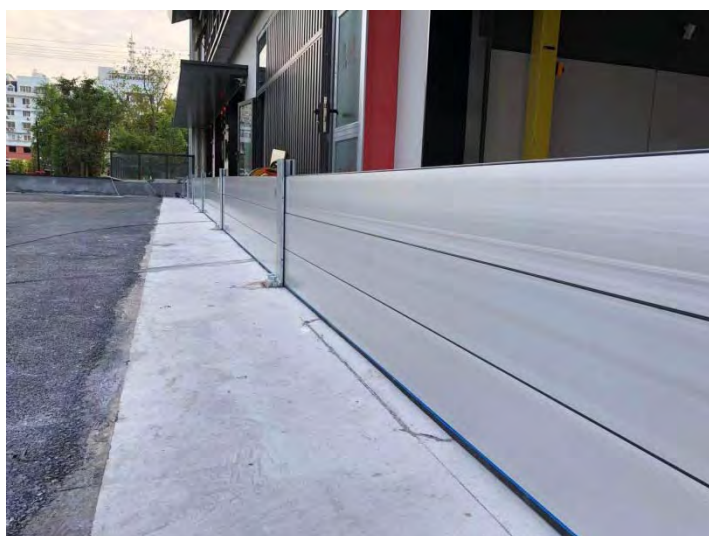


# TECHNICAL DOCUMENTS

## NF-35 SERIES

### DEMOUNTABLE FLOOD BARRIER



In most of the anti-flood scenes for both civilian private application and water projects by local authority, the flood height to fight against will be below 1.4 meters. In order to cater this universal demand, we designed and engineered this standard floodwall NF-35.

It also has 2 main parts: removable and stackable barrier panels /stop logs and central posts, and pre-installed permanent parts including end posts or side posts as well as anchor plates pre-embedded in concrete foundation. But contrary to the NF-35L, this demountable flood barrier definitely requires pre-installed concrete foundation for anchor plate embedding to make sure the strength to fight against 1400mm high water.

The height for floodproof is still adjustable by adding or removing barrier panels from 200-1400mm, with single span maximum 6000mm while unlimited length achievable by the connection of central posts for any large opening.

After the pre-installed parts are secured and fixed to the solid foundation, there is almost none visual impact. After receiving the flood warning, a team of 3-4 labors can quickly deploy, by bolting the central posts on the foundation and sliding the logs into the recess of the posts to complete the project, after the flood, it can be easily dismantled with simple tool for storage.

Again, this well designed metal flood barrier will not require any ground frame but only solid ground surface, the PU&PE ground seals can compensate the roughness of the ground, while the EPDM rubber in both posts and panels will secure the water tightness after the pressing tool is installed on the top of the system.

#### Advantages:

- Great strength while light weighted.
- Top resistance to water loading and wave impact.
- Long life due to full anodized surface.
- Well engineered, height adjustable at will.
- Impressive low seepage.
- Very easy to install and un-install.
- Minimum visual impact after flood season
- Unlimited length

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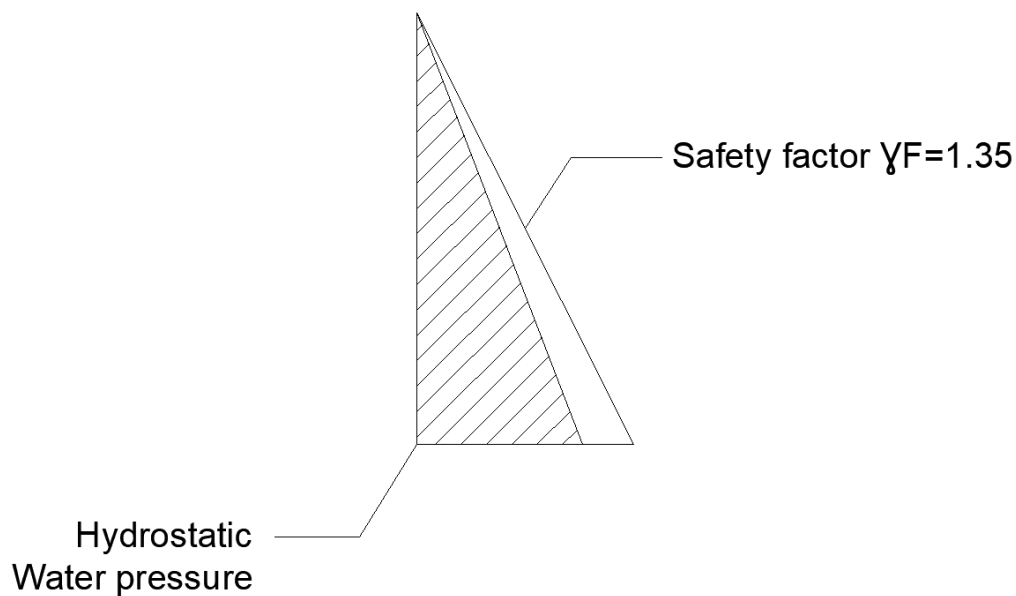
## 1. Draft and Briefing

### 1.1 Design and Production Standards

GB/T19001-2016 / ISO9001:2015 Quality Management System Certificate in Scope of  
Hardware Products, Metal Materials, Special Equipment, General Equipment Sales.

PAS 1188-4-2014 Flood Protection Products – Specification, Part 4 Demountable Products

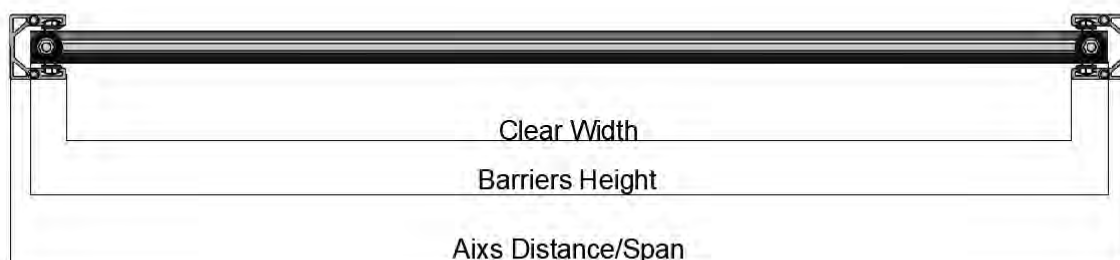
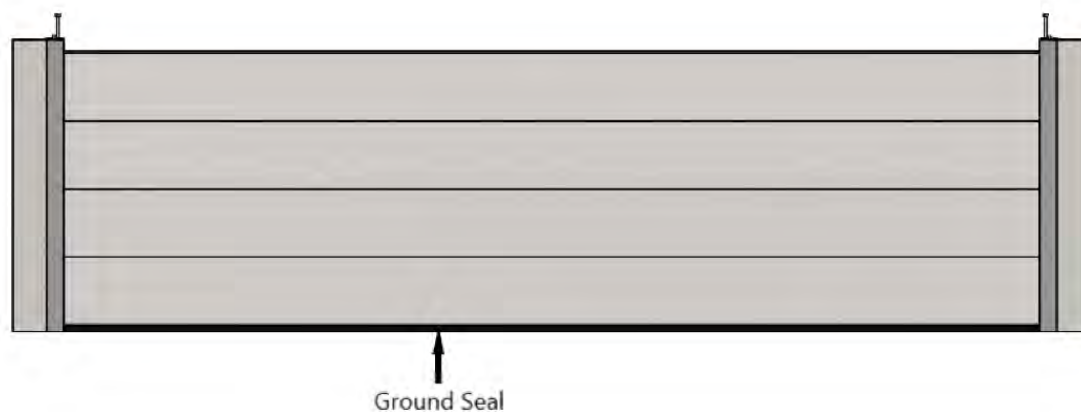
### 1.2 Load Criteria



