

System tk 50

Aluminum stop log system



thyssenkrupp

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Flood protection: Urgent need for action.

People have settled near rivers and coasts for thousands of years. Over the past few centuries river courses have been straightened and constricted, flood plains reclaimed and built on, and forests cut down. The consequences of these human interventions are climate change and an increasing number of environmental disasters. Floods, formerly once-in-a-century events, are occurring more and more frequently.

Experts are agreed that urgent action is needed: flood damage already tops the European loss statistics. Some of the losses are foreseeable and can be prevented by flood protection measures matched to local requirements. Flood protection and prevention are therefore among the most urgent tasks facing the local communities concerned.

End-to-end competence.

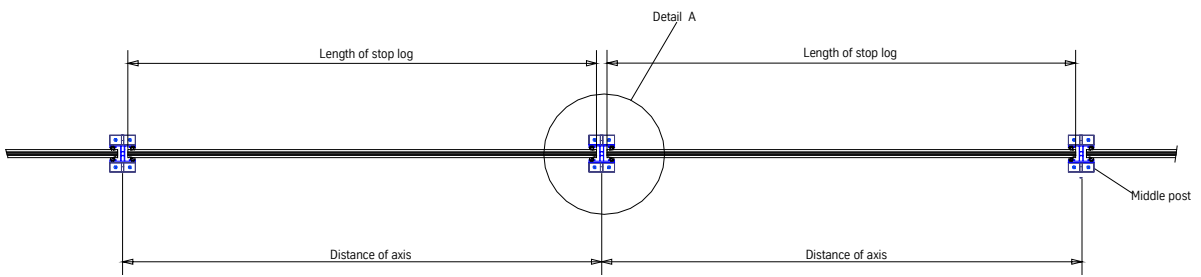
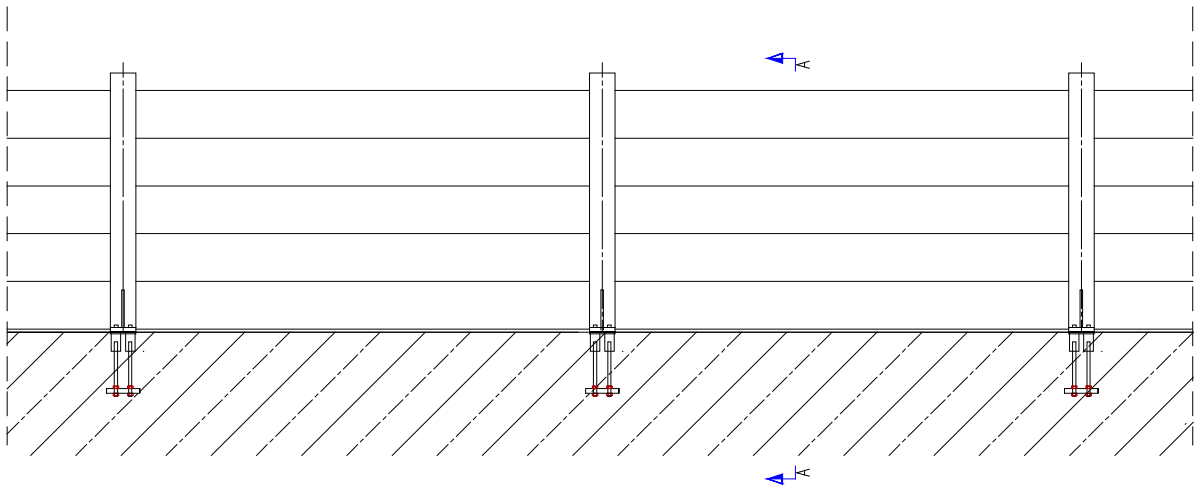
thyssenkrupp Infrastructure is a world-renowned supplier of flood protection equipment. We offer a broad spectrum of high-quality products and diverse technical services in hydraulic engineering and water management.

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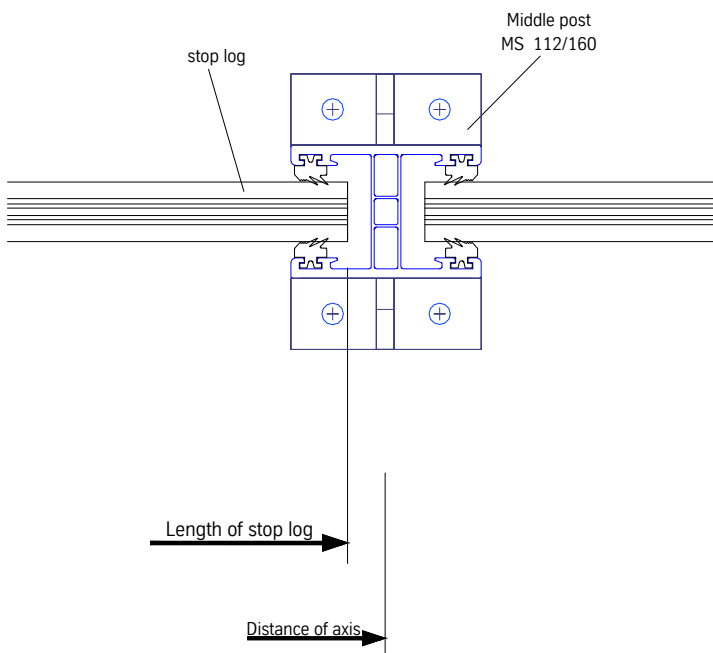
Technical handbook for mobile flood protection system tk 50

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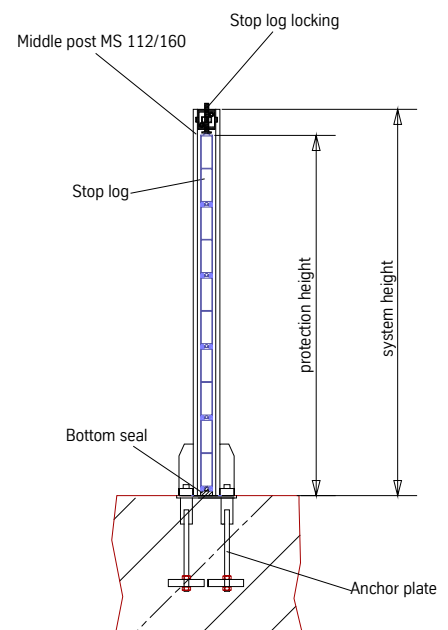
Flood protection wall



