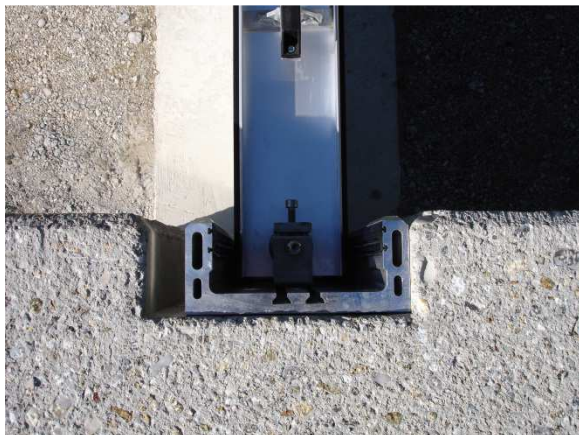


Product Catalogue

HW-B150H



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1 Coverage and Terminology

1.1 Design Standards

DIN 19704-1: 2012-05 Hydraulic steel structures Part 1: Criteria for design and calculation

DIN EN 1990: 2010-12 Eurocode: Basis of structural design

DIN EN 1991-1-1: 2010-12 Eurocode 1: Actions on structures Part 1-1: General actions – Densities, self-weight, imposed loads for buildings

DIN EN 1993-1-1: 2010-12 Eurocode 3: Design of steel structures Part 1-1: General rules and rules for buildings

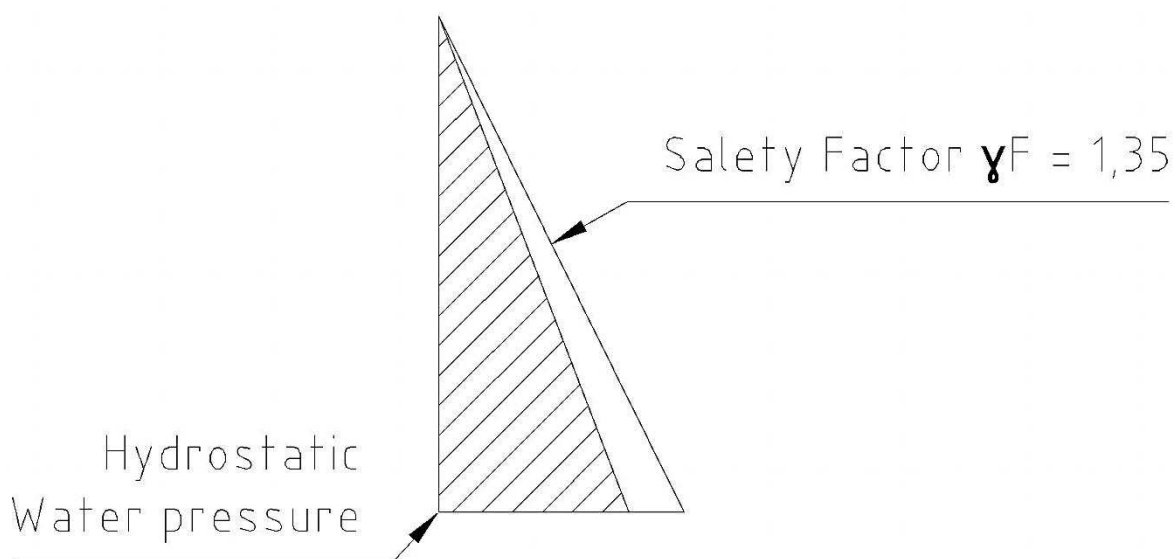
DIN EN1999-1-1: 2010-05: Eurocode 9: Design of aluminium structures Part 1-1: General structural rules

DIN 19569-4: 2000-11: Wastewater treatment plants – Principles for the design of structures and technical equipment

Part 4: Specific principles for shutoff devices as penstocks, sluice gates, stop logs etc.

Table 1 Leakage Rates for Systems out of dam beams / stop logs

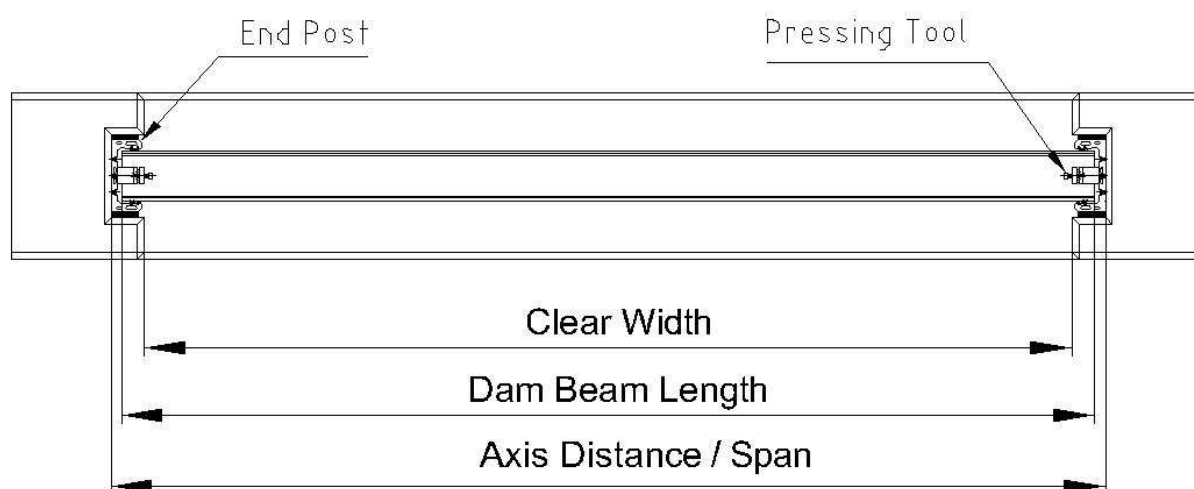
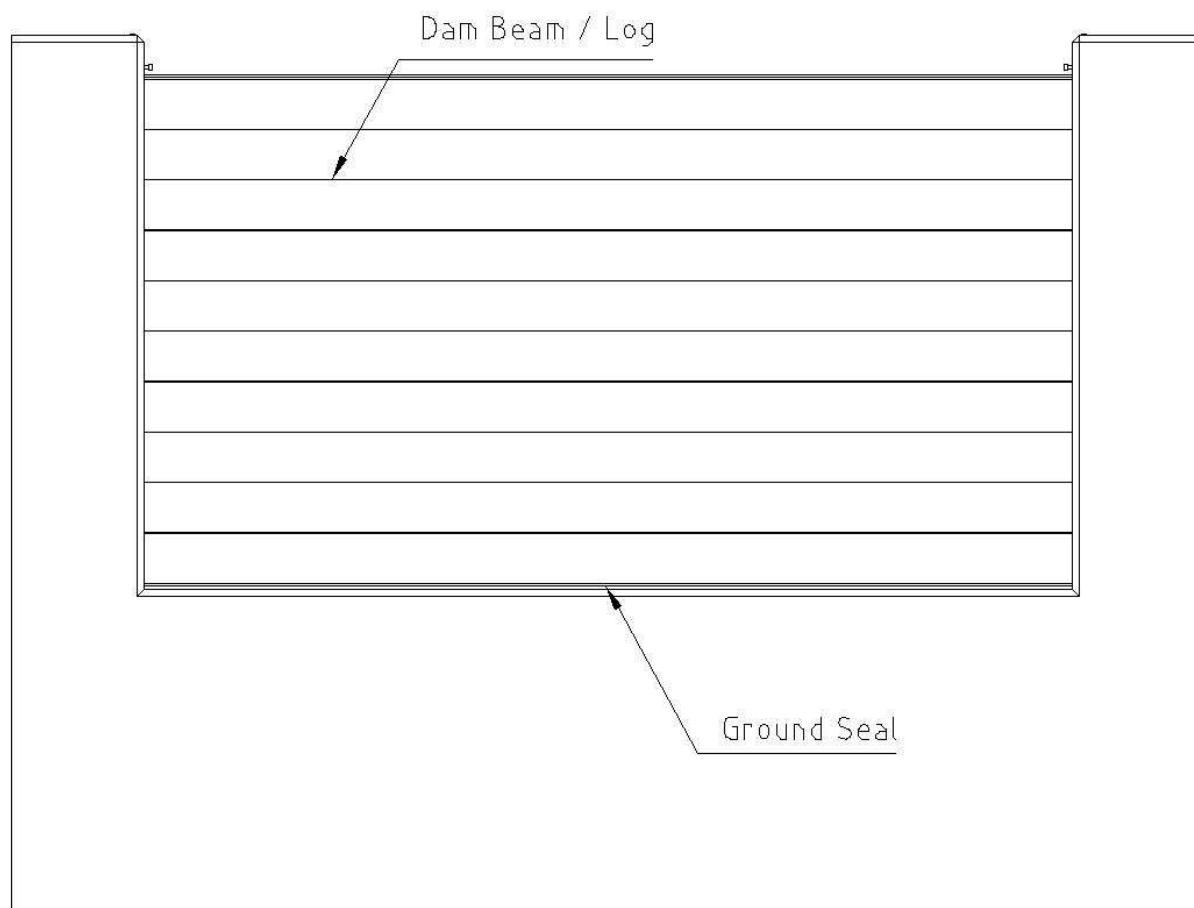
1.2 Load Criteria