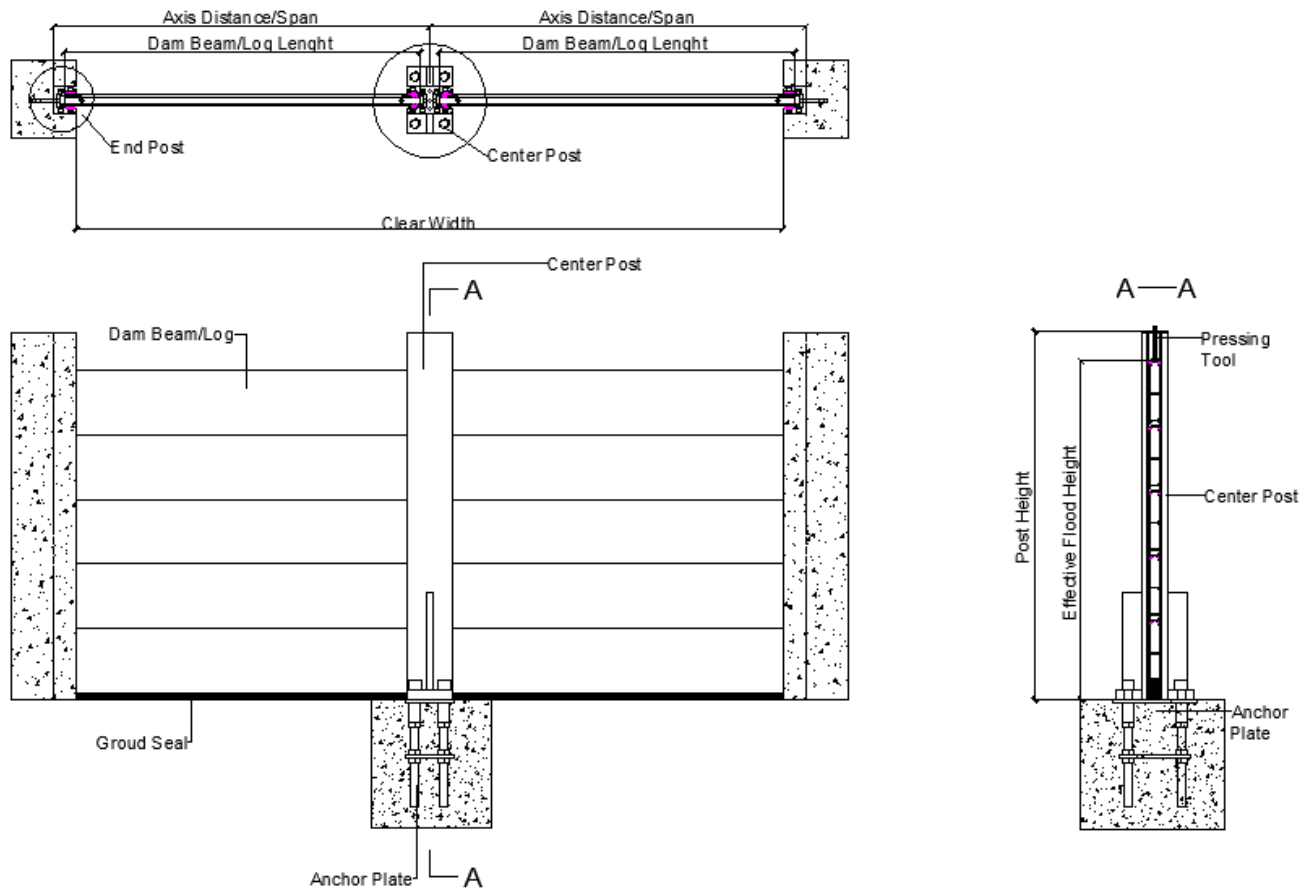
Specific Weight Water:  $10\text{kN/m}^3$ .

## 1.3 Definition of Terms

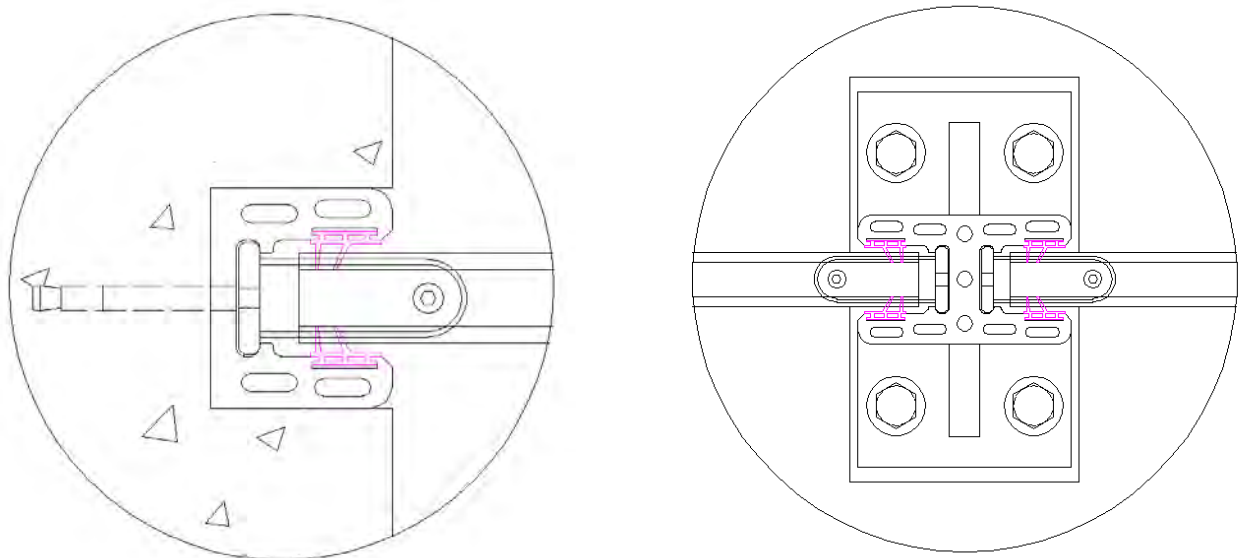
### Flood Barrier NF-35 (Without Central Post)



### 1.3.2 Flood Barrier NF-35 (With Central Post)

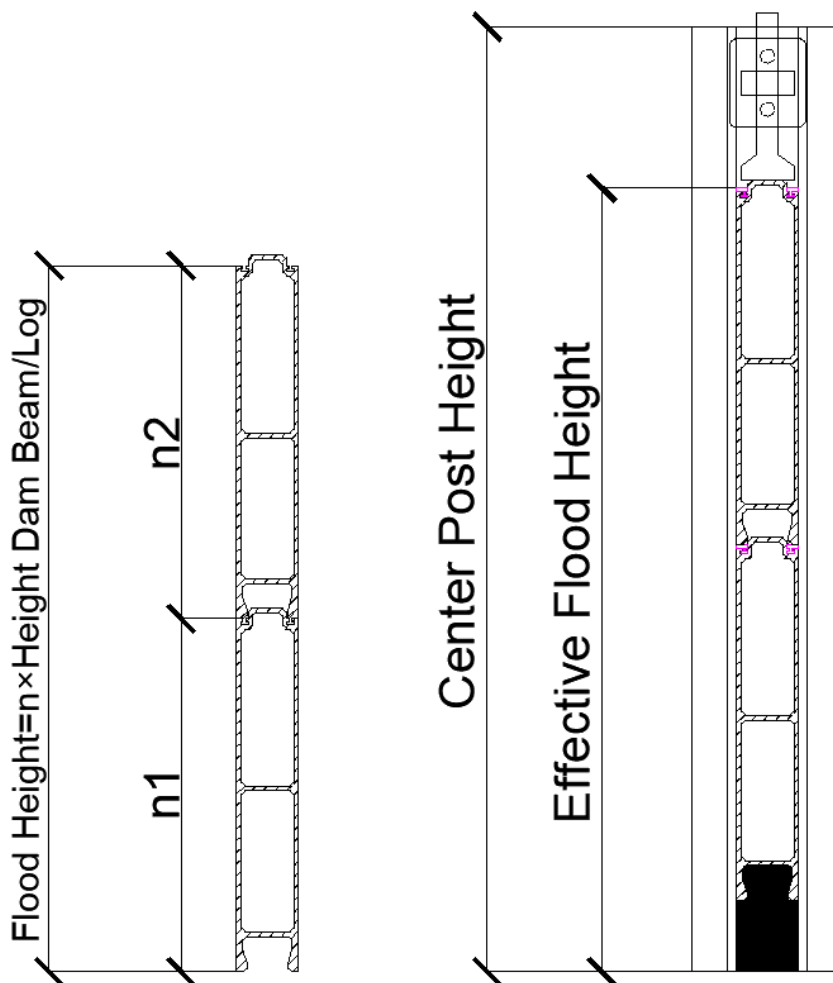


### 1.3.3 Details





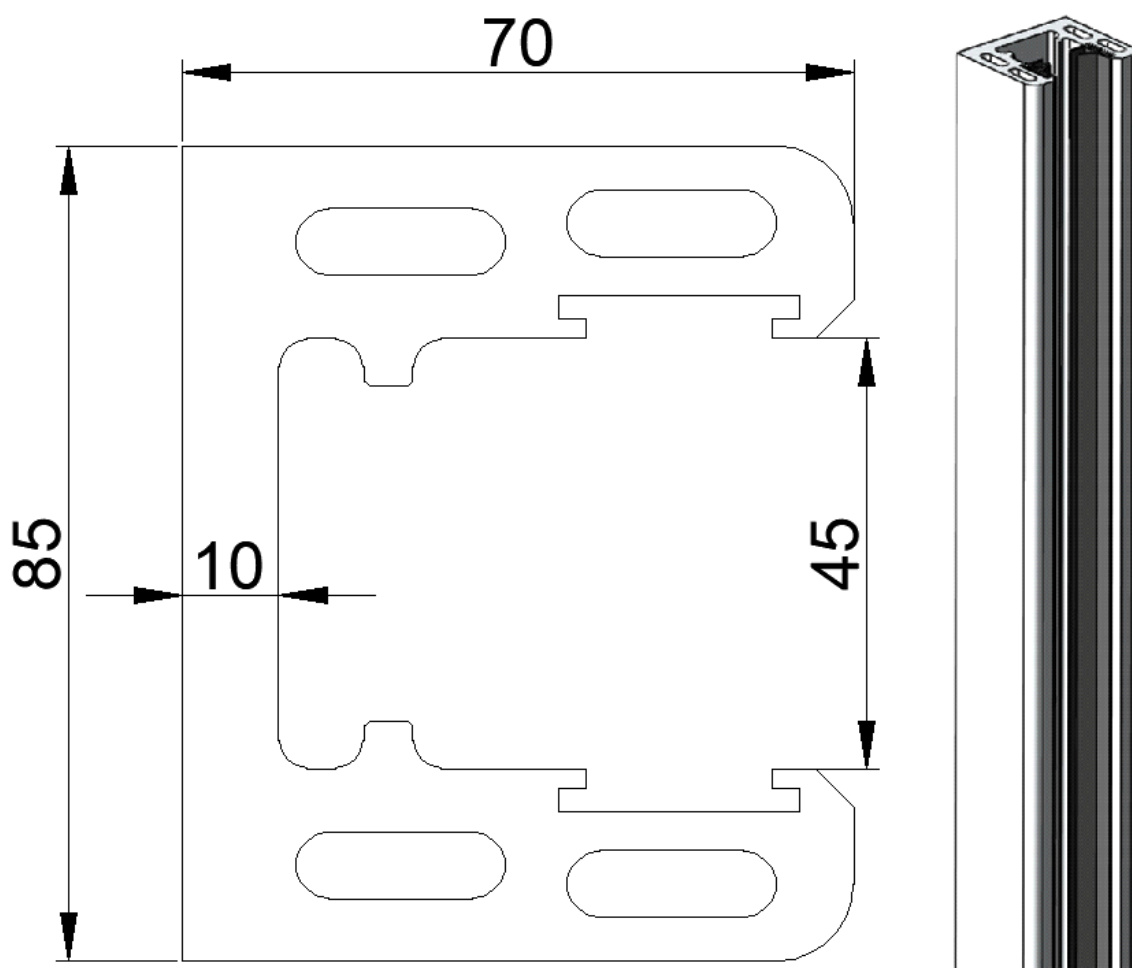
### 1.3.4 Flood Height, Effective Flood Height, Post Height



