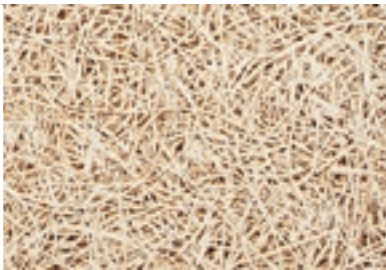
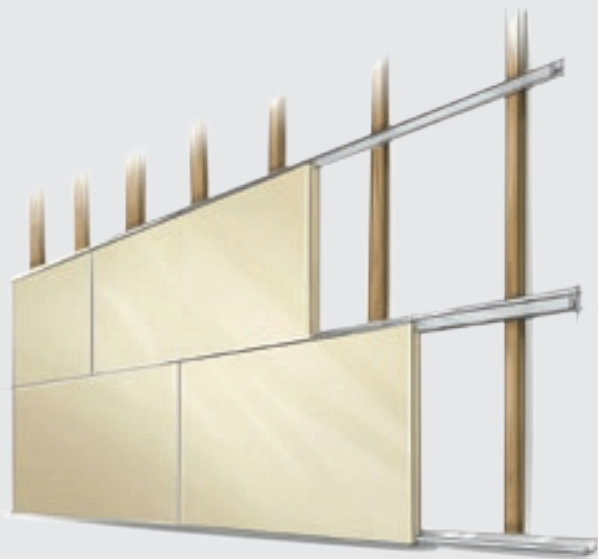


Special Systems

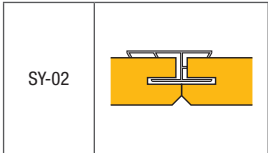
System S 2.1: HERADESIGN® installation with holding profiles