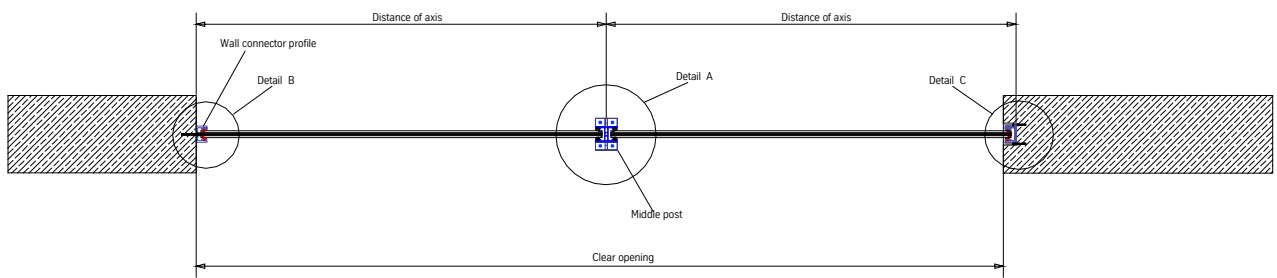
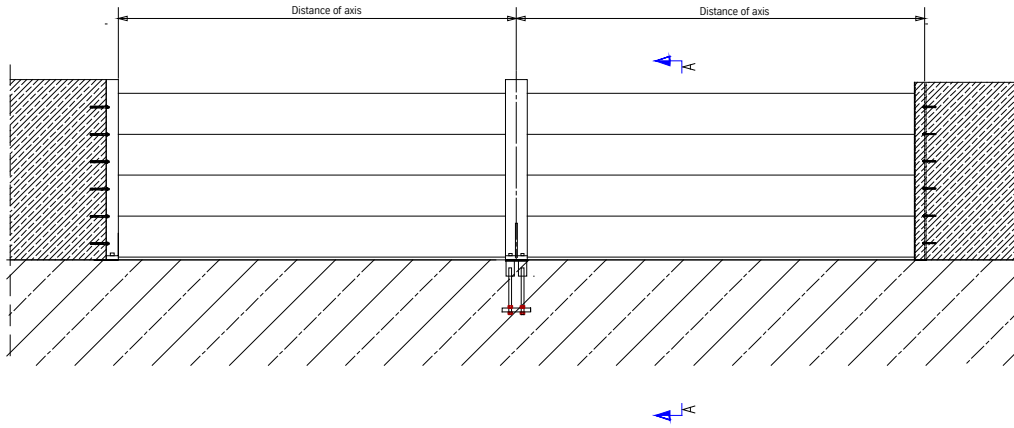
Detail A