FLOOD BARRIER NF-35 SERIES			
NUMBER OF DAM BEAMS/LOGS	FLOOD HEIGHT [MM]	POST HEIGHT [MM]	AXIS DISTANCE [MM]
1	200	350	6000
2	400	550	5000
3	600	750	4500
4	800	950	4000
5	1000	1150	3500
6	1200	1350	3000

## 2. System Components

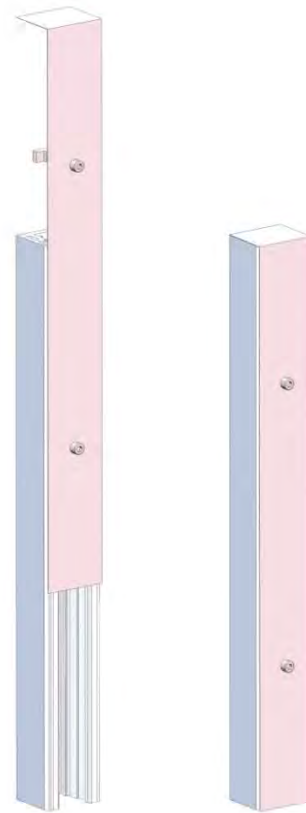
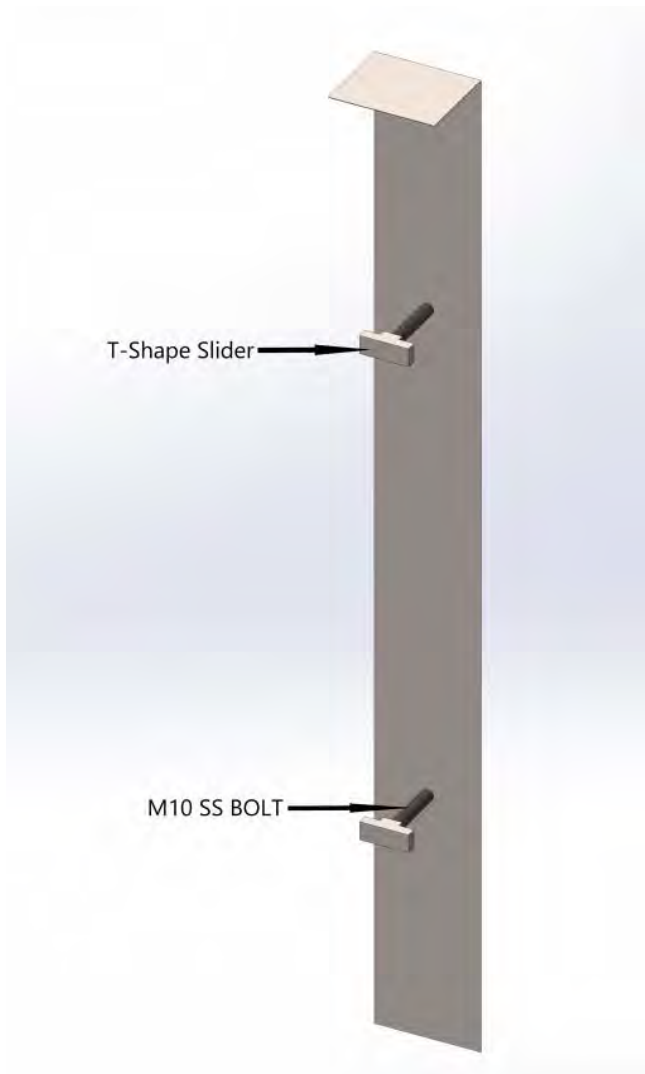
### 2.1 End Post



PROFILE CHARACTERISTICS		
Length	mm	70
Width	mm	85
Thickness/Gauge	mm	10
Weight per linear m	Kg/m	6.751
Material	Aluminum Alloy	6063-T6



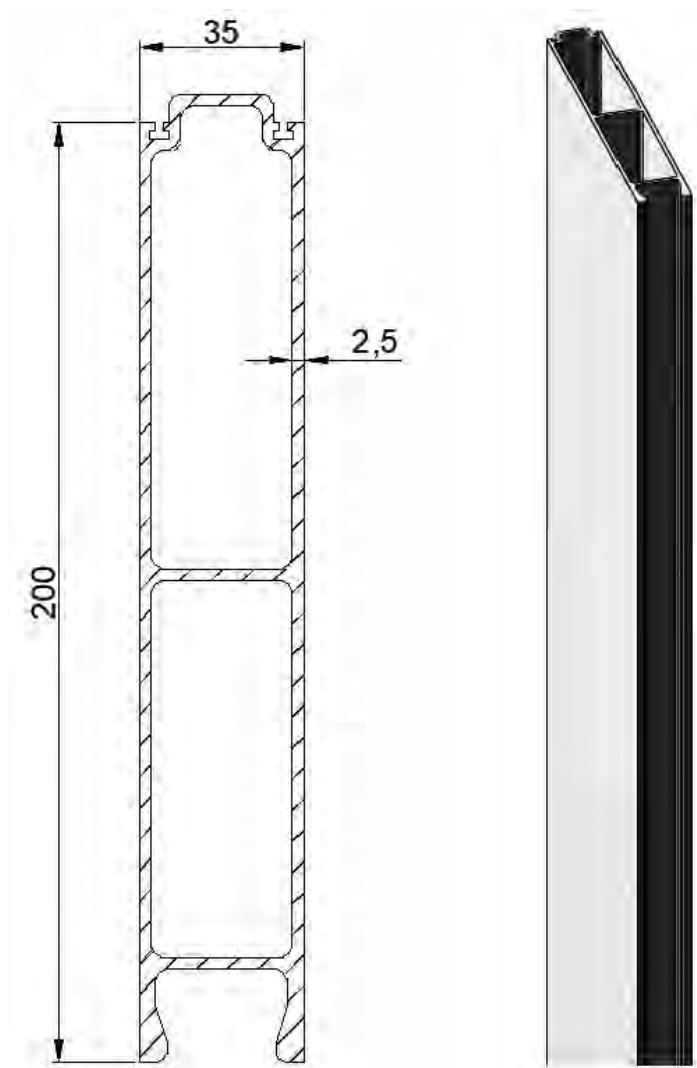
## 2.2 Removable Cover for End Post



DETAILS		
Length	mm	As the post height
Width	mm	85
Thickness/Gauge	mm	2mm for SS304 / 3mm for aluminum
Weight per linear m	Kg/m	0.5kgs/m for aluminum 1.35 kgs/m for SS304
Material	Powder Coated or Anodized Aluminum / Satin or painted SS304	

