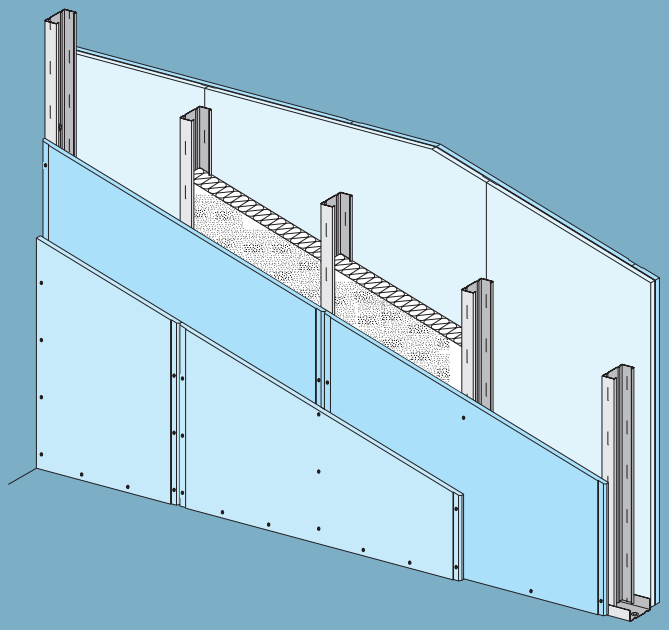


W36.bg

Drywall Systems | 11/2019

W36.bg **Knauf Metal Stud Partitions**

W361.bg Knauf Metal Stud Partition. Single metal stud frame – single layer cladding.

W312(W322).bg Knauf Metal Stud Partition. Single metal stud frame – double layer cladding.

W362.bg Knauf Metal Stud Partition. Single metal stud frame – double layer cladding.

W363.bg Knauf Metal Stud Partition. Single metal stud frame – triple layer cladding.

W365.bg Knauf Metal Stud Partition. Double metal stud frame - double layer cladding.

W315.bg Knauf Metal Stud Partition. Double metal stud frame - double layer cladding.

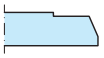
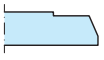
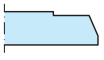
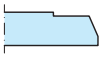
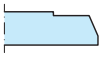
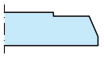
W366.bg Knauf Metal Stud Partition. Double metal stud frame - double layer cladding.

W345.bg Knauf Metal Stud Partition. Double metal stud frame with MW Profile - triple layer cladding.

Content

Knauf Boards

Extract from Knauf product range

Board type	Feature	Thickness d mm	Dimensions Width mm	Dimensions Length mm	Board Long and/ or short edge	
Gypsum fiber boards acc. EN 15283-2 / ETA 07-0086						Fire behavior A2-s1,d0 (B)
Knauf Vidiwall	GF - C1 - I - W2	10	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	12.5	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	15	1000 1200 1250	1250 / 1500 2000 up to 2600 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	18	1000 1200 1250	1250 2000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	10	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	12,5	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	15	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
Knauf Vidiwall	GF - C1 - I - W2	18	1000 1200 1250	1250 / 1500 2000 up to 3000 2000 up to 3000	SK 	VTF 
nauf Vidiwall HI	GF - C1 - I - W1	12,5 / 15	1200 1250	2000 up to 3000 2000 up to 3000	SK 	
nauf Vidifire AKI	GF - C1 - I - W2	12,5 / 15 / 18	1200 1250	2000 up to 3000 2000 up to 3000	SK 	
Knauf Vidiphonic	GF - C1 - I - W2	12,5 / 15	1200 1250	2000 up to 3000 2000 up to 3000	SK 	

- Vidiwall gypsum fibreboards are surface-impregnated, and suitable for high humidity areas
- Vidiwall HI is suitable for exterior wall claddings under ETICS or high humidity areas
- Room-high boards on request

Knauf Vidiwall gypsum fibre boards are made of high quality stucco and special cellulose fibers from selected waste paper .
Knauf Vidiwall gypsum fibre boards are used in all areas of interior construction as cladding contributing to increased sound insulation, fire protection and robustness.

W36.bg Knauf Metal Stud Partitions

Fastening the cladding

Fastening of the cladding to the stud frame with Knauf screws

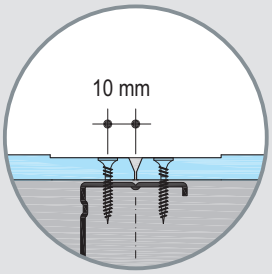
Cladding Thickness in mm	Metal stud frame (Penetration ≥ 10 mm) Metal gauge **s ≤ 0.7 mm** Drywall screws **UMN**	Metal gauge **0,7 mm < s ≤ 2,25 mm** Drywall screws **TB**
12,5	UMN 3,9x32 mm	TB 3,5x25 mm
15	UMN 3,9x32 mm	TB 3,5x35 mm
18	UMN 3,9x32 mm	TB 3,5x35 mm
2x 12,5	UMN 3,9x32 + 3,9x42 mm	TB 3,5x25 mm + 3,5x45 mm

Maximum fastener spacings (all board layers fastened to frame with screws) Dimensions in mm

Cladding Board layer → Board width →	1st Layer vertical 1250	 horizontal 1250[1)]	2nd Layer vertical 1250	 horizontal 1250[1)]
1 - layer	**250**			
2 --layers	**750**	**610**	**250**	**250**

[1)] System W366.bg

Arrangement of screws for optimum sound insulation



Uppermost board layer stapled to the board layer below it

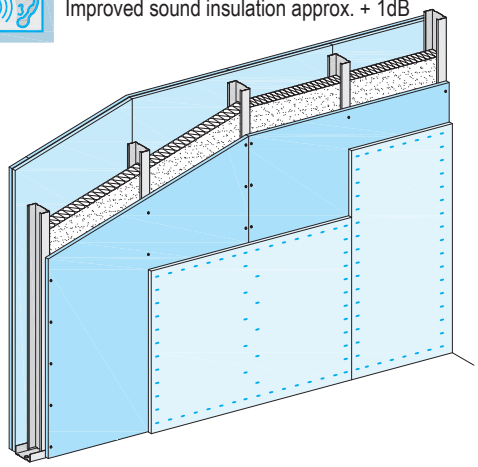
Schematic drawings - dimensions in mm

- **Reduced wall heights** (see page 8)
- **Reduced mounting loads / console loads** (see page 26)
- Fastening out of the profiles
- Steel staples according to DIN 18182-2:
  e.g. Expanding staples from Haubold, Poppers-Senco Clip
  lenght = 2 plate layers minus 2 mm
- First layer of boards screwed (reduced screw spacing)
- **Maximum fastener spacings**

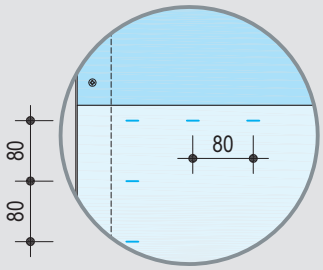
Cladding	1st Layer	2nd Layer
2 - layers	**250** (screwed)	**80** (stapled)

Vertical board layer / board width 1250 mm

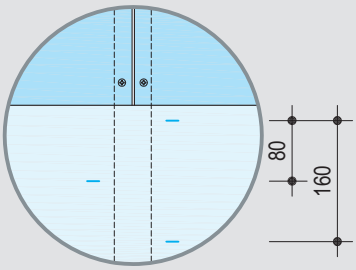
Improved sound insulation approx. + 1dB



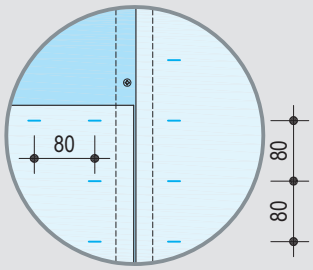
Perimeter studs



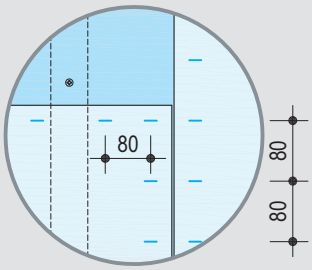
Field studs



Board joint – field studs



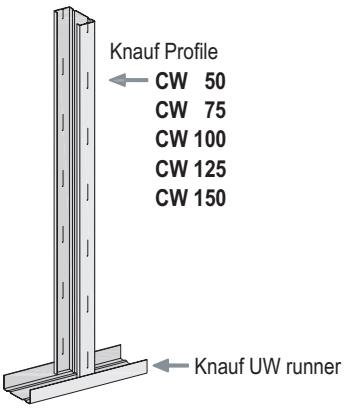
Board joint – "Non-supported joint"



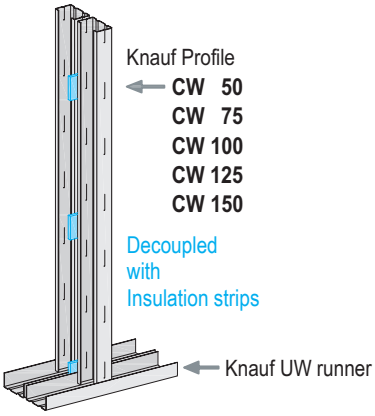
Stud partitions - Metal stud frames

Scheme drawings, dimensions in mm

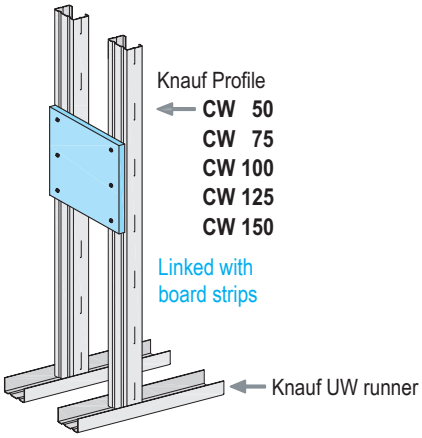
Single metal stud frames:
■ **W361.bg** ■ **W362.bg**



Double metal stud frames:
■ **W365.bg**



Double metal stud frames:
■ **W366.bg**



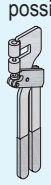
Vertical stud extensions

■ **Stud extensions**

Knauf Profile		Overlap o
CW / UA	**50**	≥ 500 mm
CW / UA	**75**	≥ 750 mm
CW / UA	**100**	≥ 1000 mm
CW / UA	**125**	≥ 1250 mm
CW / UA	**150**	≥ 1500 mm

■ Stagger the stud joints vertically (alternating on upper and lower partition half)

■ **Options 1 to 3:**
In overlapping section, rivet, screw or, if possible, crimp connect the studs

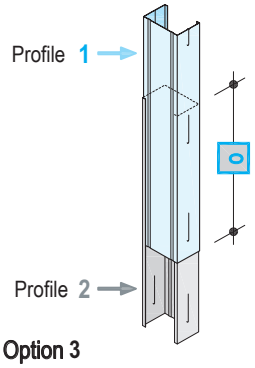


Squeeze punch for crimping

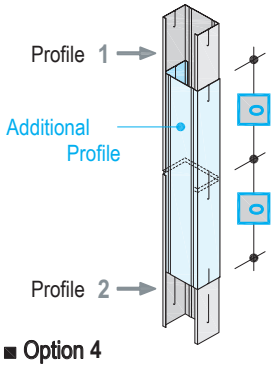
■ **Option 4:**
Screw 2x per UA profile with M8 bolts
or
self-tapping screws
≥ Ø 4.5 mm

■ Knauf recommendation:
Use floor-to-ceiling height UA profiles

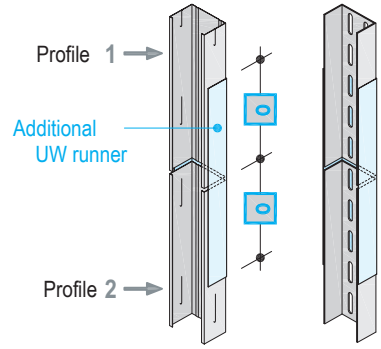
■ **Option 1**
2 CW - studs interlaced as a box.



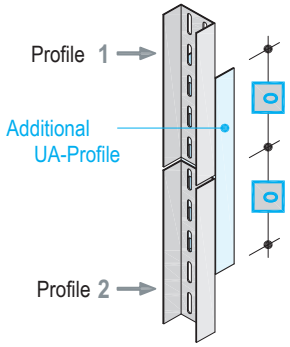
■ **Option 2**
2 CW-studs butt joint connected, interlaced with additional CW stud.



■ **Option 3**
2 CW- / UA - profiles butt joined with additional UW runner.



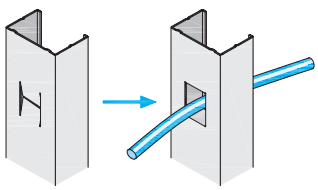
■ **Option 4**
2 UA - profiles stumped connected to the additional UA - profile at the web side.



For load-bearing UA-Profile
e.g. door installation / sanistand installation

H-punches, factory-made

■ **For cable penetrations**
in Knauf CW studs

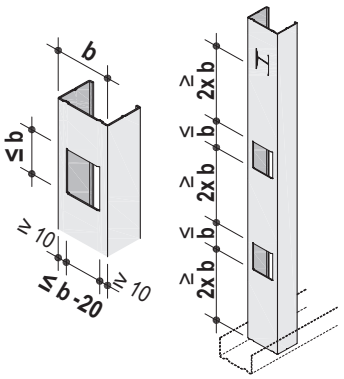


Web cut-outs - on site

■ **Max. Recessed**

Knauf Profile	Cladding-thickness each wall side	Bridge sections
CW **75 / 100 / 125 / 150**	≥ 12,5 mm	**2** each metal stand

■ Smaller openings in larger numbers on request possible
■ The openings can be provided in addition to the usual factory made H punches
■ Web cut-outs on UA - profiles on request



Knauf Vidiwall

Best soundproofing
By combining proven Knauf products, Vidiwall systems have a high sound insulation level.

Robustness
The Vidiwall gypsum fiber board increases the quality and longevity of the Knauf system for use in heavily used areas.

Single-layer cladding
Despite single layer good properties, at the same time reduces the material and time required.

Water repellent
The surface-primed equipment of the plate allows easy use in damp rooms such like domestic baths. For greater security Vidiwall HI can be used.

Largest high walls
Through optimized and coordinated Knauf components.

Slim design
With room and floor space gain.

