.10.]



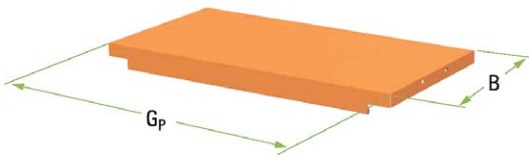
Lh [mm]	Symbol
1250	IPS55401322
1330	IPS55401323
2000	IPS55401324
2500	IPS55401325
2660	IPS55401326
2730	IPS55401327
3000	IPS55401328

Step crossbeam IPS 060M4 [02.06.]



Lh [mm]	Symbol
1250	IPS55401253
1330	IPS55401256
2000	IPS55401259
2500	IPS55401262
2660	IPS55401265
2730	IPS55401268
3000	IPS55401271

04.07 Full panel shelves assembled in two-sided racks

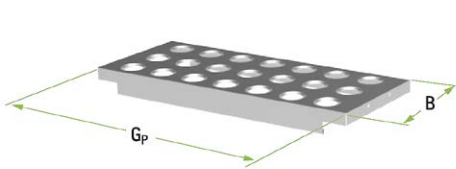


Using the table. Example:

In order to assemble a shelf in a rack built on an IPS 55x40 with depth G-1150mm, with crossbeams L-2500 jāpasūta 5 panels IPS5540... un 7 panels IPS5540... should be ordered

Frame	Panel				Travers						
	Gh	A	Gp	B	Symbol	1250	1330	2000	2500	2660	2730
950	387	377	186	IPSS5401525	4	1	1	5	-	12	3
			217	IPSS5401526	2	5	8	7	12	2	11
1150	487	477	186	IPSS5401527	4	1	1	5	-	12	3
			217	IPSS5401528	2	5	8	7	12	2	11
1350	587	577	186	IPSS5401529	4	1	1	5	-	12	3
			217	IPSS5401530	2	5	8	7	12	2	11
1550	687	677	186	IPSS5401531	4	1	1	5	-	12	3
			217	IPSS5401532	2	5	8	7	12	2	11

04.08 Perforated panel shelves assembled in two-sided racks.



Using the table. Example:

In order to assemble a shelf in a rack built on an IPS 55x40 frame with depth G-1150mm, with crossbeams L-2500 5 panels IPS5540... un 7 panels IPS5540... should be ordered.

Frame	Panel				Travers						
	Gh	A	Gp	B	Symbol	1250	1330	2000	2500	2660	2730
950	387	377	186	IPSS5401533	4	1	1	5	-	12	3
			217	IPSS5401534	2	5	8	7	12	2	11
1150	487	477	186	IPSS5401535	4	1	1	5	-	12	3
			217	IPSS5401536	2	5	8	7	12	2	11
1350	587	577	186	IPSS5401537	4	1	1	5	-	12	3
			217	IPSS5401538	2	5	8	7	12	2	11
1550	687	677	186	IPSS5401539	4	1	1	5	-	12	3
			217	IPSS5401540	2	5	8	7	12	2	11

Full and perforated panel shelves to be used in racks with special crossbeams which allow to shallow the rack

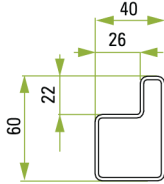
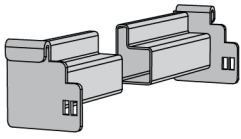


IPS 55x40

Shelves

Special step crossbeam IPS 060M4 [02.12.]

((For application with supports IPS5540...; IPS5540... ; together with crossbeam [02.11.] IPS 060M4)

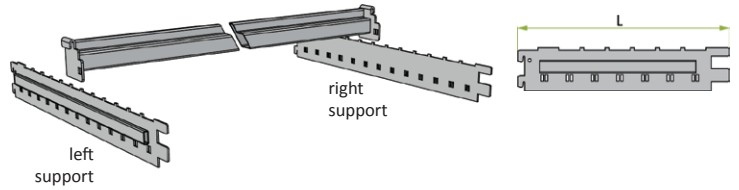


Lh [mm]	Symbol
1250	IPS55401336
1330	IPS55401337
2000	IPS55401338
2500	IPS55401339
2660	IPS55401340
2730	IPS55401341
3000	IPS55401342



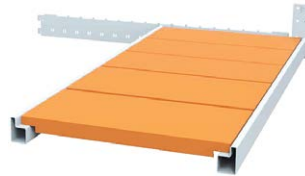
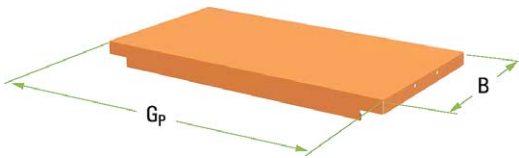
NOTE:
For every crossbeam, two securing elements IPS55401351 must be ordered.

Support for IPS 55x40 [02.13.]



Left support	Frame (G)	L	Right support
IPS55401343	950	420	IPS55401347
IPS55401344	1150	520	IPS55401348
IPS55401345	1350	620	IPS55401349
IPS55401346	1550	720	IPS55401350

04.09 Full panel shelves

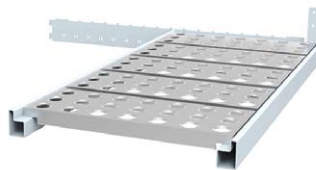
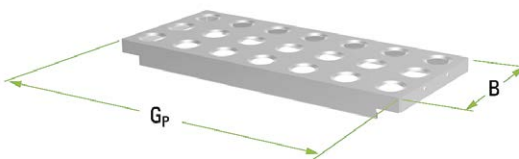


Using the table. Example:

In order to build a Gp-574 shelf on a shallowed IPS 80x70 rack with crossbeams L-2500, 5 panels IPS5540... and 7 panels IPS5540...should be ordered.

