



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.



PV Inverter Shelter Ballast sheets

PV Inverter Shelter Mini

How to determine 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). Consult the legend on the right.

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	33	75	94	107	116	19	62	83	96	106	13	39	61	75	85	3	3	25	38	49	0	0	0	5	15
	21	43	89	110	124	134	27	75	98	112	123	20	49	74	89	100	9	9	33	49	60	0	0	0	12	23
	22	53	103	127	142	153	36	88	114	129	141	28	60	87	104	116	16	16	43	60	72	4	4	4	20	31
	23	64	119	145	161	173	45	102	130	147	160	37	72	101	119	133	24	24	53	71	85	10	10	10	27	40
	24	75	135	163	181	194	54	117	147	166	179	45	84	116	135	150	31	31	63	83	98	17	17	17	35	49
	25	86	151	182	202	216	64	132	165	185	200	55	96	131	152	168	39	39	73	95	111	23	23	23	43	59
	26	98	169	202	223	238	74	148	183	205	221	64	109	146	170	187	47	47	84	108	125	30	30	30	52	68
	27	111	187	223	245		85	164	202	226	244	74	122	163	188	206	56	56	96	121	140	38	38	38	61	79
	28	124	206	245			96	181	222	248		84	136	180	207	227	65	65	108	135	155	45	45	45	70	89
	29	138	225				108	199	243			95	151	197	226	248	74	74	120	149	171	53	53	53	80	100
	30	152	245				120	217				106	166	215	247		84	84	133	164	187	61	61	61	90	112
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	3	45	64	77	86	0	32	53	66	76	0	9	31	45	55	0	0	0	8	19	0	0	0	0	0
	21	13	59	80	94	104	0	45	68	82	93	0	19	44	59	70	0	0	3	19	30	0	0	0	0	0
	22	23	73	97	112	123	6	58	84	99	111	0	30	57	74	86	0	0	13	30	42	0	0	0	0	1
	23	34	89	115	131	143	15	72	100	117	130	7	42	71	89	103	0	0	23	41	55	0	0	0	0	10
	24	45	105	133	151	164	24	87	117	136	149	15	54	86	105	120	1	1	33	53	68	0	0	0	5	19
	25	56	121	152	172	186	34	102	135	155	170	25	66	101	122	138	9	9	43	65	81	0	0	0	13	29
	26	68	139	172	193	208	44	118	153	175	191	34	79	116	140	157	17	17	54	78	95	0	0	0	22	38
	27	81	157	193	215	232	55	134	172	196	214	44	92	133	158	176	26	26	66	91	110	8	8	8	31	49
	28	94	176	215	239	256	66	151	192	218	237	54	106	150	177	197	35	35	78	105	125	15	15	15	40	59
	29	108	195	237			78	169	213	240	260	65	121	167	196	218	44	44	90	119	141	23	23	23	50	70
	30	122	215	260			90	187	235			76	136	185	217	239	54	54	103	134	157	31	31	31	60	82
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	15	34	47	56	0	2	23	36	46	0	0	1	15	25	0	0	0	0	0	0	0	0	0	0
	21	0	29	50	64	74	0	15	38	52	63	0	0	14	29	40	0	0	0	0	0	0	0	0	0	0
	22	0	43	67	82	93	0	28	54	69	81	0	0	27	44	56	0	0	0	0	12	0	0	0	0	0
	23	4	59	85	101	113	0	42	70	87	100	0	12	41	59	73	0	0	0	11	25	0	0	0	0	0
	24	15	75	103	121	134	0	57	87	106	119	0	24	56	75	90	0	0	3	23	38	0	0	0	0	0
	25	26	91	122	142	156	4	72	105	125	140	0	36	71	92	108	0	0	13	35	51	0	0	0	0	0
	26	38	109	142	163	178	14	88	123	145	161	4	49	86	110	127	0	0	24	48	65	0	0	0	0	8
	27	51	127	163	185	202	25	104	142	166	184	14	62	103	128	146	0	0	36	61	80	0	0	0	1	19
	28	64	146	185	209	226	36	121	162	188	207	24	76	120	147	167	5	5	48	75	95	0	0	0	10	29
	29	78	165	207	233	251	48	139	183	210	230	35	91	137	166	188	14	14	60	89	111	0	0	0	20	40
	30	92	185	230	258		60	157	205	234	255	46	106	155	187	209	24	24	73	104	127	1	1	1	30	52
Nr. of counterweight support sets (Max. 2)																										
	=	0 (No ballast)																								
	=	1 (1 / 130)																								
	=	2 (131 / 260)																								
	=	Fixation required																								

