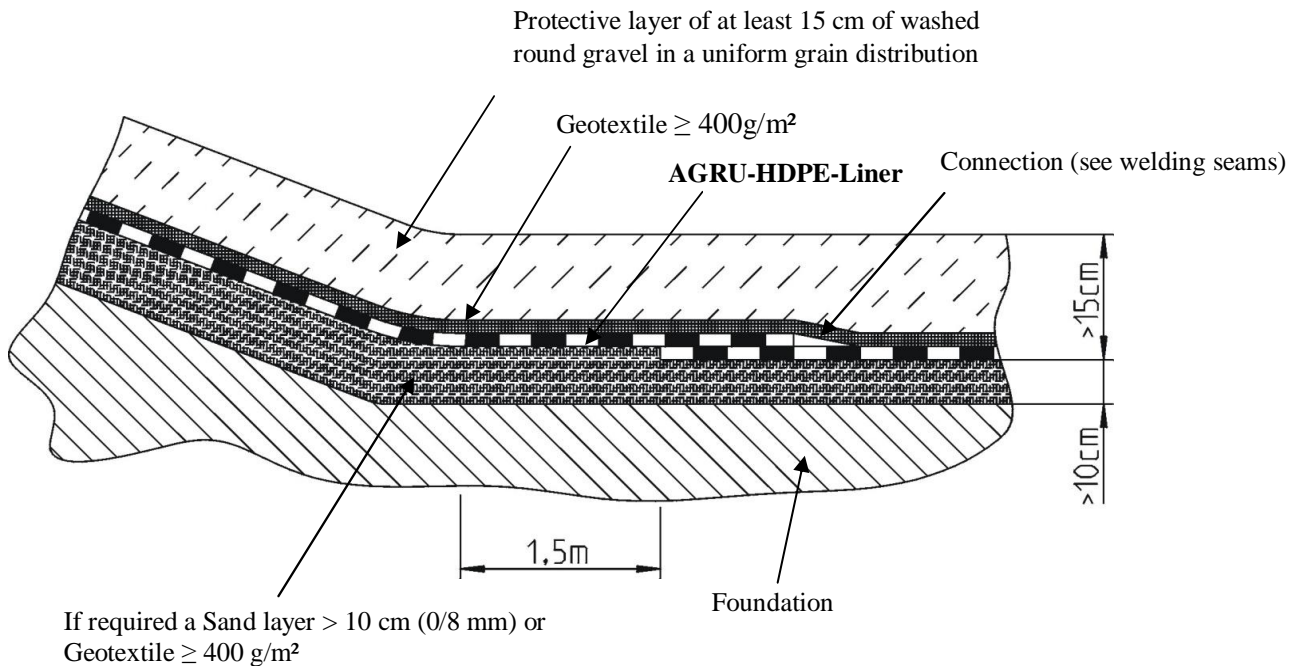
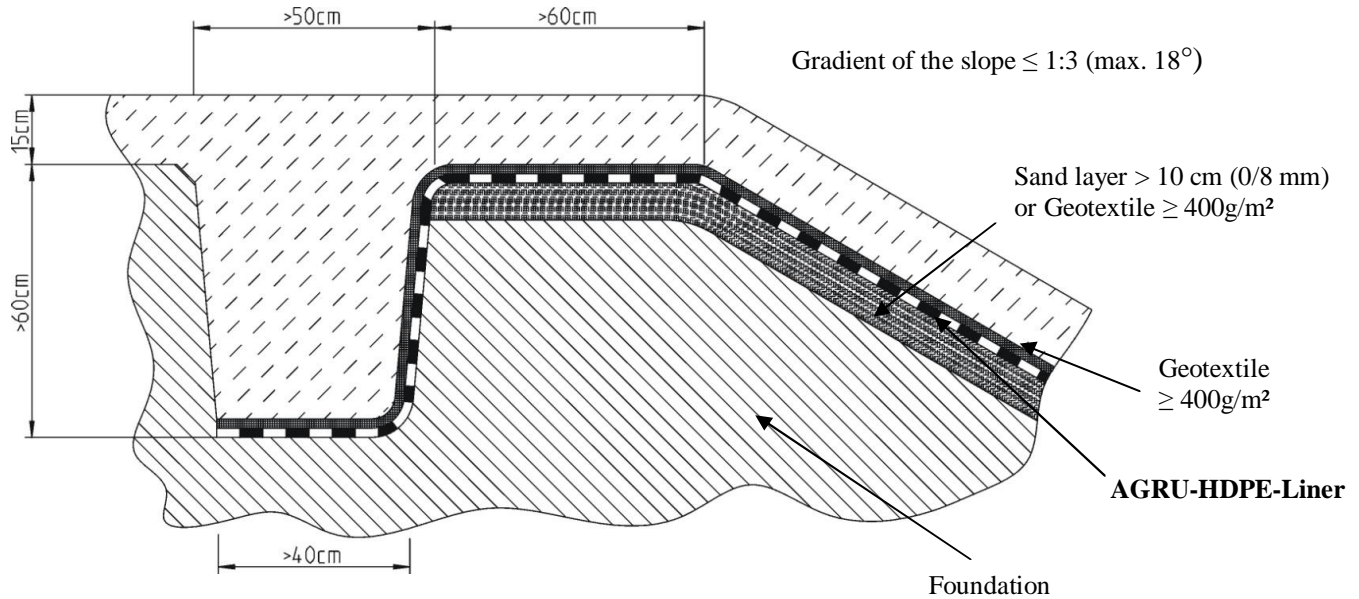


Connection on Earthwork

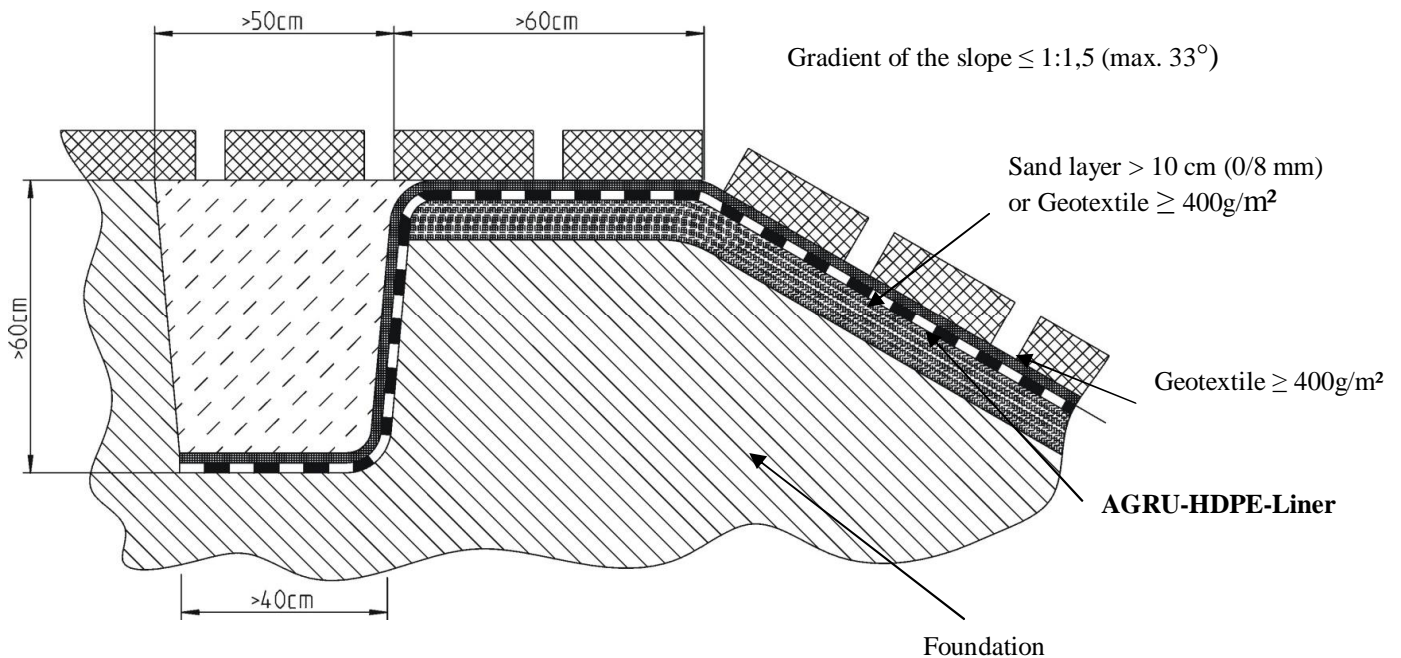
Integration of the dam crest and connection on the foot of the embankment