Section A-A



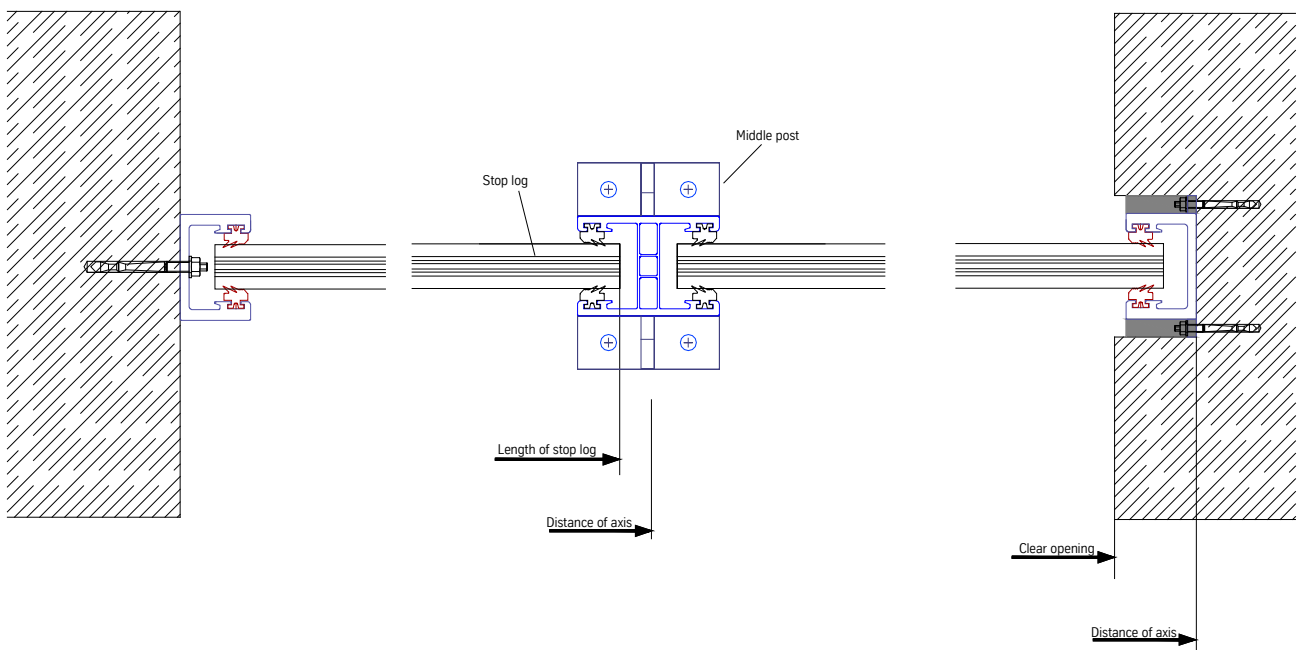
Flood protection wall



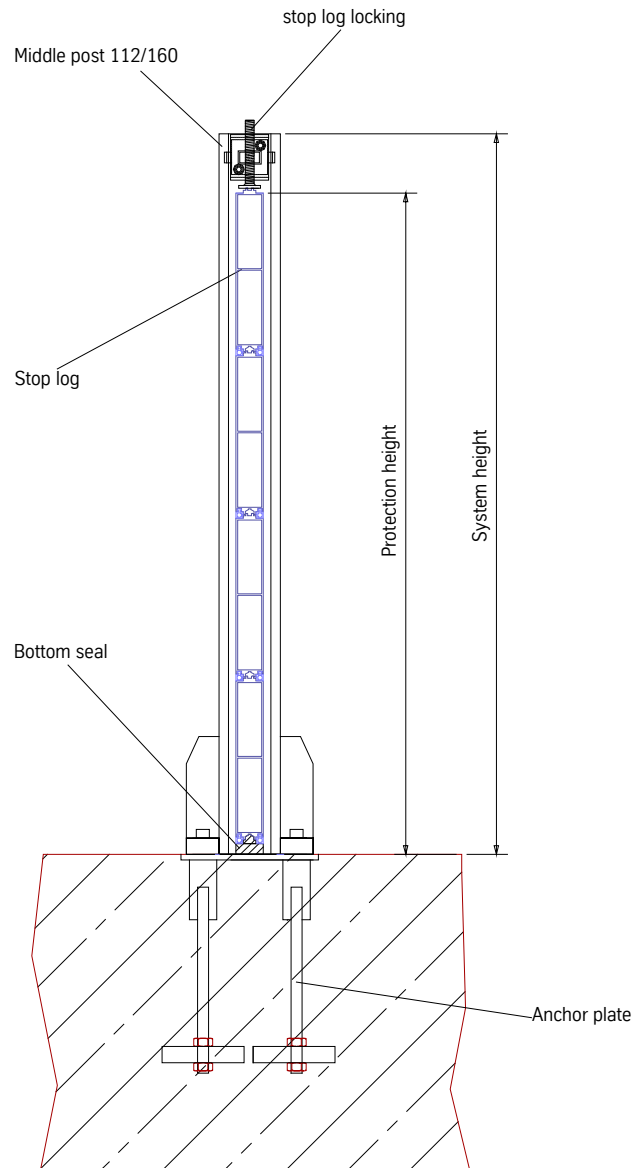
Detail B

Detail A

Detail C

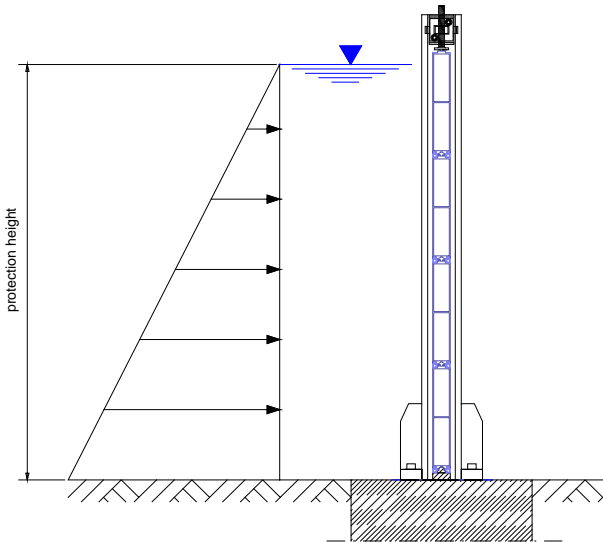


Cross section A-A



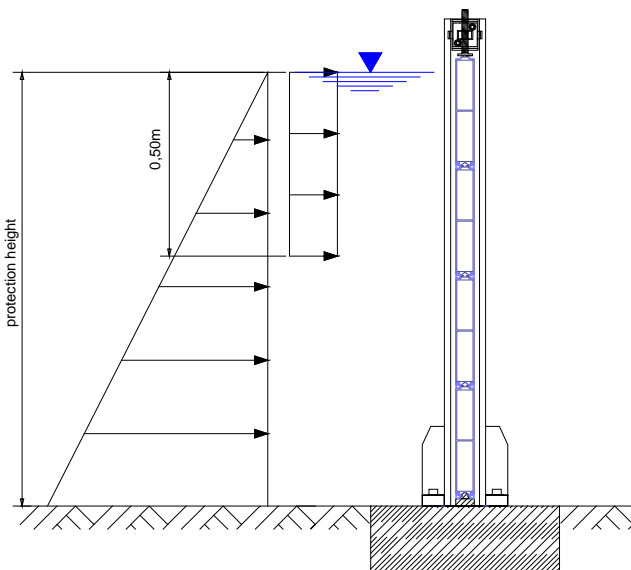
Two load cases

Load case 1: water pressure



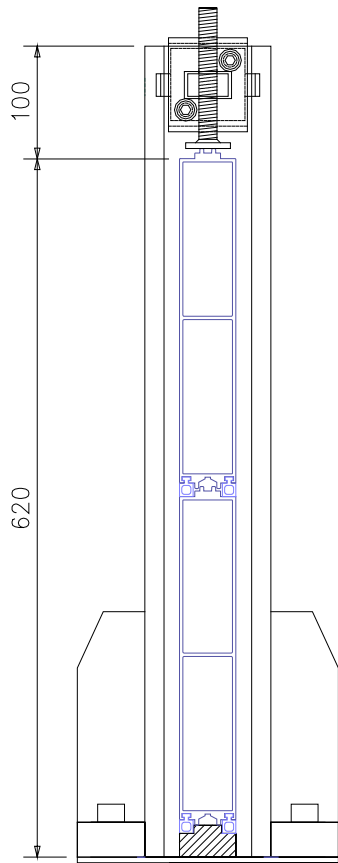
Re 1)
Hydrostatic water pressure
with a weight density of 10 kN/m^3
and a safety factor of 1.35.

Load case 2: water pressure and impact load



Re 2)
In addition to the hydrostatic water
pressure an impact load of 20 kN
on an area of 50 cm x 50 cm is taken into account.

Further loads such as flow pressure, wave impact, ice impact,
vehicle impact and load of people are not taken into account.



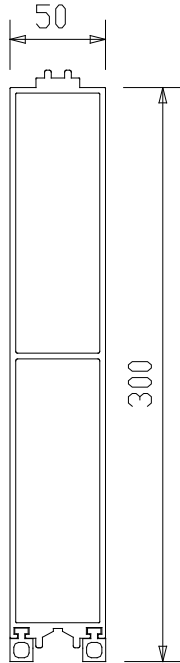
System 300 x 50

Stop log numbers	Protection height mm	Post height mm
1	320	420
2	620	720
3	920	1.020
4	1.220	1.320
5	1.520	1.620
6	1.820	1.920
7	2.120	2.220
8	2.420	2.520
9	2.720	2.820
10	3.020	3.120

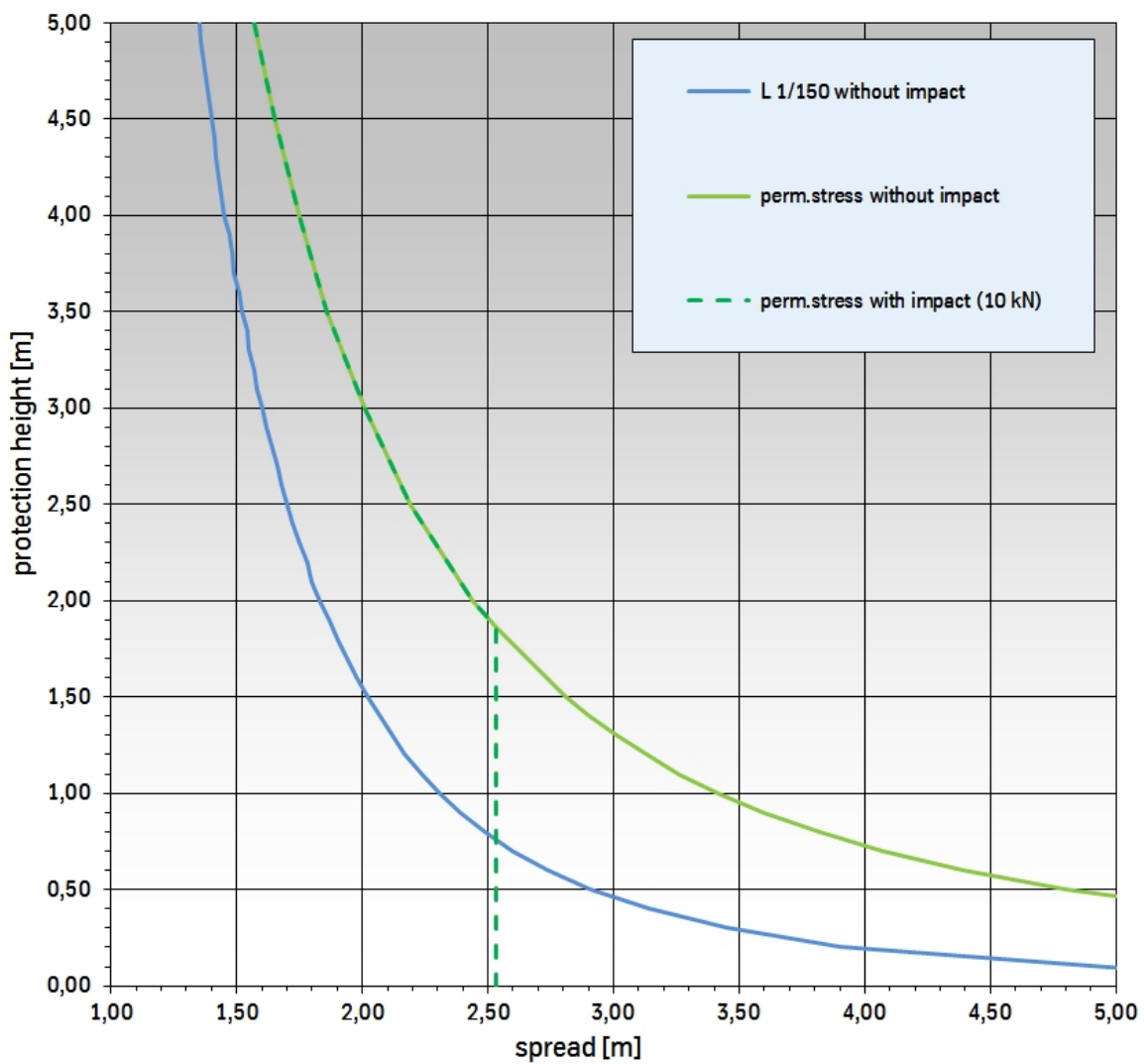
System width max. 1.50 meter.

