VAN DER VALK
SOLAR SYSTEMS

Quick Guide



PV Inverter Shelter

For installation of the PV Inverter Shelter Double and Mini, all steps should be completed.
For installation of the PV Inverter Shelter Single, step 4 can be skipped.
For installation of the PV Inverter Shelter Wall, only step 5 is required.

Version 02 | November 2026

PV Inverter Shelter Mini

Ballast table

How do you calculate the required ballast?

1. Select the relevant inverter weight category: 30 Kg, 60 Kg, 90 Kg.
2. Determine the following environmental factors based on the project location:
   a. Terrain category (O , I , II , III , IV)
   b. Building height (0 m. - 20 m.)
   c. Wind speed (20 m/s up to 30 m/s)
3. Consult the correct table, column and row to gather the specific ballast information.
   a. ATTENTION: Add or subtract the difference in weight of the inverter compared to the values used in the inverter weight category.
4. Placing an amount of ballast can automatically correspond to a required amount of counterweight support sets (art. nr. 760616).

In case of a specific project calculations or ballast inquiries, contact Van der Valk Solar Systems of project specific calculations and solutions.



Inverter weight: 30 Kg

Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	9	40	55	64	71	0	31	46	56	63	0	13	30	40	48	0	0	3	13	21	0	0	0	0	0
	21	16	50	67	77	84	4	40	57	68	76	0	21	39	51	59	0	0	9	21	29	0	0	0	0	1
	22	24	61	79	90	98	11	50	69	81	89	5	29	49	62	71	0	0	16	29	38	0	0	0	0	8
	23	32	73	92	104	113	18	60	81	94	103	12	38	60	73	83	2	2	23	37	47	0	0	0	5	14
	24	40	85	106	119	129	25	71	94	108	118	18	47	71	85	96	8	8	31	46	57	0	0	0	11	21
	25	49	97	120	135	145	32	83	107	122	133	25	56	82	98	110	14	14	39	55	67	2	2	2	17	28
	26	58	110	135	151	162	40	94	121	137	149	32	66	94	111	124	20	20	47	65	78	7	7	7	23	35
	27	67	124	151	167	180	48	107	135	153	166	39	76	106	125	138	26	26	56	75	89	12	12	12	30	43
	28	77	138	167	185	198	56	119	150	169	183	47	86	118	139	153	33	33	65	85	100	18	18	18	37	51
	29	87	152	183	203	217	65	133	166	186	201	55	97	131	153	169	40	40	74	96	112	24	24	24	44	59
	30	97	167	201	221	236	74	146	182	204	220	63	108	145	168	185	47	47	83	107	124	30	30	30	51	68

Inverter weight: 60 Kg

Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	0	10	25	34	41	0	1	16	26	33	0	0	0	10	18	0	0	0	0	0	0	0	0	0	0
	21	0	20	37	47	54	0	10	27	38	46	0	0	9	21	29	0	0	0	0	0	0	0	0	0	0
	22	0	31	49	60	68	0	20	39	51	59	0	0	19	32	41	0	0	0	0	8	0	0	0	0	0
	23	2	43	62	74	83	0	30	51	64	73	0	8	30	43	53	0	0	0	7	17	0	0	0	0	0
	24	10	55	76	89	99	0	41	64	78	88	0	17	41	55	66	0	0	1	16	27	0	0	0	0	0
	25	19	67	90	105	115	2	53	77	92	103	0	26	52	68	80	0	0	9	25	37	0	0	0	0	0
	26	28	80	105	121	132	10	64	91	107	119	2	36	64	81	94	0	0	17	35	48	0	0	0	0	5
	27	37	94	121	137	150	18	77	105	123	136	9	46	76	95	108	0	0	26	45	59	0	0	0	0	13
	28	47	108	137	155	168	26	89	120	139	153	17	56	88	109	123	3	3	35	55	70	0	0	0	7	21
	29	57	122	153	173	187	35	103	136	156	171	25	67	101	123	139	10	10	44	66	82	0	0	0	14	29
	30	67	137	171	191	206	44	116	152	174	190	33	78	115	138	155	17	17	53	77	94	0	0	0	21	38

Inverter weight: 90 Kg

Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	0	0	0	4	11	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	21	0	0	7	17	24	0	0	0	8	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	22	0	1	19	30	38	0	0	9	21	29	0	0	0	2	11	0	0	0	0	0	0	0	0	0	0
	23	0	13	32	44	53	0	0	21	34	43	0	0	0	13	23	0	0	0	0	0	0	0	0	0	0
	24	0	25	46	59	69	0	11	34	48	58	0	0	11	25	36	0	0	0	0	0	0	0	0	0	0
	25	0	37	60	75	85	0	23	47	62	73	0	0	22	38	50	0	0	0	0	7	0	0	0	0	0
	26	0	50	75	91	102	0	34	61	77	89	0	6	34	51	64	0	0	0	5	18	0	0	0	0	0
	27	7	64	91	107	120	0	47	75	93	106	0	16	46	65	78	0	0	0	15	29	0	0	0	0	0
	28	17	78	107	125	138	0	59	90	109	123	0	26	58	79	93	0	0	5	25	40	0	0	0	0	0
	29	27	92	123	143	157	5	73	106	126	141	0	37	71	93	109	0	0	14	36	52	0	0	0	0	0
	30	37	107	141	161	176	14	86	122	144	160	3	48	85	108	125	0	0	23	47	64	0	0	0	0	8

Nr. of counterweight support sets (Max. 2)

	=	0	(No ballast)
	=	1	(1 / 130)
	=	2	(131 / 260)

PV Inverter Shelter Double

Ballast table

How do you calculate the required ballast?