Version A

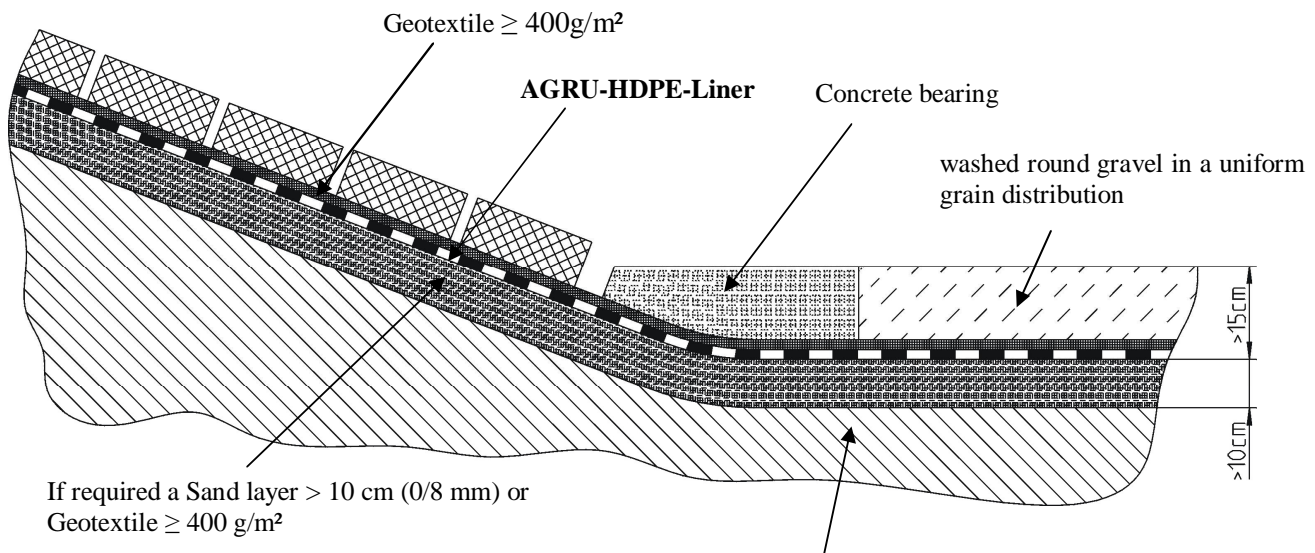
Protective layer of at least 15 cm of washed round gravel in a uniform grain distribution



Version B

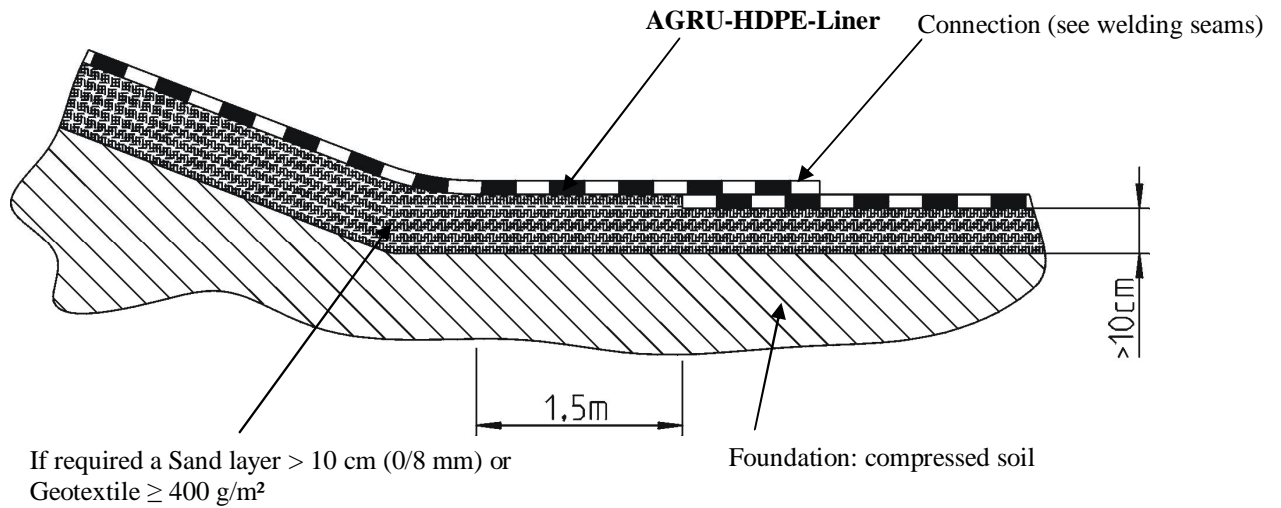
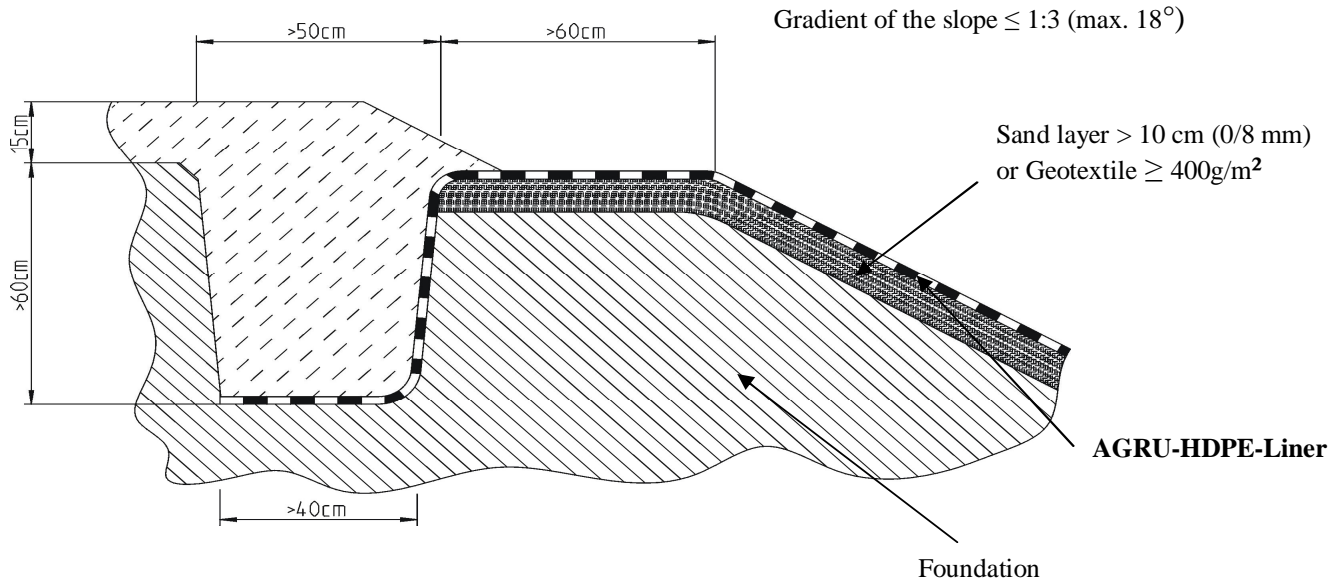


