

W 36 Knauf Vidiwall Metal Stud Partitions

- W361 Knauf Vidiwall Metal Stud Partition** - single metal stud frame, single layer cladding
- W362 Knauf Vidiwall Metal Stud Partition** - single metal stud frame, double layer cladding
- W365 Knauf Vidiwall Metal Stud Partition** - double metal stud frame, double layer cladding
- W366 Knauf Vidiwall Metal Stud Partition** - double metal stud frame, double layer cladding
- W345 Knauf VidiSound** - double metal stud frame, tripple layer cladding, $R_w \geq 77$ dB

The structural, statical properties, and characteristic building physics of Knauf systems can solely be ensured with the exclusive use of Knauf system components, or other products expressly recommended by Knauf.

W 36 Knauf Vidiwall Metal Stud Partitions

Technical Data / Sound Protection / Fire Protection



System	Technical data				Weight	Sound protection	Insulation		Fire rating	
	Dimensions					Rw	Type	Thickness/ nominal density		
	Partiti- on thick ness	Stud (cavity)	Vidiwall cladding Thickness		approx.					
	D	h	d		kg/m ²	dB ²⁾		mm/kg/m ³		
W361 Vidiwall Metal Stud Partition										
	single metal stud frame, single layer cladding									
	75	50				49		50	EI30	
	100	75	12.5	30	52		G 75			
	125	100			53		100			
	75	50			-			EI60		
	100	75	12.5	30	-		S 50 / 60			
125	100			-						
W362 Vidiwall Metal Stud Partition										
	single metal stud frame, double layer cladding stud spacing									
	95	50				-			EI90	
	120	75	12.5+10	57	-		S 50 / 60			
	145	100			-					
	100	50			61			EI90		
	125	75	2x12.5	62	61		S 40 / 30			
150	100			62		80 / 40				
W365 Vidiwall Metal Stud Partition										
	Double metal stud frame – double layer cladding stud spacing									
	155	105				67			analogues to W362	
	205	155	2x12.5	64	68 ⁴⁾		S 50 / 38			
	255	205			69					
	W366 Vidiwall Metal Stud Partition									
		Double metal stud frame – double layer cladding stud spacing								
≥220		≥170							analogues to W362	
≥270		≥220	2x12.5	64	approx. 56 ⁵⁾		S 40 / 30			
≥320		≥270								
W345 Knauf Vidi-sound System										
		Double MW-stud frame, triple layer cladding, Rw > 77dB								
	≥275	≥ 200	3x12.5	91	≥ 77		G 40 / 75+50+75	EI150		

Legend

- 1) Weight without insulation
- 2) Rw = calculation value of sound reduction index; input value for calculation of the standard difference between sound levels Dn,T,w (sound protection between rooms in buildings) acc. to with ÖNORM B 8115-4.

- 4) Linearly interpolated.
- 5) Empirical assessment.
- 6) Vidiwall fibreboards are non - combustible A2 s1 d0 acc. to ETA - 07 / 0086 issued by DIBT and EN 15283 - 2.

3) The insulation layer is not required for fire protection.

Insulation acc. to ÖNORM B 6035

S Building material class A - Melting point ≥ 1000° C acc. to DIN 4102-17

G Class of building material A

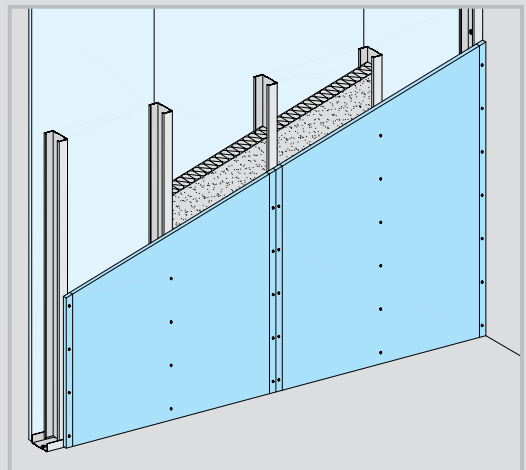
W 361 Knauf Vidiwall Metal Stud Partition

Single Metal Stud Frame, Single Layer Cladding

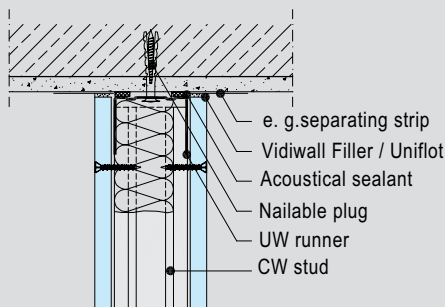


Wall heights

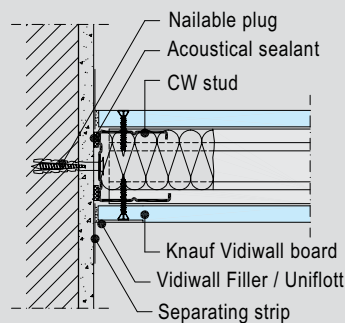
Stud	Stud spacing	Maximum wall heights
Metal thickness 0.6 mm		
CW 50	60 / 62.5	3.00
CW 75	60 / 62.5	4.50
CW 100	60 / 62.5	5.00



