

Drywall Systems

W62.de

System Data Sheet

2016-03

Knauf Installation Shaft Walls

W628A.de Knauf Installation Shaft Wall – Free spanning

W630.de Knauf Installation Shaft Wall – Stud crossbars with CW profiles

W628B.de Knauf Installation Shaft Wall – Stud construction with CW profiles

W629.de Knauf Installation Shaft Wall – Stud construction with CW double profiles

K251.de Knauf Fireboard Installation Shaft Wall – Stud construction with CW double profiles

W635.de Knauf Installation Shaft Wall – Stud construction with UW double profiles

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the system catalogue valid in Germany.

All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.

Dies ist eine Übersetzung des in Deutschland gültigen Detailblattes. Alle angegebenen Werte und Eigenschaften entsprechen den in Deutschland gültigen Normen und bauaufsichtlichen Regelungen. Sie gelten nur bei Verwendung der angegebenen Produkte, Systemkomponenten, Anwendungsregeln und Konstruktionsdetails in Verbindung mit den Vorgaben der bauaufsichtlichen Nachweise.

Die Knauf Gips KG lehnt jegliche Haftung für Einsatz und Anwendung außerhalb Deutschlands ab, da in diesem Fall eine Anpassung an nationale Normen und bauaufsichtliche Regelungen notwendig ist.

Contents

Introduction

Usage instructions General instructions	4
Certificates of Usability	5
System overview	6

Data for planning

W628A.de Technical and physical building data	8
Wall heights	9
W630.de Technical and physical building data	10
Wall heights	11
W628B.de Technical and physical building data	12
Wall heights	13
W629.de Technical and physical building data	14
Wall heights	15
K251.de Technical and physical building data	16
Wall heights	17
W635.de Technical and physical building data	18
Wall heights	19

Construction details

W628A.de Knauf Installation Shaft Wall free spanning	20
W630.de Knauf Installation Shaft Wall stud crossbars with CW profiles	22
W628B.de Installation Shaft Wall with stud profile (single profile)	24
W629.de Installation Shaft Wall with stud profile (double profile)	26
K251.de Fireboard Installation Shaft Wall with stud profile (double profile)	28
W635.de Installation Shaft Wall with stud profile (double profile)	30
Special details	32

Special versions

Cable lead-throughs	34
---------------------------	----

	Installation and application	
	Stud frame	36
	Stud frame Insulation layer.....	37
	Cladding	38
	Jointing.....	40
	Coatings and linings	41
	Material requirement	
	Knauf Installation Shaft Walls	42
	Information on the sustainability	
	Knauf Installation Shaft Walls	44

Usage instructions

Notes on the document

Knauf System Data Sheets are the planning and application basis for the planners and professional installers with the application of Knauf systems. The contained information and specifications, constructions, details and stated products are based, unless otherwise stated, on the Certificates of Usability (e.g. National Technical Test Certificate (abP) and/or approvals) valid at the date they are published as well as on the applicable standards. Additionally, design and structural requirements and those relating to building physics (fire resistance and sound insulation) are considered. The contained construction details are examples and can be used in a similar way for various cladding variants of the respective system. At the same time, the demands made on fire resistance and/or sound insulation as well as any necessary additional measures and/or limitations must be observed.

References to other documents

- For application of furring (without fire resistance) refer to System Data Sheet W61.de Knauf Trockenputz und Vorsatzschalen (*Drylining and Furring*) (German only)
- Observe the Product Data Sheets of the Knauf system components

Symbols in System Data Sheet

The following symbols are used in this document:

- G** Mineral wool insulation layer acc. to EN 13162 non-combustible (insulating material, e.g. from Knauf Insulation)
- S** Mineral wool insulation layer acc. to EN 13162 non-combustible melting point ≥ 1000 °C acc. to DIN 4102-17 (insulating material, e.g. from Knauf Insulation)

General instructions

Insulation layer

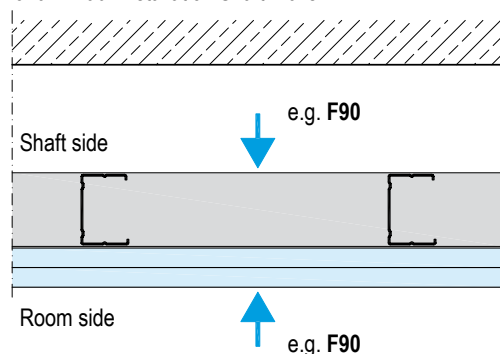
Requirements for the insulation layer:

Mineral wool insulation layer acc. to EN 13162 (insulating material, e.g. from Knauf Insulation)

- Fire protection: Observe the system specifications
- Sound insulation: Length related flow resistance acc. to EN 29053 ($r \geq 5$ kPa·s/m²)

Fire protection effect

Fire protection is effective from the room side and from the shaft cavity side for all Knauf Installation Shaft Walls



Reinforcing and supporting connection components must at least feature the same fire resistance class.

Sound insulation

- $R_{w,R}$ = calculation value of the weighted apparent sound reduction index without flanking paths
- Sound insulation values only apply in conjunction with Knauf profiles. (Insulation materials, e.g. from Knauf Insulation)

Installation zones acc. to DIN 4103-1

- Installation zone 1
Partitions in rooms where low numbers of persons gather, e.g. dwellings, hotels, office and hospital rooms including corridors and halls or similar.
- Installation zone 2
Partitions in rooms where large numbers of persons gather, e.g. meeting halls, school classrooms, auditoria, exhibition halls and sales rooms as well as rooms with floor height difference of ≥ 1 m (partition walls acting as barriers).
- Unless otherwise stated, the value in the table is the maximum permissible partition height for installation zone 2.

Construction notes

Movement joints

Movement joints of the main structure should be integrated into the construction of the installation shaft walls. Movement joints are to be installed about every 15 m on continuous installation shaft walls.

Sound insulation

Avoid air leaks.

Note For deflection heads, sealing with permanently elastic sealant material (recommendation: Knauf Insulation LDS Solimur) may be necessary.

Certificates of Usability

Knauf System	Fire protection	Sound insulation	Statics Taking the respective fire protection abP (National Technical Test Certificate) into consideration
W628A.de	abP P-3969/2222-MPA BS	Knauf sound insulation proof L 020-08.09	Knauf calculation
W630.de	abP P-3969/2222-MPA BS	Knauf sound insulation proof L 020-08.09	Knauf calculation
W628B.de	abP P-3393/172/08-MPA BS abP P-SAC-02/III-797	Knauf sound insulation proof L 020-08.09	abP P-1403/355/12-MPA BS abP P-1100/490/15-MPA BS
W629.de	abP P-3393/172/08-MPA BS abP P-SAC-02/III-797	Knauf sound insulation proof L 020-08.09	abP P-1403/355/12-MPA BS abP P-1100/490/15-MPA BS
K251.de	abP P-3393/172/08-MPA BS	Knauf sound insulation proof L 020-08.09	abP P-1403/355/12-MPA BS
W635.de	abP P-3320/194/09-MPA BS	Knauf sound insulation proof L 020-08.09	Knauf calculation

Notes on fire resistance

The specifications marked with offer additional application options, which are not directly included in the Certificate of Usability. On the basis of our technical assessments, we assume that these marked design solutions can be assessed as a non-significant divergence. We can make the documentation on which this assessment is based, such as surveyors' reports or technical assessments, available to you together with the Certificate of Usability on request. We recommend that a non-significant divergence be coordinated and authorised in advance in consultation between the persons responsible for fire resistance and/or the relevant authorities.

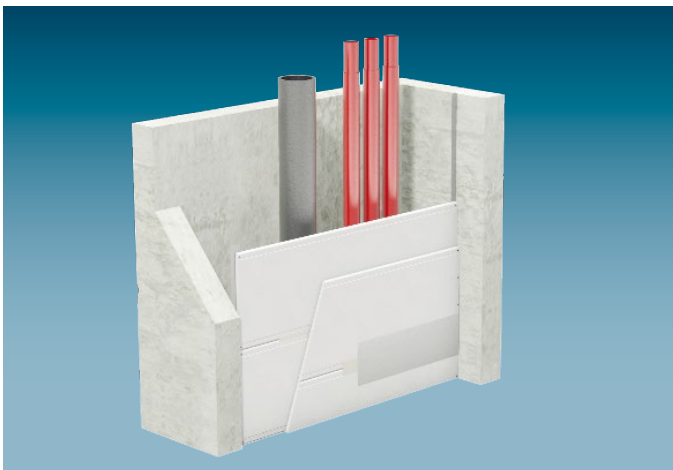
The stated constructional and structural properties, and characteristic building physics of Knauf systems can solely be ensured with the exclusive use of Knauf system components, or other products expressly recommended by Knauf. The validity and up-to-datedness of the stated proofs have to be considered.

System overview

Knauf Installation Shaft Walls

Knauf Installation Shaft Walls are metal stud partitions clad on one side with a fire resistance rating, and if necessary, with a sound insulation rating providing constructional separation of installation shafts. Fire protection is provided both internally (fire in the installation shaft, protects against fire spreading to surrounding rooms) and externally (protection of the equipment as well as the spread of fire to other floors). Knauf Installation Shaft Walls consist of a metal substructure and single or double layer cladding made of Knauf boards. The metal framework is anchored along the entire perimeter (on W628A.de only on the side) to the flanking components. Insulation material for sound and thermal insulation can be installed into the metal frame construction depending on the system insulation materials.

W628A.de Knauf Installation Shaft Wall free spanning

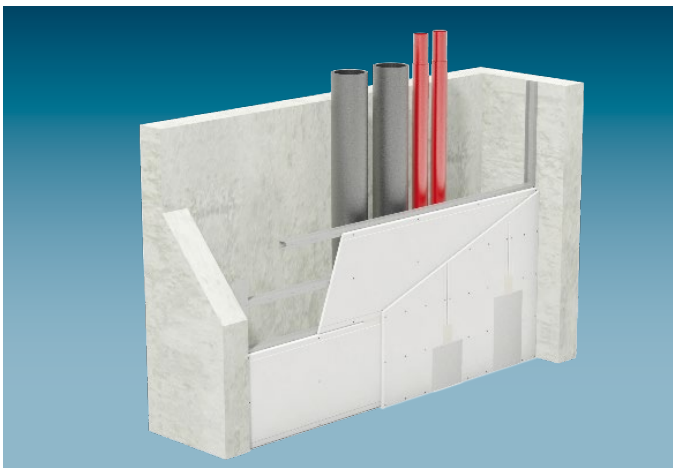


The installation shaft wall system **W628A.de** is installed up to a shaft width of 2.00 m without a stud frame. The installation shaft wall system features a slim construction. Additional insulation is not required for fire protection purposes.

- Side perimeter connections with angle profiles
- Free spanning horizontal cladding
- Wall height up to: 15.00 m
- Sound reduction index up to: 33 dB

F90

W630.de Knauf Installation Shaft Wall with stud crossbars



The installation shaft wall system **W630.de** is applied with stud crossbars up to an installation shaft width of 5.00 m. Additional insulation is not required for fire protection purposes.

- Horizontal metal crossbars, metal CW studs
- Perimeter connection with UW runners, upper and lower perimeter with CW studs
- Ball impact safety on request
- Insulation layer optional
- Horizontal cladding
(Massivbauplatte Solid Board horizontal in the 1st layer and vertical in the 2nd layer)
- Wall height up to: 7.00 m
- Sound reduction index up to: 42 dB

F30 F90

W628B.de Knauf Installation Shaft Wall with single stud profile

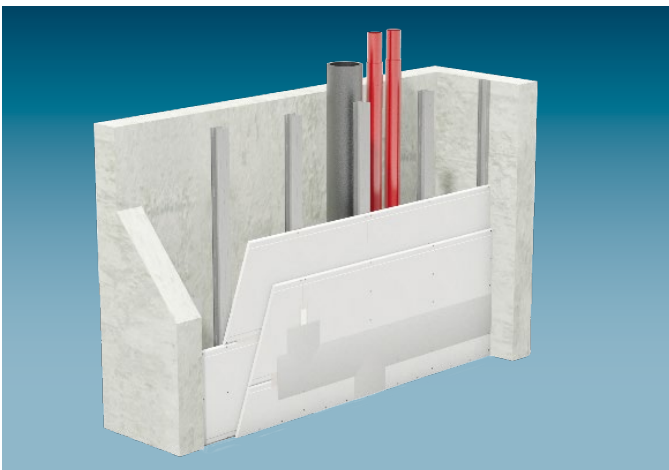


The installation shaft wall system **W628B.de** is applied using a single metal stud frame made of single profiles. Additional insulation is not required for fire protection purposes.