With a middle post the only protection height possible is 1520 millimeter. Upwards of a protection height of 1820 millimeter the only variant possible is the one with two wall connections.

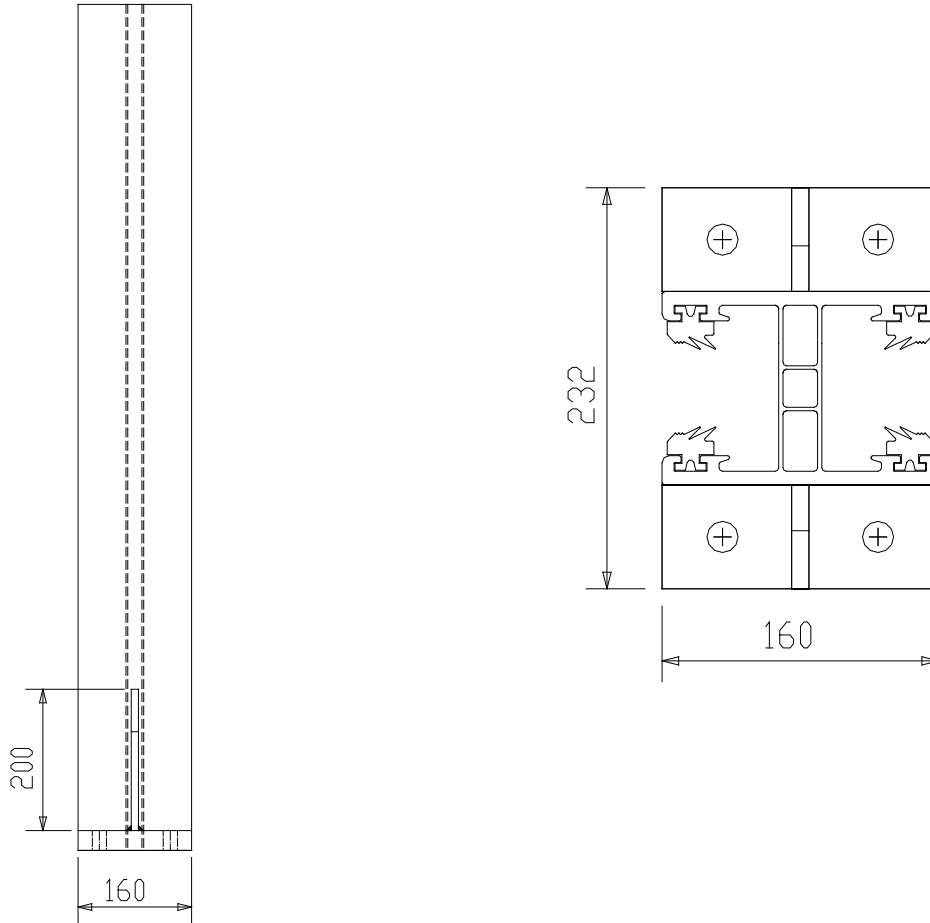
Aluminum stop log DB 300 x 50



Technical data		
Moment of inertia	I	104 cm ⁴
Section modulus	W	41.5 cm ³
Cross sectional area	A	24.05 cm ²
Weight		6.50 kg/m
Material		EN AW-6063 [AlMg0.7Si] T66



Post MS 112 x 160



Table

	Height (mm)	max. width (mm)	Weight (kg)	Anchor plate
MS 112x160	300	3.500	5.3	250 x 180
	600	2.800	8.4	
	900	2.500	11.6	
	1.200	2.250	14.7	
	1.500	2.000	17.8	

Technical data

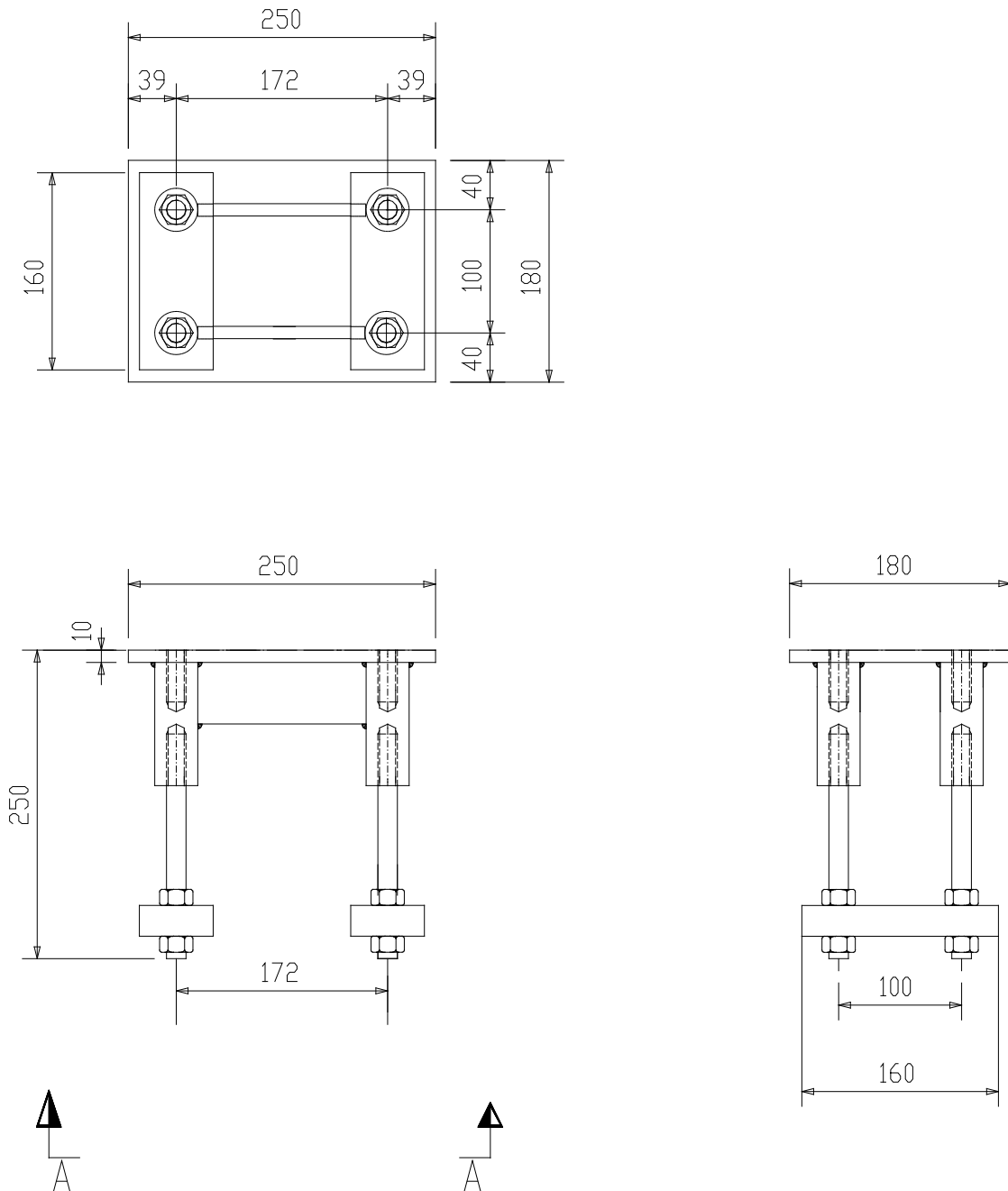
Moment of inertia	I	860 cm ⁴
Section modulus	W	154 cm ³
Cross sectional area	A	38.53 cm ²
Weight		10.40 kg/m
Material		EN AW-6082 [AlMgSi1] T6

