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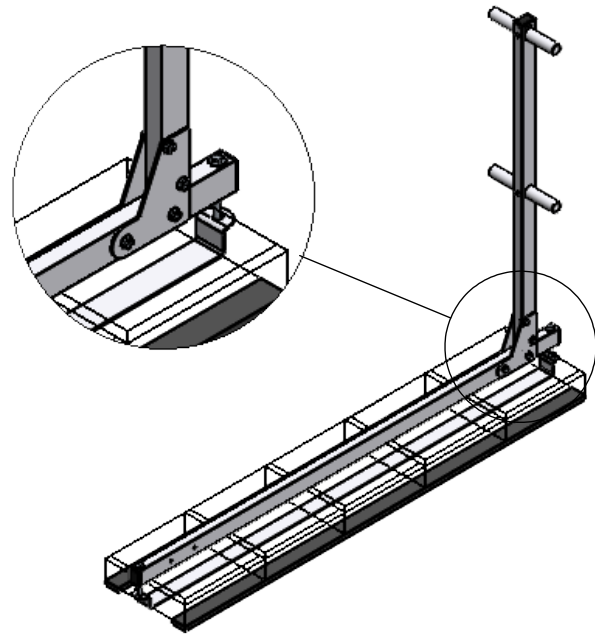
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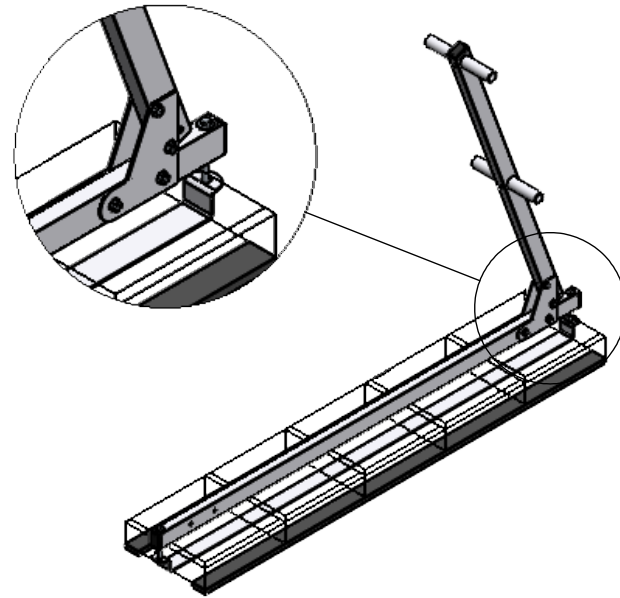
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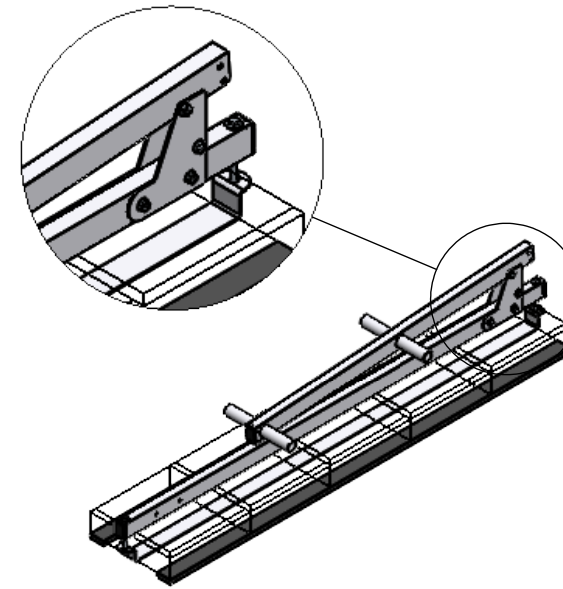
90 Degree Configuration



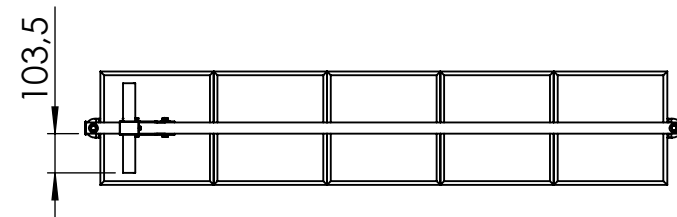
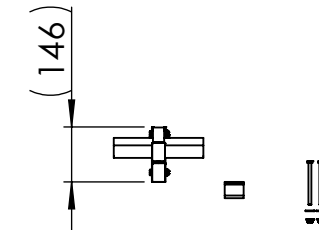
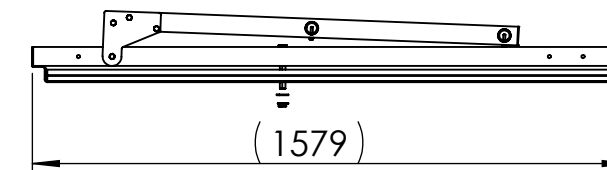
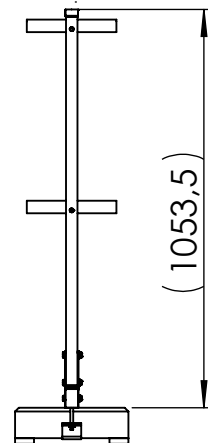
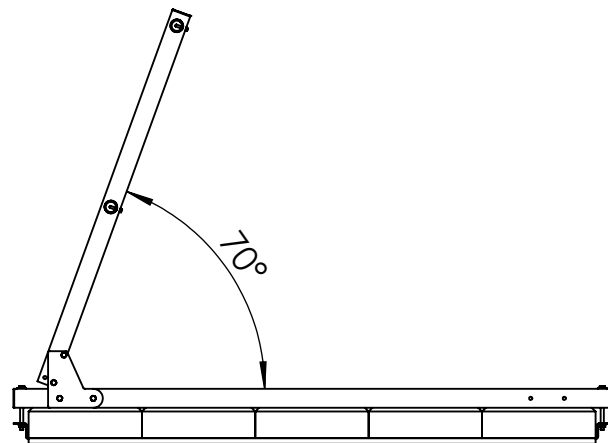
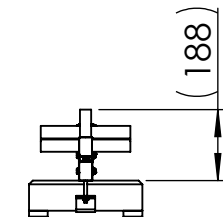
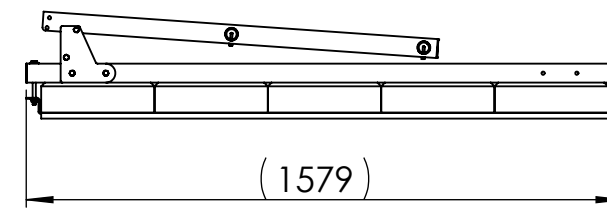
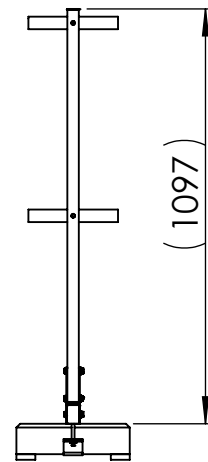
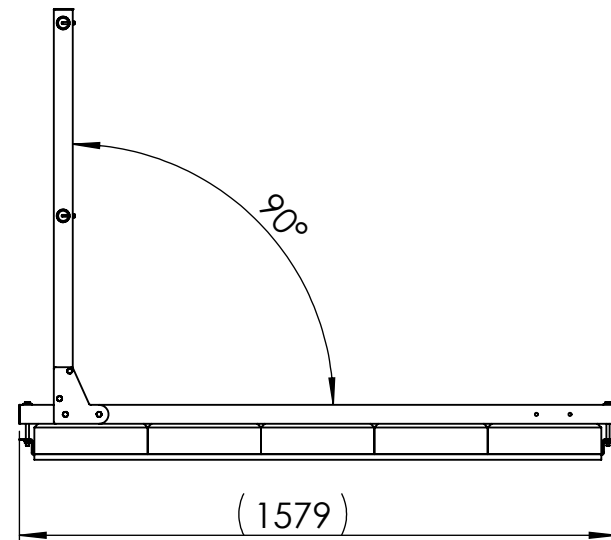
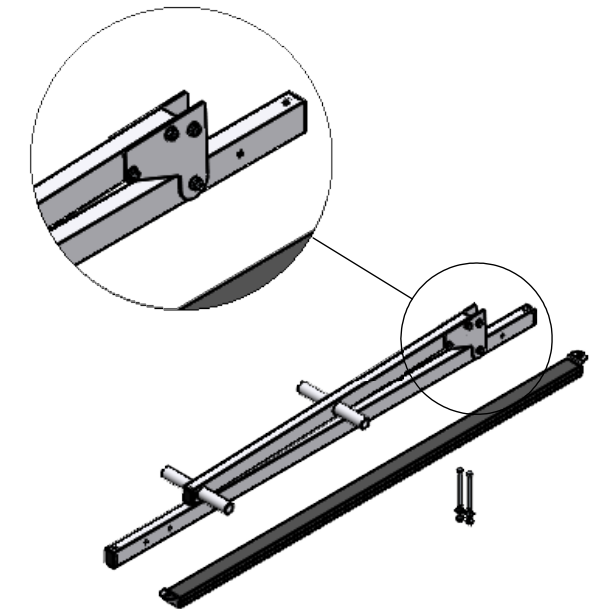
70 Degree Configuration



Foldable with 70 Degree Configuration



Transport



Ballast is configurable and Conform Eurocode 1991-1-4
***N.B. Some countries have extended regulations in regard to compliance**