Curve radii of the AGRU-PE-Liner M:r > 0,3 m
Transition of dam crest-embankment r > 0,5 m

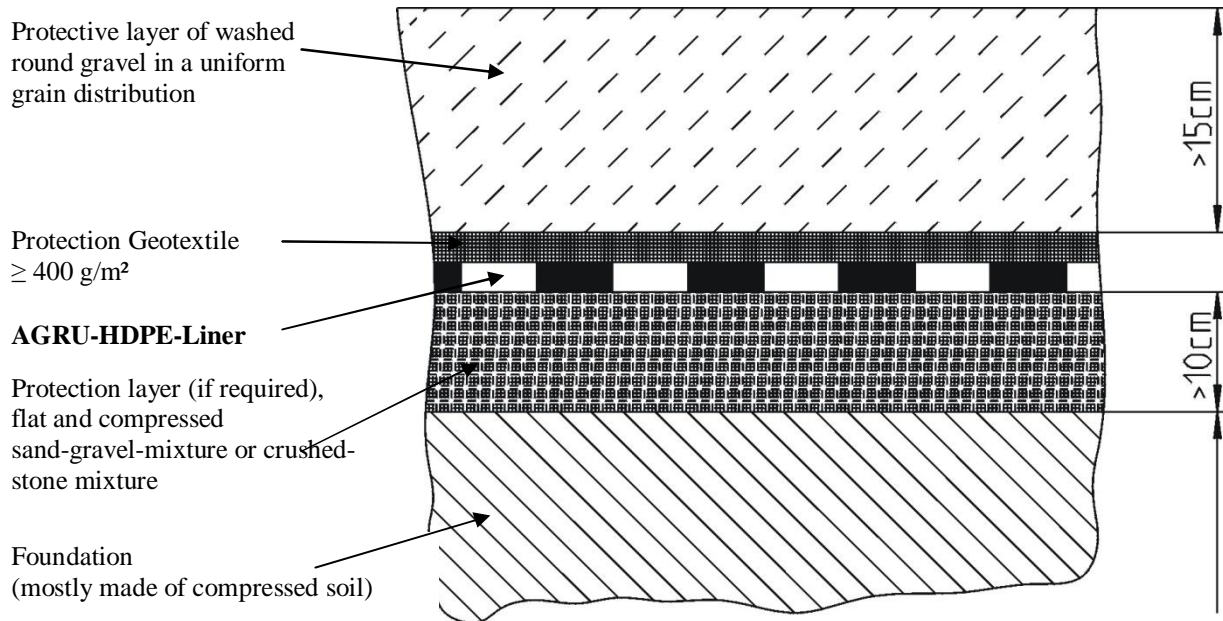


Curve radii of the AGRU-PE-Liner M: r > 0,3 m
Transition of dam crest-Panum r > 1 m

Version C



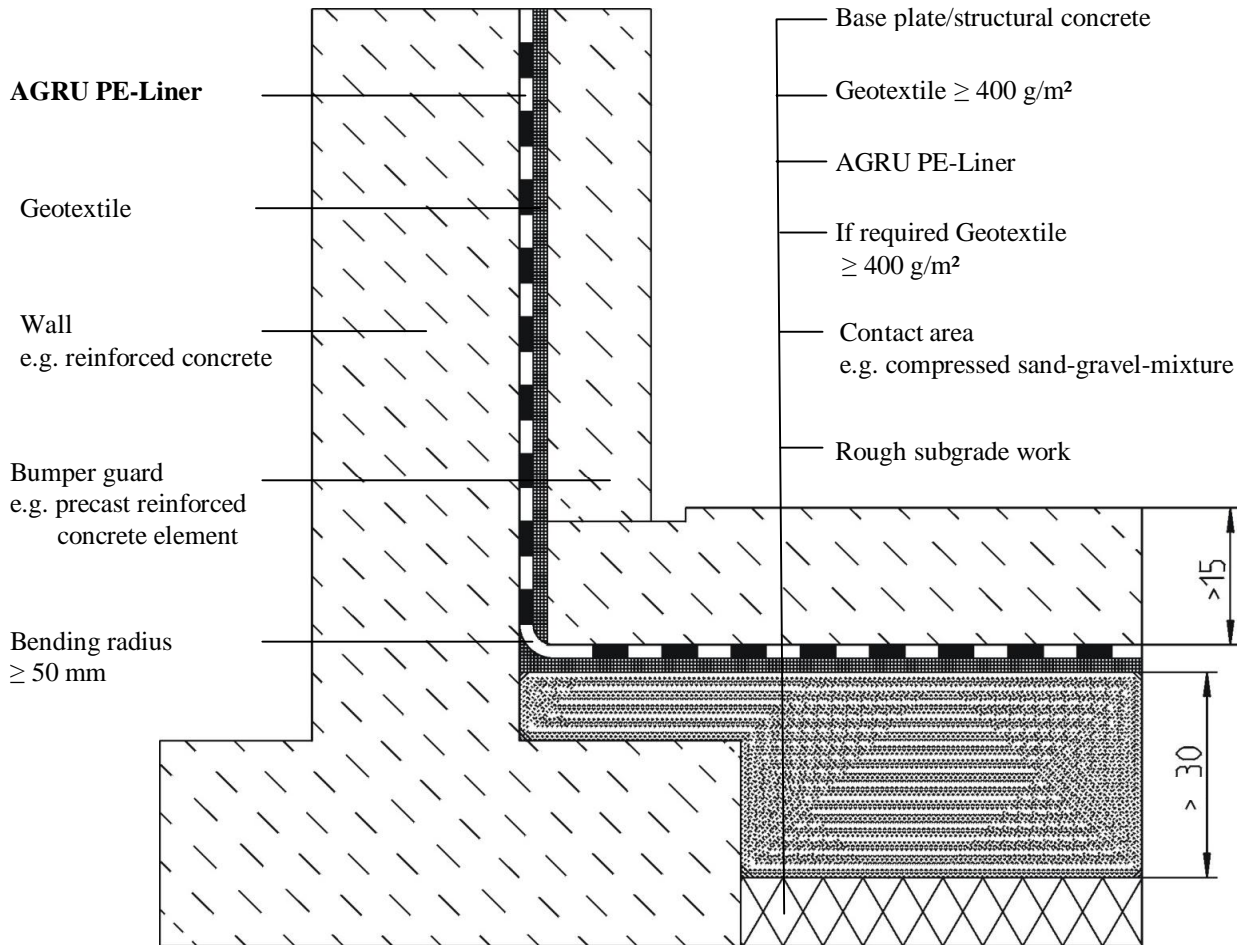
Bottom and embankment area (Gradient of the slope up to 1:3)



