## **Acoustic Design Ceilings**



## **Compound Seam**





Compound Seam by Vogl Deckensysteme – manufactured with maximum precision





# Traditional Technology - the Compound Seam

In addition to the patented VoglFuge joint system, Vogl Deckensysteme also offers the classical and most commonly used Compound Seam in its product line. It is available in numerous perforation patterns and design variations and is naturally manufactured with maximum precision at Vogl Deckensysteme.

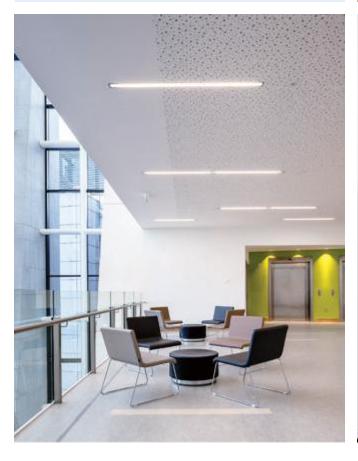
Other than the systems with edge-to-edge installation technique, this joint variation is laid with space between the panels by using mounting aids and filled afterwards with joint compound. If done properly, the joint possesses a very high degree of rigidity after curing.



#### **Advantages of the Compound Seam:**

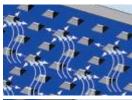
- Proven joint technology can be performed by any drywall installer without any additional training
- Due to the high quality of Vogl acoustic design panels, you get, with proper workmanship, a flawless end result
- With standard air purification effect
- Finishing possible with all common fillers in compliance with manufacturer's instructions

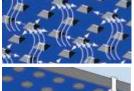












Vogl acoustic design panels of the Compound Seam system are perforated ceiling panels with high acoustic performance and air purification effect (adsorption).

Black or white acoustic fleece backing (other fleece colours on request).

Other available options: Acoustic design panels with non-perforated edges, block perforation, applications, manufacture in accordance with customer designs and ceiling plans.

EN 14190 "Gypsum plasterboard products from reprocessing" Fire rating: A2-s1, d0 (non-flammable) according to EN 13501-1

Long edge: SK (sharp-edged) SK (sharp-edged) Short edge:





Illustration	Item number	Description	Details	m²/pallet Pcs./pallet
	7071101110 7071101120	Acoustic Design Panel SF 6/18R Acoustic fleece, black Acoustic Design Panel SF 6/18R Acoustic fleece, white	1,188 x 1,998 x 12.5 mm  Perforated area: 8.7 %  Mass: 9.1 kg/m²	59.3 m <sup>2</sup> 25 pieces
	7071102110 7071102120	Acoustic Design Panel SF 8/18R Acoustic fleece, black Acoustic Design Panel SF 8/18R Acoustic fleece, white	1,188 x 1,998 x 12.5 mm  Perforated area: 15.5 %  Mass: 8.5 kg/m²	59.3 m <sup>2</sup> 25 pieces
	7071103110 7071103120	Acoustic Design Panel SF 10/23R Acoustic fleece, black Acoustic Design Panel SF 10/23R Acoustic fleece, white	1,196 x 2,001 x 12.5 mm  Perforated area: 14.8 %  Mass: 8.5 kg/m²	59.8 m <sup>2</sup> 25 pieces
	7071104110 7071104120	Acoustic Design Panel SF 12/25R Acoustic fleece, black Acoustic Design Panel SF 12/25R Acoustic fleece, white	1,200 x 2,000 x 12.5 mm  Perforated area: 18.1 %  Mass: 8.2 kg/m²	60.0 m <sup>2</sup> 25 pieces
	7071105110 7071105120	Acoustic Design Panel SF 15/30R Acoustic fleece, black Acoustic Design Panel SF 15/30R Acoustic fleece, white	1,200 x 1,980 x 12.5 mm  Perforated area: 19.6 %  Mass: 8.0 kg/m²	59.4 m <sup>2</sup> 25 pieces
	7071106110 7071106120	Acoustic Design Panel SF 8/12/50R Acoustic fleece, black Acoustic Design Panel SF 8/12/50R Acoustic fleece, white	1,200 x 2,000 x 12.5 mm  Perforated area: 13.1 %  Mass: 8.7 kg/m²	60.0 m <sup>2</sup> 25 pieces
	7071107110 7071107120	Acoustic Design Panel SF 12/20/66R Acoustic fleece, black Acoustic Design Panel SF 12/20/66R Acoustic fleece, white	1,188 x 1,980 x 12.5 mm  Perforated area: 19.6 %  Mass: 8.0 kg/m²	58.8 m <sup>2</sup> 25 pieces
	7071108110 7071108120	Acoustic Design Panel SF 8/18Q Acoustic fleece, black Acoustic Design Panel SF 8/18Q Acoustic fleece, white	1,188 x 1,998 x 12.5 mm  Perforated area: 19.8 %  Mass: 8.0 kg/m²	59.3 m <sup>2</sup> 25 pieces
	7071109110 7071109120	Acoustic Design Panel SF 12/25Q Acoustic fleece, black Acoustic Design Panel SF 12/25Q Acoustic fleece, white	1,200 x 2,000 x 12.5 mm  Perforated area: 23.0 %  Mass: 7.7 kg/m²	60.0 m <sup>2</sup> 25 pieces
	7071110110 7071110120	Acoustic Design Panel SF 8/15/20R Acoustic fleece, black Acoustic Design Panel SF 8/15/20R Acoustic fleece, white	1,200 x 2,000 x 12.5 mm  Perforated area: 9.5 %  Mass: 9.1 kg/m²	60.0 m <sup>2</sup> * 25 pieces
	7071111110 7071111120	Acoustic Design Panel SF 12/20/35R Acoustic fleece, black Acoustic Design Panel SF 12/20/35R Acoustic fleece, white	1,200 x 2,000 x 12.5 mm  Perforated area: 11.0 %  Mass: 8.9 kg/m²	60.0 m <sup>2</sup> * 25 pieces