Frame		Panel		Symbol	Travers						
Gh	Gp	B			1250	1330	2000	2500	2660	2730	3000
600	377	186		IPS55401540	4	1	1	5	-	12	3
		217		IPS55401541	2	5	8	7	12	2	11
700	377	186		IPS55401542	4	1	1	5	-	12	3
		217		IPS55401543	2	5	8	7	12	2	11
800	477	186		IPS55401544	4	1	1	5	-	12	3
		217		IPS55401545	2	5	8	7	12	2	11

04.10 Perforated panel shelves

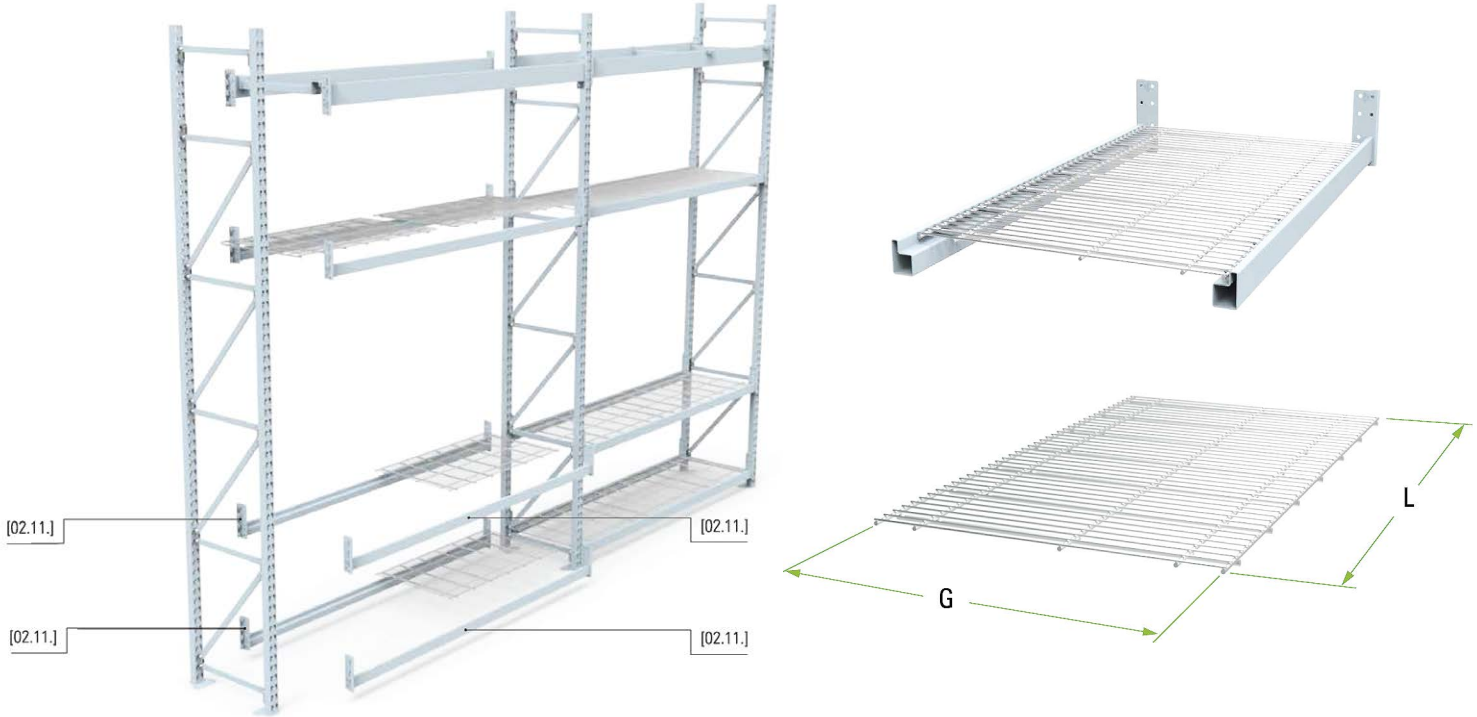


Using the table. Example:

In order to build a Gp-574 shelf on a shallowed IPS 80x70 rack with crossbeams L-2500, 5 panels IPS5540... and 7 panels IPS5540...should be ordered.

Frame		Panel		Symbol	Travers						
Gh	Gp	B			1250	1330	2000	2500	2660	2730	3000
600	536	186		IPS55401546	4	1	1	5	-	12	3
		217		IPS55401547	2	5	8	7	12	2	11
700	636	186		IPS55401548	4	1	1	5	-	12	3
		217		IPS55401549	2	5	8	7	12	2	11
700	477	186		IPS55401550	4	1	1	5	-	12	3
		217		IPS55401551	2	5	8	7	12	2	11