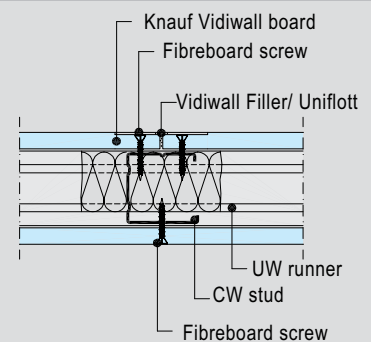
Details M 1:5



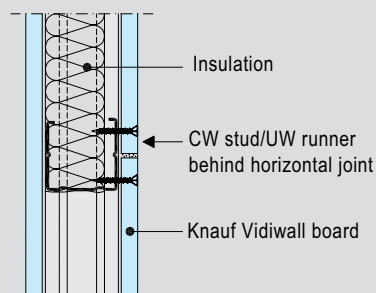
W361-V01-A Connection to ceiling



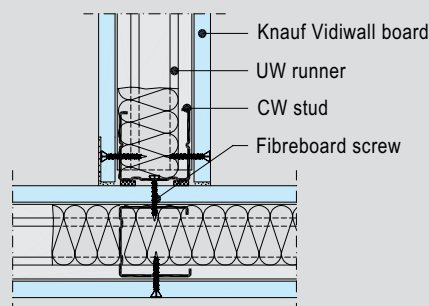
W361-A1 Connection to solid wall



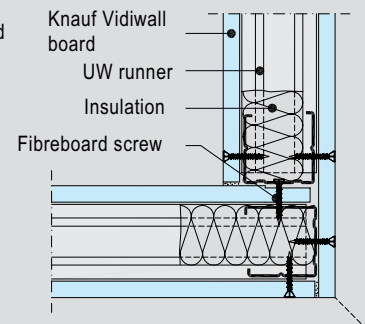
W361-B1 Joint



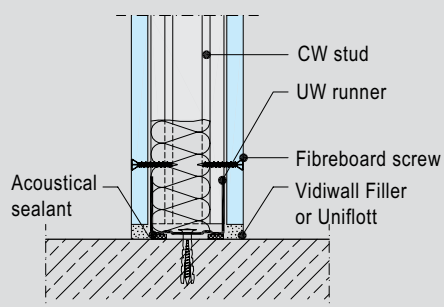
W361-VM1-A Joint



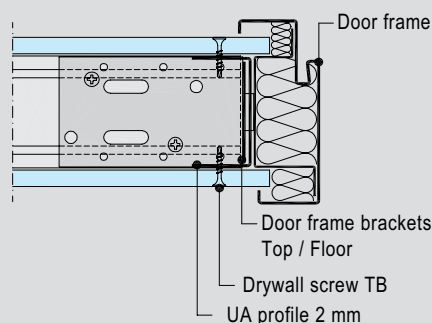
W361-C1 T-junction



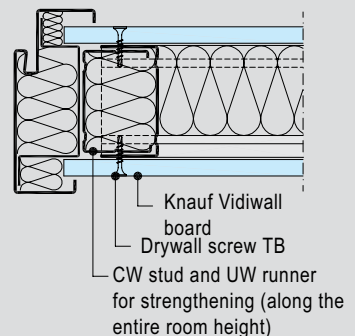
W361-D1 Corner



W361-VU1-A Connection to floor



W361-E1-A Door opening with UA profile



W361-E2-A Door opening with CW/UW




Tip: For ceramic tile claddings the maximal distance between metal studs is 42 cm.

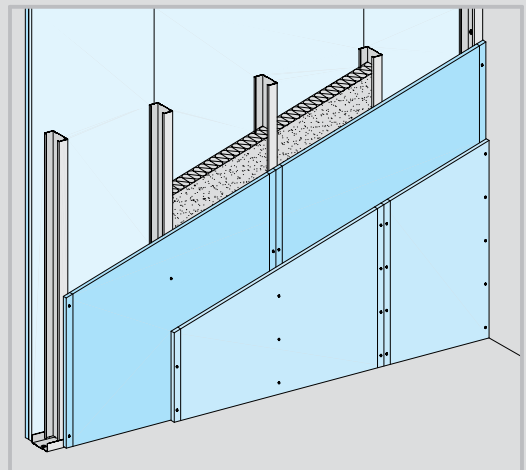
W 362 Knauf Vidiwall Metal Stud Partition

Single Metal Stud Frame, Double Layer Cladding

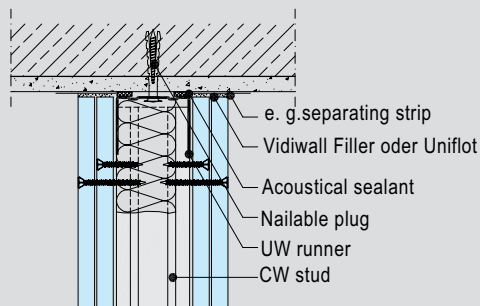


Wall heights

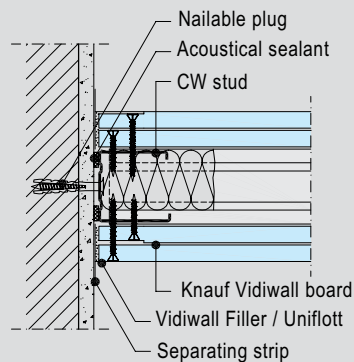
Stud	Stud spacing	Maximum wall heights
Metal thickness 0.6 mm	cm	m
 CW 50	60 / 62.5	4.50
 CW 75	60 / 62.5	7.00
 CW 100	60 / 62.5	10.00