all Dimension in cm

Sealing of hall floor

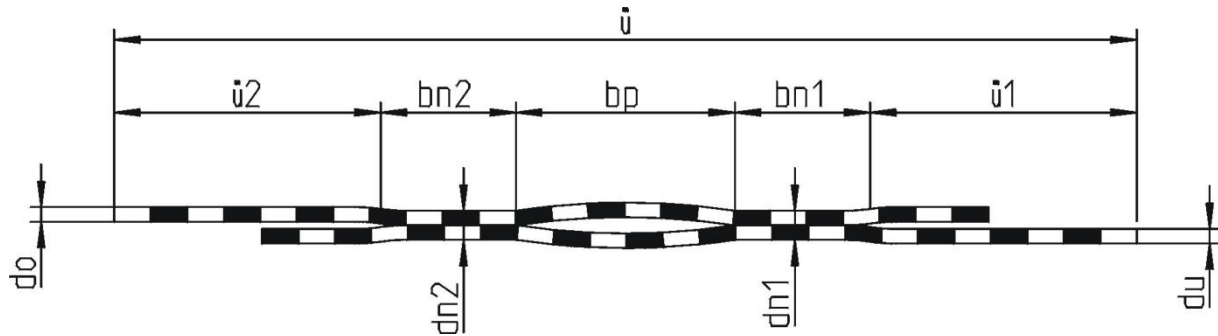
Sealing system with foundation curb



all dimensions in cm

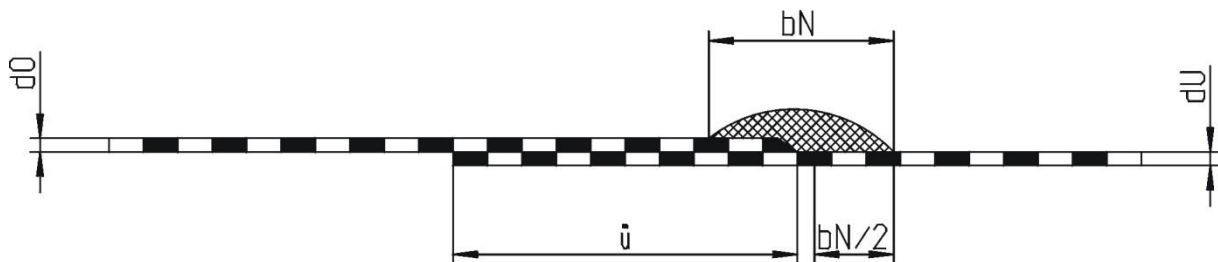
Welding seams

Lap seam with testing channel - ÜN



Thickness of the liner	d_o, d_u	\geq	2,0 mm
Loose lap front	\ddot{u}_1	\geq	5,0 mm
		$<$	15,0 mm
Loose lap rear	\ddot{u}_2	\geq	40,0 mm
Width of the seam sections	b_{n1}, b_{n2}	\geq	15,0 mm
Width of the testing channel	b_p	\geq	10,0 mm
Thickness of the seam	d_{n1}, d_{n2}	\geq	$(d_o + d_u) - 0,8$ mm
		\leq	$(d_o + d_u) - 0,4$ mm

Surface welding - AN

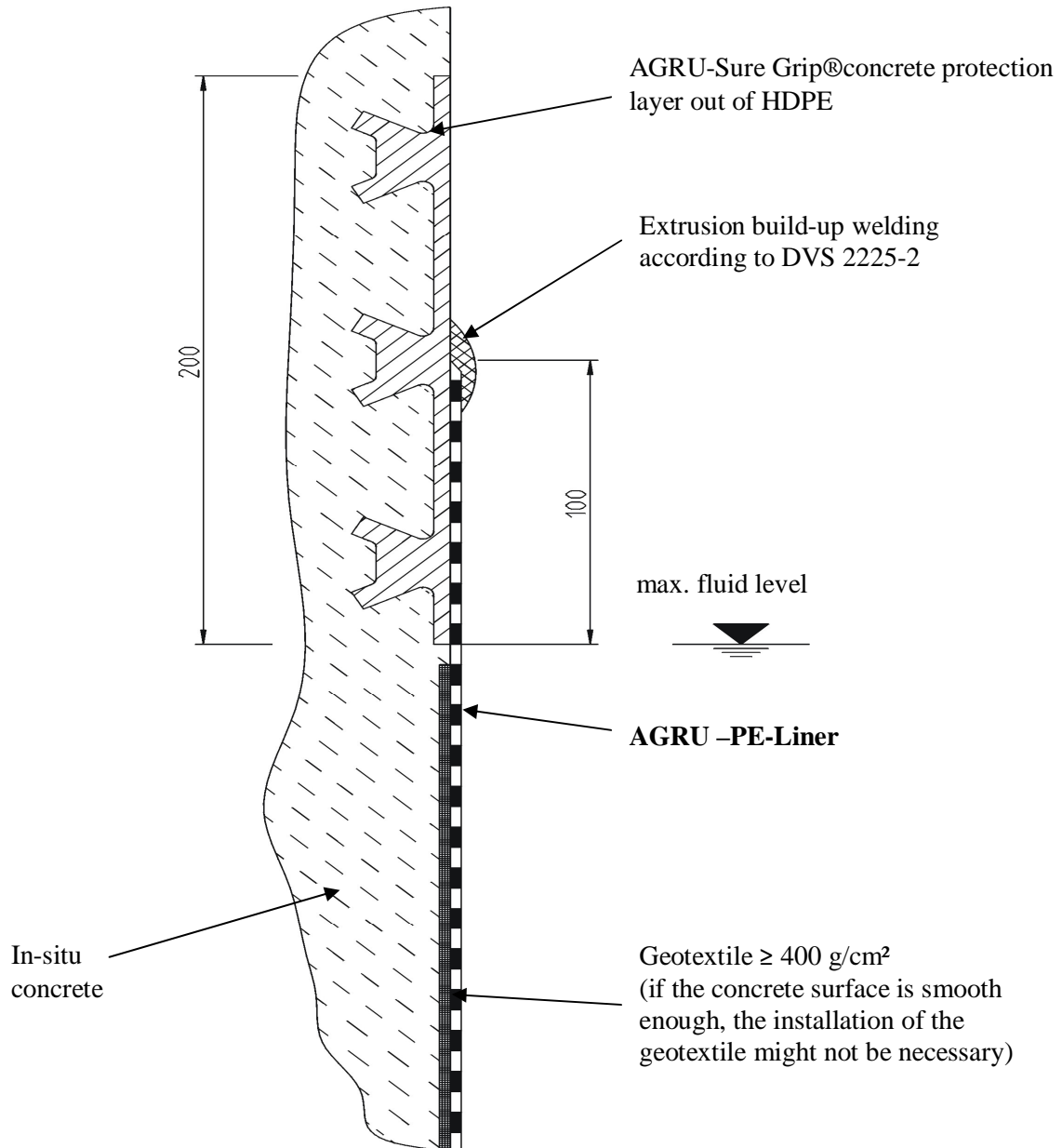


Thickness of the liner	d_o, d_u	\geq	2,0 mm
Total lap	\ddot{u}	\geq	40,0 mm
Total width of the seam	b_n	\geq	30,0 mm
Eccentricity, offset	a	\leq	5,0 mm
Thickness of the seam	d_N	\geq	$1,25 \times (d_o + d_u)$ mm
		\leq	$1,75 \times (d_o + d_u)$ mm