Information / instructions (valid for pages 7 to 10)

- Requirements for the insulating layer

  Fire protection: If a certain layer of insulation is required for fire protection, please find the information under the table on page 7

  Sound insulation: Mineral wool insulation according to EN 13162;

  length-related flow resistance according to EN 29053: $r \geq 5$ kPa • s / m²
  (eg Knauf Insulation partition wall insulation board TP 115)

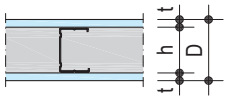
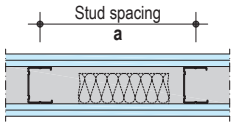
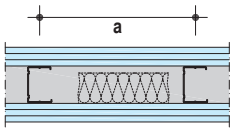
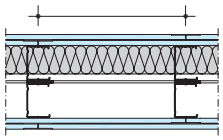
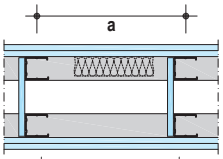
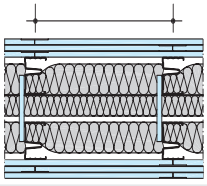
- R_w = Weighted Sound Reduction Index; Input value (from laboratory measurement without flank transmission under optimal installation conditions) for the calculated value. Determination of the weighted standard sound level difference $D_{nT,w}$ (sound insulation between rooms in buildings)
- Sound insulation values apply only in conjunction with Knauf profiles when the recommended screw fastening is observed.
- Reinforcing and supporting connection components must have at least the same fire resistance
- Thermal protection: U-values on request
- Load capacity / Serviceability / Permissible wall heights
  The load-bearing capacity/ seviceability of the wall structure was proven with a calculation algorithm and verified by tests. The cold-static proof takes into account of:
  - the cantilever loads (0.4 or 0.7 kN/m) given on page 23
  - the line loads assigned according to the installation zone (0.5 or 1 kN/m on parapet height) by personal action
  - the area load of 0.285 kN/ m² (internal wind load)

  The permissible wall heights are determined by General Building Test Certificate P-1100/166/15-MPA BS acc. DIN4103-1; 1984-07.
- Installation zone according to DIN 4103

  Installation zone 1:
  Zones of low population, such as e.g. in apartments, hotel, office and hospital rooms and similarly used rooms including the corridors must be assumed.

  Installation zone 2:
  Zones with large numbers of people, such as e.g. in larger meeting rooms, classrooms, lecture halls, exhibition and sales rooms and similarly used rooms must be required

Technical and building physics data (notes / information according to page 7)

Knauf System	Cladding per wall side							Weight	Wall thickness	Profile	Sound insulation	
	Fire resistance	Gypsum board type A/ GKB	Gypsum board type DF/ GKF	Vidiwall / Vidiwall HI	Vidifire	Vidiphonic	Minimum-Thickness d mm	without Insulation layer ca. kg/m²	D mm	Knauf CW Cavity h mm	Insulation layer Minimum-Thickness mm	Sound reduction index R_w dB
Diagrams	**W361.bg Knauf Metal Stud Partition.** Single metal stud frame – single layer cladding.											
	**EI 30**			■			**12,5**	30	75	**50**	50	49
	EI 60 [1]			■			**12,5**	30	100	**75**	75	52
				■			**12,5**	30	125	**100**	100	53
						■	**12,5**	40	100	**75**	60	55
	EI 120 [2]				■		**18**	45	136	**100**	100	
Diagrams	**W312(W322).bg Knauf Metal Stud Partition.** Single metal stud frame - double layer cladding.											
	**EI 120**		■			■	**12,5+12,5**	58	125	**75**	60	63
		■		■			**2x 12,5**	55	100	**50**	50	58
	EI 90 [3]	■		■			**2x 12,5**	55	125	**75**	50	58
		■		■			**2x 12,5**	55	150	**100**	50	59
	EI 120 [4]		■	■			**15 + 12,5**	58	130	**75**	60	
	W362.bg Knauf Metal Stud Partition. Single metal stud frame - double layer cladding.											
Stud spacing a	**EI 90 /**			■			**2x12.5**	62	100	**50**	40	61
	**EI 120** [1]			■			**2x12.5**	62	125	**75**	60	61
				■			**2x12.5**	62	150	**100**	80	62
						■	**2x12.5**	73	125	**75**	60	63
	W363.bg Knauf Metal Stud Partition. Single metal stud frame - triple layer cladding.											
			■			■	**2x12,5 DF 12,5 Vph.**	80	150	**75**	60	67
						■	**3x12,5**	111	150	**75**	60	69
Diagrams	**W365.bg Knauf Metal Stud Partition.** Double metal stud frame - double layer cladding.											
	EI 60 [4]				■		**12,5**	32	181	2x75	60	
				■			**2x12,5**	64	155	2x50+5	50	67
				■			**2x12,5**	64	205	2x75+5	50	68
Stud spacing	**EI 90** [1]			■			**2x12,5**	64	255	2x100+5	50	69
	**EI 120** [5]				■		**12,5 + 15**	69	211	2x75	2x60	
	W315.bg Knauf Metal Stud Partition. Double metal stud frame - double layer cladding.											
			■	■			**2x12,5**	54	155	2x50+5	2x50	62
		■				■	**2x12,5**	54	203	2x75+3	2x60	68
			■			■	**2x12,5**	58	203	2x75+3	2x60	71
Diagrams	**W366.bg Knauf Metal Stud Partition.** Double metal stud frame - double layer cladding.											
a				■				64	≥ 220	≥ 2x50	40	ca. 56
				■			**2x12,5**	64	≥ 270	≥ 2x75	40	ca. 56
				■				64	≥ 320	≥ 2x100	40	ca. 56
	W345.bg Knauf Metal Stud Partition. Double metal stud frame with MW Profile - triple layer cladding.											
				■			**3x12,5**	91	≥ 275	≥ 2x75	75+50+75	≥ 77
	**EI 120**		■			■	**1x12,5 DF + 2x12,5 Vph.**	93	≥ 275	≥ 2x75	75+50+75	≥ 77

Mineral wool, required for fire protection: 1) 50 mm, 50 kg/m³; 2) 100 mm, 70 kg/m³; 3) 70 mm, 40 kg/m³; 4) 60 mm, 70 kg/m³ 5) 120 mm, 70 kg/m³

W36.bg Knauf Metal Stud Partitions

Maximum permissible partition heights

Max. Permissible partition heights

Maximum partition height (m) W361 and W362			
Cladding thickness (mm)			
Knauf Profile	Stud-spacing	1x12,5	2x12,5
		Vidiwall	Vidiwall
CW 50	600 (625)	4,00	4,00
	400 (417)	4,00	4,15
	300 (312,5)	4,00	4,85
CW 75	600 (625)	4,10	5,40
	400 (417)	4,90	6,75
	300 (312,5)	5,50	7,50
CW 100	600 (625)	5,85	8,05
	400 (417)	6,85	9,20
	300 (312,5)	7,50	9,70
CW 125	600 (625)	7,70	9,95
	400 (417)	8,70	10,80
	300 (312,5)	9,30	11,30
CW 150	600 (625)	9,35	11,45
	400 (417)	10,10	12,00
	300 (312,5)	10,65	12,00

Max. Permissible distances fastening means

for the load-bearing anchoring of the edge profiles (UW) to untreated floors and ceilings up to a surface load ≤ 0.285 kN / m² (28.5 kg / m²)

Partition height *)	Knauf Ceiling nail (with reinforced concrete)	Knauf Nailable Plug	Knauf Universal screws FN (with wooden substrates, screw-in depth> 24 mm, suspended ceilings)	
	1x	**1x**	**2x**	**1x**
m	mm	mm	mm	mm
≤ 3	1000	1000	1000	500
> 3 to ≤ 6,50	1000	500	500	250
> 6,50 to ≤ 12	500	-	Check the load-bearing capacity of the mounting surface - select the appropriate attachment (for 2kN / m)	

**) Please observe max. wall height*

The structural anchoring of the edge profiles (CW) to the flanking walls at a distance of 1000 mm (at least anchoring points)

Maximum permissible partition heights (m) of systems W315 and W365			
Cladding thickness (mm)			
Knauf Profile	Stud spacing	2x12,5	2x12,5
		Installation zone 1	Installation zone 2
CW 50	600 (625)	3,30	2,80
CW 75	600 (625)	4,50	4,00
CW 100	600 (625)	5,50	5,00

Maximum permissible partition heights (m) of system W366			
Cladding thickness (mm)			
Knauf Profile	Stud spacing	2x12,5	2x12,5
		Installation zone 1	Installation zone 2
CW 50	600 (625)	4,50	4,00
CW 75	600 (625)	6,00	5,50
CW 100	600 (625)	6,50	6,00

Maximum permissible partition heights (m) of systems W312 и W322			
Cladding thickness (mm)			
Knauf Profile	Stud spacing	1x12,5+1x12,5	1x12,5+1x12,5
		Vidiwall+DF	Vidiphonic
CW 50	600 (625)	4,00	4,00
CW 75	600 (625)	5,05	5,05
CW 100	600 (625)	7,15	7,15

Maximum permissible partition heights (m) of system W345			
Cladding thickness (mm)			
Knauf Profile	Stud spacing	3x12,5	3x12,5
		Vidiwall	Vidiphonic
MW 75	600 (625)	5,50	5,50

Connections of "light" partitions to ceilings classified as fire protection

Diagrams

- Partitions may only be connected to fire protection classified ceiling systems (suspended ceilings), if you can ensure in the event of a fire when the partition is destroyed prematurely, that the remains of the partitions may fall without causing additional loading to the ceiling.
- In the case that a partition with fire protection classification is connected to a suspended ceiling, the suspended ceiling alone must feature at least the same fire protection classification.
- Horizontal bracing of the suspended ceiling is required.

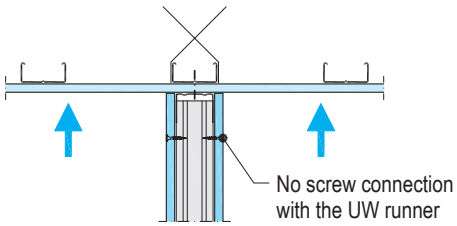
Knauf partition systems	Knauf ceiling systems Suspended ceilings which belong solely to a fire resistance class	
	Fire exposure from below	Fire exposure from above (Plenum)
without fire protection	1	2
Fire resistance class wall less than ceiling		
Fire resistance class wall equal to ceiling		

Suspended ceilings which belong solely to a fire resistance class

Fire attack from below

For suspended ceilings with fire protection from below, make the ceiling connection without screw connection to the UW profile, but with planking that extends to the lower ceiling.

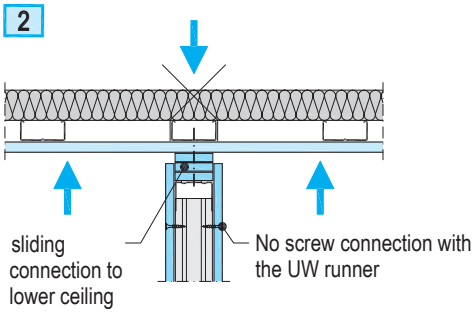
1



Fire attack from above (Plenum)

For suspended ceilings with fire protection from below and above / from above make a standard sliding ceiling connection with at least 15 mm clearance.

2



W36.bg Knauf Metal Stud Partitions

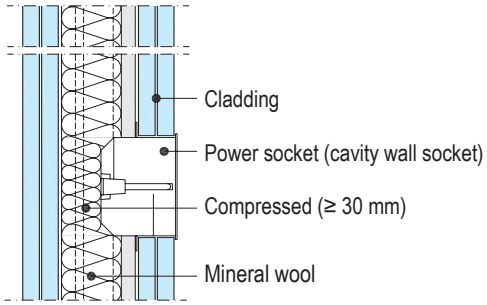
Fire protection / sound insulation - installation of electrical boxes

Installation of electrical boxes in Knauf Vidiwall metal stud partitions for fire protection requirements

Schematic drawings - mass in mm

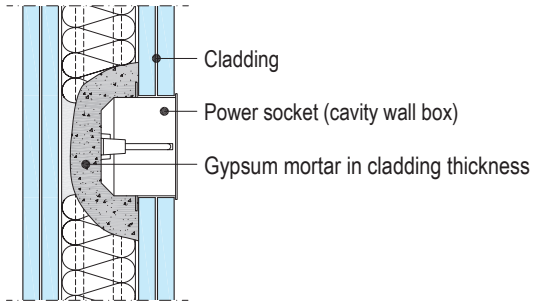
- Power sockets, switch sockets, splitter sockets, etc. may be installed at any position with Knauf partitions, except not directly opposite one another.
- The entry of single electrical cables is permissible. The remaining openings must be sealed with gypsum mortar.
- Insulation layers required for fire protection reasons shall be retained, however, they may be compressed to a thickness of ≥ 30 mm.

A with Mineral wool



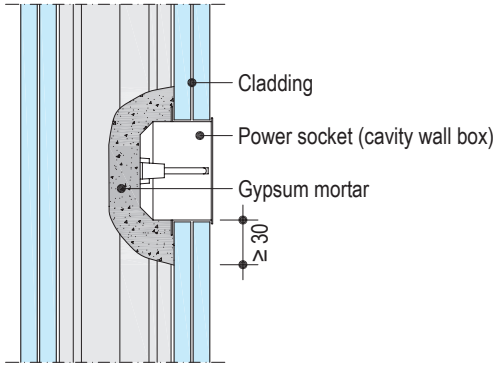
- Compression of the mineral wool insulation layer is up to a thickness of ≥ 30 mm.

B with Gypsum mortar



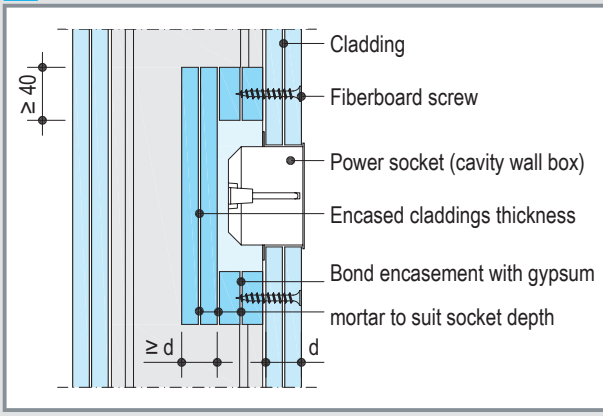
- With a very small cavity in the area of the power socket backfill with gypsum mortar.