- Metal CW studs
- Perimeter connection with CW studs, upper and lower perimeter with UW runners
- Ball impact safety possible
- Insulation layer optional
- Vertical cladding with Feuerschutzplatte Knauf Piano fire-resistant board / Knauf Feuerschutzplatte fire-resistant board / Fireboard / Diamant, horizontal cladding with Massivbauplatte Solid Board / Silentboard
- Wall height up to: 5.00 m
- Sound reduction index up to: 44 dB

F30 F60 F90

W629.de Knauf Installation Shaft Wall with double stud profiles



- The installation shaft wall system **W629.de** is applied using a single metal stud frame made of double profiles.
- CW metal stud as a double profile
 - Perimeter connection with CW studs, upper and lower perimeter with UW runners
 - Ball impact safety possible
 - Insulation layer optional / required depending on the system variant selected
 - Vertical cladding with Feuerschutzplatte Knauf Piano fire-resistant board / Knauf Feuerschutzplatte fire-resistant board / Fireboard / Diamant, horizontal cladding with Massivbauplatte Solid Board / Silentboard
 - Wall height up to: 5.60 m
 - Sound reduction index up to: 44 dB

F30 **F60** **F90**

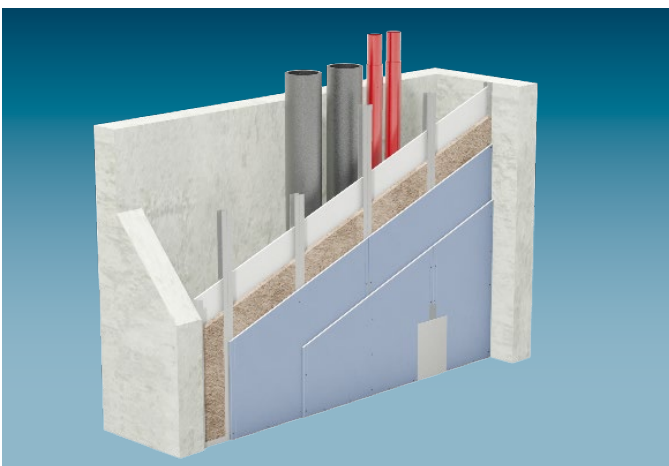
K251.de Fireboard Installation Shaft Wall with double stud profiles



- The installation shaft wall system **K251.de** features sophisticated fire protection properties with reaction to fire A1, non-combustible and single-layer cladding made of Knauf Fireboard.
- Metal stud partition CW as a double profile without/with Fireboard covering strips on the shaft side
 - Perimeter connection with CW studs, upper and lower perimeter with UW runners
 - Ball impact safety on request
 - Insulation layer required
 - Vertical cladding
 - Wall height up to: 5.00 m
 - Sound reduction index up to: 39 dB

F90

W635.de Knauf Installation Shaft Wall with double stud profiles



- The installation shaft wall system **W635.de** is specially designed for sound installation requirements as a slim system with specially constructed additional board layer on the shaft side.
- Metal stud partition UW as a double profile with installed 12.5 mm layer of Feuerschutzplatte Knauf Piano fire-resistant board on the shaft side.
 - Surrounding perimeter connections with UW runners
 - Ball impact safety on request
 - Insulation layer required
 - Vertical cladding
 - Wall height up to: 5.00 m
 - Sound reduction index up to: 52 dB

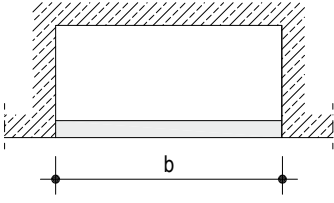
F90

Technical and building physical data

Knauf System Scheme drawings	Fire resistance class	Cladding						Weight approx. kg/m ²	Wall thick- ness D mm	Pro- files Knauf angle profile 50/35 h mm	Insulation layer Fire protection permissible		Sound insulation index $R_{w,R}$ in dB
		Knauf Plano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant	Silentboard				Min. thick- ness t mm	Min. density kg/m ³	
W628A.de Knauf Installation Shaft Wall													
Without substructure, free spanning across shaft width - double layer horizontal cladding													
	F90		■			2x 25	44	50	-	without		33	

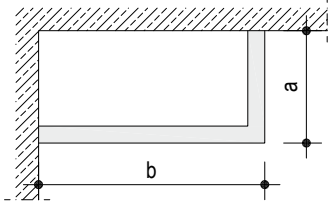
Note Observe the notes on page 4

Wall heights
1-sided application

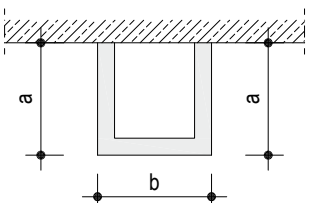
Knauf perimeter runner	Maximum shaft width	Maximum permissible wall heights	
			
Angle Profile 50/35	2.00 m	3.00 m	15.00 m

■ Larger wall heights on request

plus 2-sided application

Knauf perimeter runner	Maximum installation shaft wall surface execution	Maximum permissible wall heights
		
Angle Profile 50/35	$a + b \leq 2.00 \text{ m}$	5.00 m

plus 3-sided application

Knauf perimeter runner	Maximum installation shaft wall surface execution	Maximum permissible wall heights
		
Angle Profile 50/35	$2a + b \leq 2.00 \text{ m}$	5.00 m

plus Extension of the fire resistance Certificate of usability

- With wall heights exceeding 3.00 m
 - With 2- or 3-sided application
- Prior consultation in acc. to page 5 is recommended.

Note

Maximum permissible spacings with edge fixing see page 36.

Technical and building physical data

Knauf System Scheme drawings	Fire resistance class	Cladding					Weight Without insulation layer approx. kg/m ²	Wall thickness D mm	Pro-files Knauf CW profile cavity h mm	Insulation layer Fire protection permissible		Sound insulation			
		Knauf Plano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant				Silentboard	Min. thickness t mm	Min. density kg/m ³	Sound reduction index R _{w,R} in dB Minimum insulation layer thickness		
W630.de Knauf Installation Shaft Wall												Metal crossbars with CW studs, double-layer cladding			
	F30	■				2x 12.5	26	75	50	Without or		30	36	36	-
										Mineral wool G plus					
	F30					2x 12.5	31	75	50	Without or		31	37	-	40
										Mineral wool G plus					
	F90	■				2x 20	39	90	50	Without or		33	41	42	-
										Mineral wool G plus					

plus Extension of the fire resistance Certificate of Usability

- When applied with insulation layer **G**
Prior consultation in acc. to page 5 is recommended.

Note Observe the notes on page 4

Wall heights

Double-layer cladding, Feuerschutzplatte Knauf Piano fire-resistant board / Diamant 2x12.5 mm

Knauf Profile	Max. spacing of crossbars	Max. installation shaft widths		Max. permissible wall heights	
		m	plus m	m	plus m
Metal gauge 0.6 mm	mm	m	plus m	m	plus m
CW 50	312.5	3.00	–	3.00	7.00
CW 75	312.5	3.00	4.50	3.00	7.00
CW 100	312.5	3.00	5.00	3.00	7.00

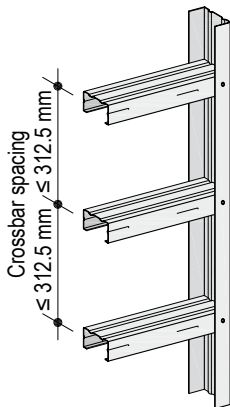
Double-layer cladding, Massivbauplatte Solid Board 2x 20 mm

Knauf Profile	Max. spacing of crossbars	Max. installation shaft widths	Max. permissible wall heights
Metal gauge 0.6 mm	mm	m	m
CW 50	312.5 ¹⁾	4.00	3.00
CW 75	312.5 ¹⁾	4.00	3.00
CW 100	312.5 ¹⁾	4.00	3.00

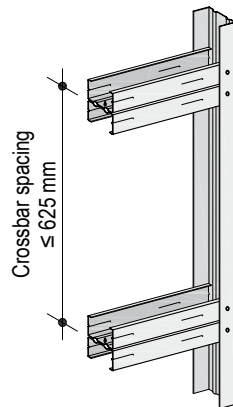
1) Alternative crossbar spacing 625 mm possible with CW double profile

Crossbar frame spacing

■ CW profile as crossbar



■ CW double profile as crossbar



plus Extension of the fire resistance Certificate of Usability

- With wall heights exceeding 3.00 m (F30)
 - With installation shaft widths exceeding 3.00 m (F30)
- Prior consultation in acc. to page 5 is recommended.

Note

Maximum permissible spacings with edge fixing, see page 36.

Technical and building physical data

Knauf System Scheme drawings	Fire resistance class	Cladding					Weight Without insulation layer approx. kg/m ²	Wall thickness D mm	Pro-files Knauf CW profile cavity h mm	Insulation layer Fire protection permissible		Sound insulation										
		Knauf Piano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant				Silentboard	Min. thickness t mm	Min. density kg/m ³	Sound reduction index R _{w,R} in dB Minimum insulation layer thickness – 40 60 80 mm mm mm mm									
W628B.de Knauf Installation Shaft Wall																						
Single metal stud frame with CW single studs, double-layer cladding																						
	F30	■				2x 12.5	25	75	50	Without ¹⁾	30	36	36	–								
								100	75													
								125	100													
									F30					2x 12.5	30	75	50	Without ¹⁾	31	37	38	40
																100	75					
																125	100					
	F30					2x 12.5	41									75	50	Without ¹⁾	36	40	42	44
																100	75					
																125	100					
									F60	■				2x 15	29	80	50	Without or mineral wool G	30	36	36	–
																105	75					
																130	100					
	F60					2x 15	35									80	50	Without or mineral wool G	30	36	36	–
																105	75					
																130	100					
									F90	■				2x 20	38	90	50	Without	33	–	–	–
																115	75					
																140	100					
	F90	■				2x 25	47									100	50	Without ¹⁾	33	41	42	–
																125	75					
																150	100					
									F90	■				2x 20	37	115	75	Without or mineral wool G	33	41	42	–
																140	100					
																140	100					

1) ■ Up to wall height of 3.00 m acc. to abP P-3393/172/08-MPA BS mineral wool **G** permissible for fire resistance purposes.

■ **plus** System variants acc. to abP P-SAC-02/III-797 mineral wool **G** permissible for fire resistance purposes.

■ Sound reduction index values represented in italics are derived values from measurements on divergent constructions.

plus Extension of the fire resistance Certificate of Usability

■ With insulation layer in conjunction with abP P-SAC-02/III-797
Prior consultation in acc. to page 5 is recommended.