Connection on the concrete structure

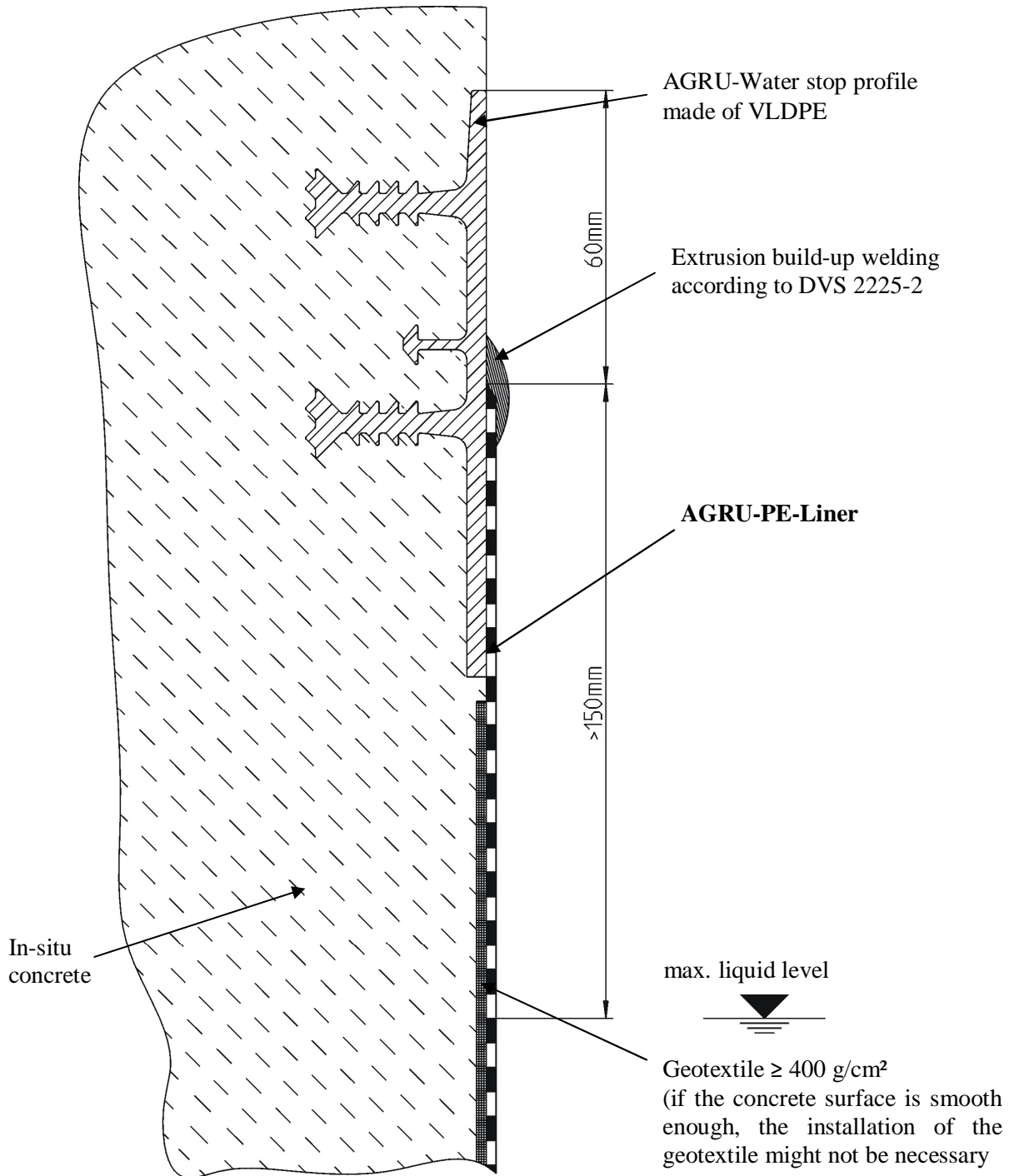
Thermal welding with concrete protection layer

Connection liquid-tight



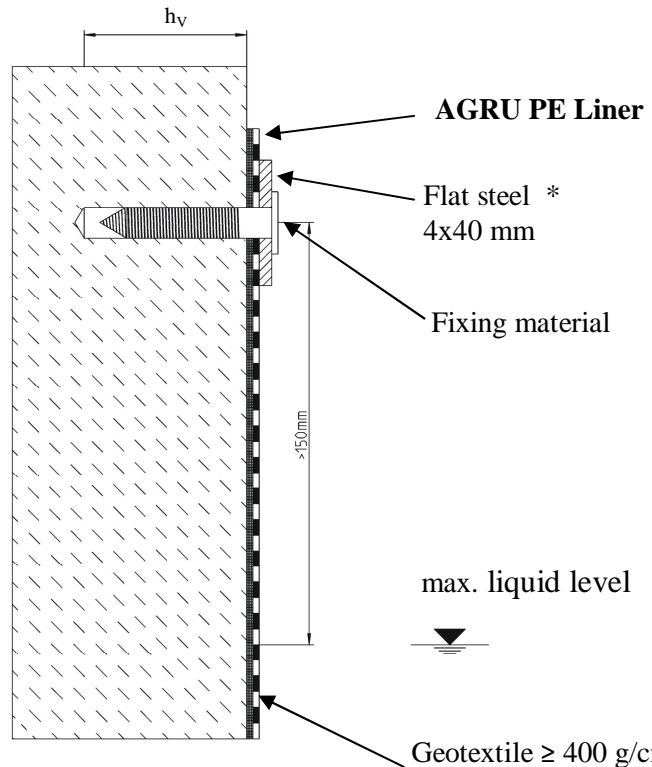
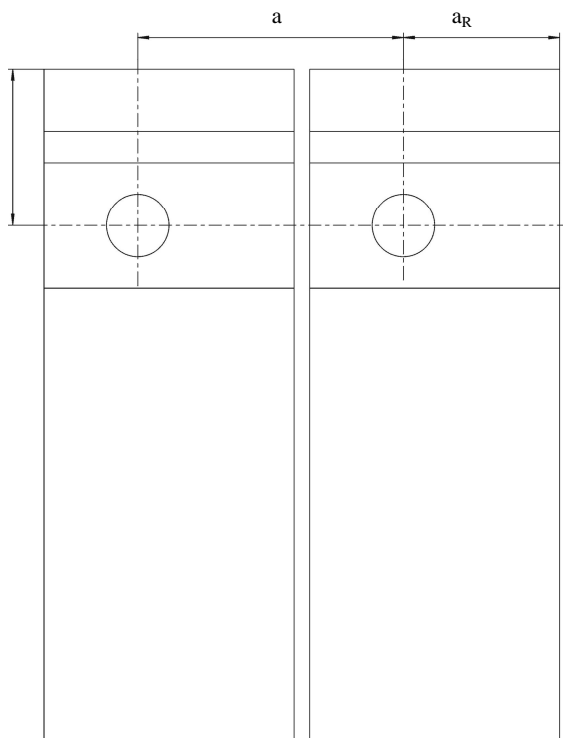
Connection on the concrete structure

Thermal welding with water stop profile



Connection on the concrete structure

Mechanical bond



Distance of axles	a	–	100 mm
	...		300 mm
Edge distance	a_R	–	50 mm
	...		100 mm
Anchorage depth	h_v	–	50 mm