Nr. of counterweight support sets (Max. 2)

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



PV Inverter Shelter Ballast sheets

PV Inverter Shelter Double How to determine ballast?

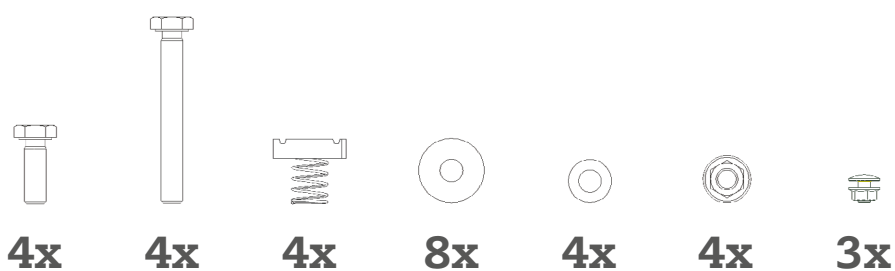
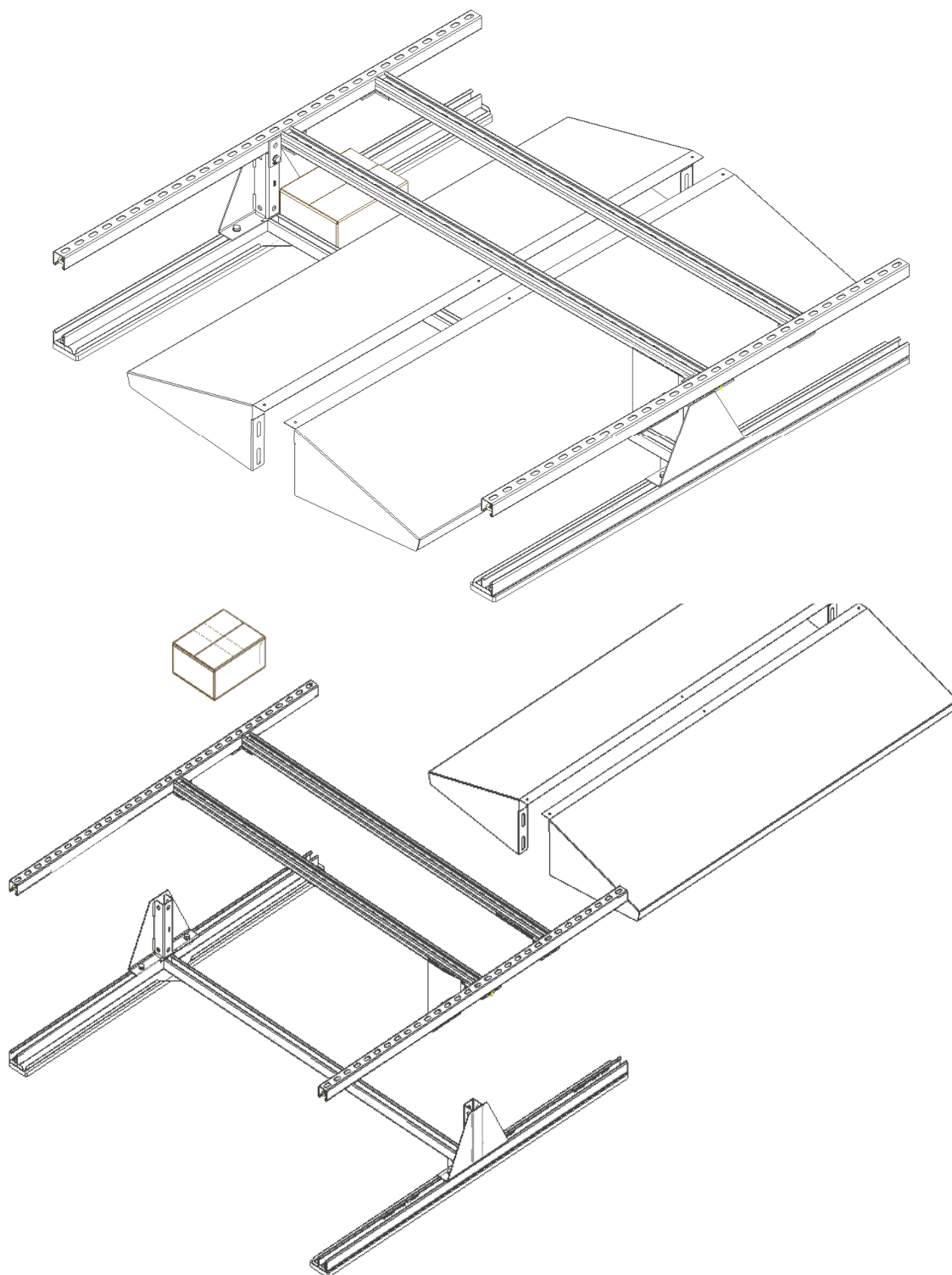
1. Select the relevant inverter weight category:
30 Kg, 60 Kg, 90 Kg.
2. Determine the following environmental factors based on the project location:
 - a. Terrain category (O, I, II, III, IV)
 - b. Building height (0 m. - 20 m.)
 - c. Wind speed (20 m/s up to 30 m/s)
3. Consult the correct table, column 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). Consult the legend on the right.