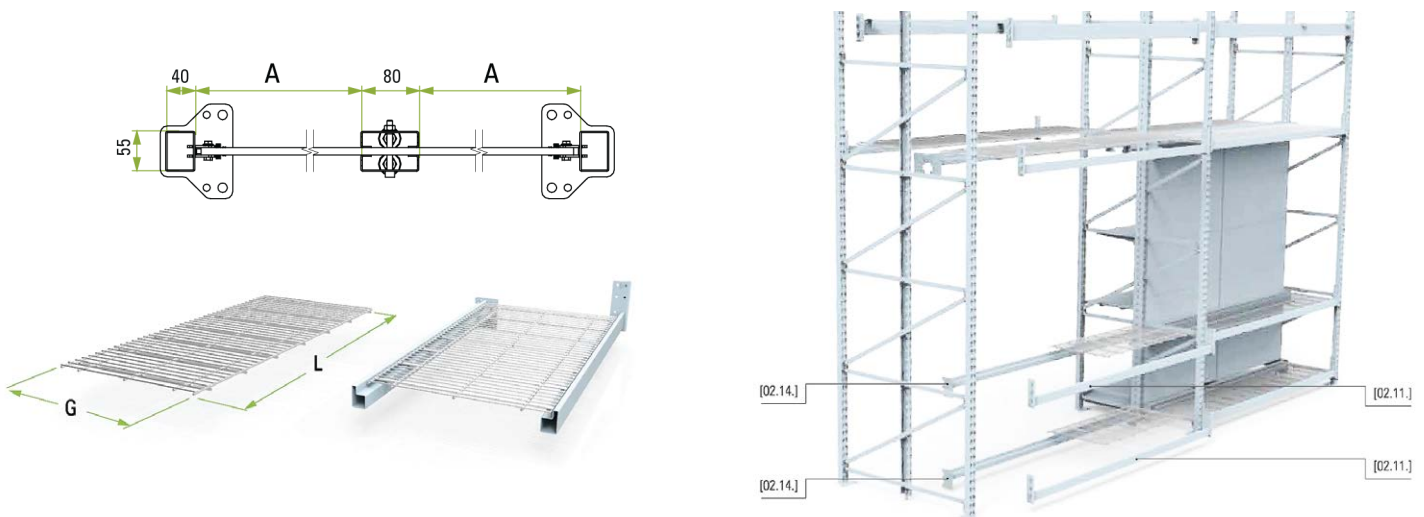
04.11 Wire lattice shelves in one-sided racks



Selecting lattices for the given frame and the crossbeam length

Frame Gh	Lattice	Travers length				
		1250	1330	2000	2500	2660
600	Dymensions GxL 536x1205	536x1288	536x975	536x1225	536x1308	
	Symbol IPS55401552	IPS55401553	IPS55401554x2	IPS55401555x2	IPS55401556x2	
700	Dymensions GxL 636x1205	636x1288	636x975	636x1225	636x1308	
	Symbol IPS55401557	IPS55401558	IPS55401559x2	IPS55401560x2	IPS55401561x2	
800	Dymensions GxL 736x1200	736x1280	736x1950	736x2450	736x2615	
	Symbol IPS55401562	IPS55401563	IPS55401564x2	IPS55401565x2	IPS55401566x2	

04.12 Wire lattice shelves in two-sided racks



Selecting lattices for the given frame and the crossbeam length

Frame Gh	A	Lattice	Travers length				
			1250	1330	2000	2500	2660
950	387	Dymensions GxL 377x1205	377x1288	377x975	377x1225	377x1308	
		Symbol IPS55401567	IPS55401568	IPS55401569x2	IPS55401570x2	IPS55401571x2	
1150	487	Dymensions GxL 477x1205	477x1288	477x975	477x1225	477x1308	
		Symbol IPS55401572	IPS55401573	IPS55401574x2	IPS55401575x2	IPS55401576x2	
1350	587	Dymensions GxL 577x1205	577x1288	577x975	577x1225	577x1308	
		Symbol IPS55401577	IPS55401578	IPS55401579x2	IPS55401580x2	IPS55401581x2	
1550	687	Dymensions GxL 677x1200	677x1280	677x1950	677x2450	677x2615	
		Symbol IPS55401582	IPS55401583	IPS55401584x2	IPS55401585x2	IPS55401586x2	

04.12 Shelves allowing water flow

In the case of using automatic fire-fighting systems, free water flow from sprinklers through subsequent storage levels must be ensured. For this purpose, it is recommended to use perforated panel shelves, or steel wire lattices.

Perforated panel shelves.

Made of galvanized steel sheet. Allow to build durable and damage-resistant storage spaces supported by crossbeams.

The permissible load for one panel is presented in the opposite drawing.

Naturally, the permissible load of the whole shelf cannot exceed the permissible load for the respective pair of crossbeams on which the shelf is built.



Wire lattice shelves.

Made of steel wire and delivered with galvanized or powder lacquer coating. The superb lattice permeability makes them particularly useful in facilities with automatic fire-fighting systems.

Permissible loads for a single lattice are shown in table 1.

Table 1

	G < 577	G > 577
L < 1000	500 kg	390 kg
L > 1000	650 kg	500 kg

25 IPS 55x40

INTEGRATION

Elements of the IPS system allow to easily create so-called "Integrations", that is to install a light shelf rack within a pallet rack (using common elements). Such a construction makes it possible to use the high load-bearing capacity of a pallet rack to store or display goods at heights over 2.2 – 2.5 m, and in the bottom part – to fit a display and operate sales from a standard store rack.

Depending on requirements, it is possible to attach elements of a shelf rack (backs, supports, ...) directly in perforations of frame columns or in perforations of special integrating elements - adapters.

IPS racks are specially adapted for building „integrations” with shelves for shop system racks. On the following pages, basic elements and rules of their selection are presented. All accessories of the shelves for shop system can be used in such constructions.