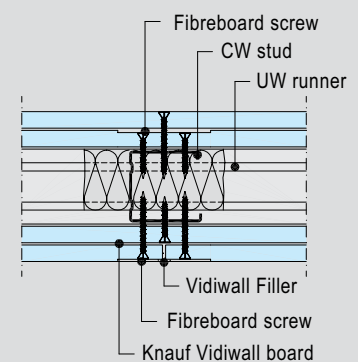
Details M 1:5



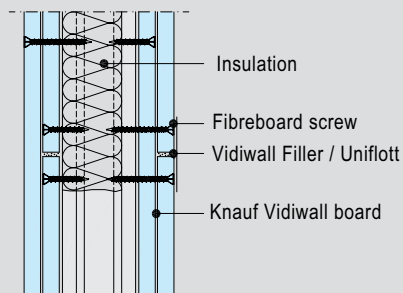
W362-V01-A Connection to ceiling



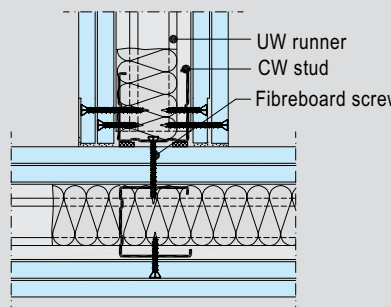
W362-A1 Connection to solid wall



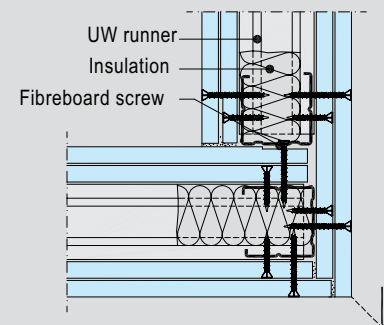
W362-B1 Joint



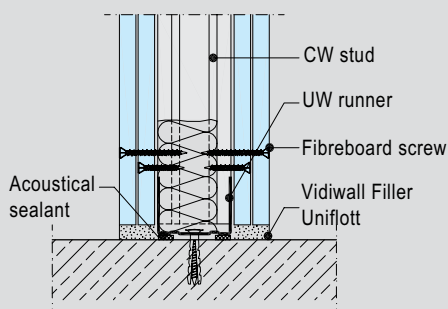
W362-VM1-A Joint



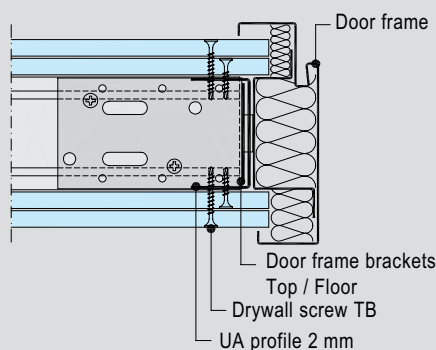
W362-C1 T-junction



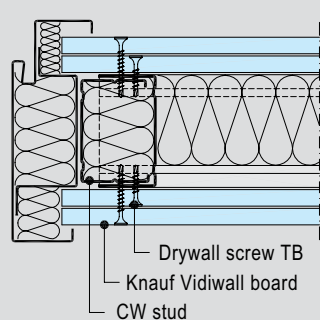
W362-D1 Corner



W362-VU1-A Connection to floor



W362-E1-A Door opening with UA profile






W362-E2-A Door opening with CW/UW

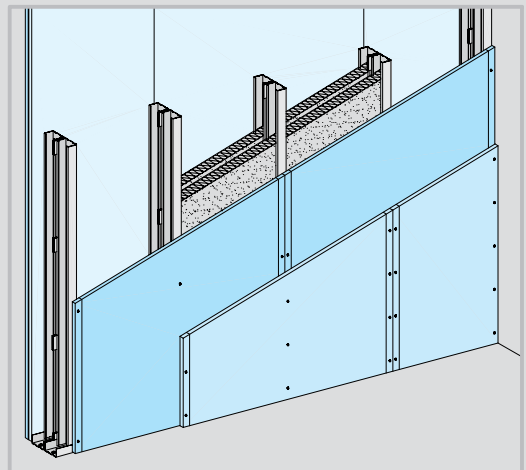
W 365 Knauf Vidiwall Metal Stud Partition

Double Metal Stud Frame, Double Layer Cladding

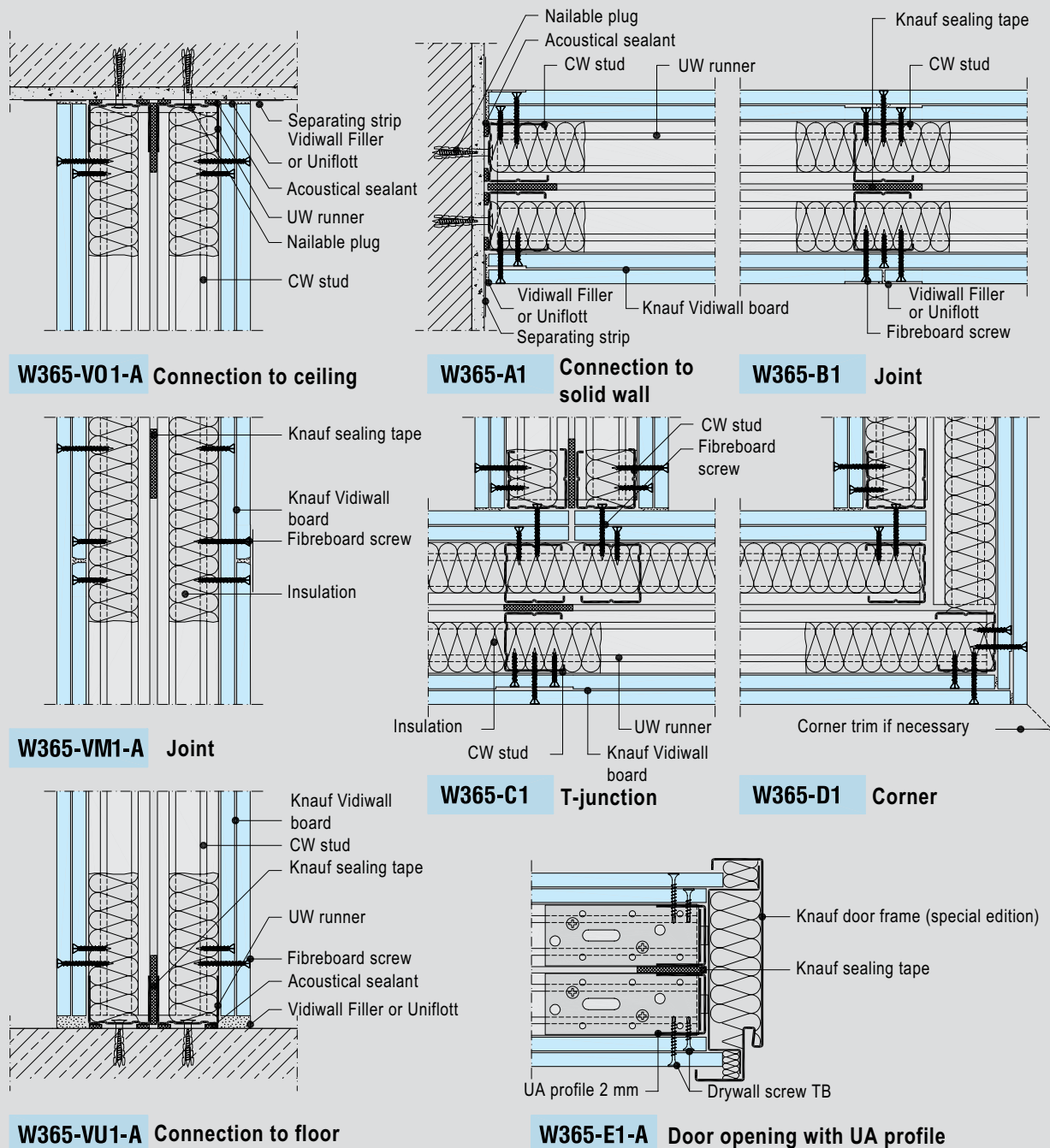


Wall heights

Stud	Stud spacing	Maximum wall heights
Metal thickness 0.6 mm	cm	m
 CW 50	60 / 62.5	4.00
 CW 75	60 / 62.5	5.50
 CW 100	60 / 62.5	6.50