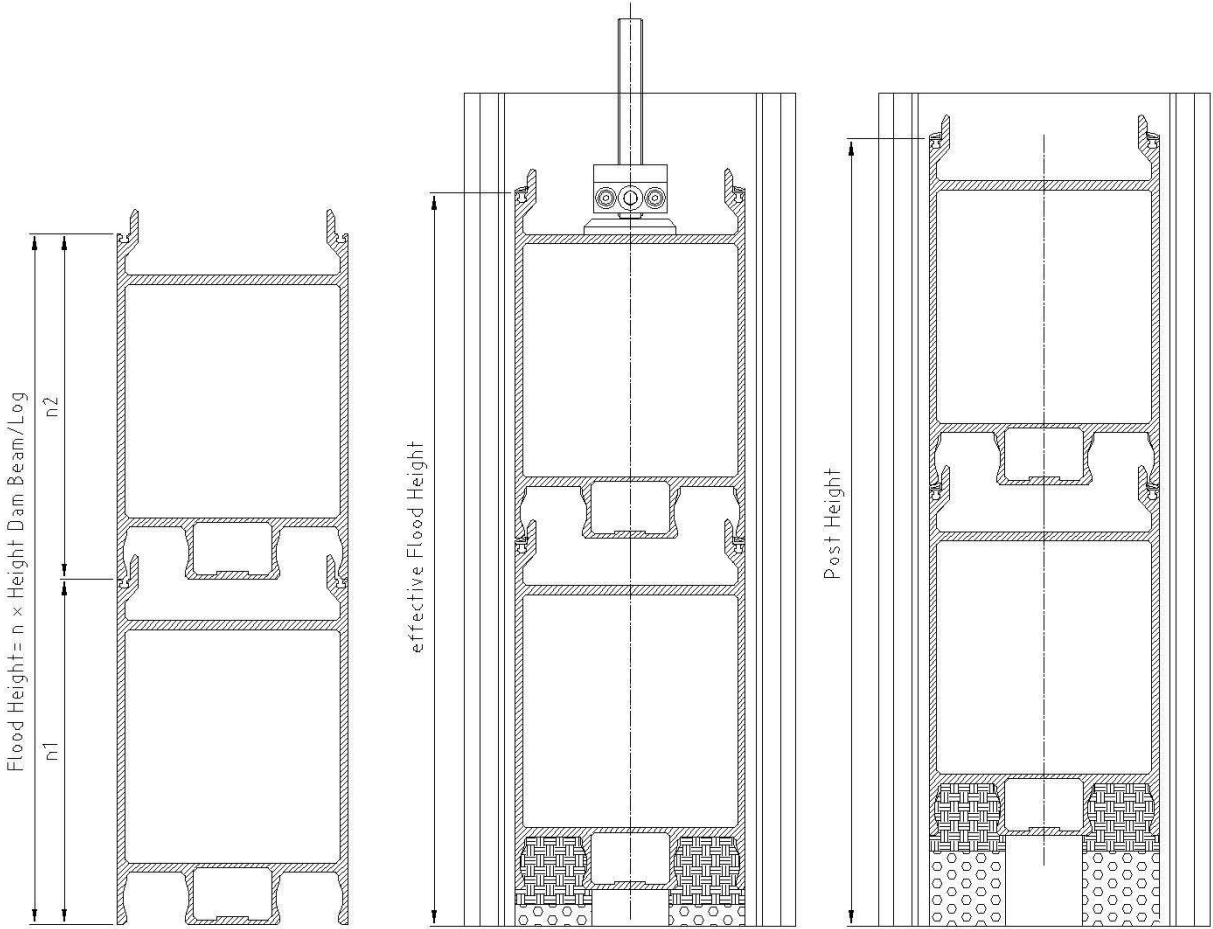
Specific Weight Water: 10kN/m³.

1.3 Definition of Terms

1.3.1 Flood Barrier HW-B150H



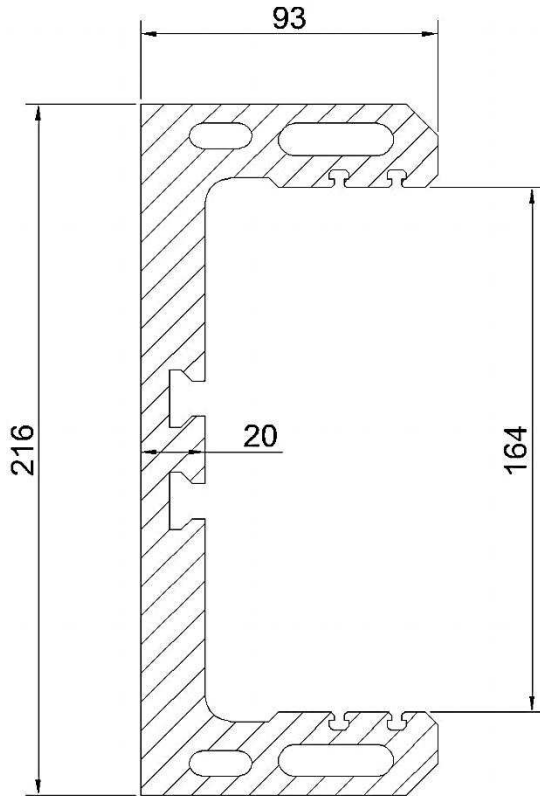
1.3.2 Flood Height, effective Flood Height, Post Height



DBAL150x225-5.0			
NUMBER OF DAM BEAMS/LOGS	FLOOD HEIGHT [MM]	EFFECTIVE FLOOD HEIGHT [MM]	POST HEIGHT [MM]
1	225	240	320
2	450	467	545
3	675	694	775
4	900	921	1005
5	1125	1148	1230
6	1350	1375	1560
7	1575	1602	1685
8	1800	1829	1915
9	2025	2056	2145
10	2250	2283	2370
11	2475	2510	2600
12	2700	2737	2825
13	2925	2964	3055
14	3150	3191	3285
15	3375	3418	3510
16	3600	3645	3740
17	3825	3872	3965
18	4050	4099	4195
19	4275	4326	4425
20	4500	4553	4650

