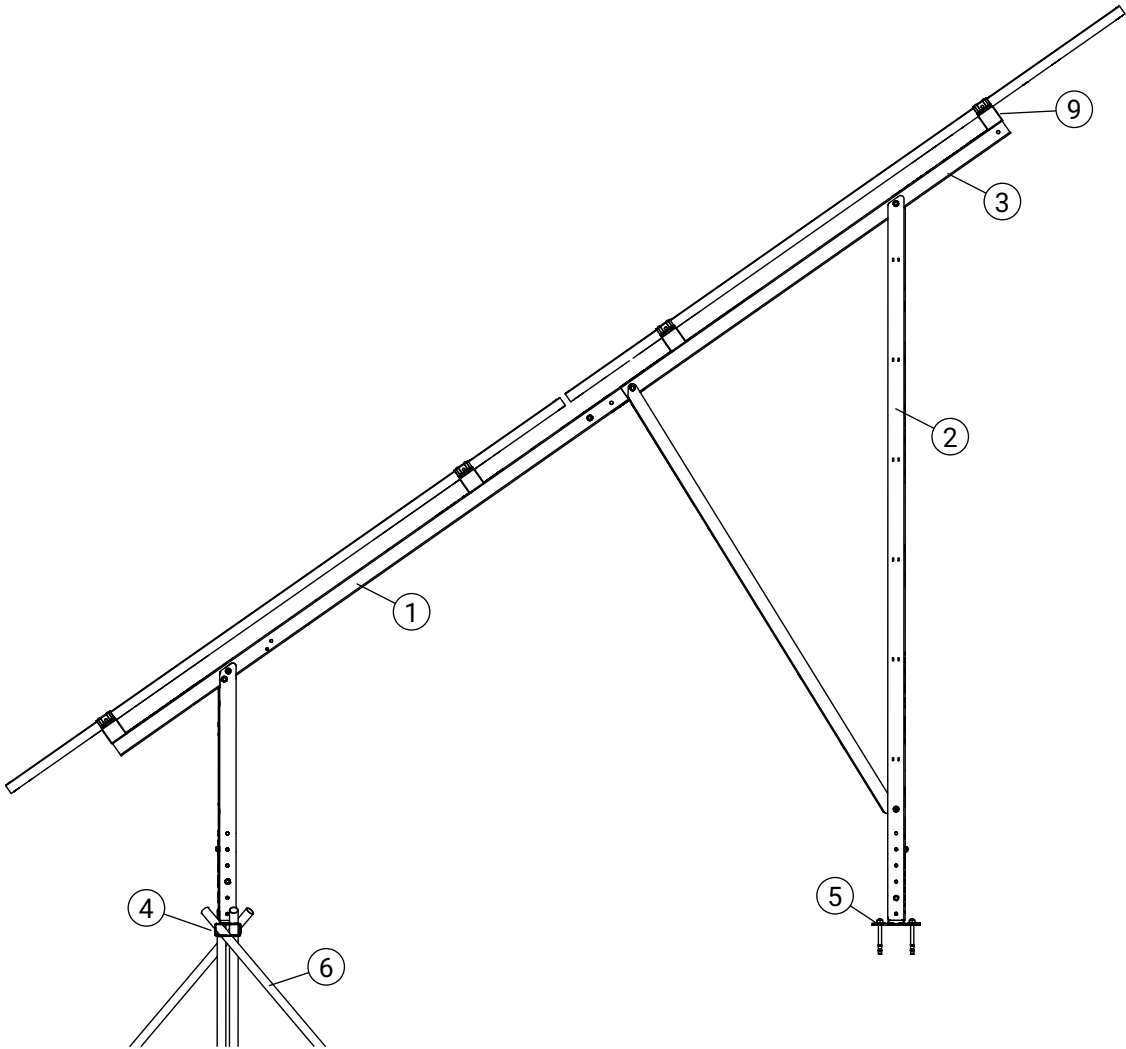


Ground-mounted solar panel system – double row

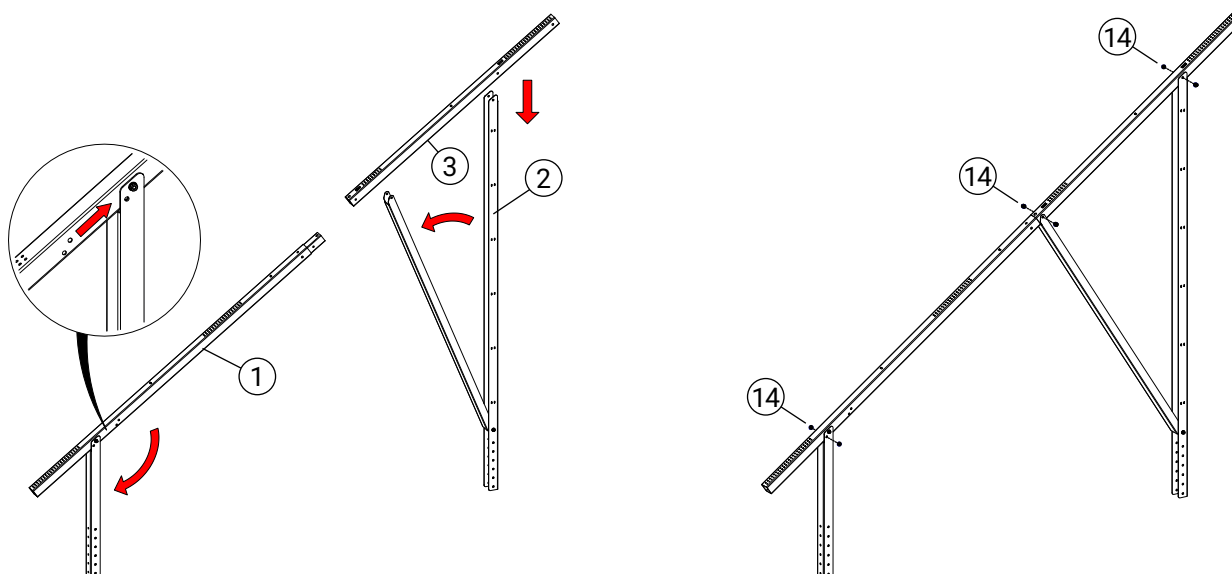
	Part	Part. no.
1	Front section double row	MM2010
2	Rear section double row	MM2020
3	Beam small/large	MM1455/MM1925
4	Ground base – ground pipe std/high	MM2024/MM2049
5	Ground base – top-mounted std/high	MM1524/MM1549
6	Ground pipe Ø27 mm 1135 mm	RR2711
7	Cross braces	MM2400

	Part	Part. no.
8	Ground-mount template	MM5060
9	Mounting rail solar system	IS2450
10	End clamps	KL1000
11	Centre clamp	KL2000
12	Plastic cover	PL5050
13	Self-tapping screw 6,3x19 mm 10/100/1000-pack	SS6191/SS6190/ SS1000
14	Self-tapping bolts 8.6x16 mm, 12-pack	BU8161