1. Select the relevant inverter weight category: 30 Kg, 60 Kg, 90 Kg.
2. Determine the following environmental factors based on the project location:
   a. Terrain category (O , I , II , III , IV)
   b. Building height (0 m. - 20 m.)
   c. Wind speed (20 m/s up to 30 m/s)
3. Consult the correct table, column and row to gather the specific ballast information.
   a. ATTENTION: Add or subtract the difference in weight of the inverter compared to the values used in the inverter weight category.
4. Placing an amount of ballast can automatically correspond to a required amount of counterweight support sets (art. nr. 760611).

In case of a specific project calculations or ballast inquiries, contact Van der Valk Solar Systems of project specific calculations and solutions.



Inverter weight: 30 Kg

Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	129	225	272	300	321	96	196	245	275	298	81	143	195	227	250	58	58	109	141	165	35	35	35	65	87
	21	151	258	309	340	363	115	226	280	313	337	99	167	224	259	285	74	74	130	165	192	48	48	48	81	106
	22	175	292	348	382	x	135	257	316	353	379	118	192	255	294	322	90	90	152	191	220	62	62	62	98	125
	23	200	328	389	x	x	156	289	354	394	x	137	219	287	329	361	107	107	174	217	249	76	76	76	115	145
	24	226	365	x	x	x	178	323	394	x	x	158	246	321	367	x	125	125	198	244	279	91	91	91	134	166
	25	253	x	x	x	x	201	358	x	x	x	179	275	356	x	x	143	143	222	273	310	107	107	107	153	188
	26	281	x	x	x	x	225	395	x	x	x	201	305	392	x	x	162	162	248	303	343	123	123	123	173	211
	27	310	x	x	x	x	250	x	x	x	x	224	336	x	x	x	182	182	275	334	377	140	140	140	194	235
	28	341	x	x	x	x	276	x	x	x	x	248	369	x	x	x	203	203	302	366	x	157	157	157	215	259
	29	372	x	x	x	x	302	x	x	x	x	273	x	x	x	x	224	224	331	399	x	175	175	175	238	285
	30	x	x	x	x	x	330	x	x	x	x	298	x	x	x	x	247	247	361	x	x	194	194	194	261	311

Inverter weight: 60 Kg

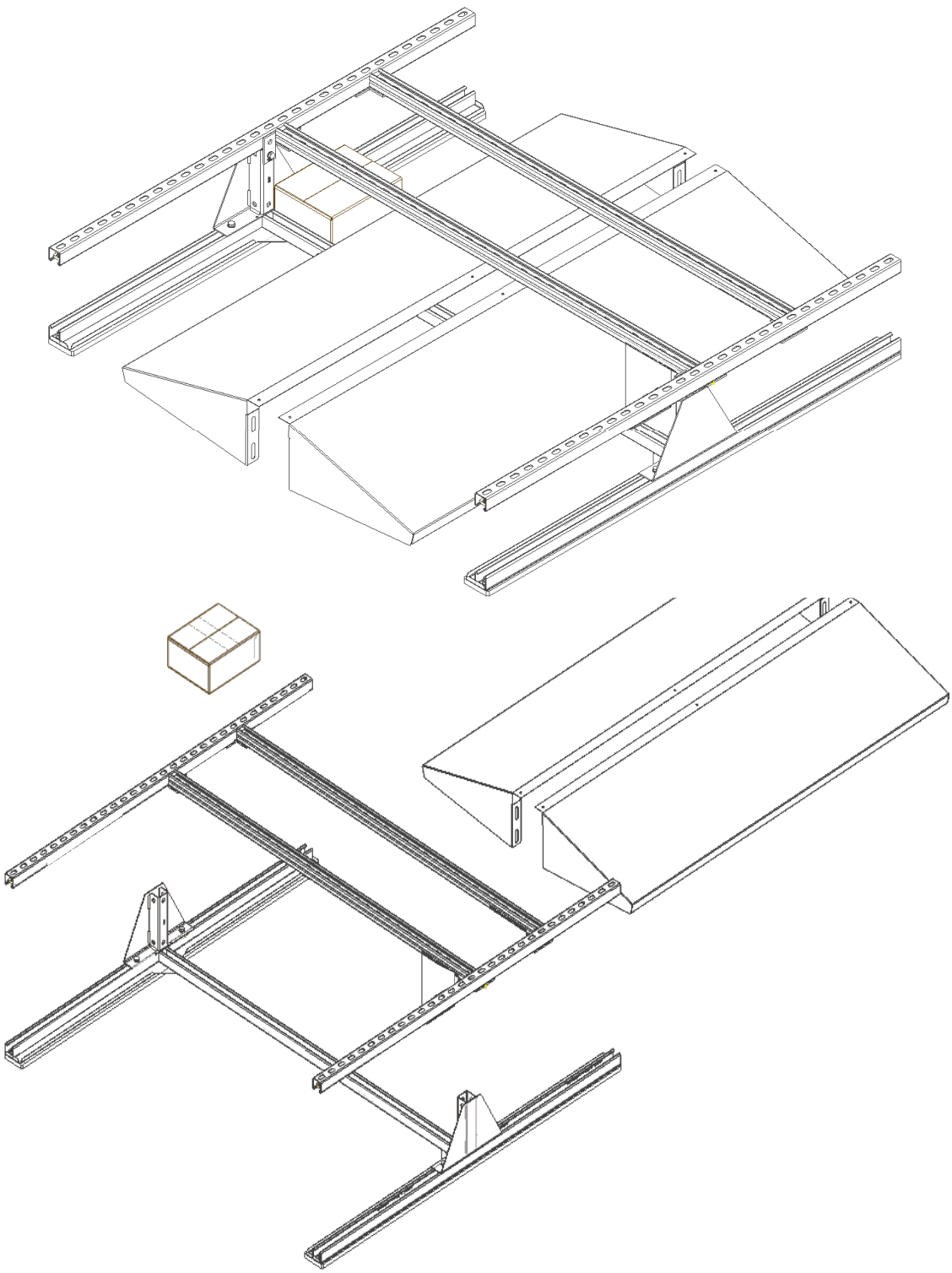
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Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	99	195	242	270	291	66	166	215	245	268	51	113	165	197	220	28	28	79	111	135	5	5	5	35	57
	21	121	228	279	310	333	85	196	250	283	307	69	137	194	229	255	44	44	100	135	162	18	18	18	51	76
	22	145	262	318	352	377	105	227	286	323	349	88	162	225	264	292	60	60	122	161	190	32	32	32	68	95
	23	170	298	359	396	x	126	259	324	364	393	107	189	257	299	331	77	77	144	187	219	46	46	46	85	115
	24	196	335	x	x	x	148	293	364	x	x	128	216	291	337	371	95	95	168	214	249	61	61	61	104	136
	25	223	374	x	x	x	171	328	x	x	x	149	245	326	376	x	113	113	192	243	280	77	77	77	123	158
	26	251	x	x	x	x	195	365	x	x	x	171	275	362	x	x	132	132	218	273	313	93	93	93	143	181
	27	280	x	x	x	x	220	x	x	x	x	194	306	400	x	x	152	152	245	304	347	110	110	110	164	205
	28	311	x	x	x	x	246	x	x	x	x	218	339	x	x	x	173	173	272	336	383	127	127	127	185	229
	29	342	x	x	x	x	272	x	x	x	x	243	372	x	x	x	194	194	301	369	x	145	145	145	208	255
	30	375	x	x	x	x	300	x	x	x	x	268	x	x	x	x	217	217	331	x	x	164	164	164	231	281