Note Observe the notes on page 4

Wall heights

Double-layer cladding acc. to abP P-3393/172/08-MPA BS

Knauf profile	Maximum spacing	Maximum permissible wall heights						
		Feuerschutzplatte Piano fire-resistant board / Diamant / Silentboard 2x 12.5 mm	Knauf Feuerschutzplatte fire-resistant board / Diamant 2x 15 mm	Knauf Feuerschutzplatte fire-resistant board 2x 15 mm	Diamant 2x 15 mm	Fireboard 2x 20 mm	Massivbauplatte Solid Board 2x 25 mm	
Metal gauge 0.6 mm	a mm	m	m	m	plus	m	plus	m
CW 50	1000	–	–	–	–	–	–	3.00 ¹⁾
	625	2.95 ¹⁾	3.00 ¹⁾	3.10 ¹⁾	3.25	–	–	3.00
	417	3.00	3.00	3.80	4.00	–	–	3.00
	312.5	3.00	3.00	4.00	4.00	–	–	3.00
CW 75	1000	–	–	–	–	–	–	3.00
	625	3.00	3.00	4.00	4.00	3.00	–	3.00
	417	3.00	3.00	4.15	4.65	3.00	–	3.00
	312.5	3.00	3.00	4.75	5.00	3.00	–	3.00
CW 100	1000	–	–	–	–	–	–	3.00
	625	3.00	3.00	4.65	5.00	3.00	–	3.00
	417	3.00	3.00	5.00	5.00	3.00	–	3.00
	312.5	3.00	3.00	5.00	5.00	3.00	–	3.00

1) only for installation zone 1

Double-layer cladding acc. to abP P-SAC-02/III-797

Knauf Profile	Maximum spacing	Maximum permissible wall heights						
		Feuerschutzplatte Knauf Piano fire-resistant board 2x 12.5 mm	Diamant 2x 12.5 mm	Silentboard 2x 12.5 mm	Massivbauplatte Solid Board 2x 20 mm	Fireboard 2x 20 mm	Massivbauplatte Solid Board 2x 25 mm	
Metal gauge 0.6 mm	a mm	m	m	m	plus	m	plus	m
CW 50	1000	–	–	–	–	–	–	3.10 ¹⁾ plus
	625	2.95 ¹⁾	2.65 / 3.35 ¹⁾	2.65 / 3.35 ¹⁾	2.80 / 3.55 ¹⁾	–	–	4.00
	417	3.20 / 3.60 ¹⁾	4.00	4.00	4.00	–	–	4.00
	312.5	4.00	4.00	4.00	4.00	–	–	4.05
CW 75	1000	–	–	–	–	–	–	4.00 plus
	625	4.00	4.00	4.00	4.00	4.00	–	4.05
	417	4.00	4.40	4.40	4.55	4.55	–	5.00
	312.5	4.55	4.95	4.95	5.00	5.00	–	5.00
CW 100	1000	–	–	–	–	–	–	4.10 plus
	625	4.50	4.95	4.95	5.00	4.00	–	5.00
	417	5.00	5.00	5.00	5.00	5.00	–	5.00
	312.5	5.00	5.00	5.00	5.00	5.00	–	5.00

1) only for installation zone 1

Construction of edge fixing with backing at:

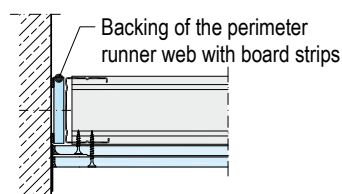
- Wall height > 3.00 m with 2x 15 mm Knauf boards
- System variants acc. to abP P-SAC-02/III-797

Connection to wall with backing of the CW perimeter runner web with board strips, see pages 24, 25 and 36.



Extension of the fire resistance Certificate of Usability

- When the enhanced wall heights are used
 - With Silentboard/Fireboard acc. to abP P-SAC-02/III-797
 - With stud spacing of ≤ 625 mm
- Prior consultation in acc. to page 5 is recommended.



Ball impact safety

Ball impact safety is provided with spacing of studs ≤ 625 mm.

Note

Maximum permissible spacings with edge fixing see page 36.

Technical and building physical data

Knauf System	Fire resistance class	Cladding					Weight Without insulation layer approx. kg/m ²	Wall thickness D mm	Pro-files Knauf CW profile cavity h mm	Insulation layer required for fire resistance		Sound insulation					
		Knauf Plano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant				Silentboard	Min. thickness t mm	Min. density kg/m ³	Sound reduction index R _{w,R} in dB				
Scheme drawings											Minimum insulation layer thickness						
W629.de Knauf Installation Shaft Wall														Single metal stud frame with CW double studs, double-layer cladding			
	F30	■				2x 12.5	26	75	50	Without ¹⁾		30	36	36	-		
								100	75								
								125	100								
						■		2x 12.5	31	75	50	Without ¹⁾		31	37	38	40
										100	75						
										125	100						
					■	2x 12.5	42	75	50	Without ¹⁾		36	40	42	44		
								100	75								
								125	100								
	F60	■				2x 15	30	80	50	Without or mineral wool G		30	36	36	-		
								105	75								
								130	100								
						■		2x 15	36	80	50	Without or mineral wool G		30	36	36	-
										105	75						
										130	100						
	F90		■			2x 20	39	90	50	Without or mineral wool ²⁾ S		33	41	42	-		
								115	75								
								140	100								
					■			2x 25	48	100	50	Without ¹⁾		33	41	42	-
										125	75						
										150	100						
						■		2x 20	38	90	50	Without or mineral wool G		33	41	42	-
										115	75						
										140	100						

1) ■ Up to wall height of 3.00 m acc. to abP P-3393/172/08-MPA BS mineral wool **G** permissible for fire resistance purposes.

■ plus System variants acc. to abP P-SAC-02/III-797 mineral wool **G** permissible for fire resistance purposes.

2) Without mineral wool acc. to abP P-SAC-02/III-797 or with mineral wool **S** acc. to abP P-3393/172/08-MPA BS.

■ Sound reduction index values represented in italics are derived values from measurements on divergent constructions.

plus Extension of the fire resistance Certificate of Usability

■ With insulation layer in conjunction with abP P-SAC-02/III-797
Prior consultation in acc. to page 5 is recommended.

Note Observe the notes on page 4

Wall heights

Double-layer cladding acc. to abP P-3393/172/08-MPA BS

Knauf profile	Maximum spacing	Maximum permissible wall heights							
		Feuerschutzplatte Knauf Piano fire-resistant board / Diamant / Silentboard 2x 12.5 mm	Knauf fire-resistant board / Diamant 12.5 mm 2x 15 mm	Knauf fire-resistant board 2x 15 mm	Diamant 2x 15 mm	Massivbauplatte Solid Board 2x 20 mm with Mineral wool S Thickness ≥ 40 mm, density ≥ 40 kg/m ³	Mineral wool S Thickness ≥ 60 mm, density ≥ 30 kg/m ³	Fireboard 2x 20 mm	Massivbau-platte Solid Board 2x 25 mm
Metal gauge 0.6 mm	a mm	m	m	m	m	m	m	m	m
CW 50	1000	–	–	–	–	–	–	–	3.00
	625	3.00	3.00	4.00	4.00	3.00	–	3.00	3.00
	312.5	3.00	3.00	4.30	4.75	3.00	–	3.00	3.00
CW 75	1000	–	–	–	–	–	–	–	3.00
	625	3.00	3.00	4.75	5.00	–	5.20	3.00	3.00
	312.5	3.00	3.00	5.00	5.00	–	5.60	3.00	3.00
CW 100	1000	–	–	–	–	–	–	–	3.00
	625	3.00	3.00	5.00	5.00	–	5.60	3.00	3.00
	312.5	3.00	3.00	5.00	5.00	–	5.60	3.00	3.00

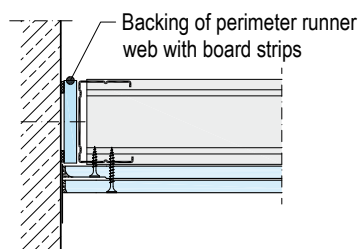
Double-layer cladding acc. to abP P-SAC-02/III-797

Knauf profile	Maximum spacing	Maximum permissible wall heights					
		Feuerschutzplatte Knauf Piano fire-resistant board / Diamant 2x 12.5 mm	Diamant 2x 12.5 mm	Silentboard 2x 12.5 mm	Massivbauplatte Solid Board 2x 20 mm	Fireboard 2x 20 mm	Massivbauplatte Solid Board 2x 25 mm
Metal gauge 0.6 mm	a mm	m	m	m	m	m	m
CW 50	1000	–	–	–	–	–	4.00 plus
	625	4.00	4.00	4.00	4.00	4.00	4.05
	312.5	4.05	4.45	4.45	4.80	4.80	5.00
CW 75	1000	–	–	–	–	–	4.55 plus
	625	4.55	4.95	4.95	5.00	5.00	5.00
	312.5	5.00	5.00	5.00	5.00	5.00	5.00
CW 100	1000	–	–	–	–	–	5.00 plus
	625	5.00	5.00	5.00	5.00	5.00	5.00
	312.5	5.00	5.00	5.00	5.00	5.00	5.00

Construction of edge fixing with backing at:

- Wall height > 3.00 m with 2x 15 mm Knauf boards
- System variants acc. to abP P-SAC-02/III-797

Connection to wall with backing of the CW perimeter runner web with board strips, see pages 26, 27 and 36.



Extension of the fire resistance Certificate of Usability

- When the enhanced wall heights are used
 - With Silentboard/Fireboard acc. to abP P-SAC-02/III-797
 - With stud spacing of ≤ 625 mm
- Prior consultation in acc. to page 5 is recommended.

Ball impact safety

Ball impact safety is provided with spacing of studs ≤ 625 mm.

Note

Maximum permissible spacings with edge fixing see page 36.

Technical and building physical data

Knauf System	Fire resistance class	Cladding					Weight Without insulation layer approx. kg/m ²	Wall thickness D mm	Pro-files Knauf CW profile Cavity h mm	Insulation layer required for fire resistance		Sound insulation	
		Knauf Piano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant				Silentboard	Min. thickness t mm	Min. density kg/m ³	Sound reduction index R _{w,R} in dB
Scheme drawings 													
K251.de Knauf Fireboard Installation Shaft Wall height ≤ 3.00 m										Single metal stud frame with CW double stud frame – single layer cladding			
<p>Wall height: ≤ 3.00 m</p>	F90					30	31	80	50	Mineral wool S 40 40	38	39	
								105	75				
									130				100
plus K251.de Knauf Fireboard Installation Shaft Wall height > 3.00 m to 5.00 m										Single metal stud frame with CW double stud frame – single layer cladding			
<p>Wall height > 3.00 m</p>	F90					30 + 12.5 stud covering	32	92.5	50	Mineral wool S 40 40	38	39	
								117.5	75				
									142.5				100

■ Apply backing to front joints using profiles or Fireboard strips

plus Extension of the fire resistance Certificate of Usability

- With wall heights exceeding 3.00 m
- Prior consultation in acc. to page 5 is recommended.

Note Observe the notes on page 4

Wall heights

Single-layer cladding

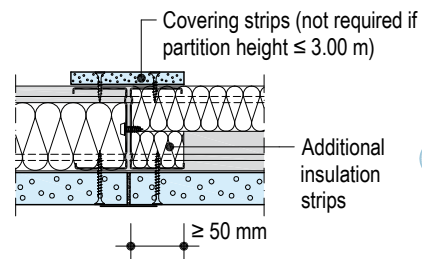
Knauf double stud profile	Maximum spacings	Maximum permissible wall heights
Metal gauge 0.6 mm	a mm	m
CW 50	625	3.00
CW 75	625	3.00
CW 100	625	3.00

plus Increased wall heights

Single-layer cladding

Knauf double stud profile	Maximum spacings	Maximum permissible wall heights
Metal gauge 0.6 mm	a mm	m
CW 50	625	4.00
CW 75	625	4.50
CW 100	625	5.00

Type with stud covering



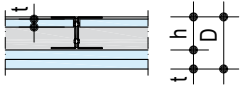
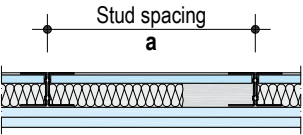
plus Extension of the fire resistance Certificate of Usability

- When the enhanced wall heights are used Prior consultation in acc. to page 5 is recommended.

Note

Maximum permissible spacings with edge fixing see page 36.