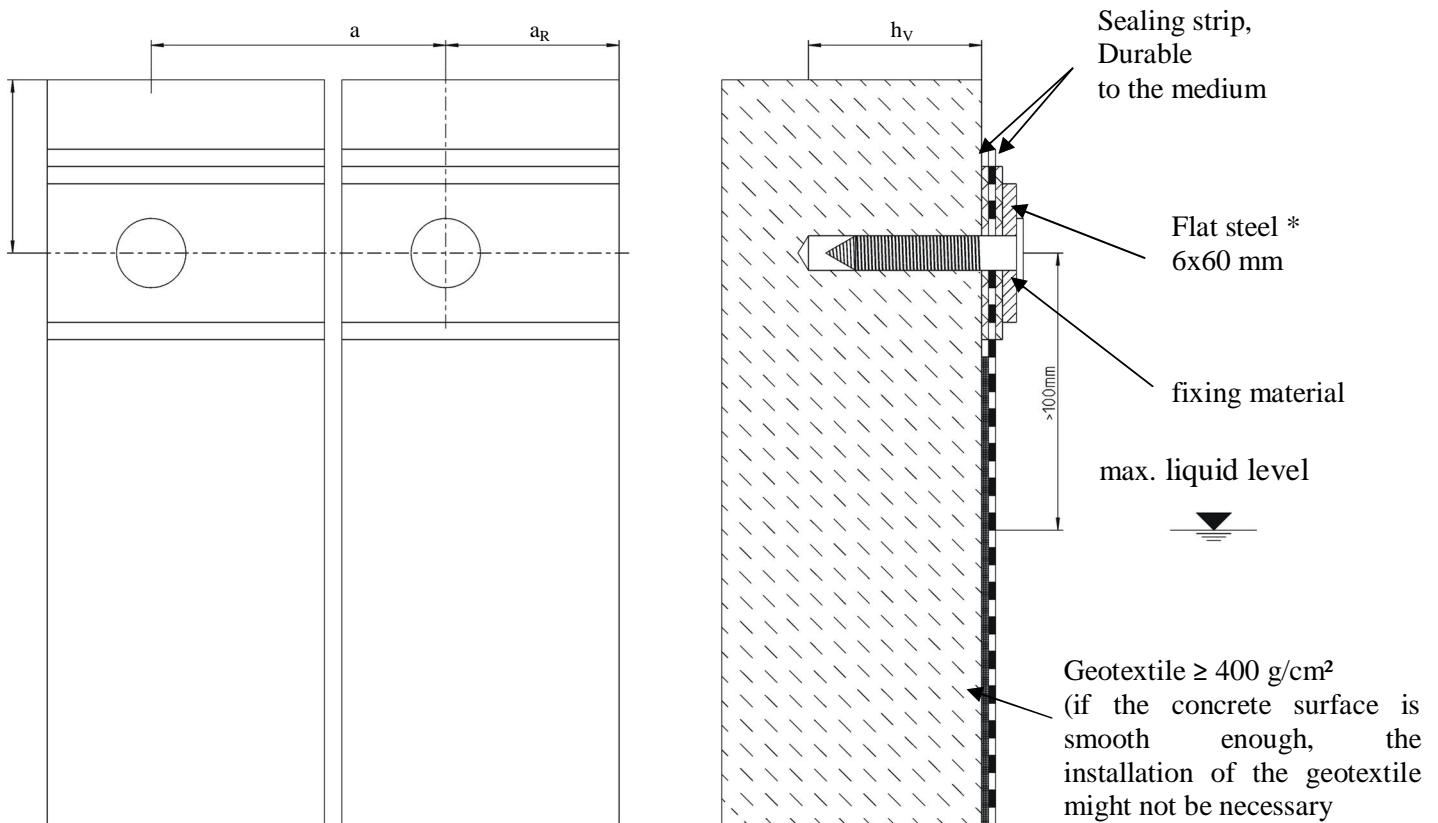
*) Stainless steel

Dimensions: 4x30, 3x40 or 4x40 mm

Geotextile $\geq 400 \text{ g/cm}^2$
(if the concrete surface is smooth enough, the installation of the geotextile might not be necessary)

Connection on the concrete structure

Mechanical bond



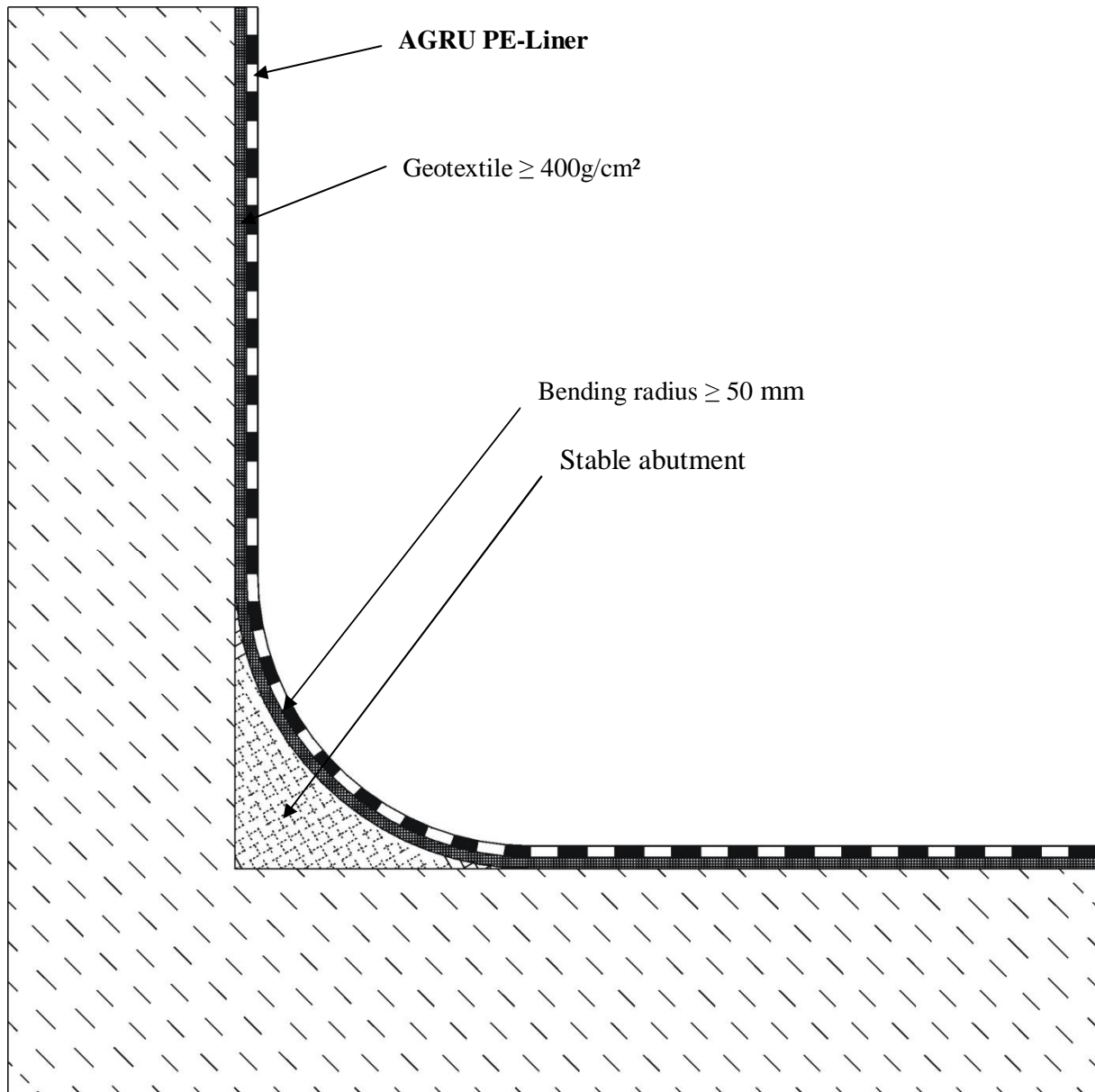
Distance of axles	a	–	100 mm
			... 300 mm
Edge distance	a _R	–	50 mm
			... 100 mm
Anchorage depth	h _v	–	50 mm