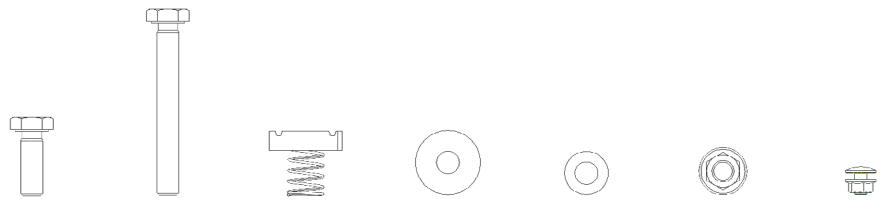
Inverter weight: 90 Kg

Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb,0 (m/s)	20	69	165	212	240	261	36	136	185	215	238	21	83	135	167	190	0	0	49	81	105	0	0	0	5	27
	21	91	198	249	280	303	55	166	220	253	277	39	107	164	199	225	14	14	70	105	132	0	0	0	21	46
	22	115	232	288	322	347	75	197	256	293	319	58	132	195	234	262	30	30	92	131	160	2	2	2	38	65
	23	140	268	329	366	394	96	229	294	334	363	77	159	227	269	301	47	47	114	157	189	16	16	16	55	85
	24	166	305	371	x	x	118	263	334	377	x	98	186	261	307	341	65	65	138	184	219	31	31	31	74	106
	25	193	344	x	x	x	141	298	375	x	x	119	215	296	346	383	83	83	162	213	250	47	47	47	93	128
	26	221	384	x	x	x	165	335	x	x	x	141	245	332	386	x	102	102	188	243	283	63	63	63	113	151
	27	250	x	x	x	x	190	373	x	x	x	164	276	370	x	x	122	122	215	274	317	80	80	80	134	175
	28	281	x	x	x	x	216	x	x	x	x	188	309	x	x	x	143	143	242	306	353	97	97	97	155	199
	29	312	x	x	x	x	242	x	x	x	x	213	342	x	x	x	164	164	271	339	389	115	115	115	178	225
	30	345	x	x	x	x	270	x	x	x	x	238	377	x	x	x	187	187	301	373	x	134	134	134	201	251

Nr. of counterweight support sets (Max. 4)

	=	0	(No ballast)
	=	1	(1 / 100)
	=	2	(101 / 200)
	=	3	(201 / 300)
	=	4	(301 / 400)
	=	Fixation required	