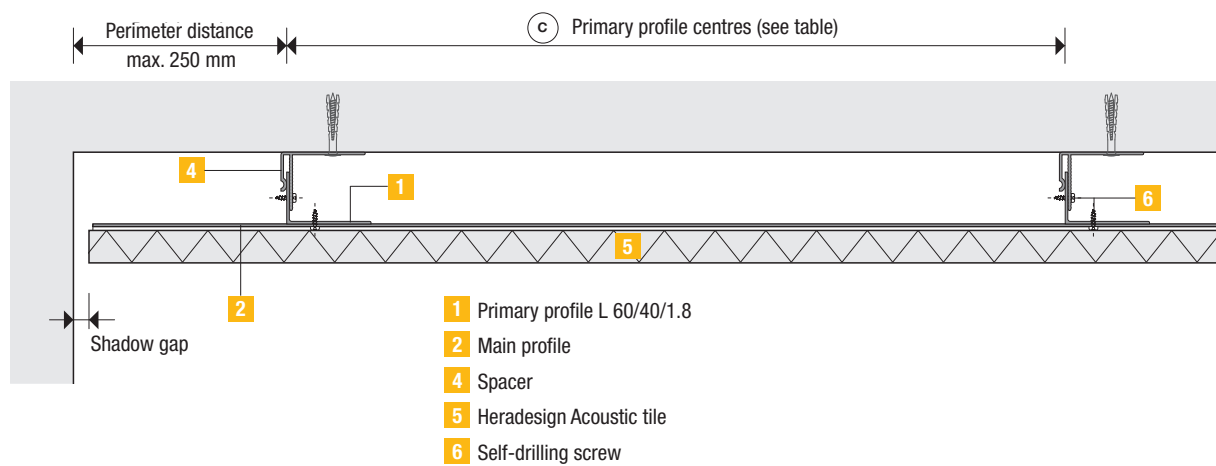
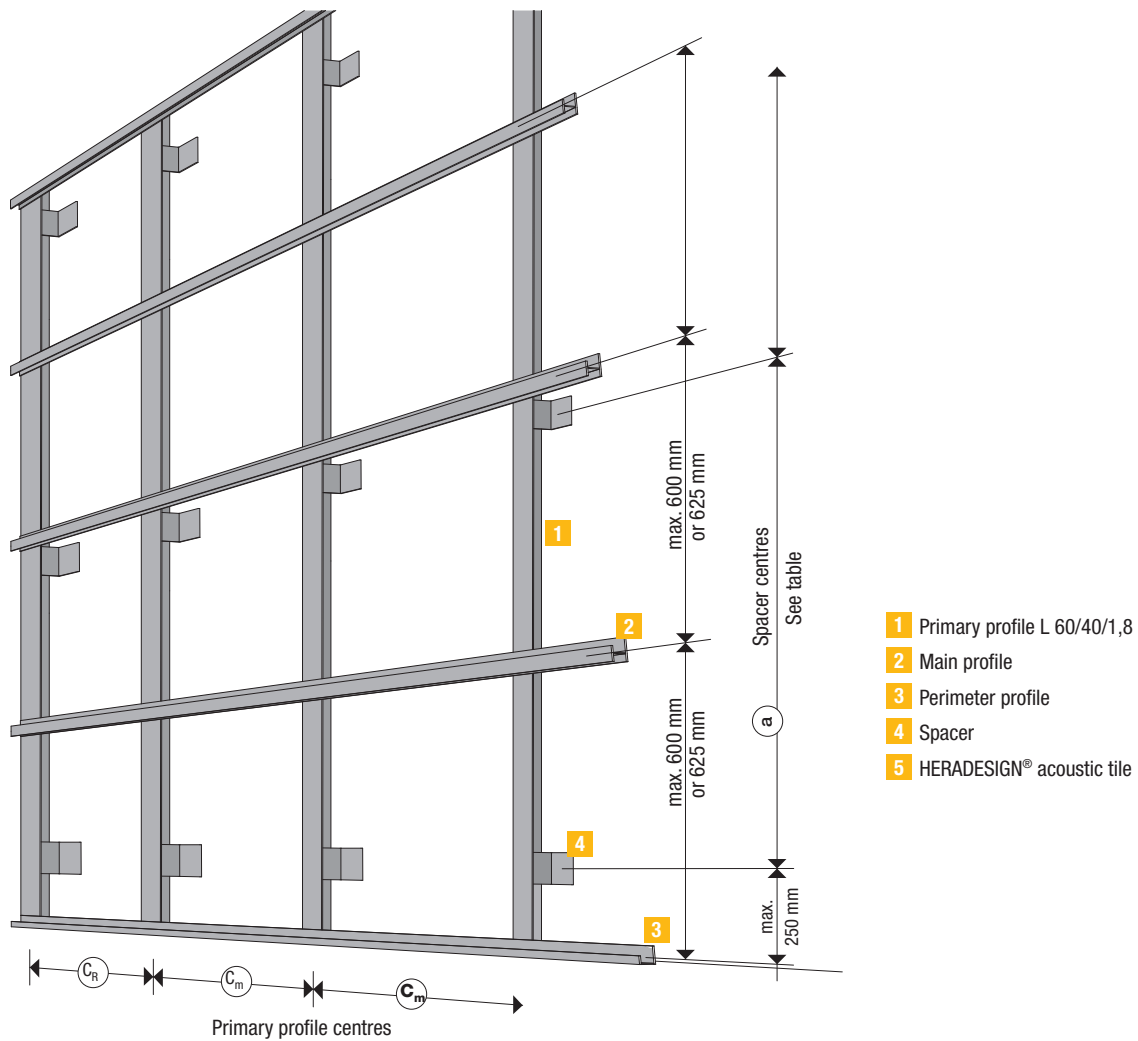
Product Range

Product		Thickness [mm]	Weight [kg/m²]	Edge Configuration	Profile centres [mm]	Tile size [mm]	Module [mm]
Product programme HERADESIGN®	HERADESIGN® superfine	25 / 35	11.3 / 15.0	SY-02	600; 625	600/600 625/625 600/1200 625/1250	600; 625
	HERADESIGN® fine	25 / 35	12.4 / 16.3				
	HERADESIGN® macro	25	12.4				
	HERADESIGN® micro	25 / 35	15.0 / 19.0				
	HERADESIGN® plano	25	15.0	SY-02	600	600/600 600/1200	600
Product programme A2	HERADESIGN® superfine A2	25	18.0				
	HERADESIGN® fine A2	25	19.0				

Edge Configurations



Sizes and dimensions



Maximum centres of the grid structure for cross construction and deflection class 1 according to EN 13964 (max. deflection L/500)

