NÁVOD NA MONTÁŽ KONŠTRUKCIE DP-DTHWE

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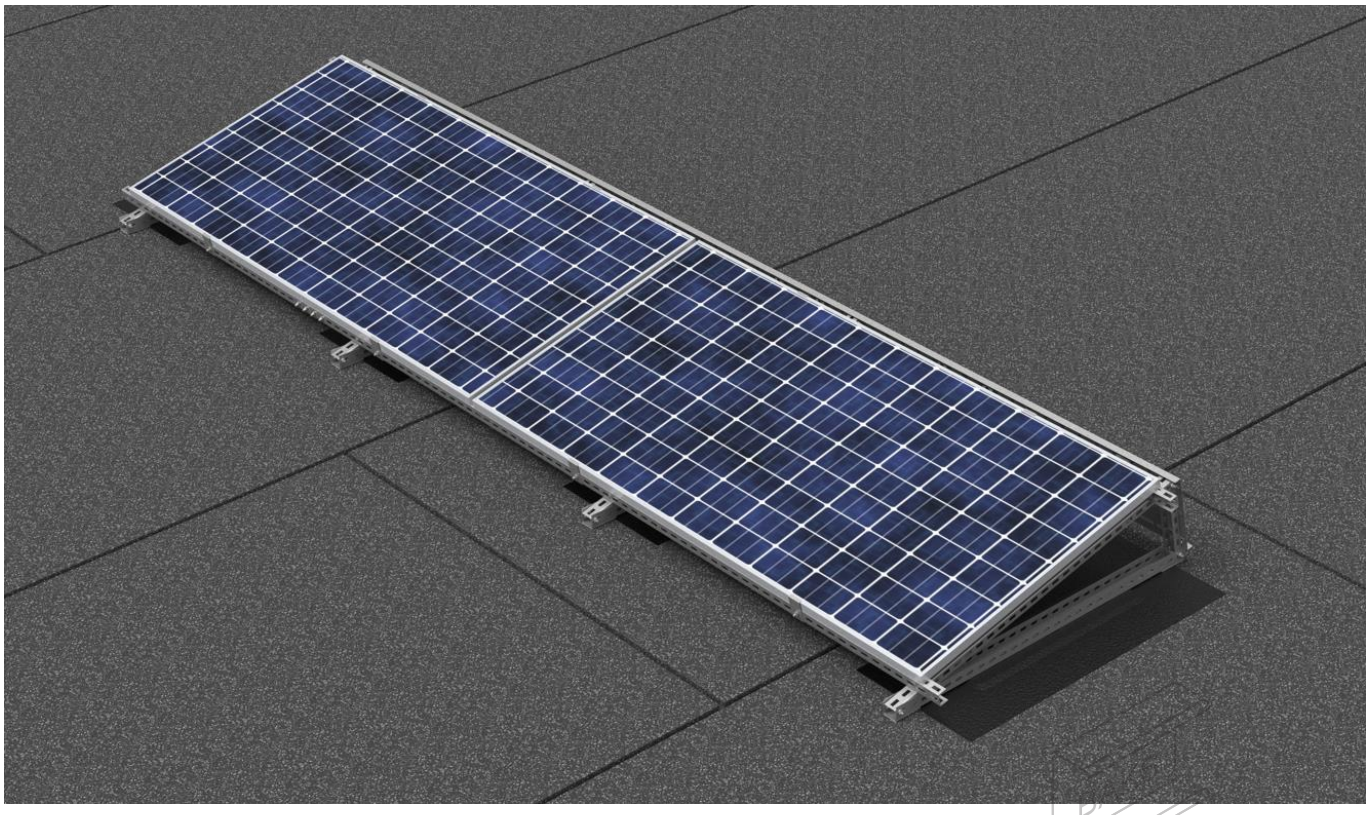
Poľsko

Oceľová konštrukcia na plochú strechu v lepenej verzii.

Montáž FV panelov vo vodorovnom usporiadaní (na ležato).



1. Potrebné náradie na montáž konštrukcie

• Imbusový kľúč veľkosti 6
• Aku skrutkovač s reguláciou otáčok a krútiaceho momentu
• Imbusový bit veľkosti 6 do skrutkovača
• Očkovo-vidlicové kľúče 13, 15, 17 mm
• Račňa s nástrčnými kľúčmi 13, 15, 17 mm
• Predĺženie 100–120 mm pre nástrčné kľúče
• Gumené kladivo
• Momentový kľúč, rozsah 10–45 Nm

2. Všeobecné informácie:

• Konštrukciu možno použiť vo veterných a snehových oblastiach podľa noriem STN EN 1991-1-3 a STN EN 1991-1-4.
• Pred montážou konštrukcie si prečítajte návod na montáž fotovoltických panelov.
• Skrutky SAM8x...E a matice NKZM8E uťahujte momentom 12–14 Nm
• Pri uťahovaní skrutiek SGKFM8x20 a SGKFM10x20PV držte hlavu skrutky tak, aby sa podložka zaprela o steny otvoru, potom skrutku pomaly doťahujte skrutkovačom, kým sa v otvore nezablokuje. Nakoniec ju dotiahnite momentom: M8 – 22 Nm; M10 – 42 Nm.
• Skrutky SMM10x...F uťahujte momentom 30 Nm