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



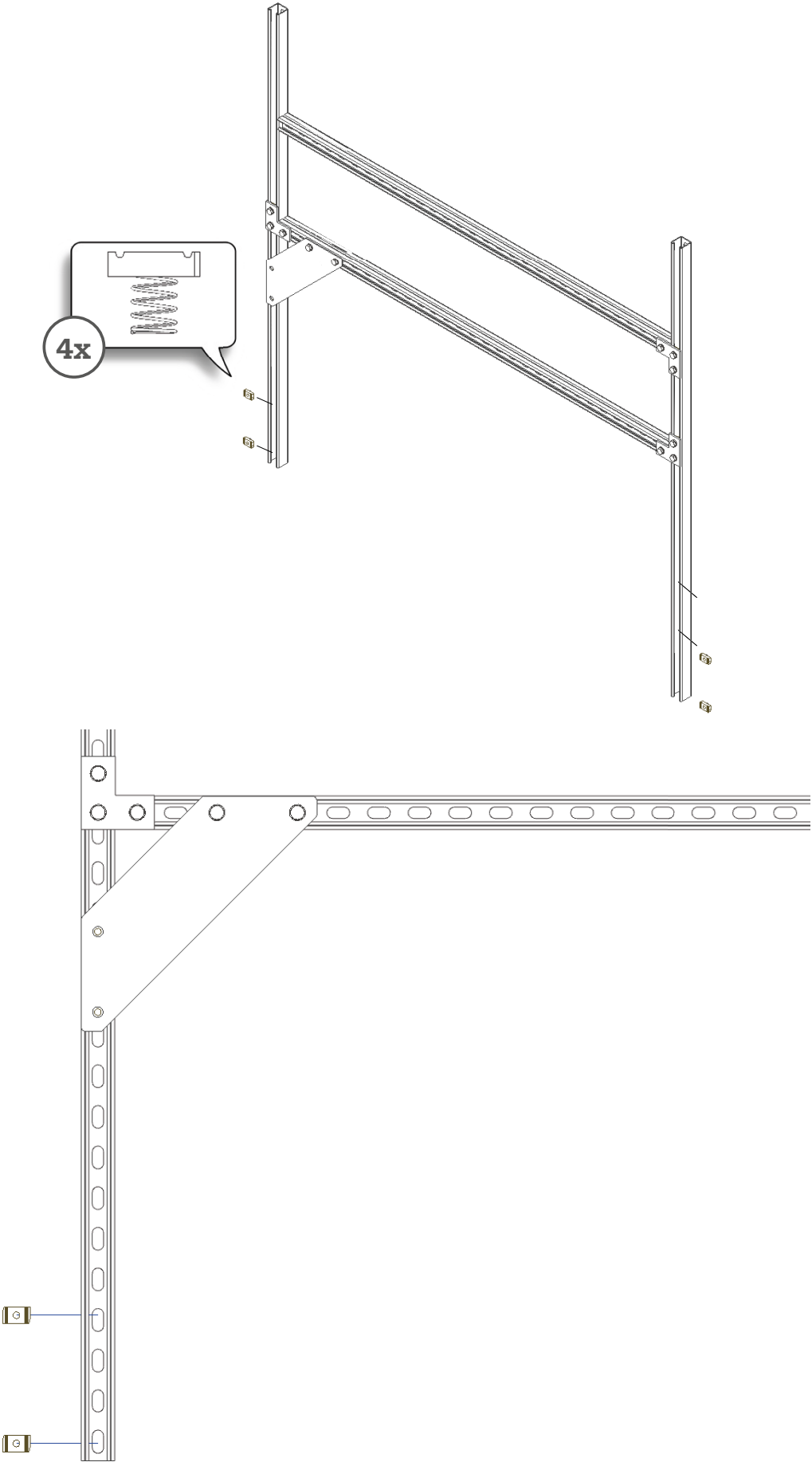
Inverter weight: 30 Kg																										
Terrain category		O					I					II					III					IV				
Height		0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20	0	5	10	15	20
vb.0 (m/s)	20	129	225	272	300	321	96	196	245	275	298	81	143	195	227	250	58	58	109	141	165	35	35	35	65	87
	21	151	258	309	340	363	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																										
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	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