PROTECTOR GUARDRAIL Designed to protect, built to last	Date	Name	Amount	1
	Drawn 28-4-2026	O.Toor	Mass [g]	88520.59
	Checked 28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c
	Configuration name: Linear Stanchion		Shape / Pos. tol.	NEN ISO 1101
			Roughness	NEN ISO 1302
Scale: 1:20	Projection	Description: PG-1500L	Drawing number: 25.218-001-900_05	Rev: 0
Units: mm				Sheet 1 of 12
				A3

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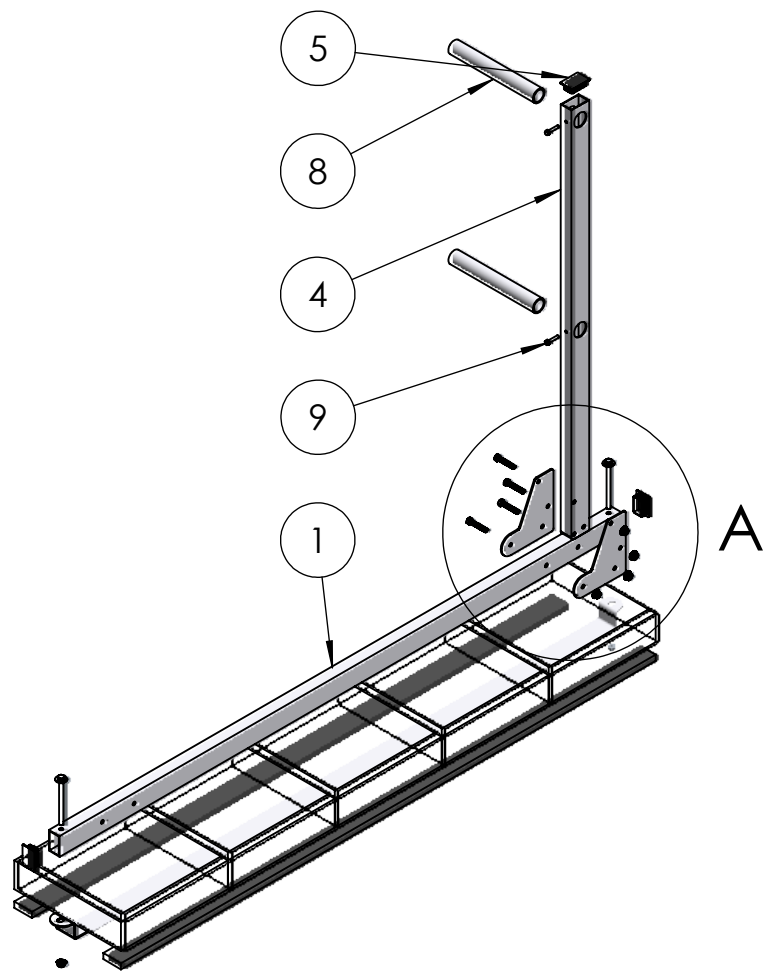
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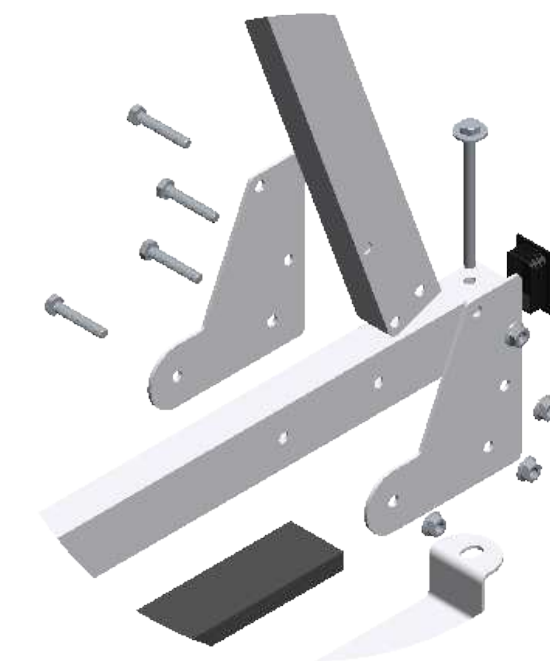
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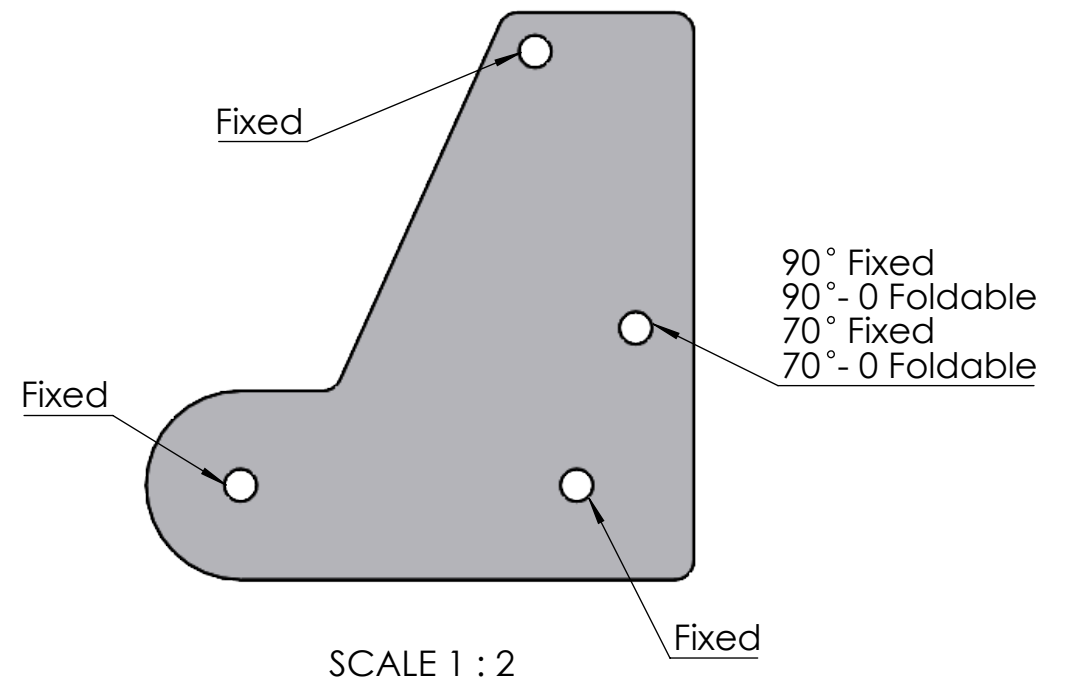
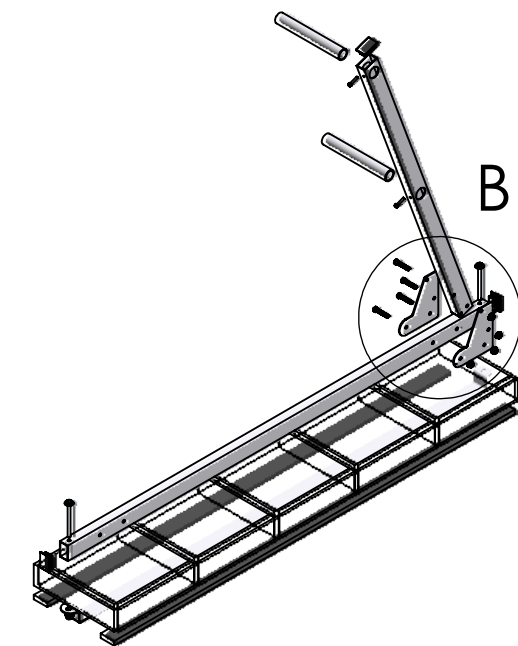
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DETAIL A
SCALE 1 : 5
DETAIL A SHOWS BOLT POSITIONS
FOR 90° CONFIGURATION

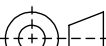


DETAIL B
SCALE 1 : 5
DETAIL B SHOWS BOLT POSITIONS
FOR 70° CONFIGURATION



Ballast is configurable and Conform Eurocode 1991-1-4
***N.B. Some countries have extended regulations in regard to compliance**

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.HBB.XB.1579(1575)	BOX BEAM T2 1500	6060-T6	1
2	D228.C50.30	INSERTION CAP 50×30	ABS	2
3	D228.SCP.150.150.25	CORNER CONNECTOR	6060-T6	2
4	D228.VBB.1045	OPRIGHT BOX SECTION T2	6060-T6	1
5	D228.C50.30	INSERTION CAP 50×30	ABS	1
6	DIN 933.M8x45	HEX BOLT M8X45	STAINLESS STEEL, 304	4
7	DIN 6923.M8	FLANGED HEX NUT M8	STAINLESS STEEL, 304	4
8	D228.CT.33x3x190(237)	COUPLING SLEEVE	6060-T6	2
9	D228.SDS.5.5x31	LONG SELF-DRILLING SCREW - SX 5.5X31	STAINLESS STEEL, 304	2
10	D228.BRS.1645 (1578)	TILE-RETAINING STRIP T2 1500-NARROW	6060-T6	1
11	D228.WASH.M8.30.1.5	LARGE WASHER 3XD M8	STAINLESS STEEL, 304	2
12	D228.BS.1500.50.15	TILE SUPPORT PAD 1500X50X15	POLYURETHANE (11671)	2
13	DIN 6923.M8	FLANGED HEX NUT M8	STAINLESS STEEL, 304	1