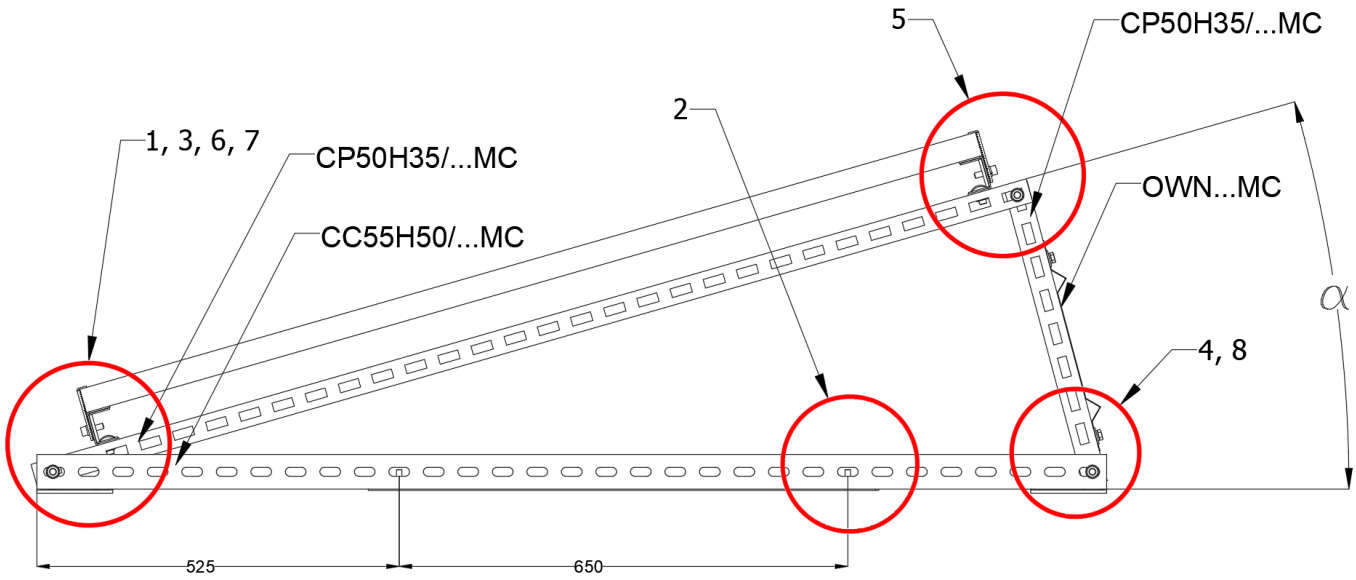


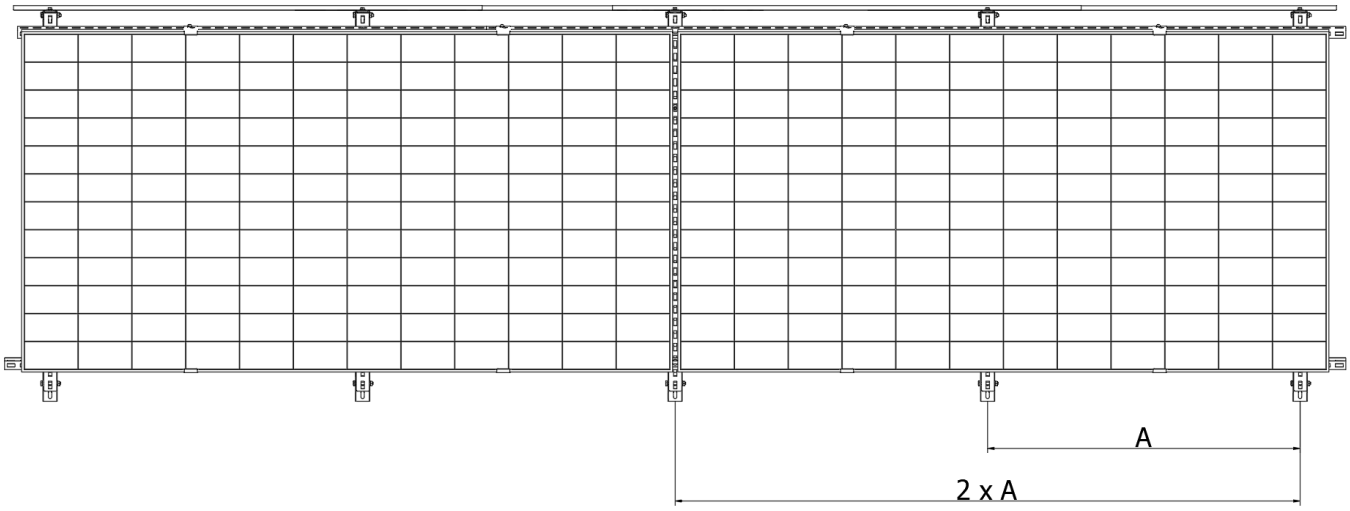
3. Zoznam prvkov konštrukcie DP-DTHWE

No.	Výrobok	Názov výrobku	Účel v konštrukcii
1	C-profil	CC55H50/...MC	Hlavný profil
2	C-profil	CP50H35/...MC	Montážny profil konštrukcie
3	C-profil	CC50H35/...MC	Profil nesúci panely
4	Spojka C-profilu	LCCW50H35MC	Spojenie C-profilov CC50H35/...MC
5	Skrutka so šesťhrannou hlavou	SMM10x70F	Skrutka spájajúca nosné C-profily konštrukcie
6	Podložka	PP10F	Podložka
7	Krajný držiak	BUFMC	Montážny držiak panelov
8	Skrutka	SAM8x25E	Skrutka na upevnenie držiakov a veterných clon
9	Rombová matica	NRKM8PV	Nut
10	Veterná clona	OWN...MC	Veterná clona
11	Skrutka so šesťhrannou hlavou	SMM8x16F	Spojenie veterných clon
12	Pružná podložka	PS8E	Pružná podložka
13	Veľkoplošná podložka	PW8E	Veľkoplošná podložka
14	Skrutka s guľatou hlavou	SGKFM10x20	Skrutka + matica s límcom
15	Oceľová montážna doska	SPM2	Lepená doska
16	Podložka profilu s antivibračnou gumou	PC100C	Zabraňuje tlaku koncov oceľových profilov na strešný plášť