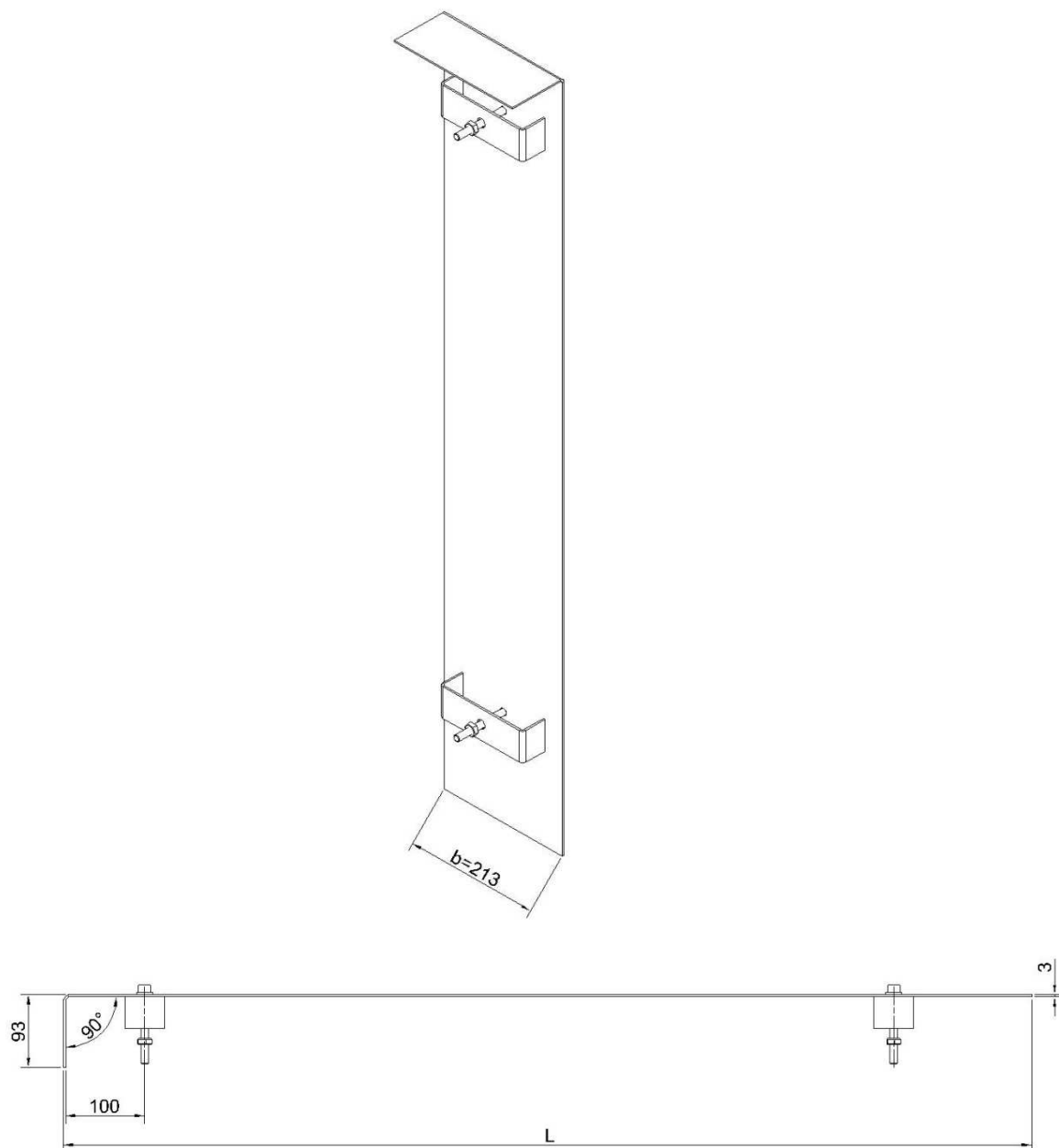
2 System Components

2.1 End Post E150H



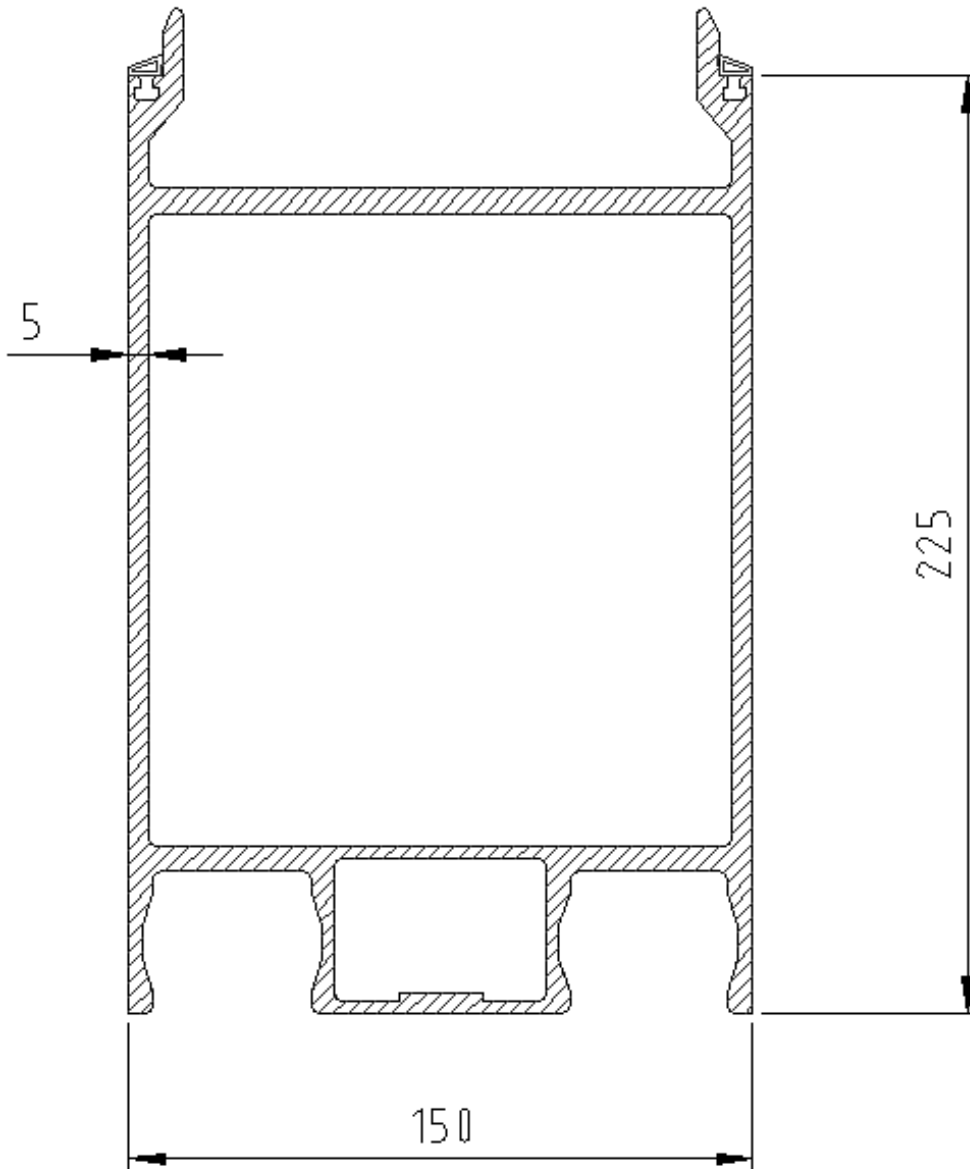
PROFILE CHARACTERISTICS		
Height	mm	216
Width	mm	93
Thickness	mm	20
Cross-sectional area	cm ²	65,29
Weight per linear m	kg/m	17,6
Material	-	EN AW-6063-T66
Moment of inertia	cm ⁴	3948
Modulus of elasticity E	N/mm ²	70.000

2.2 Cover for End Post AD150H



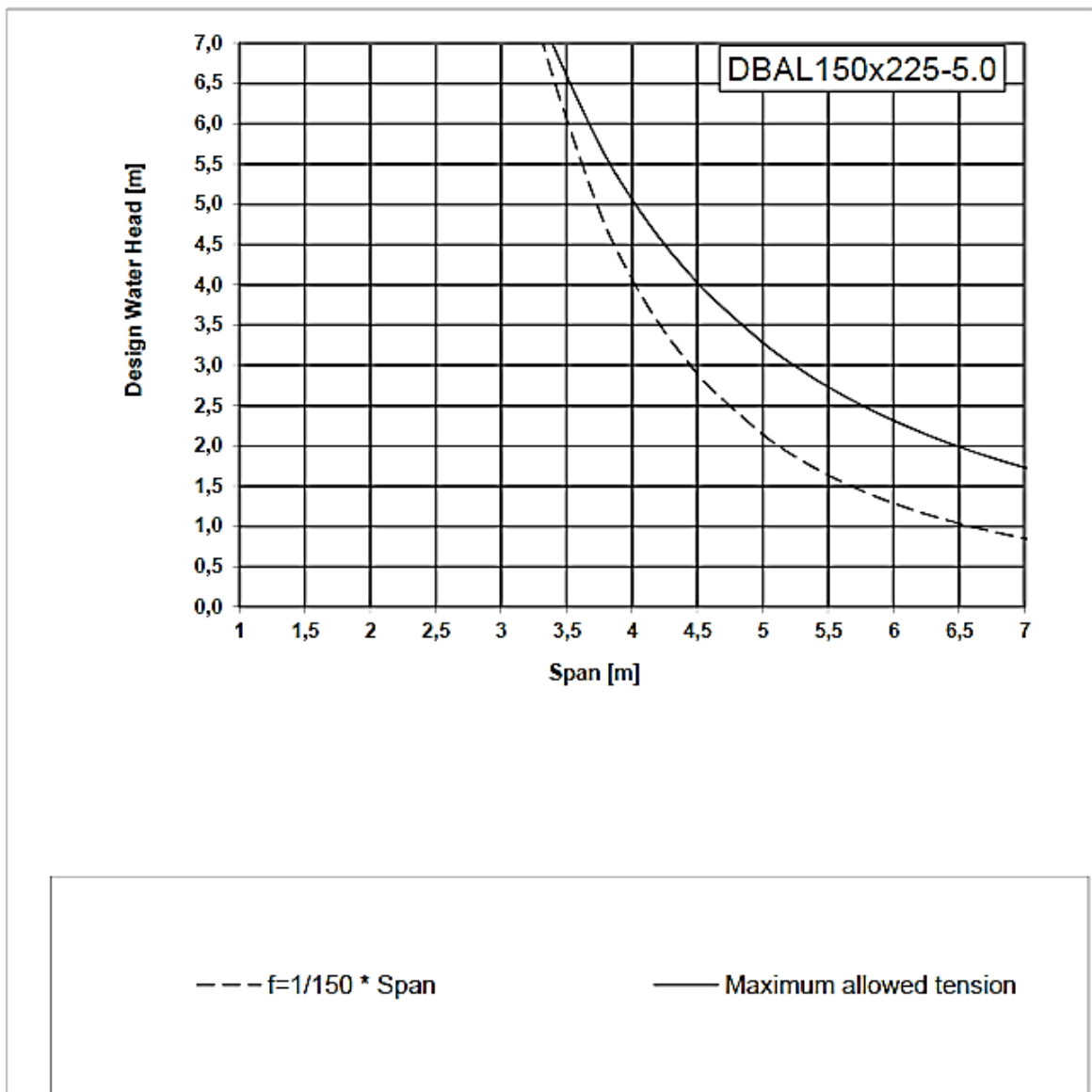
LEGEND	
L	Cover Length
b	Cover Width [mm]
Material	Stainless Steel, Grade: SS 304