<sup>\*</sup>Note: Despite being perforated irregularly, random perforation panels still yield a certain linear layout as the abutting panel edges must be non-perforated in any case. This is unavoidable and independent of the workmanship of the specialist contractor.



The primary profiles are rigidly hung from the structural soffit with suspended brackets using fixing materials approved by the relevant building authorities.

Centre distance and number of suspended brackets, as well as fixation, are subject to site requirements and EN 13964/DIN 18181. The CD 60/27 secondary profiles are attached to the CD 60/27 primary profiles using cross connectors.

CD 60/27 are extended using straight connectors. For primary grid profiles, always ensure that the joint is close to a suspended bracket (max. 100 mm). Joints should generally be staggered.

Plasterboards should be installed in accordance with EN 13964/ DIN 18181 and manufacturer's guidelines.

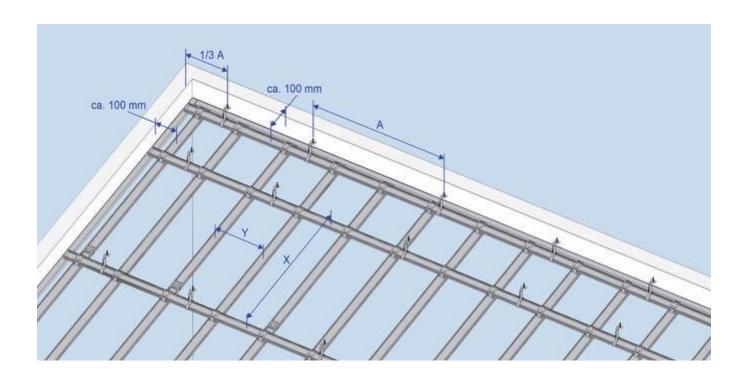
 $\label{lem:continuous} Additional\ items\ such as\ lighting,\ ventilation,\ sprinkler\ systems\ etc.\ must be\ individually\ suspended.$ 

Any changes in the framework owing to integrated ceiling components must be considered.

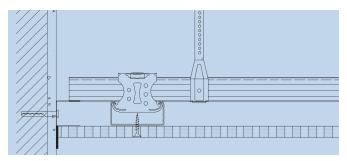
Block perforations and block slotting require different secondary profile centre distances which are shown in our tables.