4. Montáž konštrukcie DP-DTHWE





Kombinácia veternej „W“ a snehovej „S“* oblasti	Max. vzdialenosť nasledujúcich rámov „A“
1W-1S; 1W-2S; 1W-3S	2,0 m
1W-4S	1,8 m
2W-2S; 2W-3S	1,4 m
3W-1S	1,6 m
3W-3S	1,3 m
3W-5S	1,1 m
Iné kombinácie oblastí	Určí sa individuálne po konzultácii

Tabuľka 1 Montážna vzdialenosť nasledujúcich rámov fotovoltickej konštrukcie podľa kombinácie veternej a snehovej oblasti

*1. veterná oblasť do 300 m n. m.; 3. veterná oblasť do 500 m n. m.;

1. a 3. snehová oblasť do 300 m n. m.; 5. snehová oblasť do 500 m n. m.

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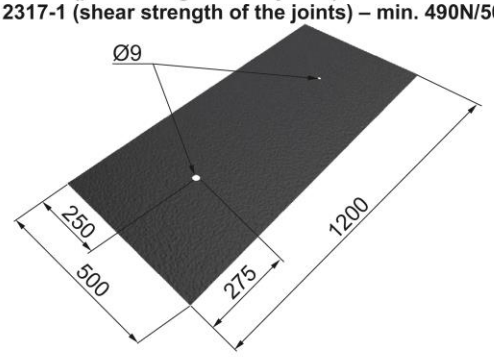
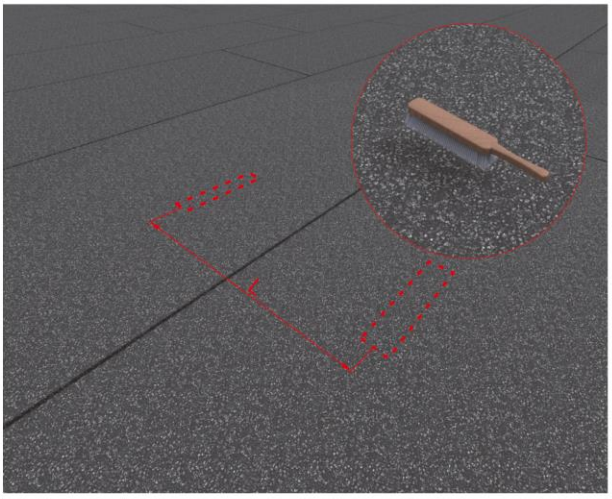
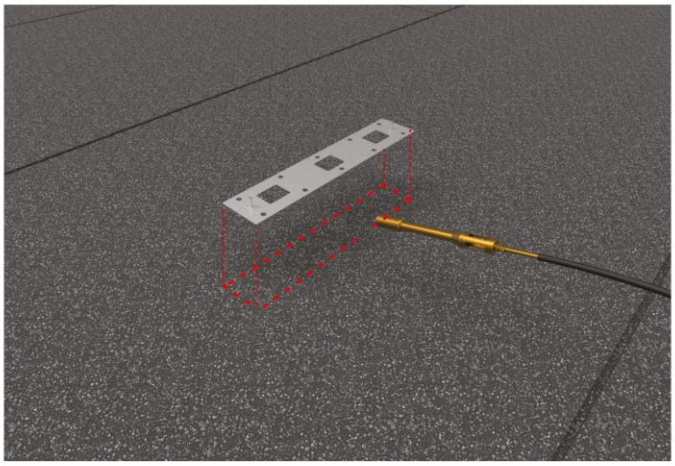
Assembly instructions for SPM2 Steel Fixing Plate to roofing felt
Note:
Requirements of the roofing felt to be used:
1) EN 12310-1 (tear strength) – min. 145N
2) EN 12311-1 (tensile strength) – min. 290N/50 mm
3) EN 12316-1 (peel strength of the joints) – min. 120N/50 mm
4) EN 12317-1 (shear strength of the joints) – min. 490N/50 mm