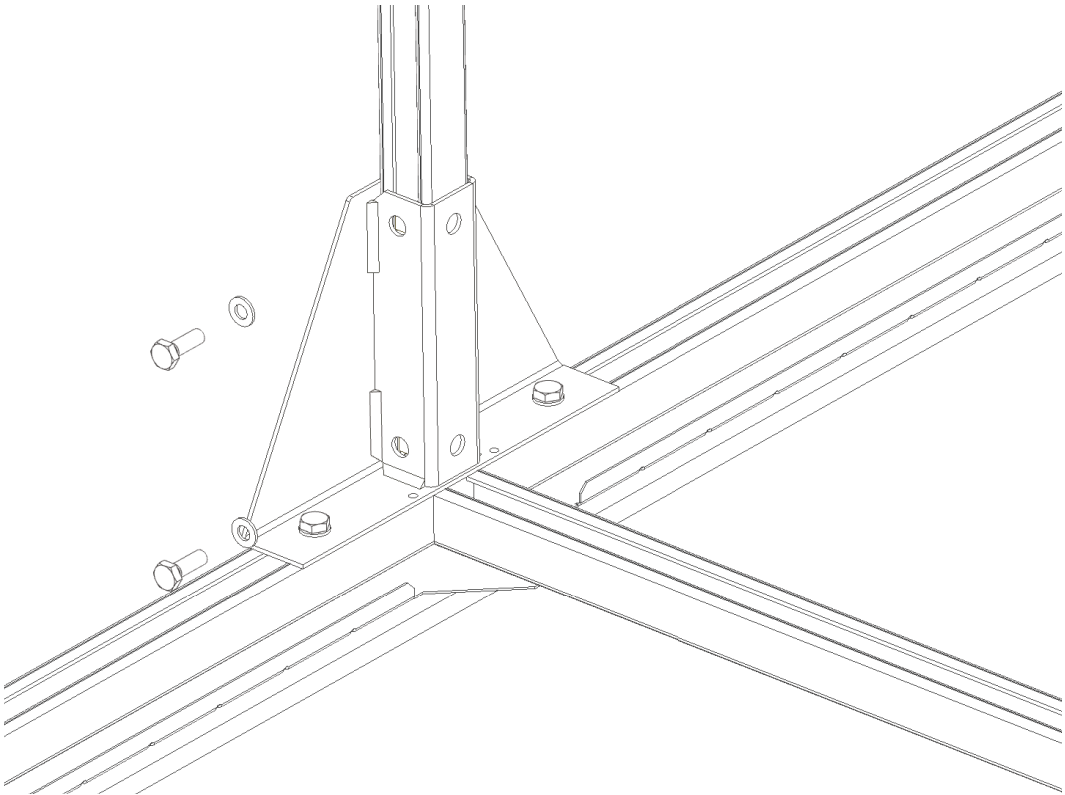
