Sandwich Anchor System

For connecting the load bearing and facing layers of three-layer concrete elements

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Always the best solution – technically and economically.

Process advantages

- All usual anchor systems available
- Low additional effort for the professional installation of insulating materials
- No pre-drilling of insulating boards necessary
- Insulating layer thicknesses **up to 400 mm** possible
- Load-bearing system with low deformations – minimal shifts between load bearing and facing layer during transport and assembly

Planning benefits

- Approvals of the Deutsches Institut für Bautechnik (DIBt) [German Institute of Building Technology]

- **Free of charge**
- No additional proofs of the connector pins necessary due to prespecified grid
- Type-tested dimensioning tables that take into consideration wind, temperature, creeping and shrinkage
- Complete product range covering all usual insulation thicknesses and common anchor types

Delta Anchors

General building regulations approval DIBT

Homlokzat

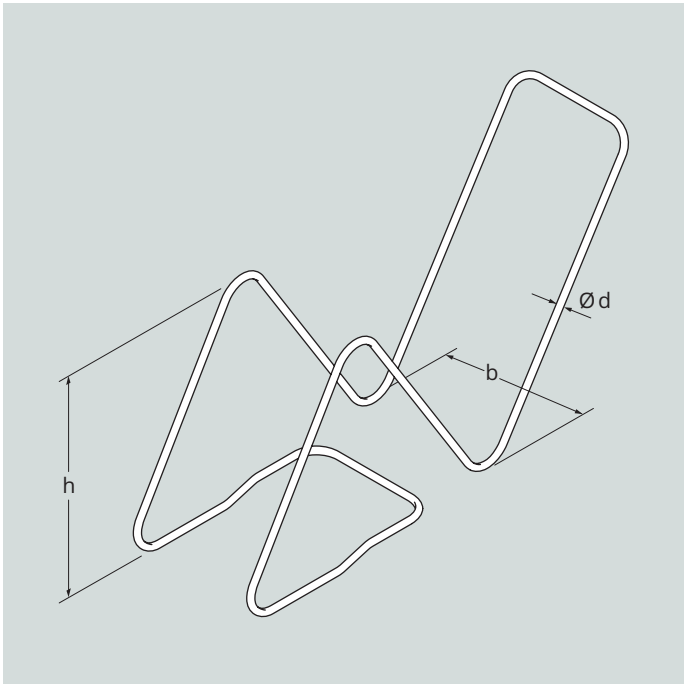
Szendvics horgonyrendszer

The Delta anchor is used as a bearing or retaining anchor. As a bearing anchor it transmits the dead weight of the facing layer as well as proportional horizontal forces from wind and temperature influences. As a retaining anchor it prevents the horizontal shifting of the facing layer with respect to the load bearing layer. In general, the anchor is arranged in pairs in different vertical axes.

Advantages:

- Simple installation because non directional
- Flaw and thermal bridge-free insulation
- High-quality stainless steel

Material:
Stainless steel



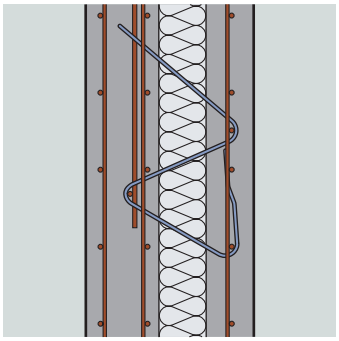


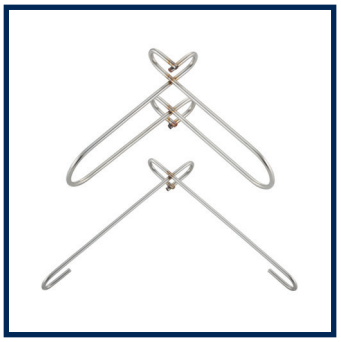
Table 1: Delta Anchors

Type	Colour coding Banderole	Dimensions											
		Ø d [mm]	b [mm]	h[1] [mm]									
DTA-6-h-80	Strawberry red	6,0	80	180	200	220	240	260	–	–	–	–	–
DTA-8-h-80	White	8,0	80	180	200	220	240	260	280	300	320	–	–
DTA-10-h-80	Yellow/green	10,0	80	–	–	220	240	260	280	300	320	340	360

[1] Anchor heights h > 360 mm are available on enquiry.

