KNAUF

كناوف

2019

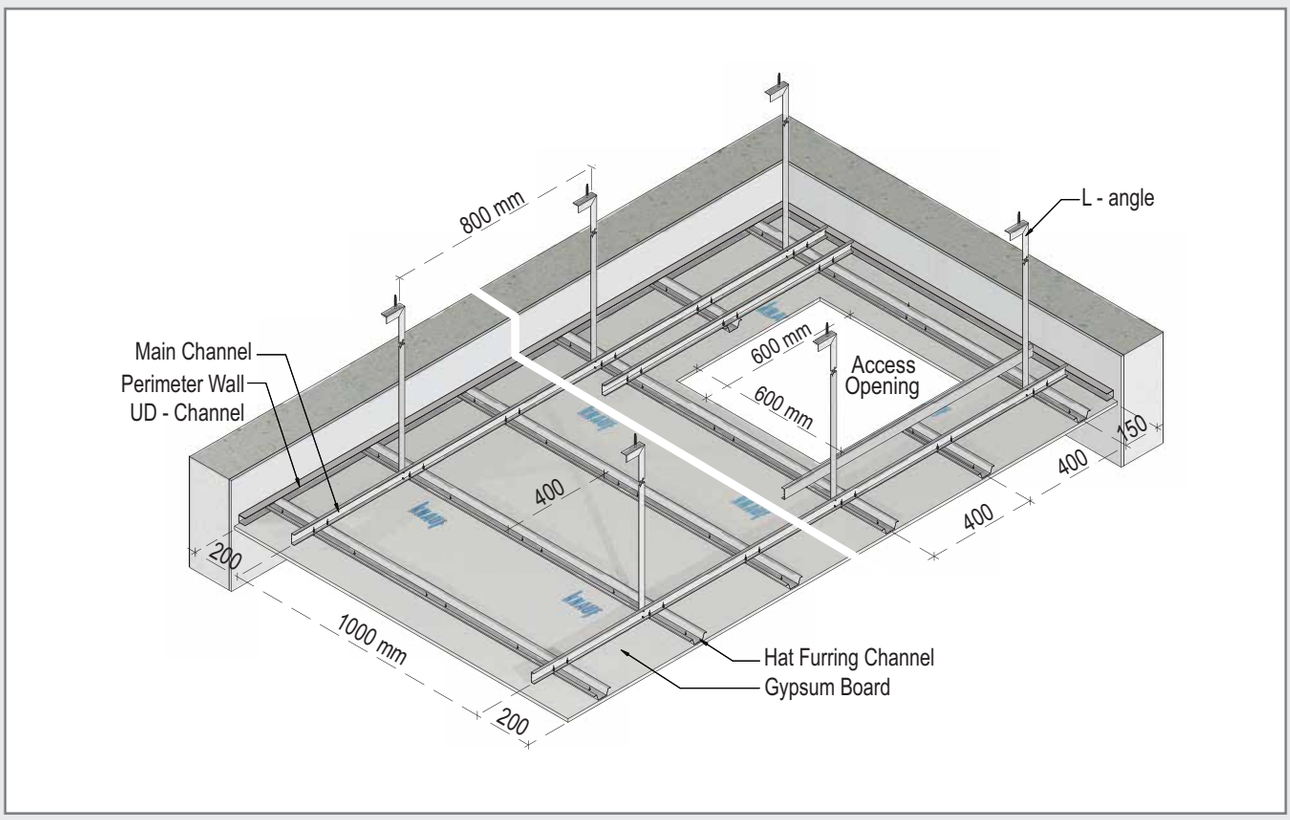
GYPSUM BOARD CEILING SYSTEMS

EN-BS

GERMAN TECHNOLOGY MADE IN UAE

Contents

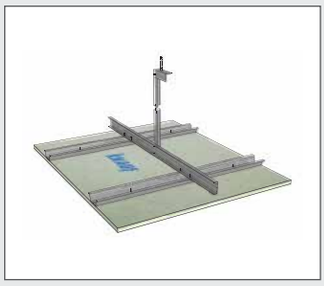
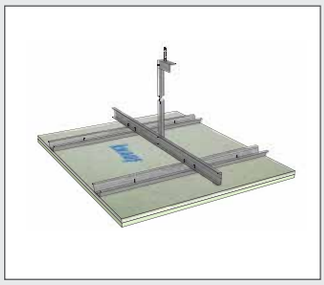
System overview



Load test reports

Test report No. SR 0308 Rev.0, multi-layer, BS EN.