Primary profile angle 60/40/1.8 mm Max. centres (c) in mm ¹⁾	Max. spacer centres (a) for 0.25 kN/m ² loads ¹⁾ Max. additional horizontal loads (AL) in kN/m ²		
	(a) = 800 mm	(a) = 1000 mm	(a) = 1200 mm
c _m = 600 mm (middle field) c _R = 600 mm (perimeter field)	AL = 0.70 kN/m ²	AL = 0.65 kN/m ²	AL = 0.50 kN/m ²
c _m = 800 mm (middle field) c _R = 600 mm (perimeter field)	AL = 0.60 kN/m ²	AL = 0.50 kN/m ²	AL = 0.30 kN/m ²
c _m = 1000 mm (middle field) c _R = 800 mm (perimeter field)	AL = 0.30 kN/m ²	AL = 0.25 kN/m ²	AL = 0.20 kN/m ² ²⁾

Required load bearing capacity F_{zul} of the plugs:
 Up to 800 mm centres: plug min. 10 x 60 mm, with screw 7 x 69; with $F_{zul} = 0.80$ kN
 Up to 1000 mm centres: plug min. 10 x 80 mm, with screw 7 x 89; with $F_{zul} = 1.00$ kN
 Up to 1200 mm centres: plug min. 10 x 80 mm, with screw 7 x 89; with $F_{zul} = 1.20$ kN
 Only use approved plugs for anchoring the structure to the load-bearing base.

Note
 1) Higher loads or spacing of the profiles and spacers are to be confirmed through structural analysis before installation begins.
 2) Dead load:

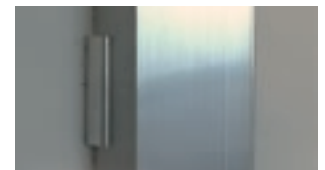
- c_R: max. permissible spacing for perimeter fields with multi-span profiles
- Main profile L 60/40/1.8 mm with 40 mm statically effective height taken into consideration
- Max. free overhang of primary and main profiles: 250 mm
- Max. spacing for single-span beams on request
- Per joint at least two self-drilling screws 4.8 x 20 mm

Material requirements

Component		Centres	Material requirement for every m ² ceiling ¹⁾		
			600/600		
1	Primary profile [lin. m]	c = 600 mm	1.7		
		c = 800 mm	1.25		
		c = 1000 mm	1		
2	Main profile [lin. m]	600 mm	1.7		
		625 mm	1.6		
3	Perimeter profile ²⁾ [lin. m]	1200 mm	0.84		
		2400 mm			
		3000 mm	0.70		
		6000 mm	0.35		
		9000 mm	0.25		
		larger	As required		
4	Spacer ³⁾ [pcs.]	Centres	c = 600 mm	c = 800 mm	c = 1000 mm
		a = 800 mm	2.80	2.00	1.70
		a = 1000 mm	2.20	1.60	1.30
		a = 1200 mm	1.70	1.25	1.00
6	Self-drilling screws [pcs.]	a = 800 mm	7.50	6.50	6.00
		a = 1000 mm	7.00	6.00	5.00
		a = 1200 mm	6.50	5.50	5.00

*) The quantities are guideline only and do not include waste or other site specific scenarios
 **) For acoustic area widths of 1200, 2400, 3000, 6000, 9000 mm and taking into consideration the permissible spacing (a) of the spacer.
 ***) For primary profile lengths of 3000 mm.