Details M 1:5



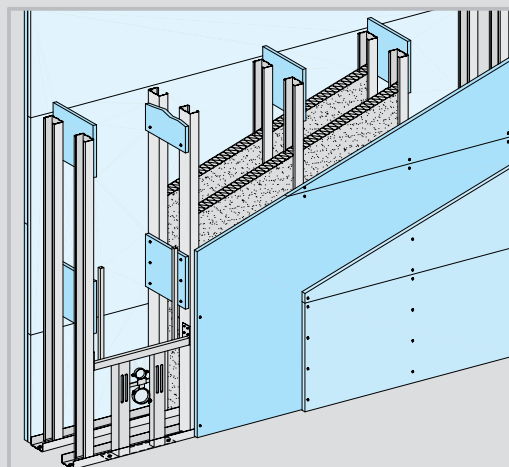
W 366 Knauf Vidiwall Metal Stud Partition

Double Metal Stud Frame, Double Layer Cladding

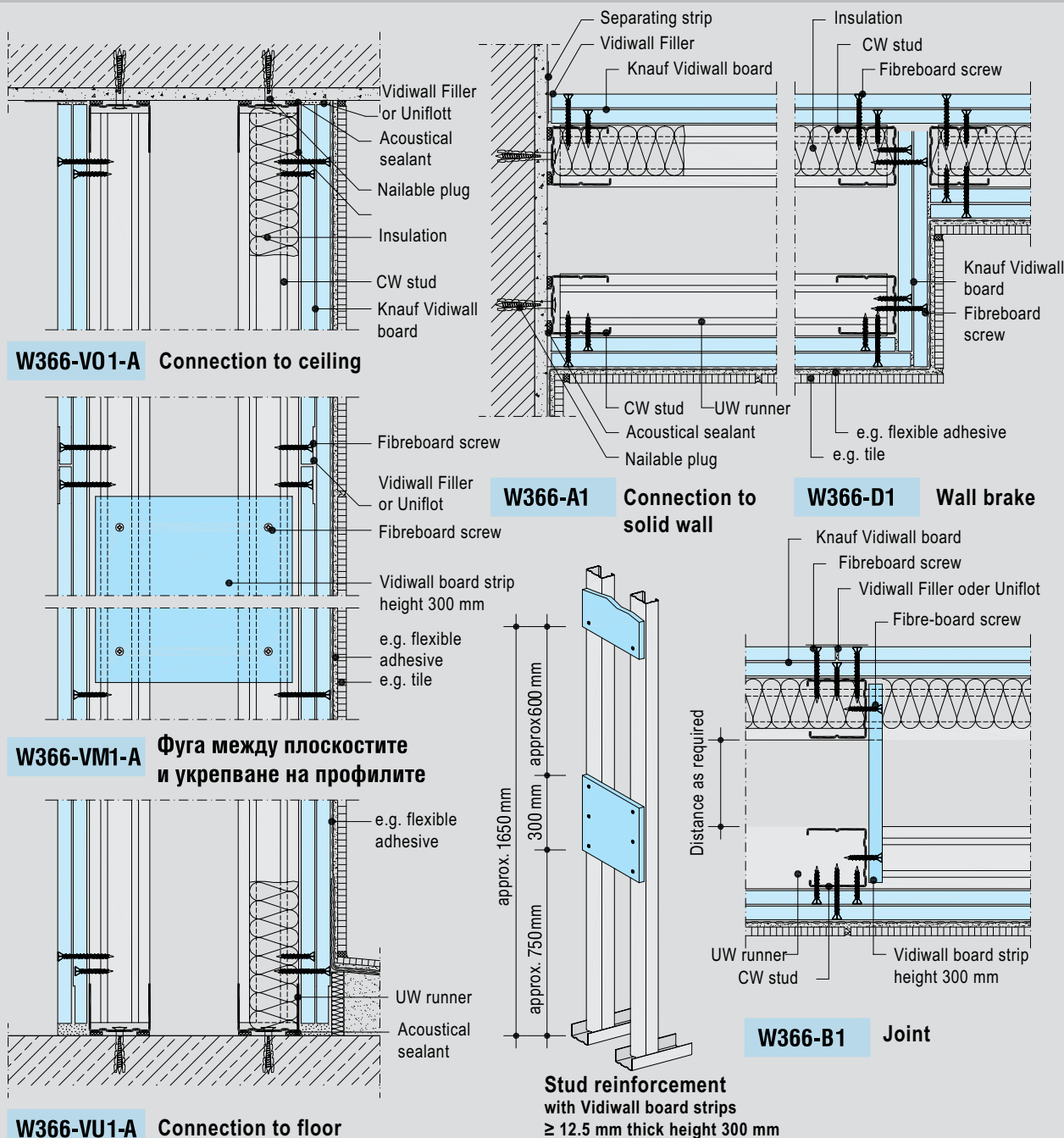


Wall heights

Stud	Stud spacing	Maximum wall heights
Metal thickness 0.6 mm	cm	m
CW 50	60 / 62.5	7.00
CW 75	60 / 62.5	10.00
CW 100	60 / 62.5	13.50