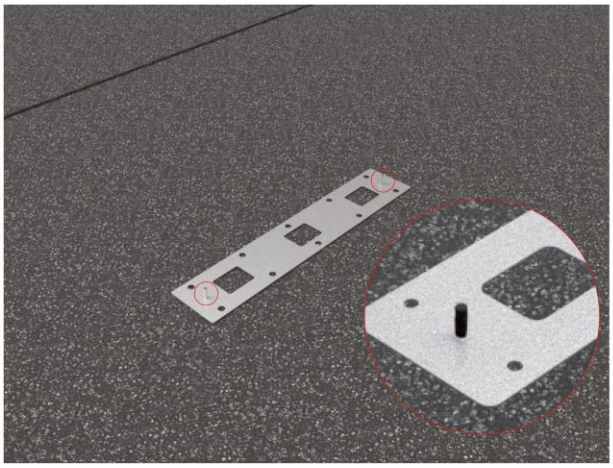
1. Before starting to install the SPM2 plates, cut out a fragment of roofing felt with minimum dimensions of 500 x 1200 mm, then cut out holes with a diameter of Ø9 mm in the locations of screws



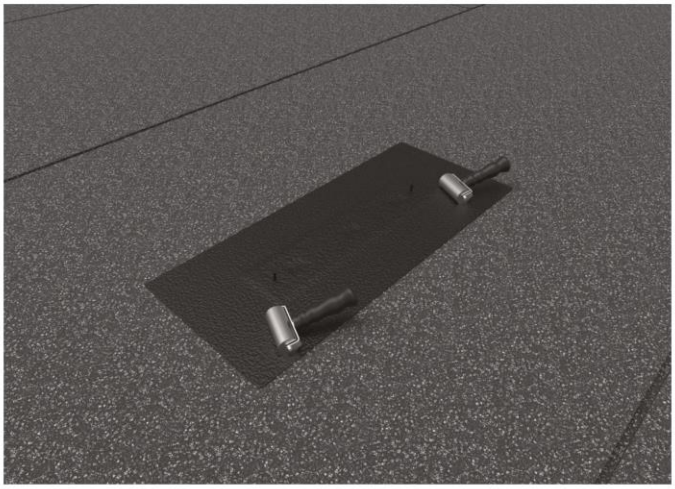
2. Measure the distance between the SPM2 plates, mark the points and then use a wire brush to clean the 500 x 1200 mm area of the roofing felt on the roof



3. On the designated area heat the surface in the size of a plate or slightly larger

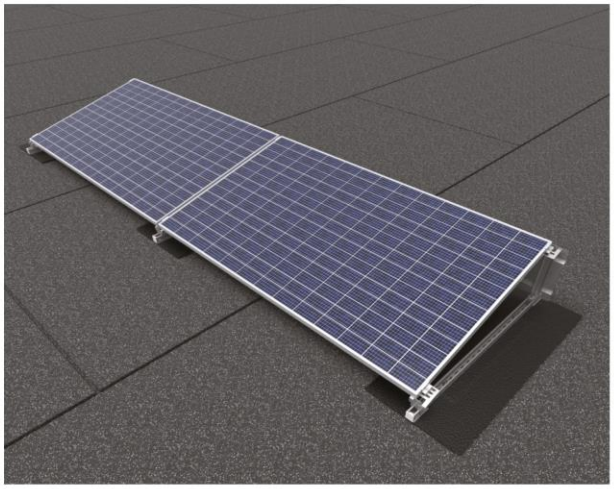


4. SPM2 plate should be placed on heated areas, pressed against prepared surface, protruding threads should be secured with NOP50 protection cap



5. Warm up the prepared roofing felt, cover the plate with it and then press it with a roofing roller in the locations of the holes