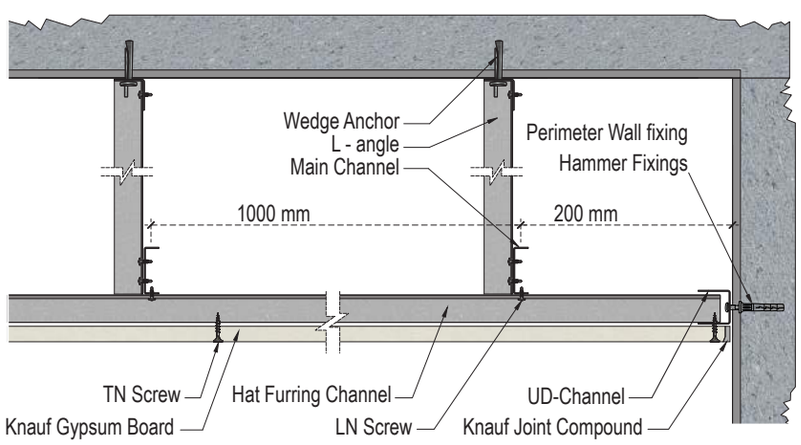
Deflection Criteria L/240, under a static wind load of 500 Pa.

Maximum load including lightning devices, MEP, insulation, up to 50 kg/m2	Cladding thickness	Spacing of structure			Approx. Weight (kg/m2)
		Suspension Hangers (mm)	Upper channels (mm)	Furring channels (mm)	
	1 x 12.5 mm	800	1000	400	10.3 kg/m2
	1 x 15 mm				13.4 kg/m2
	2 x 12.5 mm				18.9 kg/m2
	2 x 15 mm				25.0 kg/m2

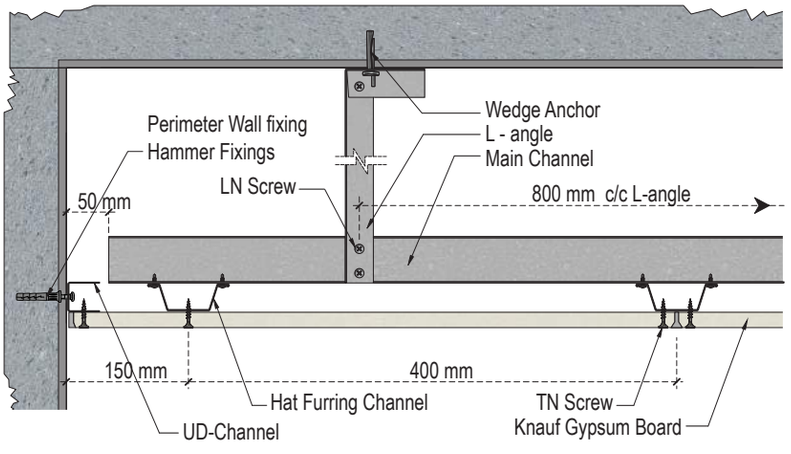
Construction details

These details represent some of the most common designs situations relevant to the Knauf KC B001 ceiling systems.