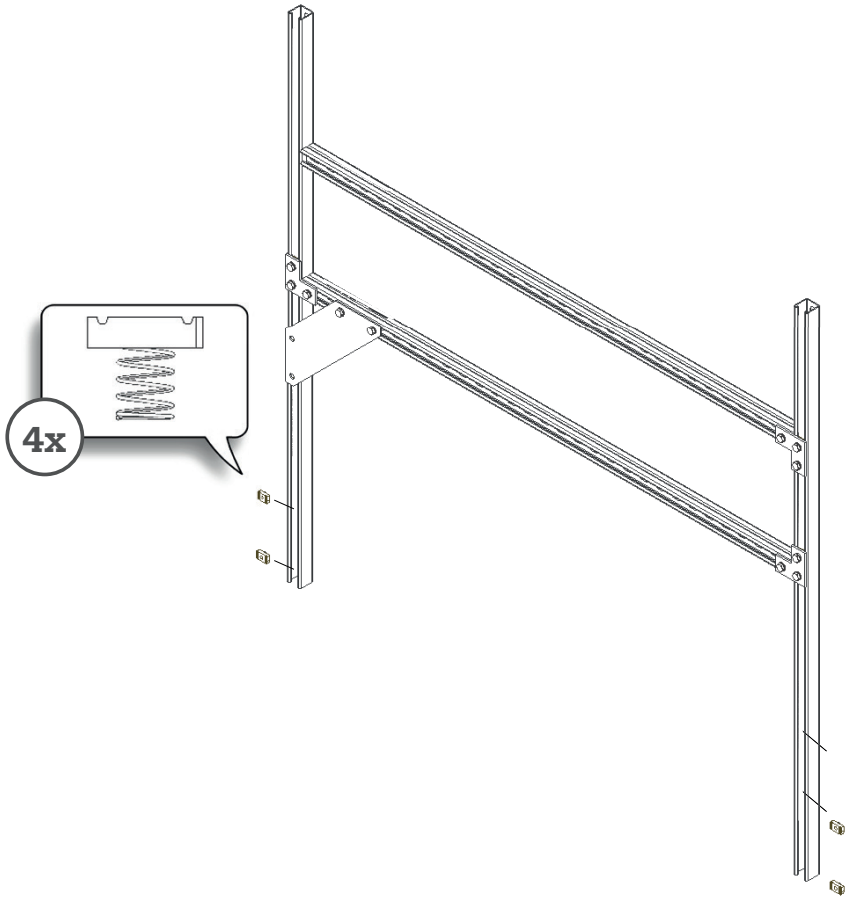


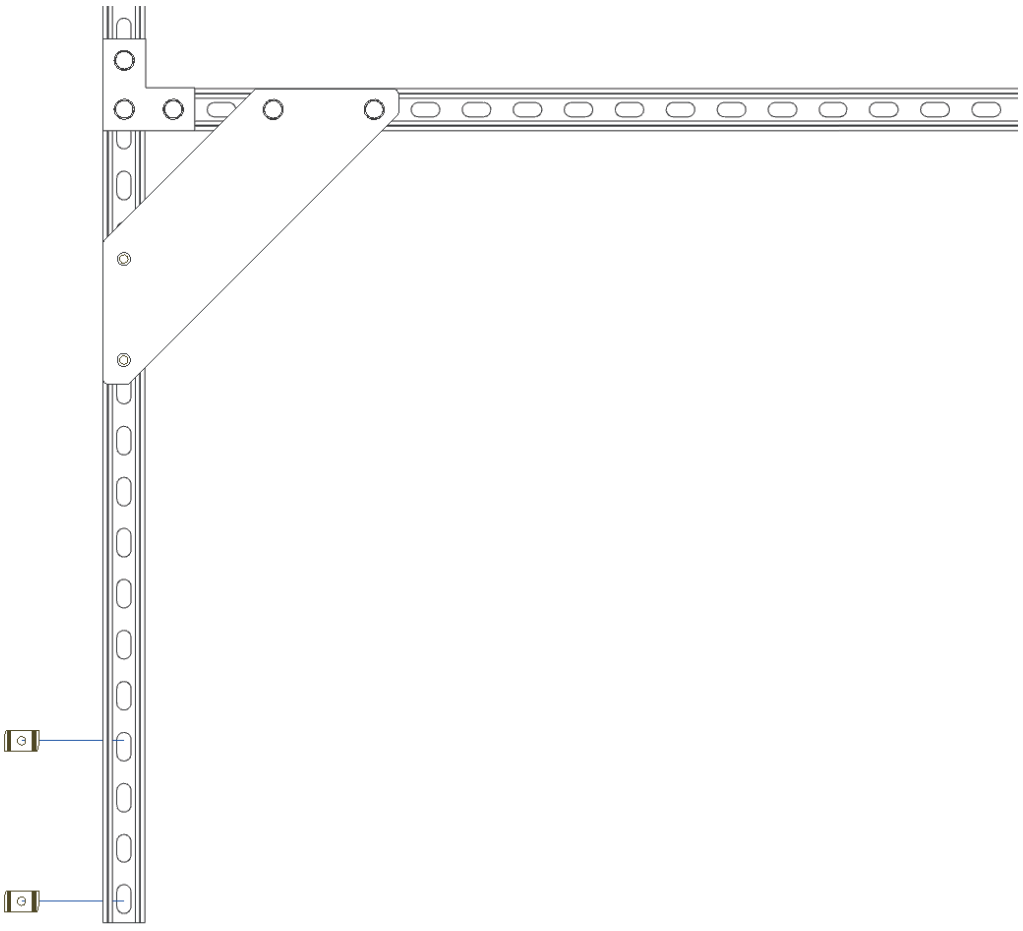


4x 4x 4x 8x 4x 4x 3x

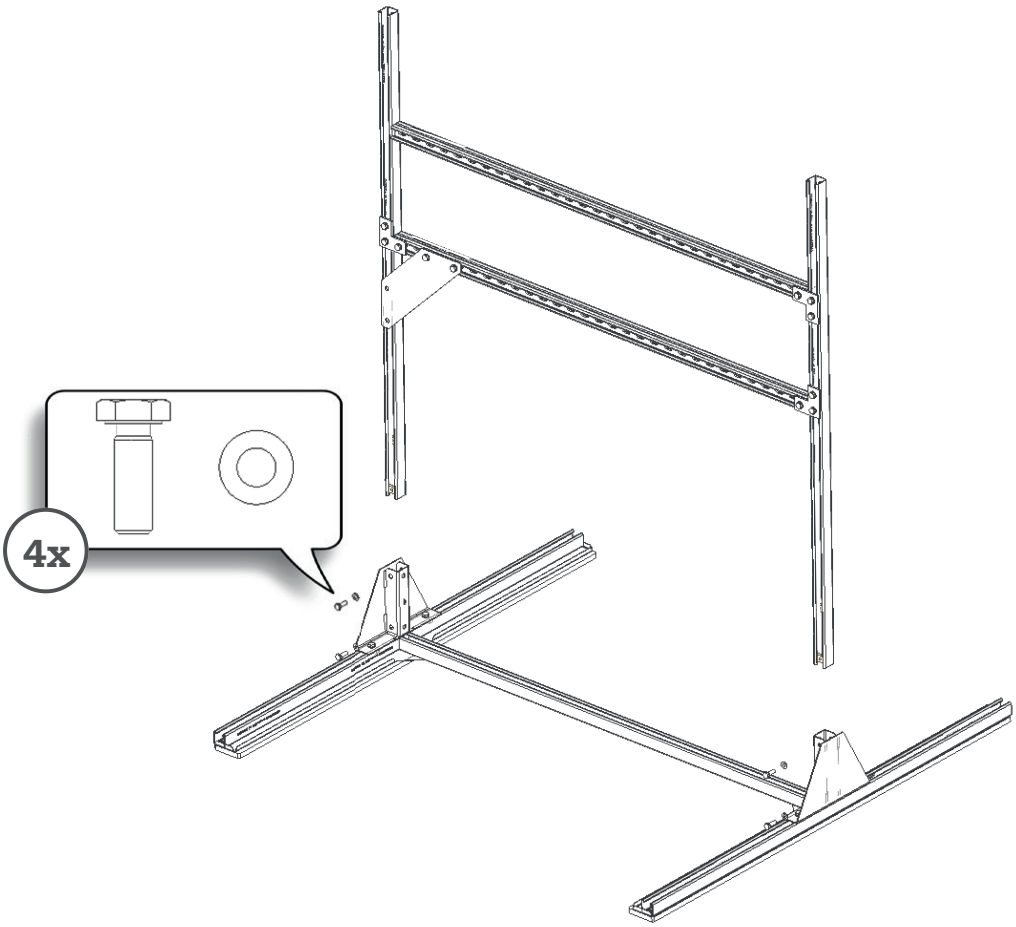