Technical and building physical data

Knauf System Scheme drawings 	Fire resistance class	Cladding						Weight With- out in- sulation layer approx. kg/m ²	Wall thick- ness D mm	Pro- files Knauf UW runner cavity h mm	Insulation layer required for fire resistance		Sound insulation	
		Knauf Plano fire-resistant board	Knauf fire-resistant board	Massivbauplatte Solid Board	Fireboard	Diamant	Silentboard				Min. thick- ness t mm	Minimum thickness	Min. density kg/m ³	Sound reduction index R _{w,R} in dB Min. insulation layer thickness 40 80 mm mm
W635.de Knauf Installation Shaft Wall		Single metal stud frame with UW double runners – double layer cladding + intermediate board layer												
	F90	■				■	2x 15 + 12.5 inter- mediate board	47	80	50	Mineral wool 40 30	S	47	52
									105	75				
									130	100				

Note Observe the notes on page 4

Wall heights

Double-layer cladding + intermediate board layer

Knauf Profile	Maximum spacings a mm	Maximum permissible wall heights	
		m	 m
Metal gauge 0.6 mm			
UW 50	625	3.00	4.00
UW 75	625	3.00	4.50
UW 100	625	3.00	5.00



Extension of the fire resistance Certificate of Usability

- With wall heights exceeding 3.00 m
Prior consultation in acc. to page 5 is recommended.

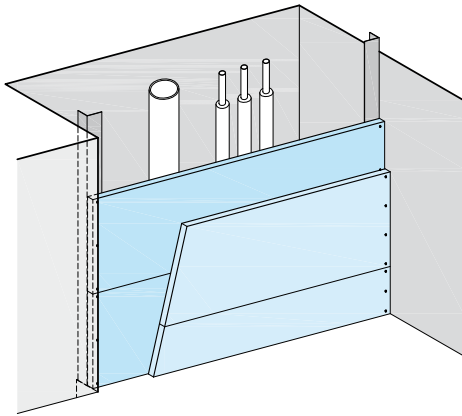
Note

Maximum permissible spacings with edge fixing
see page 36.

Details

W628A.de-P1 Horizontal board layers

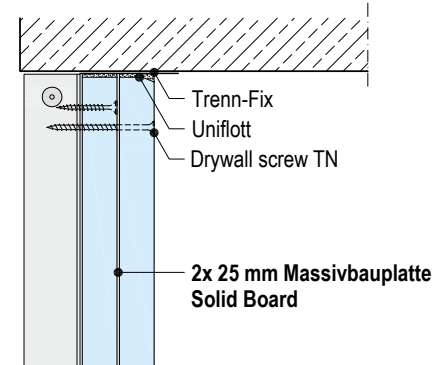
2x 25 mm Massivbauplatte Solid Board



Scale 1:5

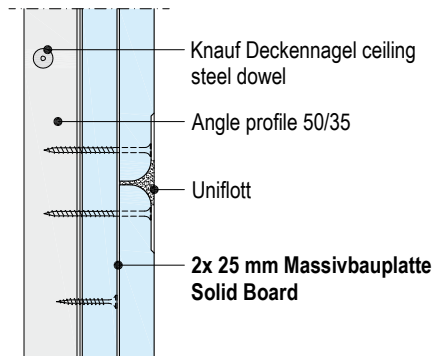
W628A.de-VO1 Connection to ceiling

Vertical section



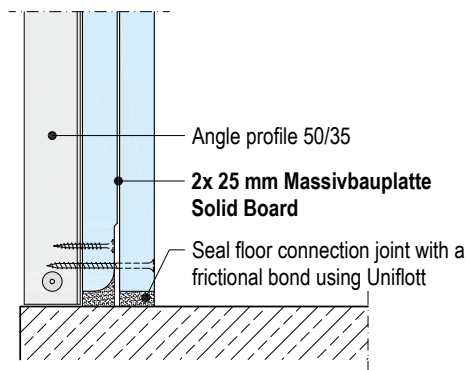
W628A.de-VM1 Board joint

Vertical section



W628A.de-VU1 Connection to floor

Vertical section



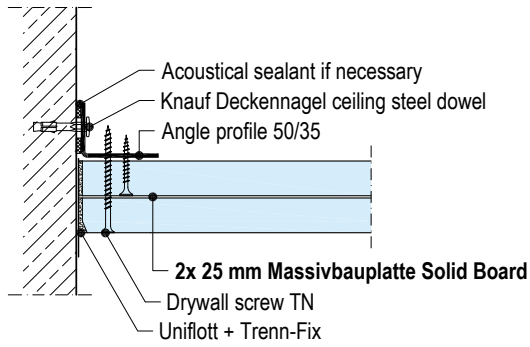


Details

Scale 1:5

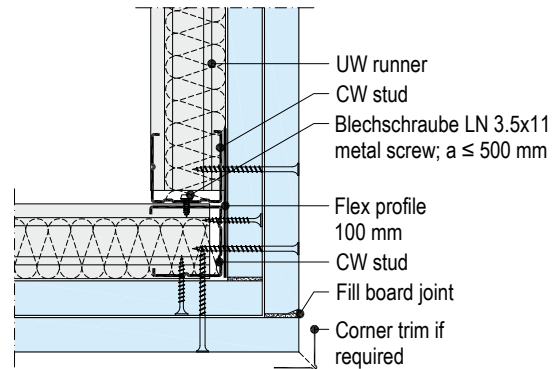
W628A.de-A1 Connection to solid wall

Horizontal section



W628A.de-D1 Corner

Horizontal section



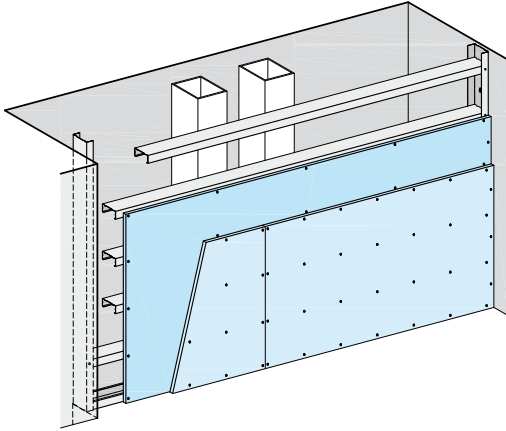
plus Extension of the fire resistance Certificate of Usability
 Prior consultation in acc. to page 5 recommended.

Details

Scale 1:5

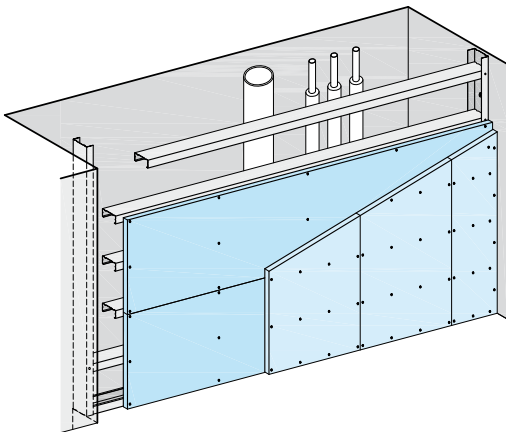
W630.de-P1 Horizontal board layers

2x 12.5 mm Feuerschutzplatte Knauf Piano fire-resistant board / Diamant



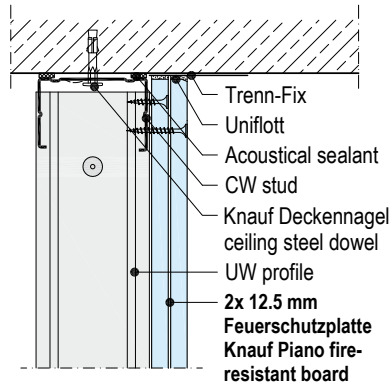
W630.de-P4 Board layer 1 horizontal, board layer 2 vertical

2x 20 mm Massivbauplatte Solid Board



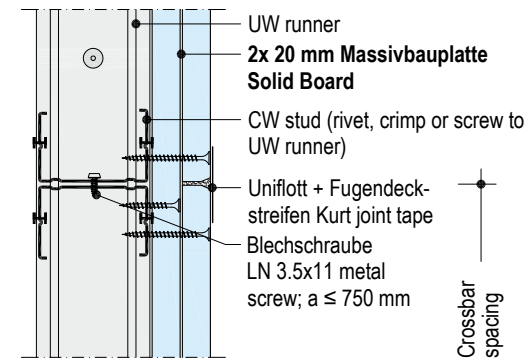
W630.de-VO1 Connection to ceiling

Vertical section



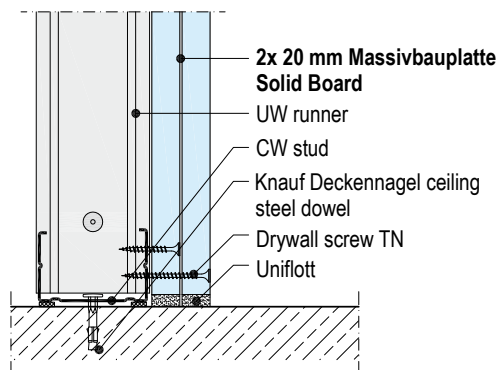
W630.de-VM4 Board joint CW double profile

Vertical section



W630.de-VU4 Connection to floor

Vertical section



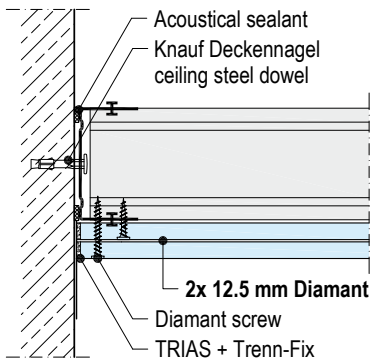


Details

Scale 1:5

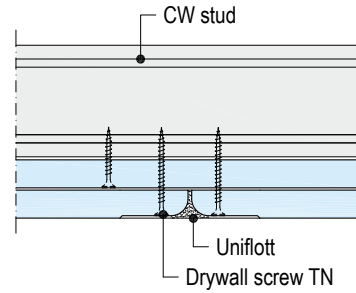
W630.de-A1 Connection to solid wall

Horizontal section



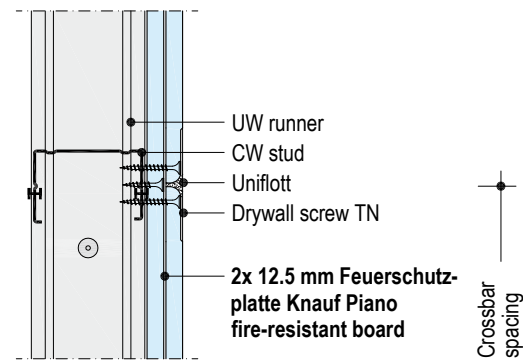
W630.de-B4 Board joint

Horizontal section



W630.de-VM1 Board joint CW single profile

Vertical section

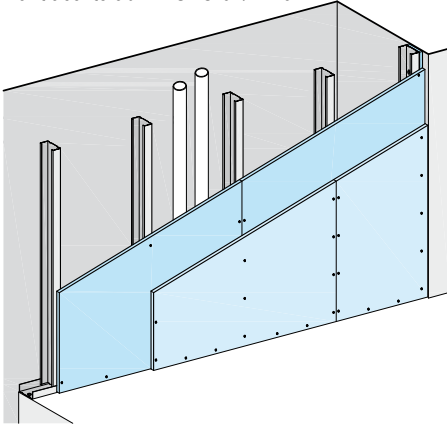


Details

Scale 1:5

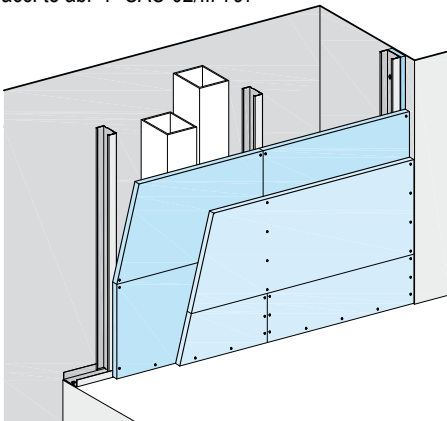
W628B.de-P2 Vertical board layers

e.g. 2x 12.5 mm Feuerschutzplatte Knauf Piano fire-resistant board / Diamant acc. to abP P-SAC-02/III-797