Anchor plate: AP50 T1

Steel grades

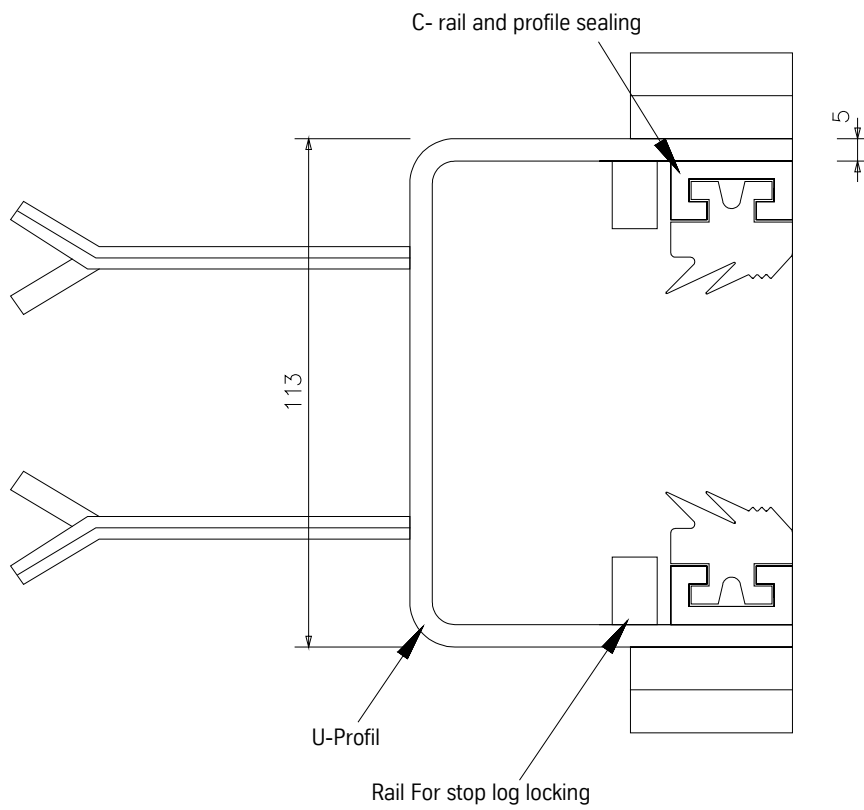
Stainless steel	1.4301	Top plate and sleeves
Steel	S 355	Retaining plates
Steel	8.8	Threaded rod and nut

View A-A



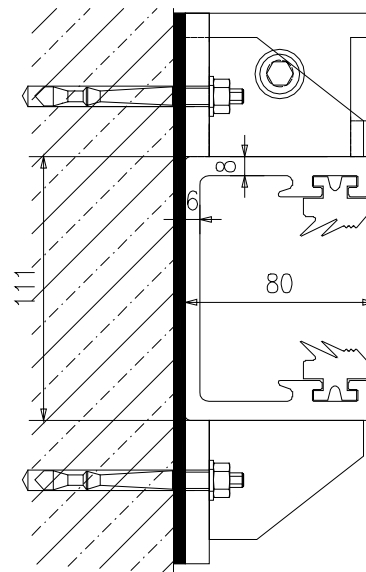
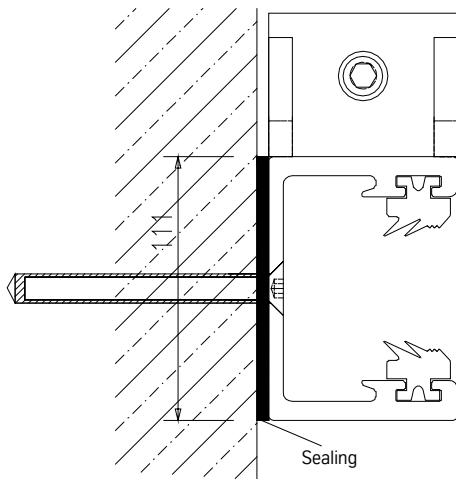
Wall connection – post

(connection with concrete anchor)