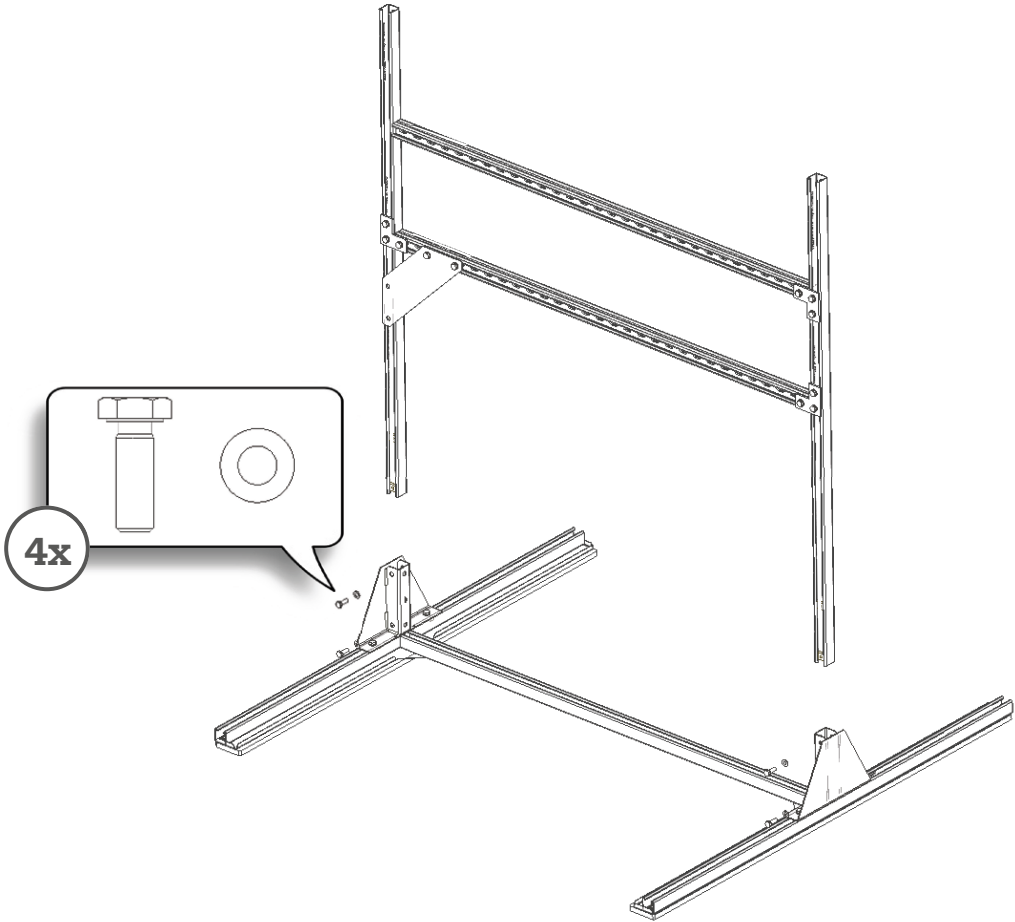