Abutment to wall, perpendicular to primary support channel

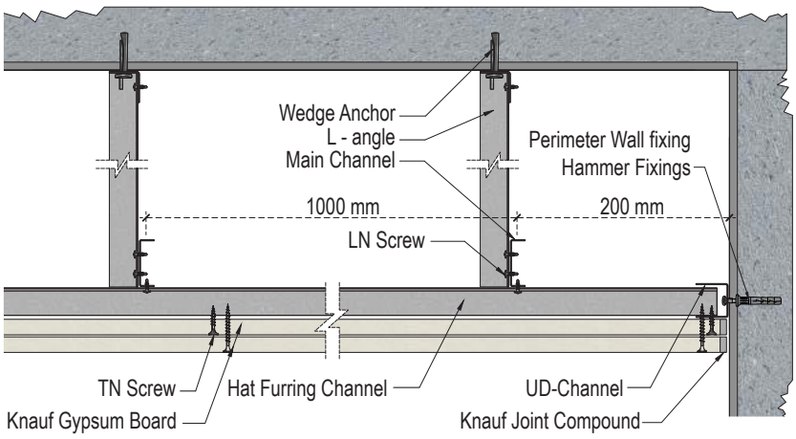


Abutment to wall, parallel to primary support channel

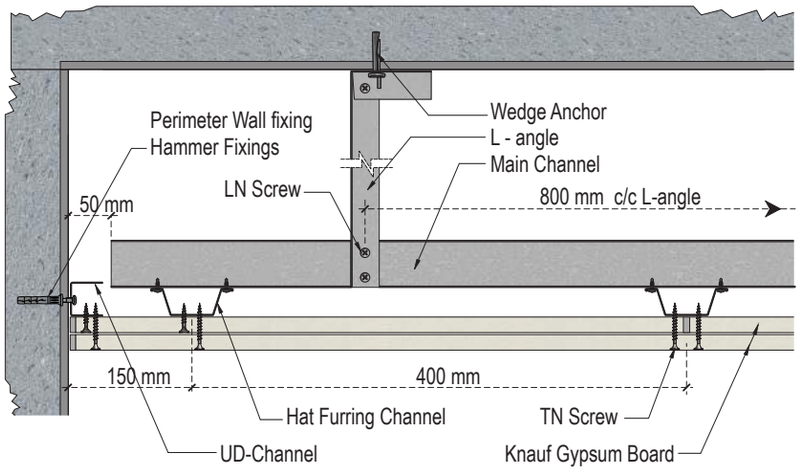


Construction details

Abutment to wall, primary support channel, double layer

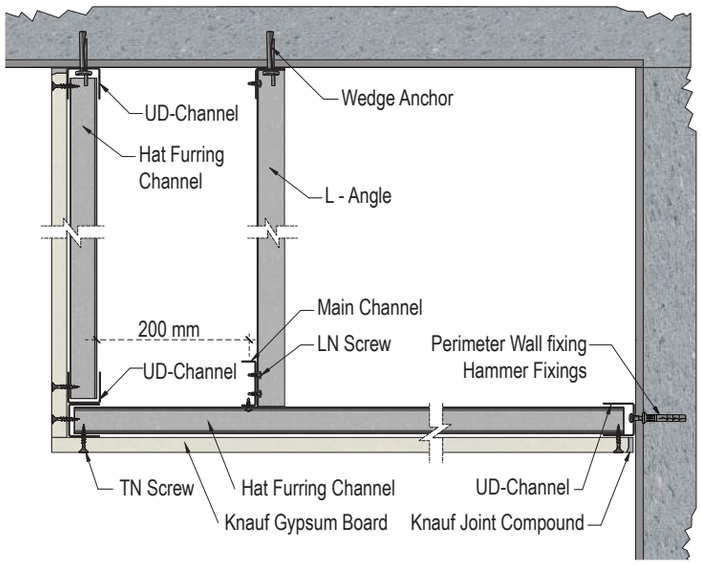


Abutment to wall, parallel to primary support channel, double layer

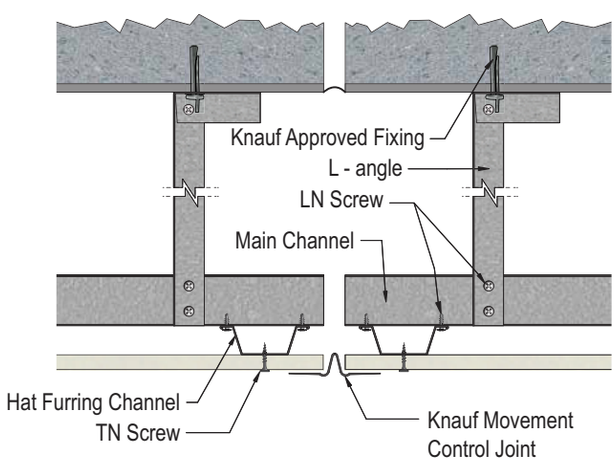


Construction details

Change of level and bulkhead

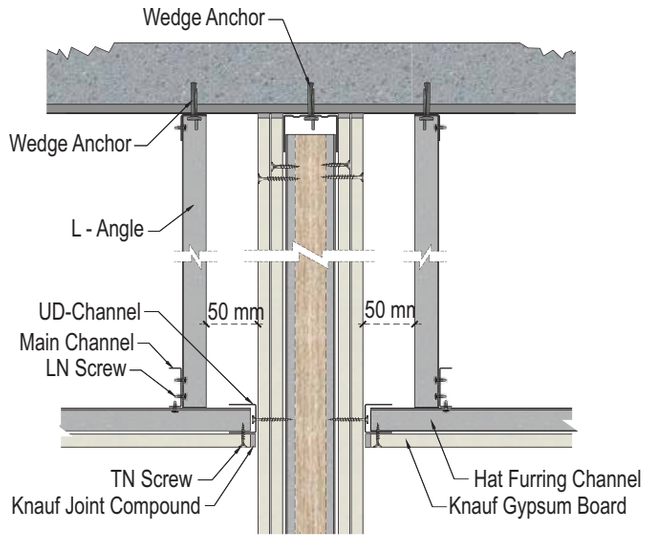


Movement control joint

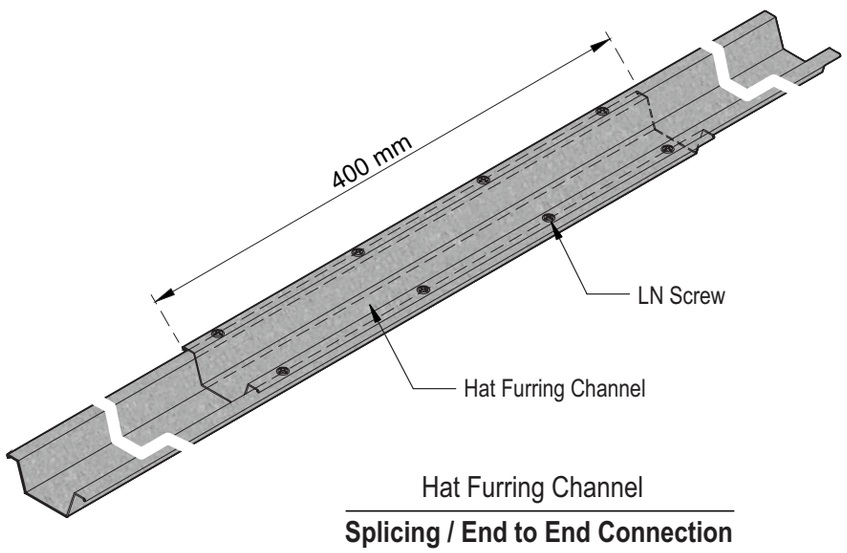


Construction details

Junction with partition



Splicing of furring channel



Hat Furring Channel

Splicing / End to End Connection

General information

General
Knauf KC B001 Ceiling Systems must be installed in accordance with Knauf 's recommendations. When creating an airtight space, methods for the reduction of potential “ceiling lift ” should be considered.

Perimeter Fixing
Mark the position of the ceiling line with a Chalk Line (1). Knauf UD channels should be secured to the walls at the required heights, at maximum 600mm centers and 50mm from the ends of channels. The Knauf UD forming the perimeter and the Knauf Main C Channels do not need to be mechanically fixed together (2).

Suspension
Select the fixing centers suited to the ceiling loading. See page 3 for spacing of dowels.
Fix Knauf approved fixing to the structural soffit with suitable fixings. Use the Knauf L Angle and fix to the approved fixing dowel (3).

Primary Support Channels – C Channels
The centers of the primary support channels should be aligned at the required height.
Knauf L Angle should be fixed to the Knauf Main C Channels with two Knauf LN Wafer Head Screws (4).