Compound Seam framework								
Technical data	Unit	Perforated panel ceiling						
Panel thickness	mm	12.5						
Distributed load	kN/m²	≤ 0.15			≤ 0.30			
Centre distance of suspended bracket A	mm	1,150	1,050	1,000	950	900	900	750
Centre distance of primary profiles X	mm	600	800	900	1,000	1,100	600	1,000
Centre distance of secondary profiles Y	mm	see table below						

ltem	Unit	Centre distance of secondary profiles Y
Acoustic Design Panel 6/18; 8/18; 8/18Q; 10/23; 12/25; 12/25Q; 8/12/50; 8/15/20; 12/20/35	mm	333
Acoustic Design Panel 15/30; 12/20/66	mm	330

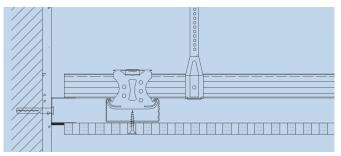






#### Wall connection:

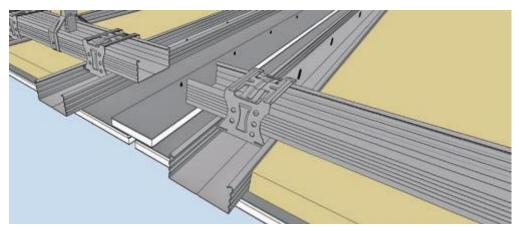
For filled wall connections, or wall connections filled from below, a double layer fleece strip is used to separate the acoustic ceiling from the wall.



#### Wall connection - shadow gap:

For wall connections with a shadow gap, the panel is only installed up to the UD profile as this may be covered with a strip of adhesive double layer fleece in order to colour shadow gap.

Please contact us if you require additional technical details on possible wall connections.



#### **Expansion joints:**

To prevent cracking in the ceiling surface, expansion joints have to be provided every 10 linear metres / 100 m² of the ceiling area.

The framework must be completely severed (see illustration) and the panel strips above the joint fixed to one side of the ceiling structure only.

Tip: Panel strip may be covered with adhesive double layer fleece on visible side if colouring expansion joint in either black or white is desired.

 $Material\ required\ per\ m^2\ based\ on\ a\ ceiling\ of\ 100\ m^2\ (10\ m\ x\ 10\ m,\ not\ considering\ loss\ or\ waste,\ approximate\ values):$ 

Metal framework, suspended bracket centre distance 1,000 mm, primary profile spacing 900 mm, secondary profile spacing 333 mm					
Item number	Item description	Unit	Quantity		
Fixation					
Standard	Safety nail, DN 6 x 35	piece	1.3		
Suspended brackets					
2016X000	Direct suspended bracket 50/120/200 and	piece	1.3		
50809000	Tapping screw LN 3.5 x 9.5	piece	2.6		
	or				
20128 / 20151	Vernier hanger / vernier bottom part and	piece	1.3		
25501000	Vernier security pin and	piece	1.3		
25XXX000	Vernier top part, 200 - 2,000 mm, custom lengths on request	piece	1.3		
Profiles and connectors					
100XX000	CD profile 60/27/0.6 rK, I=XXX mm	m	4.1		
10230000	UD profile 28/27/0.6, 3,000 mm	m	0.4		
20159000	Connector, lengthwise, CD 60/27	piece	0.8		
20135000	Cross connector, CD 60/27	piece	3.3		
52130000	Perforated panel screw SN 3.5 x 30	piece	22		
Joint Compound					
Standard	Joint Compound	kg	0.2		



Check ceiling framework for rigidity and evenness (using a straightedge).

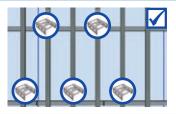


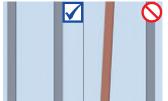


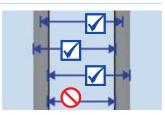


Always mount straight connectors in a staggered manner (see figure). Then check ceiling grid CD sections for centre distances and adjust as necessary.