*) stainless steel

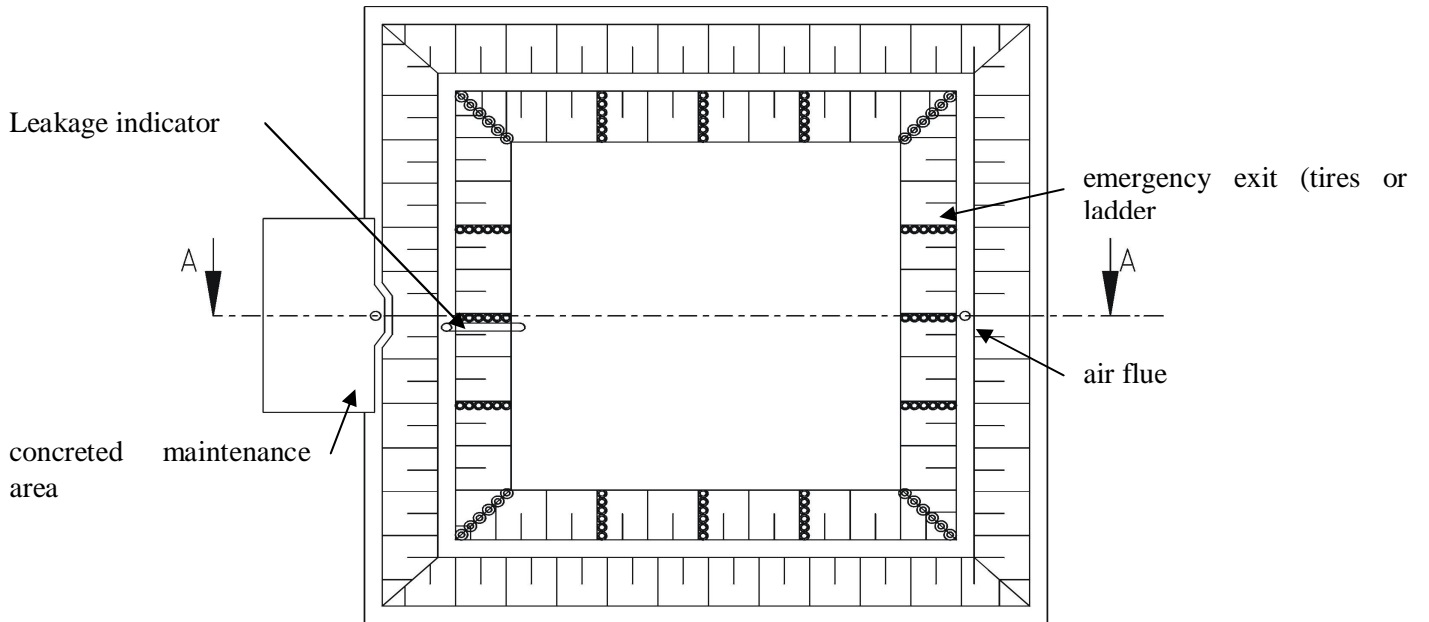
Dimensions: 8x40, 8x50 or 6x60 mm

Connection on the concrete structure

Open wall-concrete transition



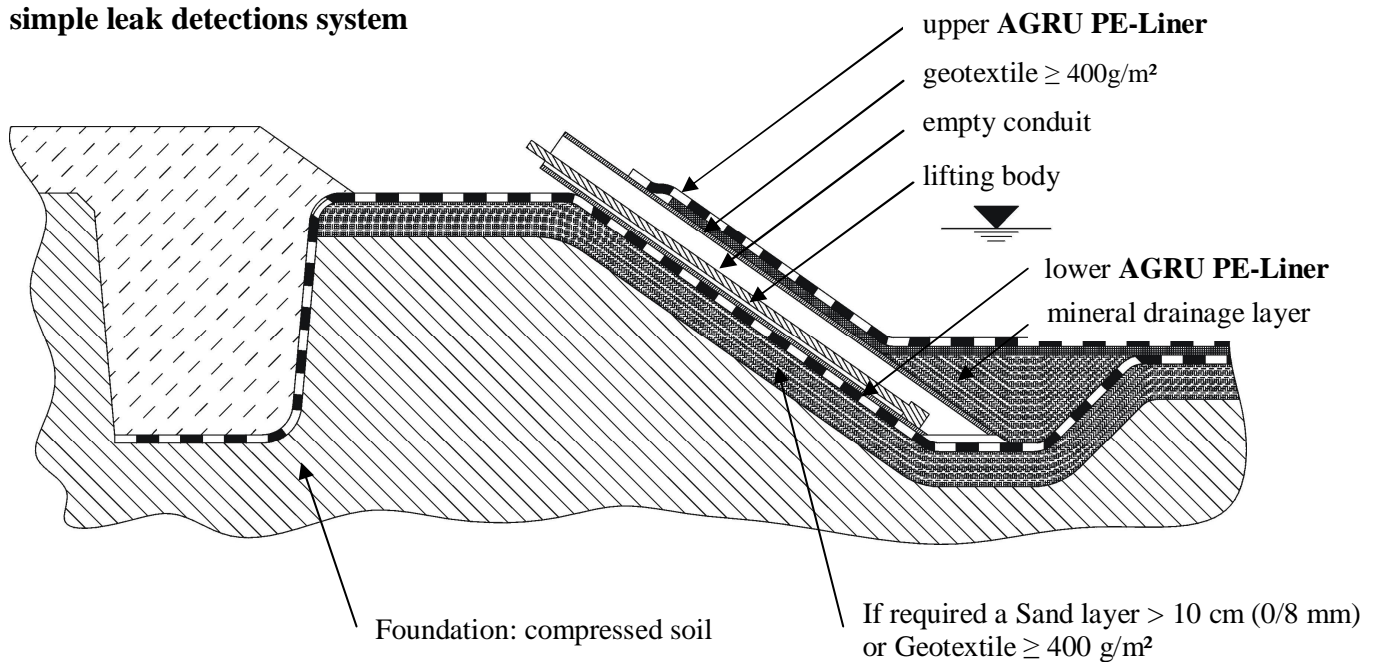
leak detection for double containment systems



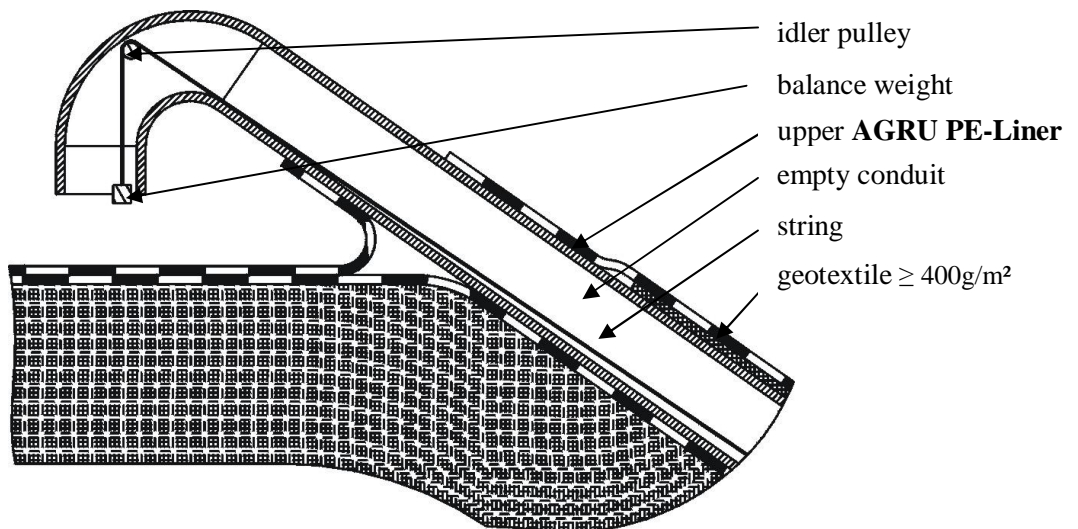
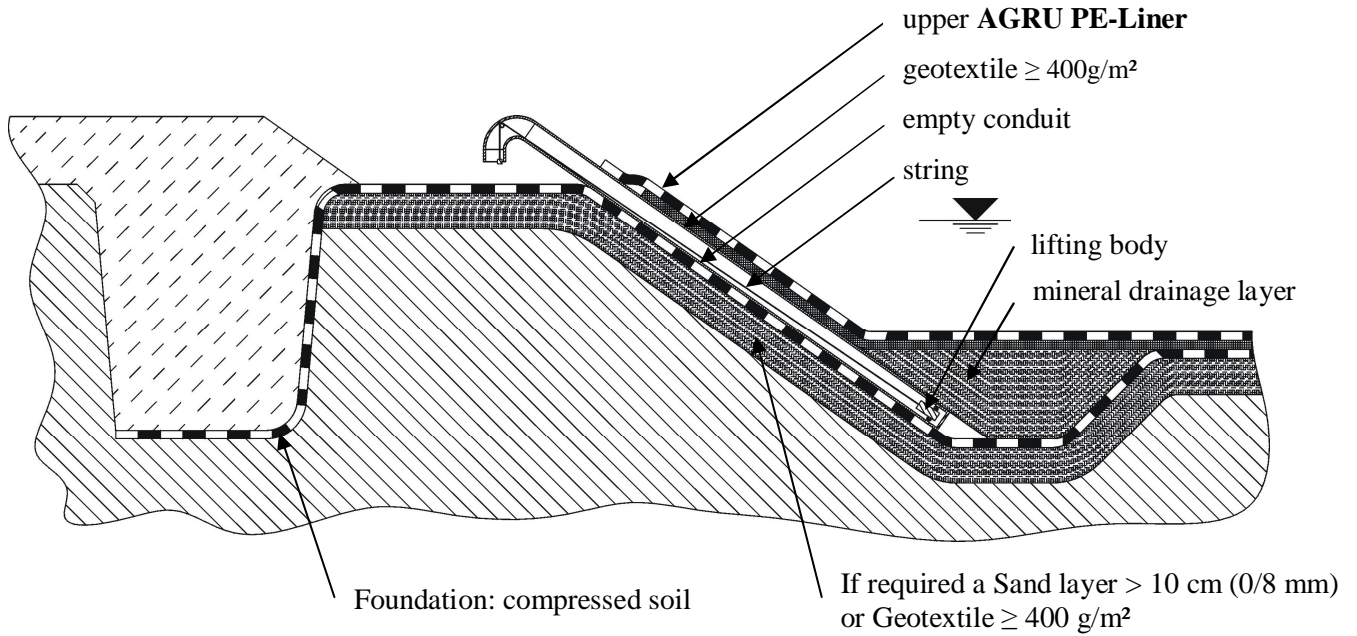
SCHNITT A-A