Splicing of the Main C Channels
If straight lengths of Knauf Main C Channels need jointing, place the channels back to back, with a minimum 150mm overlap, and fix with two Knauf LN Wafer Head Screws.

Hat Furring Channels
The Knauf Hat Furring Channels should be positioned at 400mm centers within the perimeter channels to coincide with the abutments of the boards, which will be fixed later. Connect the Knauf Hat Furring Channels to the Knauf Main C Channel by means of Knauf LN Wafer Head Screws (2 screws per fixing) (5).

Insulation
If insulation is required, once the primary support and the ceiling channels have been connected and before the boarding has started, Knauf insulation as specified should be inserted above the primary support channels. Care should be taken to ensure that the insulation is fitted neatly without gaps at abutments or between different rolls. The maximum weight of the whole system including all components or added elements, should not exceed 50 kg/m2.

Movement Control Joints
Create movement control joints where ceiling runs exceed 10m, coinciding where possible with movement joints in the surrounding structure.

Boarding
All boards should be fixed to the ceiling grid with the decorative face of the boards outwards and secured with Knauf Screws at maximum 300 mm centers (6). Fixing centers should be reduced to 100 mm at ends and perimeter.
Boards should be mounted at 90° to the direction of the ceiling channels (7).
Second layer should be installer with staggered joints.

Installation steps

1 Mark the position of the ceiling line (deducting the thickness of the boards) with a Chalk Line.

2 Fix the UD channel on the perimeter (at 600mm centers and 50mm from end of channel).

3 Predrill the holes for the dowels and fix the L angle with the dowel (e.g. Wedge Anchor) at the recommended spacing.

4 Knauf Main C Channels should be fixed to the L Angle with two Knauf LN Wafer Head Screws at the desired length.

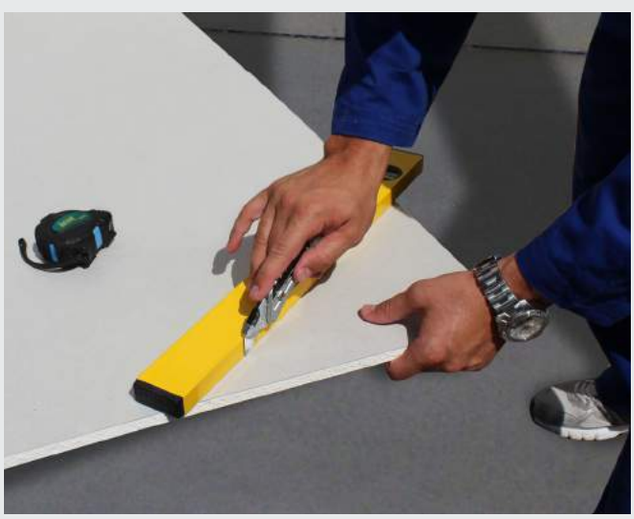
5 Connect the Knauf Hat Furring Channels to the Knauf Main C Channel by means of Knauf LN Wafer Head Screws (2 screws per fixing).

6 Screw spacing for fixing of the boards : max. 300 mm.

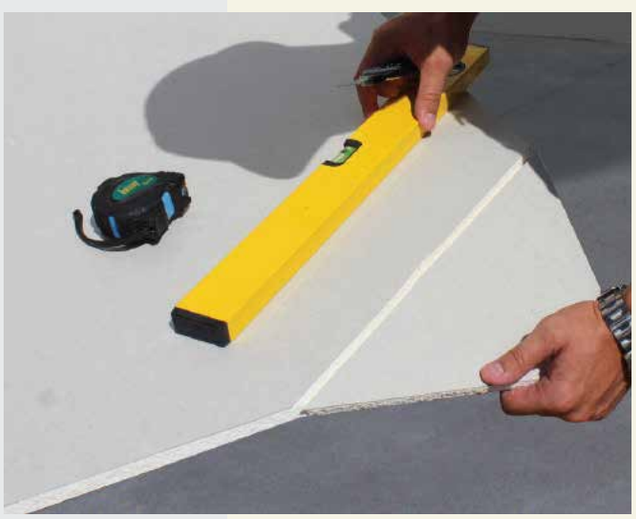
7 Fix the boards to the furring channel with Knauf screws.