PROTECTOR GUARDRAIL Designed to protect, built to last		Date	Name	Amount	1		
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
				Roughness	NEN ISO 1302		
Scale: 1:20	Projection	Description:		Drawing number:		Rev: 0	Format:
Units: mm		PG-1500L		25.218-001-900_05		Sheet 2 of 12	A3

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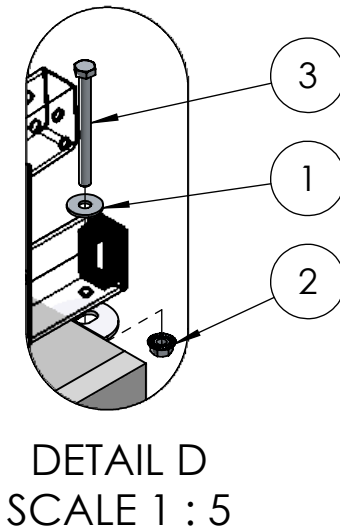
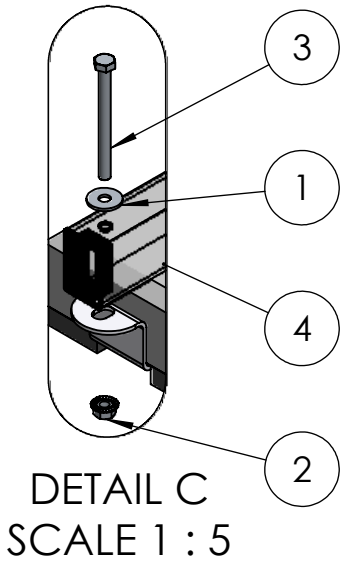
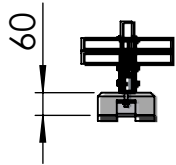
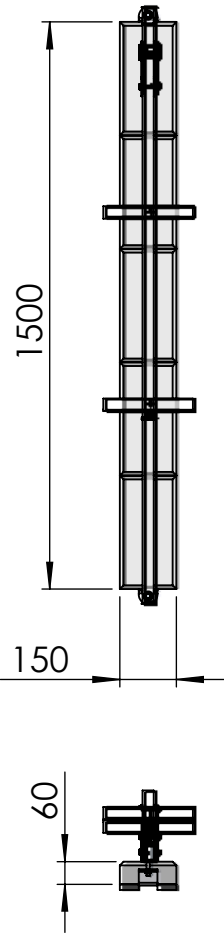
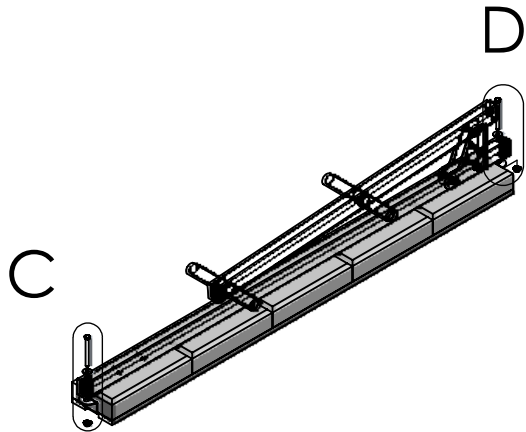
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Tile Configuration:
15 x 30 x 6

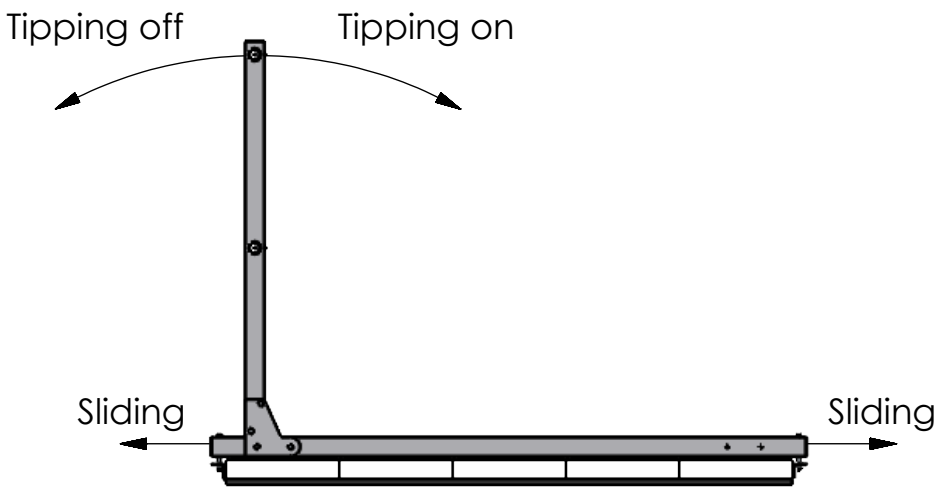


Declaration of Performance (tipping on/off roof & sliding)
The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)
The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q_{onroof_safe} (N/m ²)	Max $q_{offroof_safe}$ (N/m ²)	Max $q_{sliding_safe}$ (N/m ²)
1500L	15x30x6	3m	621	467	495
1500L	15x30x6	4m	518	369	408

Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm ²)
1500L	15x30x6	3m	0,39	0,1	0,13
1500L	15x30x6	4m	0,39	0,1	0,13



ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x90	Stainless Steel, 304	2
4	D228.BMC.15.30.06	15x30x6	C30/37 Concrete, 2300 kg/m ³	5

PROTECTOR GUARDRAIL Designed to protect, built to last				Date	Name	Amount	1	
			Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
			Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
			Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
						Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description:		Drawing number:			Rev: 0	Format:
Units: mm		PG-1500L		25.218-001-900_05			Sheet 3 of 12	
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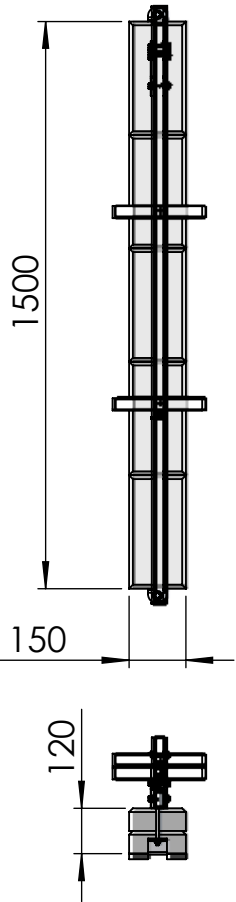
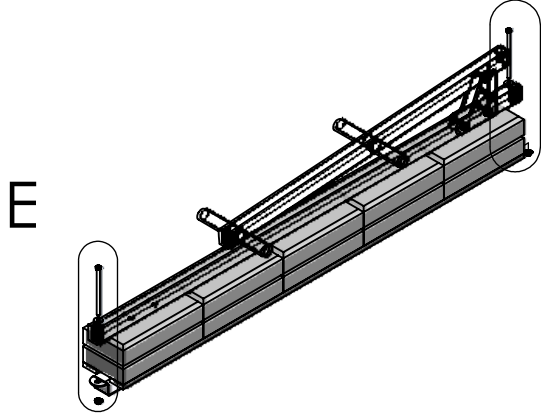
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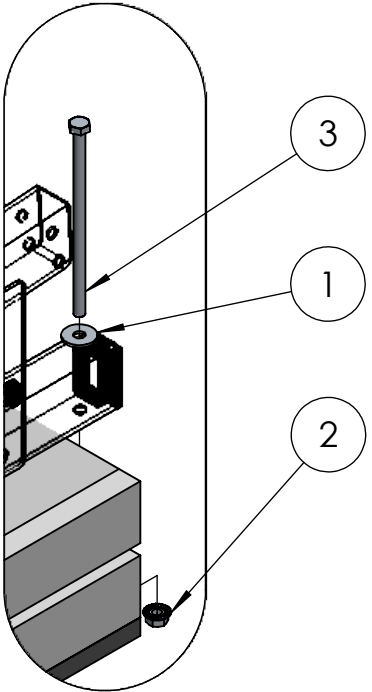
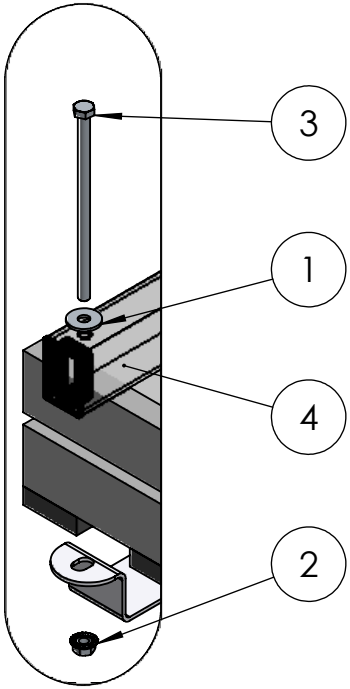
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Tile Configuration:
15 x 30 x 6
(Stacked)