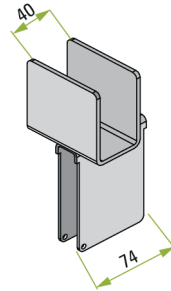


IPS 55x40

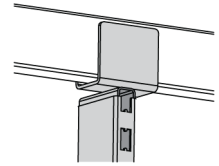
Direct integration with a store rack



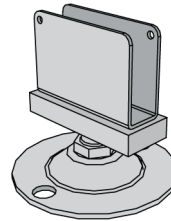
05.01 Central leg coupling 80x30 for a 40 mm crossbeam



Symbol
IPS55401587



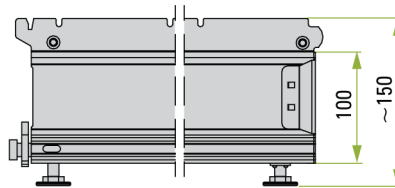
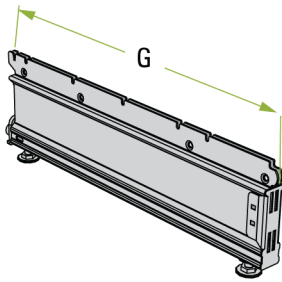
05.02 Stand for a 80x30 mm column



A
80

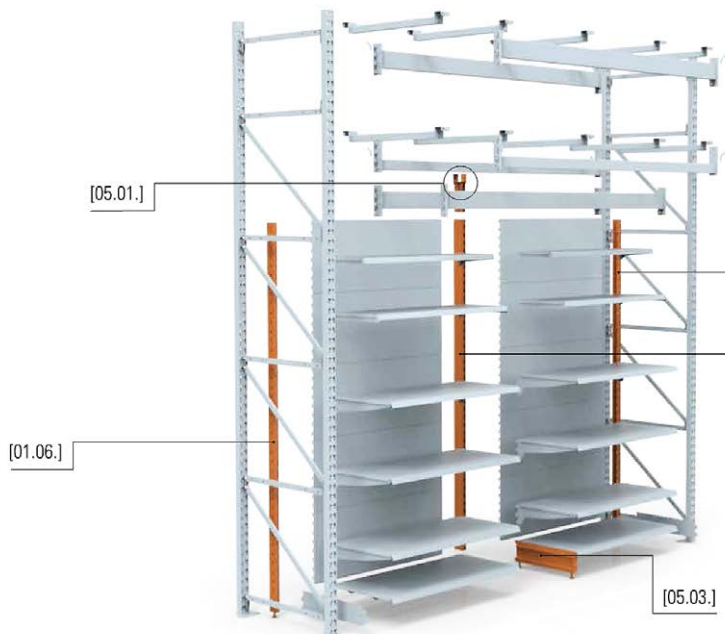
Symbol
IPS55401588

05.03 Foot

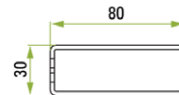
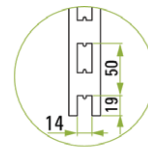


A	Symbol
370	IPS55401589
470	IPS55401590
570	IPS55401591
670	IPS55401592
770	IPS55401593

One-sided integration with a store rack

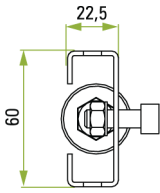
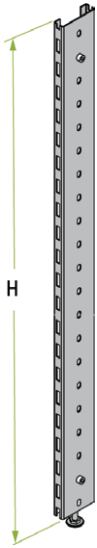


05.04 Shelf rack column



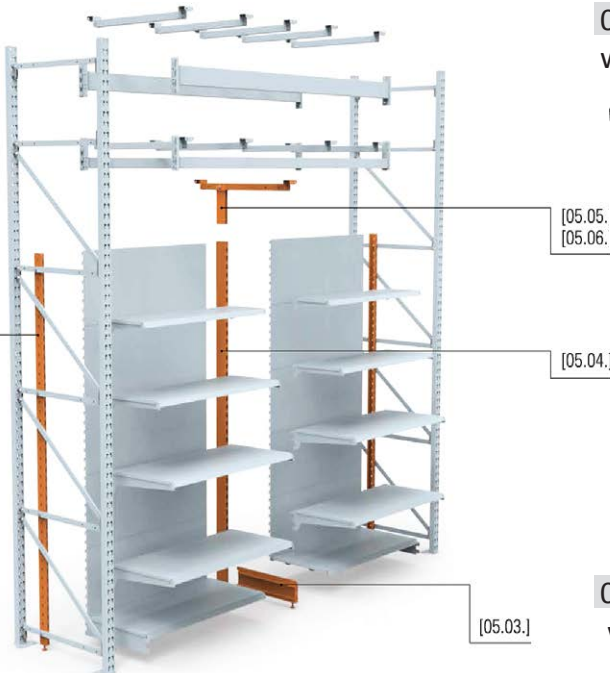
H	Rack (80x30)
2110	IPS55401595211
2210	IPS55401595221
2310	IPS55401595231
2410	IPS55401595241
2510	IPS55401595251
2610	IPS55401595261

Single adapter for integration [01.06.]

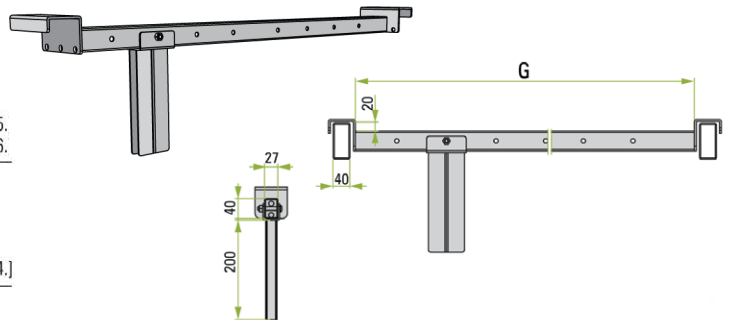


H [mm]	Profile symbol
2200	IPSS5401075220
2300	IPSS5401075230
2500	IPSS5401075250
2600	IPSS5401075260
2900	IPSS5401075290
3000	IPSS5401075300
3500	IPSS5401075350
3600	IPSS5401075360
4000	IPSS5401075400
4500	IPSS5401075450
5000	IPSS5401075500

Two-sided integration with a store rack 05.05.