C with Gypsum mortar



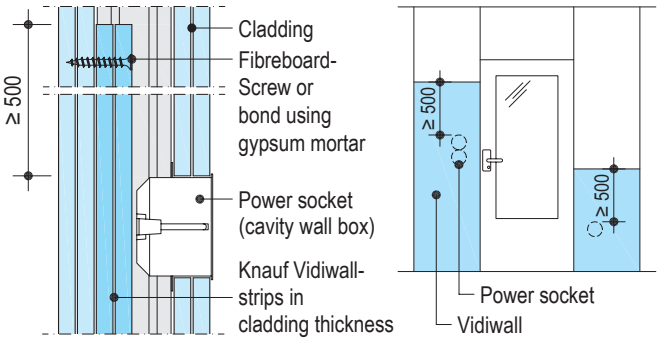
- Coat power boxes with gypsum mortar (gypsum bed ≥ 30 mm thick).

D with Encasing using boards



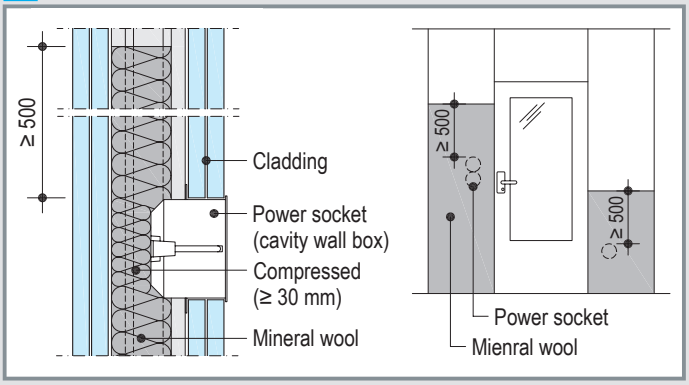
- Convert power boxes with plasterboard.

E With board strips (only for single metal stud partitions)



- Application of board strips with the same thickness as the cladding (glue to rear of board or fasten with gypsum board screws).
- The board strips must fully cover the following area: Up to min. 500 mm above the highest power socket, down to the floor and laterally to the next studs on each side.

F With mineral wool (only for single metal stud partitions)



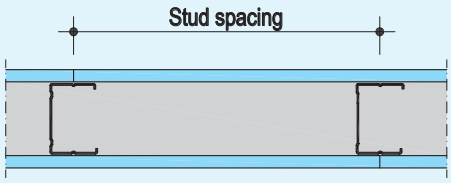
- Fill mineral wool cavity with mineral wool secured against sliding.
- The mineral wool must fully cover the following area: Up to min. 500 mm above the highest power socket, down to the floor and laterally to the next studs on each side.
- Compression of the mineral wool insulation layer up to a thickness of ≥ 30 mm is permissible.
- Mineral wool insulation layer acc. to EN 13162; length-related flow resistance according to EN 29053: r ≥ 5 kPa • s / m²

Notes for avoidance of performance losses in noise reduction measures:

- Avoid rigid connections with the opposite partition cladding
- On partitions with sound insulation up to Rw 60 dB:
  - Do not install power sockets opposite one another for each panel section
  - Seal any remaining openings after installation of the sockets
- Solutions for partitions with sound insulation exceeding Rw 60 dB or for sockets positioned opposite one another on request

W361.bg Knauf Metal Stud Partitions

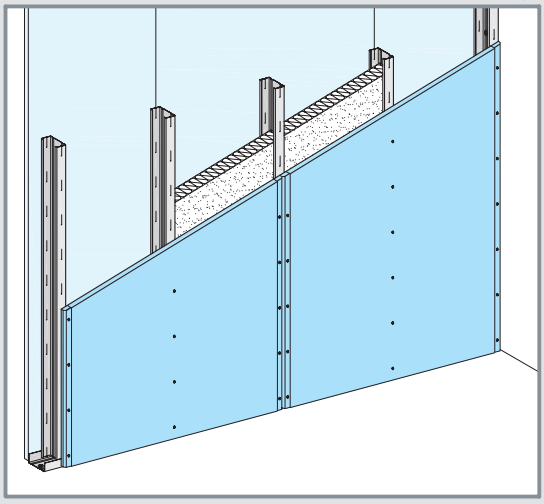
Single metal stud frame – singe layer cladding



■ **Cladding installation**

Board position	Board width	Knauf boards
vertical	1200 / 1250 mm	Vidiwall/ Vidiwall HI/ Vidiphonic/ Vidifire A1 gypsum fibre board

Example: vertical cladding



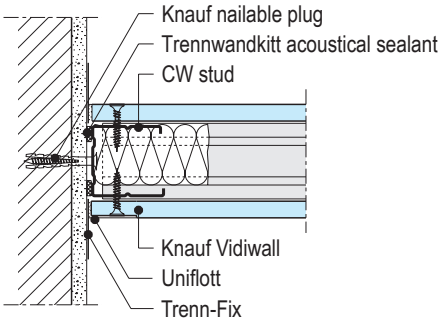
Details scale 1:5

Horizontal sections - examples

Vertical sections - examples

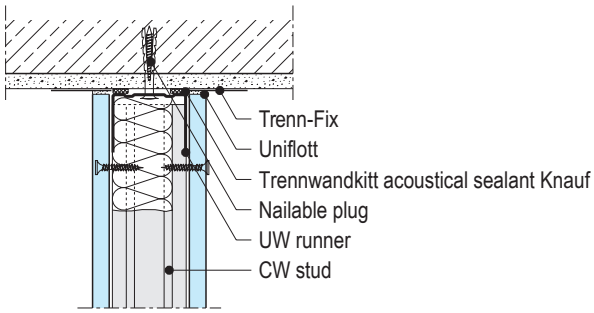
W361.bg-A1 Connection to solid wall

■ with fire protection



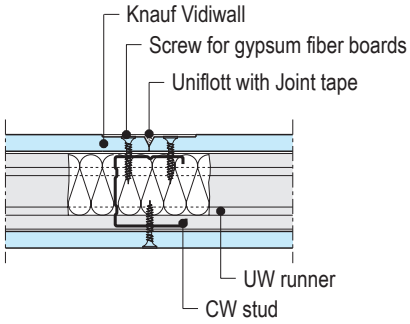
W361.bg-VO1 Connection to basic ceiling

■ with fire protection



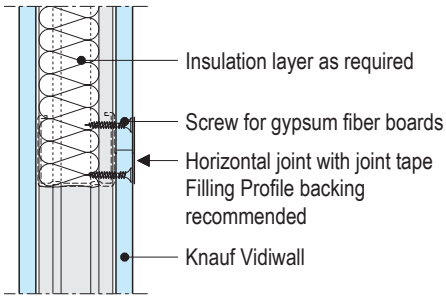
W361.bg-B1 Board joint

■ with fire protection



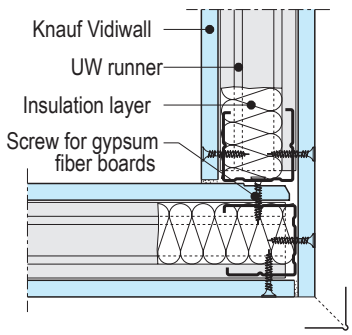
W361.bg-VM1 Board joint

■ with fire protection: Oposit face joints with profiles



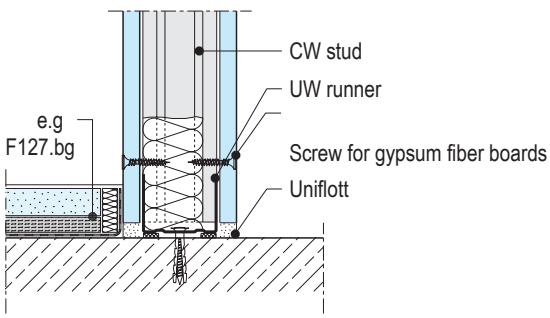
W361.bg-D1 Corner

■ with fire protection



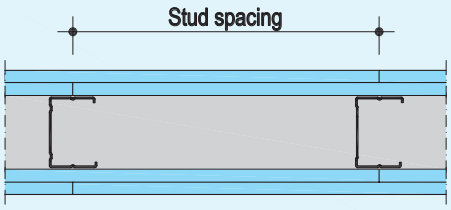
W361.bg-VU1 Connection to basic floor

■ with fire protection



W312.bg, W322.bg, W362.bg Knauf Metal Stud Partitions

Single metal stud frame – double layer cladding

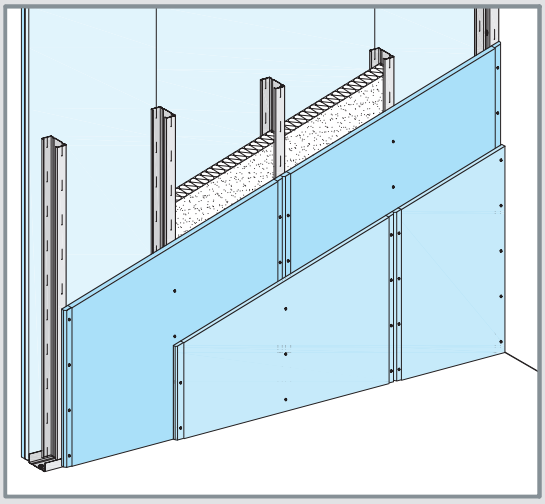


Select board edge and screw type according to board type.

■ **Cladding installation**

Board position	Board width	Knauf boards
vertical	1200 / 1250 mm	Vidiwall/ Vidiwall HI/ Vidiphonic/ Vidifire A1 gypsum fibre board

Example: vertical cladding



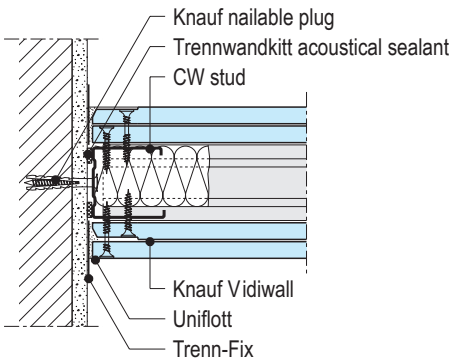
Details scale 1:5

Horizontal sections - examples

Vertical sections - examples

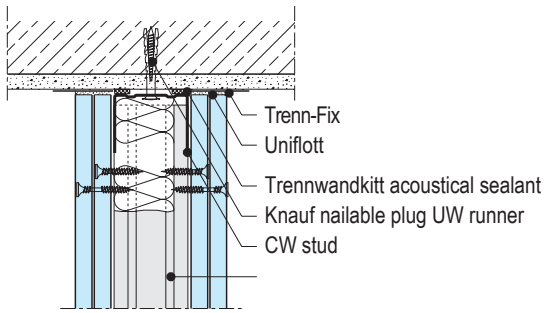
W362.bg-A1 Connection to solid wall

■ with fire protection



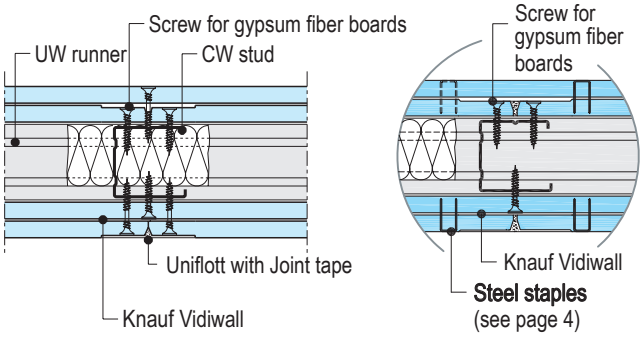
W362.bg-VO1 Connection to basic ceiling

■ with fire protection



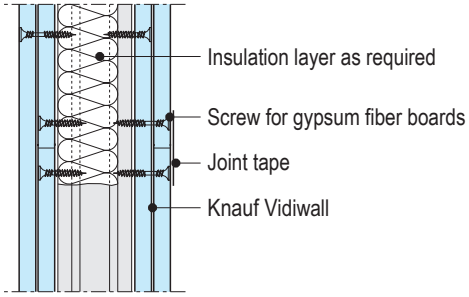
W362.bg-B1 Board joint

■ with fire protection



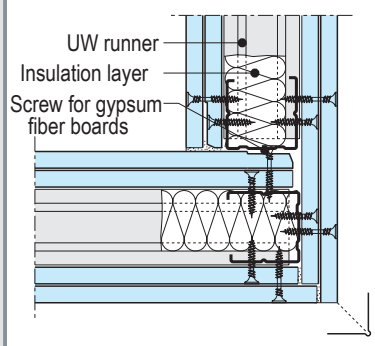
W362.bg-VM1 Board joint

■ with fire protection



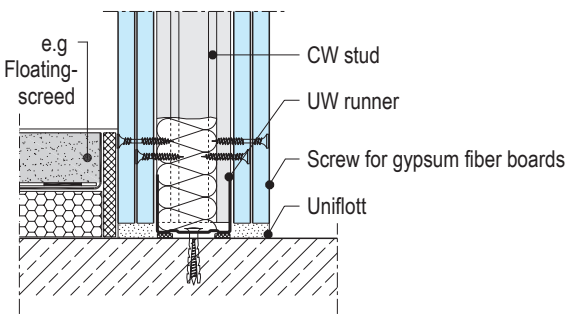
W362.bg-D1 Corner

■ with fire protection



W362.bg-VU1 Connection to basic ceiling

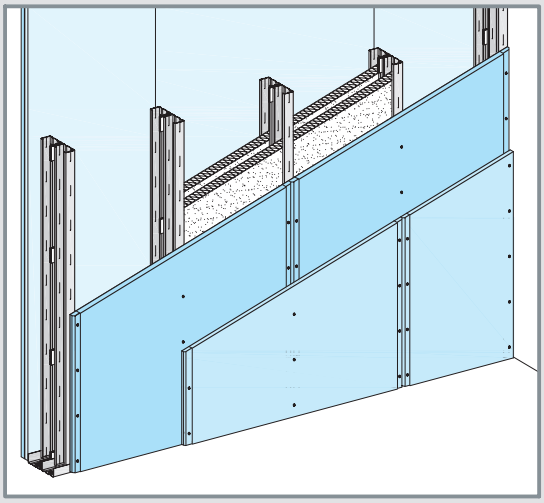
■ with fire protection

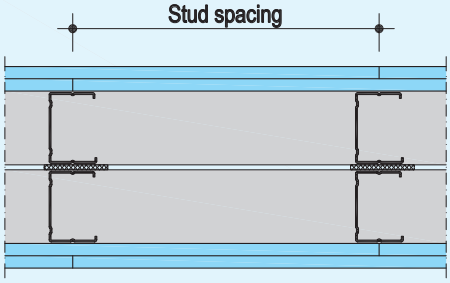


W315.bg, W365.bg Knauf Metal Stud Partitions

Double metal stud frame – Double layer cladding

Example: vertical cladding





Select board edge and screw type according to board type.