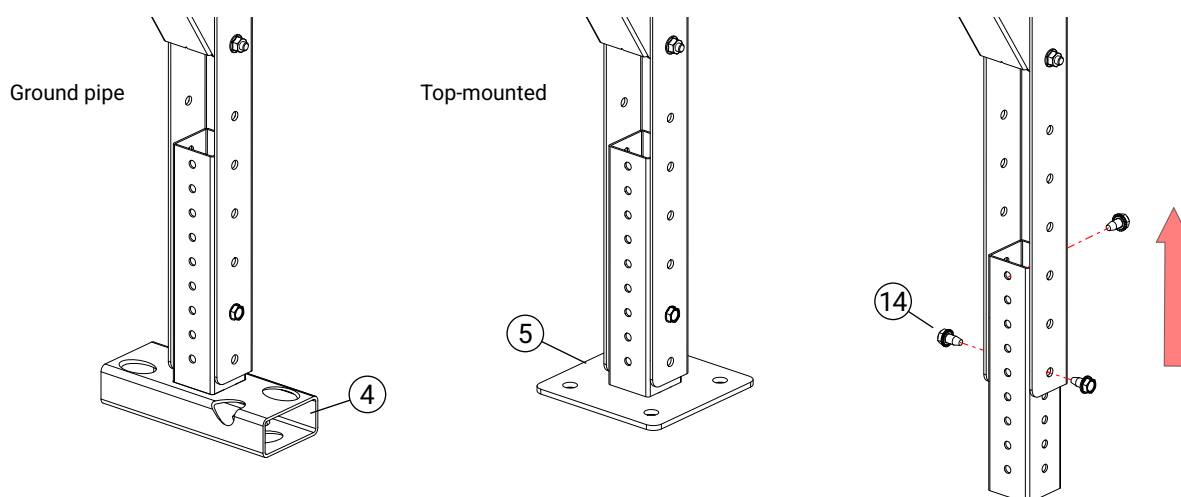
Installation Instructions. Ground-mounted solar panel system – double row

Observe the Swedish Work Environment Authority's rules! All work at heights above 2 metres must be carried out using fall protection. Weland Stål can help you create a safe workplace.



1. Assemble the frame

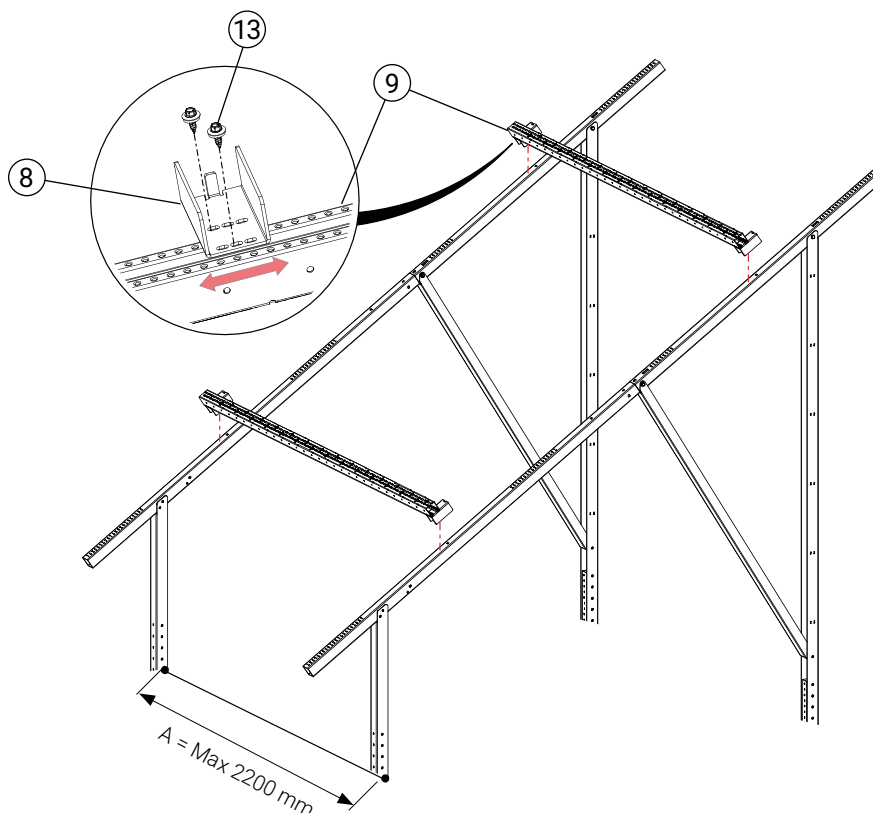
For panel lengths greater than 2100 mm, move the front post one step and reuse the preassembled bolt and nut. Angle out the preassembled components and join the front section (1), rear sections (2) and beam (3) using a total of 6 self-tapping bolts (14). Retighten the preassembled bolt and nut.