Material: Stainless steel 1.4301

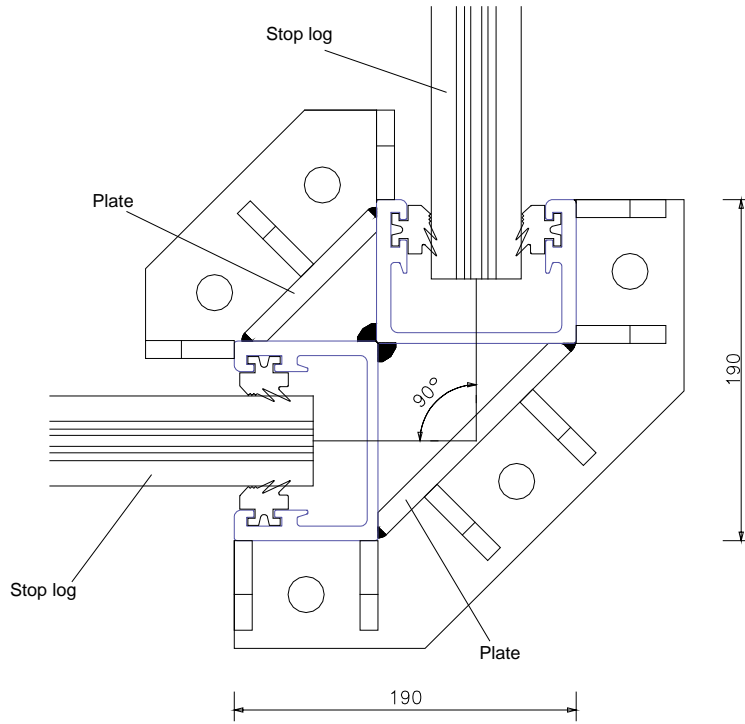
Wall connection – post WA 80 x 111



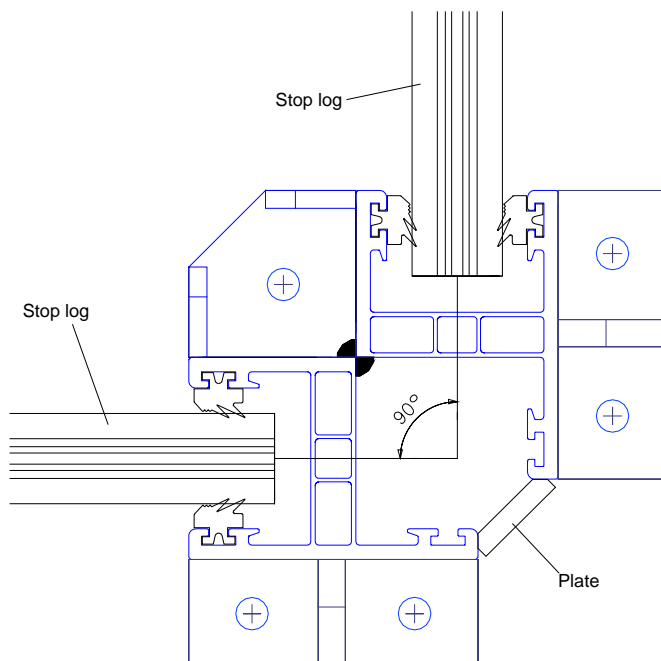
Technical data

Moment of inertia	I	451 cm ⁴
Section modulus	W	81 cm ³
Cross sectional area	A	22.27 cm ²
Weight		6.0 kg/m
Material		EN AW-6082 T6

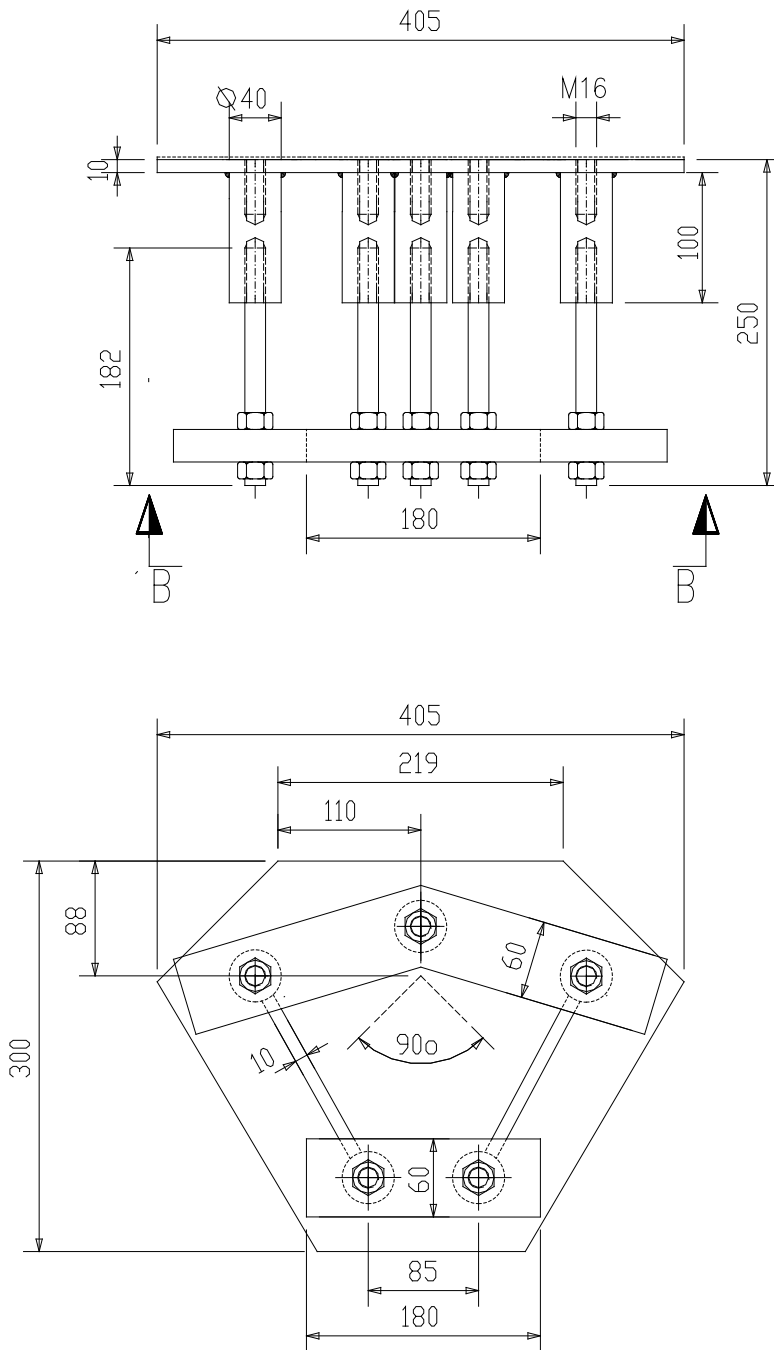
Corner post 90° with wall connection profile