SPA Sandwich Panel Anchor

General building regulations approval DIBT



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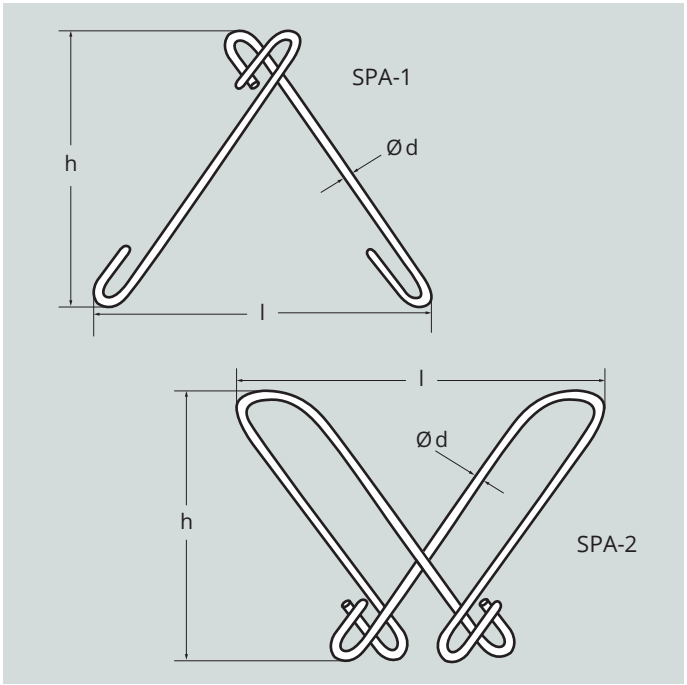
The SPA sandwich panel anchor is used as a bearing or retaining anchor. As a bearing anchor it transmits the dead weight of the facing layer as well as proportional horizontal forces from wind and temperature influences. As a retaining anchor it prevents the horizontal shifting of the facing layer with respect to the load bearing layer. In general, the anchor is arranged in pairs in different vertical axes.

Advantages:

- Simple installation because non directional
- Flaw and thermal bridge-free insulation
- High-quality stainless steel

Material:
Stainless steel



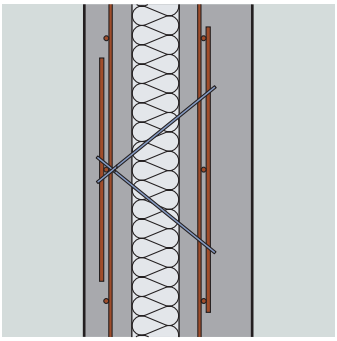


Table 2:
SPA-1 sandwich panel anchor

Type	Colour coding Banderole	Ø d [mm]	Dimensions h/l [mm]												
SPA-1-05-h	Sulphur yellow	5,0	160/265	180/305	200/264	–	–	–	–	–	–	–	–	–	–
SPA-1-07-h	Light pink	6,5	160/261	180/301	200/340	220/380	240/421	260/460	–	–	–	–	–	–	–
SPA-1-08-h	White	8,0	–	–	–	220/378	240/418	260/458	280/499	300/538	320/578	–	–	–	–
SPA-1-09-h	Light blue	8,5	–	–	–	220/376	240/416	260/455	280/496	300/536	320/576	340/615	360/655	380/694	400/735
SPA-1-10-h	Yellow/green	10,0	–	–	–	–	–	–	–	–	320/570	340/610	360/649	380/689	400/730

Table 3: SPA-2 sandwich panel anchor

Type	Colour coding Banderole	Ø d [mm]	Dimensions h/l [mm]												
SPA-2-05-h	Sulphur yellow	5,0	160/265	180/305	200/264	–	–	–	–	–	–	–	–	–	–
SPA-2-07-h	Light pink	6,5	160/261	180/301	200/340	220/380	240/421	260/460	–	–	–	–	–	–	–
SPA-2-08-h	White	8,0	–	–	–	220/378	240/418	260/458	280/499	300/538	320/578	–	–	–	–
SPA-2-09-h	Light blue	8,5	–	–	–	220/376	240/416	260/455	280/496	300/536	320/576	340/615	360/655	380/694	400/735
SPA-2-10-h	Yellow/green	10,0	–	–	–	–	–	–	–	–	320/569	340/610	360/649	380/689	400/730