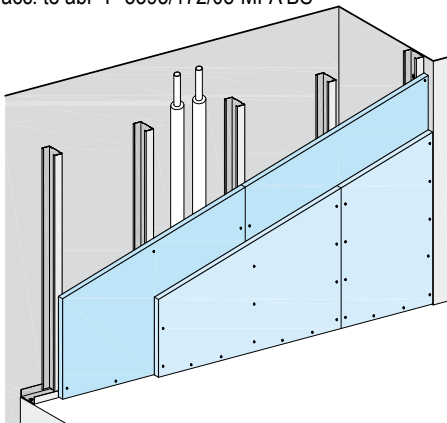
W628B.de-P6 Horizontal board layers

e.g. 2x 20 mm Massivbauplatte Solid Board acc. to abP P-SAC-02/III-797



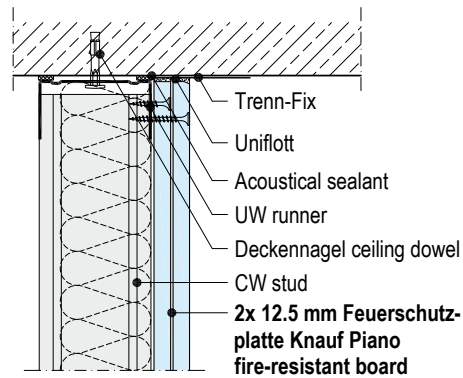
W628B.de-P4 Vertical board layers

e.g. 2x 20 mm Fireboard acc. to abP P-3393/172/08-MPA BS



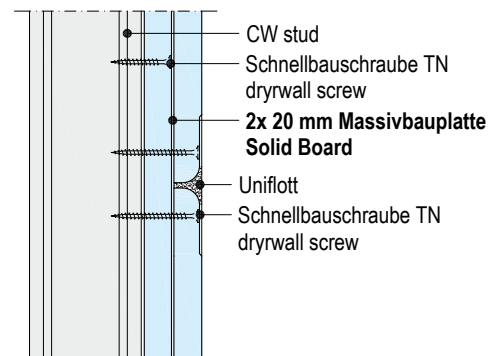
W628B.de-VO2 Connection to ceiling

Vertical section



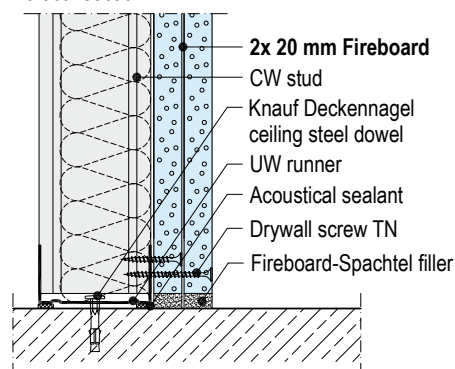
W628B.de-VM6 Board joint

Vertical section



W628B.de-VU4 Connection to floor

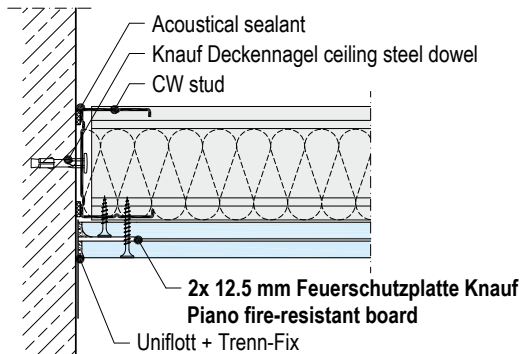
Vertical section



Details

W628B.de-A2 Connection to solid wall

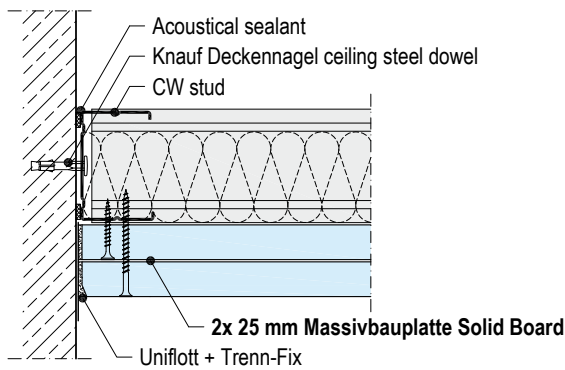
Horizontal section



With wall height ≤ 3.00 m acc. to abP P-3393/172/08-MPA BS no backing of the CW perimeter connection profile on the web side required

W628B.de-A3 Connection to solid wall

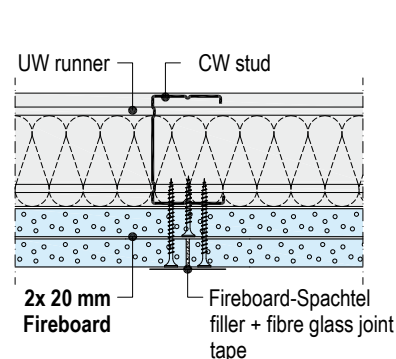
Horizontal section



With wall height ≤ 3.00 m acc. to abP P-3393/172/08-MPA BS no backing of the CW perimeter connection profile on the web side required

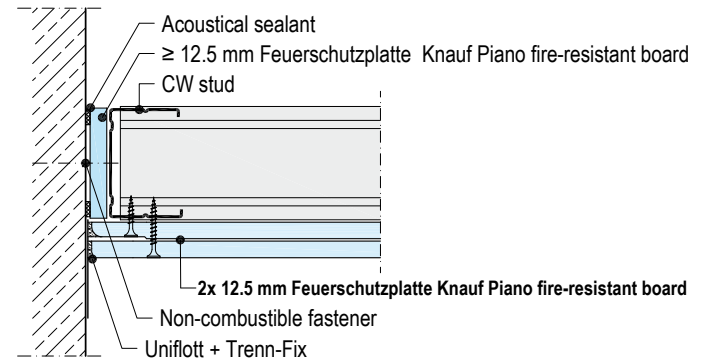
W628B.de-B4 Board joint

Horizontal section



W628B.de-A21 Connection to solid wall

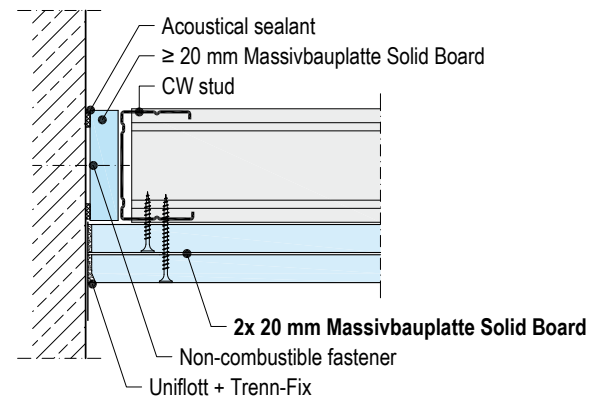
Horizontal section



With wall height > 3.00 m acc. to abP P-SAC-02/III-797 backing of the CW perimeter connection profile on the web side is required

W628B.de-A6 Connection to solid wall

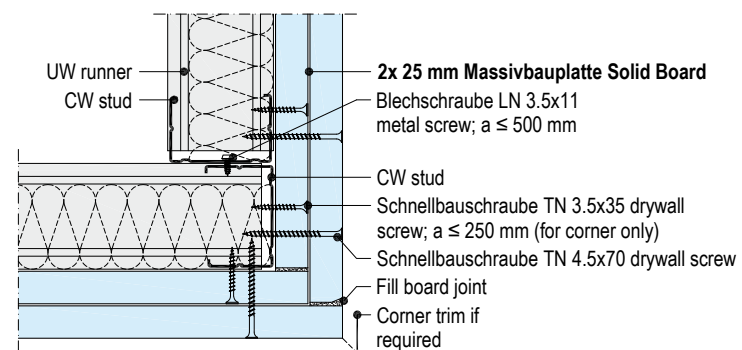
Horizontal section



Acc. to abP P-SAC-02/III-797 backing of the CW perimeter connection profile on the web side is required

W628B.de-D3 Corner

Horizontal section



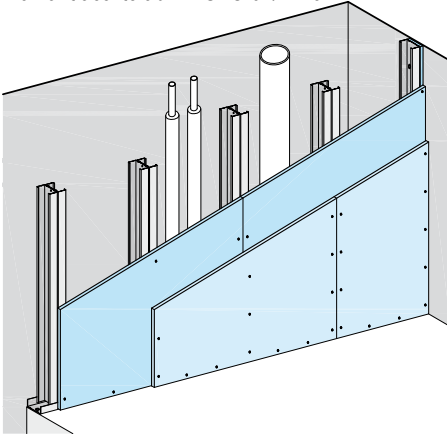
plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

Details

Scale 1:5

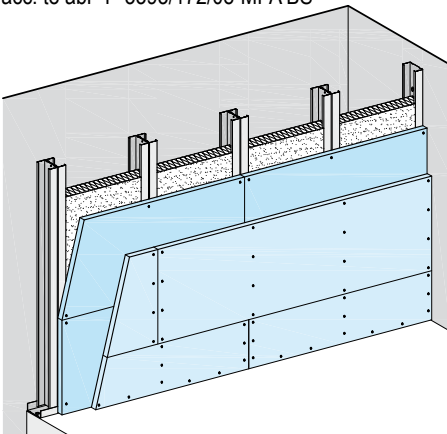
W629.de-P2 Vertical board layers

e.g. 2x 12.5 mm Feuerschutzplatte Knauf Piano fire-resistant board /
Diamant acc. to abP P-SAC-02/III-797



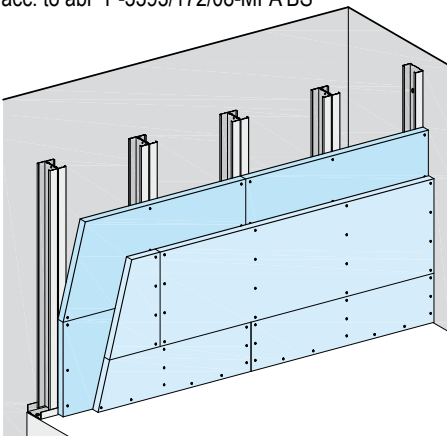
W629.de-P5 Horizontal board layers

e.g. 2x 20 mm Massivbauplatte Solid Board
acc. to abP P-3393/172/08-MPA BS



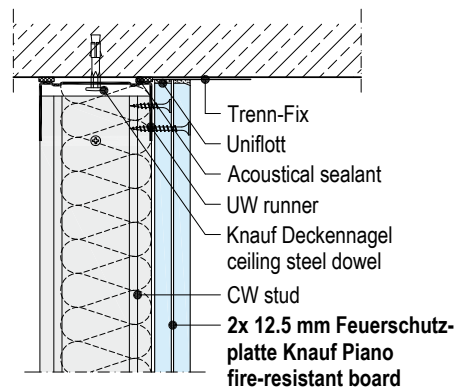
W629.de-P6 Horizontal board layers

e.g. 2x 25 mm Massivbauplatte Solid Board
acc. to abP P-3393/172/08-MPA BS



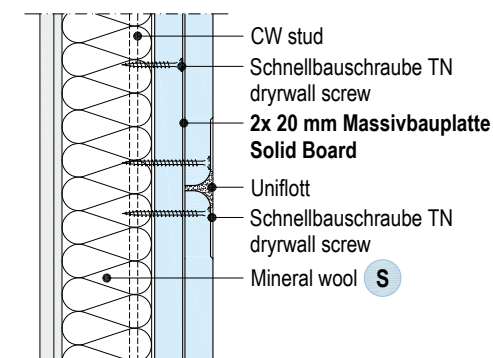
W629.de-VO2 Connection to ceiling

Vertical section



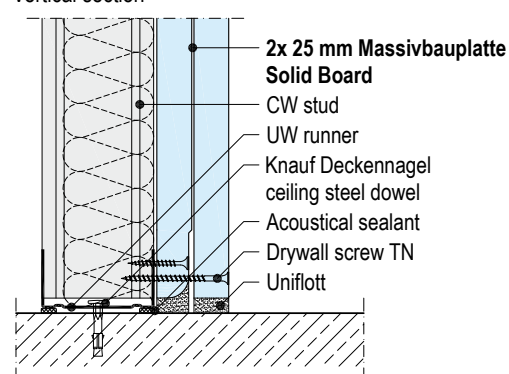
W629.de-VM5 Board joint

Vertical section



W629.de-VU6 Connection to floor

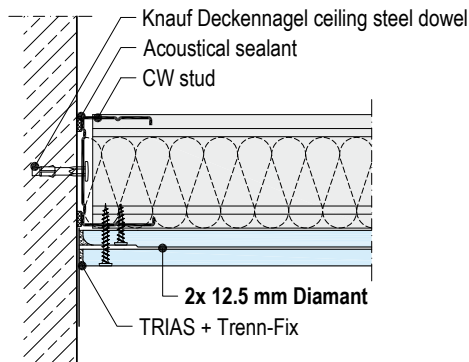
Vertical section



Details

W629.de-A2 Connection to solid wall

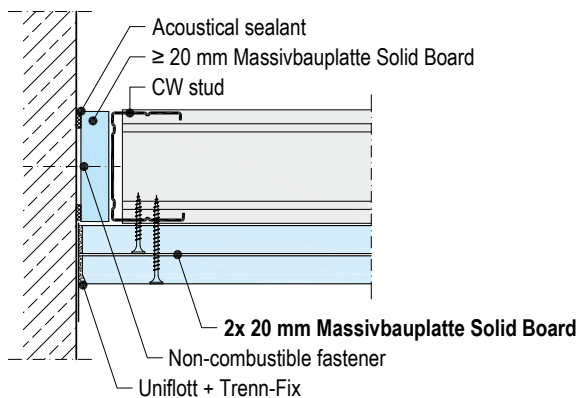
Horizontal section



With wall height ≤ 3.00 m acc. to abP P-3393/172/08-MPA BS no backing of the CW perimeter connection profile on the web side required