Required tools: socket wrench 17 mm

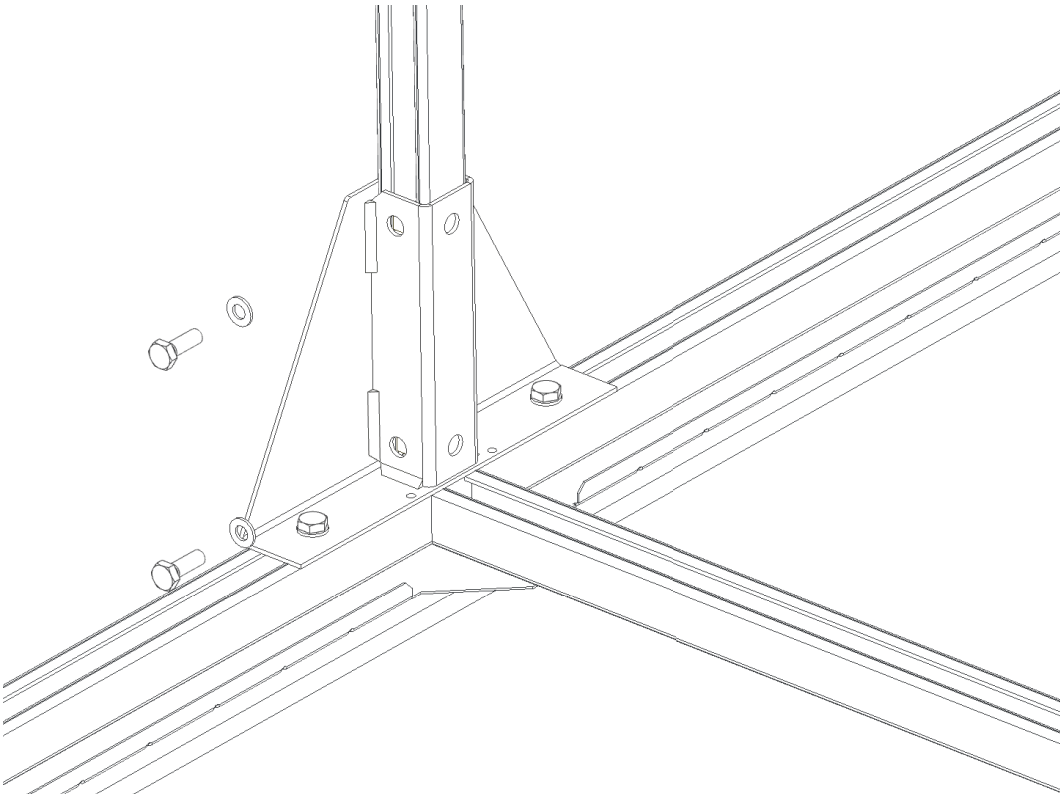
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