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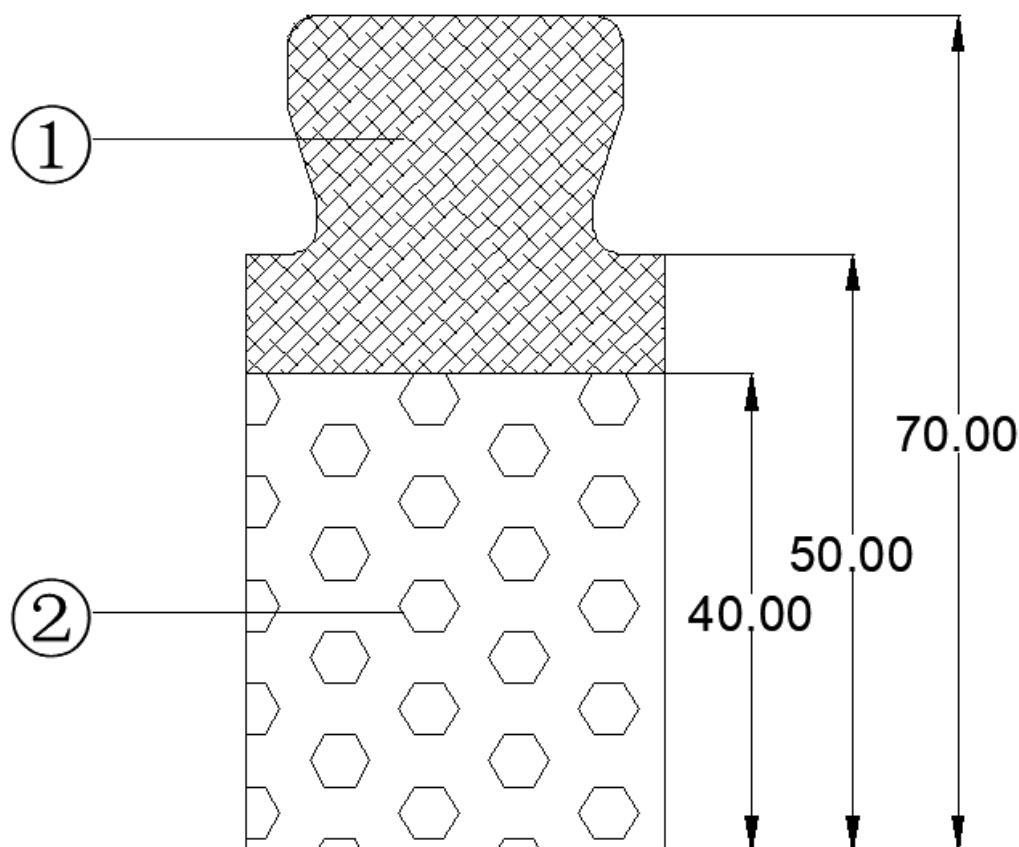
## 2.3 Barrier Panel/Dam Beam/ Log



PROFILE CHARACTERISTICS		
Height	mm	200
Thickness	mm	35
Gauge	mm	2.5
Weight per linear m	Kg/m	3.687
Material	Aluminum Alloy	6063-T6

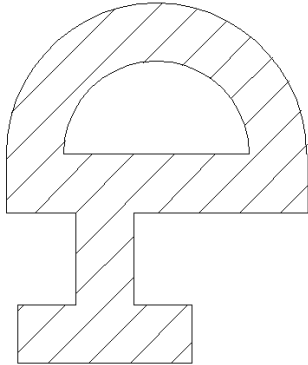
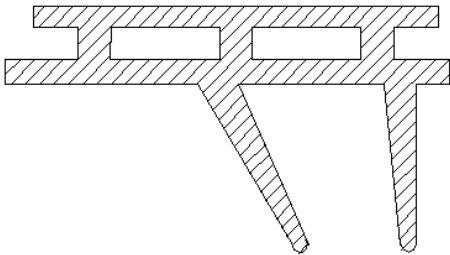
## 2.4 Seals/Gaskets

### 2.4.1 Ground Seal PE/PU



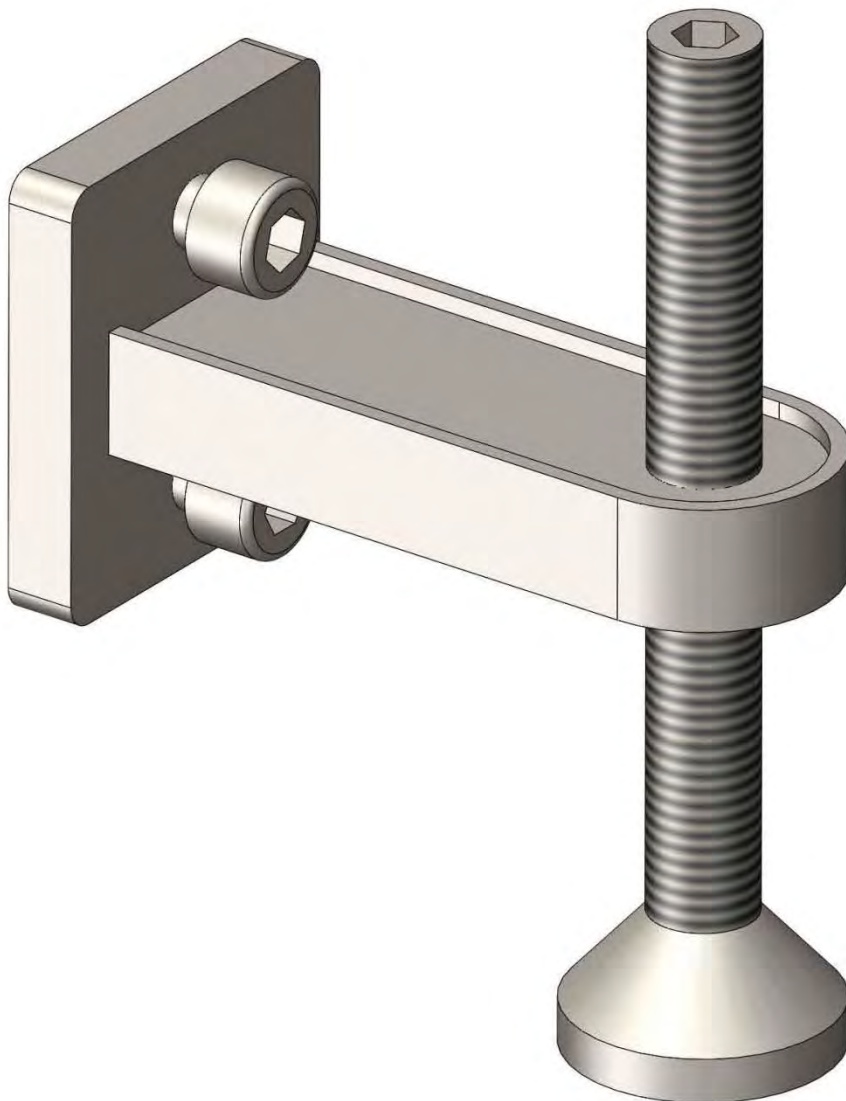
DETAILS	
Material Pos 1	PE
Material Pos 2	PU
Weight per linear m	0.29kg/m

## 2.4.2 Gaskets for Barrier Panels/Dam Beams/Logs, End Posts & Center Posts

Barrier Panel Clamping Seal	
Post Seal	

DETAILS	
Material	Ethylene Propylene Diene Monomer  Rubber (EPDM)

## 2.5 Pressing Tool



### DETAILS

Material

Stainless Steel, Grade: SS 304

Function

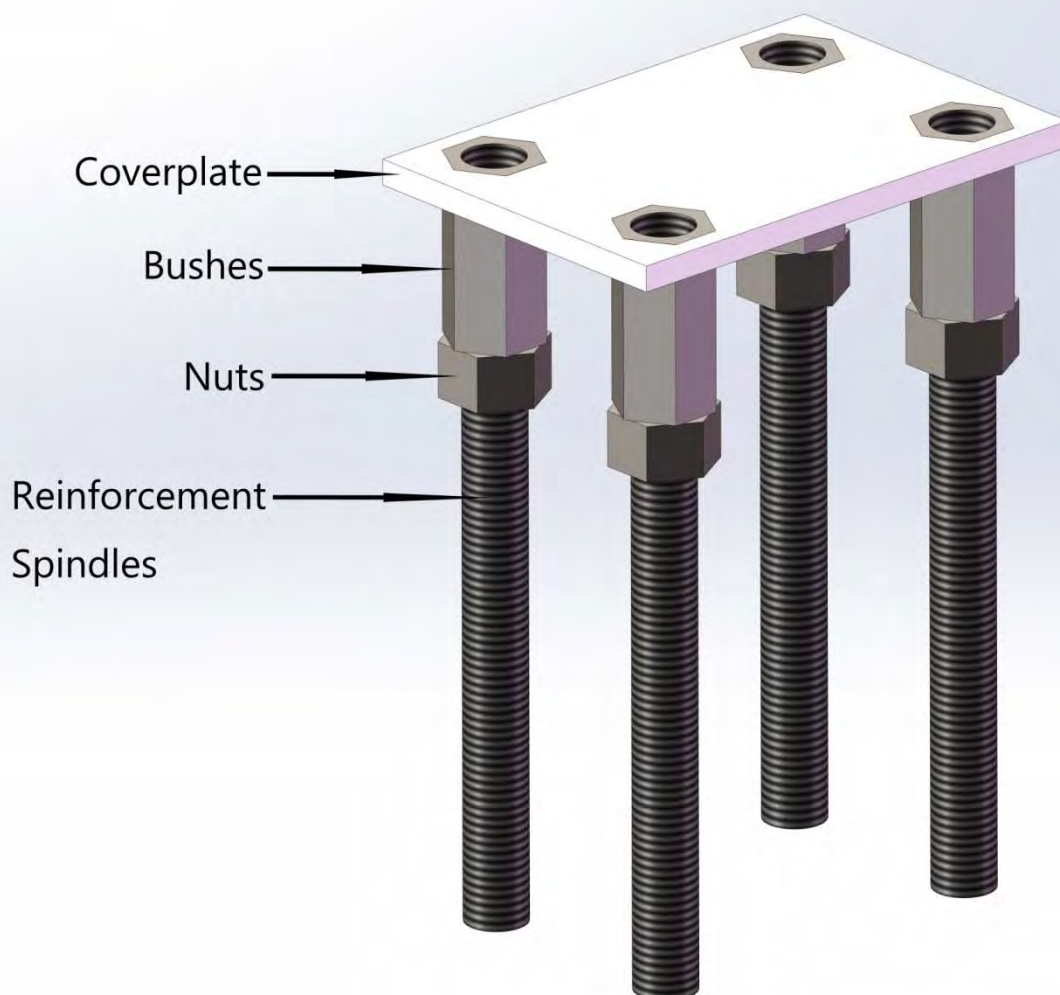
Sliding Type, pressing height adjustable