System components



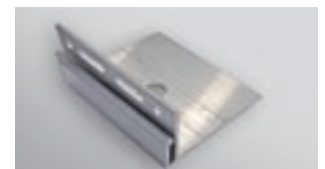
1 - Primary profile L 60/40/1,



2 - Main profile



3 - Perimeter profile



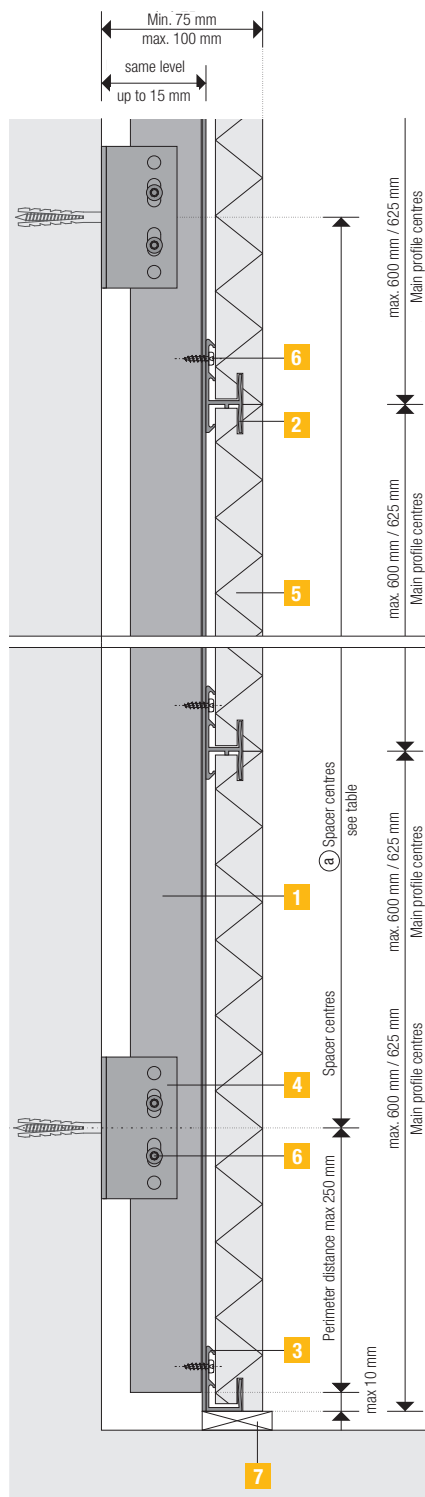
4 - Spacer



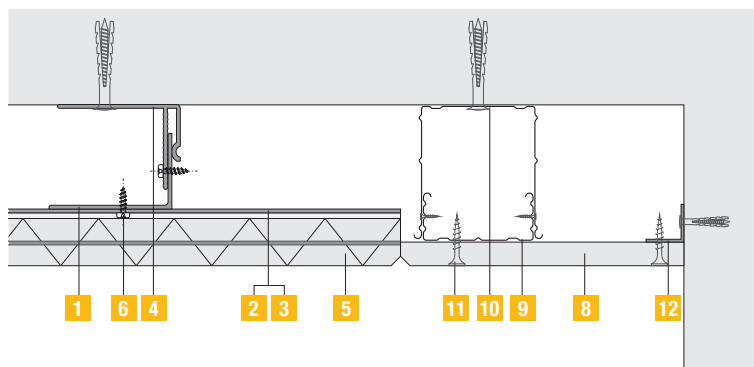
6 - Self-drilling screws

Installation guidelines and advice

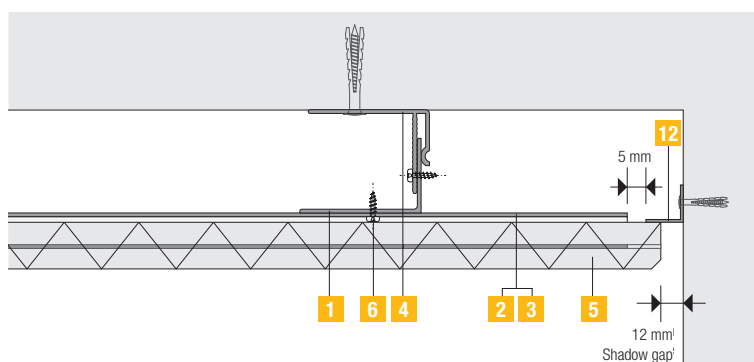
Vertical section



Horizontal section of perimeter connection with plasterboard margin



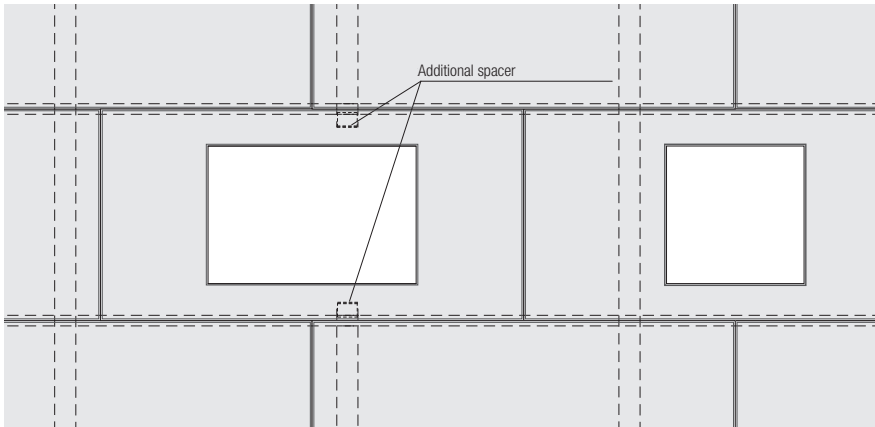
Horizontal section of perimeter connection with shadow gap



- 1 Primary profile L 60/40/1.8
- 2 Main profile
- 3 Perimeter profile
- 4 Spacer
- 5 Heradesign acoustic tile, 25 or 35 mm thick, SY-02 edge
- 6 Self-drilling screws 4.8 x 20 mm
- 7 Base according to designer's specifications
- 8 GK tile
- 9 CD-profile 60/27/0.6 mm
- 10 Adjustable direct hanger
- 11 Dry wall screw
- 12 Perimeter angle 21/21 mm

Installation of maintenance openings

When installing maintenance openings with dimensions of 400 x 400 mm or 400 x 600 mm in 1200 x 600 mm or 1250 x 625 mm tile sizes, the middle profile must be left out over a length of 500 mm so that access to the ceiling void is possible.



Installation photos



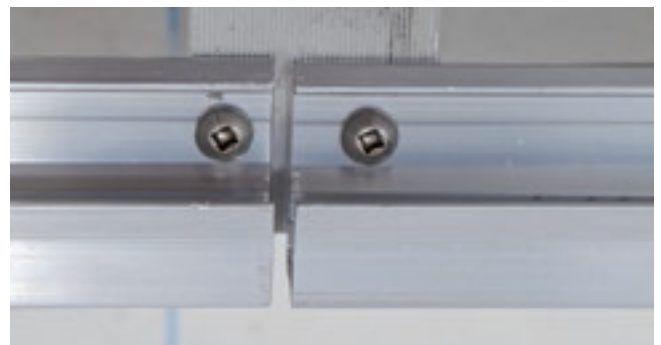