2.3 Dam Beam/Logs
 DBAL150x225-5.0



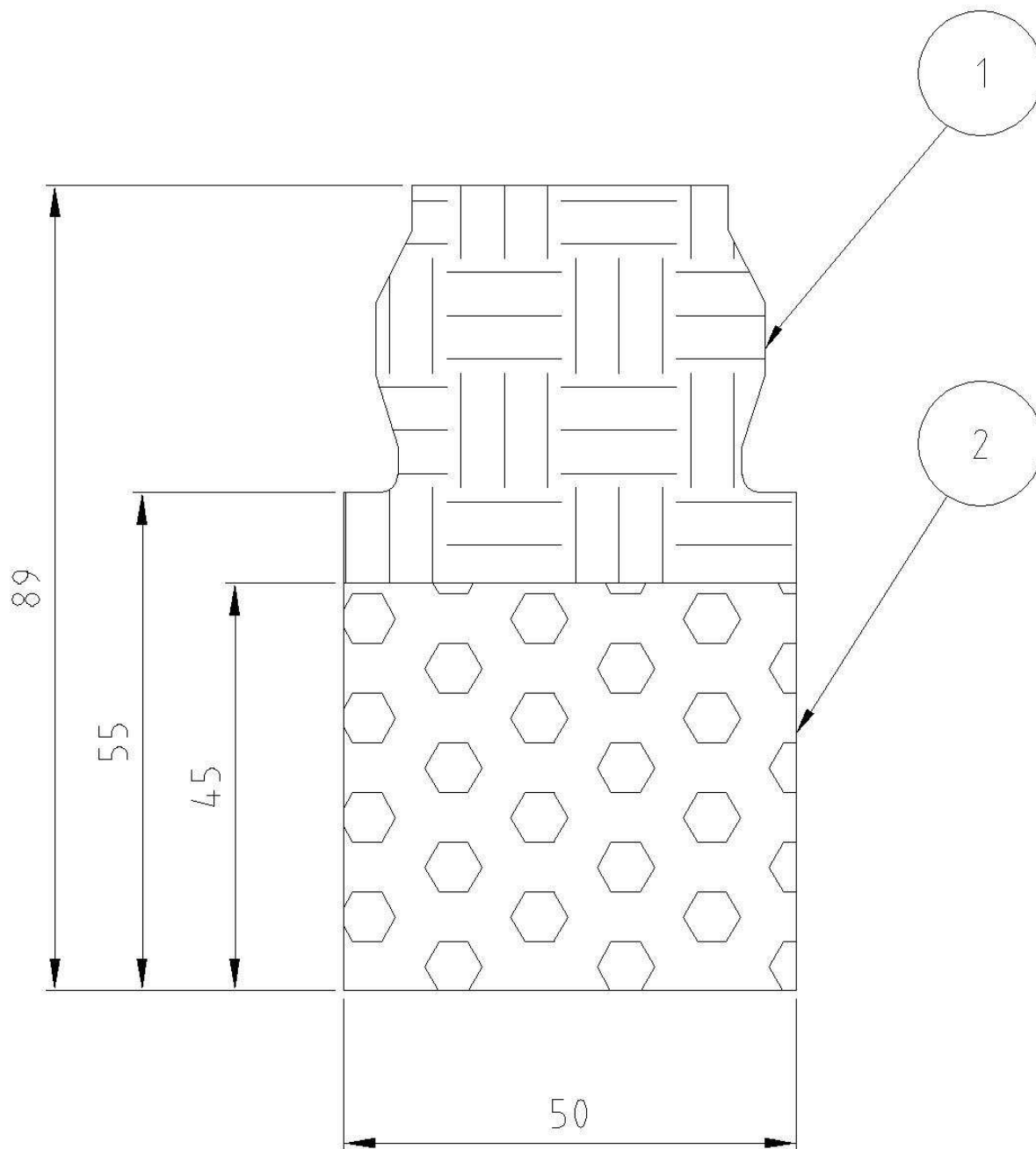
PROFILE CHARACTERISTICS		
Height	mm	225
Width	mm	150
Thickness	mm	5
Cross-sectional area	cm ²	45,4
Weight per linear m	kg/m	12,3
Material	-	EN AW-6063-T66
Moment of inertia	cm ⁴	1592
Modulus of elasticity E	N/mm ²	70.000

Deflection Graph DBAL150x225-5.0



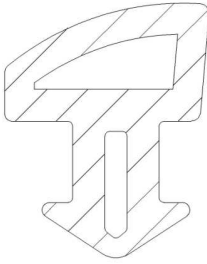
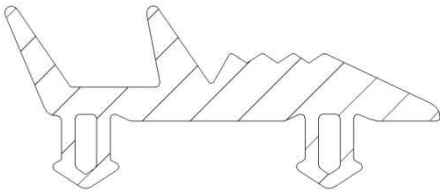
2.4 Seals

2.4.1 Ground Seal BD50_PE/PU



LEGEND	
Material Pos 1	PE (Polyethylene)
Material Pos 2	PU (Polyurethane)
Weight per linear m	0,412 kg/m

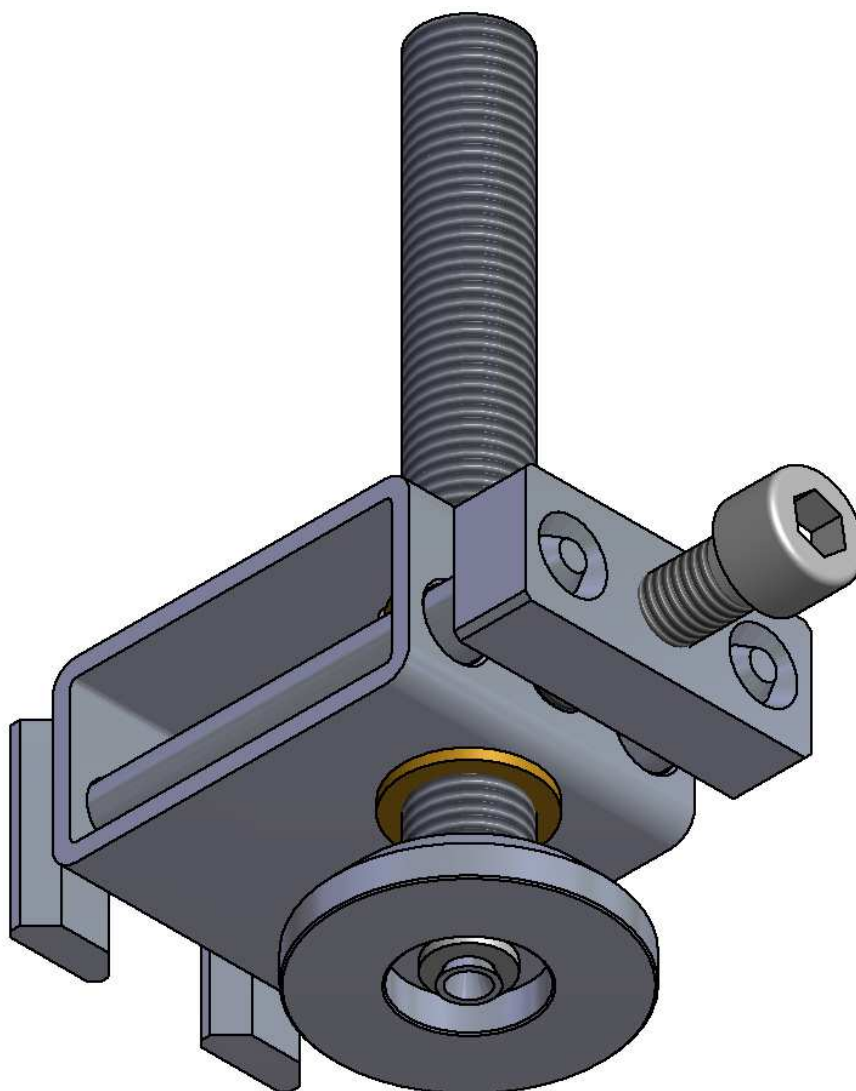
2.4.2 Dam Beams/Logs, End Posts

<p>Dam Beam / Log Clamping Seal</p>	
<p>Post Seal</p>	

<p>LEGEND</p>	
<p>Material</p>	<p>Ethylene Propylene Diene Monomer rubber (EPDM)</p>

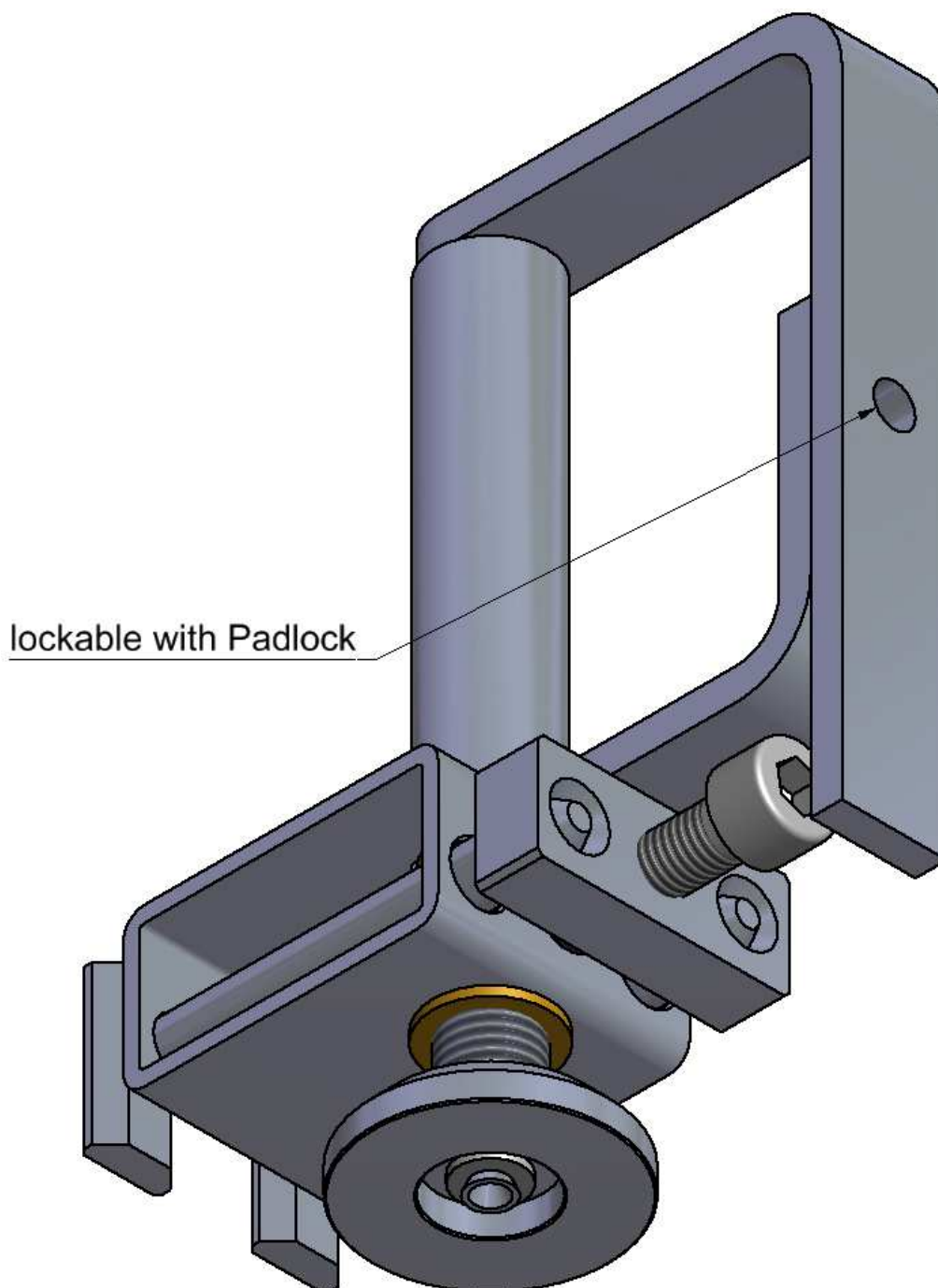
2.5 Pressing Tool

2.5.1 VS100L



LEGEND	
Material	Stainless Steel, Grade.: SS 304
Incl. Brass bush to prevent cold welds at moving parts	