W629.de-A51 Connection to solid wall

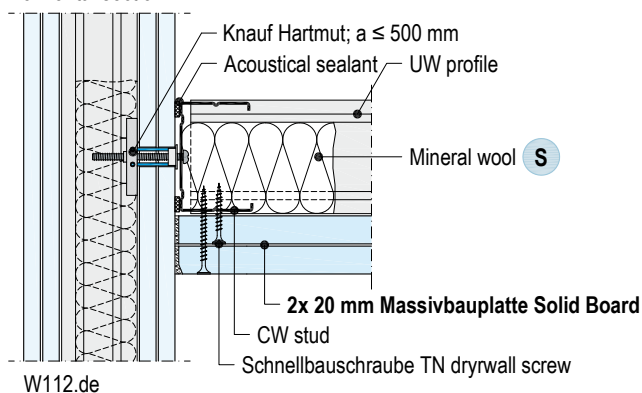
Horizontal section



Acc. to abP P-SAC-02/III-797 backing of the CW perimeter connection profile on the web side is required

W629.de-SO5 Connection to solid wall

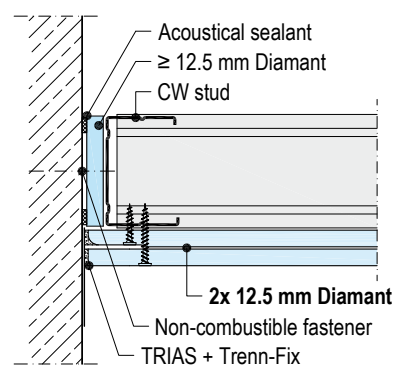
Horizontal section



plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

W629.de-A21 Connection to solid wall

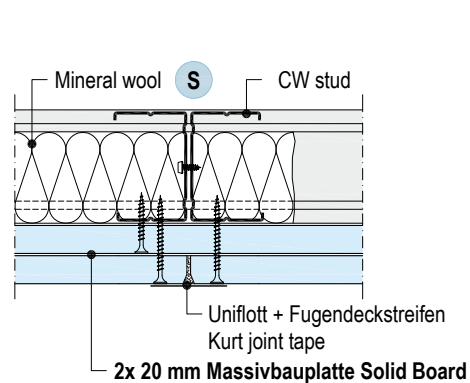
Horizontal section



With wall height > 3.00 m acc. to abP P-SAC-02/III-797 backing of the CW perimeter connection profile on the web side is required

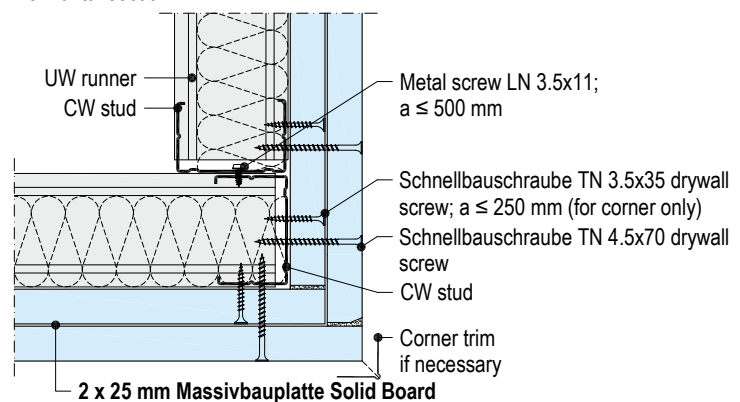
W629.de-B5 Board joint

Horizontal section



W629.de-D6 Corner

Horizontal section



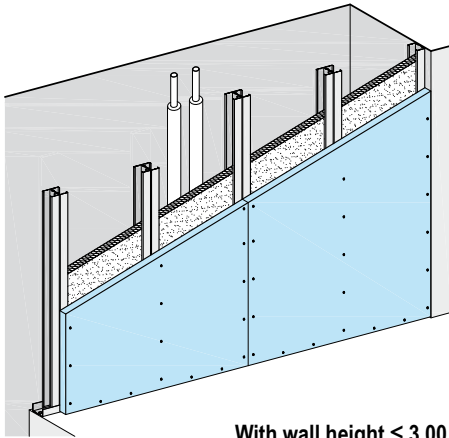
plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to Page 5 recommended.

Details

Scale 1:5

K251.de-P6 Vertical board layers

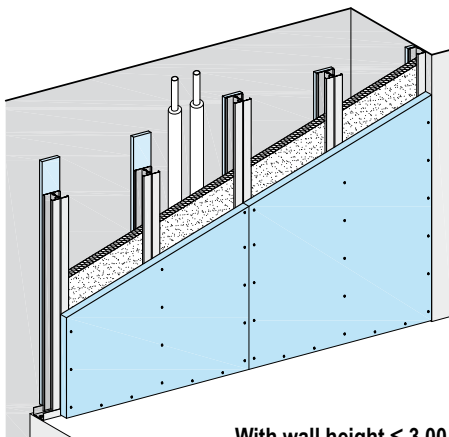
30 mm Fireboard



With wall height ≤ 3.00 m

K251.de-P5 Vertical board layers + stud covering

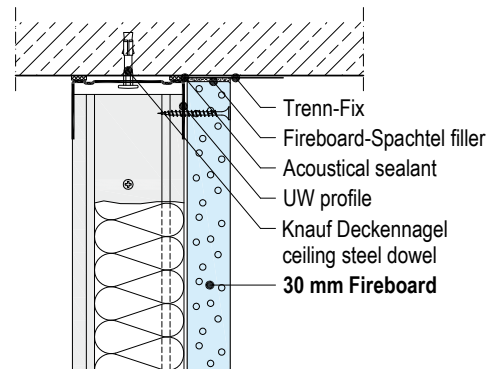
30 mm Fireboard + 12.5 mm Fireboard covering strip