2. Install the ground anchoring

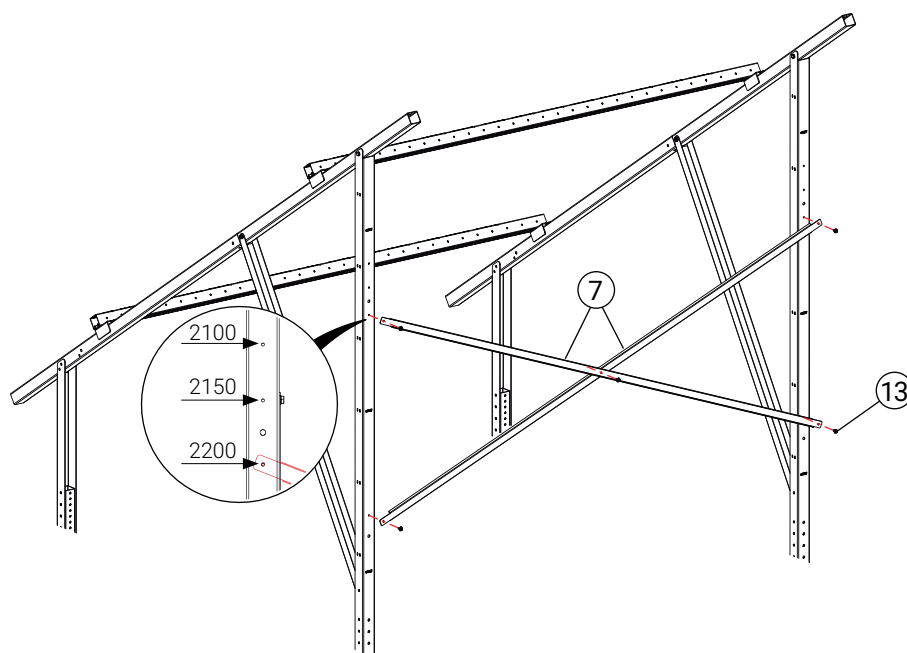
Install the ground base (4)(5) with 3 self-tapping bolts (14), one on each side.

Minimum overlap is 100 mm.



