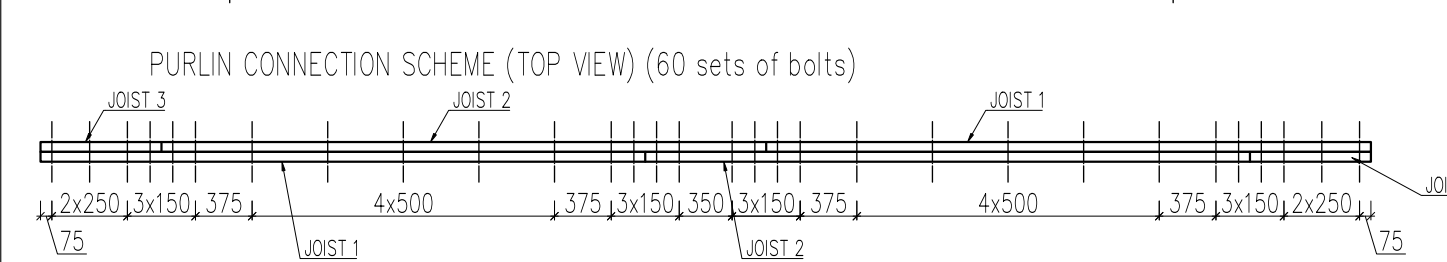
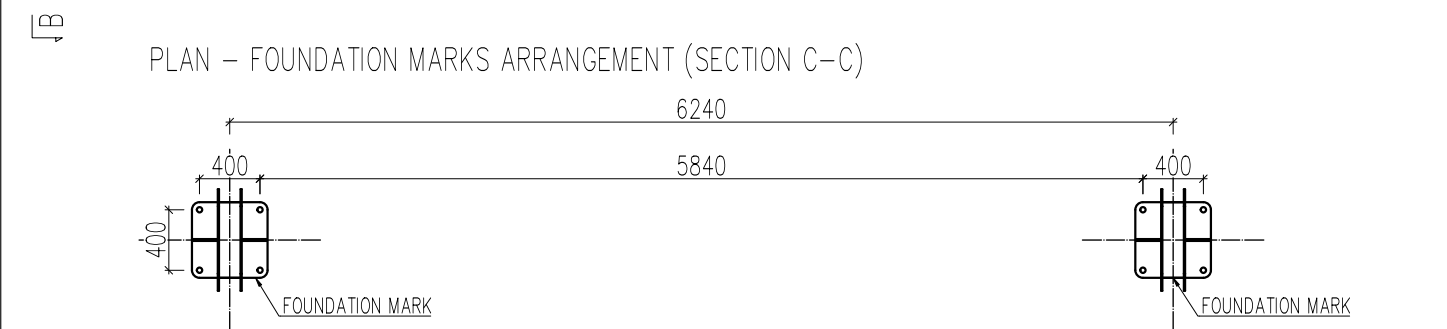
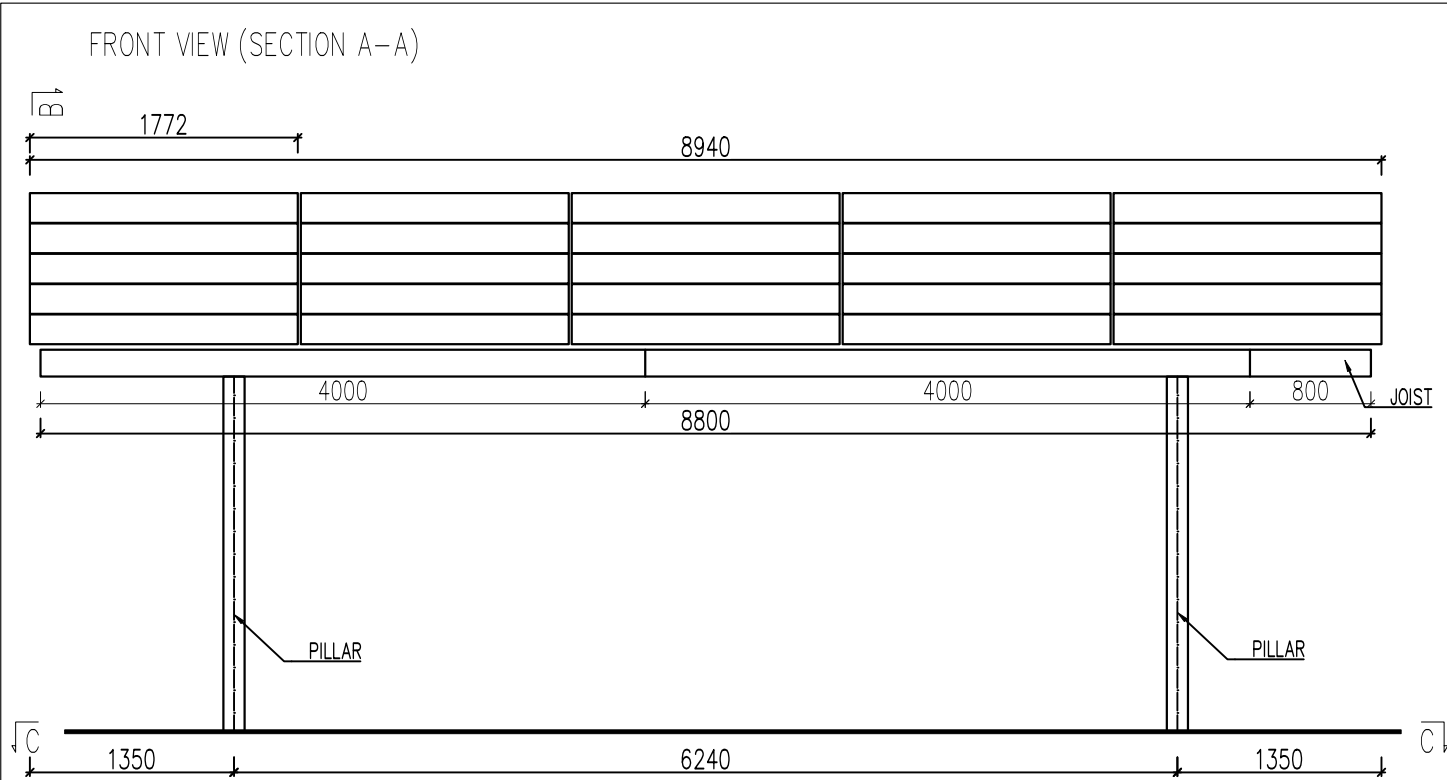