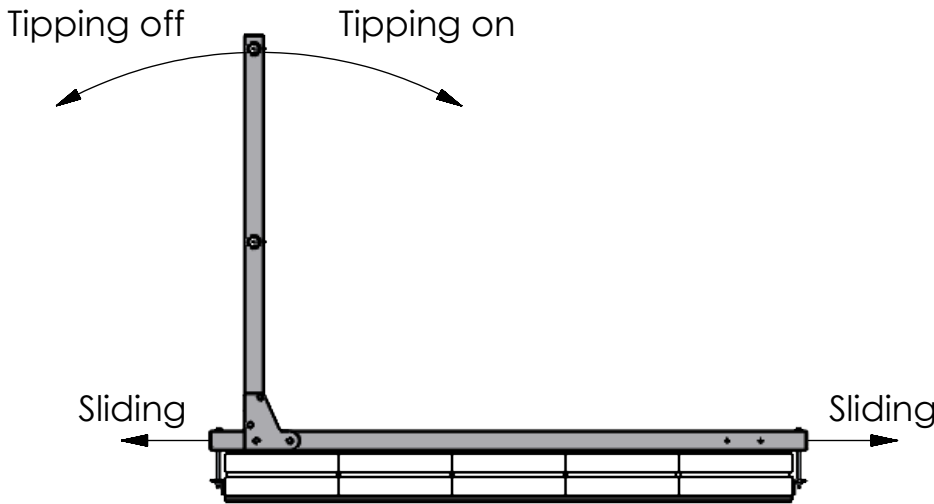
DETAIL E
SCALE 1 : 5

DETAIL F
SCALE 1 : 5



Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q_onroof_safe (N/m2)	Max q_offroof_safe (N/m2)	Max q_sliding_safe (N/m2)
1500L	15x30x6 (Stacked)	3m	1050	895	885
1500L	15x30x6 (Stacked)	4m	855	706	718

Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm2)
1500L	15x30x6 (Stacked)	3m	0,69	0,17	0,23
1500L	15x30x6 (Stacked)	4m	0,69	0,17	0,23



Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x150	Stainless Steel, 304	2
4	D228.BMC.15.30.06	15x30x6	C30/37 Concrete, 2300 kg/m3	10

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description:		Drawing number:		Rev: 0	Format:
Units: mm		PG-1500L		25.218-001-900_05		Sheet 4 of 12	A3

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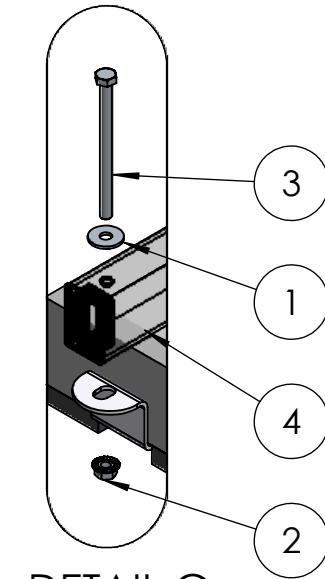
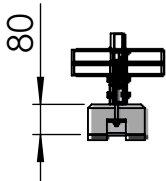
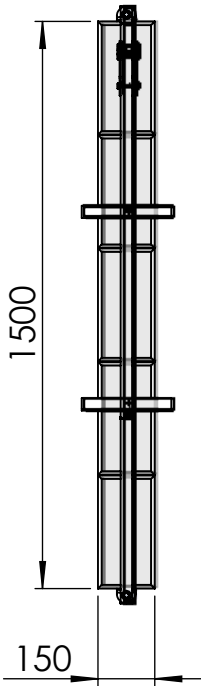
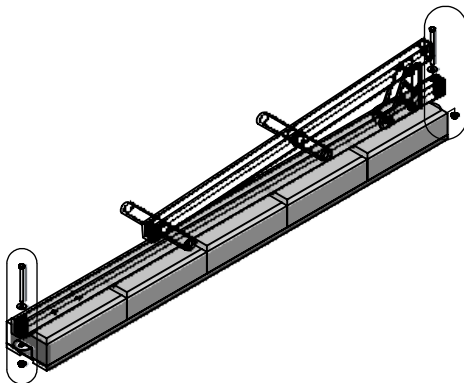
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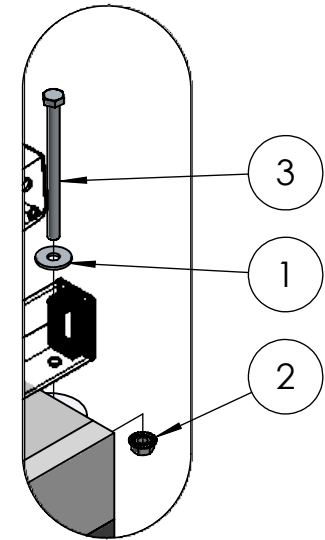
Tile Configuration:
15 x 30 x 8

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DETAIL G
SCALE 1 : 5



DETAIL H
SCALE 1 : 5

Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

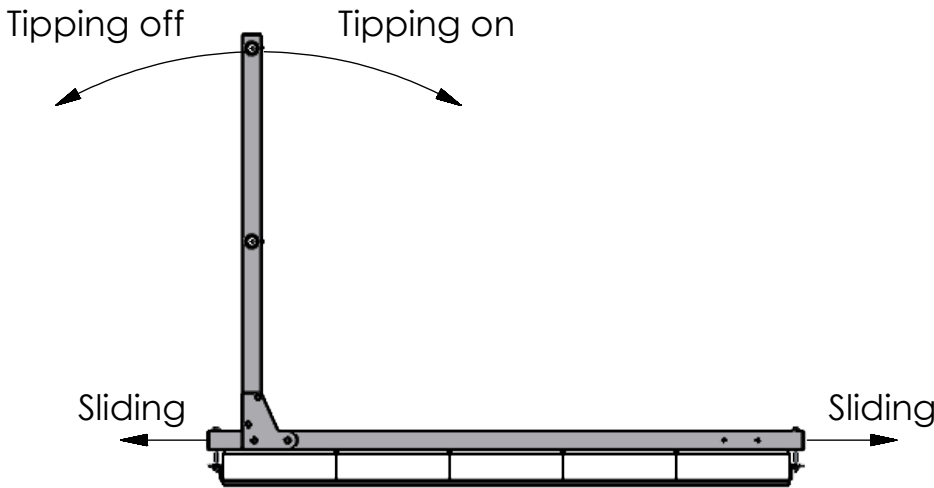
The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

Declaration of Performance - on/off - sliding

Stanchion type	Counterweight system	Stanchion distance	Max q_{onroof_safe} (N/m ²)	Max $q_{offroof_safe}$ (N/m ²)	Max $q_{sliding_safe}$ (N/m ²)
1500L	15x30x8	3m	764	610	625
1500L	15x30x8	4m	630	481	511

Declaration of Performance - Applied local load

Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm ²)
1500L	15x30x8	3m	0,49	0,12	0,16
1500L	15x30x8	4m	0,49	0,12	0,16



ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x110	Stainless Steel, 304	2
4	D228.BMC.15.30.08	15x30x8	C30/37 Concrete, 2300 kg/m ³	5

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description: PG-1500L		Drawing number: 25.218-001-900_05		Rev: 0	Format: A3
Units: mm						Sheet 5 of 12	

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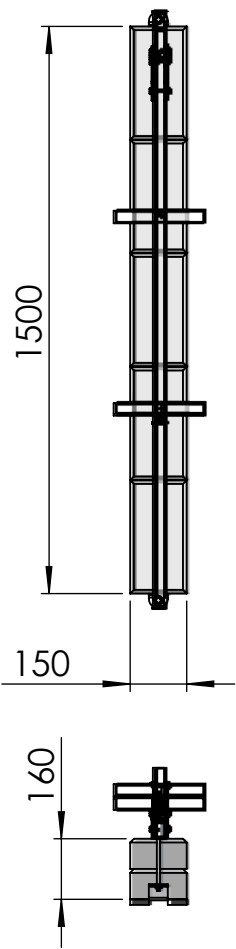
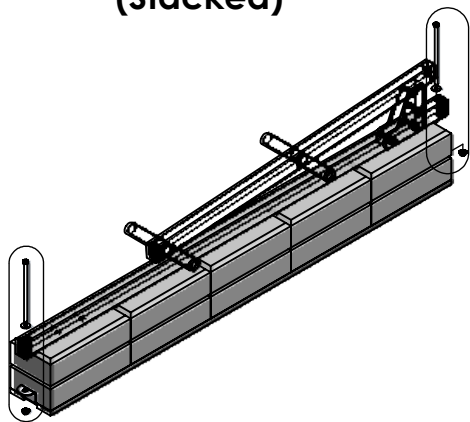
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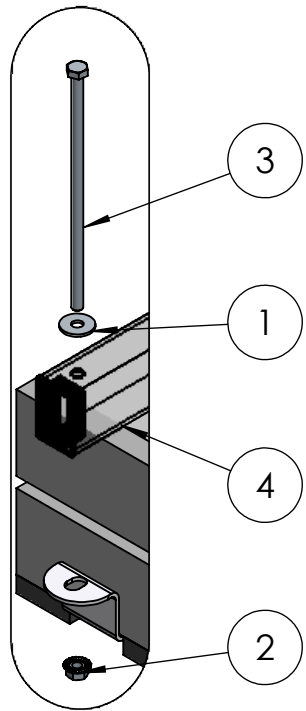
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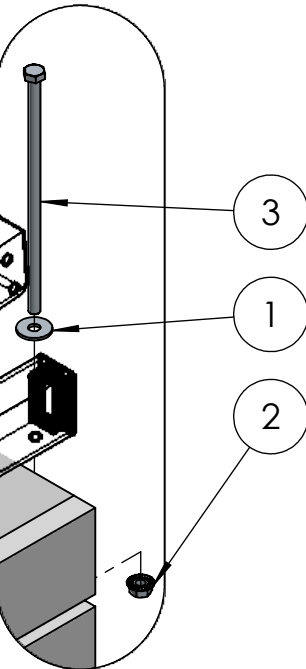
Tile Configuration:
15 x 30 x 8
(Stacked)