**SS304 DIE CASTED INTEGRITY**

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## 2.6 Anchor Plate

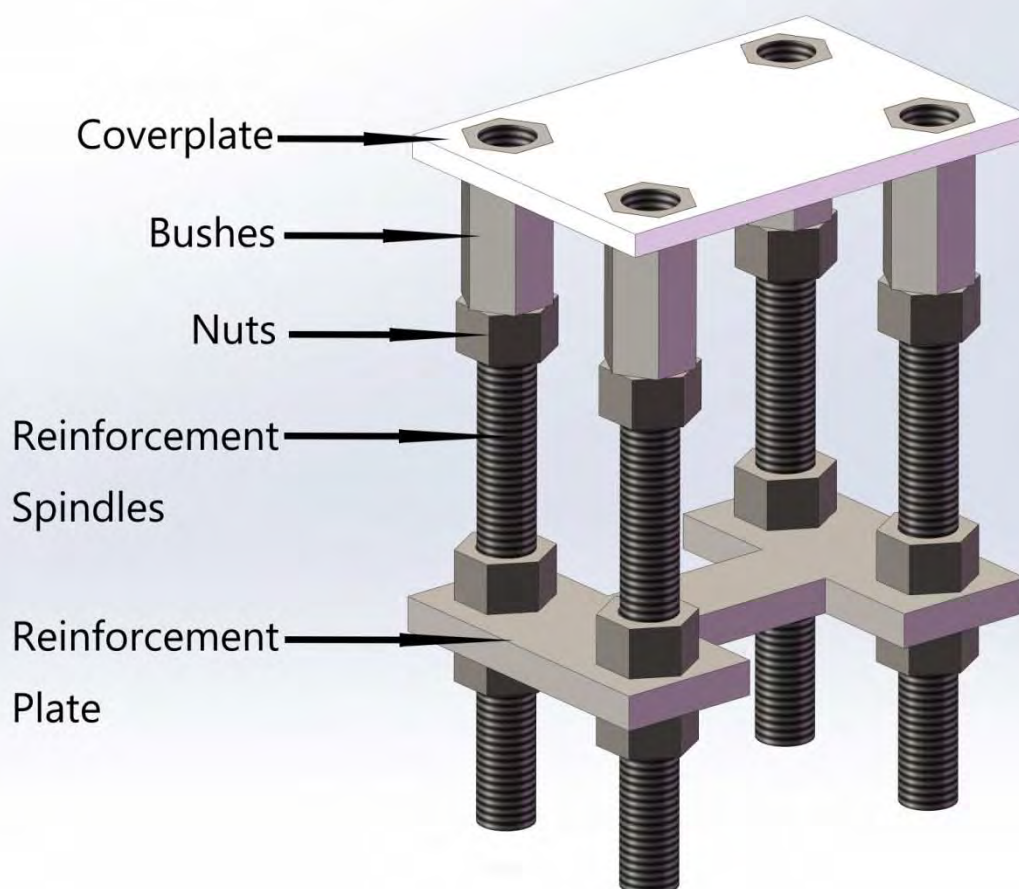
### 2.6.1 NF-35-K4-ZJ



DETAILS	
Coverplate	Stainless Steel SS 304
Bushes	Stainless Steel SS 304
Nuts	Carbon Steel, Grade: 8.8; Q235
Reinforcement Spindles	Carbon Steel, Grade: 8.8; Q235



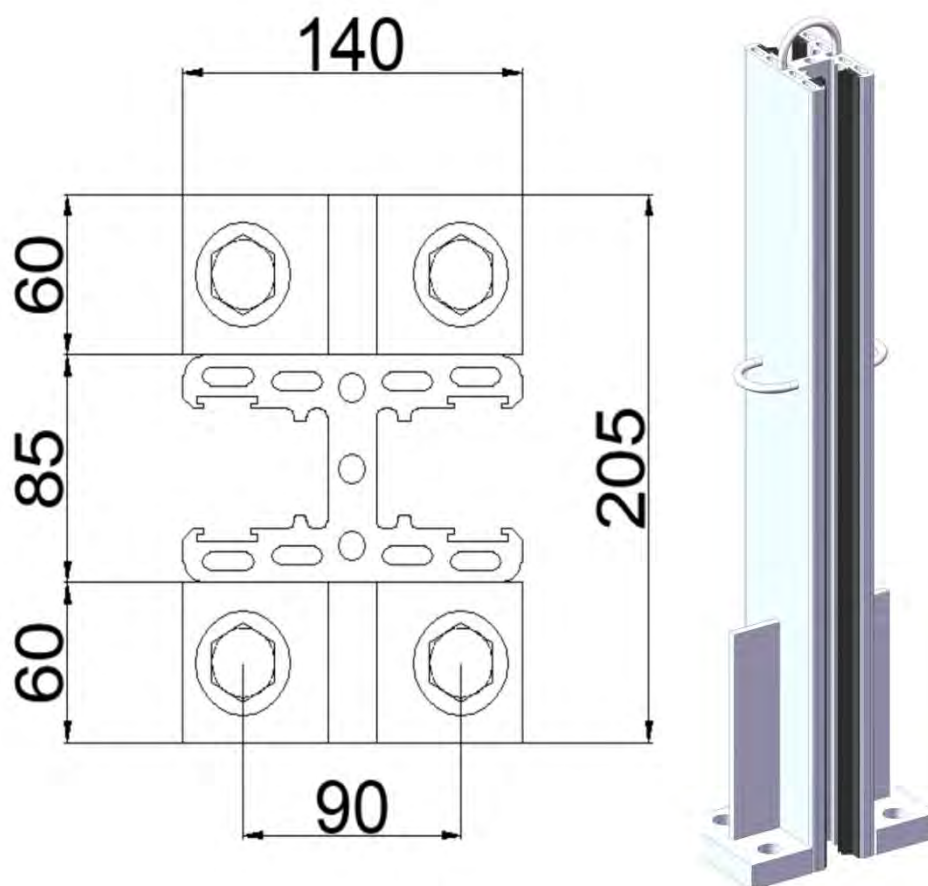
## 2.6.2 NF-35-K4



DETAILS	
Coverplate	Stainless Steel SS 304
Bushes	Stainless Steel SS 304
Nuts	Carbon Steel, Grade: 8.8; Q235
Reinforcement Plate	Carbon Steel, Grade: 8.8; NO.45 Steel
Reinforcement Spindles	Carbon Steel, Grade: 8.8; Q235