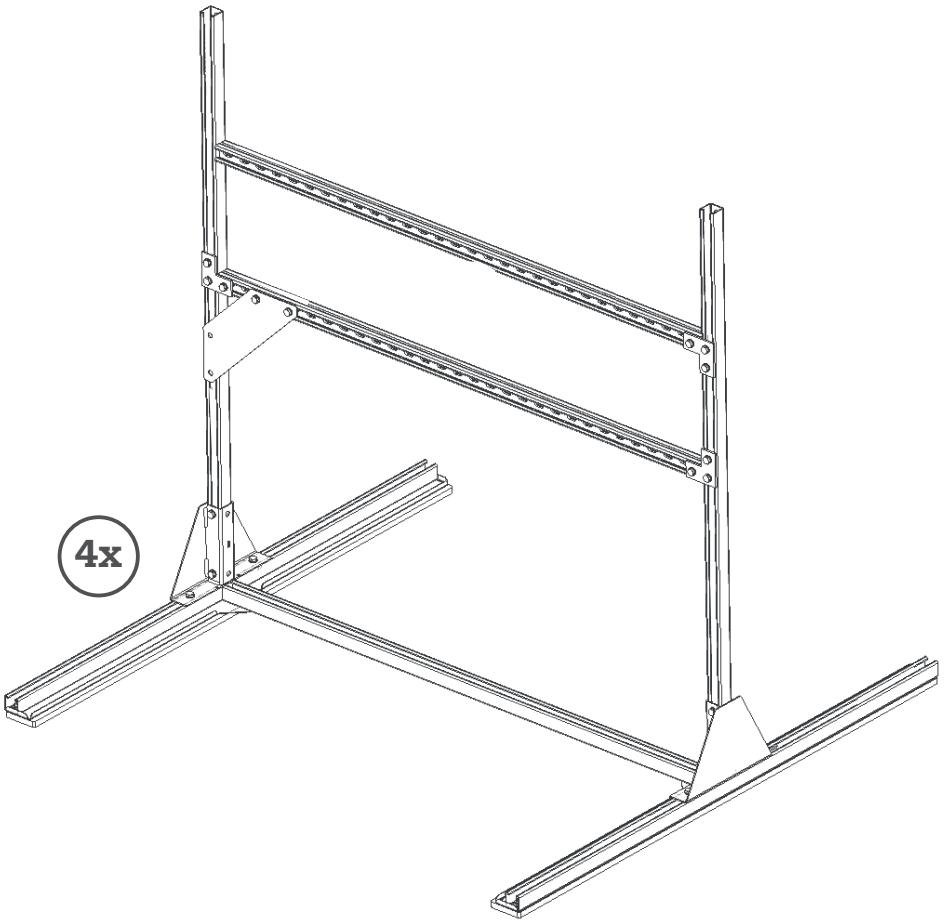


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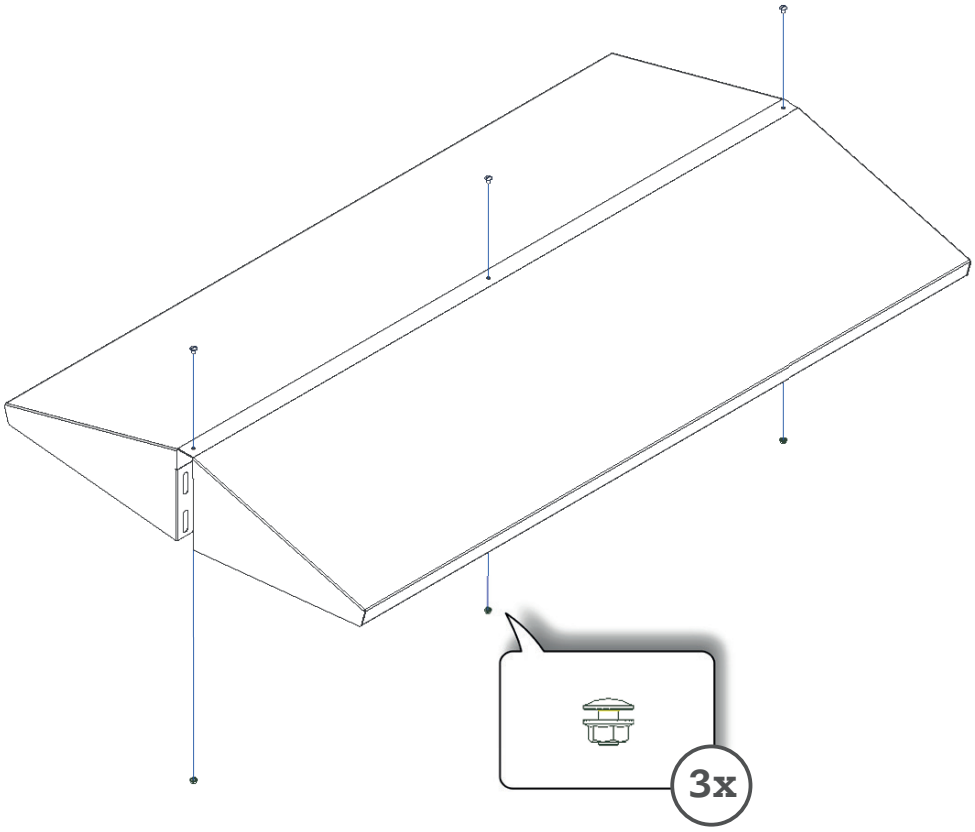