DETAIL I
SCALE 1 : 5

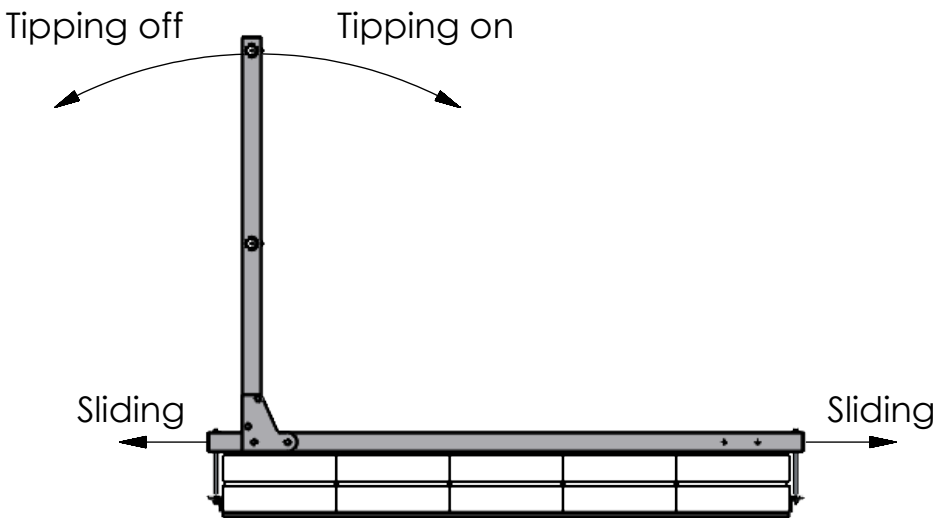


DETAIL J
SCALE 1 : 5



Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q _{onroof_safe} (N/m ²)	Max q _{offroof_safe} (N/m ²)	Max q _{sliding_safe} (N/m ²)
1500L	15x30x8 (Stacked)	3m	1336	1181	1145
1500L	15x30x8 (Stacked)	4m	1080	931	925

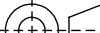
Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm ²)
1500L	15x30x8 (Stacked)	3m	0,89	0,22	0,3
1500L	15x30x8 (Stacked)	4m	0,89	0,22	0,3



Declaration of Performance (tipping on/off roof & sliding)
The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of q_{onroof_safe} = X N/m², an off-roof load of q_{offroof_safe} = Y N/m², and a maximum sliding resistance of q_{sliding_safe} = Z N/m² for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor γ_M= 1,5 is included in absence of national regulations.

Declaration of Performance (local load)
The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. γ_M= 1,3 applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x190	Stainless Steel, 304	2
4	D228.BMC.15.30.08	15x30x8	C30/37 Concrete, 2300 kg/m ³	10

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description: PG-1500L		Drawing number: 25.218-001-900_05		Rev: 0	Format: A3
Units: mm						Sheet 6 of 12	

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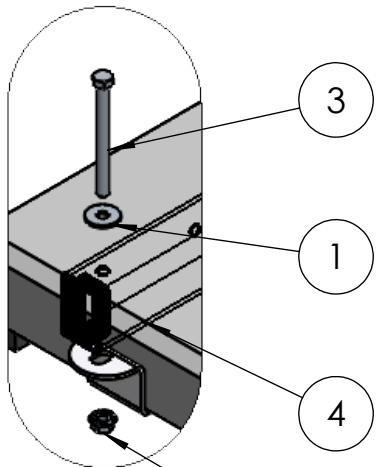
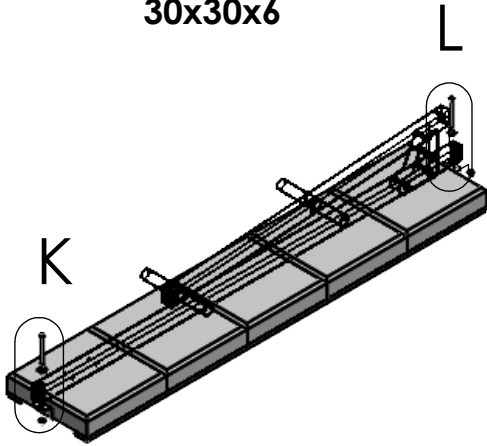
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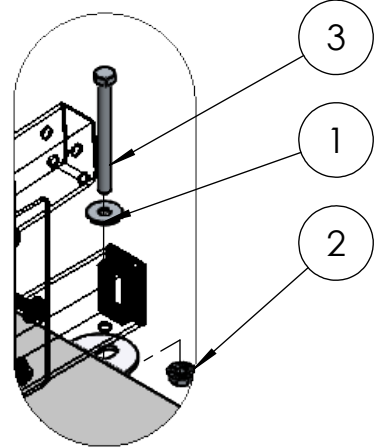
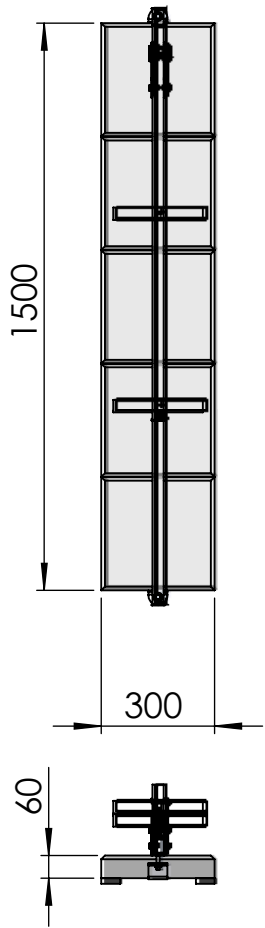
2

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Tile Configuration:
30x30x6



DETAIL K
SCALE 1 : 5



DETAIL L
SCALE 1 : 5

Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

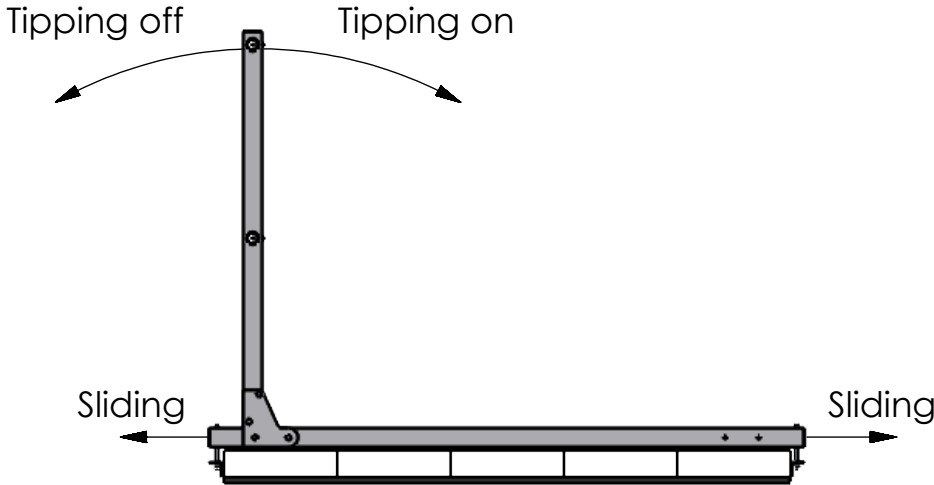
The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

Declaration of Performance - on/off - sliding

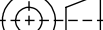
Stanchion type	Counterweight system	Stanchion distance	Max q_{onroof_safe} (N/m²)	Max $q_{offroof_safe}$ (N/m²)	Max $q_{sliding_safe}$ (N/m²)
1500L	30x30x6	3m	1050	895	885
1500L	30x30x6	4m	855	706	718

Declaration of Performance - Applied local load

Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm²)
1500L	30x30x6	3m	0,69	0,17	0,23
1500L	30x30x6	4m	0,69	0,17	0,23



ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x90	Stainless Steel, 304	2
4	D228.BMC.30.30.06	30x30x6	C30/37 Concrete, 2300 kg/m³	5

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
			Drawn	28-4-2026	O.Toor	Mass [g]	88520.59
			Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c
			Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101
						Roughness	NEN ISO 1302
Scale: 1:20	Projection	Description: PG-1500L	Drawing number: 25.218-001-900_05			Rev: 0	Format: A3
Units: mm						Sheet 7 of 12	

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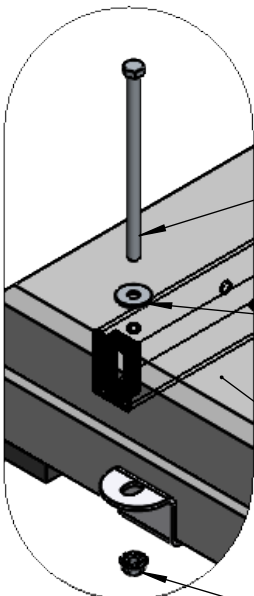
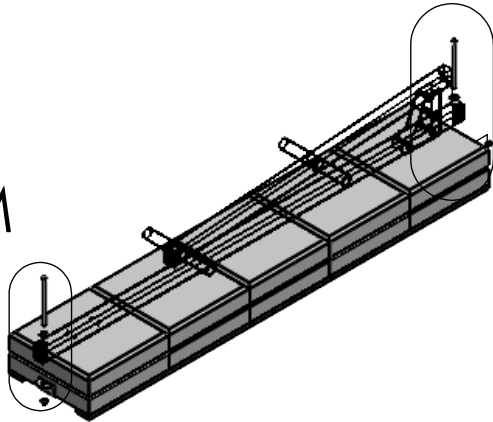
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Tile Configuration:
30x30x6