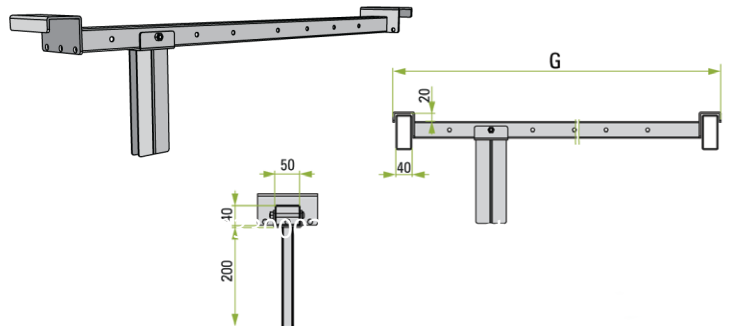


05.05 Beam 27x40 on a 40 crossbeam for integration with a shallowing



Type	Frame		Transverse beam	
	Gh	G	G	Symbol
IPS 55x40	700	574		IPSS5401600
	800	674		IPSS5401601

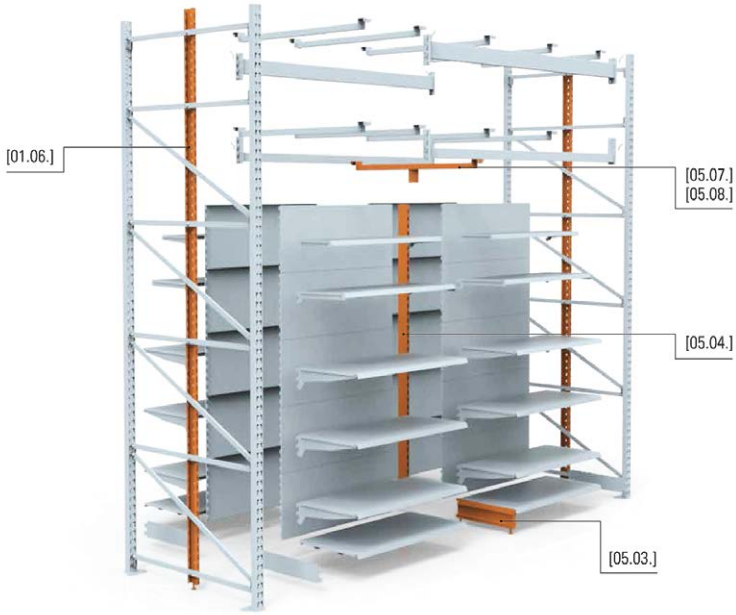
05.06 Beam 50x40 on a 40 crossbeam for integration with a shallowing



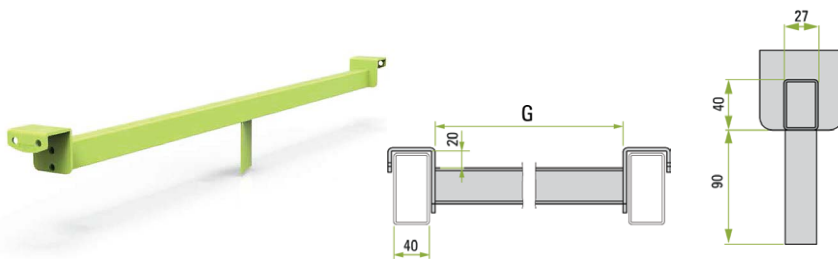
Type	Frame		Transverse beam	
	Gh	G	G	Symbol
IPS 55x40	700	574		IPSS5401602
	800	674		IPSS5401603

IPS 55x40

Transverse beams for integration

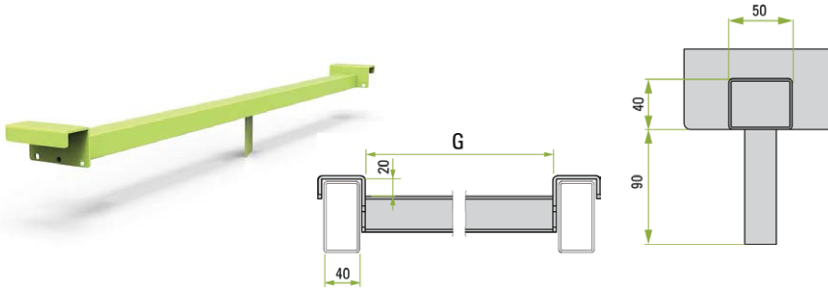


05.07 Transverse beam



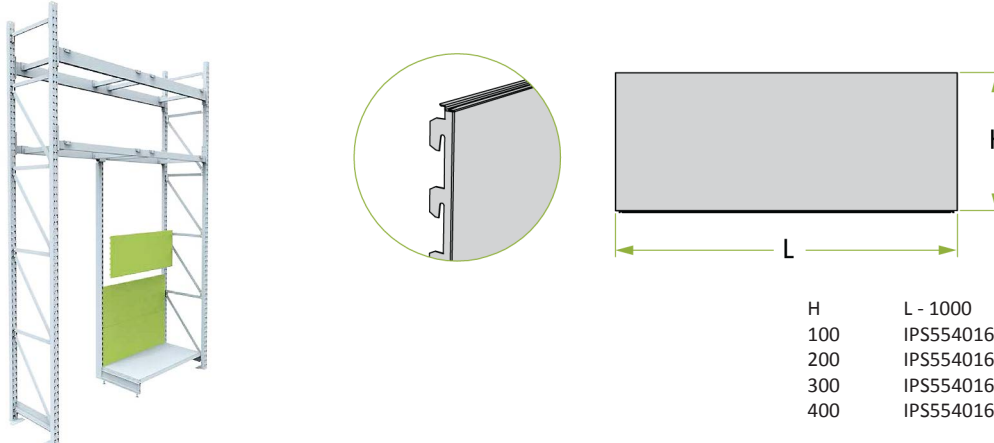
Type	Frame		Transverse beam	
	Gh	G	Symbol	
IPS 55x40	950	841	IPS55401604	
	1150	1041	IPS55401605	
	1350	1241	IPS55401606	
	1550	1441	IPS55401607	