Details M 1:5



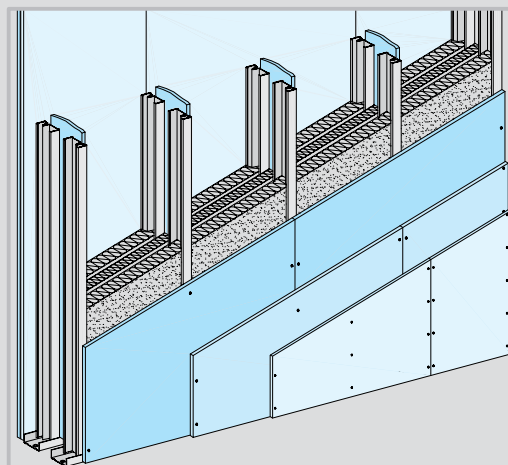
W 345 Knauf Vidisound Insulation Wall

Double Stud Frame, Tripple Layer Cladding, $R_w > 77$ dB

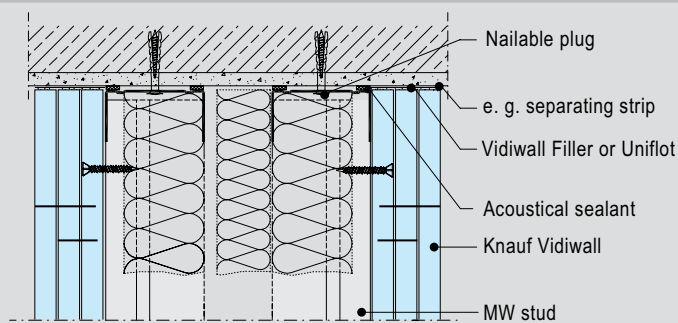


Wall heights

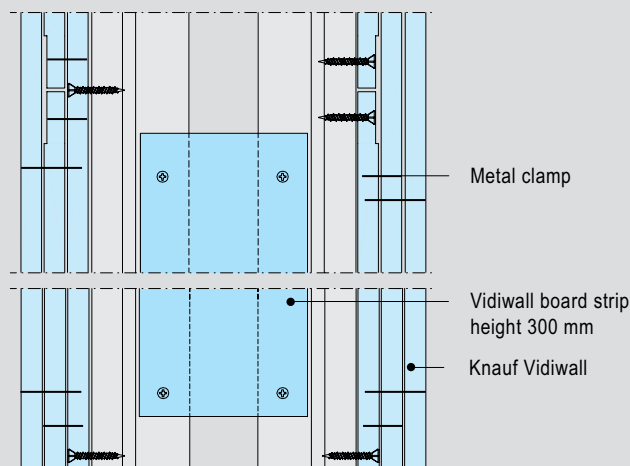
Stud	Cladding	Stud spacing	Maximum wall heights
Metal thickness 0.6 mm	mm	cm	m
MW 75	3 x 12.5	60 / 62.5	5.5



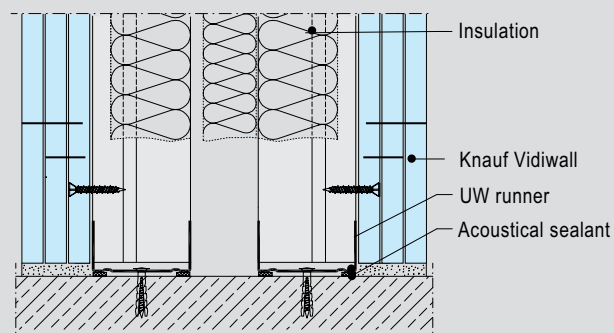
Details M 1:5



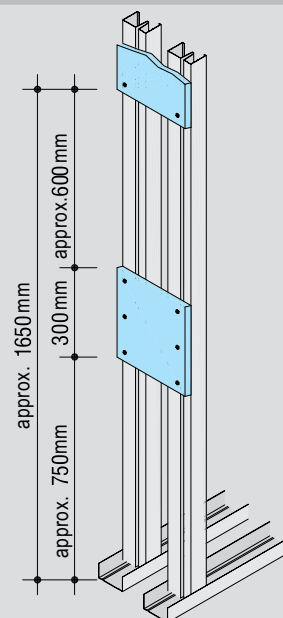
W345-V01-A Connection to ceiling



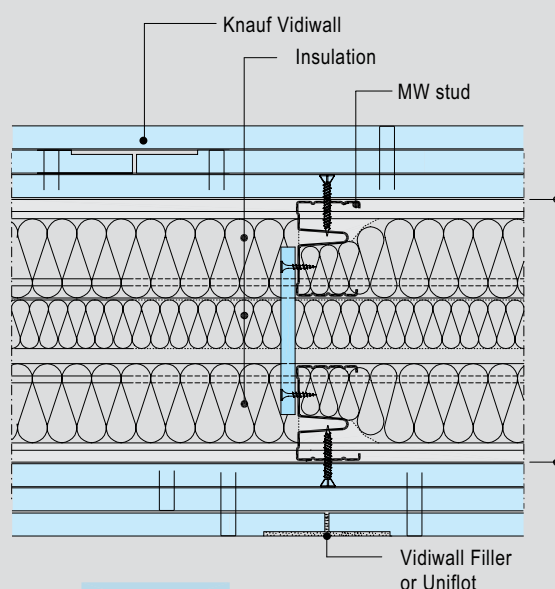
W345-VM1-A Joint



W345-VU1-A Connection to floor



Stud reinforcement with Vidiwall board strips ≥ 12.5 mm thick height 300 mm



W361-B1 Joint

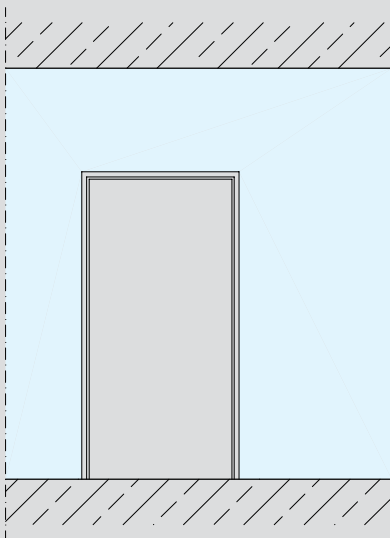
W 36 Knauf Door Openings

Door Frames for Stud Partitions, Stud Frame

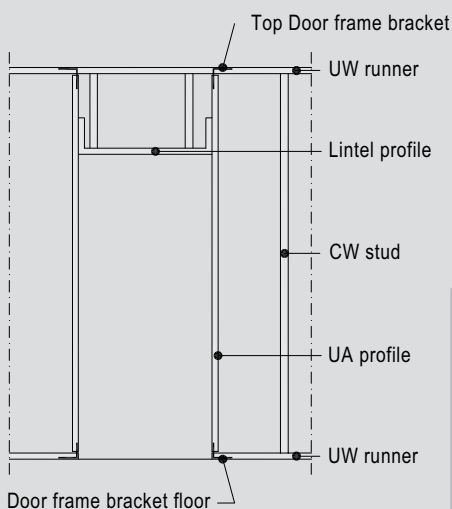


Example for placing Knauf door block in metal stud partition W416

Door block of height up to the lintel



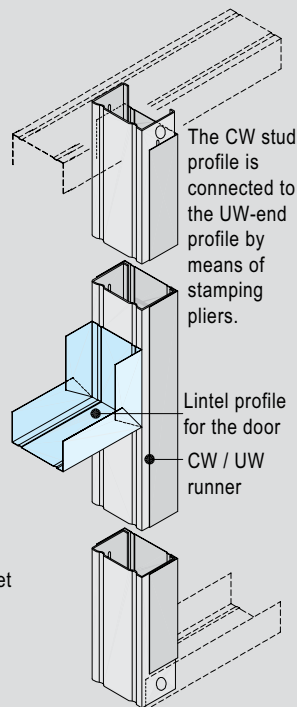
Structure



Door openings

Variation CW + UW

for wall heights up to 2.80 m.