With wall height ≤ 3.00 m

K251.de-VO6 Connection to ceiling

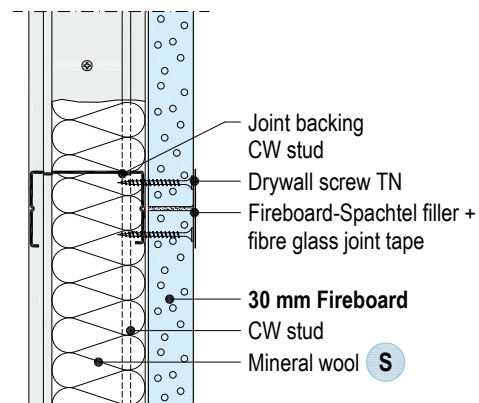
Vertical section



With wall height ≤ 3.00 m

K251.de-VM6 Board joint

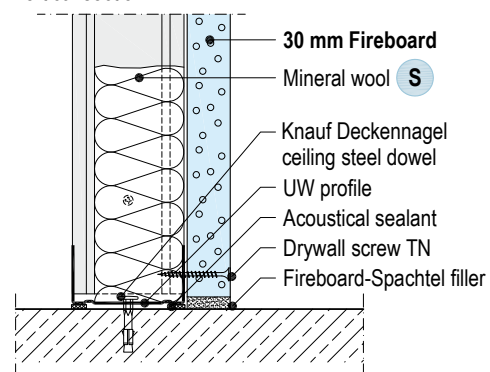
Vertical section



With wall height ≤ 3.00 m

K251.de-VU6 Connection to floor

Vertical section

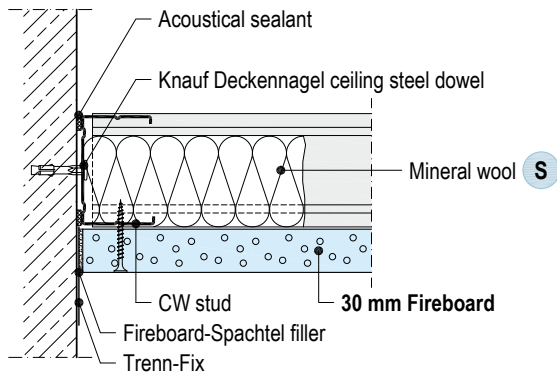


With wall height ≤ 3.00 m

Details

K251.de-A6 Connection to solid wall

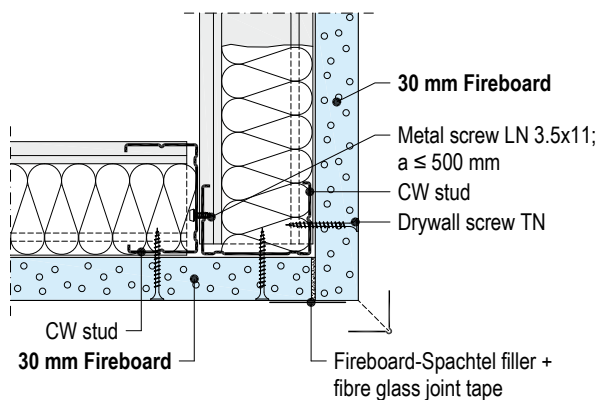
Horizontal section



With wall height ≤ 3.00 m

K251.de-D6 Corner

Horizontal section

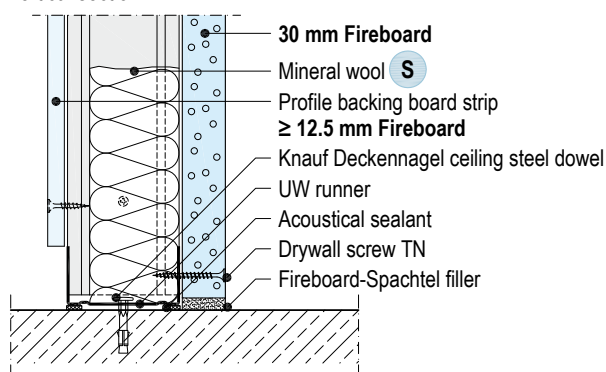


With wall height ≤ 3.00 m

plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

K251.de-VU5 Connection to floor

Vertical section

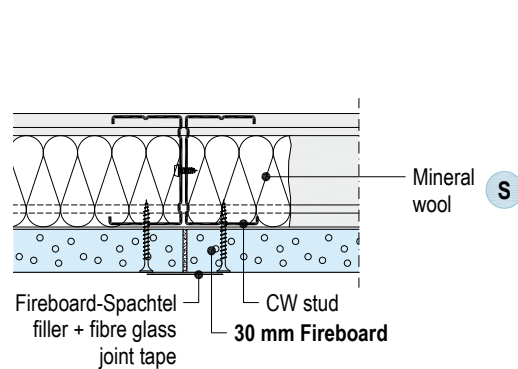


With wall height ≤ 3.00 m

plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

K251.de-B6 Board joint

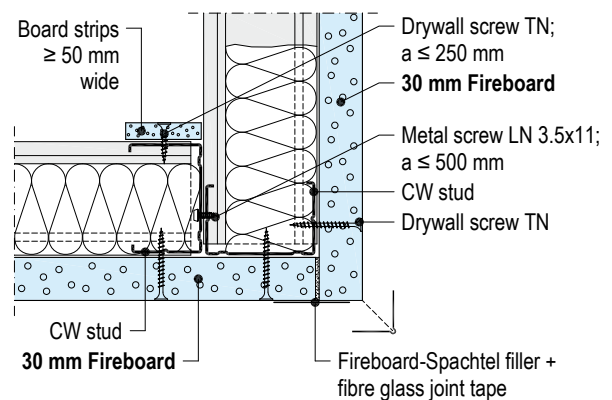
Horizontal section



With wall height ≤ 3.00 m

K251.de-D5 Corner

Horizontal section

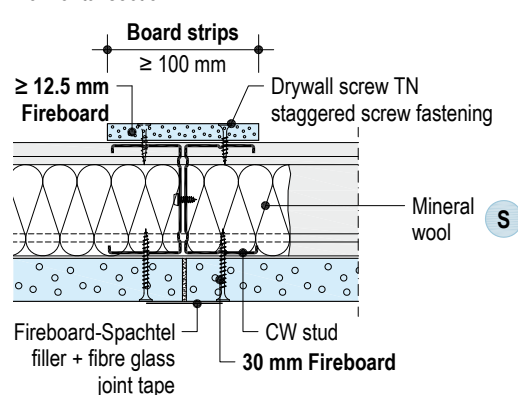


With wall height ≤ 3.00 m

plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

K251.de-B5 Board joint

Horizontal section



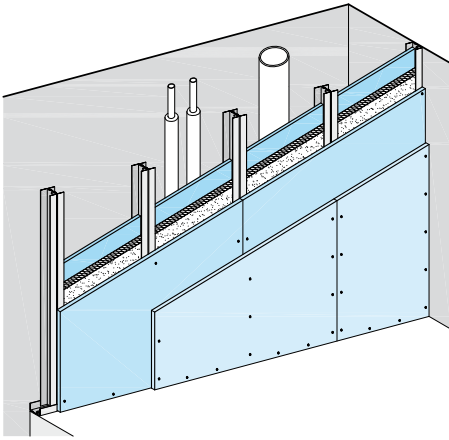
With wall height ≤ 3.00 m

plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

Details

W635.de-P1 Vertical board layers

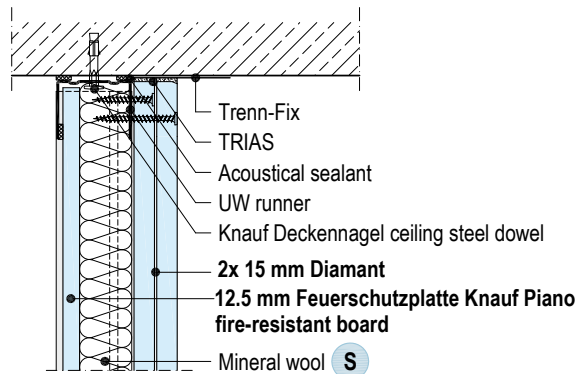
2x 15 mm Diamant + intermediate Knauf Piano fire-resistant board



Scale 1:5

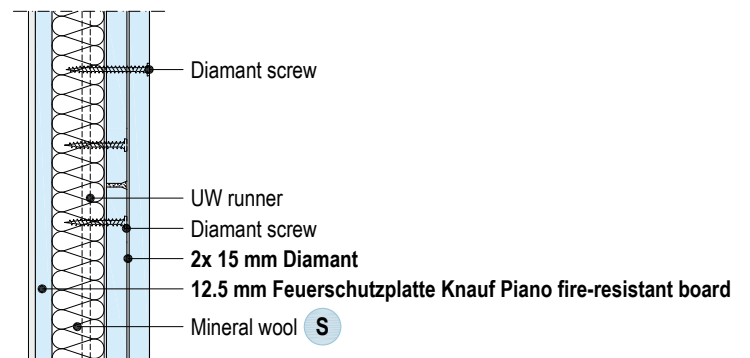
W635.de-VO1 Connection to ceiling

Vertical section



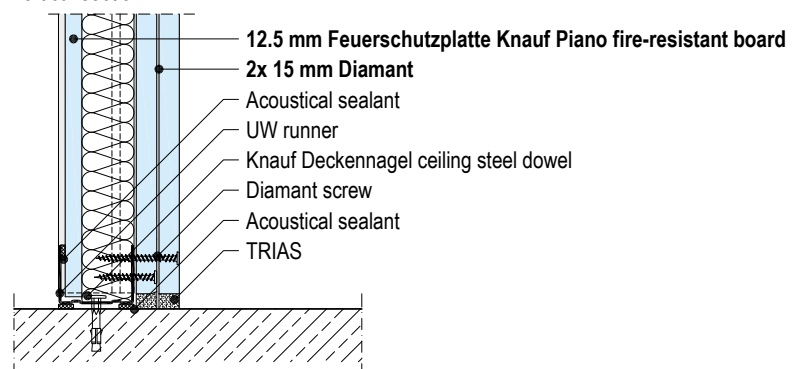
W635.de-VM1 Board joint

Vertical section



W635.de-VU1 Connection to floor

Vertical section



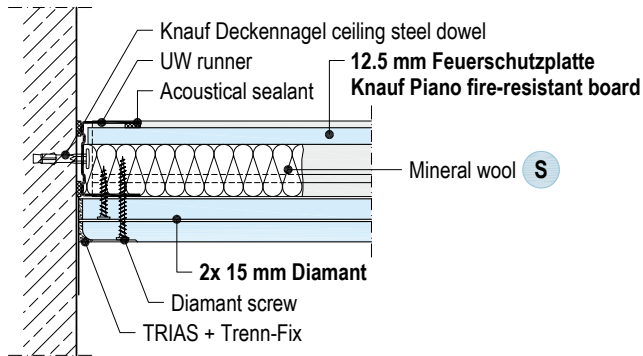


Details

Scale 1:5

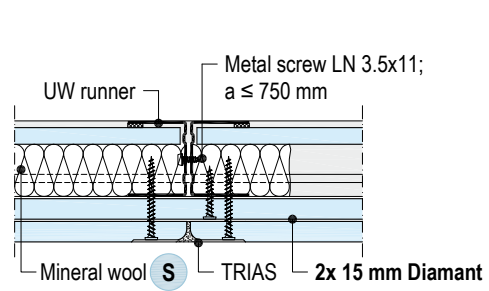
W635.de-A1 Connection to solid wall

Horizontal section



W635.de-B1 Board joint

Horizontal section

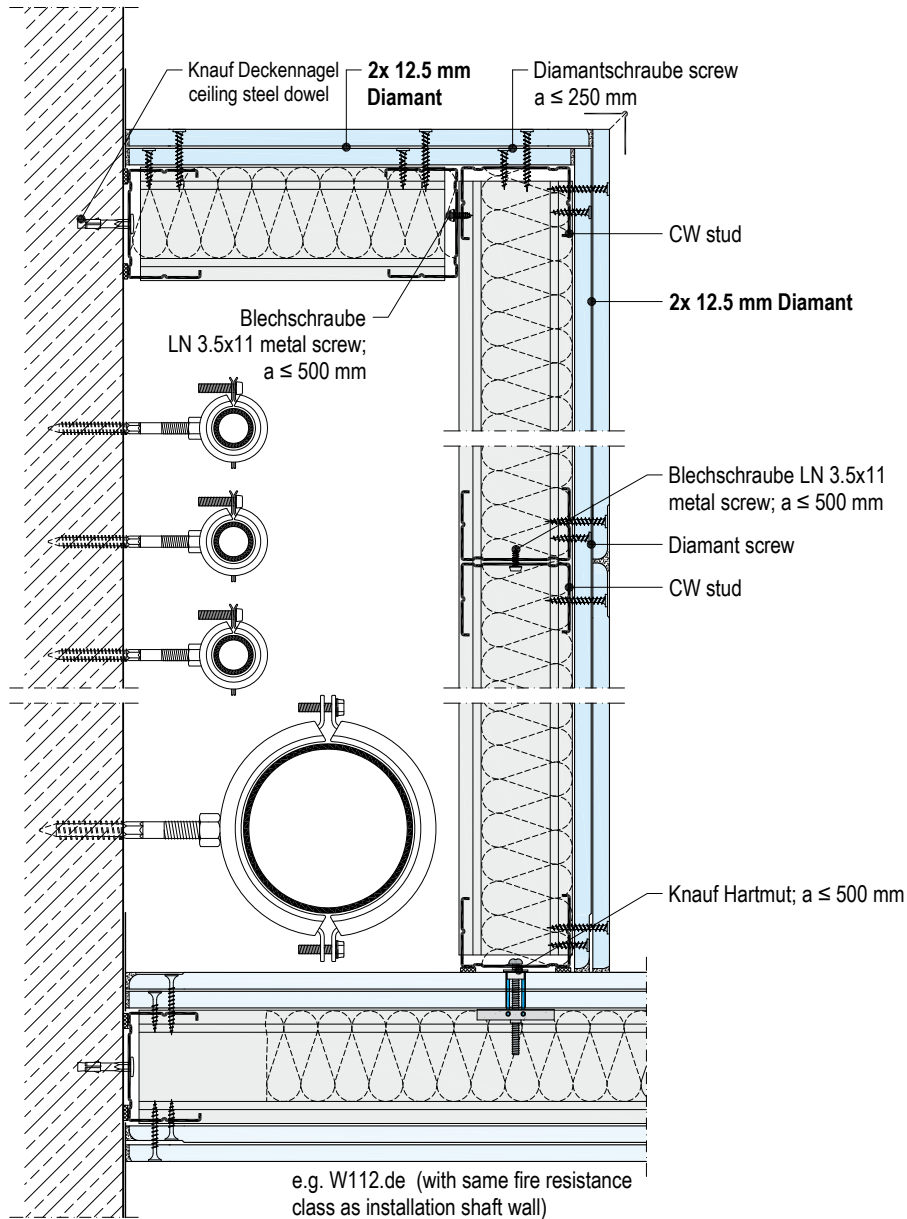


Detail

Scale 1:5

W629.de-SO2 Installation shaft

Horizontal section



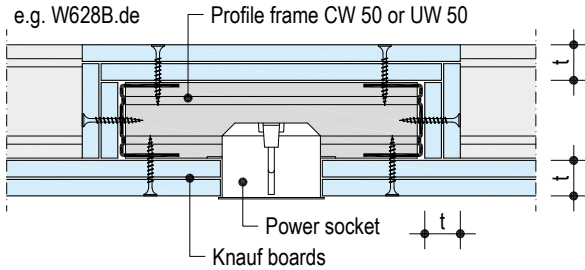
plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