05.08 Transverse beam



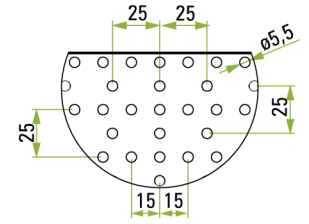
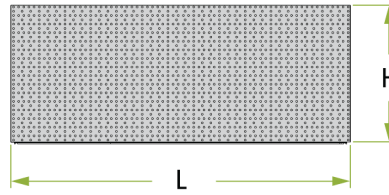
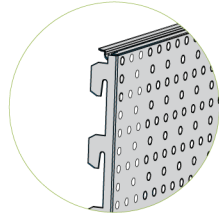
Type	Frame		Transverse beam	
	Gh	G	Symbol	
IPS 55x40	950	841	IPS55401608	
	1150	1041	IPS55401609	
	1350	1241	IPS55401610	
	1550	1441	IPS55401611	

05.09 Back



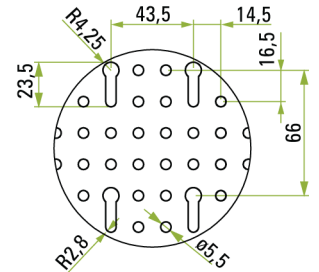
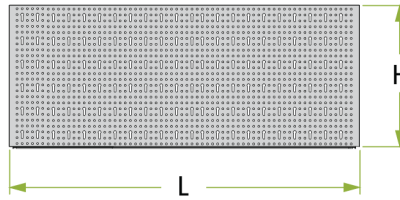
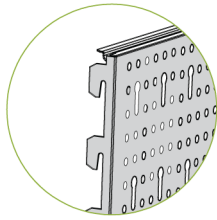
H	L - 1000	L - 1250	L - 1330
100	IPS55401612	IPS55401613	IPS55401614
200	IPS55401615	IPS55401616	IPS55401617
300	IPS55401618	IPS55401619	IPS55401620
400	IPS55401621	IPS55401622	IPS55401623

05.10 Back with „EURO” perforation



H	L - 1000	L - 1250	L - 1330
200	IPSS55401624	IPSS55401625	IPSS55401626
300	IPSS55401627	IPSS55401628	IPSS55401629
400	IPSS55401630	IPSS55401631	IPSS55401632

05.11 Back with „S” pe



H	L - 1000	L - 1250	L - 1330
200	IPSS55401633	IPSS55401634	IPSS55401635
300	IPSS55401636	IPSS55401637	IPSS55401638
400	IPSS55401639	IPSS55401640	IPSS55401641

Selection of supports.

Due to numerous possibilities, and often complicated dimensional relations caused by separate requirements, one must proceed with special caution when selecting suitable supports for the given rack configuration.