Cylinder Anchor

General building regulations approval DIBT

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Façade

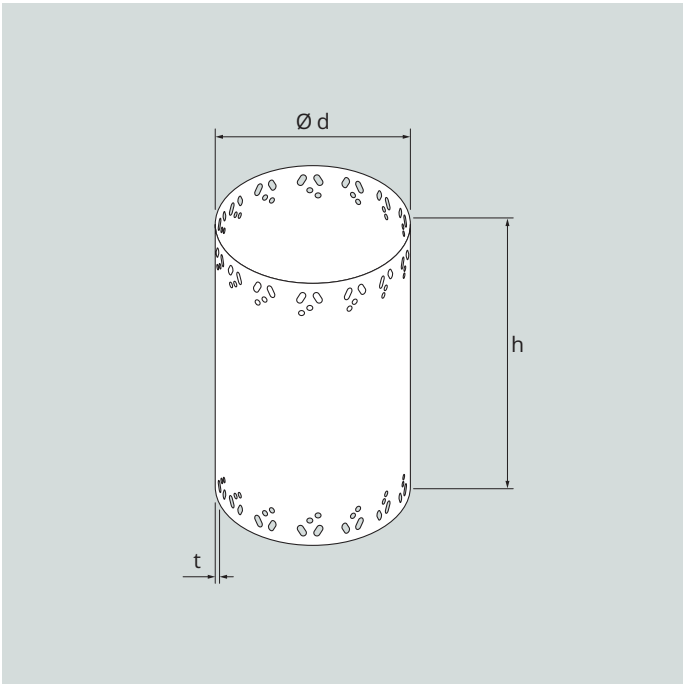
Sandwich Anchor System

The cylinder anchor is used as a bearing or retaining anchor. Thanks to its cylindrical shape it can be used as a bearing anchor and transfer forces in every direction safely and equably, even when the wall elements are rotating. As a retaining anchor it prevents the horizontal shifting of the facing layer with respect to the load bearing layer.

Advantages:

- Thanks to its rotationally symmetrical shape, the anchor permits rotation of the sandwich element
- Simple installation because non directional
- Flaw and thermal bridge-free insulation
- High-quality stainless steel

Material:
Stainless steel



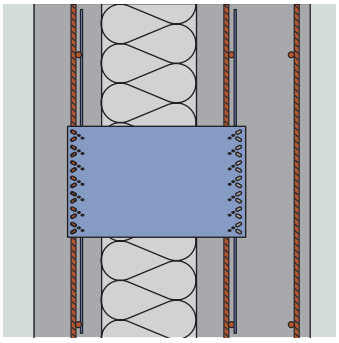


Table 4: Cylinder Anchors

Type	Sheet metal thickness	Dimensions							
	t [mm]	Ø d [mm]	h [mm]						
ZA-51-1,5-h	1,50	51	150	175	200	225	260	300	–
ZA-76-1,5-h	1,50	76	150	175	200	225	260	300	–
ZA-102-1,5-h	1,50	102	150	175	200	225	260	300	–
ZA-127-1,5-h	1,50	127	150	175	200	225	260	300	340
ZA-153-1,5-h	1,50	153	150	175	200	225	260	300	340
ZA-178-1,5-h	1,50	178	150	175	200	225	260	300	340
ZA-204-1,5-h	1,50	204	–	175	200	225	260	300	340
ZA-229-1,5-h	1,50	229	–	175	200	225	260	300	340
ZA-255-1,5-h	1,50	255	–	175	200	225	260	300	340
ZA-280-1,5-h	1,50	280	–	175	200	225	260	300	340

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Flat Anchors

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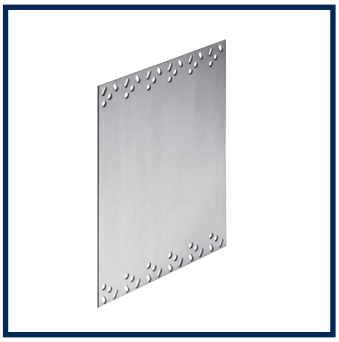