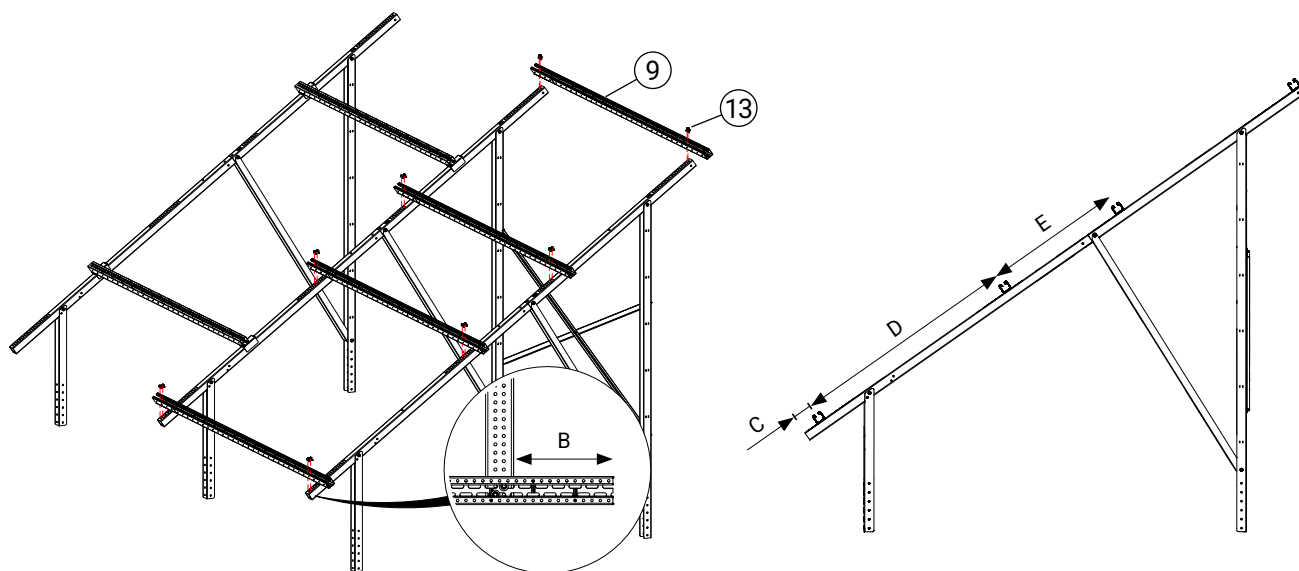
3. Position the frame

Attach the template (8) to a attachment rail (9) with a c/c distance according to A, as specified on the last page of the installation instructions. Place the template between the two frame assemblies.



4. Install cross braces

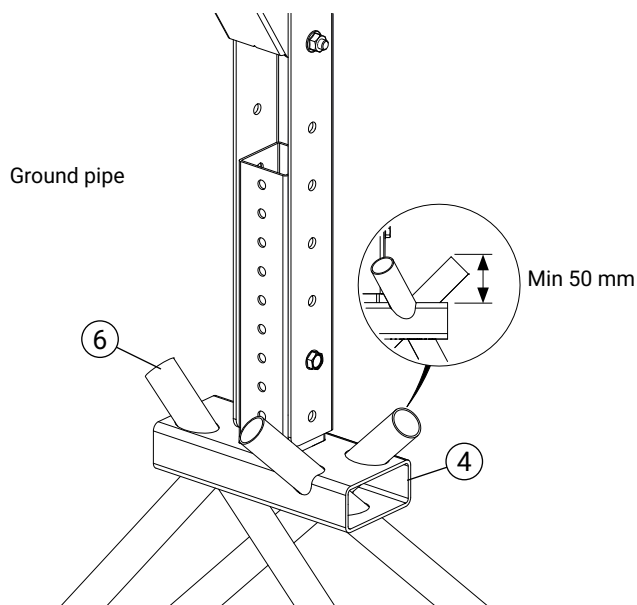
Mount the cross-brace (7) as shown, using 5 screws (13). For a center-to-center (C/C) distance approaching 2150 mm, move the cross-brace up one position. For a C/C distance approaching 2100 mm, move the cross-brace up two positions. For C/C distances shorter than 2100 mm, the cross brace must be adapted during installation.



5. Install mounting rails

Position the mounting rail (9) according to the table on the last page and the accompanying project drawing. Fasten the rails to the frame with 2 self-tapping screws (13) at each cross connection.

Slide the rail sections together and secure the joint with 4 screws (13).



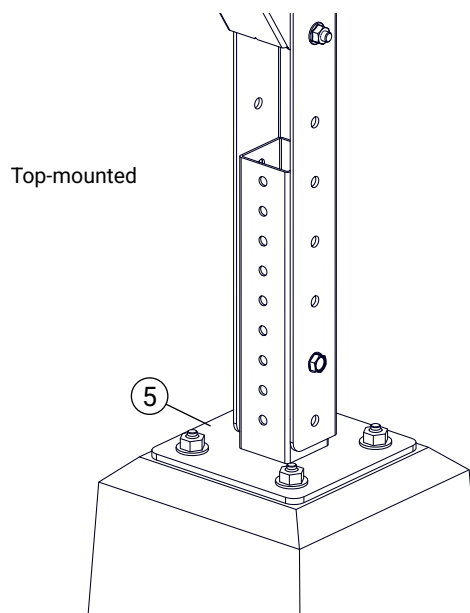
6a. Installation of ground pipes

Drive the ground pipes (6) through the ground base (4) and into the ground, leaving a minimum height of 50 mm.