■ **Cladding installation**

Board position	Board width	Knauf boards
vertical	1200 / 1250 mm	Vidiwall/ Vidiwall HI/ Vidiphonic/ Vidifire A1 gypsum fibre board

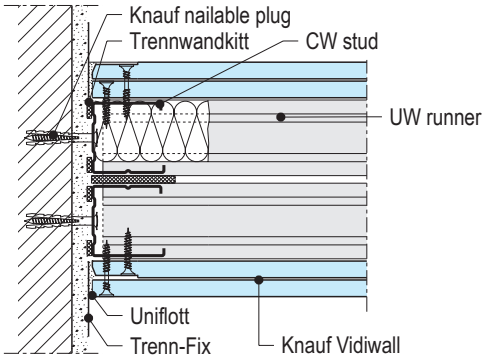
Details scale 1:5

Horizontal sections - examples

Vertical sections - examples

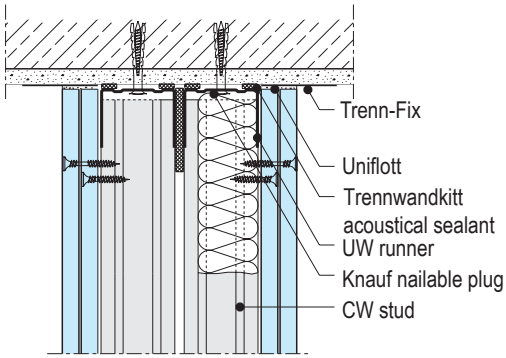
W365.bg-A1 Connection to solid wall

■ with fire protection



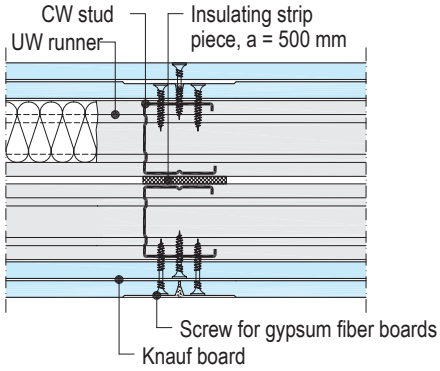
W365.bg-VO1 Connection to basic ceiling

■ with fire protection



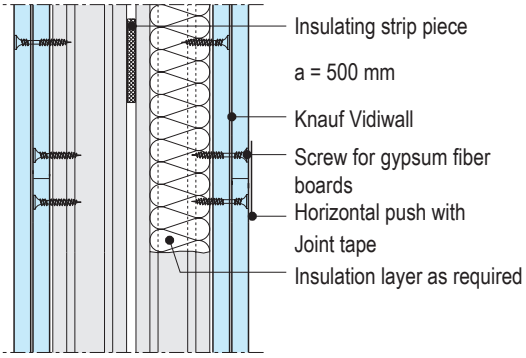
W365.bg-B1 Board joint

■ with fire protection

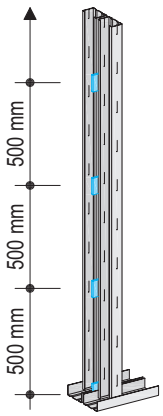


W365.bg-VM1 Board joint

■ with fire protection



Scheme drawing

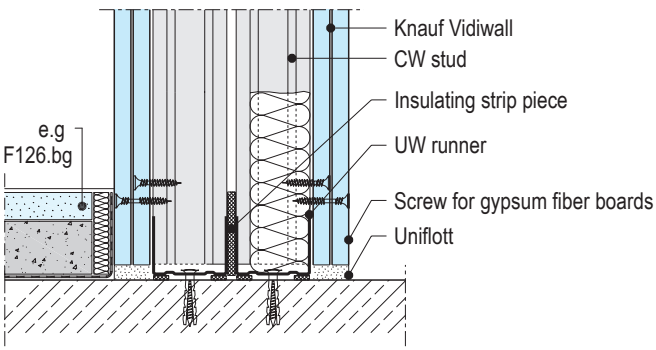


Decoupling using self-adhesive insulation strips

- **on the entire wall height** at a center distance of 500 mm

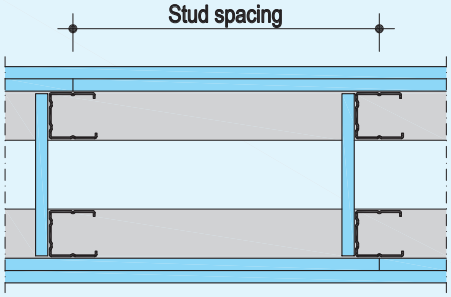
W365.bg-VU1 Connection to basic floor

■ with fire protection

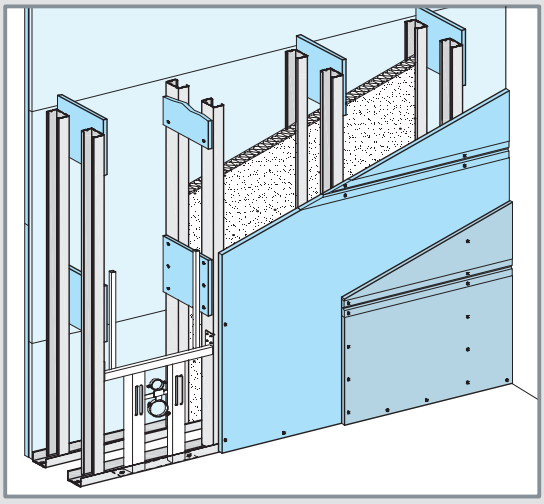


W366.bg Knauf Installation Wall

Double metal stud frame – Double layer cladding



- For installation, for example, of a WC sanistand, UA profiles are required for fixing
- ▶ See also Knauf detail sheet W21.bg



Cladding installation

Board position	Board width	Knauf boards
horizontal	1200 / 1250 mm	Vidiwall/ Vidiwall HI/ Vidiphonic/ Vidifire A1 gypsum fibre board

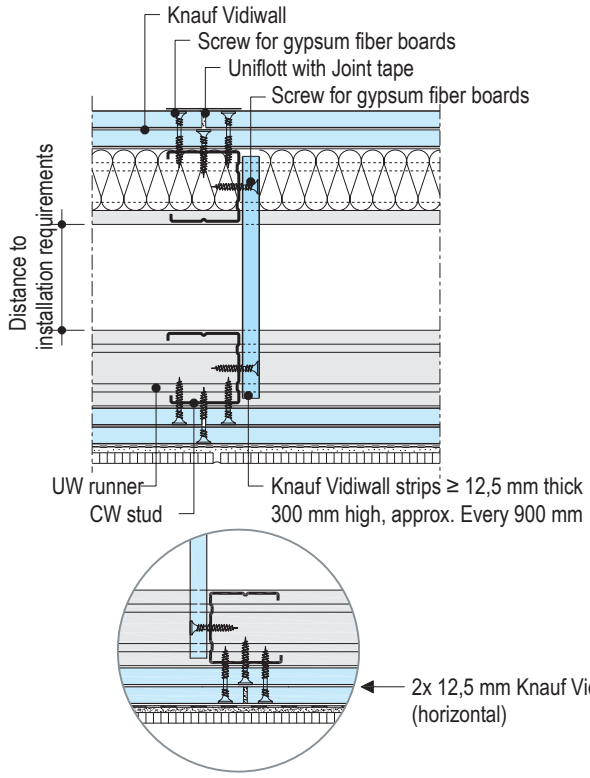
Details scale 1:5

Horizontal sections - examples

Vertical sections - examples

W366.bg-B1 Board joint

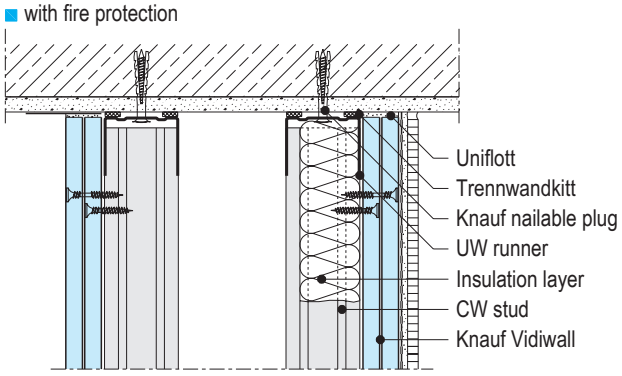
- with fire protection



- Connection to solid wall see page 17

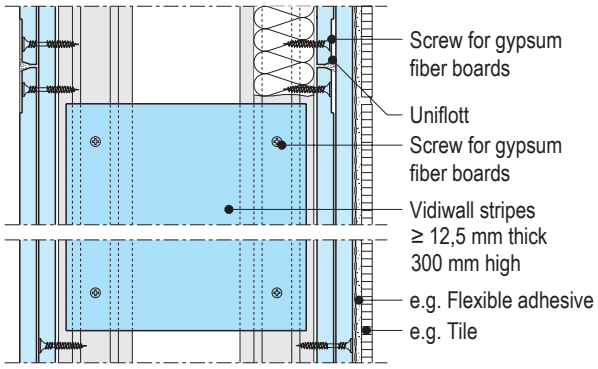
W366.bg-VO1 Connection to basic ceiling

- with fire protection

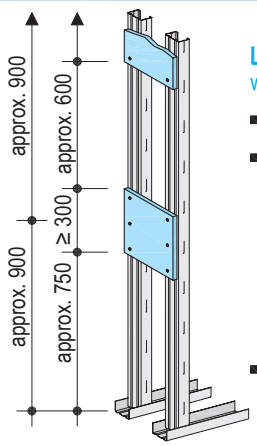


W366.bg-VM1 Board joint

- with fire protection



Scheme drawing

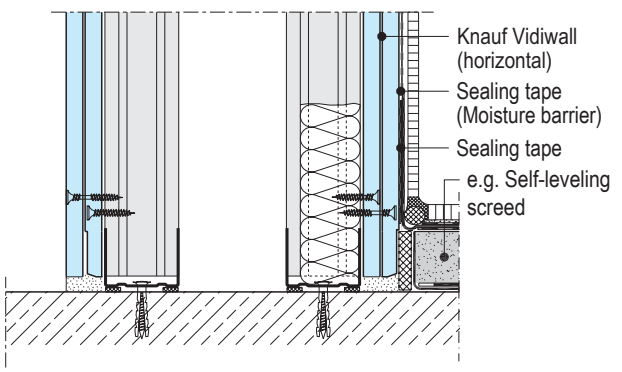


Linking
with Knauf Vidiwall stripes

- **300 mm high**
- **Thickness depends on wall cavity -h-**
  h ≤ 300 mm:
  Thickness: ≥ 12,5 mm Knauf Vidiwall
  h > 300 mm to ≤ 500 mm:
  Thickness: 18 mm Knauf Vidiwall
  (with double-layer linking: individual board thickness ≥ 12.5 mm)
- **On entire wall height**
  at a center distance of approx. 900 mm

W366.bg-VU1 Connection to basic floor

- with fire protection

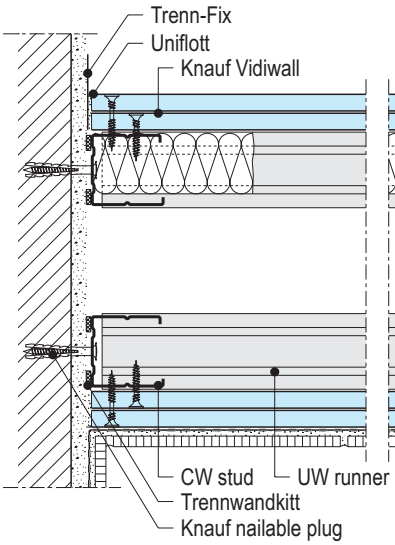


Details scale 1:5

Horizontal sections - examples

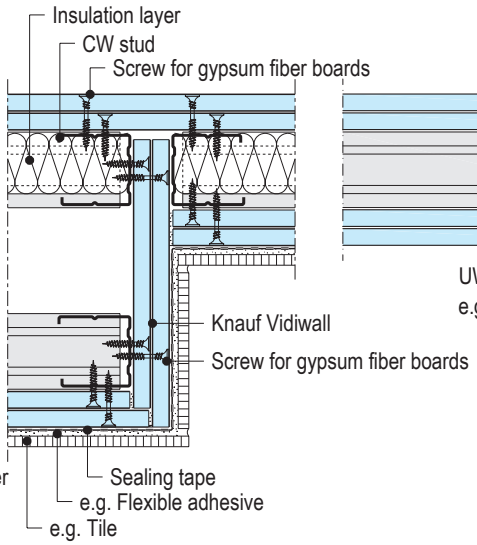
W366.bg-A1 Connection to solid wall

■ with fire protection



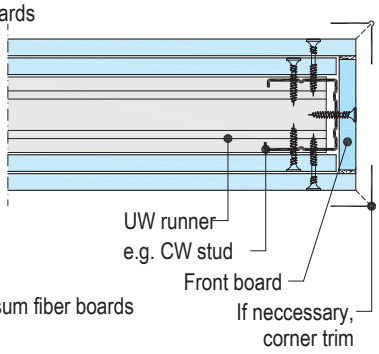
W366.bg-D1 Wall breaks

■ with fire protection



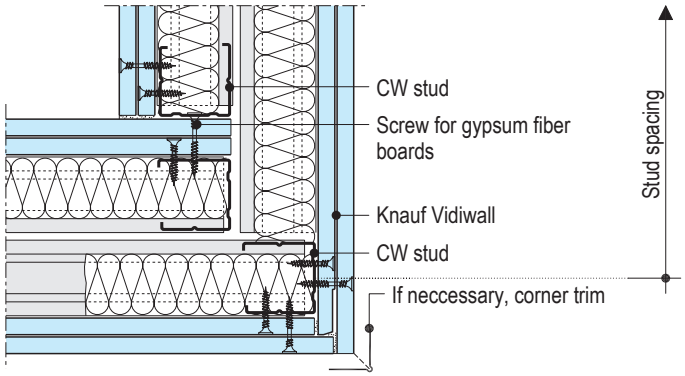
W362.bg-END1 Detached end wall

■ without fire protection



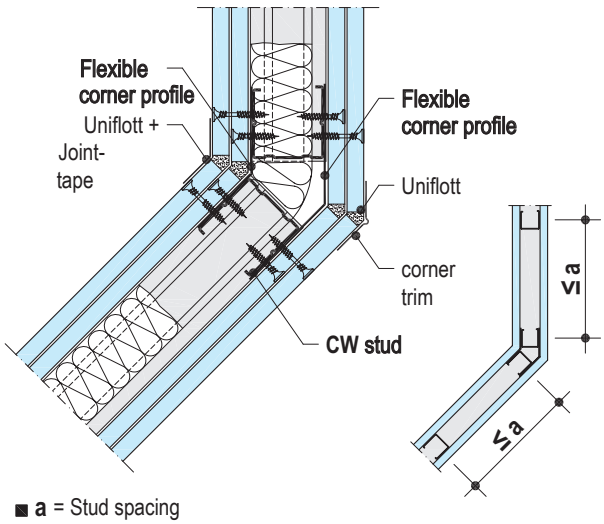
W365.bg-D1 Corner

■ with fire protection



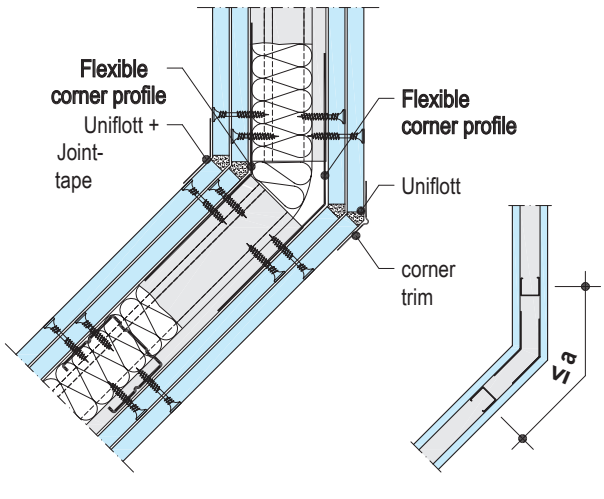
W362. bg-D2 Corner – CW studs + flexible corner profiles