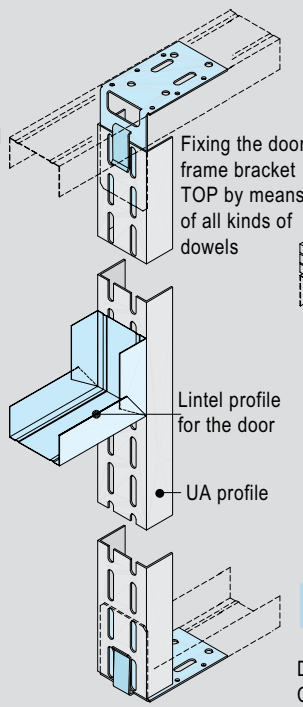
The CW stud profile is connected to the UW-end profile by means of stamping pliers.

Lintel profile for the door
CW / UW runner

The CW stud profile is connected to the UW end profile by means of stamping pliers.

Variation UA

for all wall heights remove plastic strips from the door frame brackets



Fixing the door frame bracket TOP by means of all kinds of dowels

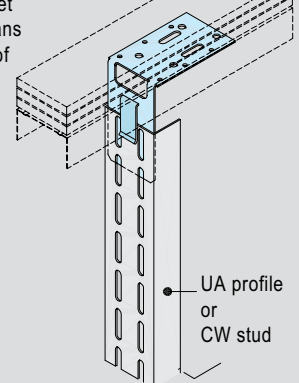
Lintel profile for the door
UA profile

Fixing the door frame bracket FLOOR by means of all kinds of dowels.

Deflection head

Variation UA or Variation CW/UW is possible

Fixing the door frame bracket TOP by means of turning-screw dowels „L“ 8/100.



Tip:

Door frame brackets for CW or UA profile 75/100: The set consists of: 4 brackets and 10 dowels.

Recommended framing sub-s Door panel Variation (weight)	
= 25 kg	CW/UW
= 50 kg	UA 50
= 75 kg	UA 75
= 100 kg	UA 100

Maximal weight of the door panel in 2-hinge design				
Bore-assembled hinges acc. to ÖNORM B 5343			Object hinges (for VX-supports of hinges)	
A/16	C/22	E/22	VX 7729 / 160	VX 7739 / 160
32 kg	60 kg	60 kg	100 kg	100 kg

Vertical stud joints

Stud Overlap („u“)

CW/UA 50	≥ 50 cm
CW 75	≥ 75 cm
CW 100	≥ 100 cm

Displace stud joints vertically

Tip for the installation:

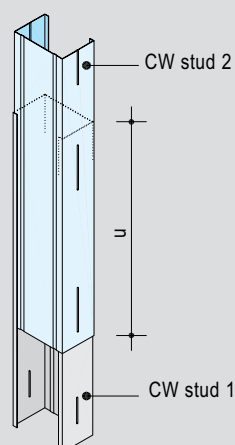
Crimp, rivet or screw studs at overlap



Stamp pliers

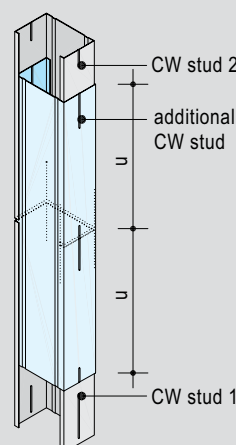
Variation 1

2 CW studs interlaced as a box



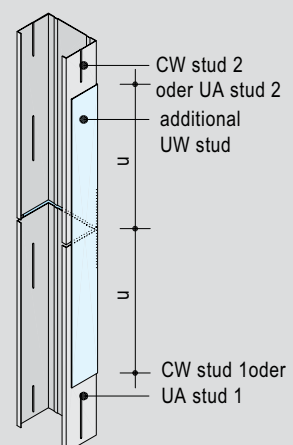
Variation 2

2 CW studs butt joint interlaced with additional CW stud



Variation 3

2 CW/UA studs joint interlaced with additional UW runner

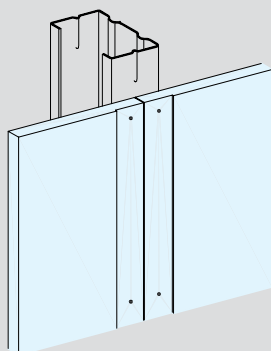


W 36 Knauf Joint Treatment Techniques

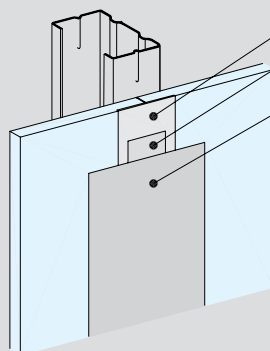
Vidiwall Gypsum Fibre Boards / Openings in the Studs



Joint between boards with Vidiwall VT; boards are pressed tightly to each other

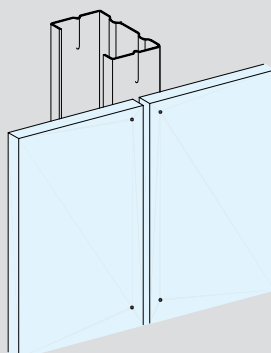


- 1 At installing the boards are pressed tightly to each other.

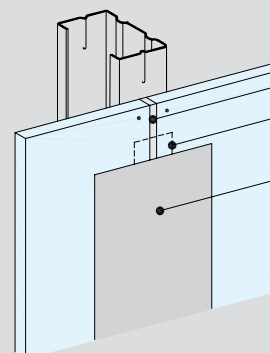


- Uniflott/Vidiwall-Filler
 - paper joint tape
 - fine patting with Knauf Readyfix
- 2 The recess is filled with Uniflott/Vidiwall-Filler and a paper joint tape is embedded. Fine patting/finish with Knauf Readyfix is performed.

Joint between boards with Vidiwall SK; boards are laid with a distance of 5 – 7 mm between them

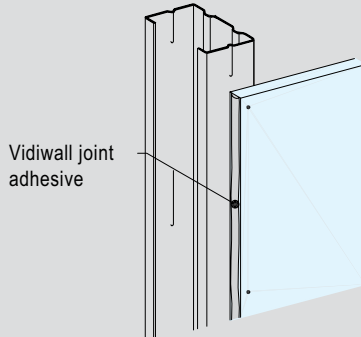


- 1 Boards are installed with a gap of 5 – 7 mm between them or of about 1/2 of the board thickness.