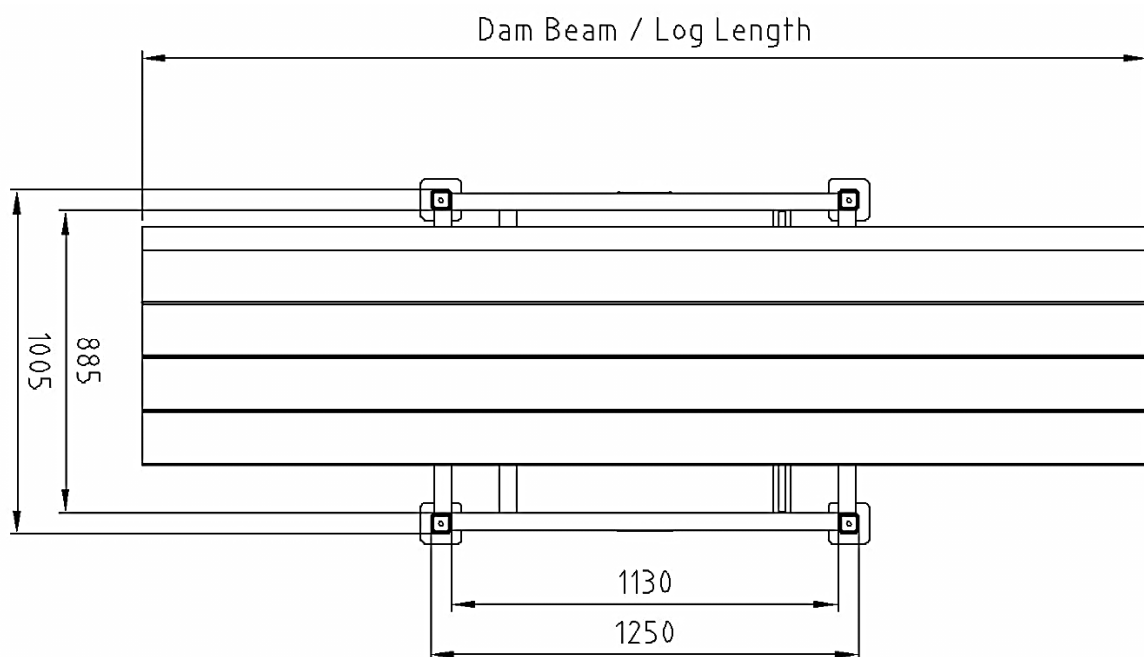
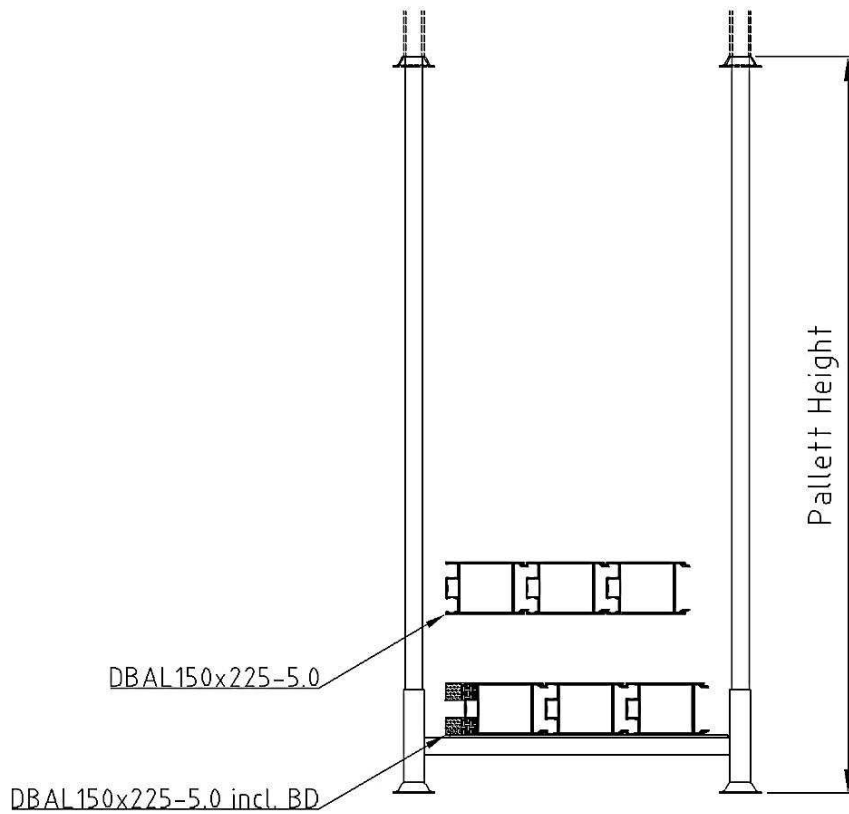
2.5.2 VS100L lockable



LEGEND	
Material	Stainless Steel, Grade.: SS 304
Incl. Brass bush to prevent cold welds at moving parts	

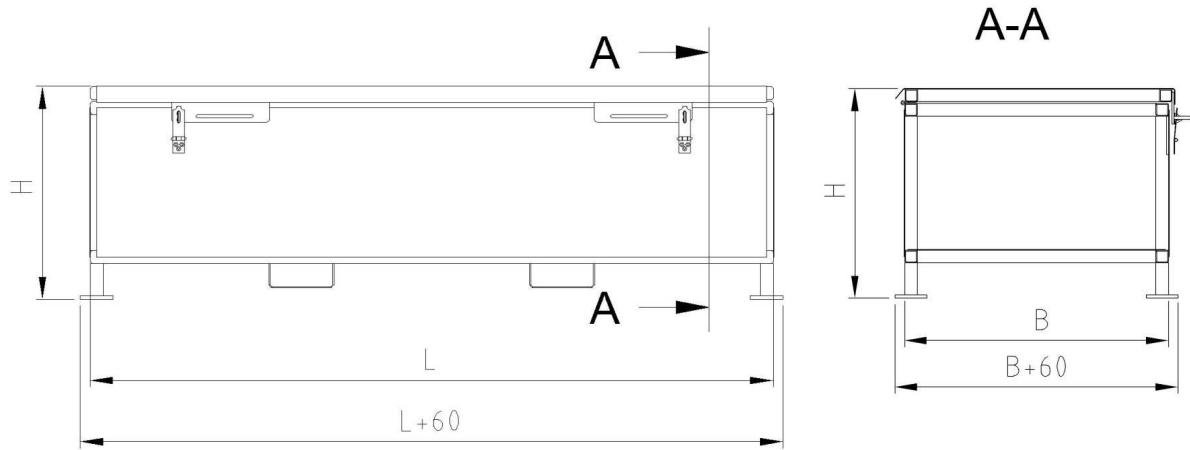
3 Storage

3.1 Dam Beam/Log Pallet Dam Beams/Logs



Description	Pallet Height [mm]	Dam Beam/Log	Max. Number of Layers	Number DB/Layer	
				Without BD50H	With BD50H
LT-P02-DB-800	835	DBAL150x225-5.0	3	3	3
LT-P02-DB-1400	1435	DBAL150x225-5.0	7	3	3
LT-P02-DB-2100	2135	DBAL150x225-5.0	12	3	3