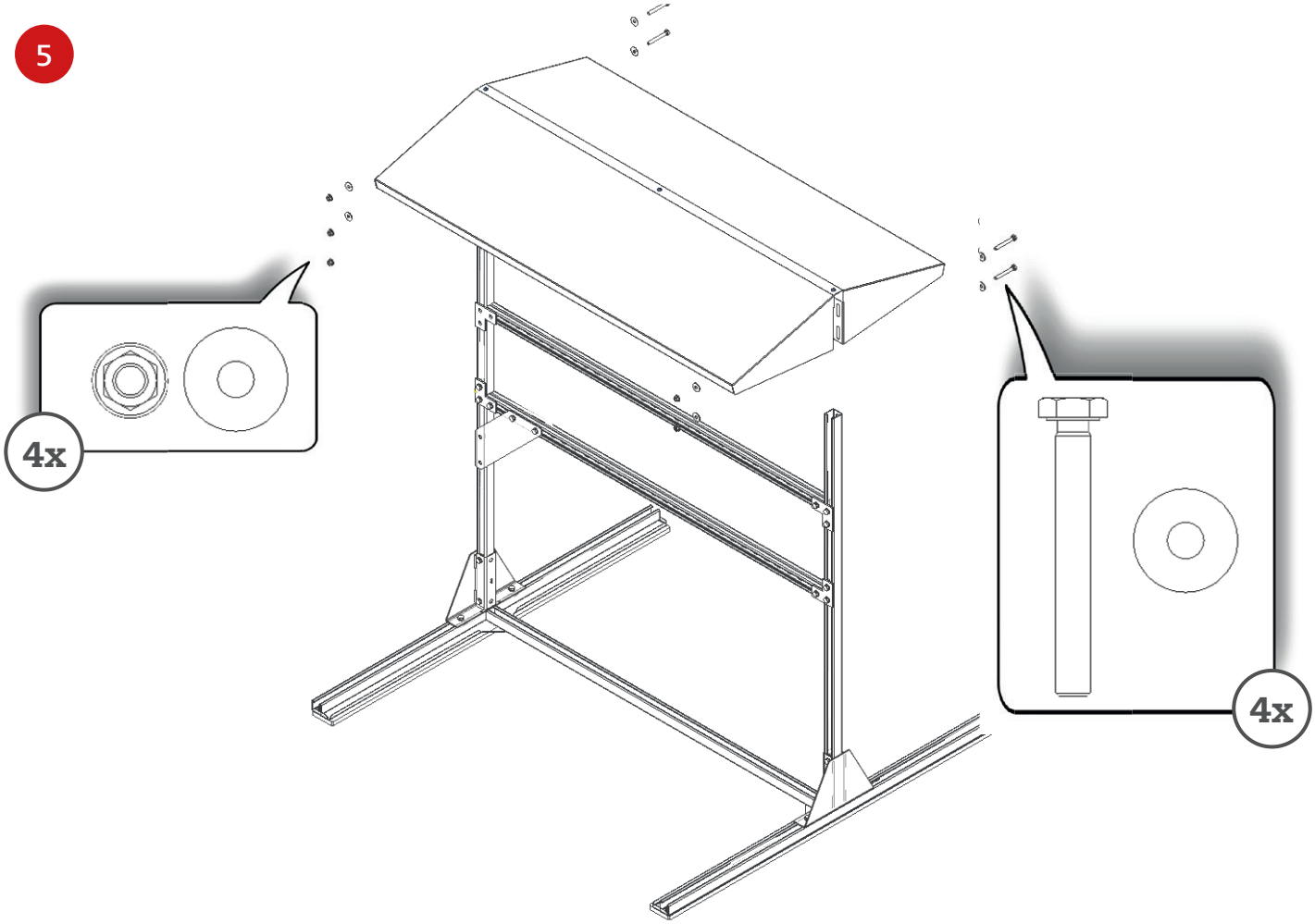
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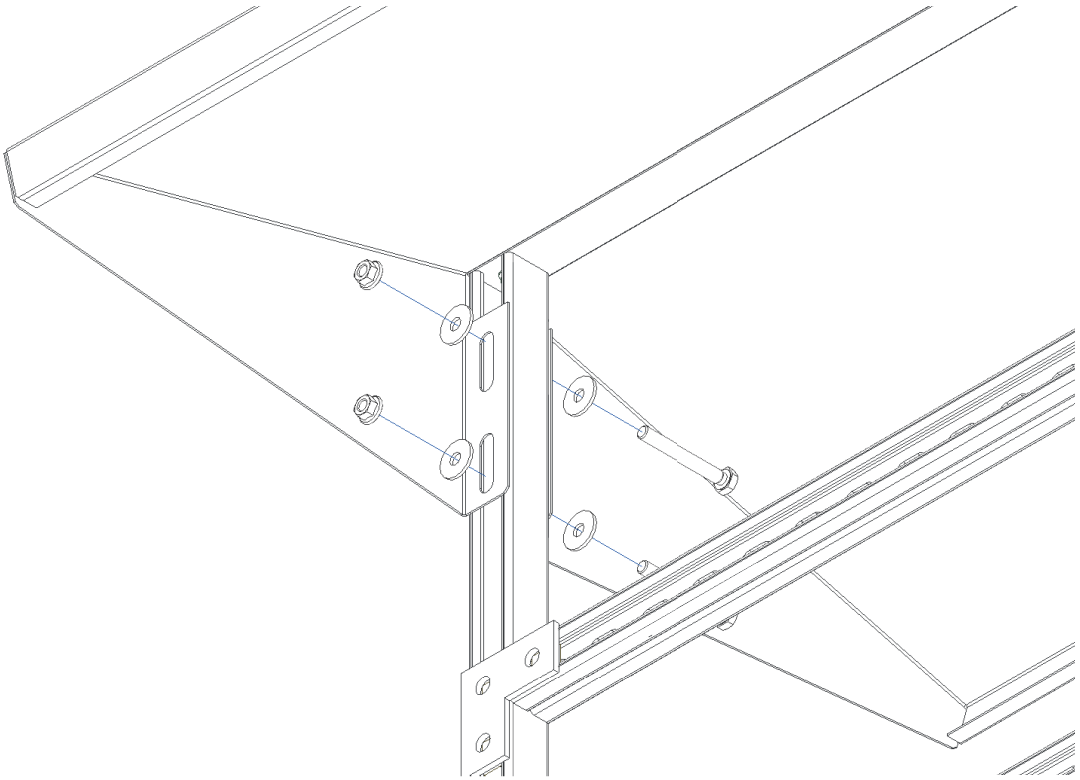