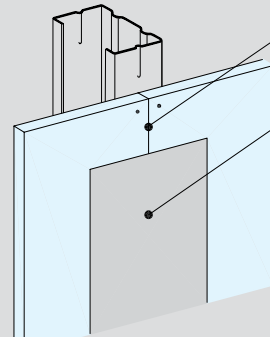


- Uniflott/Vidiwall-Filler
 - paper joint tape (as an option)
 - fine skimming with Knauf Readyfix
- 2 Joints are closed with Uniflott. A possible alternative is Vidiwall-Filler with joint-covering paper tape. Fine skimming/finish with Knauf Readyfix is performed.

Joint between boards with Vidiwall; single-sided application of the strip of adhesive, boards are pressed tightly to each other



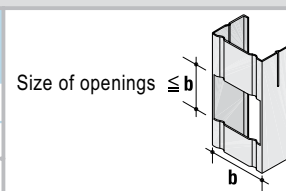
- 1 Boards are installed along the profile axis. Joint-treating adhesive is applied uniformly in the form of a strip onto the edge of installed board.



- glued joint < 1 mm, the excessive material should be removed.
 - fine skimming with Knauf Readyfix
- 2 The next board is placed with pressing (joint width < 1 mm) and immediately fixed with screws. Fine skimming/finish with Knauf Readyfix is performed.

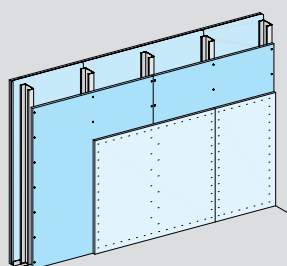
Maximal cut-outs in the frame of CW studs for metal stud partitions with metal

Metal studs	Cladding	Cut-outs in the stud Number of openings
CW 75 / CW 100	single-layer	1 per stud
	multi-layer	2 per stud
CW 50	multi-layer	1 per stud

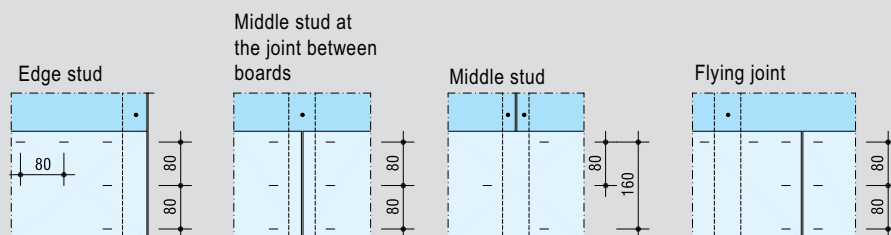


Openings acc. to the table may be present in addition to the usual H-shaped stampings.

The uppermost board layer is fixed with clamps



No clamping to the profile



W362, W365, W366

The first board layer is fixed with screws. All screws for fibre boards ≤ 250 mm
The second board layer is fixed with clamps. For instance, Haubold KG 722 CD NK GEH, length ≥ 22 mm

W 36 Knauf Consumption Rate of Materials

Vidiwall Metal Stud Partitions With Metal Profiles



Consumption rate of materials per m² of the wall, without any losses and clippings.

(These data are related to cases with no special requirements regarding the sound insulation and fire resistance).

Quantities are intended for wall surface with dimensions: H = 2.75 m, L = 4.0 m, A = 11.0 m².

Description	Unit	Quantity as an average value			
Material of another firm = printed in italics		W361	W362	W365	W366
Structure					
UW runner 50x40x0.6 or UW runner 75x40x0.6 or UW runner 100x40x0.6	m	0.7	0.7	1.4	1.4
CW stud 50x50x0.6 or CW stud 75x50x0.6 or CW stud 100x50x0.6	m	2.0	2.0	4.0	4.0
Sealing tape – pieces of size 50/3.0 mm, 100 mm long; (a roll of 30 m)	pcs.	-	-	0.5	-
Knauf putty for metal stud partition (a tube of 550 ml) or Knauf sealing tape (a roll of 30 m)	pcs.	0.3	0.3	0.6	0.6
50/3.0 mm or 70/3.0 mm or 95/3.0 mm	m	1.2	1.2	2.4	2.4
Knauf nailable plug „K“ 6/35; (a package of 100 pcs.)	pcs.	1.6	1.6	3.2	3.2
Insulation (for fire protection and sound insulation see page 2) with thickness . . . mm	m ²	as required	as required	as required	as required
Cladding					
Knauf Vidiwall gypsum fibre board VT or Knauf Vidiwall gypsum fibre board SK	m ²	2.0	4.0	4.0	4.1
Knauf screws for fibre boards; (fixing of boards)					
3.9 x 30	pcs.	29	13	13	17
3.9 x 45	pcs.	-	29	29	29
Clamps (for upper laying of boards)	pcs.	-	90	90	90
Joint adhesive for glued joint (spray tube of 310 ml)	pcs.	0.1	0.1	0.1	0.1
Jointing/ Surface treatment					
Knauf Uniflott (a sack of 5 kg/25 kg) or Knauf Vidiwall Filler (a sack of 5 kg)	kg	0.5	0.5	0.5	0.5
	kg	0.4	0.8	0.8	0.8
Knauf paper joint tape; (a roll of 23 m / 75 m / 150 m)	m	2.0	2.0	2.0	2.0
Separating strip, self-adhesive; (a roll of 66 m)	m	1.7	1.7	1.7	1.7
Edge trim 23/13; (2.75 m long)	m				
Corner trim 31/31 (of length 2.50 m / 2.80 m / 3.0 m)	m	as required	as required	as required	as required
Alux corner trim width 52 mm; (roll 30 m)	m				