ASSEMBLY INSTRUCTIONS
DOUBLE CARPORT STRUCTURE
DEDICATED TO: 5 HORIZONTAL
CODE: CAR_2st5H
MODULE: 1722x1134x30

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1.	title page and table of contents	
2.	general arrangement drawing	Z1
3.	detail of pillar–foundation mark connection	D1
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7.	detail of joist–PV connection	D5



To evaluate the location for the installation, besides geometric elements and orientation in space, a list of additional factors affecting the final assessment should be analyzed, such as:

- slope angle
- azimuth
- presence of trees, pillars, and other tall landscape elements
- distance from other buildings
- distance from hazardous and threatened zones

The installation site should be flat, or with a slight slope of up to 5% from the ground level. All concrete elements should be leveled to prevent shifts relative to the ground and ensure stability.

In the case of installation on a prefabricated bench, a pit for the prefabricates should be prepared.

The prefabricated bench should be mounted and set symmetrically to each other. The bench must be on the same plane to prevent any potential tilting of the structure to one side. It is also important to ensure that the substrate under the prefabricated benches has the same density and quality to avoid potential deformations or cracks.

If necessary, the substrate should be compacted by tamping or preparing a bedding.

The distance between anchors set in concrete should be as shown in the drawing (PLAN).

To the cured, prefabricated foundation, we mount the foundation mark (FOUNDATION MARK) using M-33 cap nuts to the protruding threaded rods.

Pillars are mounted to the mark using M20x180 hex bolts. The pillars should be parallel to each other, and from the entrance side, they should be vertical. Then, to the pillars, we mount the joists using M20x180 hex bolts.

The joist is mounted directly to the joist using M12x180 screws at optimal distances for the modules indicated by holes in the joists. The joist is placed so that the holes of both elements align with each other.

Rafters are screwed along their length every 500mm with M12x25 bolts. The RAFTER CONNECTION drawing shows the scheme of connecting the rafters. At the joint of the rafters on the overlap, there should always be at least 8 M12x25 bolt.

To such prepared structure, PV modules can start to be screwed according to the manufacturer's guidelines.

CONNECTION

FOUNDATION MARK - PILLARS 6xM20x180
PILLAR-BEAM 4xM20x180
BEAM-JOIST 4xM12x180
JOIST-JOIST xM12x30
JOIST-PV xM8

CONNECTION M20:

- hex bolt M20x180 gvz DIN931
- flat washer widened M20 gvz DIN125
- flange nut M20 kl.8 gvz DIN934