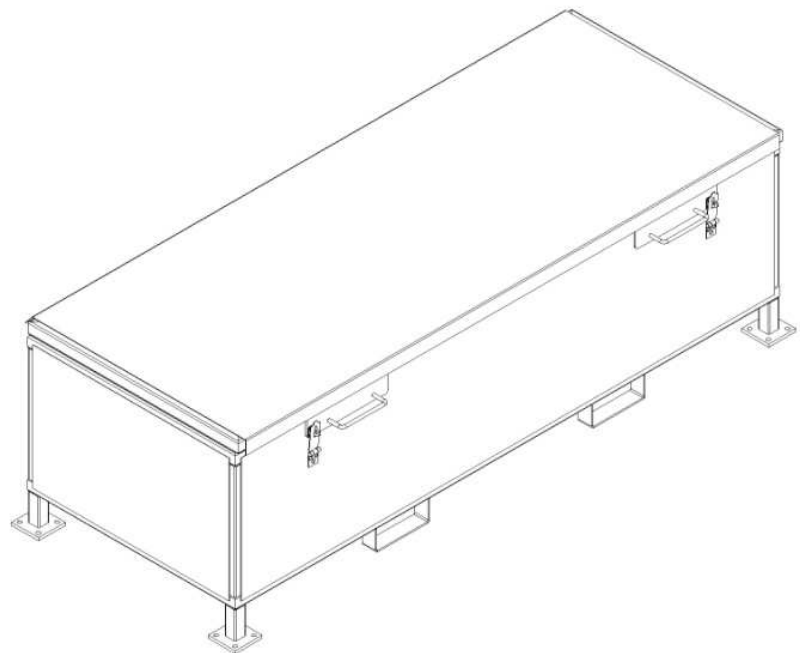
3.2 Storage Box-LK



Standard Dimensions
B x H: 830mm x 660mm

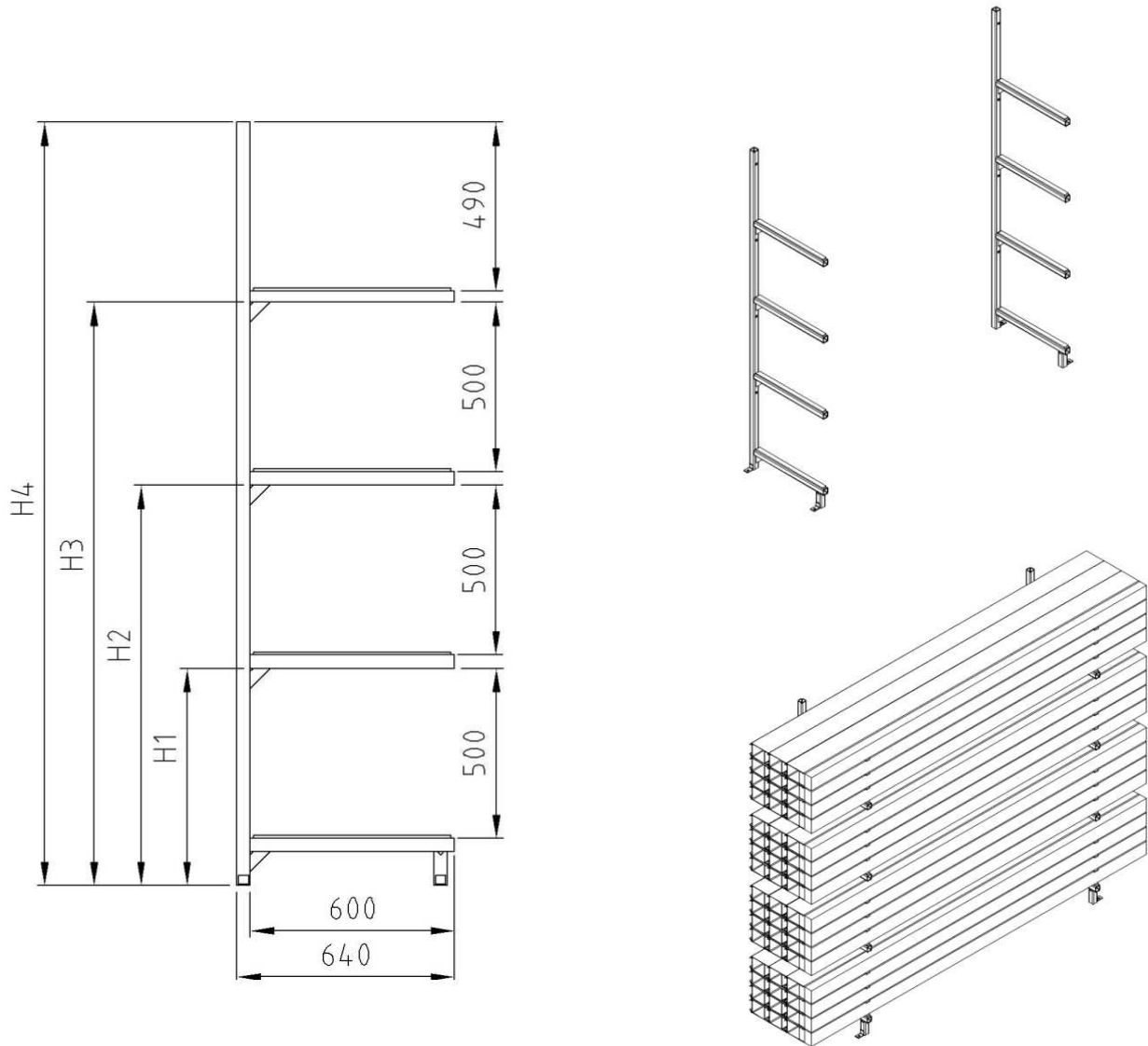
in three different lengths
L: 2.500mm / 3.000mm / 4.000mm

Material:
Subconstruction S235 fv
Planking aluminium sheet d=2mm



Dam Beam	Max. Number Layer	Number DB/Layer	
		Without BD 50H	With BD 50H
DBAL150x225-5.0	3	3	3

3.3 Storage Rack for Dam Beams/Logs-LR



Standard Dimensions: H1: 640mm; H2: 1180mm; H3: 1720mm; H4: 2250mm

Material: tubular construction S235 hot galvanized

Capacity per shelf (600mm x 500mm):

Dam Beam	Max. Number Layer	Number DB/Layer	
		Without BD 50H	With BD 50H
DBAL150x225-5.0	3	2	2

3.4 Storage Box

3.4.1 Alu-Box 47 Liters



Description:

- Material thickness 1,0 mm.
- Reinforced edge profile.
- High stability
- Low dead weight.
- Safe and space-saving storage through four stacking edges possible.
- Revolving rubber seal protects against environmental influences like splashing water, dust and unpleasant smells.
- Synthetically covered self fold up safety handles.
- Integrated wrist strap.
- Stainless, weatherproof and temperature-resistant.

Dimensions	
Width outside	582 mm
Height outside	277 mm
Depth outside	385 mm
Width inside	550 mm
Height inside	245 mm
Depth inside	350 mm
Weight	4,5 kg
Volume	47 l

3.4.2 Alu-Box 76 Liters



Description:

- Material thickness 1,0 mm.
- Reinforced edge profile.
- High stability
- Low dead weight.
- Safe and space-saving storage through four stacking edges possible.
- Revolving rubber seal protects against environmental influences like splashing water, dust and unpleasant smells.
- Synthetically covered self fold up safety handles.
- Integrated wrist strap.
- Stainless, weatherproof and temperature-resistant.

Dimensions	
Width outside	592 mm
Height outside	409 mm
Depth outside	388 mm
Width inside	560 mm
Height inside	380 mm
Depth inside	353 mm
Weight	5,3 kg
Volume	76 l

3.4.3 Alu-Box 91 Liters



Description:

- Material thickness 1,0 mm.
- Reinforced edge profile.
- High stability
- Low dead weight.
- Safe and space-saving storage through four stacking edges possible.
- Revolving rubber seal protects against environmental influences like splashing water, dust and unpleasant smells.
- Synthetically covered self fold up safety handles.
- Integrated wrist strap.
- Stainless, weatherproof and temperature-resistant.

Dimensions	
Width outside	782 mm
Height outside	379 mm
Depth outside	385 mm
Width inside	750 mm
Height inside	350 mm
Depth inside	350 mm
Weight	6,1 kg
Volume	91 l

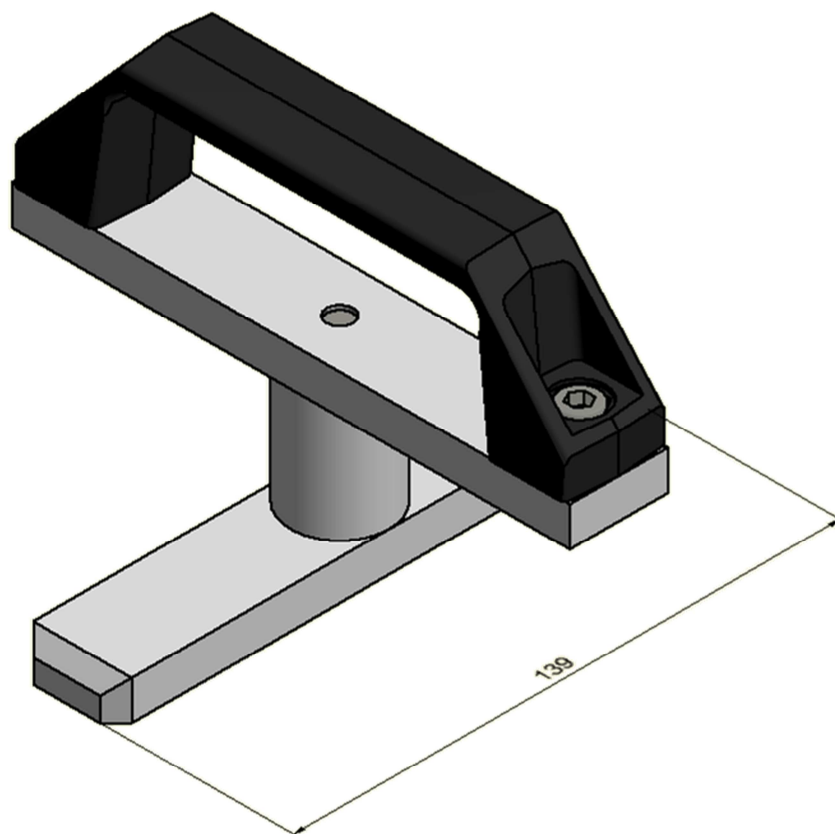
3.5 Equipment

3.5.1 Tools



System	Anwendung	Werkzeug	
HW-W150H	Pressing Tool	Ratchet 1/2"	Hexagon Secket SW 8mm
HW-W150H	Cover	Ratchet 1/2"	Hexagon Secket SW 8mm