Corner post 90° with post MS 112x160

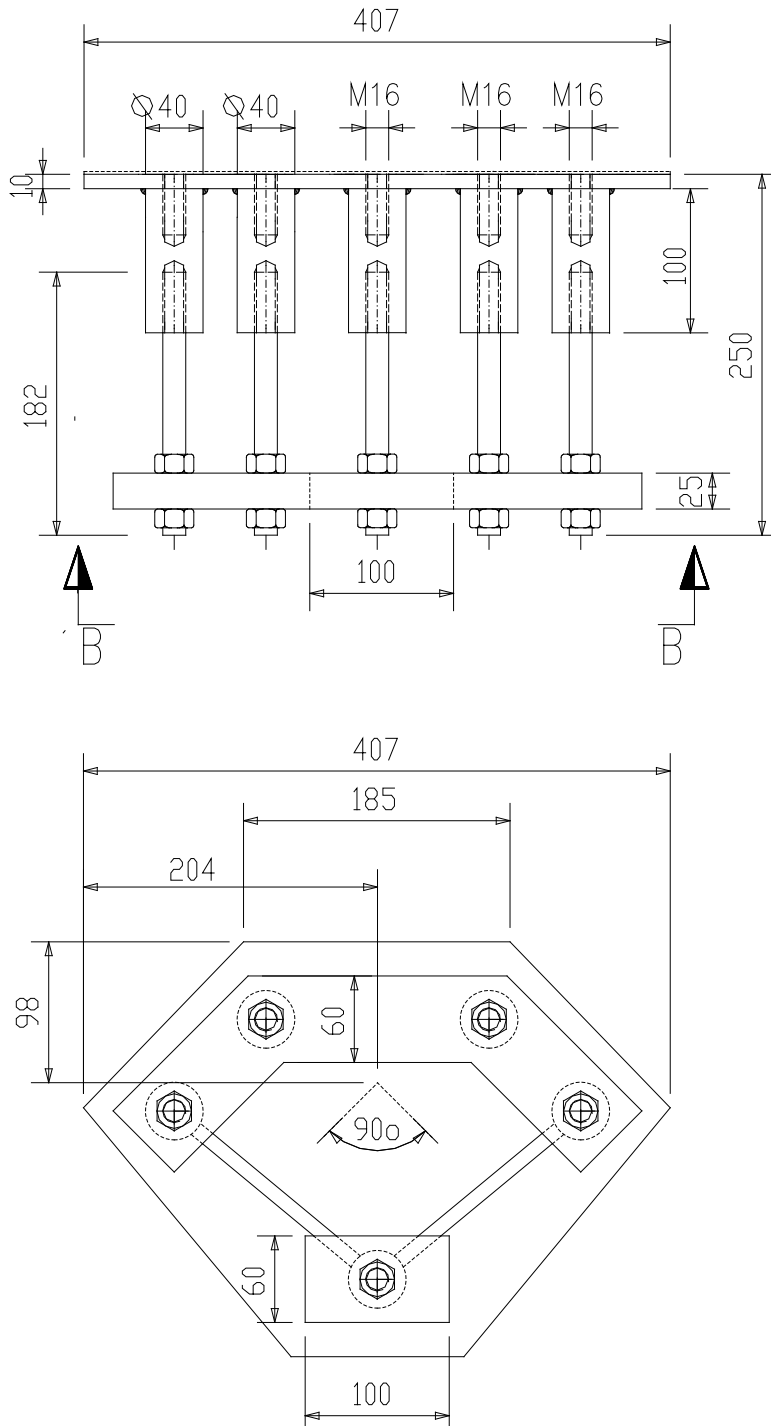


Anchor plate: 90° post



Steel grades		
Stainless steel	1.4301	Top plate and sleeves
Steel	S 355	Retaining plate
Steel	8.8	Threaded rod and nut

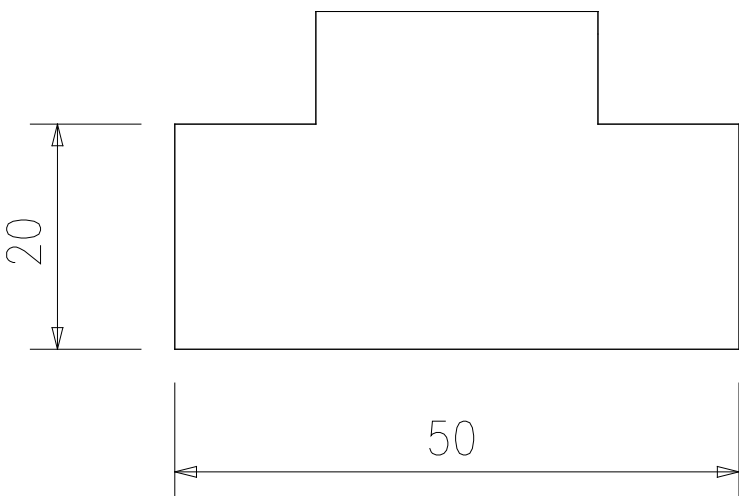
Anchor plate: 90° post



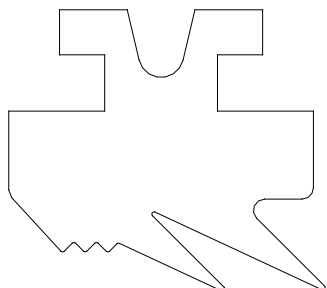
Steel grades		
Stainless steel	1.4301	Top plate and sleeves
Steel	S 355	Retaining plate
Steel	8.8	Threaded rod and nut