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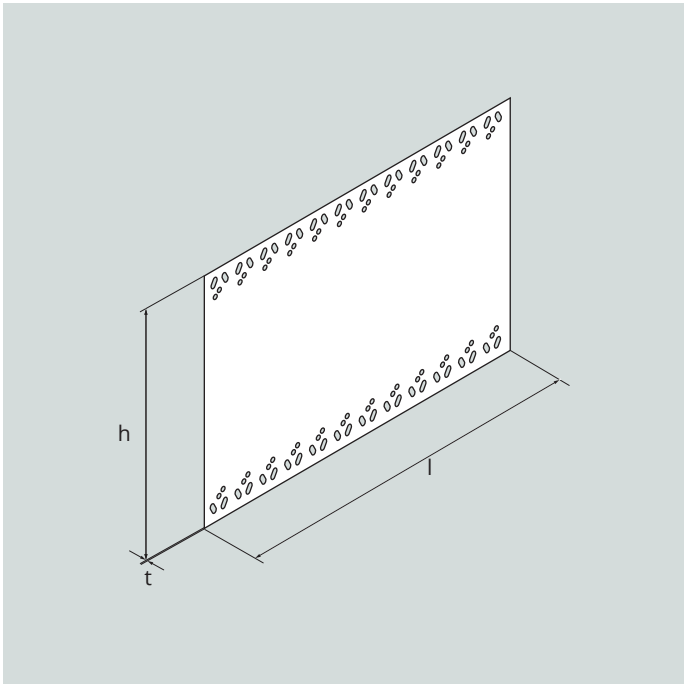
The flat anchor is used as a bearing or retaining anchor. As a bearing anchor it transmits the dead weight of the facing layer as well as proportional horizontal forces from wind and temperature influences via its longitudinal axis. As a retaining anchor it prevents the horizontal shifting of the facing layer with respect to the load bearing layer.

Advantages:

- Simple installation – direct in the joint area without cutting the insulation boards
- Flaw and thermal bridge-free insulation
- High-quality stainless steel

Material:
Stainless steel



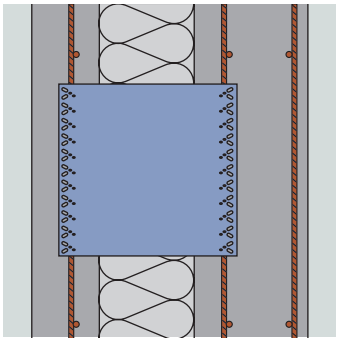


Table 5: Flat Anchors

Type	Sheet metal thickness t [mm]	l [mm]	Dimensions h [mm]								
FLA-80-1,5-h	1,5	80	150	175	200	225	–	–	–	–	–
FLA-80-2,0-h	2,0	80	–	–	200	225	260	280	300	340	360
FLA-120-1,5-h	1,5	120	150	175	200	225	–	–	–	–	–
FLA-120-2,0-h	2,0	120	–	–	200	225	260	280	300	340	360
FLA-160-1,5-h	1,5	160	150	175	200	225	–	–	–	–	–
FLA-160-2,0-h	2,0	160	–	–	200	225	260	280	300	340	360
FLA-200-1,5-h	1,1,5	200	150	175	200	225	–	–	–	–	–
FLA-200-2,0-h	2,0	200	–	–	200	225	260	280	300	340	360
FLA-240-1,5-h	1,5	240	150	175	200	225	–	–	–	–	–
FLA-240-2,0-h	2,0	240	–	–	200	225	260	280	300	340	360
FLA-280-1,5-h	1,5	280	150	175	200	225	–	–	–	–	–
FLA-280-2,0-h	2,0	280	–	–	200	225	260	280	300	340	360
FLA-320-1,5-h	1,5	320	150	175	200	225	–	–	–	–	–
FLA-320-2,0-h	2,0	320	–	–	200	225	260	280	300	340	360
FLA-360-1,5-h	1,5	360	150	175	200	225	–	–	–	–	–
FLA-360-2,0-h	2,0	360	–	–	200	225	260	280	300	340	360
FLA-400-1,5-h	1,5	400	150	175	200	225	–	–	–	–	–
FLA-400-2,0-h	2,0	400	–	–	200	225	260	280	300	340	360