N

M



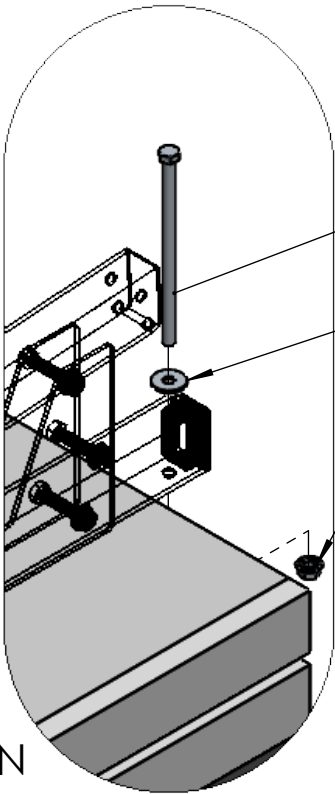
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DETAIL M
SCALE 1 : 5

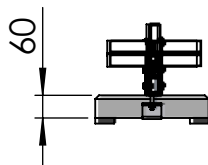
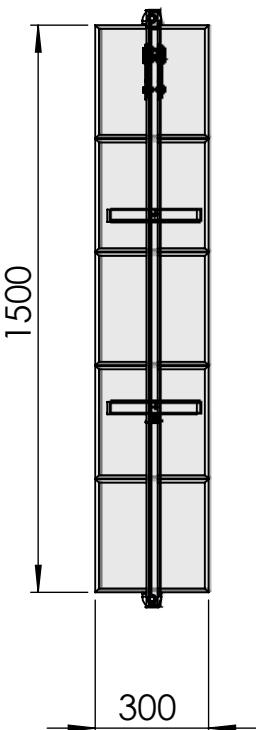


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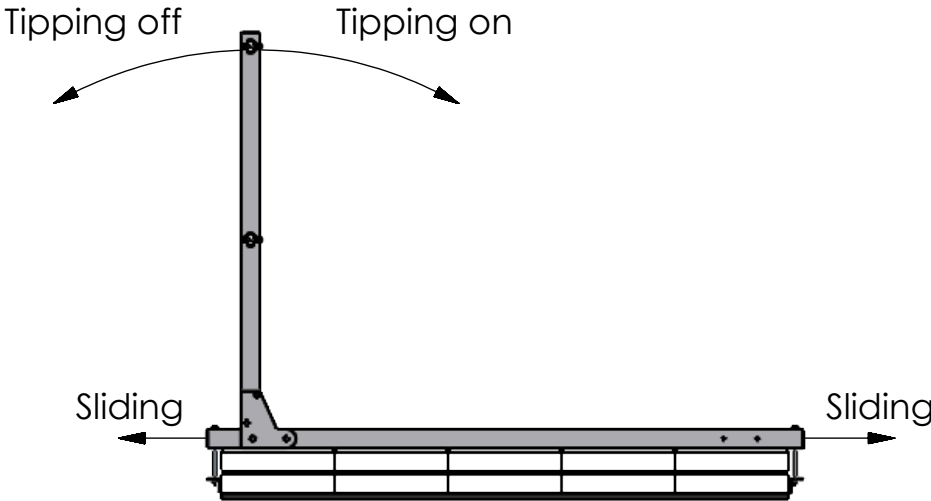
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DETAIL N
SCALE 1 : 5



Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q_onroof_safe (N/m2)	Max q_offroof_safe (N/m2)	Max q_sliding_safe (N/m2)
1500L	30x30x6 (stacked)	3m	1907	1753	1665
1500L	30x30x6 (stacked)	4m	1530	1381	1339

Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm2)
1500L	30x30x6 (stacked)	3m	1,28	0,32	0,43
1500L	30x30x6 (stacked)	4m	1,28	0,32	0,43



Declaration of Performance (tipping on/off roof & sliding)
The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)
The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x150	Stainless Steel, 304	2
4	D228.BMC.30.30.06	30x30x6	C30/37 Concrete, 2300 kg/m3	10

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
			Drawn	28-4-2026	O.Toor	Mass [g]	88520.59
			Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c
			Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101
						Roughness	NEN ISO 1302
Scale: 1:20	Projection	Description: PG-1500L	Drawing number: 25.218-001-900_05		Rev: 0	Format:	
Units: mm					Sheet 8 of 12	A3	

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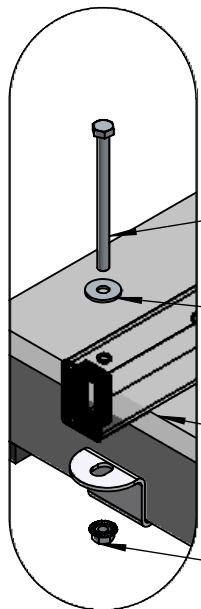
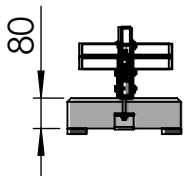
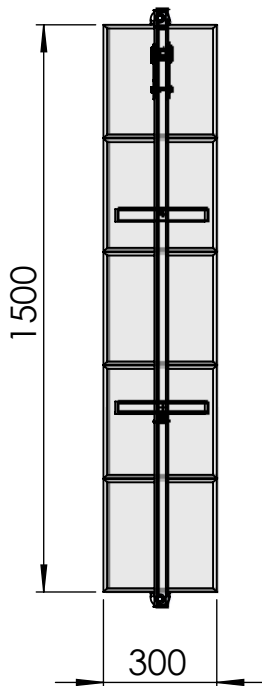
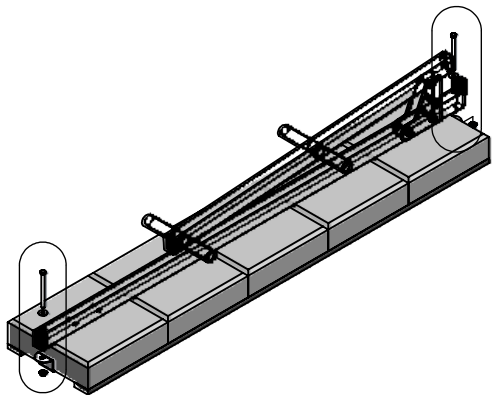
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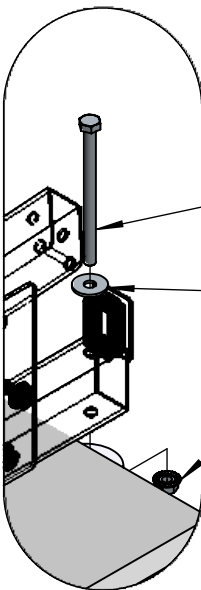
Tile Configuration:
30 x 30 x 8

P

O



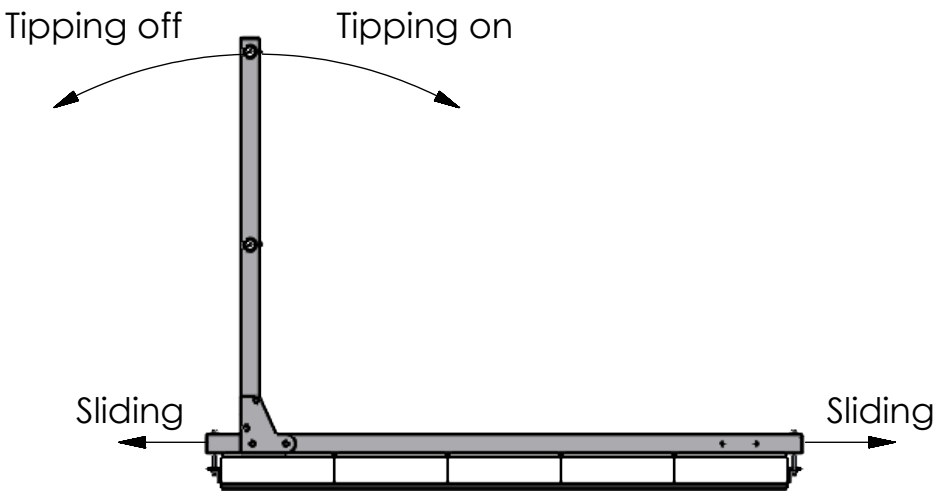
DETAIL O
SCALE 1 : 5



DETAIL P
SCALE 1 : 5

Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q_onroof_safe (N/m2)	Max q_offroof_safe (N/m2)	Max q_sliding_safe (N/m2)
1500L	30x30x8	3m	1336	1181	1145
1500L	30x30x8	4m	1080	931	925

Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm2)
1500L	30x30x8	3m	0,89	0,22	0,3
1500L	30x30x8	4m	0,89	0,22	0,3



Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x110	Stainless Steel, 304	2
4	D228.BMC.30.30.08	30x30x8	C30/37 Concrete, 2300 kg/m3	5

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
			Drawn	28-4-2026	O.Toor	Mass [g]	88520.59
			Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c
			Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101
						Roughness	NEN ISO 1302
Scale: 1:20		Description: PG-1500L	Drawing number: 25.218-001-900_05			Rev: 0	Format: A3
Units: mm						Sheet 9 of 12	