Processing of gypsum boards

Cut the paper face with a sharp knife



Score the board by pushing along the cut side, then cut the other paper side



Cut the board 45 degrees

Smooth the cut edge with a beveler

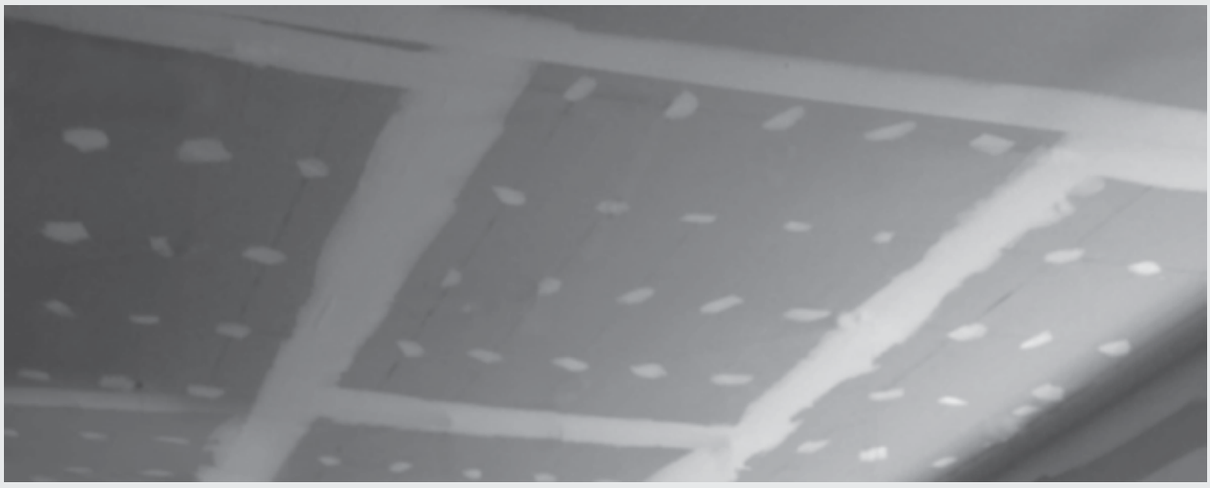
Cutting and processing the boards

- Knauf Boards shall be cut by scoring and breaking or by sawing
- When cutting by scoring, the face paper shall be cut with a utility knife
- Knauf boards shall be broken by snapping boards in the reverse direction, then cutting the back paper with a utility knife
- Cut edges should be smoothed with Knauf Beveler / Rasp Combo to obtain neat joints when installed
- Short edges should be chamfered with Knauf Beveler / Rasp Combo
- Holes for pipes or other small openings shall be scored on the back and the face outlined before removal / cut out with a purposely designed tool

Joint treatment

Cutting and processing the boards

- Board surface should be cleaned of materials such as dust, oil etc.
- Filling and covering of joints should only take place after the boards have been allowed to rest in the given humidity and temperature zones, and no more longitudinal changes can be expected, i.e. expansion or contraction.



- First coat of Knauf Joint filler should be applied with tools of sufficient width to extend a minimum 50 mm beyond both sides of the center of the joint (100 mm width).
- Knauf Joint Tape should be embedded into the joint filler to reinforce the joint between two gypsum boards.
- Once the first coat has dried, a second coat of Knauf Joint filler should be applied with 100 mm width on both sides of the center of the joint tape (200 mm width).
- A very thin third coat of Knauf Joint filler should be applied with a minimum width no less than 150 mm beyond both sides of the center of the joint tape (300 mm width).
- Once third coat has dried, surface should be sanded and smoothed.

Cladding of boards

- Boards should be mounted at 90° to the direction of the ceiling channels.
- In case of multi layer cladding, apply layers with staggered joints according to application scheme.
- Press boards of each layer firmly on to the substructure and screw each layer separately.