Lay out the profile centres from the middle of the room taking into account equally sized perimeter margins and the maximum permissible centres.



Installation of spacers with approved plugs (10 mm diameter) and screws with washers.



Fix the primary profile L 60/40/1.8 mm with two self-drilling screws, 4.8 x 20 mm, each. The second spacer from the top of each primary profile is designated as a fixed bearing. The self-drilling screws are set into the two round holes. All other spacers are designated as slide bearings. Height adjustment of up to 15 mm is possible by moving the primary profile in the spacer.



Install the perimeter profile with two self-drilling screws, 4.8 x 20 mm, per primary profile. Then insert the Heradesign acoustic tiles. For longitudinal expansion of lengths > 6 m, install profiles with a 5mm gap.



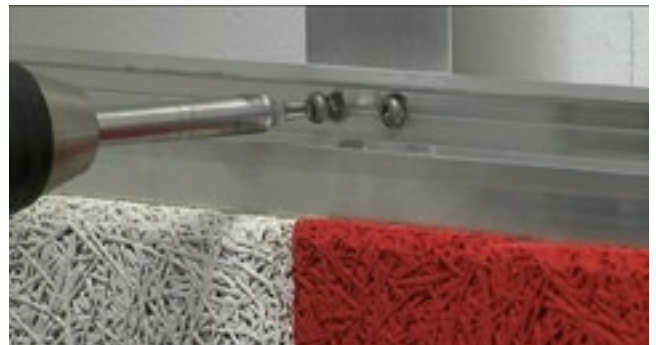
Push the tiles together and align each row horizontally and vertically. Only handle tiles with clean hands.



Fix the main profile at the end with only one screw so that the other end remains adjustable. This makes inserting further tiles easier.



Align the tiles and the main profile before fixing it with the self-drilling screws.