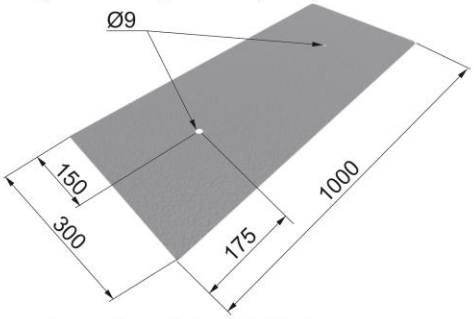
6. Warm up the side of the roofing felt and the surface and at the same time press the roofing felt with a roofing roller, repeat the operation for each side until the plate is fully fixed to the roof surface



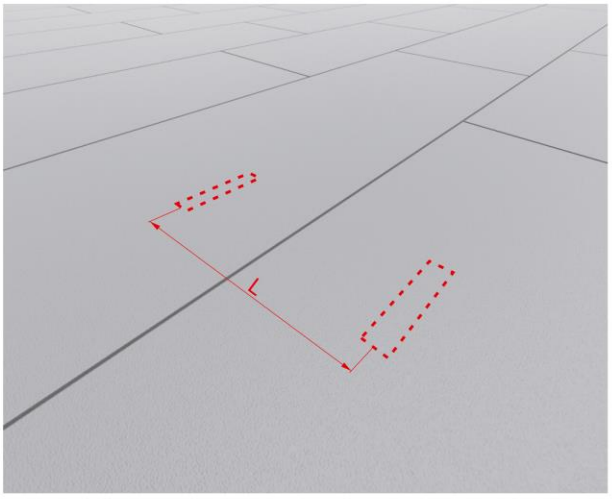
7. Correctly installed structure using SPM2 plate and DP-DNHWE mounting system



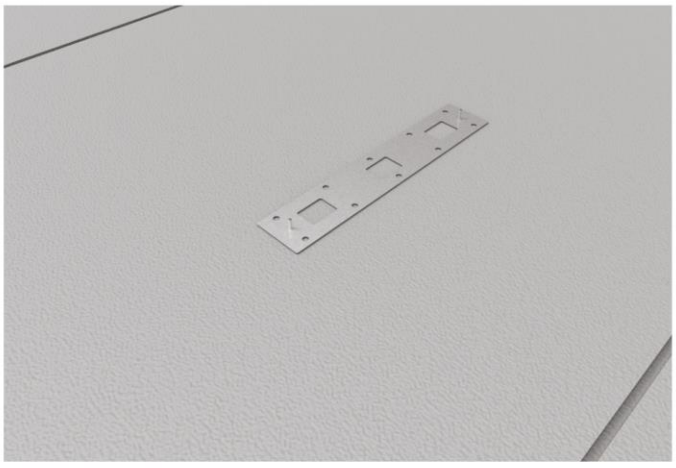
Assembly instructions for SPM2 Steel Fixing Plate to membrane
Note:
Requirements of the membrane to be used: PVC, ECB, EPO min 1.2 mm thick:
1) EN 12310-2 (tear strength) – min. 105N
2) EN 12311-2 (tensile strength) – min. 505N/50 mm
3) EN 12316-2 (peel strength of the joints) – min. 145N/50 mm
4) EN 12317-2 (shear strength of the joints) – min. 445N/50 mm



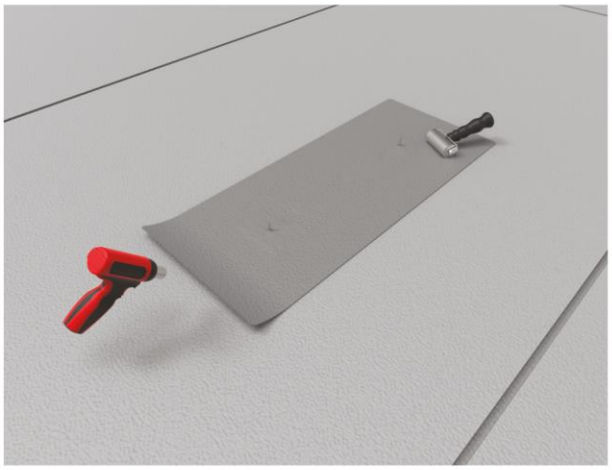
1. Before starting to install the SPM2 plates, cut out a fragment of membrane with minimum dimensions of 300 x 1000 mm, then cut out holes with a diameter of Ø9 mm in the locations of screws, finally round the corners of the membrane.



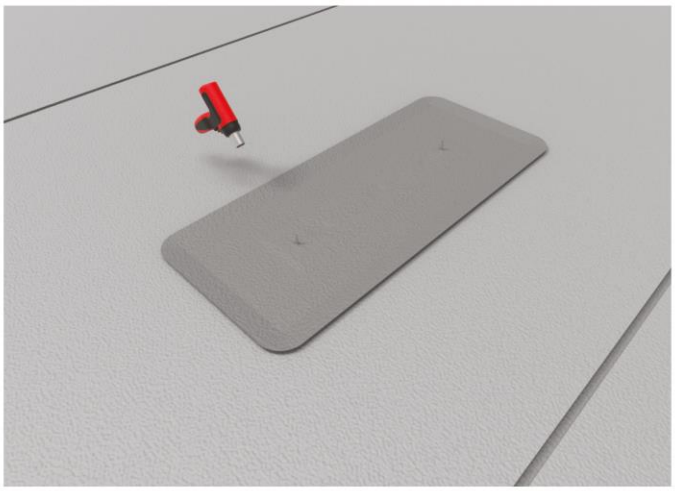
2. Measure the distance between the SPM2 plates, then mark the points.