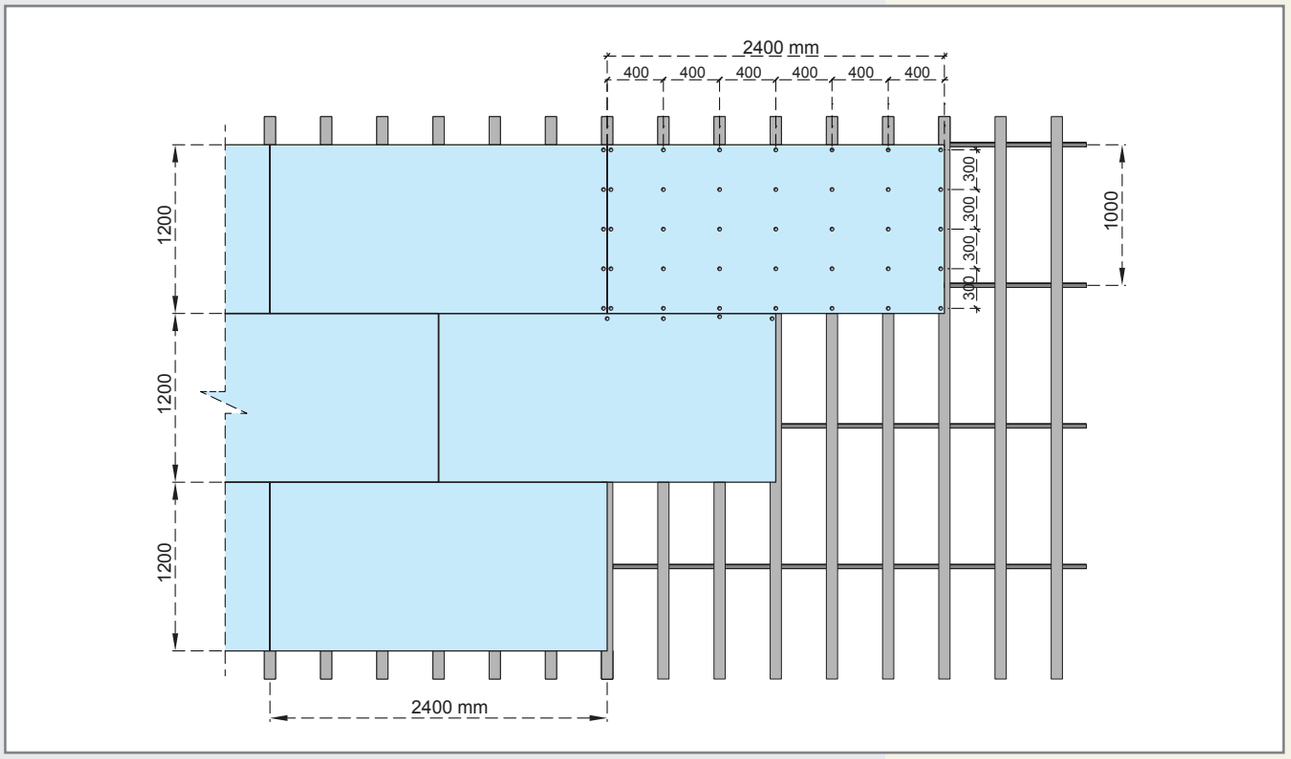
Spacing of screws

Screw Spacing first layer: 300 mm
Screw Spacing second layer: 300 mm

Fastening of cladding

Board thickness	First layer	Second layer
12.5 mm	TN 3.9X25 mm	TN 3.9X35 mm
15 mm	TN 3.9X25 mm	TN 3.9X45 mm