05.12 Base shelf support



G - 370
IPSS55401642



G - 370 ÷ 470
IPSS55401643



G - 370 ÷ 570
IPSS55401644

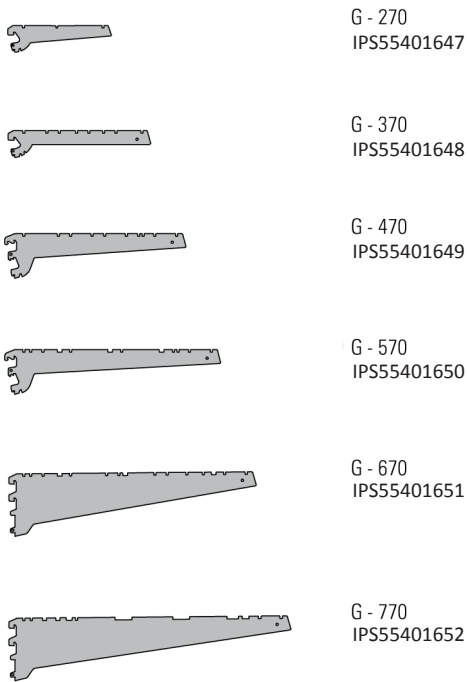


G - 370 ÷ 670
IPSS55401645

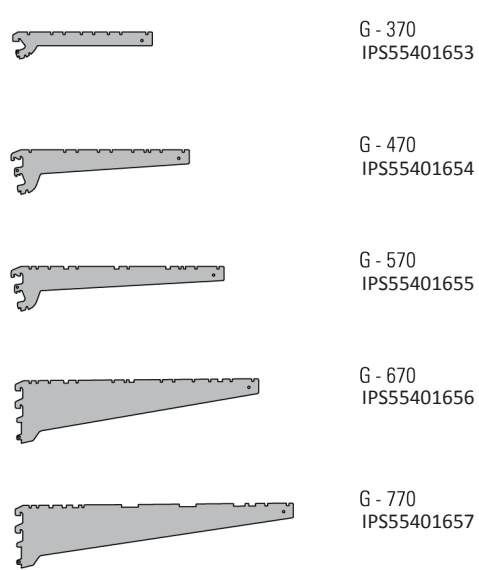


G - 370 ÷ 770
IPSS55401646

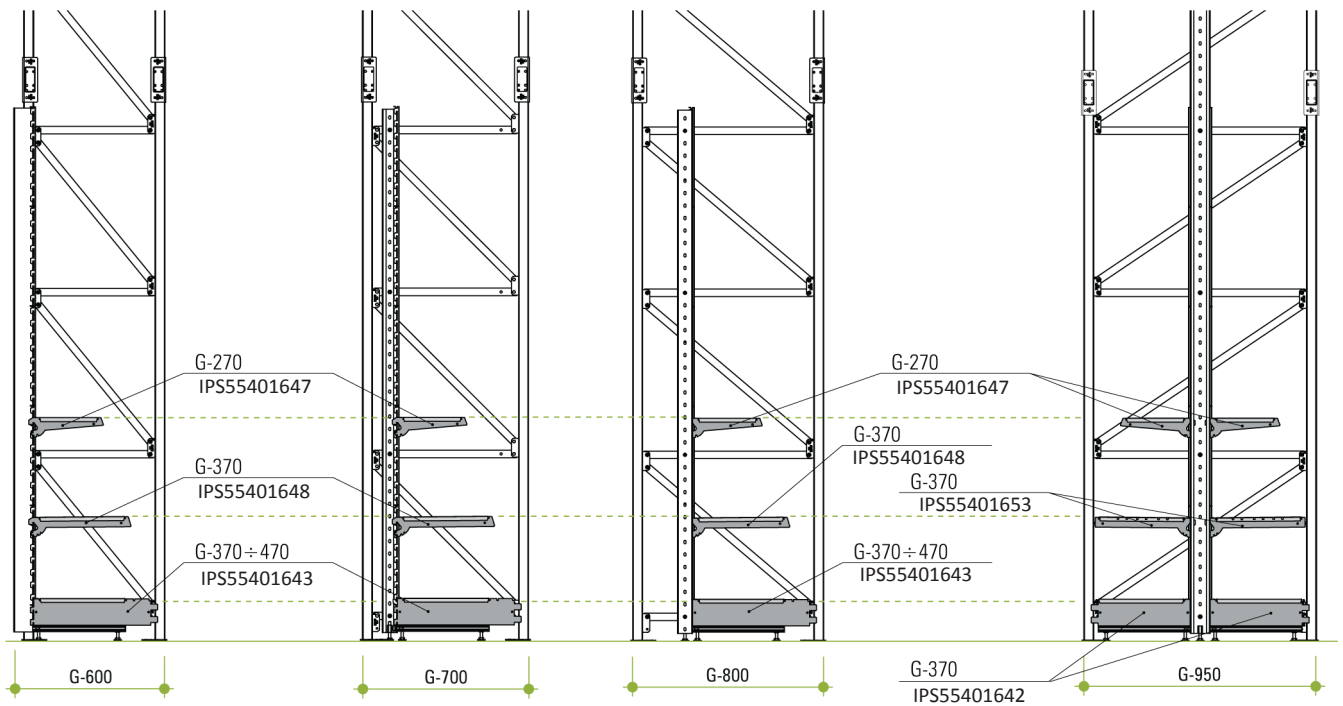
05.13 „Slim” type bracket



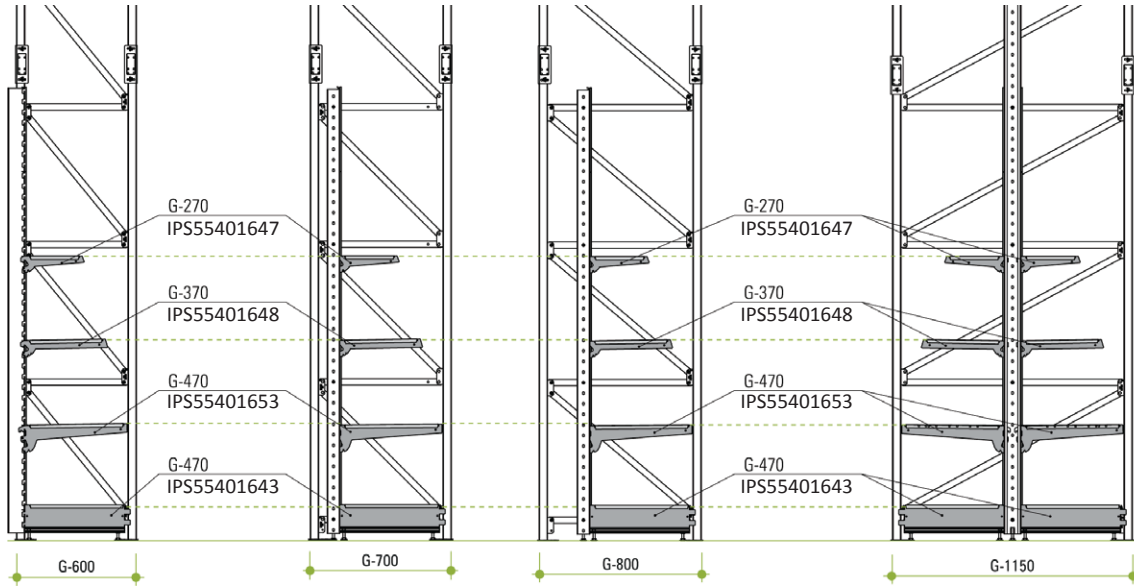
05.14 „Slim” type bracket



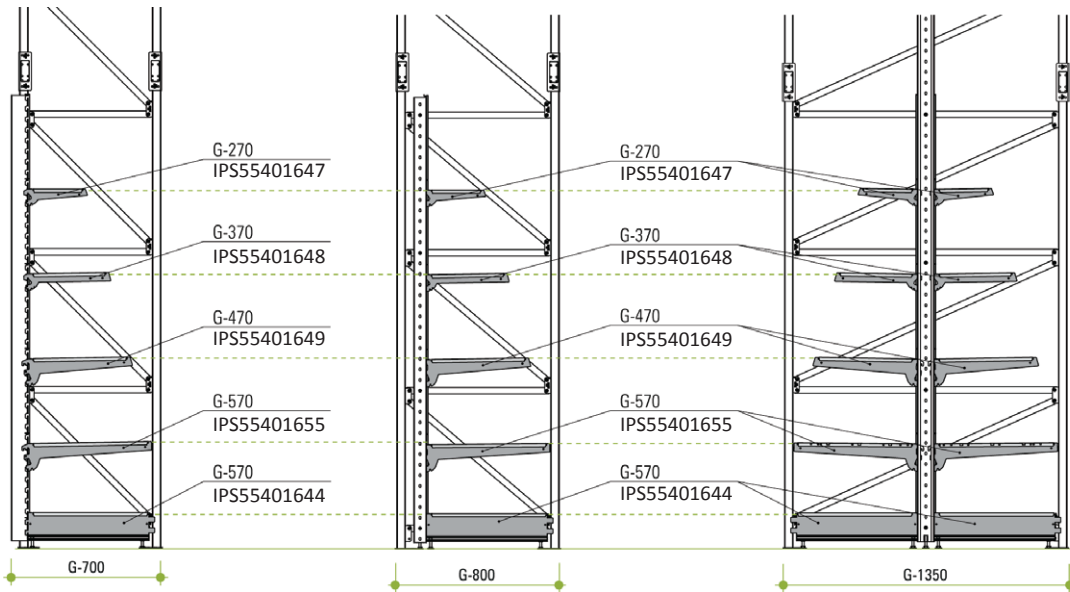
Integration with the maximum shelf depth G-370. Selection of supports



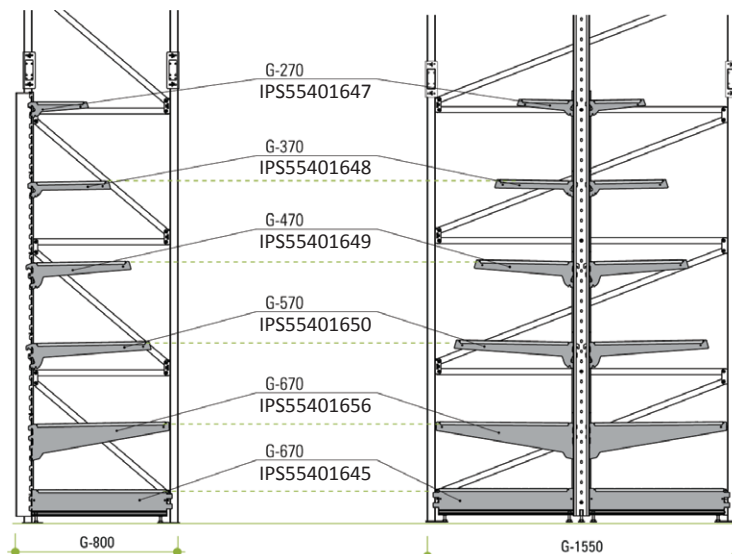
Integration with the maximum shelf depth G-470. Selection of supports



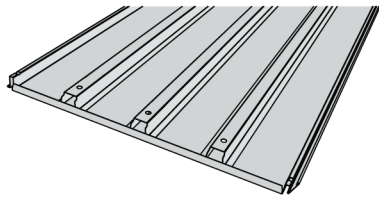
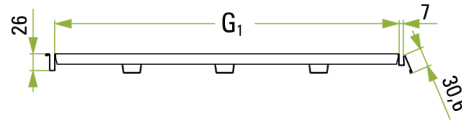
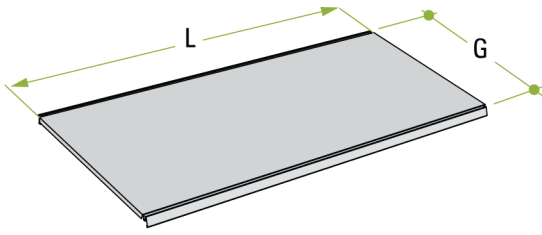
Integration with the maximum shelf depth G-570. Selection of supports