■ with fire protection



W362.bg-D3 Corner – Flexible corner profiles

■ with fire protection



■ **a** = Stud spacing

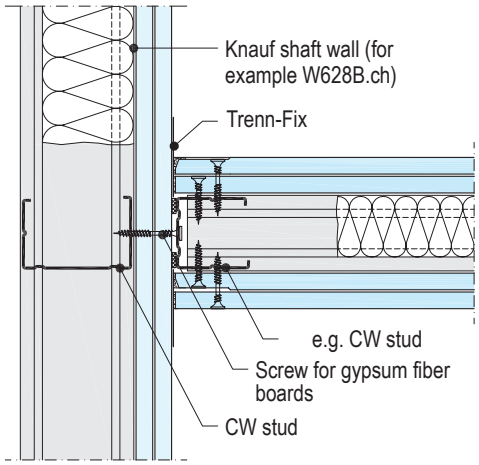
■ Installation aid: Connect flexible corner profiles by crimping with CW studs or UW runners

Details scale 1:5

Horizontal sections - examples - dimensions in mm

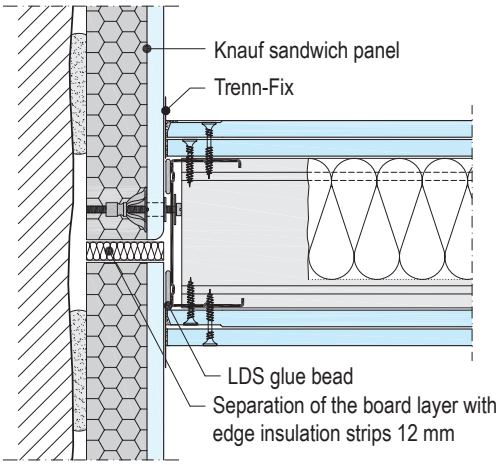
W362.bg-A7 Connection to installation shaft wall

■ with fire protection



W362.bg-A8 Connection to dry lining

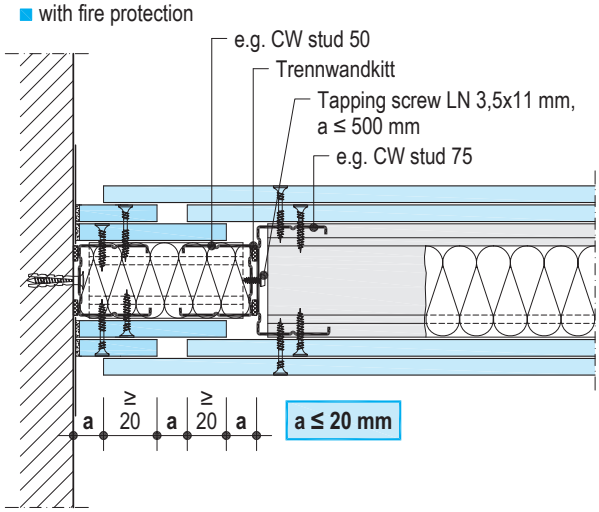
■ without fire protection ■ for thermal insulation and sound insulation



▶ See also detail sheets: W62.bg Knauf shaft walls / W61.bg Knauf dry plaster and attachment shells

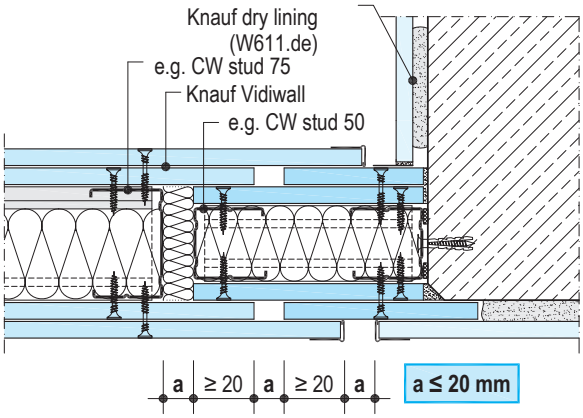
W362.bg-A9 Connection to solid wall - floating

■ with fire protection



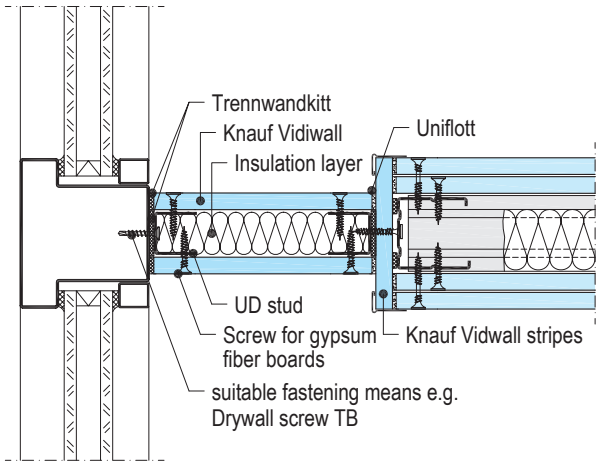
W362.bg-A3 Connection to solid components - floating

■ with fire protection



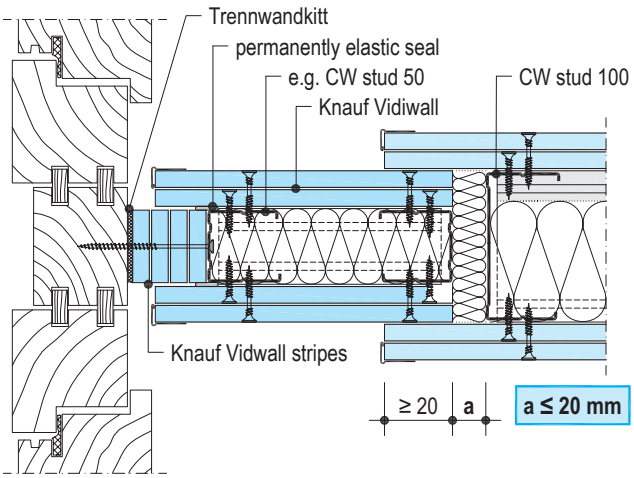
W362.bg-A1 Connection to metal facade

■ without fire protection



W362.bg-A2 Connection to wood facade - sliding

■ without fire protection

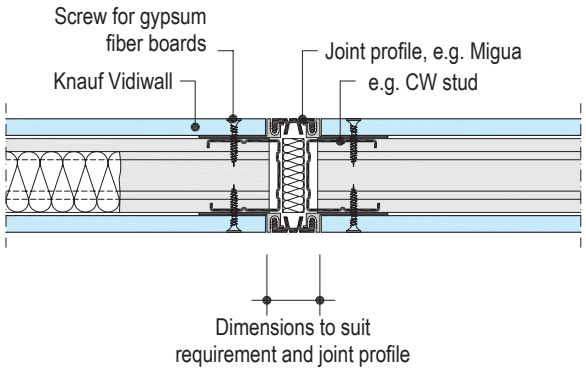


Details scale 1:5

Horizontal sections - examples - dimensions in mm

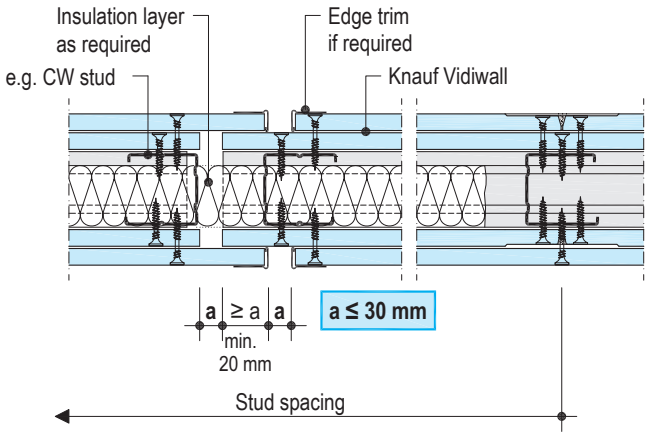
W361.bg-BFU2 Movement joint with joint profile

■ without fire protection



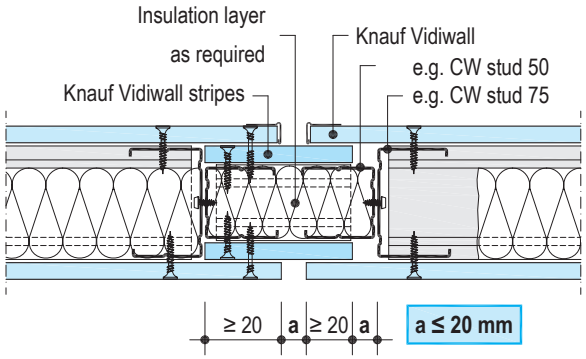
W362.bg-BFU2 Movement joint

■ without fire protection



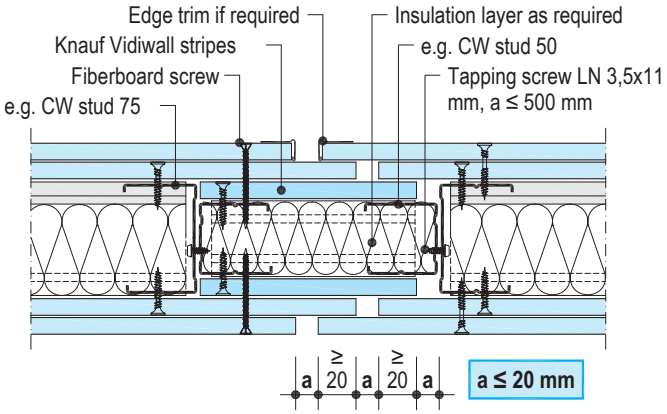
W361.bg-BFU1 Movement joint

■ with fire protection



W362.bg-BFU3 Movement joint

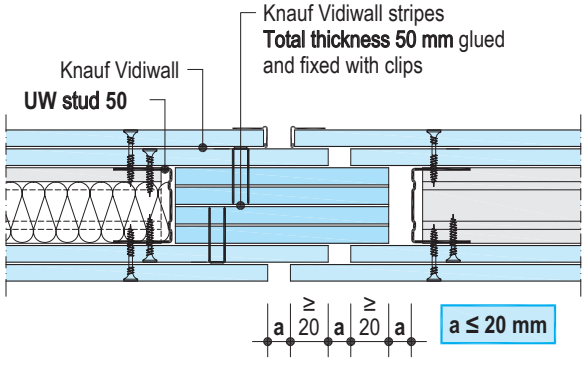
■ with fire protection



W362.bg-BFU4 Movement joint

■ with fire protection

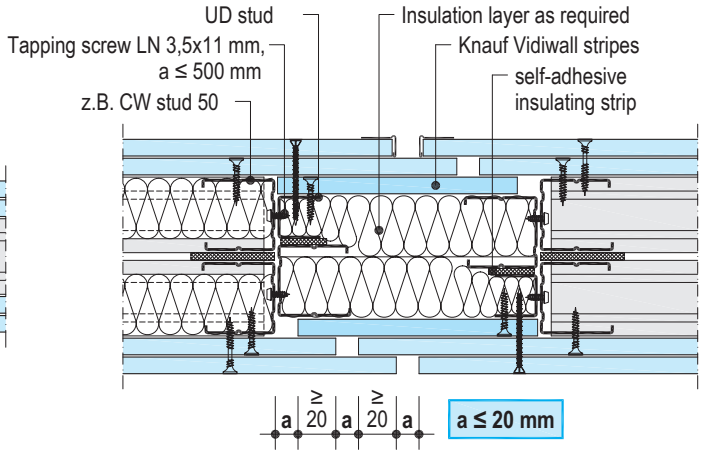
■ The rigid connection of the cladding layers leads to a local reduction of the sound insulation