2 pipes at the front and 4 at the rear.

Suggested tool:

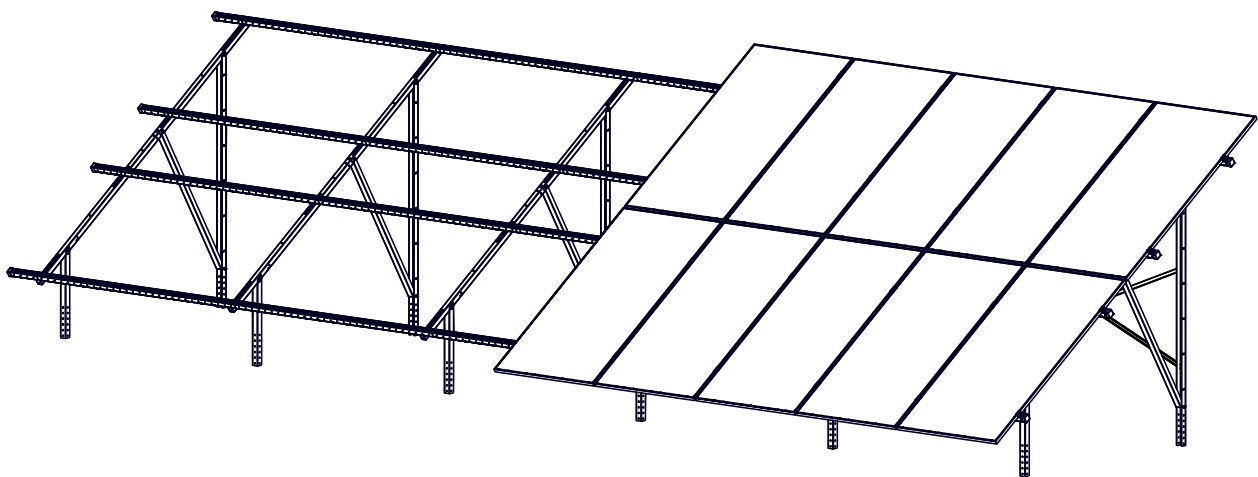
Ironside SDS+ Ø27.5 ground spike driver



6b. Installation of top-mounted ground base

Install the top-mounted ground base (5) onto a stable ground anchoring.

The ground anchoring and fasteners are not included.



7. Installation of solar panels

To complete the installation of the ground-mounted system, install the solar panels on top of the cross-mounted rails according to **MA5111**.

Dimensions table – double row ground-mounted system

Panel width: 1134 mm.

Maximum distance between frames: 2200 mm. Permitted deviation is ±150 mm and should be adjusted at the next frame. Maximum permitted rail overhang is 670 mm.

*The cross braces must be adapted during installation.

Layout	Number of panels	Number of frames	Total width	Number of Cross Braces
6x2	12	4	7.040	1
7x2	14	5	8.200	1*
8x2	16	5	9.350	1
9x2	18	6	10.510	2*
10x2	20	6	11.660	2
11x2	22	7	12.810	2*
12x2	24	7	13.970	2
13x2	26	8	15.120	2
14x2	28	8	16.280	2
15x2	30	9	17.430	2
16x2	32	9	18.580	2
17x2	34	10	19.740	2
18x2	36	10	20.890	2
19x2	38	11	22.050	2
20x2	40	11	23.200	2
21x2	42	12	24.350	2
22x2	44	12	25.510	2
23x2	46	13	26.660	3
24x2	48	14	27.820	3
25x2	50	14	28.970	3

Frame C/C [A]	Overhang [B]
2.200	197
1.950	170
2.200	251
2.020	170
2.200	305
2.070	170
2.200	359
2.110	170
2.200	413
2.130	170
2.200	467
2.150	170
2.200	521
2.170	170
2.200	575
2.180	170
2.200	629
2.190	170
2.110	170
2.200	170