3. Place the SPM2 plate on the designated place

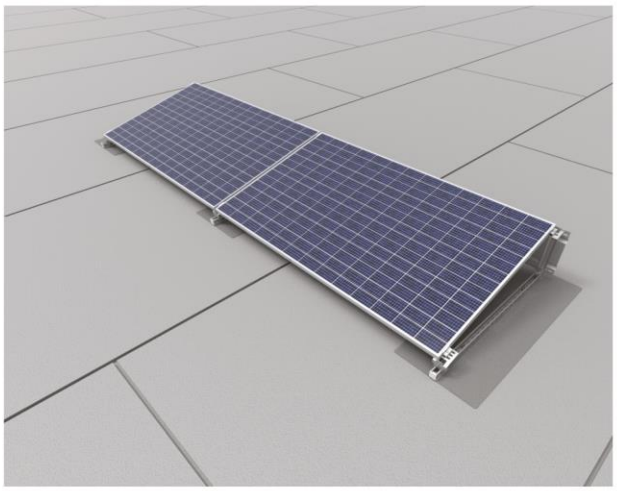


4. Cover the SPM2 plate with the prepared membrane and start the installation with a manual welding machine. Initially weld an hole of 60 x 80 mm, after proper heating press the membrane with a roofing roller. Repeat for the remaining holes.



5. Once the holes are welded, weld all sides around the SPM2 plate.

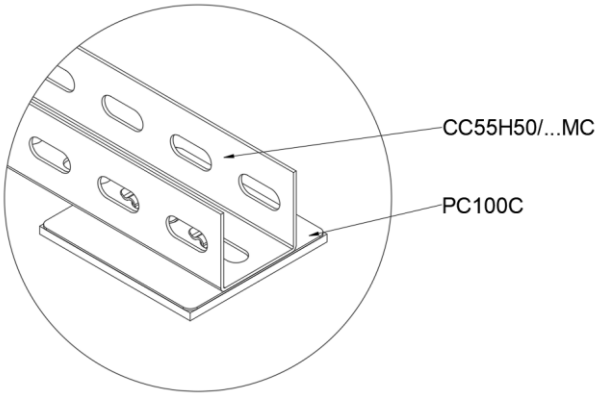
6. The SPM2 plate glued to the membrane is a basis for a structure for PV Installations.



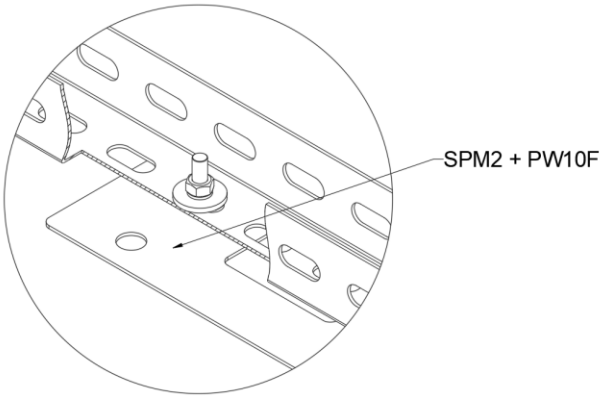
7. Correctly installed structure using SPM2 plate and DP-DNHWE mounting system