■ Knauf recommendation with wall cavity 50 mm

W365.bg-BFU1 Movement joint

■ with fire protection

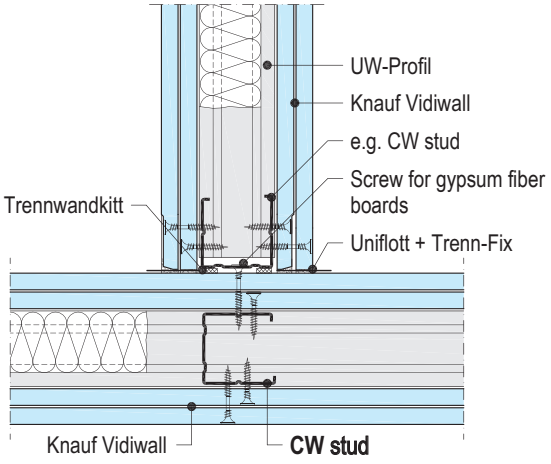


Details scale 1:5

Horizontal sections - examples

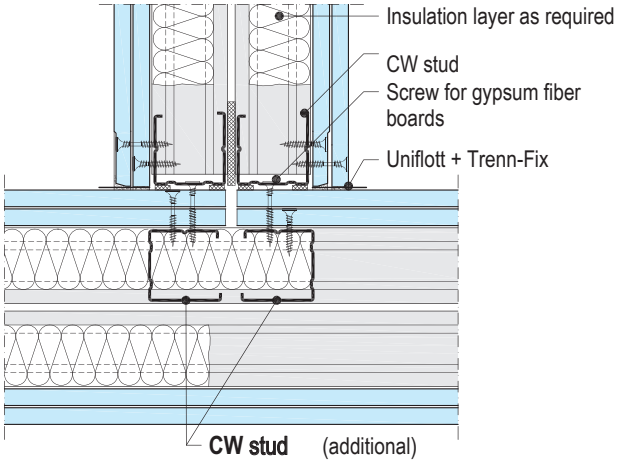
W362.bg-C1 T-connection, connection to CW stud

■ with fire protection



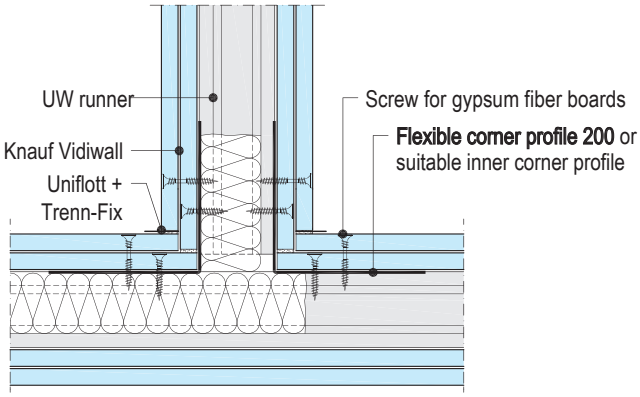
W365.bg-C1 T-connection, connection to CW stud

■ with fire protection



W362.bg-C2 T-connection with flex. corner profile / inner corner profile

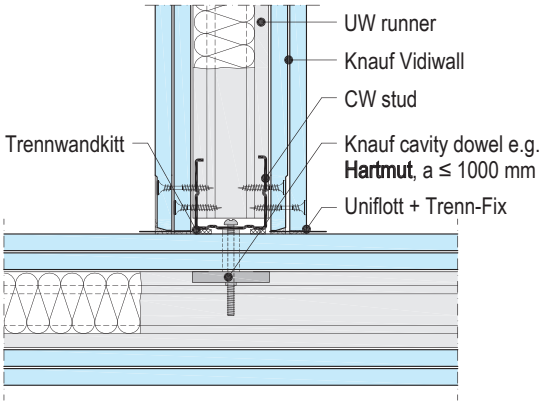
■ with fire protection/ with erf. soundproofing> 50 dB



■ Mounting aid: Connect flexible corner profiles by crimping with UW runners

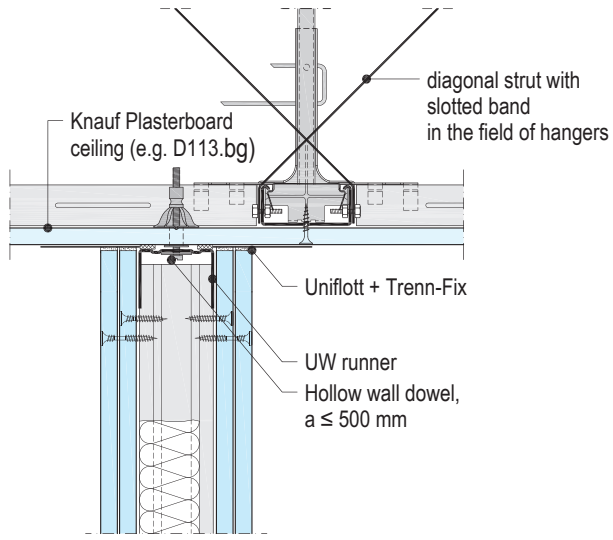
W362.bg-C3 T-connection with cavity dowel

■ with fire protection



W362.bg-VO4 Ceiling connection to board ceiling

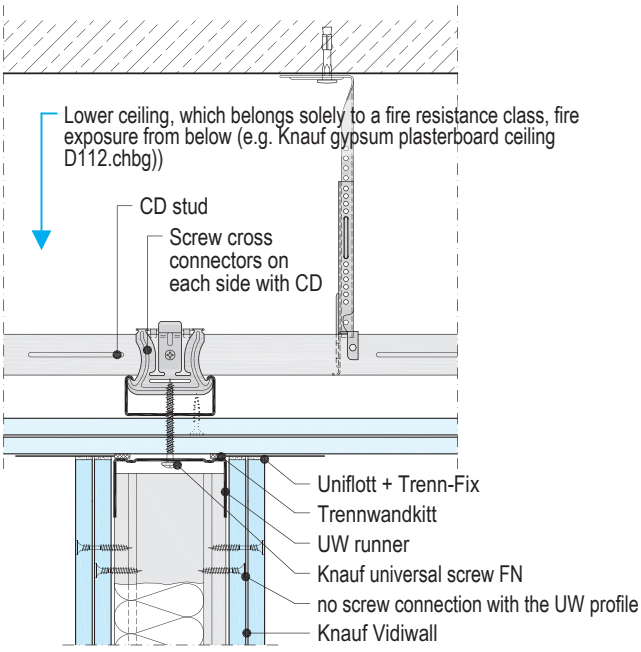
■ without fire protection ■ **Allowed wall height: ≤ 4 m**



■ Fix fastening of the slotted strips to the raw ceiling on site

W362.bg-VO6 Ceiling connection to board ceiling

■ with fire protection ■ **Allowed wall height: ≤ 4 m**



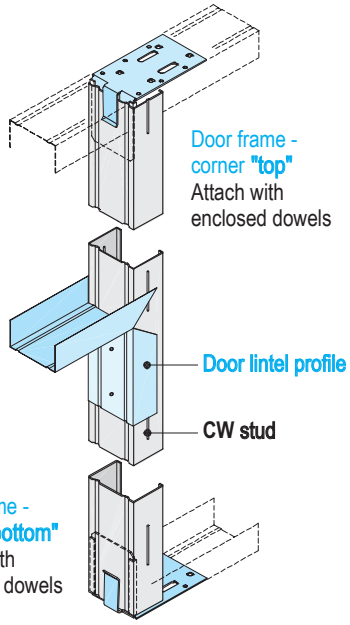
■ The load transfer via the ceiling panel to the flanking walls must be ensured (frictional corner connections).

Door openings - metal stud constructions

Scheme drawings

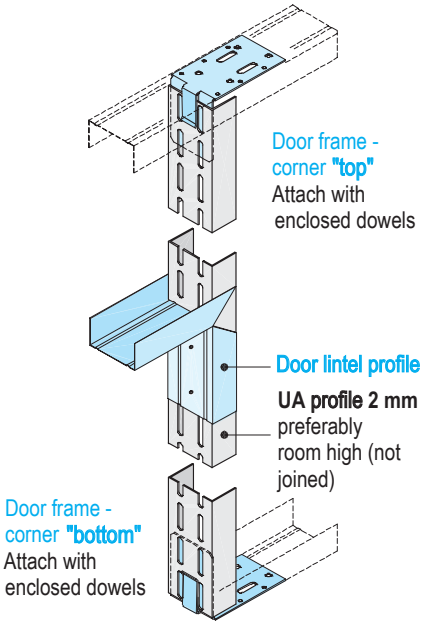
■ **Option CW**

Partition height ≤ 2,60 m
Door width door ≤ 0,90 m
Door leaf weight ≤ 25 kg



■ **Option UA**

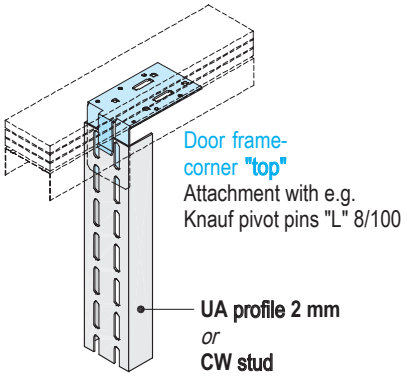
Partition height acc. Knauf System
Door width door acc. Table
Door leaf weight acc. Table



■ Alternative: Knauf connection bracket for UA profiles

■ **Deflection head**

Option UA or CW possible

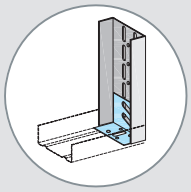


■ For ceiling deflection up to max. 20 mm

Max. Door leaf weights

Light through opening width	Option CW CW studs	Option UA UA 50	UA 75	UA 100	UA 125	UA 150
≤ 900 mm	≤ 25 kg	≤ 50 kg	≤ 75 kg	≤ 100 kg	≤ 125 kg	≤ 150 kg
≤ 1000 mm	-					
≤ 1200 mm	-	≤ 40 kg	≤ 60 kg	≤ 80 kg	≤ 100 kg	≤ 120 kg
≤ 1500 mm	-	≤ 35 kg	≤ 50 kg	≤ 65 kg	≤ 80 kg	≤ 95 kg

■ For double structure walls apply door openings with UA profiles
■ For walls with profiles 125 or 150:

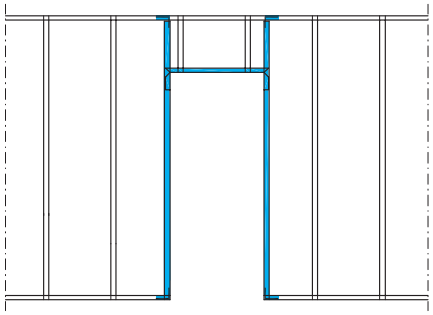


■ For structural reasons door profile only possible with UA profiles and Knauf angle brackets.

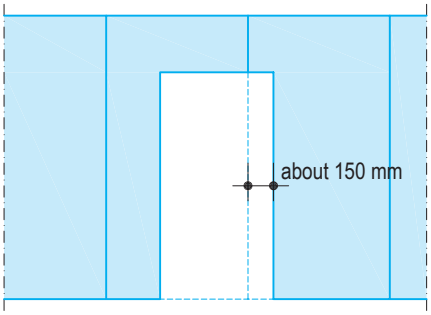
■ **Knauf door frame bracket**
for CW and UA profiles
50 or 75 or 100
Set consisting of:
4 angles + 10 dowels

■ **Knauf angle bracket**
for UA profiles
50 or 75 or 100/125/150
set consisting of:
4 angles + 8 dowels +8 lock screws with nuts and washers

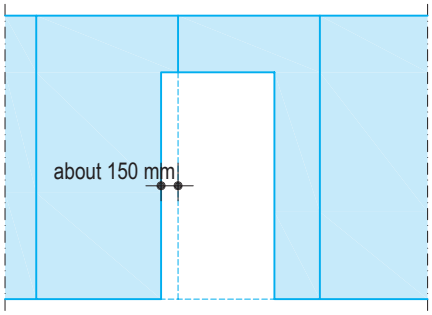
Door opening frame



Cladding – partition side 1



Cladding – partition side 2

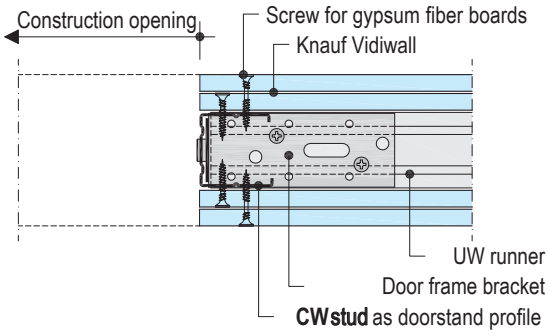


■ Do not place any panel bumps on the door frame profiles or in extension of the frame spars

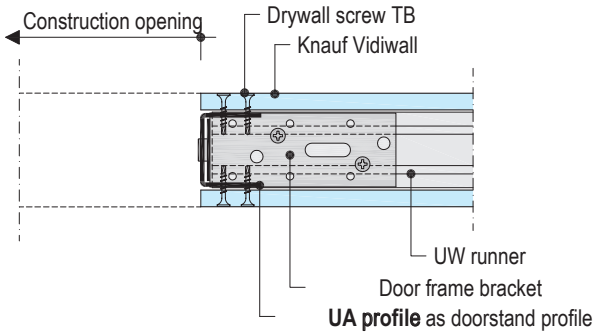
Details scale 1:5

Horizontal sections - examples

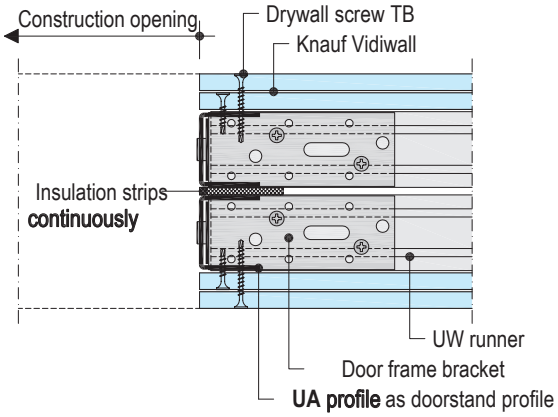
W362.bg-E2 Door opening with CW stud



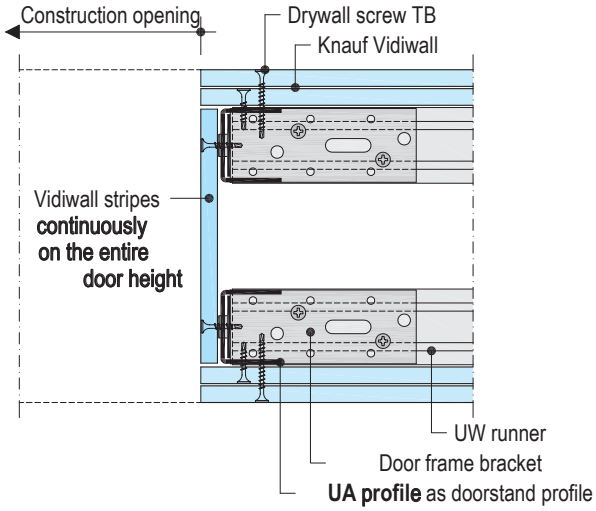
W362.bg-E1 Door opening with UA profile



W365.bg-E1 Door opening with UA profiles



W366.bg-E1 Door opening with UA profiles



■ If necessary, integrate sheet metal for central frame connection

■ In addition, the information provided by the door manufacturer must be observed (for example, fire safety certification, constructional additional measures, etc.)