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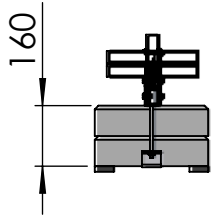
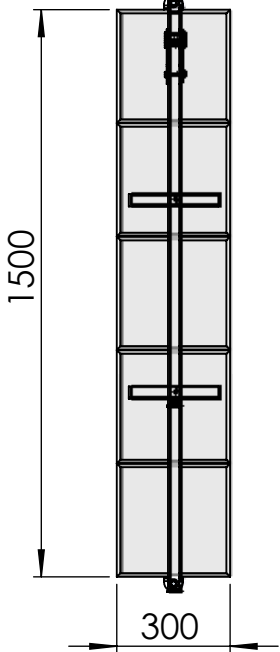
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Tile Configuration:
30 x 30 x 8
(Stacked)

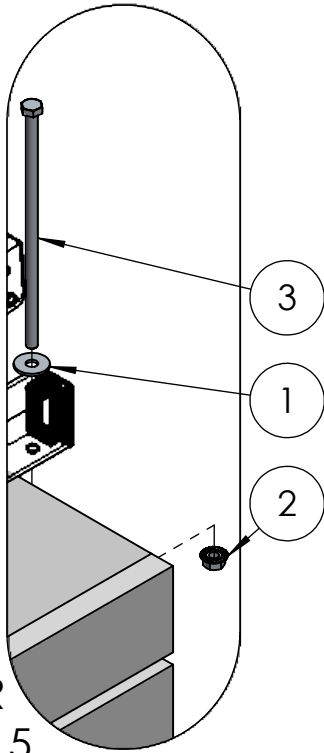
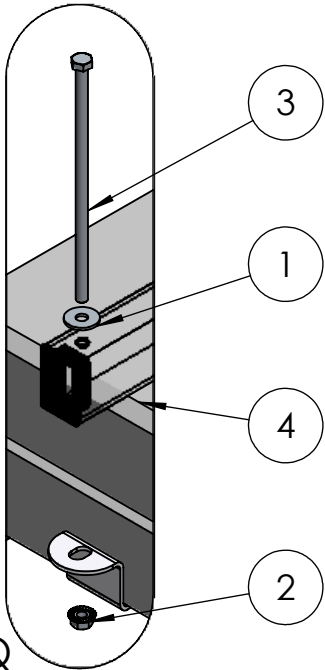
Q

R



DETAIL Q
SCALE 1 : 5

DETAIL R
SCALE 1 : 5

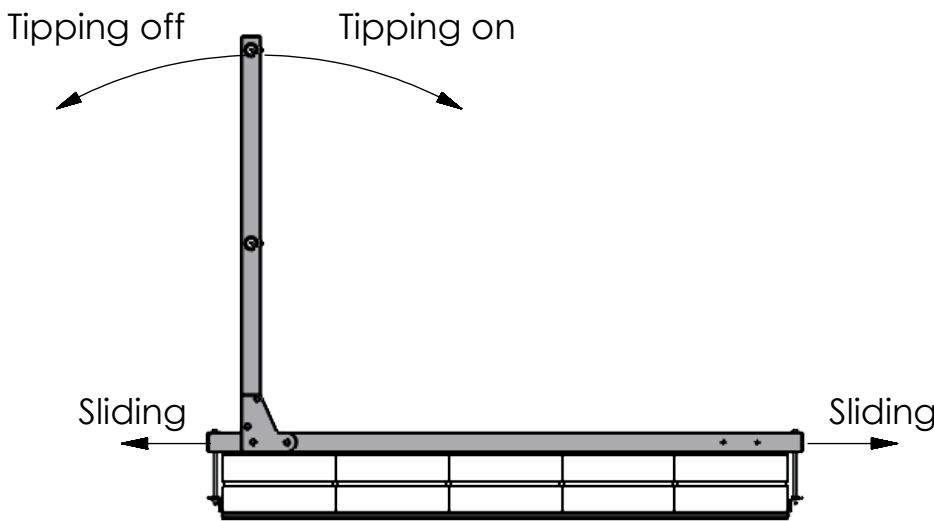


Declaration of Performance - on/off - sliding

Stanchion type	Counterweight system	Stanchion distance	Max q_onroof_safe (N/m2)	Max q_offroof_safe (N/m2)	Max q_sliding_safe (N/m2)
1500L	30x30x8 (stacked)	3m	2479	2324	2185
1500L	30x30x8 (stacked)	4m	1980	1831	1753

Declaration of Performance - Applied local load

Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm2)
1500L	30x30x8 (stacked)	3m	1,68	0,42	0,56
1500L	30x30x8 (stacked)	4m	1,68	0,42	0,56



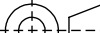
Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x190	Stainless Steel, 304	2
4	D228.BMC.30.30.08	30x30x8	C30/37 Concrete, 2300 kg/m3	10

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description: PG-1500L		Drawing number: 25.218-001-900_05		Rev: 0	Format: A3
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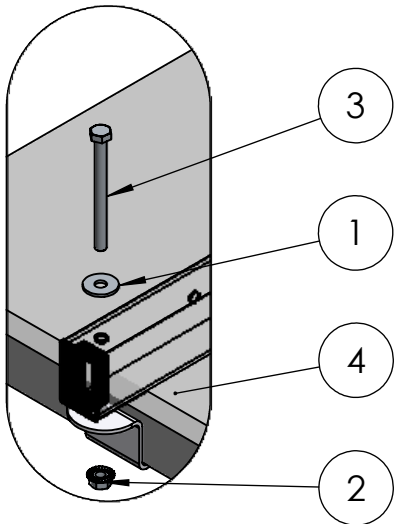
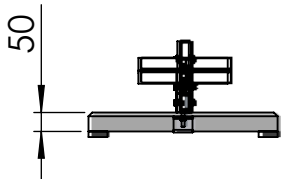
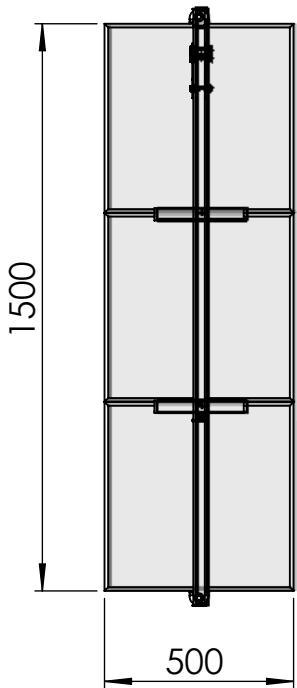
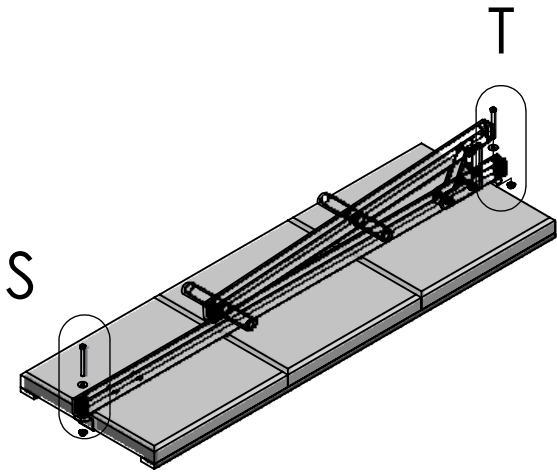
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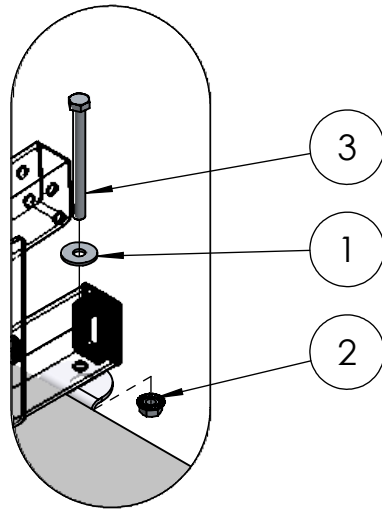
2

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Tile Configuration:
50 x 50 x 5



DETAIL S
SCALE 1 : 5



DETAIL T
SCALE 1 : 5

Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration.

Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin.

Loads specified are design values of the loads. A safety factor $\gamma_M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm².

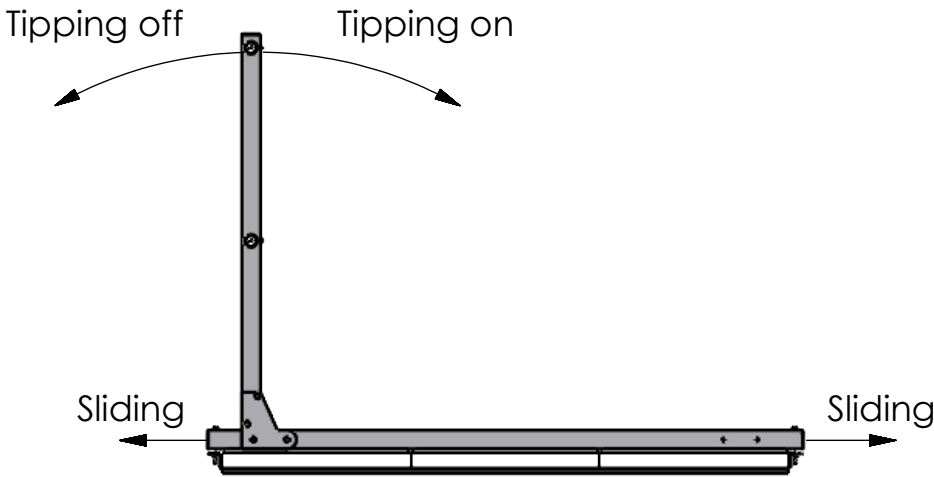
Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma_M = 1,3$ applies in absence of national regulations.