Required tools: socket wrench 17 mm

1



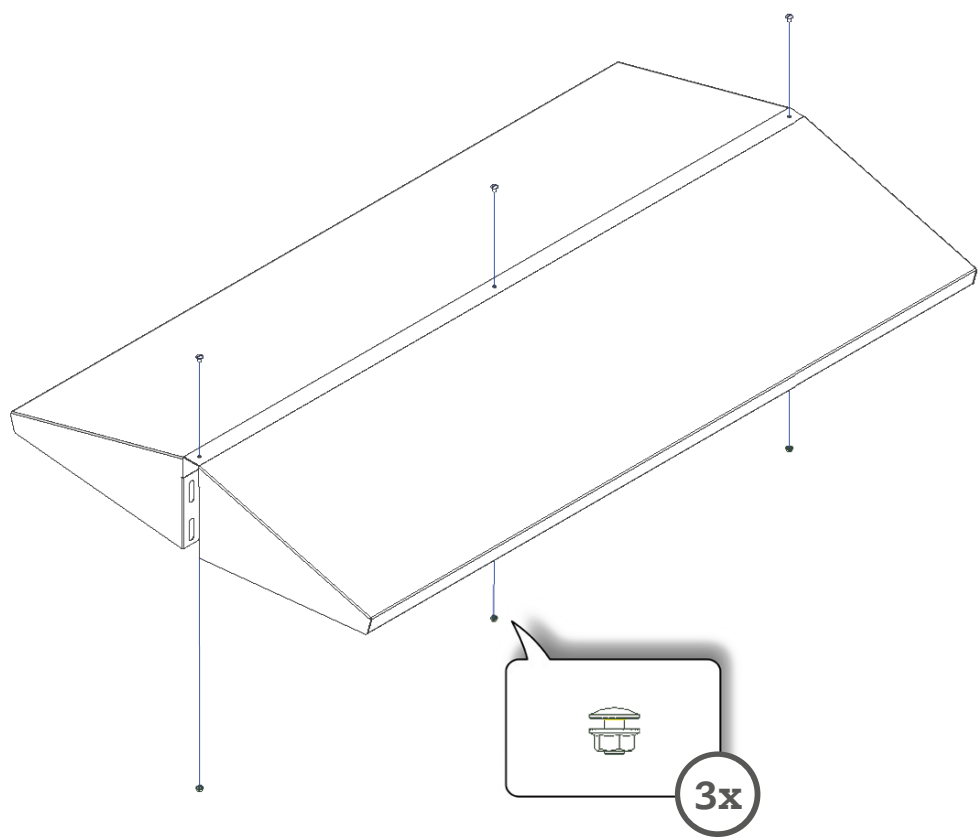
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