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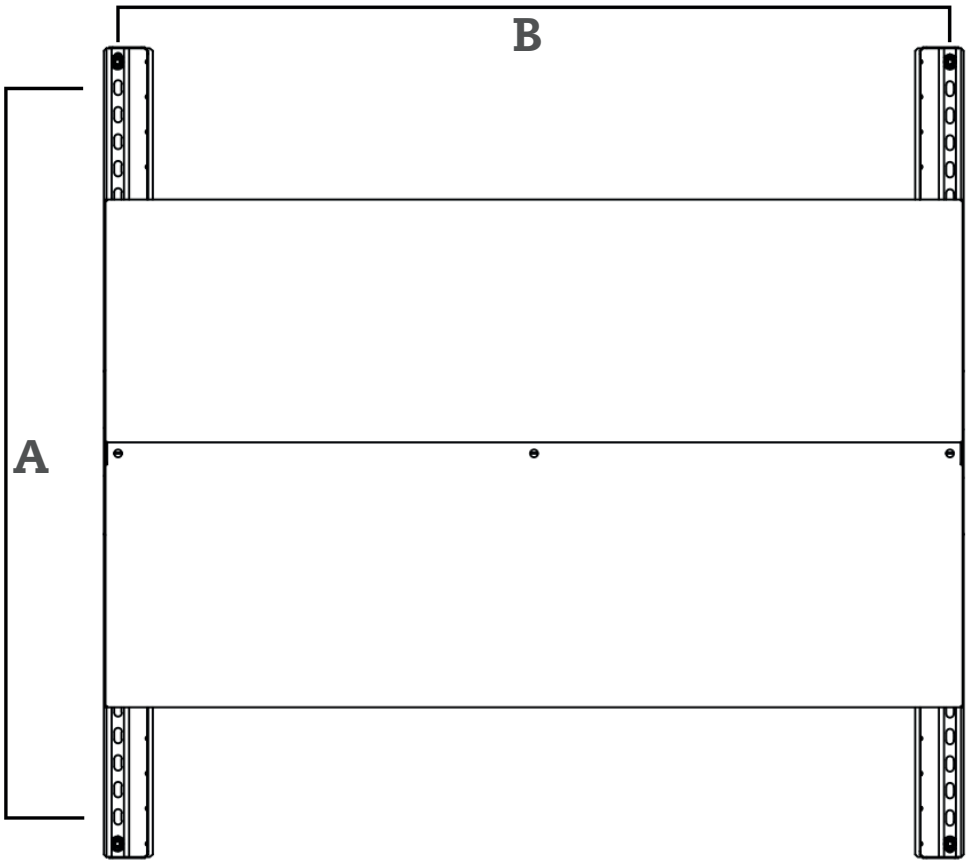
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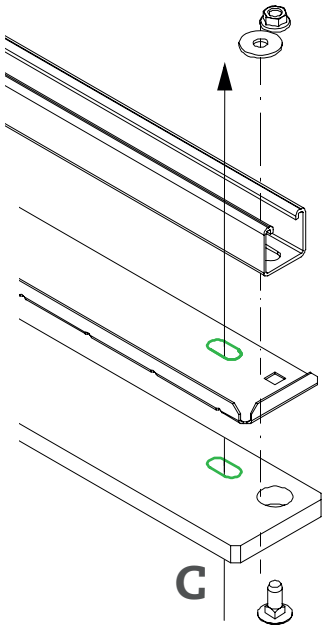


6 **In case of mechanical anchoring**

Required: 4x mechanical anchors



A = 1364 mm B = 1539 mm



C = 28x14 mm

Et voilà!