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Anchor Pins

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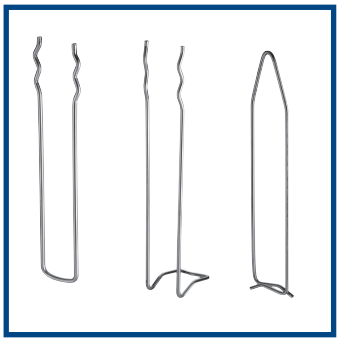

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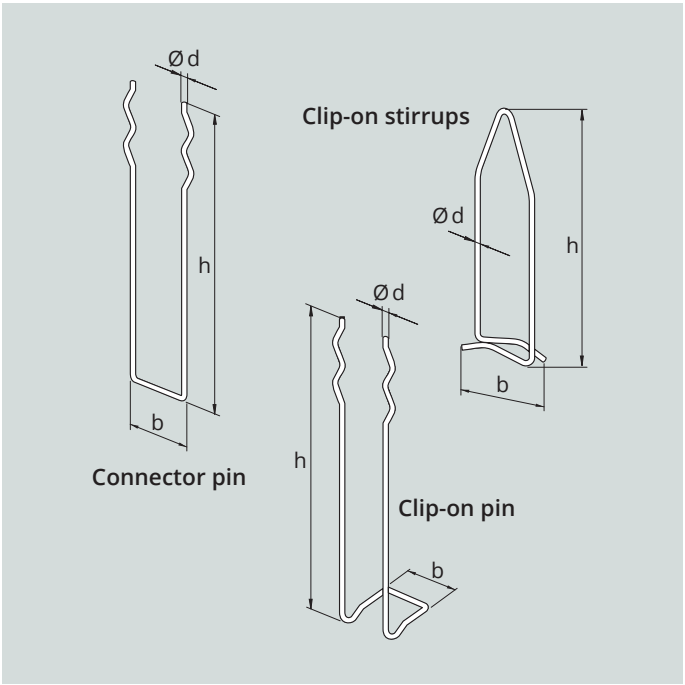
The anchor pins made of high-quality stainless steel serve as shear connectors in the sandwich anchor system and are used in combination with bearing anchors. As a rule, the pins are distributed in an even grid over the entire area of the sandwich panel. The VN connector pins can alternatively be used as retaining and bearing anchors in the connector pin cross.

Advantages:

- Simple installation – pins can be pushed through the insulation
- Easy fastening to existing reinforcement
- Flaw and thermal bridge-free insulation
- High-quality stainless steel

Material:
Stainless steel



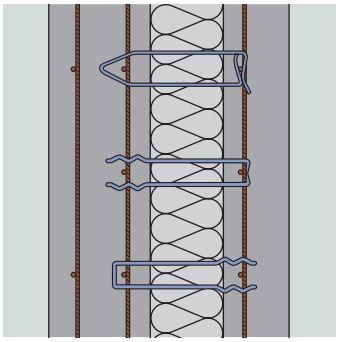


Table 6: Connector pin

Type	Dimensions																				
	b [mm]	Ø d [mm]	h [mm]																		
VN-4,0-h	43	4,0	160	180	200	220	240	260	280	300	320	–	–	–	–	–	–	–	–	–	
VN-5,0-h	45	5,0	200	220	240	260	280	300	320	340	360	380	400	–	–	–	–	–	–	–	
VN-6,0-h	47	6,0	220	240	260	280	300	340	340	360	380	400	420	440	460	480	500	520	540	560	

Table 7: Clip-on pin

Type	Dimensions																				
	b [mm]	Ø d [mm]	h [mm]																		
AN-4,0-h	43	4,0	160	200	240	280	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
AN-5,0-h	45	5,0	160	200	240	280	320	360	380	400	420	–	–	–	–	–	–	–	–	–	
AN-6,0-h	47	6,0	200	240	280	320	360	380	400	420	–	–	–	–	–	–	–	–	–	–	

Table 8: Clip-on stirrups

Type	Dimensions																				
	b [mm]	Ø d [mm]	h [mm]																		
AB-4,0-h	48	4,0	160	200	240	280	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
AB-5,0-h	55	5,0	160	200	240	280	320	360	380	400	420	–	–	–	–	–	–	–	–	–	
AB-6,0-h	72	6,0	200	240	280	320	360	380	400	420	–	–	–	–	–	–	–	–	–	–	

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