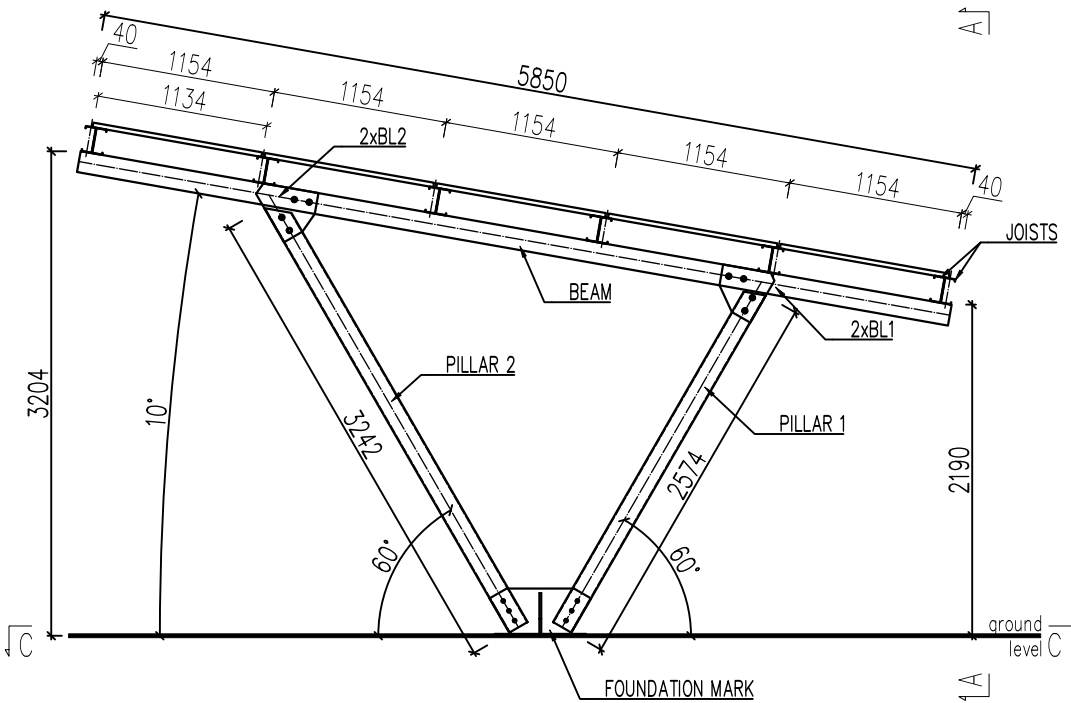
CONNECTION M12:

- hex bolt M12x180 gvz DIN931
- OR M12x30 kl.8.8 gvz DIN933
- flat washer widened M12 gvz DIN125
- flange nut M12 kl.8 gvz DIN934

CONNECTION M8:

- allen key screw M8x25 A2 DIN912
- locknut bent M8

SIDE VIEW (SECTION B-B)

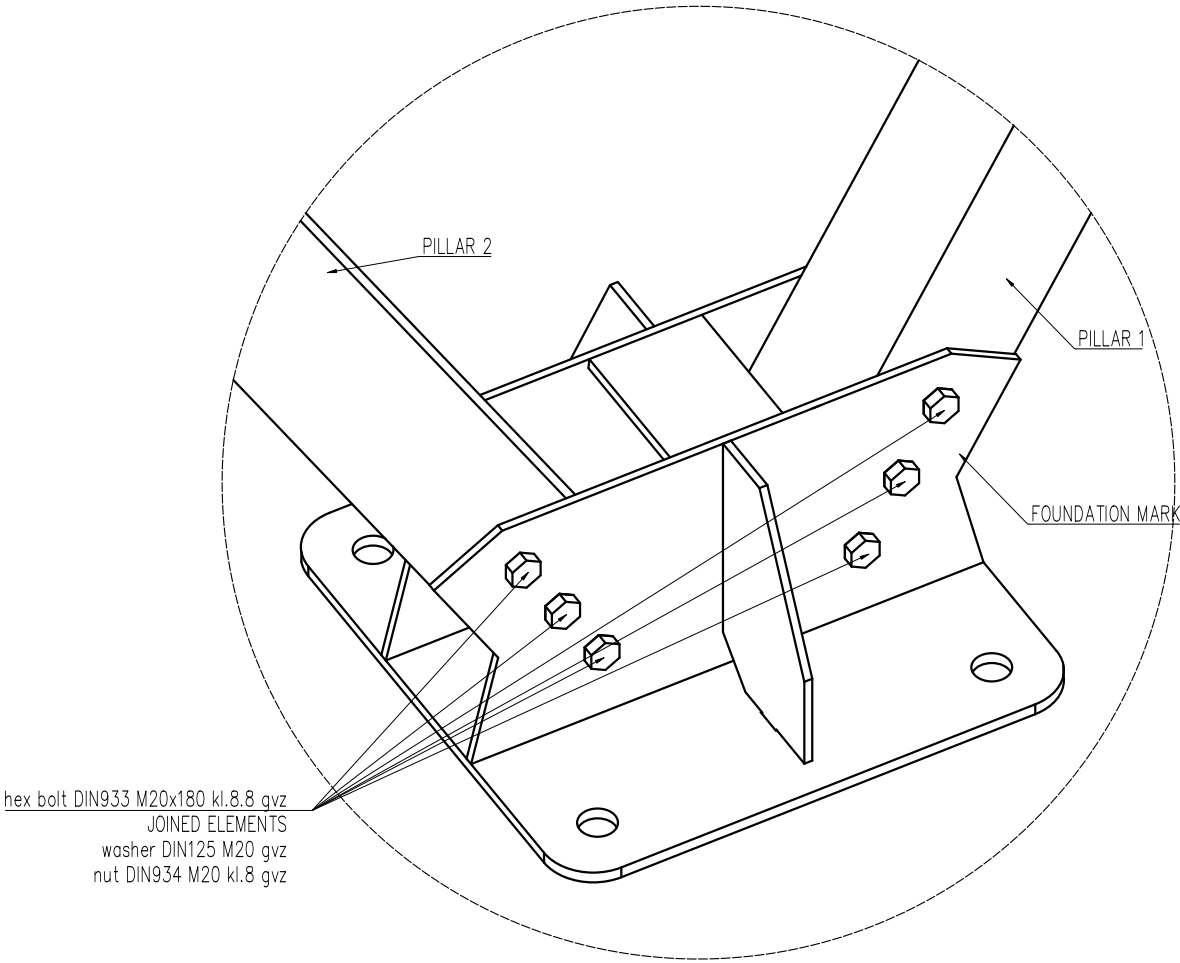
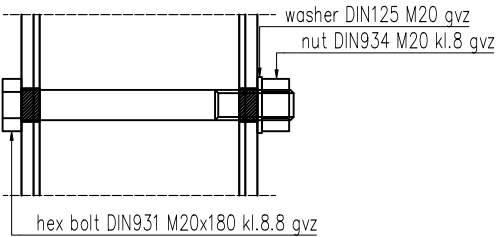