► See also Brochure W496.de Knauf sliding door system Pocket Kit

Max. openings in metal stud partitions

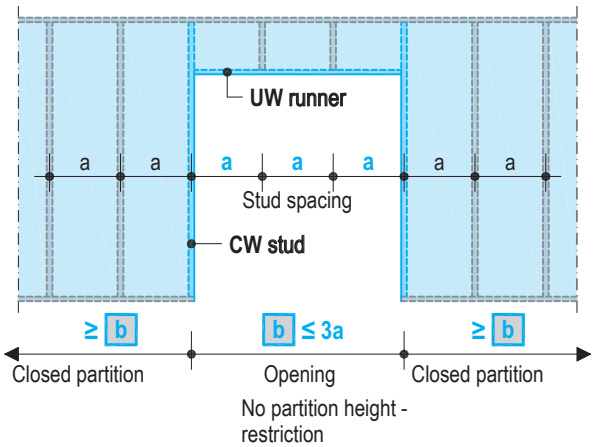
■ Stud spacing ≤ 625 mm

■ Observe the permissible wall heights of the respective wall system

■ Larger opening widths / larger wall heights on request

■ When installing the door, the relevant installation conditions must be observed

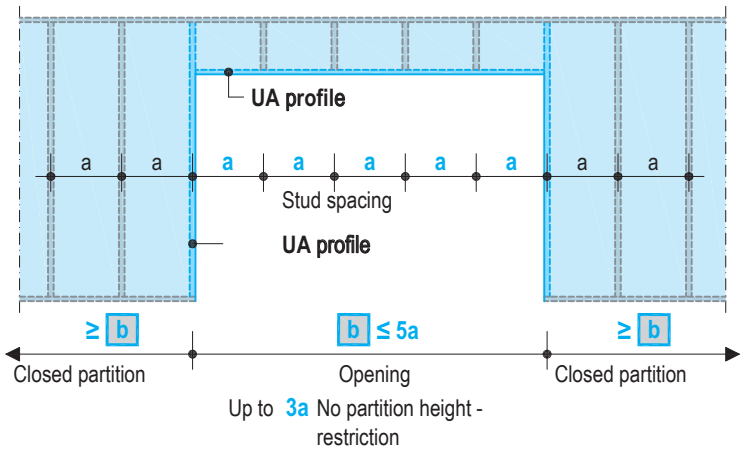
CW stud as a soffit stand



No partition height - restriction

UA profile as a soffit stand

Scheme drawings

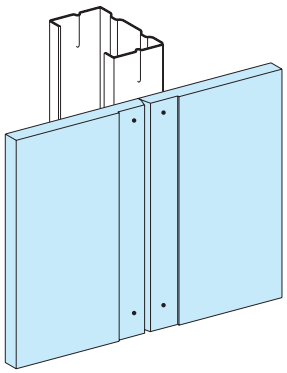


Up to 3a No partition height - restriction

Up to 4a Partition height ≤ 6,50 m

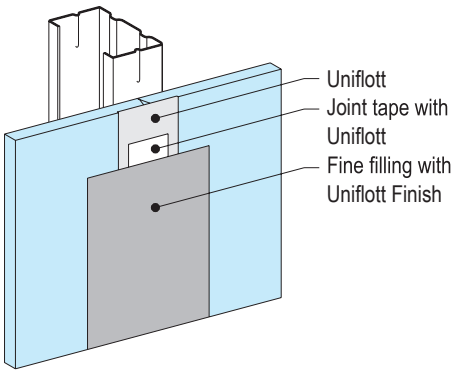
Up to 5a Partition height ≤ 4,00 m

Plate impact with Vidiwall VTF joint, boards applied without distance between them



1

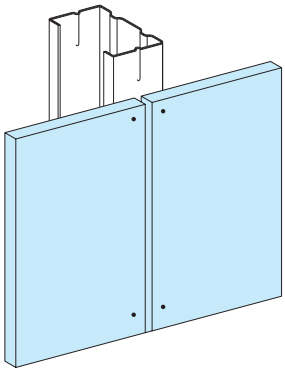
Push boards tightly during assembly



2

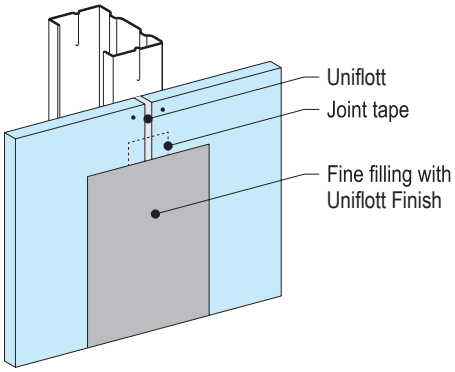
Fill the hollow with Uniflott and embed joint tape.
Finishing with a Uniflott finish.

Plate joint with Vidiwall SK joint, boards applied with 5-7 mm distance between them



1

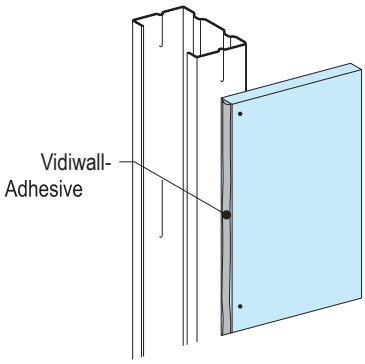
Mount boards with 5 - 7 mm spacing or ½ plate thickness



2

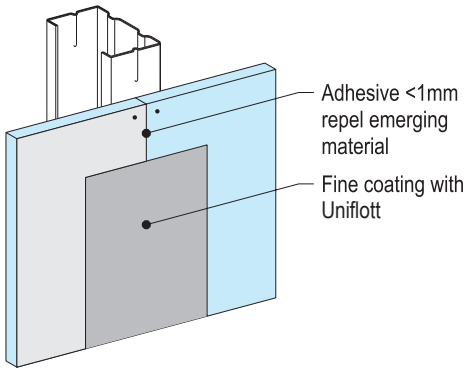
Close joints with Uniflott.
Joint tape optional.
Finishing with a Uniflott finish.

Boards impact with Vidiwall KLF, Kleberraupe one-sided, SK joint - glued



1

Mount boards in the middle of the profile. Then apply joint adhesive evenly to the edge of the mounted board.



2

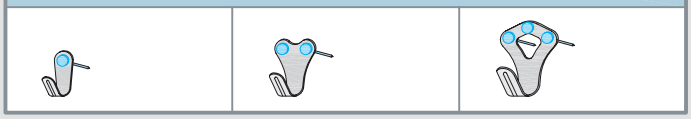
Press the next board tightly (width of the joint approx. 1 mm) and fasten with screws immediately.
Treat with Uniflott.

Mounting loads

up to 40 kg X-Hooks

Max. Hook load capacity

■ X-Hooks: Light objects: eg. Pictures only shear load up to 15 kg



Cladding thickness mm	Max. Hook load capacity X Hook with 1 Nail Vidiwall kg	X Hook with 2 Nail Vidiwall kg	X Hook with 3 Nail Vidiwall kg
10	15	25	35
12,5	17	27	37
15	18	28	38
18	20	30	40
2 x 12,5	20	30	40

up to 70 kg Hollow wall dowels for anchorage of Steel wall traverse **up to 0,4 kN/m** or **0,7kN/m** loads

Cladding thickness mm	Max. Dowel load capacity Plastic - cavity dowel Fischer UK 8x50R 1) Vidiwall kg	Metal- cavity dowel Fischer UK 8x50R 1) Vidiwall kg	Knauf Hartmut Vidiwall kg
10	20	25	30
12,5	35	35	45
15	35	40	50
18	45	55	70
2 x 12,5	55	70	70

1) e.g. Tox Universal, Fischer Universal, Molly screw dowel or equivalent

Cantilever loads

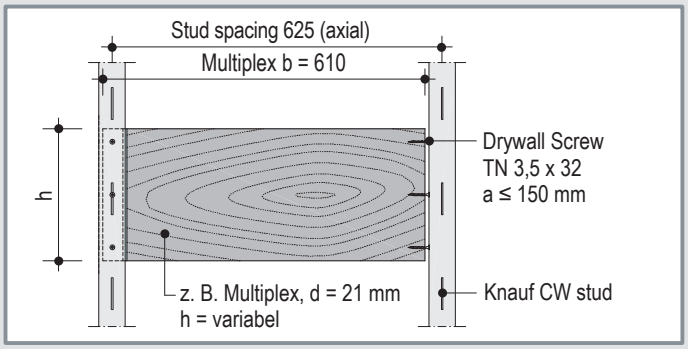
■ According to DIN 18183, partitions can be loaded at any position by cantilever loads (e.g. TVs, wall cupboards) in accordance with the specifications on page 41.
■ Consideration of the cantilever arm (cabinet height ≥ 300 mm) and eccentricity (≤ 300 mm at cabinet depth ≤ 600 mm) is required.
■ Attach the cantilever loads with at least 2 cavity dowels made of plastic or metal, e.g. Knauf Hartmut Hohlraumdübel cavity dowels.
■ Determine the minimum number of dowels using the cabinet weight and loading of the selected dowel type in dependence on the cladding thickness (see calculation examples on page 41).
■ Fixing spacing of the dowels according to DIN 18183: ≥ 75 mm; (Knauf recommendation: ≥ 200 mm).

With stapled upper board layer:
Only the screw fixed board layer may be used to transfer the load.

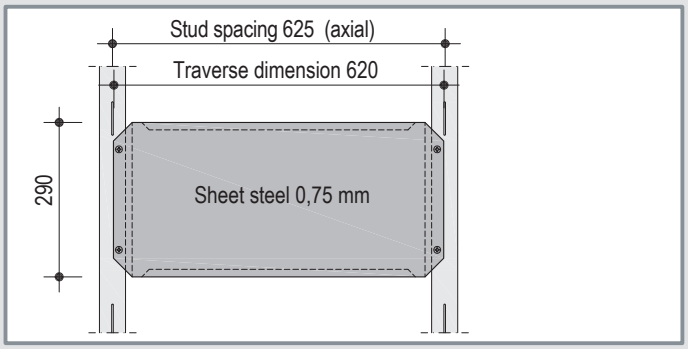
up to 1,5 kN/m for Traverses, Sanistands

Cantilever loads > 0.4 kN/m or 0.7 kN/m up to 1.5 kN/m partition length (e.g. boilers, wall-hung WCs, washbasins) using traverses2) or sanistands to transfer the load into the substructure

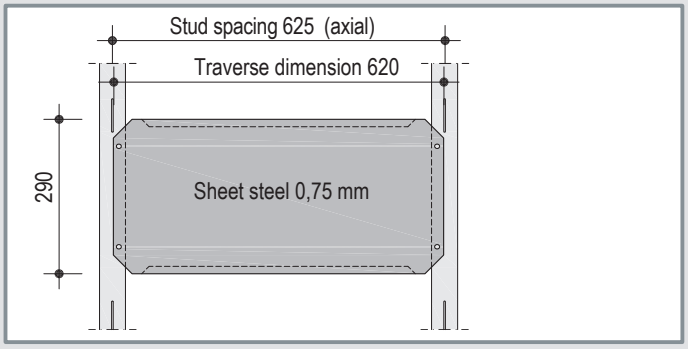
Multiplex wall traverse Loads up to 1,5 kN / m partition length
Schematic drawings I mass in mm



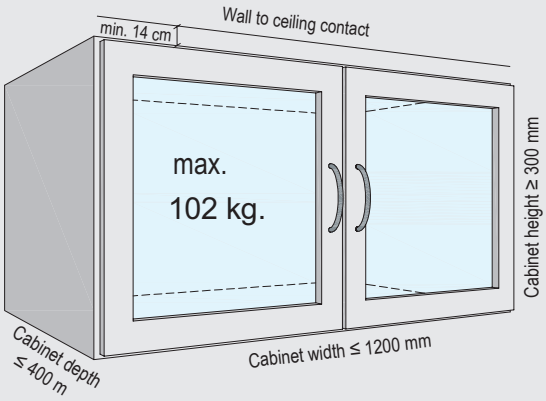
Steel wall traverse with gypsum fiber backing 18 mm Loads up to 1,5 kN / m partition length

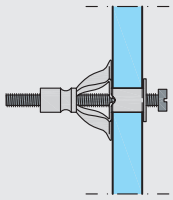


View metal traverse Loads up to 1,0 kN / m partition length



■ See tech. Information Tro142.ch Wall inserts, trusses and support stands

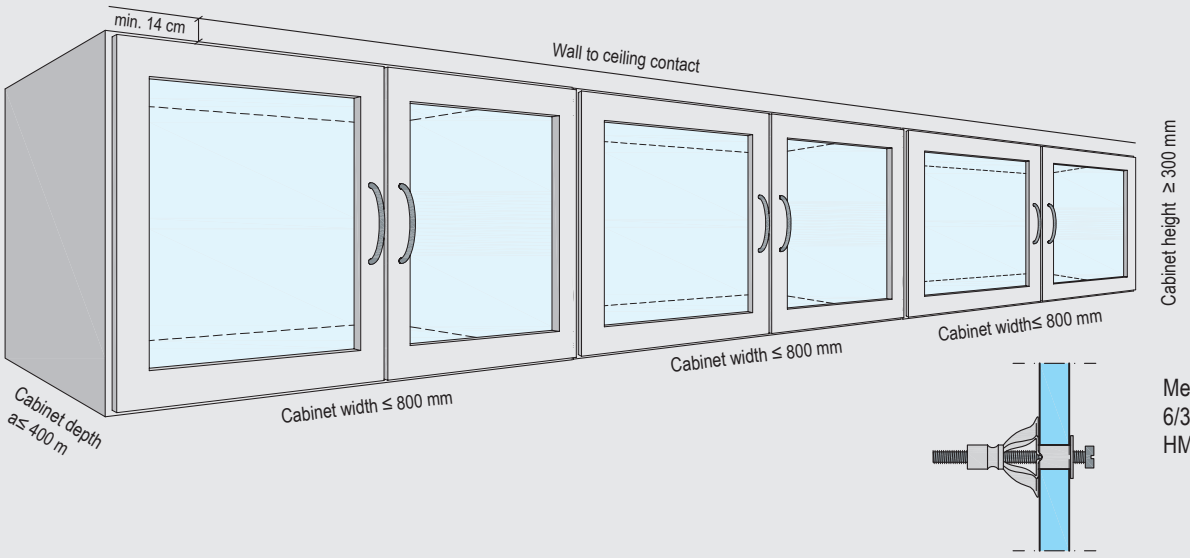




Metal dowel Knauf
6/32 or Fischer
HM 6x65S

Single cabinet											
Cabinet width (cm)	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120**
Max. Load (kg)											
Vidiwall 12,5+A /GKB/ 12,5	17	25,5	34	42,5	51	59,5	68	76,5	85	93,3	102
2 x Vidiwall 12,5	17	25,5	34	42,5	51	59,5	68	76,5	85	93,3	102

Permitted area of application Non-permitted



Metal dowel Knauf
6/32 or Fischer
HM 6x65S

Group of cabinets									
Cabinet width (cm)	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
Max. Load (kg)									
Vidiwall 12,5+A /GKB/ 12,5	17	25,5	34	42,5	51				
2 x Vidiwall 12,5	17	25,5	34	42,5	51	59,5	68		

Permitted area of application Non-permitted

Fixing surface 2x12,5 mm. Max. Permissible cabinet width as stated above.
Number of anchors per cabinet ≥2.
The specified permissible load including the weight of the cabinet.
Board thickness ≤ 18 mm - permissible load 40 kg / m.
Board thickness> 18 mm - permissible load 70 kg / m.