Integration with the maximum shelf depth G-670. Selection of supports

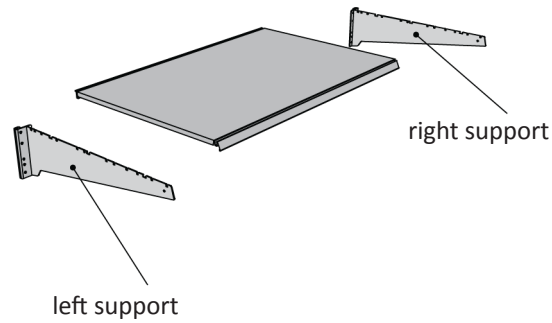


05.15 Shelf



G	G1	L - 1000	L - 1250	L - 1330
270	232	IPS55401658	IPS55401659	IPS55401660
370	342	IPS55401661	IPS55401662	IPS55401663
470	442	IPS55401664	IPS55401665	IPS55401666
570	542	IPS55401667	IPS55401668	IPS55401669
670	642	IPS55401670	IPS55401671	IPS55401672
770	742	IPS55401673	IPS55401674	IPS55401675

05.16 Rack side shelf



Frame Gh	G	Shelf Symbol	Support	
			Left	Right
950	470	IPS55401676	IPS55401685	IPS55401686
	570	IPS55401677	IPS55401687	IPS55401688
	670	IPS55401678	IPS55401689	IPS55401690
1150	470	IPS55401679	IPS55401685	IPS55401686
	570	IPS55401680	IPS55401687	IPS55401688
	670	IPS55401681	IPS55401689	IPS55401690
1350	470	IPS55401682	IPS55401685	IPS55401686
	570	IPS55401683	IPS55401687	IPS55401688
	670	IPS55401684	IPS55401689	IPS55401690