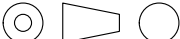
#2100_M_summary - 5x5 (25 PV) - CAR_2st5H								
No.	No. Cat.	NAME	DESCRIPTION	LENGTH [mm]	MATERIAL	WEIGHT [kg]	QUALITY [art]	TOTAL WEIGHT [kg]
0	PVM	PV	1722x1134	30	-	-	25	-
1	#2100_S1	Pillar 1	RK140x4	2574	S355 gvz	42,99	2	85,97
2	#2100_S2	Pillar 2	RK140x4	3242	S355 gvz	54,14	2	108,28
3	#2100_R1	Beam 1	RK140x4	5850	S355 gvz	97,70	2	195,39
5	#2100_P1	Joist 1	C200x70x20x2	4000	S350GD	22,80	12	273,56
6	#2100_P2	Joist 2	C200x70x20x2	4000	S350GD	22,80	12	273,56
7	#2100_P3	Joist 3	C200x70x20x2	800	S350GD	4,56	12	54,71
8	#2100_BL1	Connector 1 (poz.4)	BL8x353x348	353	S350GD ocynk	7,71	4	30,86
9	#2100_BL2	Connector 2 (poz.5)	BL8x406x360	406	S350GD ocynk	9,18	4	36,72
10	#2100_SF	Foundation mark (poz.1; poz.2; poz.3)	BL12x500x500 2x BL12x270x167 2x BL8x671x300	-	S355 gvz	57,33	2	114,66
11		Hex bolt	DIN 931 M20x180	-	kl. 8.8 gvz	-	28	-
13		Flat washers	DIN 125 M20	-	gvz	-	28	-
14		Nut	DIN 934 M20	-	kl. 8 gvz	-	28	-
15		Hex bolt	DIN 933 M12x30	-	kl. 8.8 gvz	-	360	-
16		Hex bolt	DIN 931 M12x180	-	kl. 8.8 gvz	-	48	-
17		Flat washers	DIN 125 M12	-	gvz	-	408	-
18		Nut	DIN 934 M12	-	kl. 8 gvz	-	408	-
20	50825	Allen key bolt	DIN 912 M8x25	-	stainless steel	-	60	-
21	Z20855N	Locknut bent	M8	-	stainless steel	-	60	-
22	50002	Seal for carport	-	57760	-	-	60	-
23	10Z30R	End clamp black	-	-	aluminium	-	20	-
24	10U24R	Middle clamp black	-	-	aluminium	-	40	-

Title: GENERAL ARRANGEMENT DRAWING		
No.: Z1	Construction type: CAR_2st5H	
Weight: - kg	Fabrication drawing	Scale: 1:50
Material: S350GD	Projection: ISO	Date: 2024.03.07
		Revision R0

DETAIL OF PILLARS–FOUNDATION MARK CONNECTION

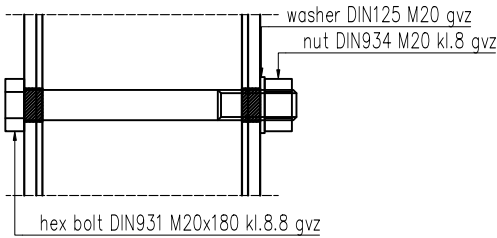
- 6x hex bolt DIN931 M20x180 kl.8.8 gyz
- 6x washer DIN125 M20 gyz
- 6x nut DIN934 M20 kl.8 gyz