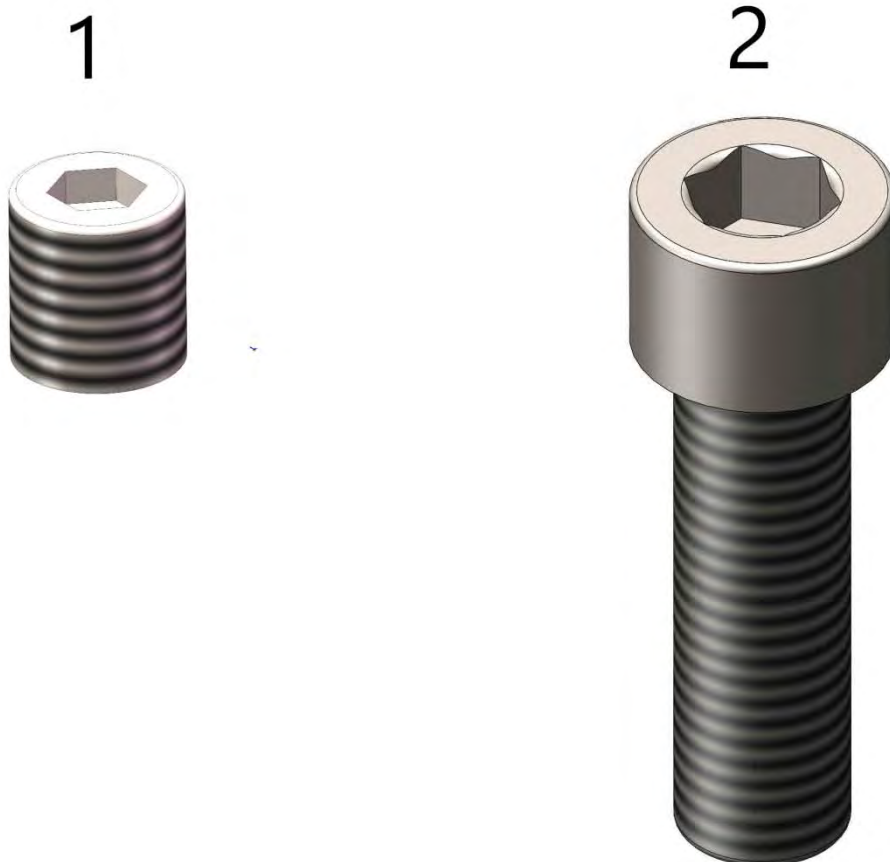


## 2.7 Removable Center Post



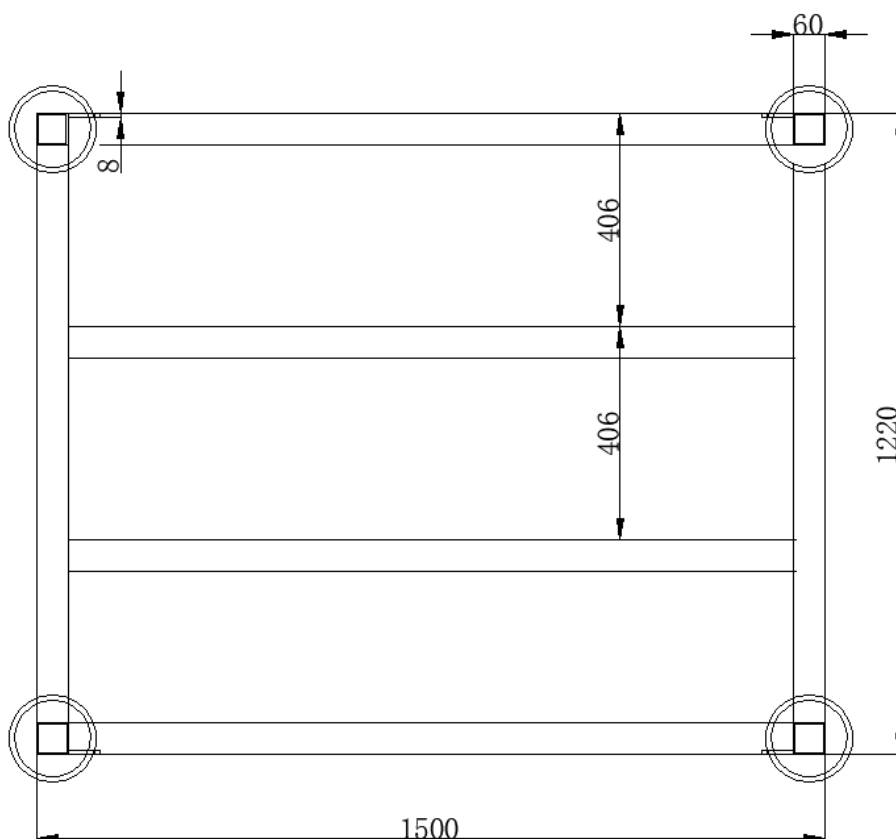
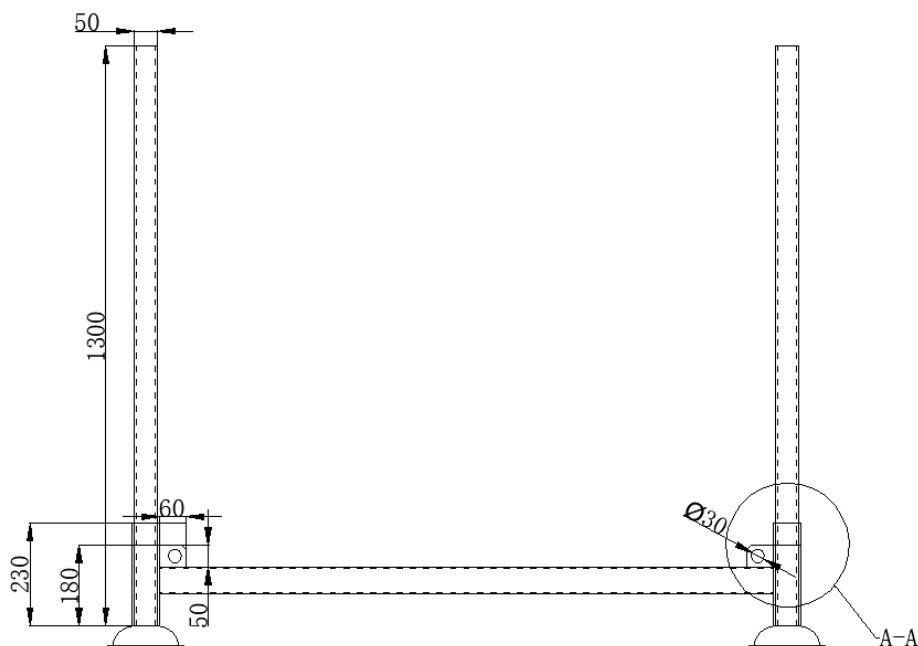
DETAILS				
Description	Flood Height [mm]	Central Post Height [mm]	Weight [kg]	Material
NF-35-350	200	350	5.2	6063-T5
NF-35-550	400	550	8.1	
NF-35-750	600	750	10.5	
NF-35-950	800	950	13.1	
NF-35-1150	1000	1150	14.65	
NF-35-1350	1200	1350	17.27	

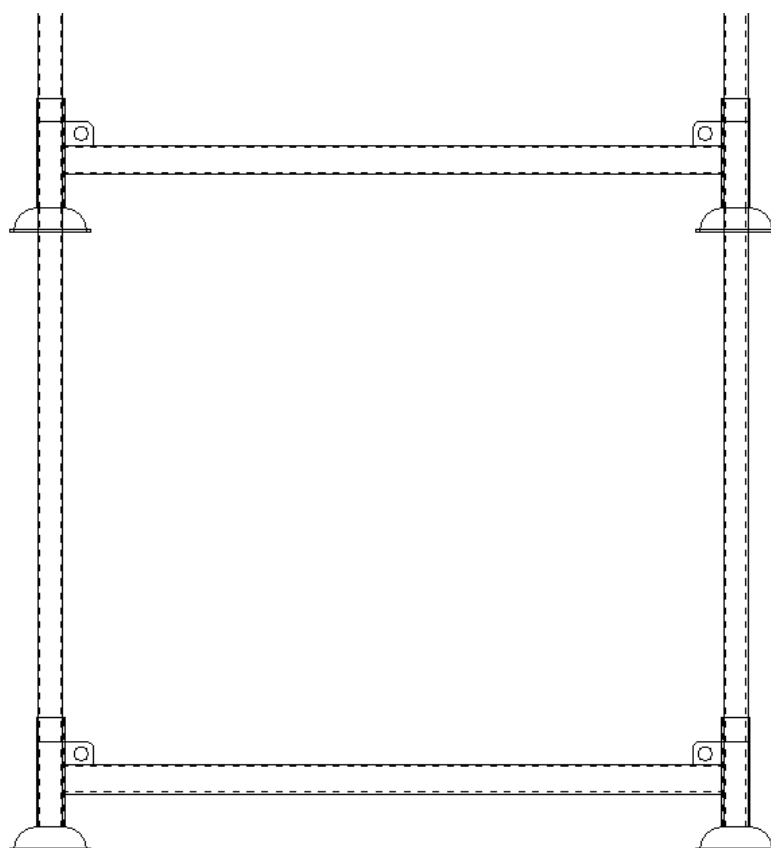
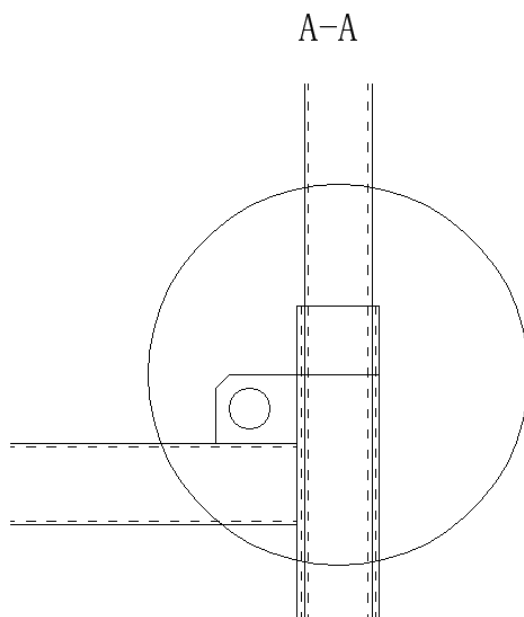
## 2.7.1 Bolts