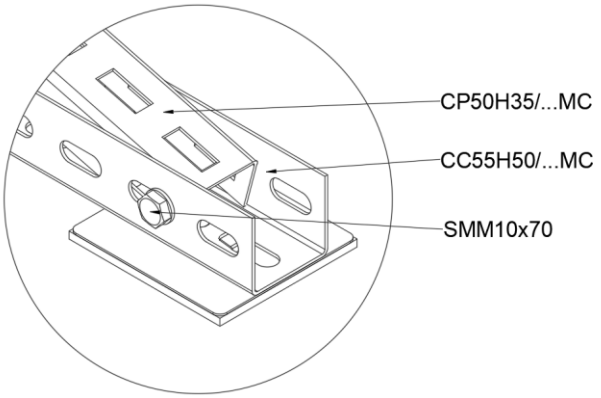
1


CC55H50/...MC
PC100C

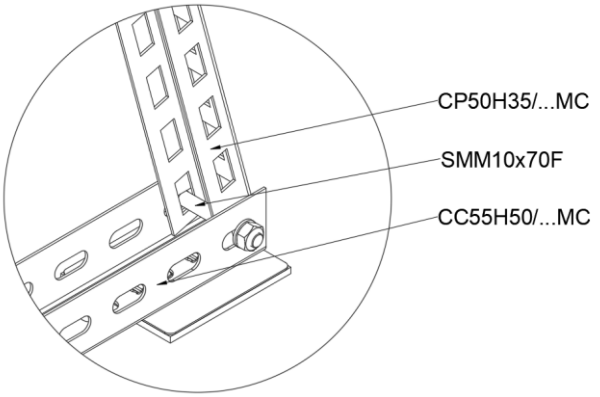
2


SPM2 + PW10F

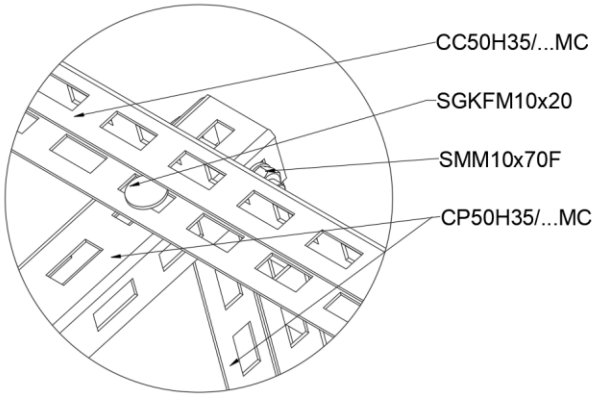
3


CP50H35/...MC
CC55H50/...MC
SMM10x70

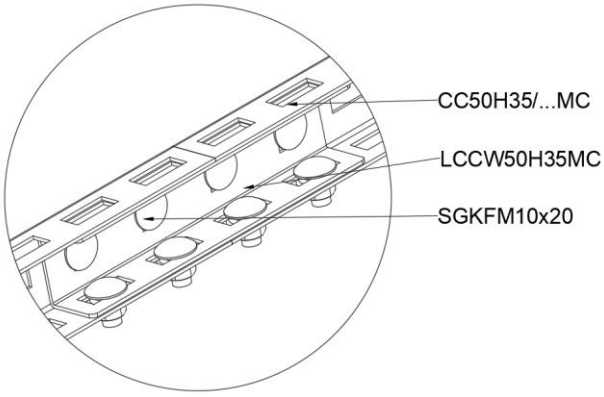
4


CP50H35/...MC
SMM10x70F
CC55H50/...MC

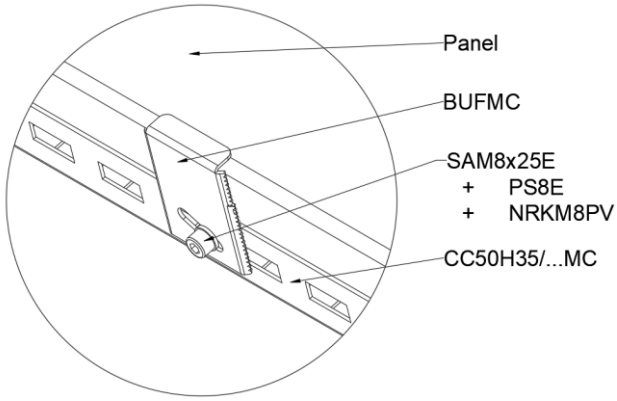
5


CC50H35/...MC
SGKFM10x20
SMM10x70F
CP50H35/...MC

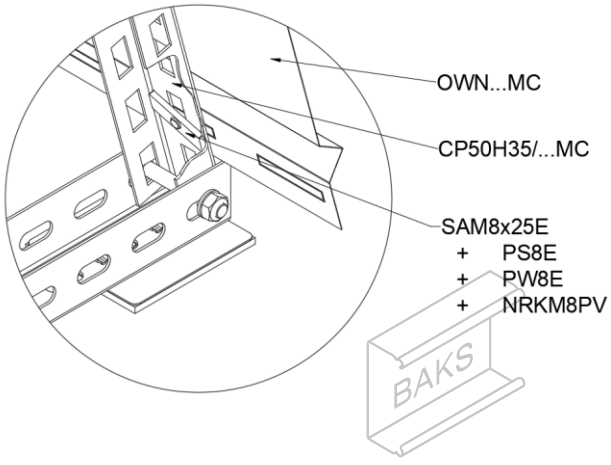
6


CC50H35/...MC
LCCW50H35MC
SGKFM10x20

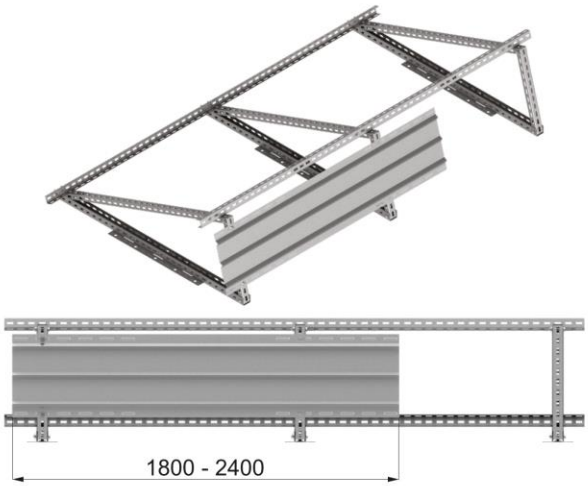
7


Panel
BUFMC
SAM8x25E
+ PS8E
+ NRKM8PV
CC50H35/...MC

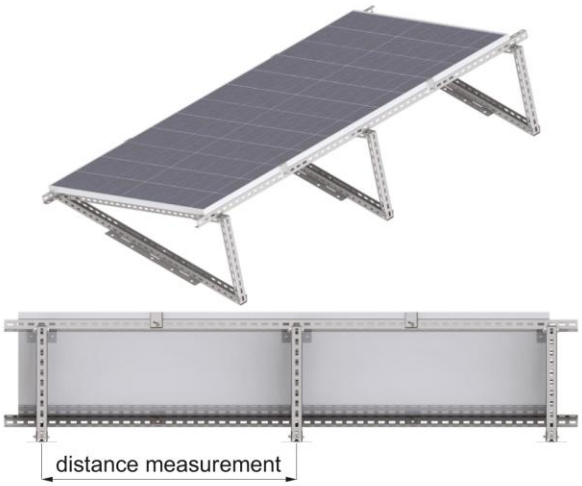
8


OWN...MC
CP50H35/...MC
SAM8x25E
+ PS8E
+ PW8E
+ NRKM8PV
BAKS

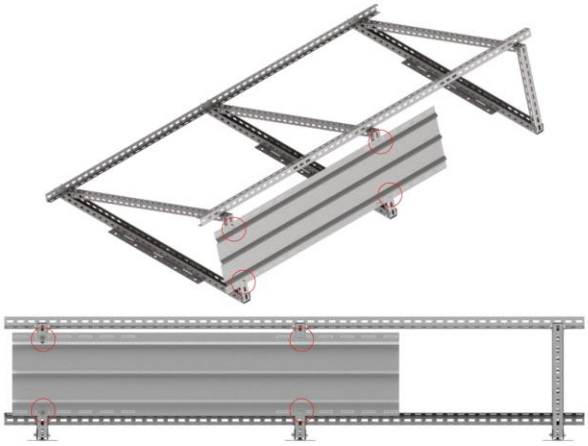