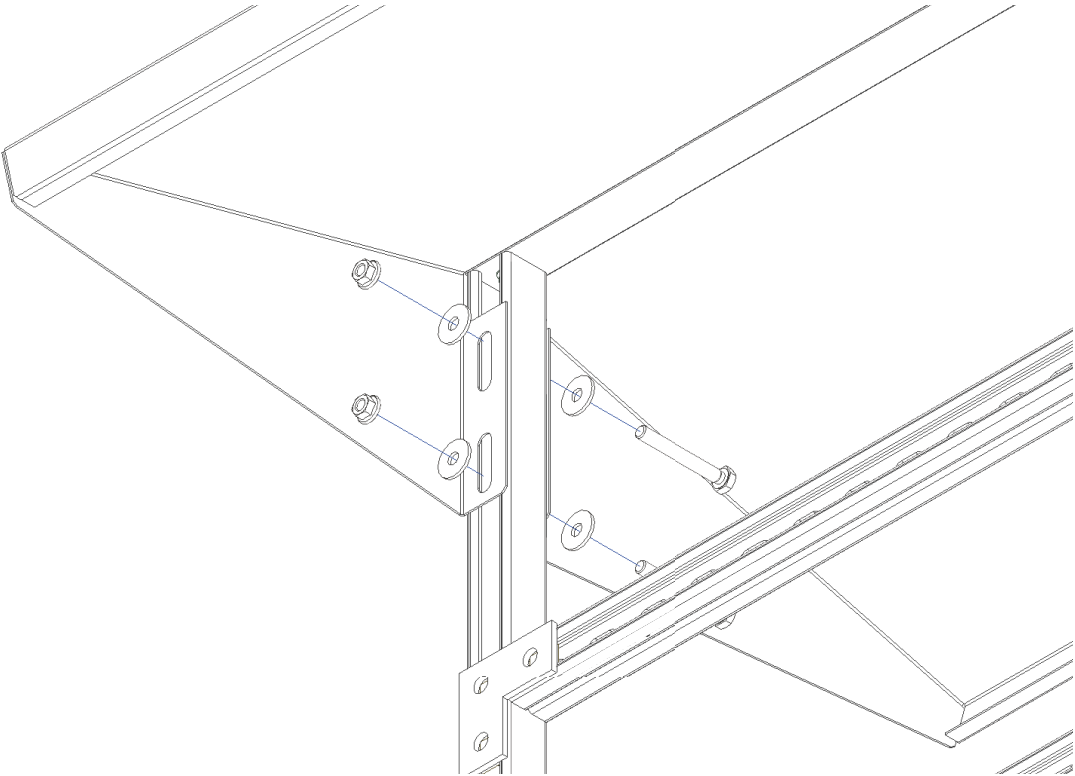
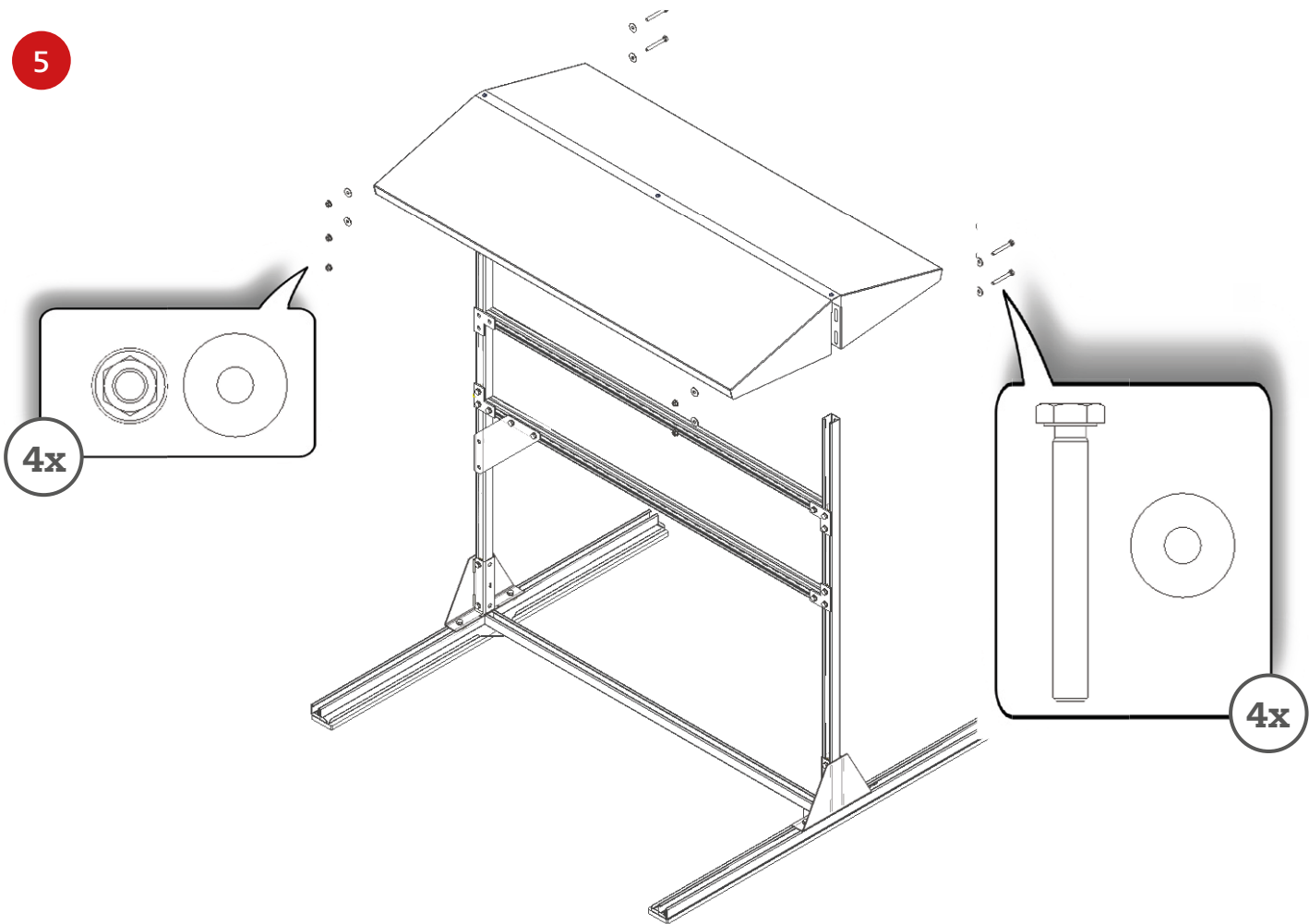