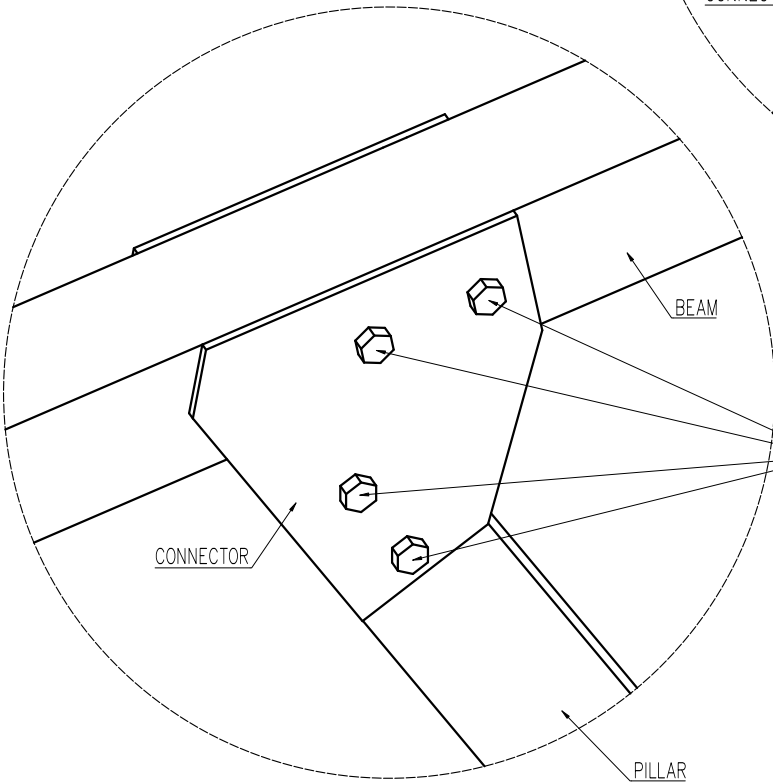
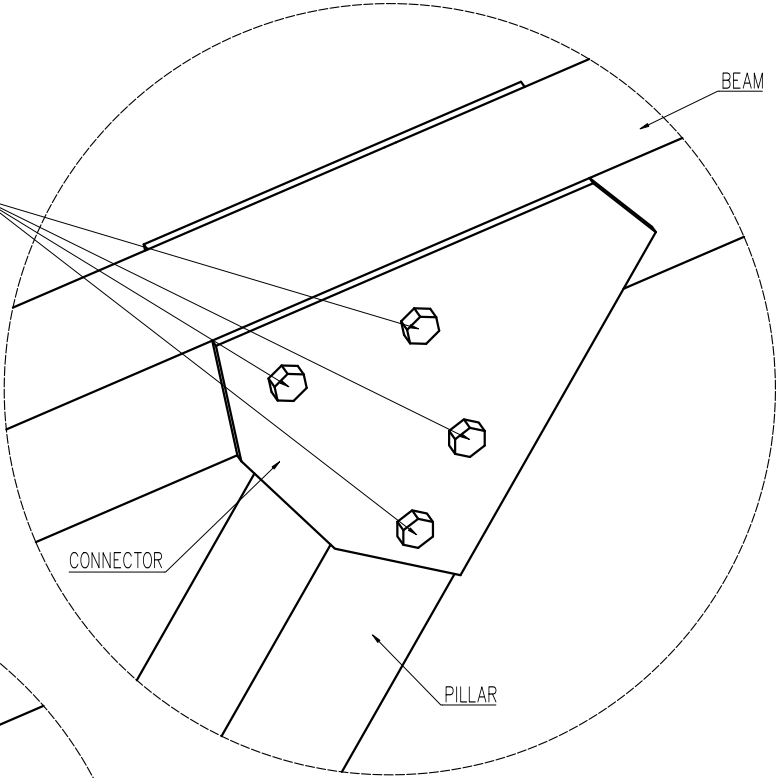
Title: DETAIL OF PILLARS–FOUNDATION MARK		
No.: D1	Construction type: CAR_2st5H	
Weight: – kg	Fabrication drawing	Scale: –
Material: S350GD	Projection: ISO 	Date: 2024.03.07
		Revision R0

DETAIL OF PILLAR-BEAM CONNECTION

- 4x hex bolt DIN931 M20x180 kl.8.8 gvz
- 4x washer DIN125 M20 gvz
- 4x nut DIN934 M20 kl.8 gvz
- 2x CONNECTOR (BL1 or BL2)



hex bolt DIN931 M20x180 kl.8.8 gvz
JOINED ELEMENTS
washer DIN125 M20 gvz
nut DIN934 M20 kl.8 gvz