simple leak detections system

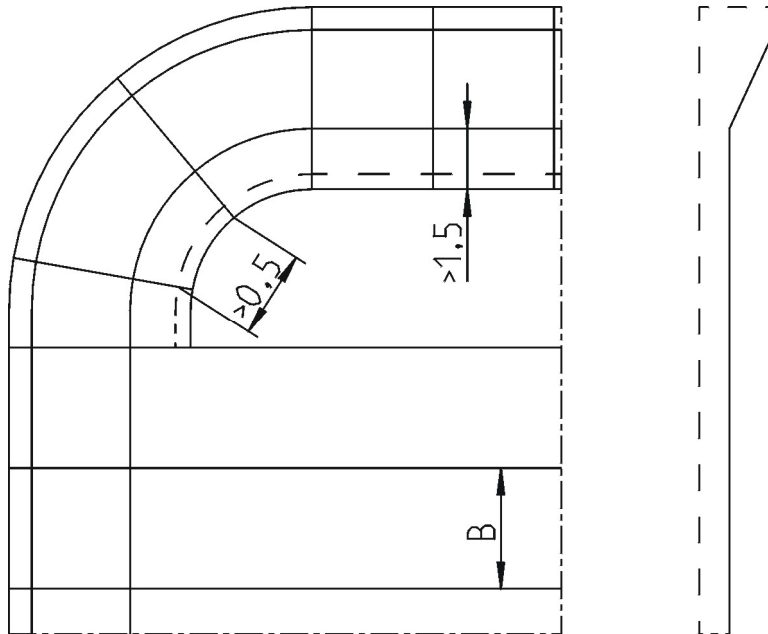


leak detections system

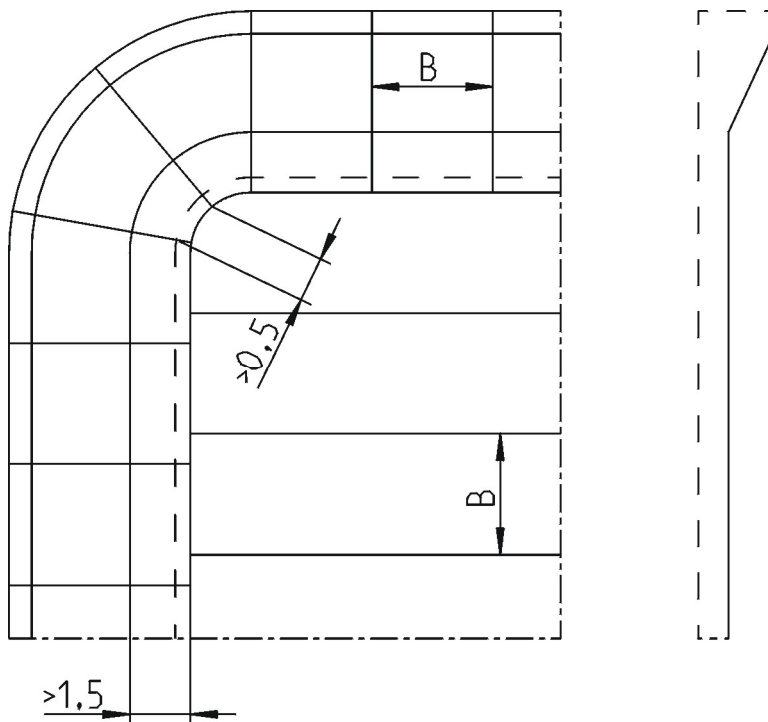


Formation of arches and corners

Formation of corners with continuous smooth lanes (short embankments)



Formation of corners with structured and smooth lanes (long embankments)

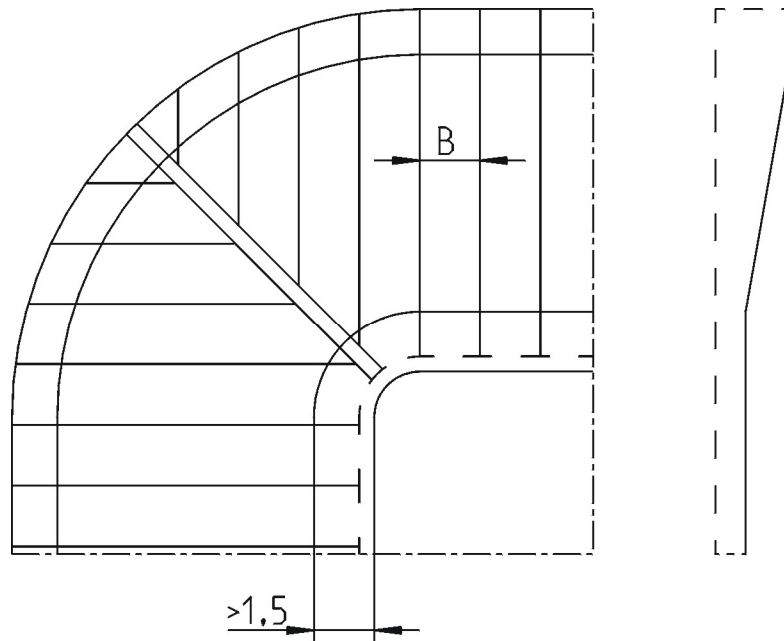




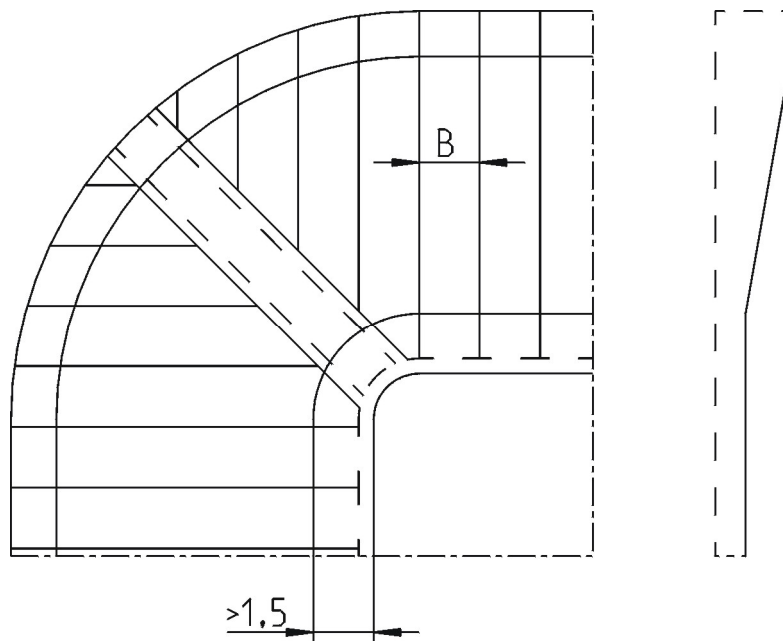
agru

Worldwide Competence
in Plastics

Formation of corners of underlying liner



Formation of corners of overlaying liner





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in Plastics

Formation of an offset