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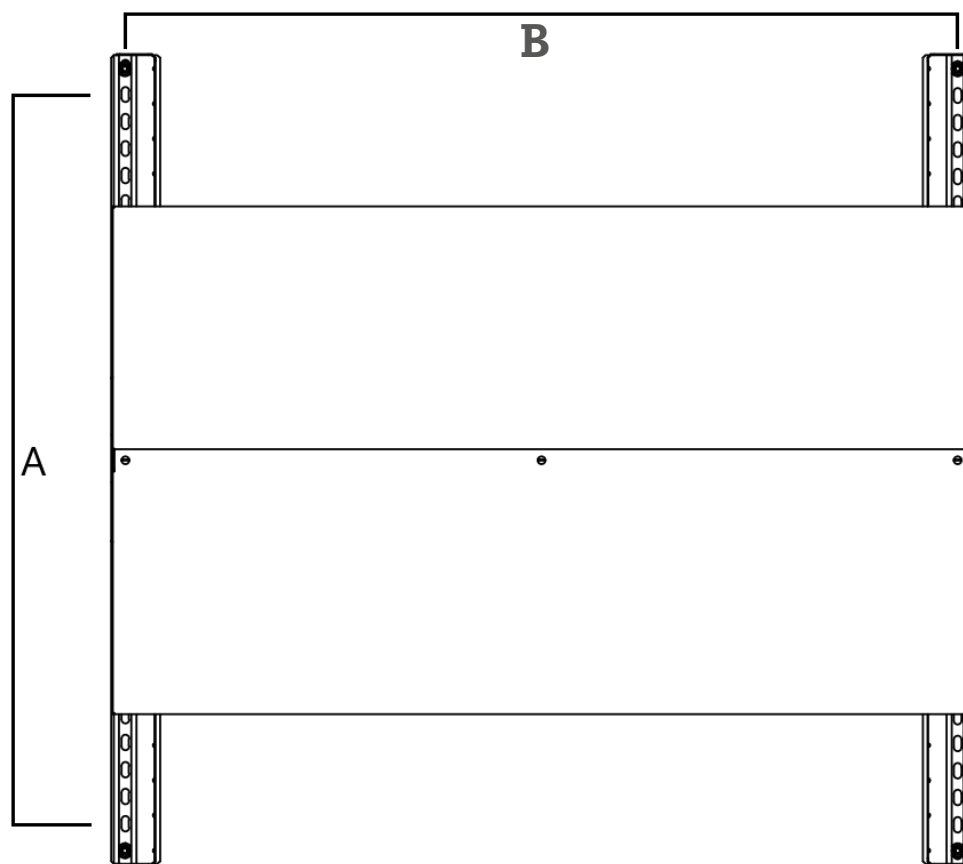
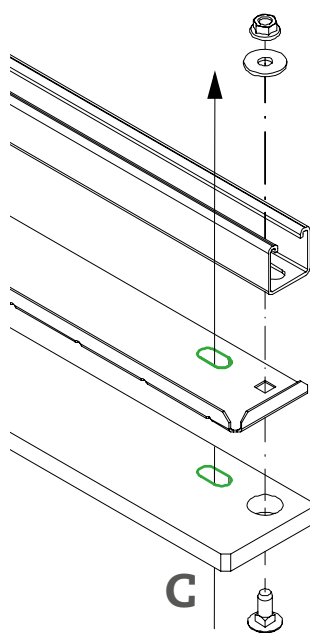


4





6

In case of mechanical anchoring*Required: 4x mechanical anchors***A = 1364 mm B = 1539 mm****C = 28x14 mm**

Et voilà!