Measure centre distances accurately!







Prior to installation, chamfer edges on visible sides of ceiling panels at 45 degrees using handheld sander. Prime edge area of gypsum core with Vogl Supergrund LF.

Angle must be 45 degrees.



#### We recommend the following accessories for installation:

Perforated panel screws incl. screw bit, Vogl mounting aid, Vogl Supergrund LF

#### Correct handling of ceiling panels:

- Always take into account the load carrying capacity of building when storing ceiling panels
- Do not store ceiling panels upright, but always flat on panel pallets
- Always carry ceiling panels with short edges upright
- $\blacksquare$  Protect ceiling panels from moisture; relative humidity should be 40 80 %
- Avoid major temperature fluctuations
- Do not expose stored ceiling panels to direct sunlight

As viewed from entrance to the area, choose panel arrangement with short edge parallel to the windows (main direction of light).

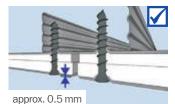


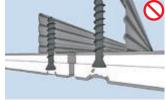
Get panel to correct position on framework using a panel lifter if working alone, or else another worker's help.



Perforation pattern	Centre distance
Straight round perforation 6/18, 8/18, 10/23, 12/25 Offset round perforation 8/12/50, Straight square perforation 8/18, 12/25, Random perforation 8/15/20, 12/20/35	333 mm
Straight round perforation 15/30 Offset round perforation 12/20/66	330 mm

Screws must be put into panel at right angles and countersunk head screwed down to 0.5 mm below visible surface of ceiling panel.

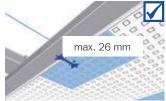


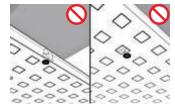




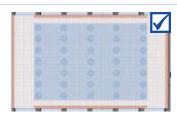
Screws should be spaced 170 mm at max. from fixing point to fixing point. Distance between screw and panel edge not to exceed 26 mm. Avoid damaging acoustic design panels by countersunk heads.

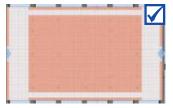






First, screw ceiling panel to framework in centre of panel, then lower panel lifter and fix a screw in centre of each short edge before finally screwing down long edges.





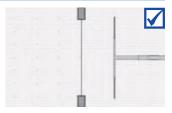




Take note of panel labelling (stamp) and mount in direction of reading (all stamps should point in same direction).



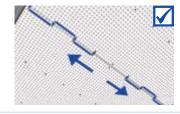
Use CD profile or straightedge as end stop. Position next panel by sliding it to first alongside CD profile / straightedge and fixing it in place.

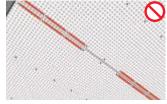


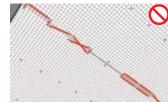
#### General site conditions / Manufacturer's instructions:

- Take movement joints of building structure into account
- Plan to include expansion joints after approx. every 10 m or approx. 100 m<sup>2</sup>
- Cardboard layer must not be penetrated by screws, but merely displaced downwards
- Working temperature should be at least +10 °C and job site temperature not below +5 °C
- Place any damping (mineral wool layer) directly onto the ceiling panels
- Carry out any additional work on ceiling (access openings, lighting recesses, etc.) immediately after installing ceiling panels and always before finishing joints

Fix screws in panel joint area using alternating pairs across panels ("zig-zag" principle), starting left or right next to screw which has already been fixed. This will create flush joint areas.



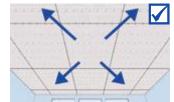




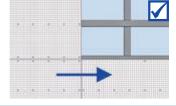
Install ceiling panels first lengthways, then crossways, resulting in cross arrangement on ceiling. Cover remaining areas in same manner, working from centre of room outwards.

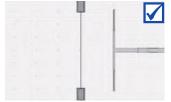


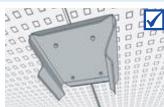




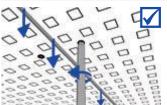
Install rest of ceiling panels, always working with two mounting aids (except in case of random perforation) and heeding proper seating of mounting aids. Install panels exclusively in "cross joint" system and always check optical appearance of perforation (straight and diagonal).