Declaration of Performance - on/off - sliding

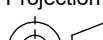
Stanchion type	Counterweight system	Stanchion distance	Max q_{onroof_safe} (N/m²)	Max $q_{offroof_safe}$ (N/m²)	Max $q_{sliding_safe}$ (N/m²)
1500L	50x50x5	3m	1383	1229	1188
1500L	50x50x5	4m	1118	969	960

Declaration of Performance - Applied local load

Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm²)
1500L	50x50x5	3m	0,92	0,23	0,31
1500L	50x50x5	4m	0,92	0,23	0,31



ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x90	Stainless Steel, 304	2
4	D228.BT.50.50.05	50x50x5	C30/37 Concrete, 2300 kg/m³	3

 Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description: PG-1500L		Drawing number: 25.218-001-900_05		Rev: 0	Format: A3
Units: mm						Sheet 11 of 12	

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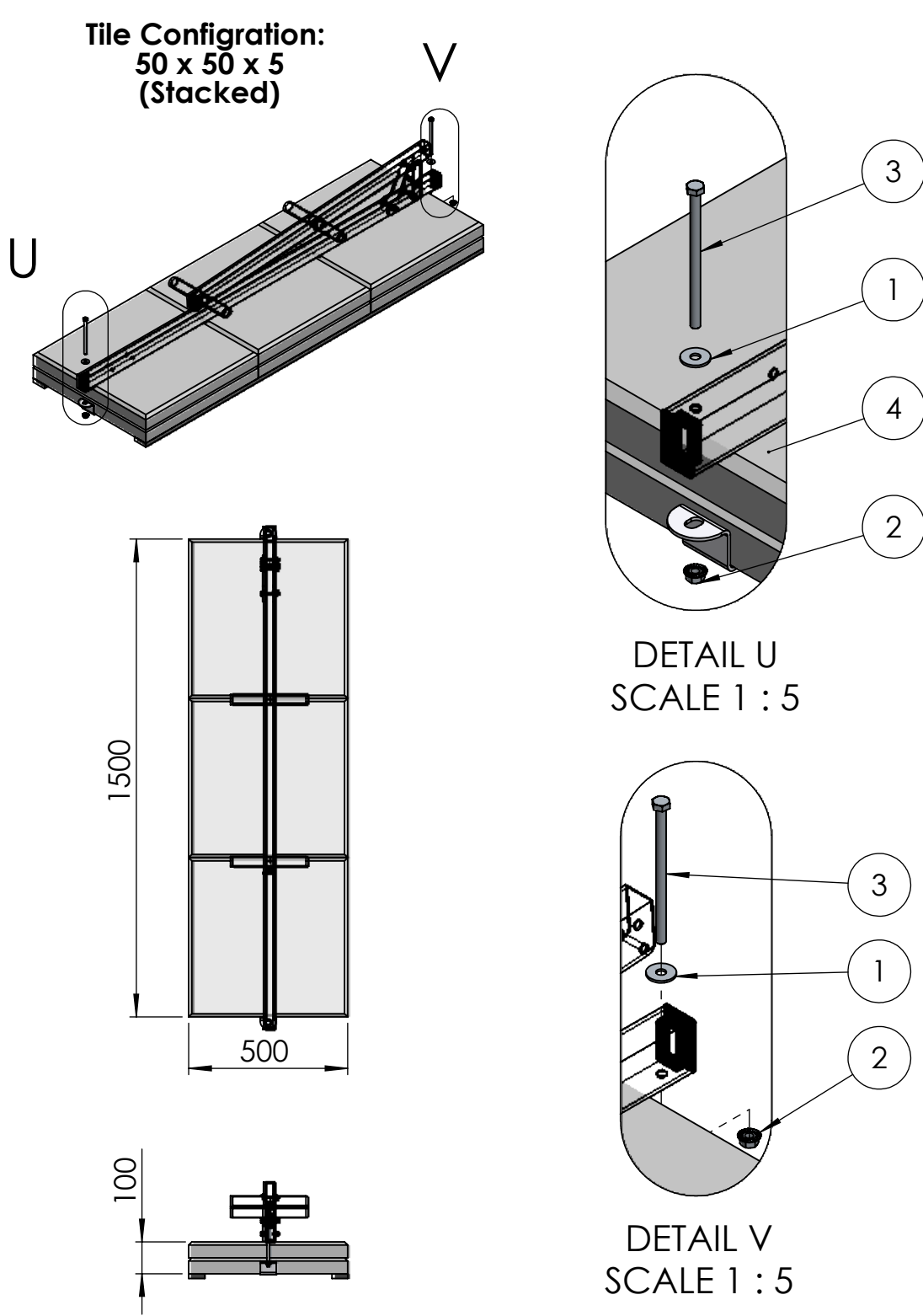
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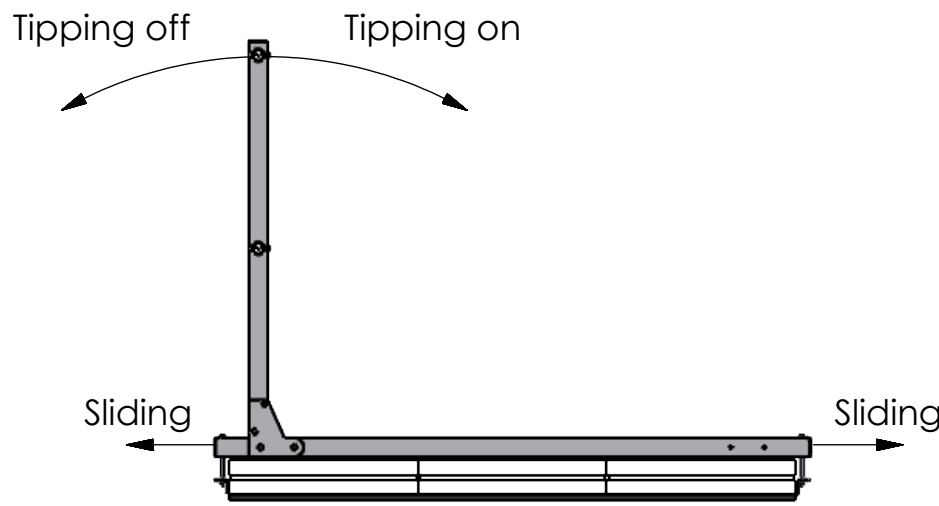
2

1



Declaration of Performance - on/off - sliding					
Stanchion type	Counterweight system	Stanchion distance	Max q_onroof_safe (N/m2)	Max q_offroof_safe (N/m2)	Max q_sliding_safe (N/m2)
1500L	50x50x5 (stacked)	3m	2574	2420	2271
1500L	50x50x5 (stacked)	4m	2055	1906	1822

Declaration of Performance - Applied local load					
Stanchion type	Counterweight system	Stanchion distance	Applied local load per stanchion (kN)	Applied average distributed load (kN/m)	Applied Pressure on surface (N/cm2)
1500L	50x50x5 (stacked)	3m	1,74	0,44	0,58
1500L	50x50x5 (stacked)	4m	1,74	0,44	0,58



Declaration of Performance (tipping on/off roof & sliding)

The DOP calculation demonstrates that the stanchion provides safe resistance against tipping on the roof and off the roof, with a maximum allowable on-roof load of $q_{onroof_safe} = X \text{ N/m}^2$, an off-roof load of $q_{offroof_safe} = Y \text{ N/m}^2$, and a maximum sliding resistance of $q_{sliding_safe} = Z \text{ N/m}^2$ for the selected configuration. Minor variations occur between the 90°, 70° and 0° stanchion orientations; however, the lowest (most limiting) performance values have been used to ensure a robust safety margin. Loads specified are design values of the loads. A safety factor $\gamma M = 1,5$ is included in absence of national regulations.

Declaration of Performance (local load)

The DOP local load assessment confirms that the stanchion applies the following loads onto the roof: applied point load of A kN, an average distributed load of B kN/m and a surface pressure of C N/cm². Differences between the 90°, 70° and 0° stanchion positions are negligible, and the lowest (most limiting) performance value has been selected to guarantee a robust safety margin. Loads specified are characteristic loads. $\gamma M = 1,3$ applies in absence of national regulations.

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	D228.WASH.M8.30.1.5	Large washer 3xD M8	Stainless Steel, 304	2
2	DIN 6923.M8	Flanged Hex Nut M8	Stainless Steel, 304	2
3	DIN 933.M8x110	Hexagon Bolt M8x130	Stainless Steel, 304	2
4	D228.BT.50.50.05	50x50x5	C30/37 Concrete, 2300 kg/m3	6

PROTECTOR GUARDRAIL Designed to protect, built to last			Date	Name	Amount	1	
		Drawn	28-4-2026	O.Toor	Mass [g]	88520.59	
		Checked	28-4-2026	B.Cool	General tolerance	DIN ISO 2768-c	
		Configuration name: Linear Stanchion			Shape / Pos. tol.	NEN ISO 1101	
					Roughness	NEN ISO 1302	
Scale: 1:20	Projection	Description: PG-1500L		Drawing number: 25.218-001-900_05		Rev: 0	Format: A3
Units: mm						Sheet 12 of 12	