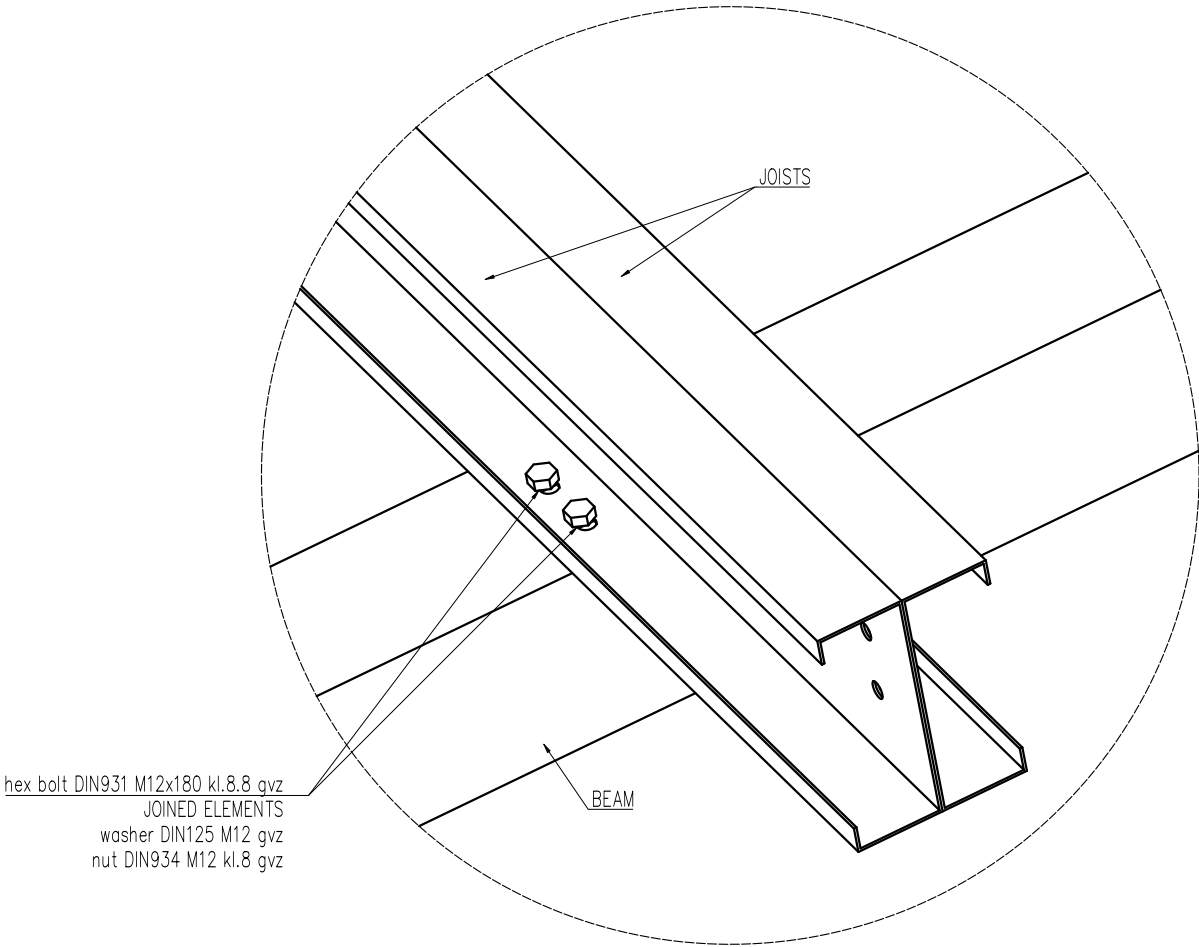
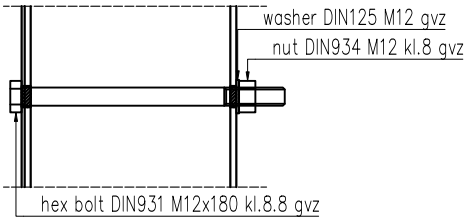


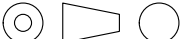
hex bolt DIN931 M20x180 kl.8.8 gvz
JOINED ELEMENTS
washer DIN125 M20 gvz
nut DIN934 M20 kl.8 gvz

Title: DETAIL OF PILLAR-BEAM			
No.:	D2	Construction type:	CAR_2st5H
Weight:	— kg	Fabrication drawing	Date: 2024.03.07
Material:	S350GD	Projection: ISO	Revision R0

DETAIL OF JOIST-BEAM

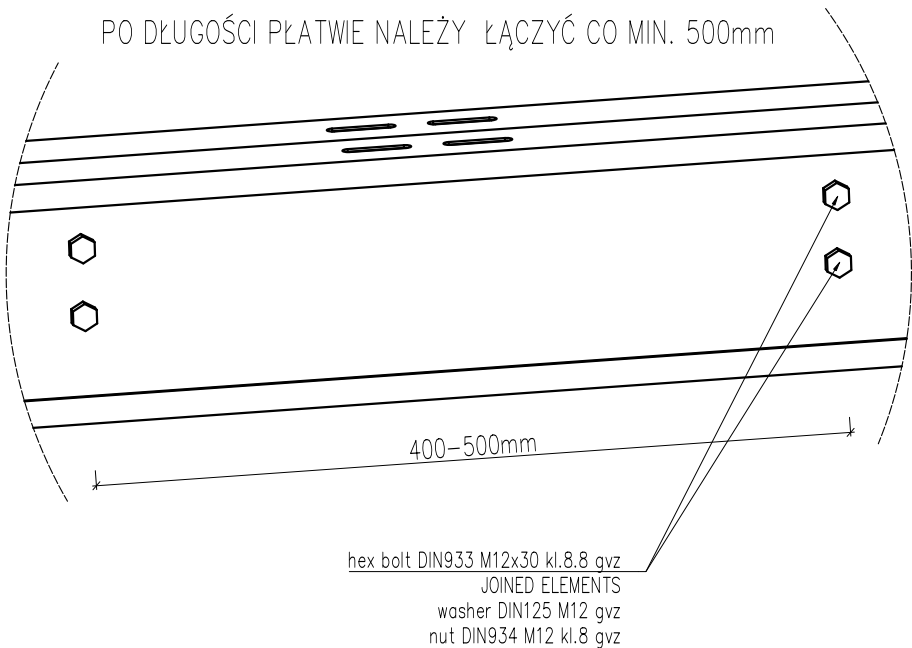
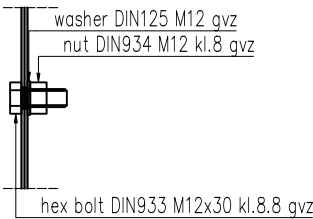
- 4x hex bolt DIN931 M12x180 kl.8.8 gvz
- 4x washer DIN125 M12 gvz
- 4x nut DIN934 M12 kl.8 gvz