Fix the main profile with two self-drilling screws, 4.8 x 20 mm, per primary profile. Set the first self-drilling screw near the corner of the primary profile.



Installation of the upper edge profile. Space required from the ceiling approx. 40 mm. The first tile is moved approx. 10 cm towards the middle, the screws are fixed and then the tile is finally aligned in the grid.



Slide in the tiles from the side. The edge profile of the last field is installed after tile installation.



Align the tiles before fixing the perimeter profile with self-drilling screws.



If there is no space to move the tile across, fix the last tile by means of a screw. Cover unpainted screw heads with paint in the colour of the tile using a fine brush.

For the installation requirements see DIN 18168 “Lightweight ceiling linings and suspended ceilings”, as well as EN 13964 “Suspended ceilings – requirements and test methods”.

- **Installation of the spacers 4:** Before beginning installation, check the base for sufficient load bearing capacity.
- **Layout the spacers** from the centre of the room, taking into account equally sized end fields and the maximum permissible centres. For maximum centres, see table. Fix the spacers to the underlying surface with approved screws with washers and plugs according to static requirements. The plugs have to be appropriate for the load-bearing capacity of the underlying surface.
- **Installation of primary profiles 1:** Depending on the required perimeter distances of the Heradesign acoustic tiles, insert the primary profile (angle 60/40/1.8 mm) into the spacer with either the 40 mm leg or the 60 mm leg and align it. Screw the primary profile to the spacers with two stainless steel self-drilling screws, 4.8 x 20 mm and make sure that the second spacer from the top of each primary profile is designated as a fixed bearing, i.e. the two screws are set into the round holes. All other screws are set into the slots in order to enable length adjustment of the profiles. Height adjustment of up to 15 mm is possible. See detail vertical section. For the maximum span of the primary profiles, see table.
- **Note:** At least three spacers have to be set per primary profile of 3000 mm length. If the primary profile is fixed with only two spacers, the maximum distance between these must not exceed 800 mm.
- **Installation of perimeter profile 3:** Fix the perimeter profiles 3 at the specified height, align them and fix each with two stainless steel self-drilling screws 4.8 x 20 mm to the primary profiles. Set the self-drilling screws in the groove which can be seen on the section. The upper edge is also formed with an edge profile; only push the tiles together after fixing the self-drilling screws. If the last tile is not movable, secure the outer corner of the tile with a screw. The screw head must be flush and covered using a fine brush and the supplied paint.
- **Installation of Heradesign acoustic tiles and main profiles 2:** The Heradesign acoustic tiles with edge design SY-02 and the main profiles are installed step by step whilst considering the grid dimension 2 and equally sized end fields. Start inserting the HERADESIGN® acoustic tiles at the edge of the wall in smaller areas; in the centre of the wall in large areas. Insert the first HERADESIGN® acoustic tile into the perimeter profile, then slide in the main profile and finally fix it with a self-drilling screw so that the structure still remains movable in height. Then insert the other Heradesign acoustic tiles, align the tiles and main profile and fix the main profile with two stainless steel self-drilling screws, 4.8 x 20 mm, to the primary profile. The screws are set into the pre-cut groove in the main profile.
- **Damaged or soiled tiles** may not be installed. Small mechanical damage may be improved by means of the supplied paint.
- **Mineral wool overlays:** Acoustic overlays or films are installed step by step with the installation of the acoustic tiles. If necessary, the lowest layer should be secured against downward movement. When trickle protection is required, we recommended wrapping the mineral wool in PE film. A PE film with a thickness of up to 30 µm does not affect the sound absorption of the underlying absorber and is recommended as trickle protection for mineral wool overlays.
- **Linear expansion with temperature changes of up to 30°C:** To compensate for this, there has to be a free distance of at least 5 mm at the longitudinal joints of primary or main profiles for lengths over 6 m. With temperature changes of over 30°C, position the expansion joints according to static requirements.
- **Corrosion protection requirements:** The plugs and screws have to be chosen according to the existing corrosion exposure. In order to avoid contact corrosion, stainless steel screws have to be used to connect the aluminium profiles with each other.
- **Installation of lighting:** The installation of modular lighting is not possible. Other recessed or surface lighting etc. requires separate suspension.