3.5.2 Extracting Tool

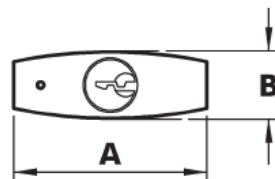
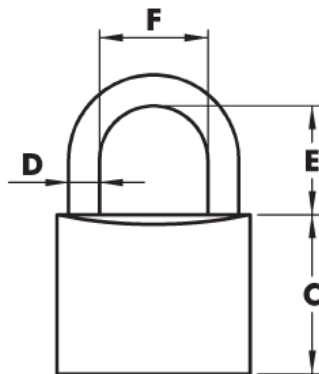


AW150-139

Tool	Usage
AW150-139	Dam Beam DBAL 150x225-5.0

3.5.3 Padlock

Mango 30GS W1-30, corresponding with IBS Pressing Tool lockable, Alu-Box, Storage Box



Dimensions:

A	30	mm
B	12,8	mm
C	28,5	mm
D	5	mm
E	17,0	mm
F	16,0	mm



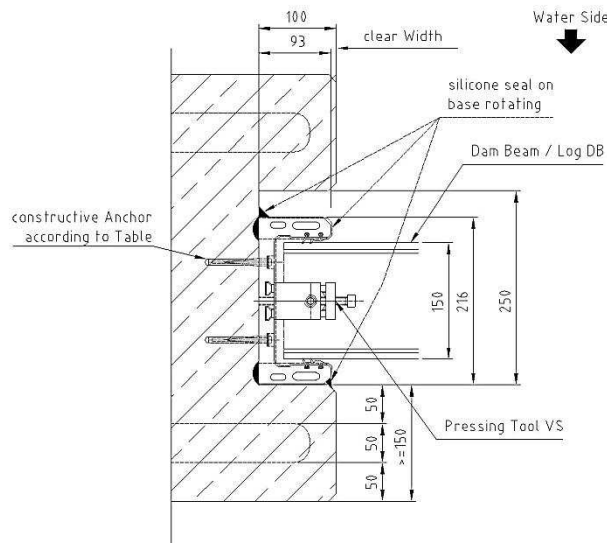
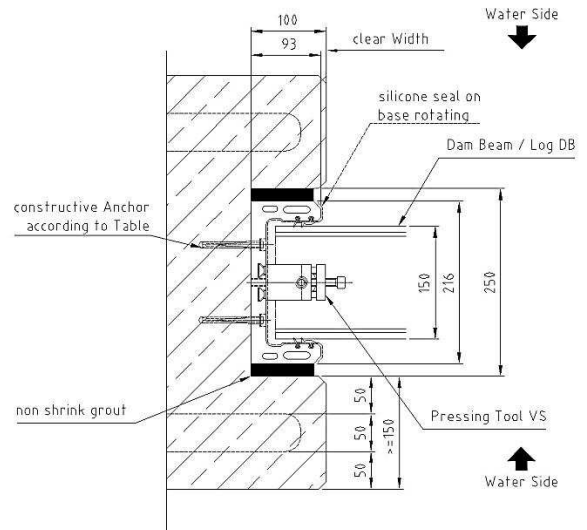
Description:

- Keyed alike
- Material: Casing: brass massive, Inside stainless
Bail: steel hardened, chromed
Key: brass nickel plated
- Scope of Supply: 2 keys per lock

4 End Post – Mounting Types

4.1 Mounting Types in Recess and First Concrete

4.1.1 Type 1 in Rebate – E150H T01-Post Height



Mounting Tolerance:

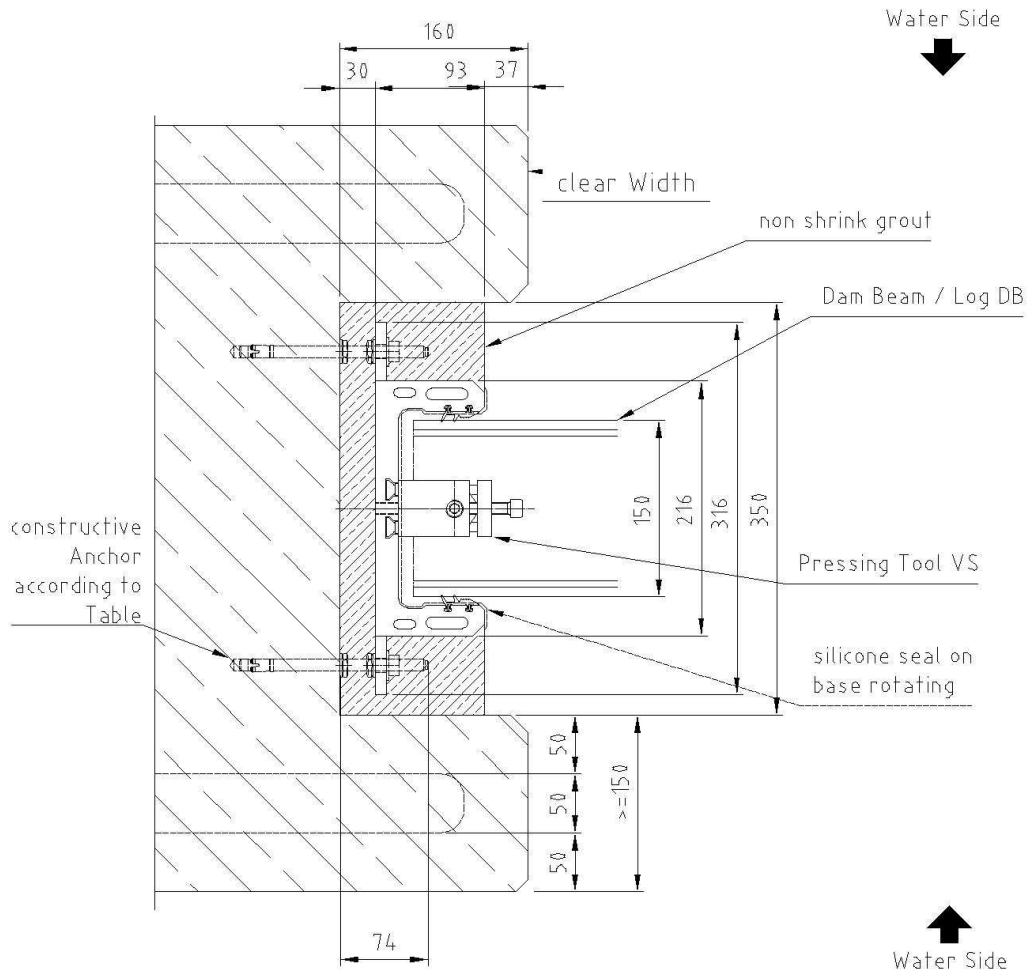
Frame Assembly

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

Dimensioning

Wall	Area	Height	Width	Anchorage
Concrete	As per Dam Beam/Log Deflection Graph			Fischer SX 8 x65, Screw DIN 571 M5 x 60 SS 304, washer DIN 90215.3 SS304

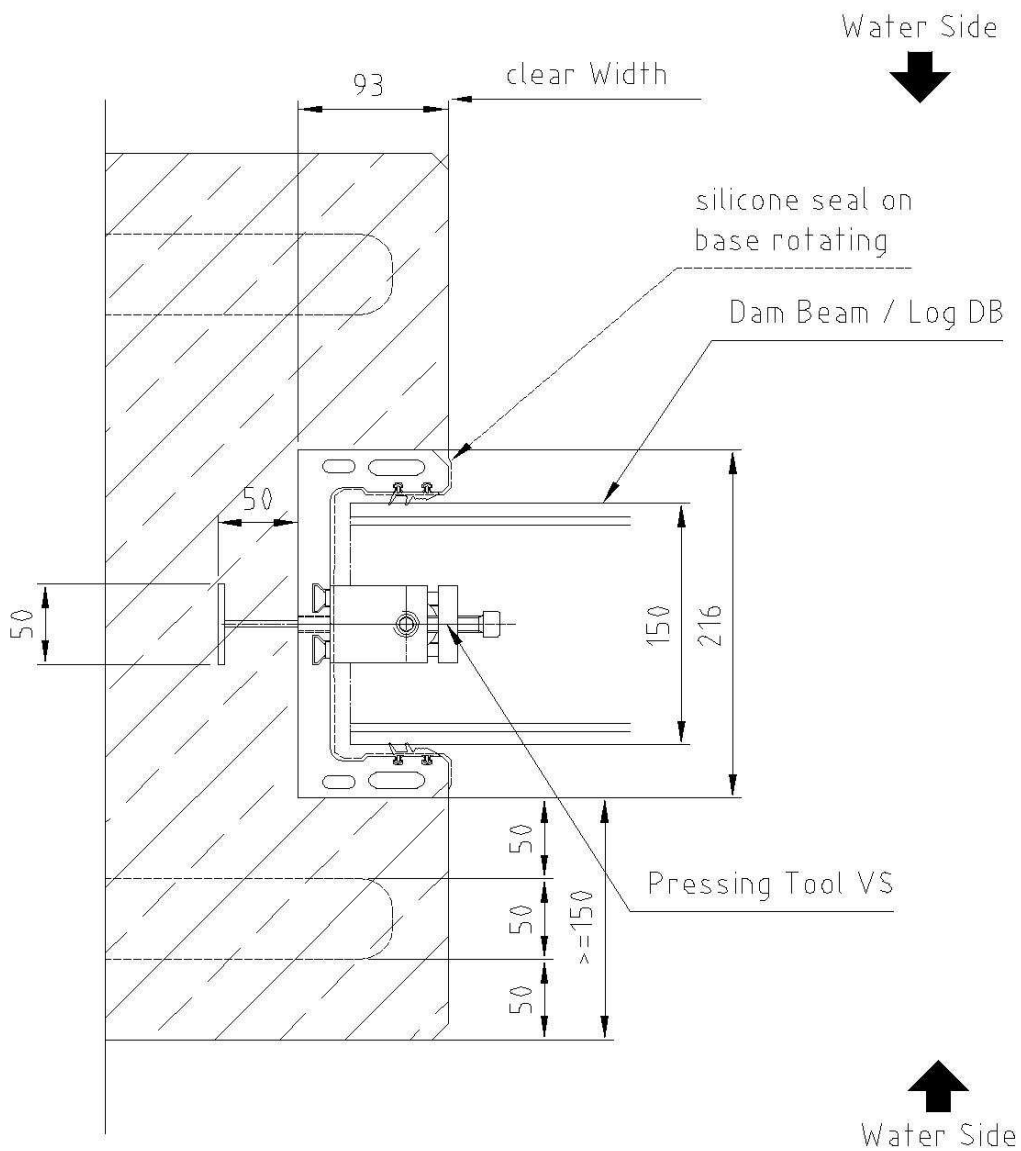
4.1.2 Type 4 in Rebate (End Post > 2,5m) – E150H T04-Post Height