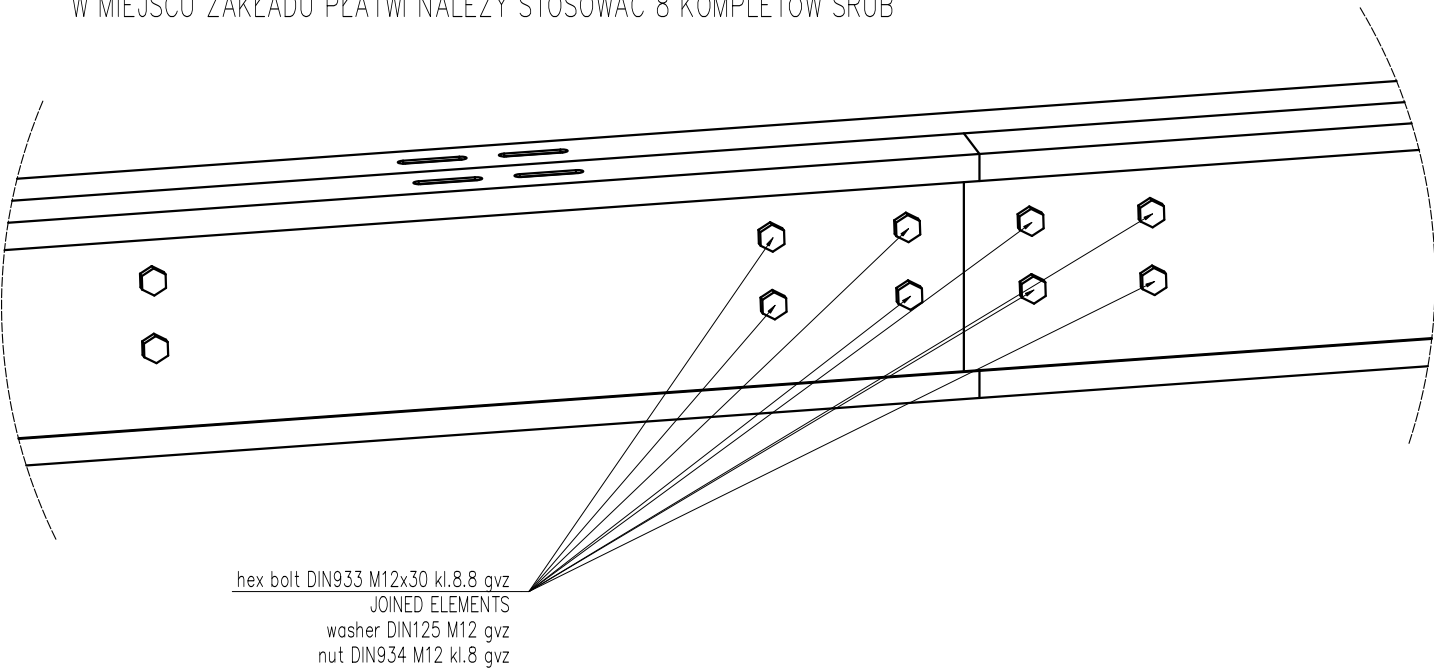
Title: DETAIL OF JOIST-BEAM			
No.: D3	Construction type: CAR_2st5H	Scale:	–
Weight: – kg	Fabrication drawing	Date:	2024.03.07
Material: S350GD	Projection: ISO 	Revision	R0

DETAIL OF JOIST-JOIST

- hex bolt DIN933 M12x30 kl.8.8 gvz
- washer DIN125 M12 gvz
- nut DIN934 M12 kl.8 gvz