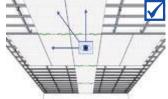






After all panels have been installed, recheck that all joints are level and adjust, if necessary, using a screwdriver. Do another visual check of perforation pattern, and finally use a straightedge to check entire ceiling.



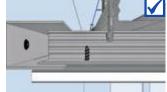


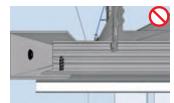


Place any damping layer directly onto back of ceiling panels.

Never screw into UD28 profile when mounting panels at ceiling perimeter.

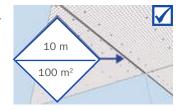




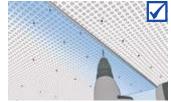


Provide for expansion joint of 5 to 10 mm every 10 linear metres / 100  $\,\mathrm{m}^2$ .

Additional board strip above joint must be screwed down on one side only.









Important! All work that could result in damage to ceiling surface must be completed before commencing jointing.

Check ceiling, adjust any height discrepancies in joint area with a screw driver.



Mix joint compound in a clean pail according to manufacturer's instructions.

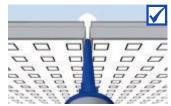


#### General site conditions / Manufacturer's instructions:

- Working temperature should be at least +10 °C and job site temperature not below +5 °C
- Avoid sudden heating and cooling of rooms
- Relative humidity: 40 80 %
- Self-levelling, cement or asphalt screeds must be fully dried - make sure there is no residual moisture

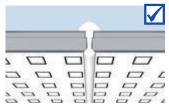
Load cartridge and fill joints generously holding cartridge as upright as possible to ensure complete filling of joints.

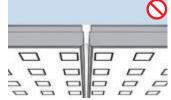






To achieve high joint strength, make sure a "mushroom" forms between two panels (see figure).

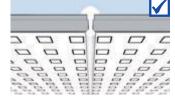




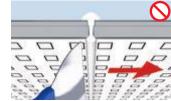


After joint compound has started to cure, and before it has hardened completely, remove any protruding material working in longitudinal direction of joint.

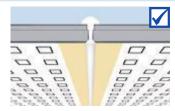








Then refill joints and screw heads with joint or finishing material, having covered perforation adjacent to joint with masking tape beforehand.



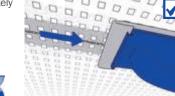
Any holes closed with joint compound can be re-opened using a perforation wheel.

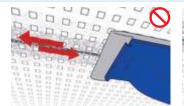


#### Surface treatment for painters (in accordance with ATV painting work DIN 18363)

- Only apply coating by roller; spray application is not permitted!
- Prior to application of paint coat, a primer should generally be applied in accordance with manufacturer's specifications
- Manufacturer's recommended drying times for both primer and finishing coat must be strictly observed
- Alkaline coatings are unsuitable for plasterboards
- 3 coats of paint must be applied (1 prime coat + 2 finishing coats) and recommended drying times adhered to
- Always consult system manufacturer's technical data sheets for primers and finishing coats

After joint compound has completely cured, use a handheld sander to smooth the area.









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#### Acoustic Design Panels (with air purification effect) – Compound Seam system

Suspended ceiling structure, one side clad with Vogl acoustic design panels backed with sound absorbing fleece, mounted to a rigid ceiling framework of galvanised metal profiles, hung with flush and horizontally aligned suspended brackets and installed using fixing materials approved by the building authorities, installation in accordance with manufacturer's instructions, including all connection and jointing work as well as connection and fixing materials.

#### System structure

Framework in accordance with DIN 18181:2007-02

#### Profiles:

Pressure-resistant design made from galvanised sheet steel profiles CD 60/27 as primary and secondary profiles in accordance with EN 14195

#### Suspended brackets:

- Suspend with vernier systems (top part, vernier hanger)\*
- Suspend with vernier systems (top / bottom part)\*
- Suspend with direct suspended brackets\*
- Use fixing materials approved by the relevant building authorities.

#### Connection:

For primary-secondary profile connection with cross connectors, use suspended brackets and cross connectors in accordance with EN 13964.