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

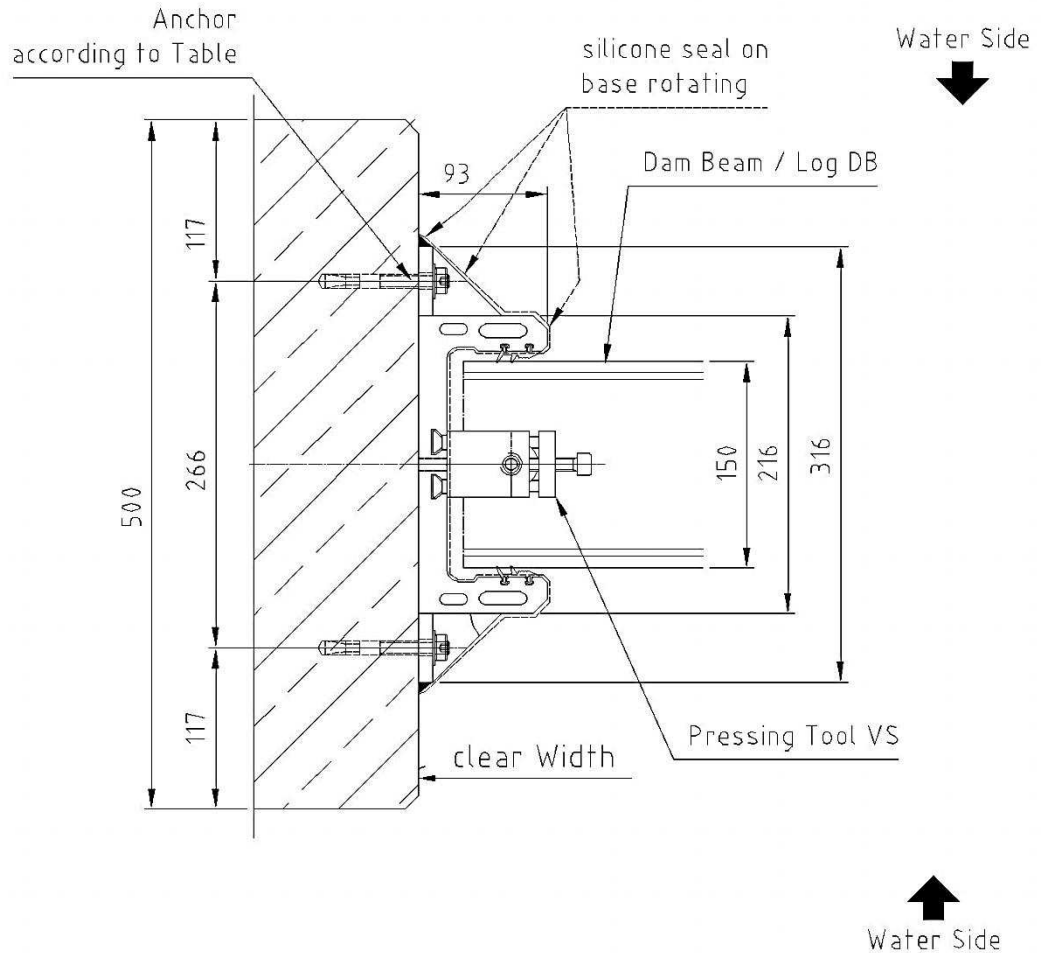
Dimensioning				
Wall	Area	Height	Width	Anchorage
Concrete	As per Dam Beam/Log Deflection Graph			HST M10x160/80
Full Brick				HIT-V M10x190, fast curing mortar HFX, nut DIN 439 M10 8.8 g.v., washer DIN 125 A10.5 g.v.
Perforated Brick				HIT-V M10x190, fast curing mortar HFX, nut DIN 439 M10 8.8 g.v., screen tube HIT SC 16x85, washer DIN 125 A10.5 g.v.

4.1.3 Type 6 in Concrete – E150H T06-Post Height



Mounting Tolerance:	Dimensioning			
Frame Assembly	Wall	Area	Height	Width
- In Axis +/- 3mm	Concrete	As per Dam Beam/Log Deflection Graph		
- Vertically +/- 3mm				
- Total max. 6mm				

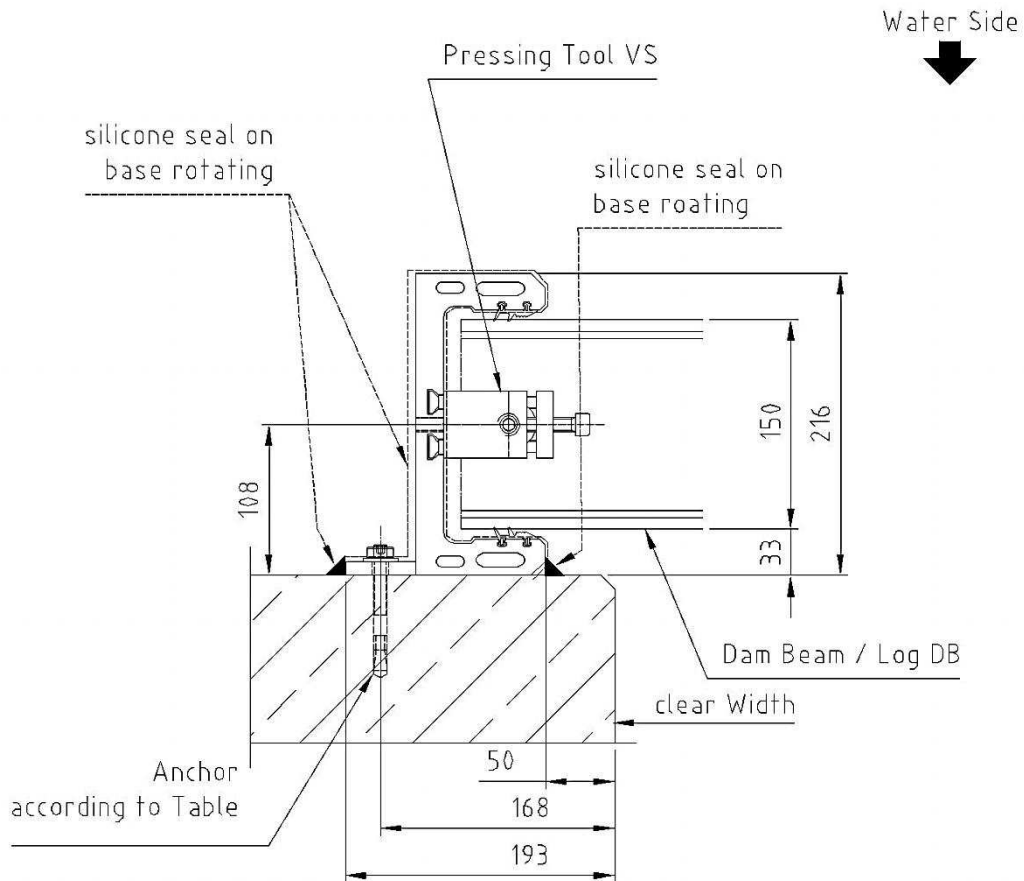
4.2 Mounting Types – Side Wall Mounted
Type 3 side wall mounted – E150H T03-Post Height



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

Dimensioning				
Wall	Area	Height	Width	Anchorage
Concrete	5-7 m ²	Max 2m	Max 4m	HILTI HST-R M10x90/10
Full Brick	4-5 m ²			Anchor HIT-VR M10x95, fast curing mortar HFX
Perforated Brick	3-4 m ²			Anchor HIT-VR M10x95, fast curing mortar HFX, screen tube HIT-SC 16x85

4.3 Mounting Types Wall mounted on-seating
Type 2 wall mounted off seating – E150H T02-R / L – Post Height



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

Dimensioning				
Wall	Area	Height	Width	Anchorage
Concrete	As per Dam Beam/Log Deflection Graph			HST-R M10x90/10
Full Brick				Anchor HIT-VR M10x95, fast curing mortar HFX
Perforated Brick				Anchor HIT-VR M10x95, fast curing mortar HFX, screen tube HIT-SC 16x85

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