W 36 Knauf Vidiwall Metal Stud Partitions

Specifications



Item	Description	Quantity	Unit price	Total price
.....	Metal stud partition with single metal frame, non-load bearing. Thickness 75 / 100 / 105 mm *, Single layer cladding with Vidiwall gypsum fibreboards 12.5 mm. Fire resistance class EI30 / EI60 *. Sound reduction index Rw in dB..... System: Knauf Vidiwall metal stud partition W361.	..... m ² € €
.....	Metal stud partition with single metal frame, non-load bearing. Thickness 95 / 100 / 120 / 125 / 145 / 150 mm *, Double layer cladding with Vidiwall gypsum fibre boards 10/ 12.5 mm. Fire resistance class EI 60 / EI90 / EI150 *. Sound reduction index Rw in dB..... System: Knauf Vidiwall metal stud partition W362.	..... m ² € €
.....	Metal stud partition with double metal frame, non-bearing. Thickness 155 / 205 / 255 mm *, Double layer cladding with Vidiwall gypsum fibreboards 12.5 mm. Fire resistance class EI 90 / EI90 / EI150 *. Sound reduction index Rw in dB..... System: Knauf Vidiwall metal stud partition W365.	..... m ² € €
.....	Metal stud partition with double metal frame as an installation wall, Double layer cladding with Vidiwall fiberboard not load-bearing. Thickness ≥ 220 / ≥ 270 / ≥ 320 mm *, Fire resistance class EI 90 / EI150 *. Sound reduction index Rw in dB..... System: Knauf Vidiwall installation wall W366.	..... m ² € €
.....	Connection, reduced and sliding to 20 mm, to ceiling / to wall * as an upgrade to partition. dimension in mm Installation acc. to drawing No. ....	..... m € €
.....	Free end of partition as upgrade to partition. Installation according to drawing No. ....	..... m € €
.....	Corner as upgrade to partition. Installation with corner trim 31/31. Product: Knauf corner trim 31/31.	..... m € €
.....	T-junction as upgrade to partition. Installation with rigid connection / with rigid connection and recessed cladding / with inside corner profiles*.	..... m € €
.....	Movement joint as upgrade to partition. Width in mm, Installation acc. to drawing No. ....	..... m € €
.....	Door opening with metal studs UA 50 / 75 / 100 *, including connections to floor and ceiling posts CW + UW 50 / 75 / 100 * wall height in mm, wall thickness in mm .....	..... pcs. € €

* Cross out the unnecessary words

Total: €

W 36 Knauf Vidiwall Metal Stud Partitions

Structure and Application



Structure

Vidiwall metal stud partitions consist of a single or double stud frame and cladding of Vidiwall gypsum fibre boards.

The frame is fixed at the entire perimeter.

Cladding with 1 to 3 layers.

Insulation material for sound and thermal

insulation as well as sanitary or electric built - ins can be installed into the metal frame construction. Movement joints have to be taken over into the construction of the partitions.

For continuous partitions use control joints at approx. 8 – 10 m.

W365/W366:

For high sound protection requirements two rows of metal studs are installed parallel, isolated by sealing tape (W365) or at a distance between them reinforced with Vidiwall board strips (W366).

Installation

Metal stud frame

Apply acoustical sealant (two strings) or sealing tape to backside of runners for the connection of flanking constructional components.

Fix perimeter runners and studs with suitable dowels to flanking components. Spacing of dowels 1 m at least 3 fixing points at walls.

Anchors for solid flanking components: nailable plug/ not solid flanking components: anchors have to be permitted and standardized for the building material being used.

If a deflection of the ceiling ≥ 10 mm can be expected install deflection heads.

Fasten edge profiles UW to floors/ ceilings, CW to walls with appropriate dowels. Spacing of anchors 0.5 m at ceilings, 1 m at walls with at least 3 fixing points.

Install cut to length CW studs into UW runners at a spacing of 60 or 62.5 cm.

W366

Both frames support each other by means of strips of Vidiwall gypsum fibre board, height approx. 30 cm each 1 m.

Cladding

Cladding preferably with vertically applied floor to-ceiling Vidiwall boards.

Displace joints (min. 400 mm).

No joints at door opening profiles.

(cladding with W366 may be done transversally as well).

Install Vidiwall gypsum fibreboards with screws for fibreboards.

Spacing between screws 25 cm (for the first layer of double layer cladding the spacing can be increased to 75 cm).

The second and third layer of Vidiwall boards can be applied with steel clamps e.g. Haubold, KG 722 CDNK type, (see page 9).

Knauf Vidiwall gypsum fibreboards – fixing with screws for fibreboards

Cladding Thickness in mm

Fixing of Vidiwall boards to metal studs (minimum penetration 10 mm) metal thickness, $s \leq 0.7$ mm

W361 $\Rightarrow 1 \times 12,5$

screw for fibreboards 3.9 x 30

W362, W365, W366 $\Rightarrow 2 \times 12,5$

screw for fibreboards 3.9 x 30 + 3.9 x 45

Jointing / surface treatment

Jointing

• Manual jointing with Knauf Uniflott or Knauf Vidiwall Filler.

• Install Vidiwall VT boards closely. Fill the bevelled edge with Knauf Uniflott/ Vidiwall Filler and apply joint tape.

• Install Vidiwall SK at distance of 5–7 mm and fill in the joints with Knauf Uniflott/ Vidiwall Filler. Push off overcoming material in after. 40 minutes. Finally apply joint tape.

• Fine skimming with Knauf Readyfix.

• For multi-layer claddings the boards of the lower layers are installed closely to each other, the joints and respectively the VT edges are filled in, the joints of the external layer are also skimmed.

• Cover all visible screw heads with as well.

Application temperature/ Climate:

• 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

• Joints should be filled at a minimum temperature of $+10^{\circ}\text{C}$ (50°F)

• In case of mastic asphalt screed, fill in joints after screed has been applied.

Surface Treatment

Use a primer on Knauf Vidiwall Boards before coating or painting them. Ensure that the primer and the coat or paint are compatible.

The following coats can be used to cover Knauf Vidiwall Boards:

• Coats: Washable and abrasion - proof emulsion paint, multicolored (rainbow) emulsion, oil paint, matte - finish lacquer, alkyd resin paint, polymer resin paint, PUR lacquer, or epoxybased lacquer, according to intended use or as required.

• Ceramic tiles: For tiling at least double layer cladding is recommended.

• Plasters: Knauf structured plasters, e/g/ resin plasters, thin plasters, entire surface smoothing like e.g. Knauf Board Finish, mineral plasters in connection with paper taped jointing. After the application of resin / cellulose plasters quick drying must be assured through adequate airing.

• Wallpapers: paper, textile, and synthetic wallpapers. Use only adhesives made of cellulose according to "code of practise no. 16" "Technische Richtlinien für Tapezier - und Klebearbeiten", Frankfurt / Main 2002, released by Bundesausschuss Farbe und Sachwertschutz.

After wallpapering of paper and fiber glas wallpapers quick drying must be assured through adequate airing.

• Alkaline coats such as lime, water glass colors and silicate based paint are unsuitable for gypsum board surfaces.

• Silicate based amulsion paints may be used after referring th the manufacturesr's recommendations and following the stipulated guidelines closely.



Phone: 02 / 917 89 10



Fax: 02 / 917 89 43



<http://www.knauf.bg>



info@knauf.bg

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