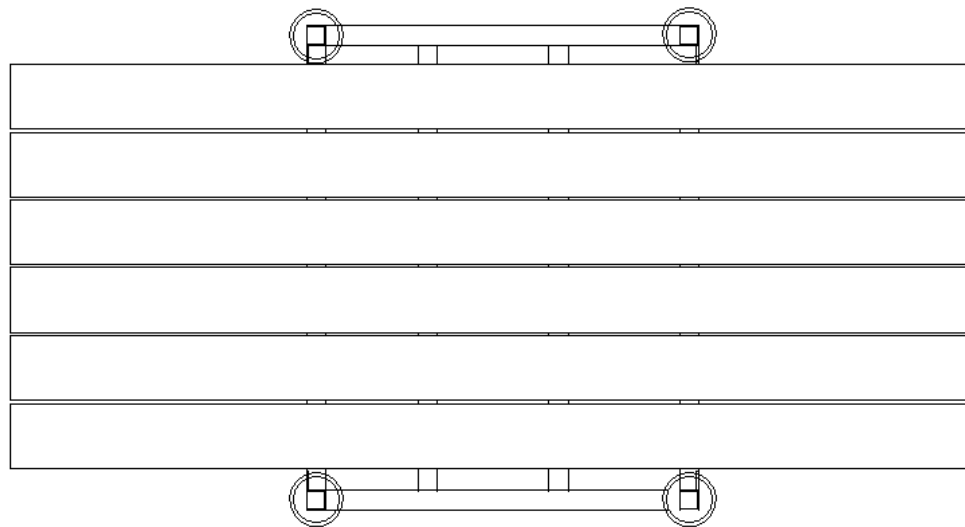
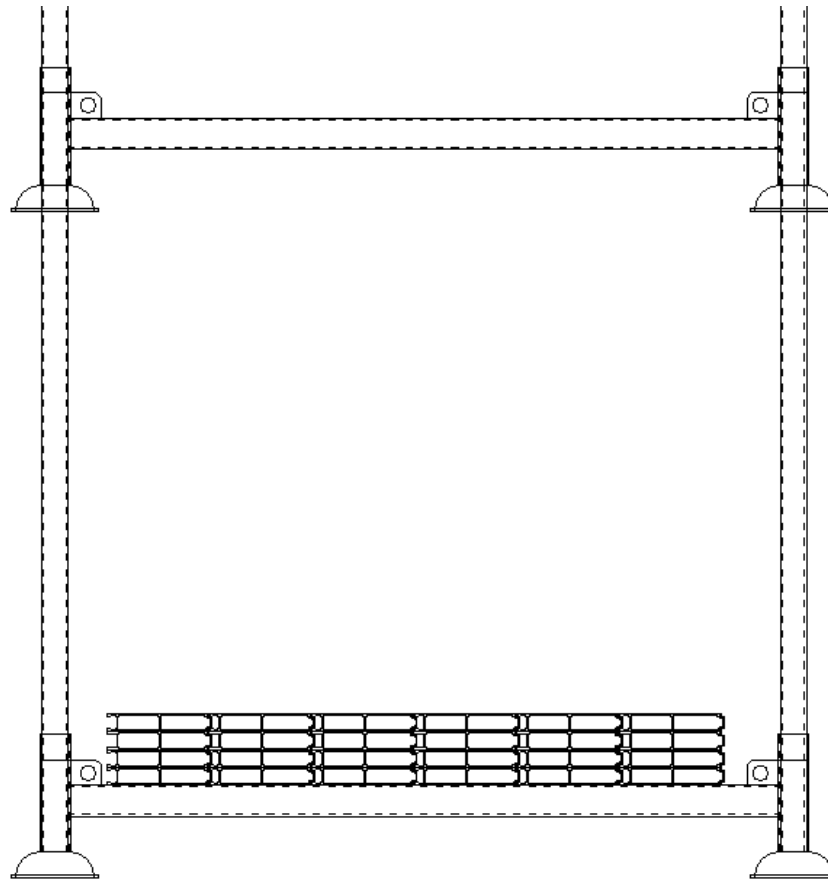
SYSTEM	ITEM	FUNCTION	DESCRIPTION
NF-35	1	Protection Bolt	M24x20, SS 304
	2	Anchor Plate Fixing Bolt	M24x70 8.8 galv. zincd

### 3. Storage

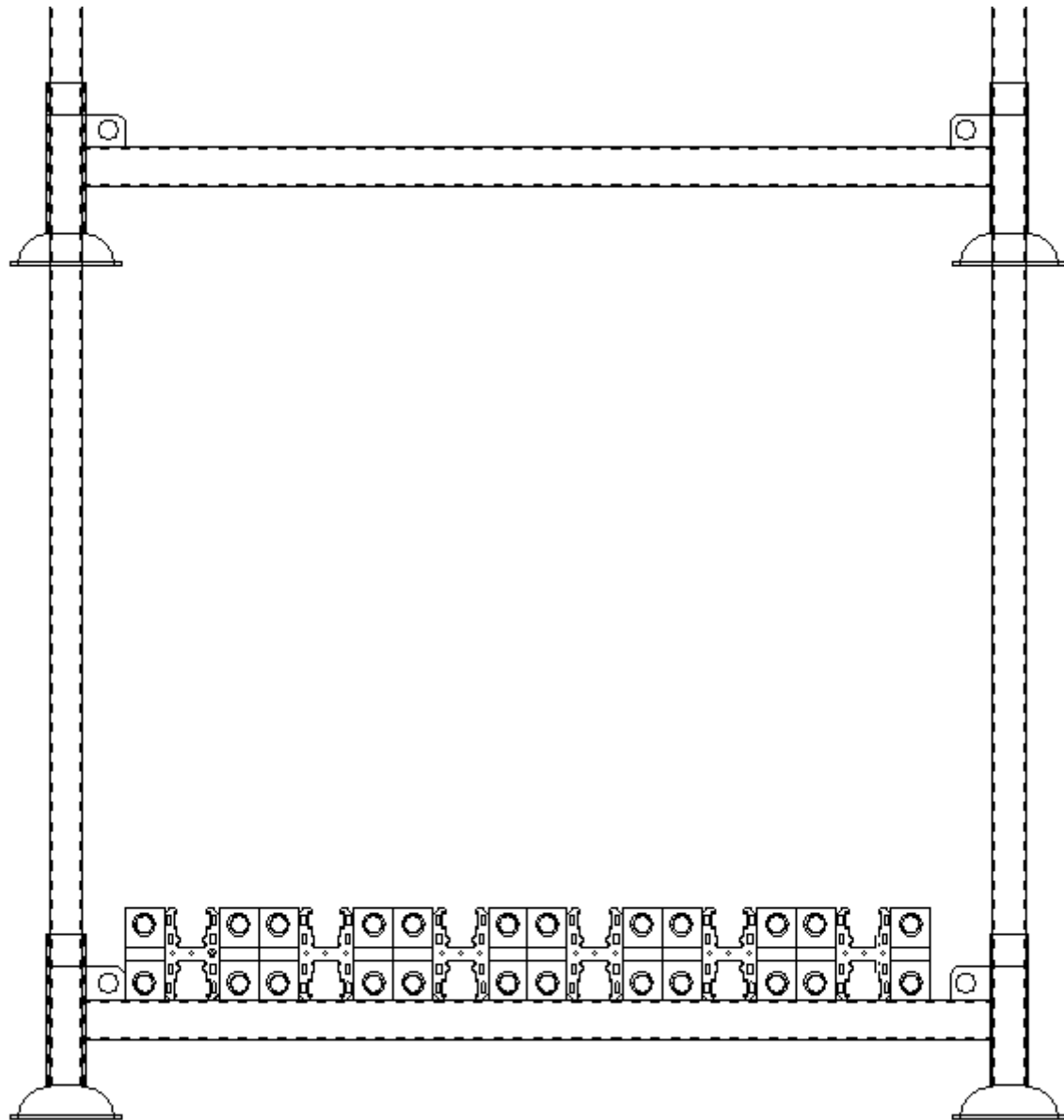




## STACKING-UP



Description	Pallet Height [mm]	For	Panel NO. Each layer	Max. Number of Layers
Storage Pallet	1300	Barrier Panels/Dam Beams/ Logs	6	25



Description	Pallet Height [mm]	For	Post NO. Each layer	Max. Number of Layers
Storage Pallet	1300	Center Post	6	7

## 4. Equipment

### 4.1 Tools



System	Tool	Part	Application
NF-35	Ratchet ½"	Hexagon Socket SW 6mm	Expansion Bolt for Side Post
		Hexagon Socket SW 6mm	Side Fixing Bolt on Pressing Tool
		Hexagon Socket SW 6mm	Downwards Bolt on Pressing Tool
		Hexagon Socket SW 17mm	Fixing Bolt for Central Post
		Hexagon Socket SW 12mm	Protection Bolts for Anchor Plate