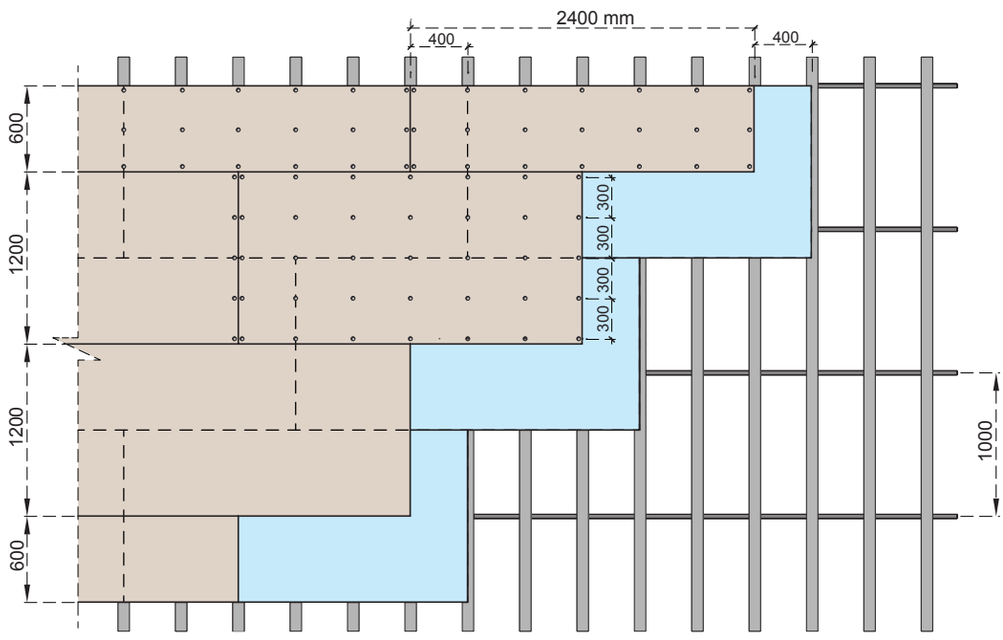
Single / First layer cladding



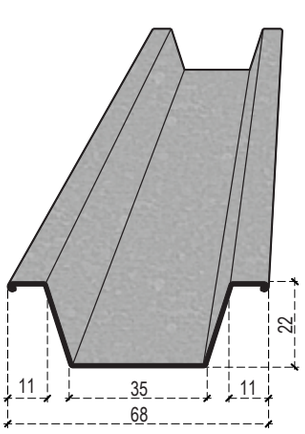
Cladding of boards

Second layer cladding

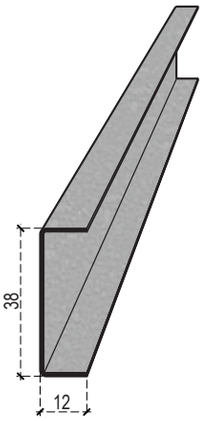
Second layer should be installer with staggered joints.



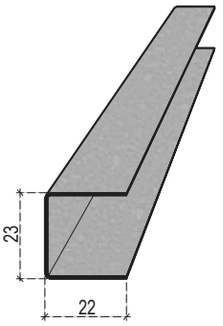
System's components



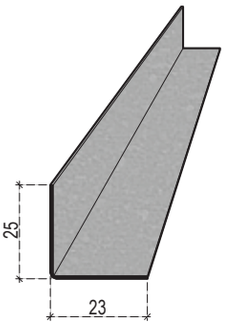
Hat Furring Channel (0.5 mm. thk.)



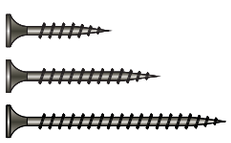
Main "C" Channel (0.5 mm. thk.)



UD Channel (0.5 mm.thk.)



L-Angle (0.5 mm.thk.)



TN Screw
3.9 dia. X 25/35/45 mm Length

LN Screw

Hammer Fixings

Wedge Anchor

Knauf Head Office

Phone: +971 4 337 7170

Fax: +971 4 334 9659

P.O.Box: 112871, Dubai

info@knauf.ae

www.Knauf.ae

Knauf Manufacturing Plant

P.O.Box 50006
Ras Al Khaimah, U.A.E.
Tel: +971 7 268 9837
Fax: +971 7 221 5301

Knauf Gypsum India Pvt.Ltd

No. 8 - C, 8th Floor Commercial Complex
Doshi Tower, New No. 205, (Old No.156)
Poonamallee High Road,
Kilpauk Chennai - 600010
Tamil Nadu, India
Tel: +91 44 49580000
Fax: +91 44 49575300