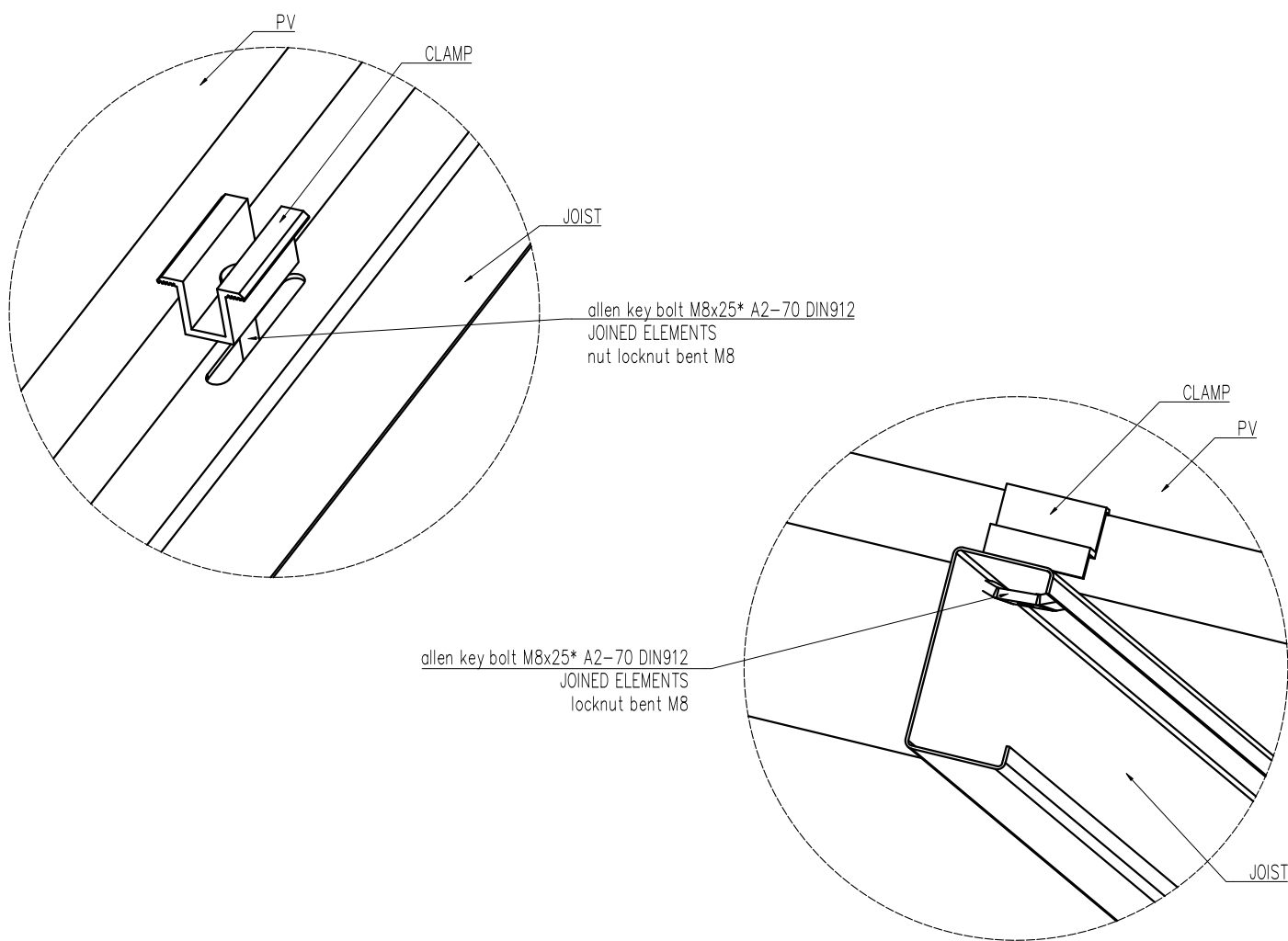
W MIEJSCU ZAKŁADU PŁATWI NALEŻY STOSOWAĆ 8 KOMPLETÓW ŚRUB



Title: DETAIL OF JOIST-JOIST		
No.: D4	Construction type: CAR_2st5H	
Weight: - kg	Fabrication drawing	Scale: -
Material: S350GD	Projection: ISO	Date: 2024.03.07
		Revision R0

DETAIL OF JOIST-PV

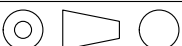
- allen key bolt M8x25* A2-70 DIN912
- nut locknut bent M8



Wytyczne montażu klem:

- konstrukcja wsporcza przewidziana jest do montażu klem tylko na dłuższym boku modułu
- klemy nie powinny odkształcać ramy
- klemy nie powinny stykać się z powierzchnią szkła
- klemy nie powinny rzucać cienia na moduł
- moduły powinny być montowane w taki sposób aby korygować ewentualne nierówności konstrukcji wsporczej
- moduły ułożone na konstrukcji muszą swobodnie opierać się na całej powierzchni
- Producent konstrukcji wsporczej nie ponosi odpowiedzialności za uszkodzenia modułów podczas montażu
- w przypadku stwierdzenia zbyt dużej siły podanej w niniejszej instrukcji należy sprawdzić moment dokręcenia śrub w karcie katalogowej modułu lub zwrócić się po informację do producenta śrub

UWAGA! DŁUGOŚĆ ŚRUBY IMBUSOWEJ DOSTOSOWAĆ ZAWSZE DO WYBRANEJ KLEMY!

Title: DETAIL OF JOIST-PV			
No.: D5	Construction type: CAR_2st5H	Scale:	—
Weight: — kg	Fabrication drawing	Date:	2024.03.07
Material: S350GD	Projection: ISO 	Revision	R0