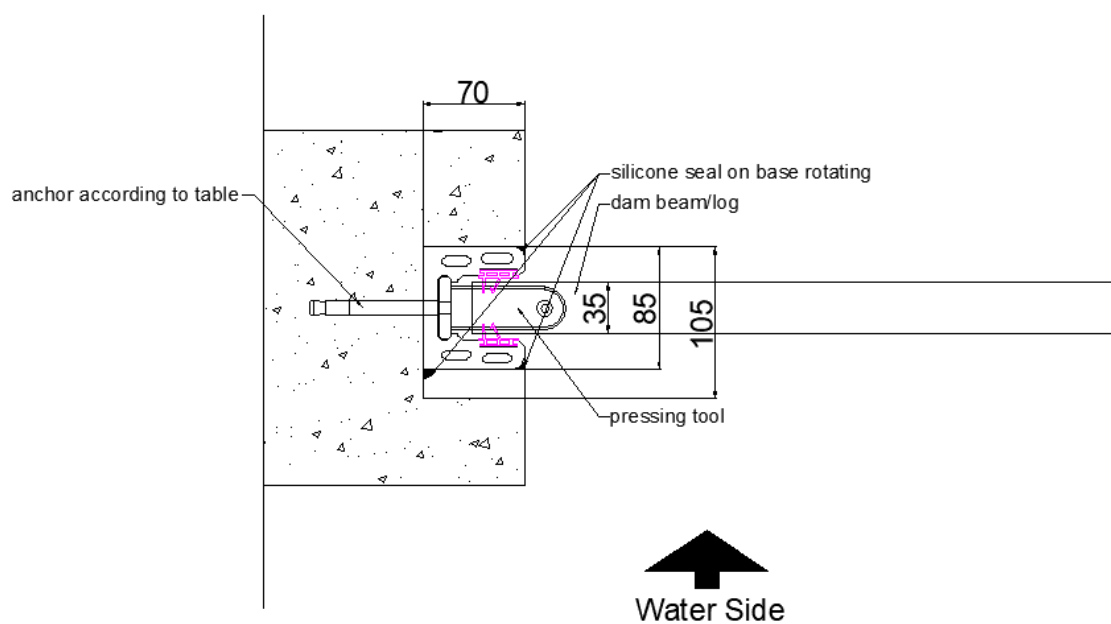
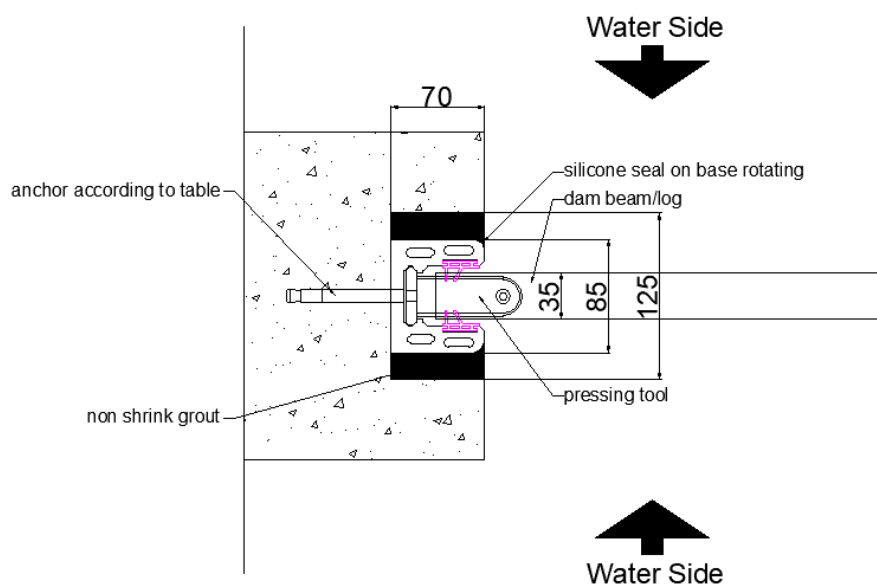
## 4.2 Extracting Tool

To extract the barrier during dismantlement



## 5. End Post - Mounting Types

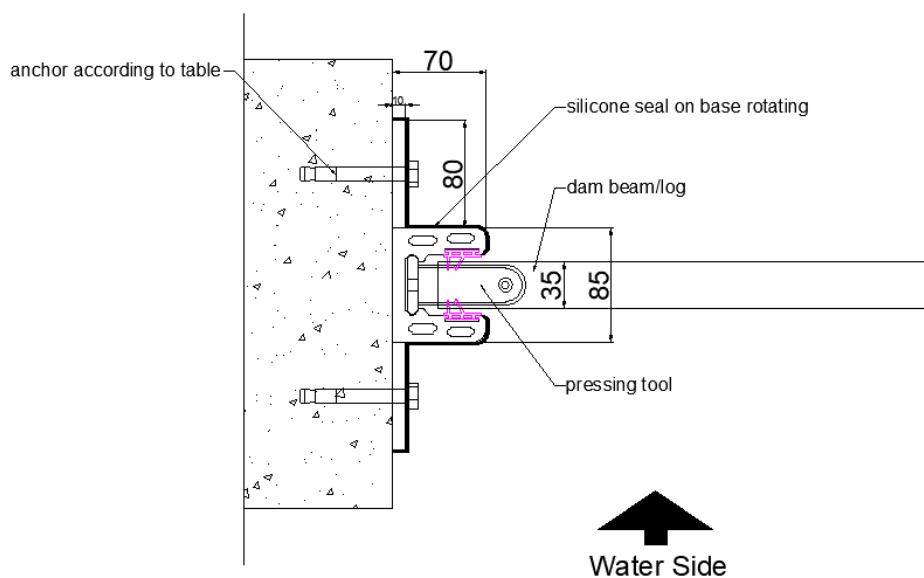
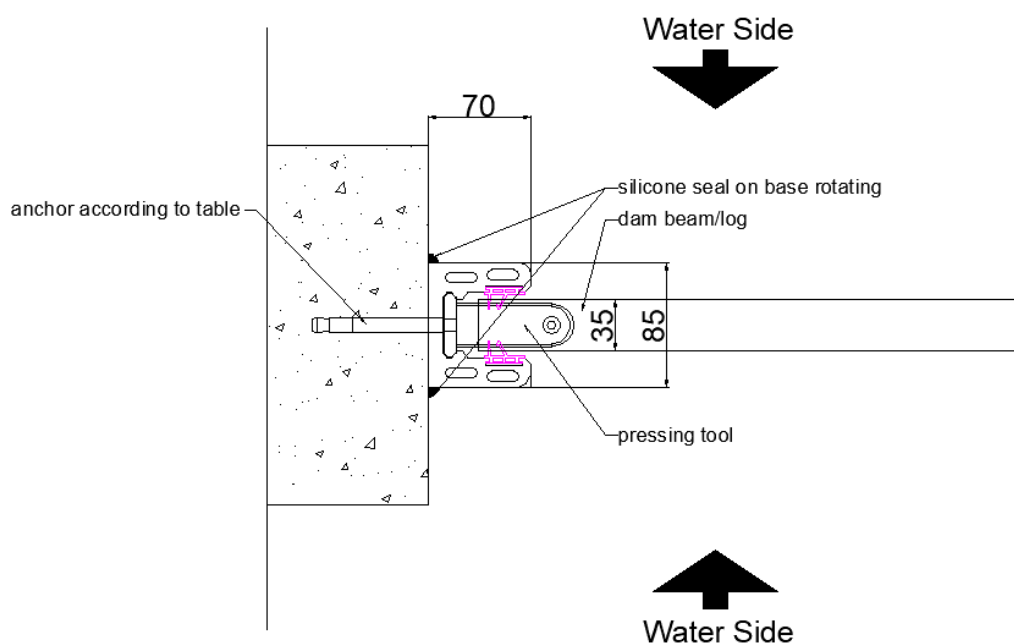
### 5.1 Mounting Types - In Recess/Slot on Wall



#### Mounting Tolerance:

- Frame Assembly
- In Axis + / - 3mm
- Vertically + / - 3mm
- Total max. 6mm

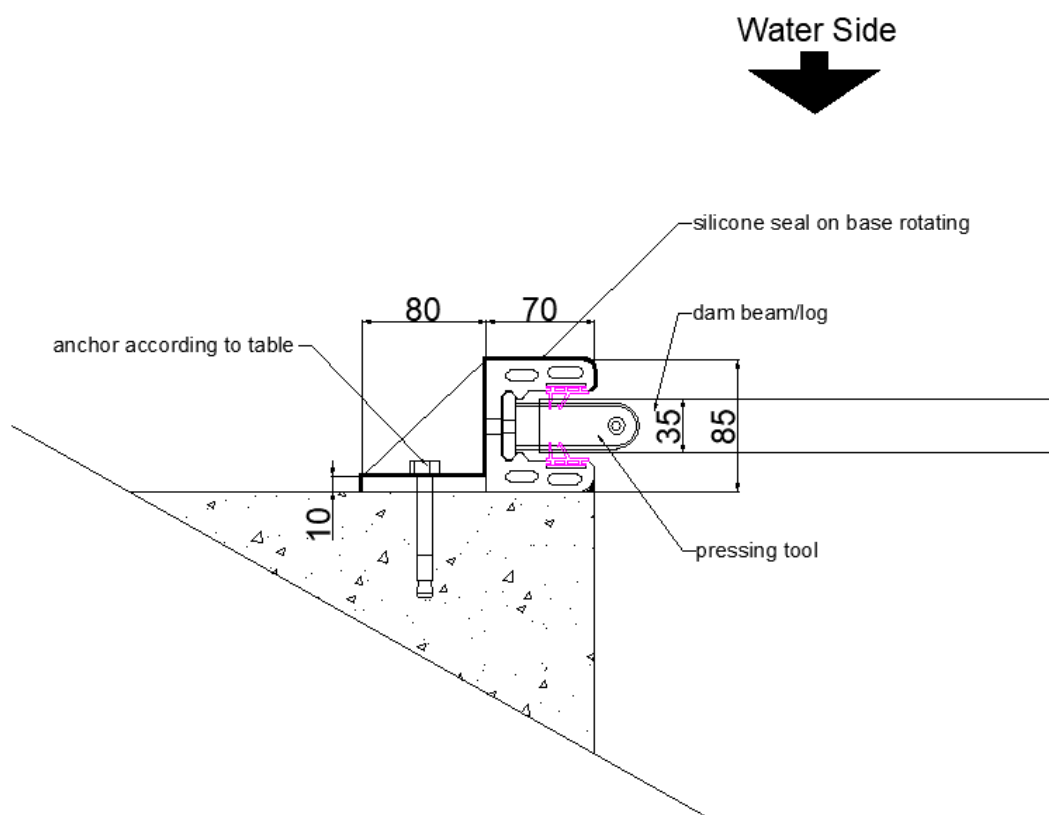
## 5.2 Mounting Types - Side Wall Mounted



### Mounting Tolerance:

- Frame Assembly
- In Axis + / - 3mm
- Vertically + / - 3mm
- Total max. 6mm

### 5.3 Mounting Types - Front Wall Mounted



#### Mounting Tolerance:

##### Frame Assembly

- In Axis + / - 3mm
- Vertically + / - 3mm
- Total max. 6mm

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