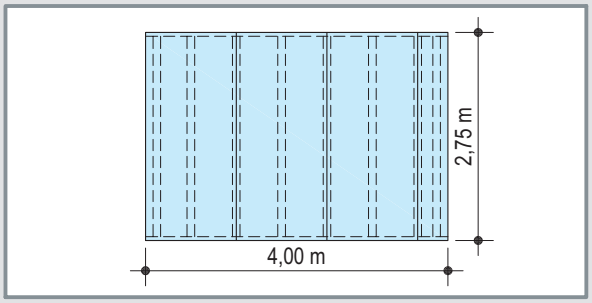
W36.bg Knauf Metal Stud Partitions

Material requirements of selected examples

Material requirement per m² wall

without loss and additional charge

- The quantities refer to a partition surface of:
  H = 2,75 m; L = 4,00 m; A = 11,00 m²
- as req. = as required
- Details without specific requirements on the building physics



Description	Unit	Quantity as average value			
		W361.bg 1x 12,5	W362.bg W312.bg W322.bg 2x 12,5	W365.bg W315.bg 2x 12,5	W366.bg 2x 12,5
Stud frame Knauf UW-Profile 50x40x0,6; 4 m long or Knauf UW-Profile 75x40x0,6; 4 m long or Knauf UW-Profile 100x40x0,6; 4 m long or Knauf UW-Profile 125x40x0,6; 4 m long or Knauf UW-Profile 150x40x0,6; 4 m long	m	0,7	0,7	1,4 - -	1,4 - -
Knauf CW-Profile 50x50x0,6 or Knauf CW-Profile 75x50x0,6 or Knauf CW-Profile 100x50x0,6 or Knauf CW-Profile 125x50x0,6 or Knauf CW-Profile 150x50x0,6	m	2,0	2,0	4,0 - -	4,0 - -
Insulating strip pieces, single - or double - sided self-adhesive	m	-	-	0,5	-
Knauf Vidiwall strip (12,5 mm / 20 mm)	m²	-	-	-	0,1
Knauf hardboard screws (fixing the plate strips)	pcs	-	-	-	7
Knauf Trennwandkitt: (Doll 550 ml) or Knauf Sealing tape (50/3 mm; 70/3 mm; 95/3 mm)	pcs m	0,3 1,2	0,3 1,2	0,6 2,4	0,6 2,4
Knauf fastener «K» 6/35 or Knauf fastener "K" 6/50 (with polished connection surfaces)	pcs	1,6	1,6	3,2	3,2
Insulation layer ... mm thick; (Observe fire protection / sound insulation - see pages 6 to 10)	m²	1,0	1,0	1,0	1,0
Knauf boards (Observe fire protection / sound insulation - see pages 6 to 10) Knauf Vidiwall / Vidiphonic / Vidifire A1 / Plasterboard type A / DF 12,5 mm	m²	2	4	4	4
Fastening (Fastening the boards - Knauf fasteners see page 4) 1. Layer 2. Layer	pcs	30 -	14 30	14 30	14 30
Jointing (Quality level Q2) (further Knauf Filler material see page 29) Uniflott or Uniflott impregnated; with hand filling Joint stripes Kurt	kg m	0,5 1,5	0,8 1,5	0,8 1,5	0,8 1,5
Trenn-Fix, 65 mm wide, self-adhesive	m	1,8	1,8	1,8	1,8
Knauf Corner trim 23/13; 2,75 m long Knauf Corner trim 31/31; 3 m long Alux-Corner protection 52 mm wide	m	as req.	as req.	as req.	as req.
Knauf universal screws (FN 4,3x40 mm, FN 4,3x65 mm)	pcs	as req.	as req.	as req.	as req.
Knauf dowel nails or Knauf ceiling nail	pcs	as req.	as req.	as req.	as req.
Flexible corner profile (100 mm / 200 mm wide)	pcs	as req.	as req.	as req.	as req.

Structure

Knauf Vidiwall metal stud partitions consist of a metal structure as a single or double stud frame and a single or double-layer cladding of Knauf gypsum fibre boards on both sides. The structure is anchored to the adjacent building elements.

Insulating materials can be installed in the wall cavity according to the building physics requirements.

W361.bg Vidiwall Metal Stud Partition

- Single CW stud
- Single-layer claddding

W362.bg, W312.bg, W322.bg Vidiwall Metal Stud Partition

- Single CW stud
- Double-layer cladding

W365.bg, W315.bg Vidiwall Metal Stud Partition

- Two parallel structures. The CW studs are decoupled by insulation strips
- Double-layer cladding

W366.bg Vidiwall Installation Wall

- Two parallel structures. The CW studs are connected by strips of Vidiwall boardsz
- Double-layer cladding

Expansion joints

Movement or expansion joints of the shell construction should be taken over into the construction of the stud partitions. For continuous partitions, expansion joints are required at a distance of approx. 8 - 10 m.

Ball protection

Partitions with multi-layer cladding are secured against ball-throwing.

Hints

Soundproofing

- Avoid air leakage
- Sliding connections may require sealing with permanently elastic material (see detailed drawings).

Fire protection

- When connecting partitions to which fire resistance requirements apply, stiffening and supporting connection components must have at least the same fire resistance.

Assembly

Structure

- Apply Trennwandkitt acoustical sealant (two strings) or sealing tape to rear side of runners for the connection of flanking constructional components. In case of sound insulation requirements, seal carefully with Trennwandkitt acoustical sealant according to DIN 4109, supplement 1, chapter 5.2; porous sealant strips such as sealing tape are usually not suitable in this case.
- If a deflection of the ceiling ≥ 10 mm can be expected, install deflection heads.
- Anchor wall perimeter runners to the floor and ceiling. Anchor wall perimeter runners with suitable dowels to flanking walls. Use suitable spacings and fasteners in accordance with the tables of the corresponding systems.

Use suitable spacings and fasteners in accordance with the tables of the corresponding systems. Use suitable fasteners. Solid flanking constructional components: Knauf Drehstiftdübel nailable plugs with masonry or Knauf Deckennagel ceiling steel dowels with reinforced concrete. Non-solid flanking constructional components: Anchors specially suited for the building material, e.g. Knauf Universalschraube FN multi-purpose screws for wooden substrates, metal stud partitions, etc.

- Place the CW studs into the UW runners arranged along the length and align them.

W365.bg Metal Stud Partition

Decouple the CW studs by sticking insulation strips.

W366.bg Installation Wall

Connect the double CW studs by means of approx. 300 mm high lashes made of Vidiwall strips at a center distance of approx. 900 mm over the entire wall height to "frame uprights".

Cladding

- Fastening the cladding according to the Tables on page 4.
- Apply the cladding, depending on the system, vertically or horizontally. Vertical cladding with preferably room-high Knauf Vidiwall.
- Stagger the board joints of adjacent boards, between the cladding layers and between opposite cladding layers at least 400 mm.
- Do not place any board joints on door frame profiles (danger of cracking).

Jointing

Surface quality

- Jointing of the boards in the required quality level Q1 to Q4 in accordance with Code of Practice no. 2 “Verspachtelung von Gipsplatten, Oberflächengüten” 1).

Filling compounds

Select suitable filler materials according to quality requirements:

- Uniflott: hand filling with joint stripe Uniflott impregnated: Handverflechtelung in the wet room area with Joint stripes, water repellent, color green adapted

Finishing filler to achieve the required surface quality:

- Q3 / Q4, application by hand: Uniflott Finish, Universal Spray Filler, Finissimo Universal
- Q3 / Q4, machine application: Uniflott Finish, Universal Spray Filler

SK joint

Hand filling with Knauf Uniflott and Joint stripe Kurt. Lay the boards on the joint (joint width 5 - 7 mm), fill the joint completely with Knauf Uniflott. Repel protruding material (bead) after approx. 40 minutes. Filling Joint stripe, apply putty material over the edges of the board and embed strips. For multi-layer cladding, fill joints of the lower layers with filler material, spatulate joints of the outer layer. Remove slight imperfections immediately after setting with a hand / stem sander. Fill in the fastener as well.

Vidiwall joints

- For multi-layer cladding, fill the lower layers with filler; fill the joints of the visible layer. Filling the joints of covered cladding layers with multi-layer cladding is necessary to ensure technical fire protection and sound insulation properties as well as the structural properties!
- Fill in visible fasteners
- Lightly sand visible surfaces after drying of the filler material, if required.

Connection joints

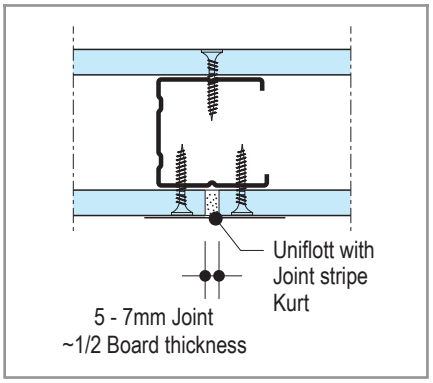
- Apply connections to the flanking drywall construction (ceiling/wall), dependent on the conditions and the demands on crack resistance with Trenn-Fix or Knauf Fugendeckstreifen Kurt joint tape.
- Observe code of practice no. 3 “Gipsplattenkonstruktionen - Fugen und Anschlüsse” 1).
- Apply Trenn-Fix when filling joints to adjacent solid construction components.
- With fire protection demands, seal the connection to the floor with joint filler, for sound insulation demands only acrylate or Trennwandkitt acoustical sealant may be used.

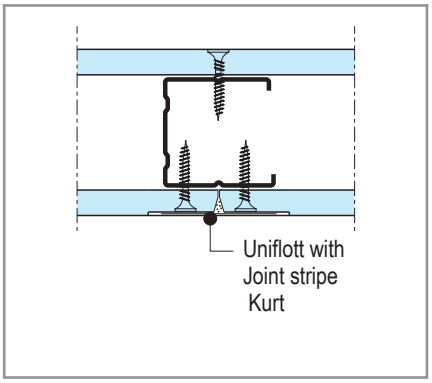
VTF joint

Hand filling with Knauf Uniflott and Joint stripe Kurt. Push the boards tightly, fill the hollow with Knauf Uniflott and embed the Joint stripe Kurt. For multi-layer cladding, fill the joints of the lower layers, fill the joints of the outer layer. Remove minor defects immediately after setting with a hand / stem sander. Fill in heads of fasteners as well.

Application temperature / Climate

- Filling and covering of joints should only take place when no more longitudinal changes can be expected, i.e. expansion or contraction due to humidity or temperature changes.
- Do not apply jointing at room or substrate temperatures below approx. +10 °C.
- In case of mastic asphalt screed, cementitious screed and self-levelling screed, fill in board joints only after screed has been applied.
- Observe code of practice no. 1 “Baustellenbedingungen” 1).





Coatings and clothing

Pretreatment

Before further coatings or linings (wallpaper) are applied, the filled surface must be free of dust and the surface of the gypsum boards should always be primed, acc. to code of practice no. 6 of the BVG "Vorbehandlung von Trockenbauflächen aus Gipsplatten zur weitergehenden Oberflächenbeschichtung bzw. –bekleidung" 1).

The primer must suit the subsequent coating compound/coatings/linings.

In order to compensate for the differences in absorption of surfaces, coatings of primer such as Knauf Tiefengrund or Spezialgrund are suitable.

Where a wallpaper lining is used, a primer that facilitates easier removal of wallpaper for redecoration is recommended.

A sealing primer of Knauf Flächendicht is required for covering splash water areas with tiles.

Suitable coatings and linings

The following coatings/linings can be applied to Knauf gypsum fibre boards:

- Wallpapers
  Paper, fleece, textile and synthetic wallpapers: Use only adhesives made of methyl cellulose according to Code of Practice no. 16 "Technische Richtlinien für Tapezier- und Klebearbeiten" released by the Bundesausschuss Farbe und Sachwertschutz (Germany).
- Ceramic tiles
  Minimum cladding thickness 12.5 mm with stud spacing 625 mm.
  Knauf recommendation: double-layer cladding 2x12.5 mm.
- Plasters
  Application of plaster layers only in conjunction with Knauf joint tape.
- Coatings
  Dispersion paints (e.g. Knauf Intol E.L.F., Malerweiss E.L.F.)
  Multicoloured rainbow emulsion
  Silicate-based emulsion paints with suitable primer.

Unsuitable are:

- Minimum cladding thickness 12.5 mm with stud spacing 625 mm.
  Knauf recommendation: double-layer cladding 2x12.5 mm.

Notes

After wallpapering or after application of plasters, quick drying must be ensured through adequate airing.

Gypsum board surfaces that have constantly been exposed to light without any protection can result in yellowing. Therefore, a trial coat is recommended that will extend across several boards including all joints. Yellowing can, however, be successfully avoided only by using a special primer, e.g. Knauf Aton Sperrgrund for finishing plasters, Knauf Atonol for coatings.

Other coatings or layers and vapour barriers up to about 0.5 mm thickness as well as claddings (with the exception of sheet steel), do not have any influence on the technical fire resistance classification of Knauf Metal Stud Partition systems.

Notes

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Constructive, static and physical properties of Knauf systems can only be achieved if the exclusive use of Knauf system components or Knauf recommended products is ensured.

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