Installation instructions for wind shields in constructions DP - DTH...N



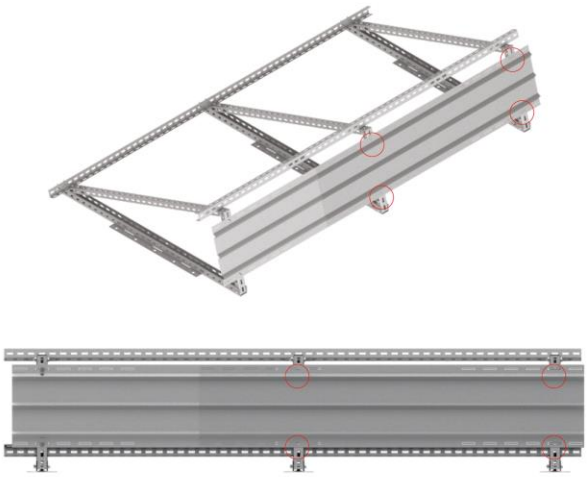
1. The length of the shields is selected on the basis of: distance between axes of triangular structures + 60 mm



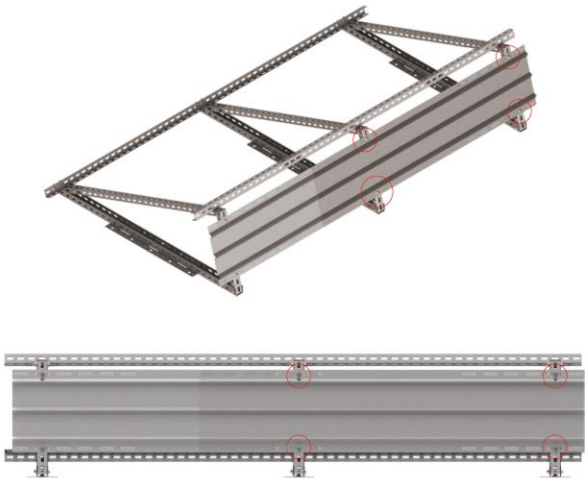
2. Measure the distance between the axes of the triangular structures.



3. Use a flat-bladed screwdriver to break out the holes in the housing aligned with the axes at point 2 and tighten with the M8 screws with diamond nuts.



4. Add the next shield and break out the overlapping holes in the covers with the holes in the channel sections



5. The neighbouring covers are tightened using shared M8 screws with diamond nuts