Suspended bracket centre distance: max. 900 mm, Primary profile centre distance: max. 1,100 mm, Secondary profile centre distance: 330/333 mm\*

#### Covering:

Vogl acoustic design panels as perforated ceiling panels in accordance with EN 14190, with air purification effect, one layer 12.5 mm, laid with mounting aid and fixed to framework using perforated panel screws SN 30, with screw spacing max. 170 mm.

#### Perforation pattern / perforated area / mass per unit area:

- 6/18 round / 8.7 % / 9.1 kg/m<sup>2</sup>\*
- 8/18 round / 15.5 % / 8.5 kg/m<sup>2</sup>\*
- 10/23 round / 14.8 % / 8.5 kg/m<sup>2</sup>\*
- 12/25 round / 18.1 % / 8.2 kg/m<sup>2</sup>\*
- 15/30 round / 19.6 % / 8.0 kg/m<sup>2</sup>\*
- 8/12/50 round / 13.1 % / 8.7 kg/m<sup>2</sup>\*
- 12/20/66 round / 19.6 % / 8.0 kg/m<sup>2</sup>\*
- 8/18 square / 19.8 % / 8.0 kg/m<sup>2</sup>\*
- 12/25 square / 23.0 % / 7.7 kg/m<sup>2\*</sup>
- 8/15/20 round / 9.5 % / 9.1 kg/m<sup>2</sup>\*
- 12/20/35 round / 11.0 % / 8.9 kg/m<sup>2</sup>\*

#### Distributed load:

- less than or equal to 0.15 kN/m<sup>2\*</sup>
- less than or equal to 0.30 kN/m<sup>2</sup>\*

#### Fleece backing:

Panels backed with sound absorbing fleece as:

- acoustic fleece, black\*
- acoustic fleece, white\*

#### Joint finishing / filling:

Fill screw heads flush with surface. Carry out joint finishing using Compound Seam system in accordance with manufacturer's instructions. Use joint compound as per EN 13963.

#### Subbase:

 $\begin{array}{lll} \text{Suspension height:} & \text{$h = mm$} \\ \text{Installation height:} & \text{$h = mm$} \\ \text{Room height:} & \text{$h = mm$} \\ \text{Insulation thickness:} & \text{$th = mm$} \\ \end{array}$ 

Complete system: Vogl Deckensysteme, or equivalent

\* Delete as applicable



## **System Training**

Our know-how for your result reliability



### **Topic:**

## Installation of acoustic design ceilings - Various joint systems

#### Description

For installation of different acoustic panel systems, there are also fundamental differences in finishing of joints. In addition to theoretical fundamentals, our system training offers mainly practical guidelines for installation work on site. Another topic of Vogl System Training, beside suspension and connection with various components, is how to solve problems (expansion joints, integrated ceiling elements and wall connections).

#### **Topics**

- The variety of joint types and panel systems (including VoglFuge, Compound Seam, GSG4 Joint)
- Panel arrangement and sensible space division for installation
- Proper joint finishing in various systems
- Frequent wall connections and how to execute them properly
- Expansion joints in ceiling area / regulations and recommendations
- Integrated ceiling components fundamentals and problems
- Various types of frieze and how to execute them
- How to avoid typical processing errors in installation work mentioned

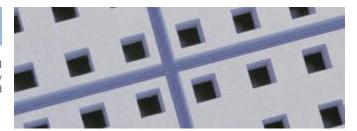
#### **Targets**

After completion of seminar, system training participants shall

- understand and be able to apply current standards and regulations
- recognise and avoid typical installation errors
- be able to avoid any problems that may be caused by coating through subsequent trades

#### Target group

This system training is equally suited for site and project managers as well as for drywall installers and interior construction workers. Also, technically adept employees in sales or from building material dealers' can extend their knowledge about proper installation of ceiling structures.



A registration form is available on page 191. You have any questions in advance? We are glad to assist you! Phone: +49 9104 825-100

Registration is possible by e-mailing info@vogl-ceilingsystems.com directly or by fax to +49 9104 825-280. You can also find all information on training under www.vogl-ceilingsystems.com