Sealing systems

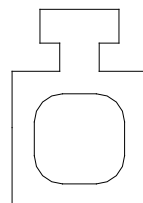
Base seal



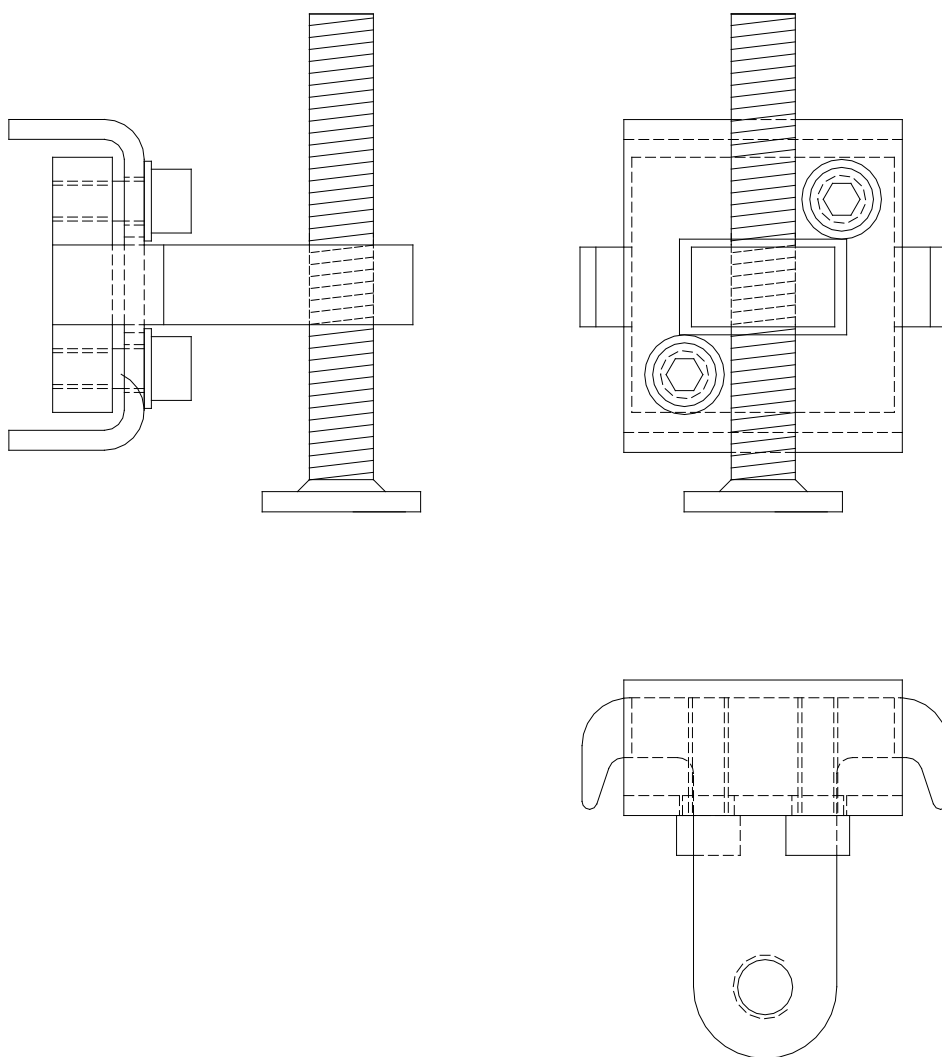
Post seal



Stop log seal

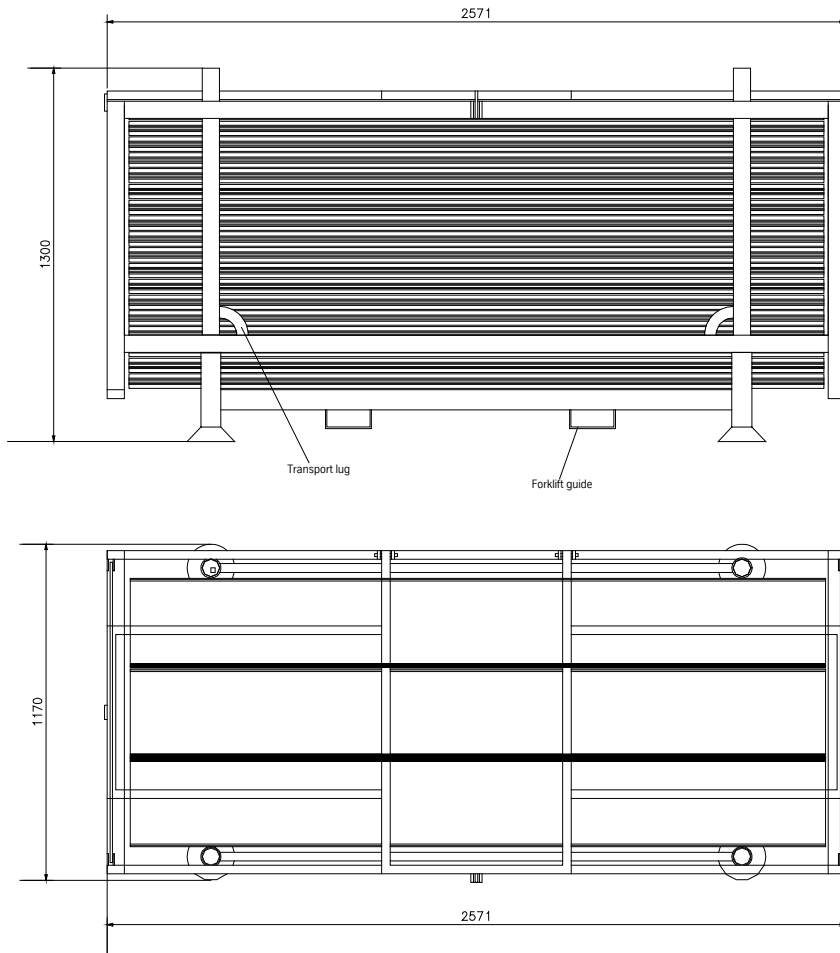


Locking system

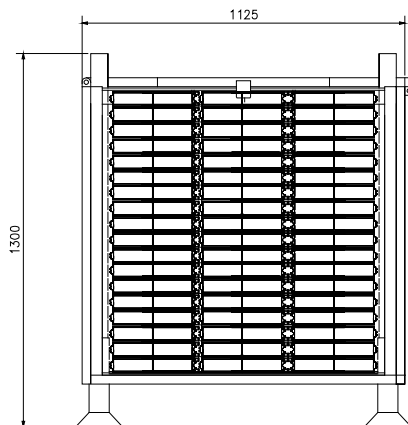


Material: stainless steel 1.4301

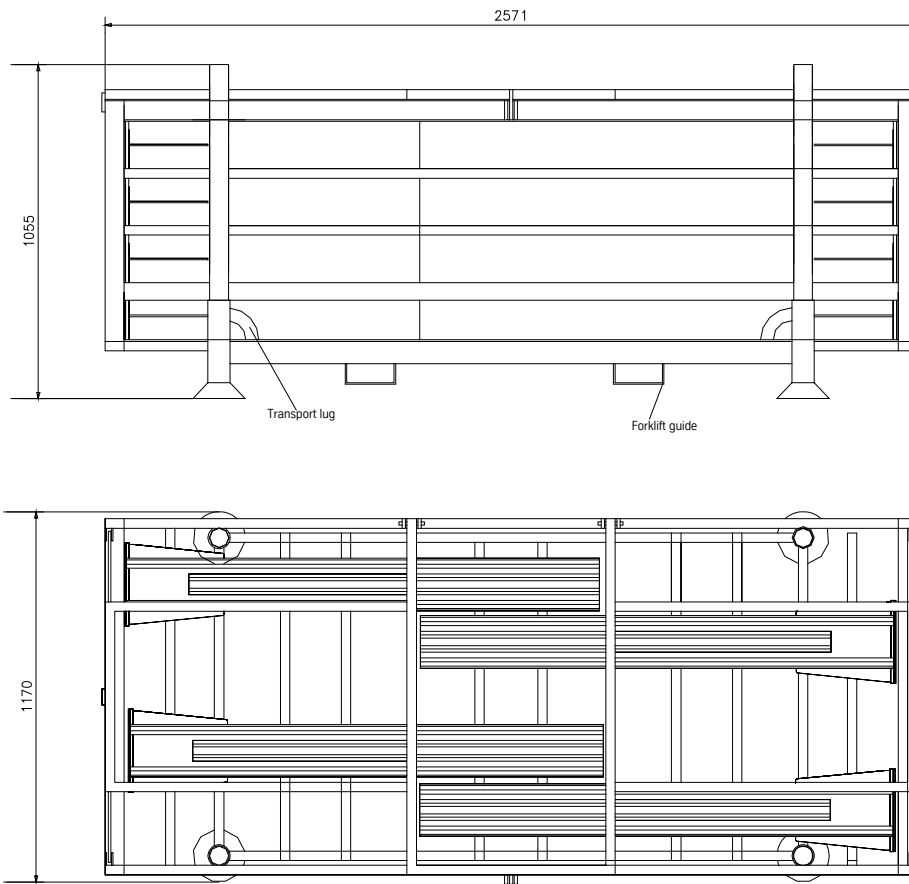
Storage systems



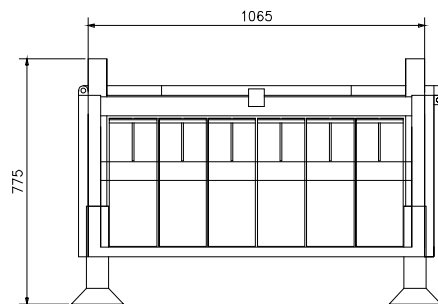
Intermediate layers: anti-slip mats.
Fasten parts in pallet with lashing straps.



Mesh wall not shown in side view.



Part contact prevented by plastic profiles.
 Parts fastened in pallet with lashing straps.



Mesh wall not shown in side view.

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