Dimensions in mm | Scale 1:5

Details

W628B.de-SO1 Power sockets with runner frame

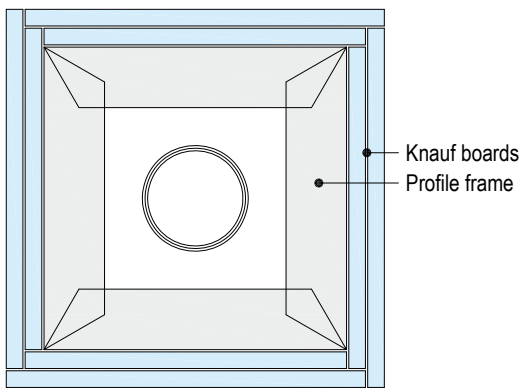
Horizontal section



plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

W628B.de-SO2 Power sockets with runner frame

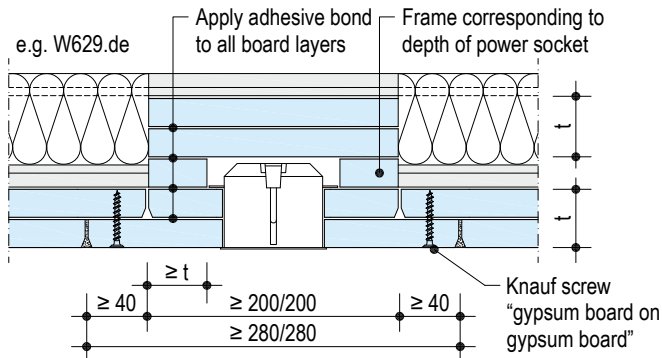
Vertical section



plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

W629.de-SO6 Power sockets with board backing

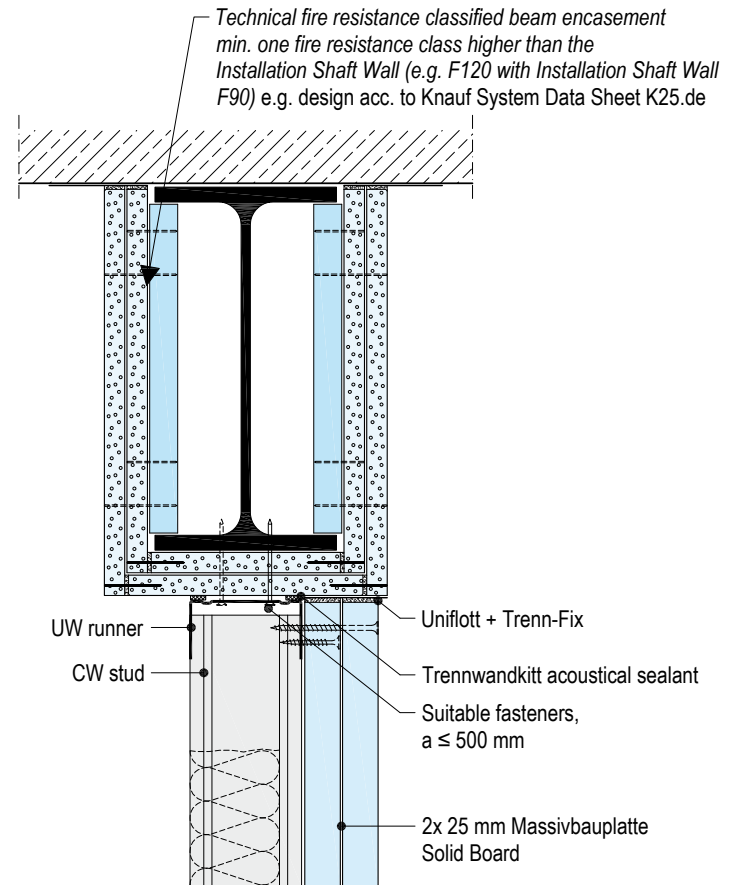
Horizontal section



plus Extension of the fire resistance Certificate of Usability
Prior consultation in acc. to page 5 recommended.

W629.de-SO7 Connection to steel beam encasement

Vertical section



Note

The power sockets must be encased in at least cladding thickness t by Knauf GKF/Fireboard boards.

Lead-through for individual electrical cables

Basics

In accordance with paragraph 40 of the MBO (German model building code), "pipes passing through space-enclosing components for which a fire resistance duration is specified, may only be passed through if the spread of fire need not be feared for a sufficiently long time".

Application options without any particular fire protection measure in acc. to Model Conduit Systems Directive (German designation MLAR), section 4.3.2 for individual cables **a - b - c** (see below) should be taken from the solution examples on this page.

When leading through bundled electrical cables, approved bulkhead systems are required for non-flammable conduits > 160 mm or flammable conduits > 32 mm.

Drywalling approved bulkheads can only be conditionally used in installation shaft walls. The prerequisite is that the installation shaft wall is compliant with the stipulations of the abP/abZ (National Technical Test Certificate/Approval) in the area where the cable lead-throughs are located. This shaft wall section should feature the stability of one of the partition walls. An application option for this feature can be found on "Lead-through for several electrical cables" on page 35.

For applying the cable lead-through's as shown on pages 34 and 35, the specifications and notes in Knauf "Brandschutz mit Knauf" (BS1) section "Lead-through for individual electrical cables" or "Lead-through for several electrical cables" in the section "Knauf cable and pipe penetrations" must be observed (German only).

Minimum thickness D

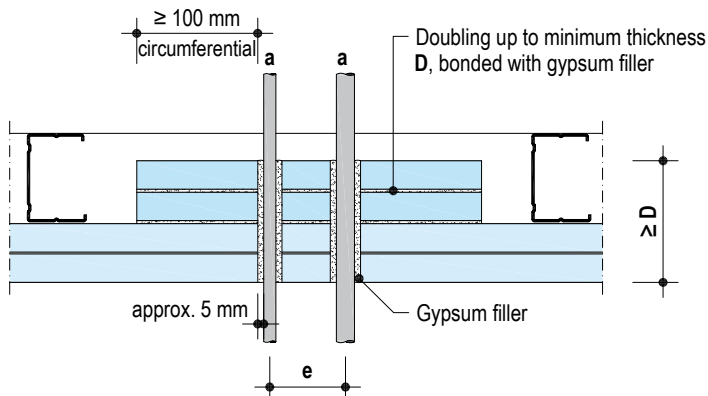
- Fire resistant walls (fh) $D \geq 60$ mm
- Highly fire resistant walls (hfh) $D \geq 70$ mm
- Fire-proof walls (fb) $D \geq 80$ mm

Cable type acc. to Model Conduit Systems Directive (German designation MLAR)

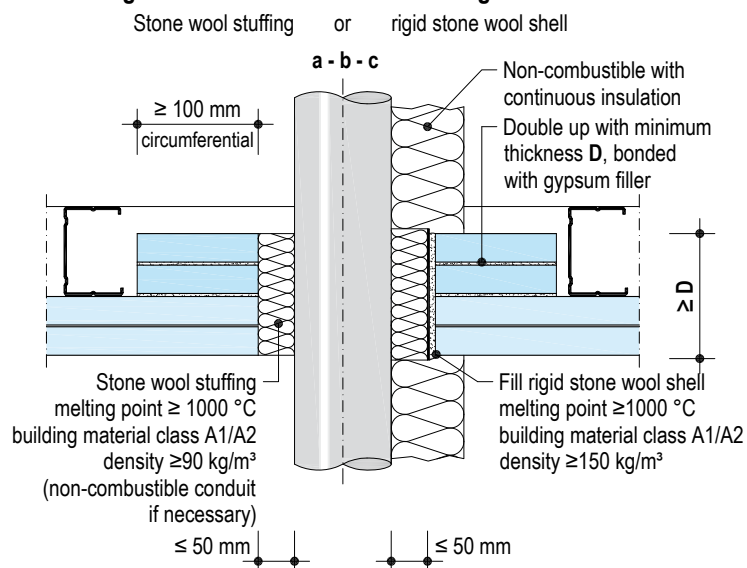
- a** Individual electrical cables
- b** Conduits of non-flammable (nbr) building materials ≤ 160 mm
- c** Conduits of flammable (br) building materials ≤ 32 mm

Horizontal sections

Lead-through of single electrical cables

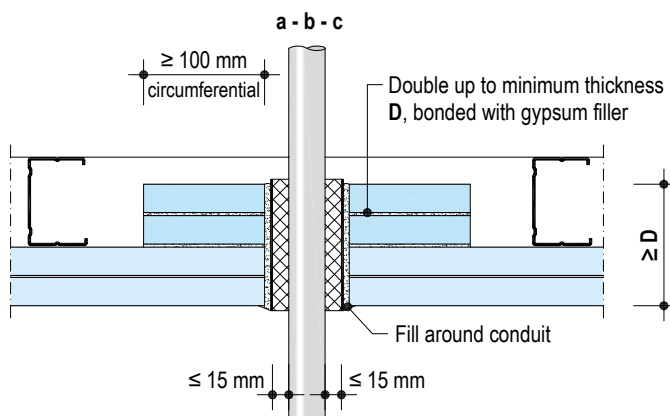


Lead-through of non-insulated / insulated single cables



Lead-through of non-insulated single cables

Non-combustible conduit with foam-forming material in case of fire (approval required)



Note

For technically correct implementation, the minimum cable spacings **e** must be observed. Detailed specifications for applying the indicated solution examples as well as further solutions can be found at Knauf "Brandschutz mit Knauf" (BS1) section "Lead-through for individual electrical cables" or "Lead-through for several electrical cables" in the section "Knauf cable and pipe penetrations" (German only).

plus Lead-through for several electrical cables

Bulkhead systems - partial upgrading of the shaft side

In order to apply approved bulkhead systems in Knauf Installation Shaft Walls, a partial upgrade to a light partition with double sided cladding, and a component thickness of ≥ 100 mm, is necessary.

The width of at least one section and a height $H =$ bulkhead height + 2×100 mm ($H \geq 500$ mm) is required on the installation shaft wall.

The thickness of the Knauf board GKF to be applied to the shaft side must be ≥ 20 mm. The constructional component thickness in the upgrade area must be ≥ 100 mm.

Required brace in upgraded installation shaft walls

- Installation when assembling the installation shaft wall
 - After upgrading the installation shaft wall to accept the installation of the respective bulkhead system, the brace and reveal cladding must be applied as shown in the drawing opposite.
- Reveal aperture
 - Cladding with Knauf boards minimum in the cladding thickness of the installation shaft wall unless the abZ/abP on the individual bulkheads specifies otherwise
 - Screw centres ≤ 150 mm
 - Apply board width in the reveal area acc. to AbZ / abP but at least to min. partition thickness
 - Fill the joints with a gypsum filler
 - Install the bulkhead systems acc. to abZ / abP of the bulkhead manufacturer

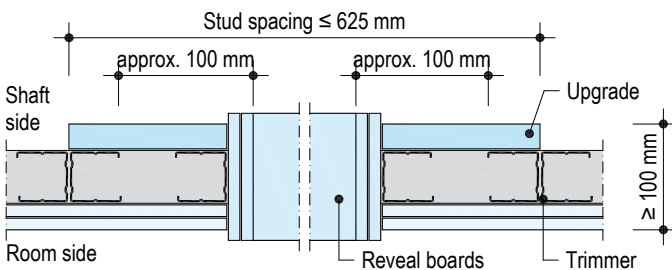
Fire protection F30 to F90

Required fire protection cladding / mineral wool acc. to the respective systems.

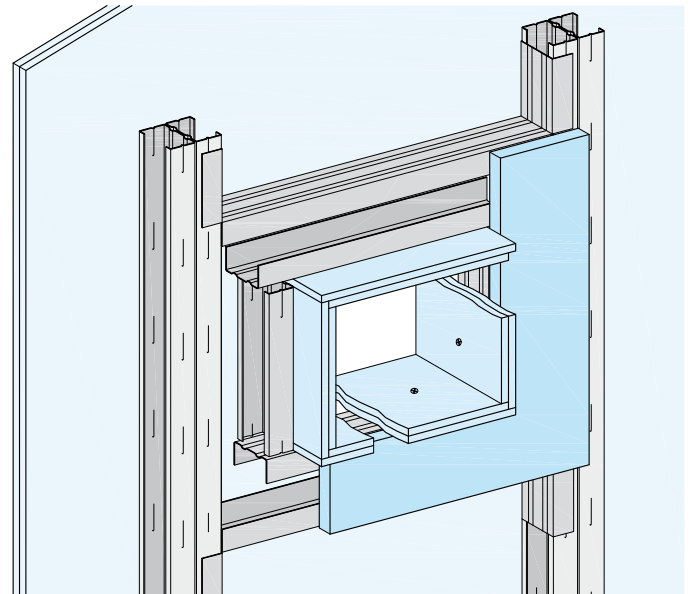
Cable type acc. to Model Conduit Systems Directive (German designation MLAR)

- a Bundled cables
- b Conduits of non-flammable (nbr) building materials > 160 mm
- c Conduits of flammable (br) building materials > 32 mm

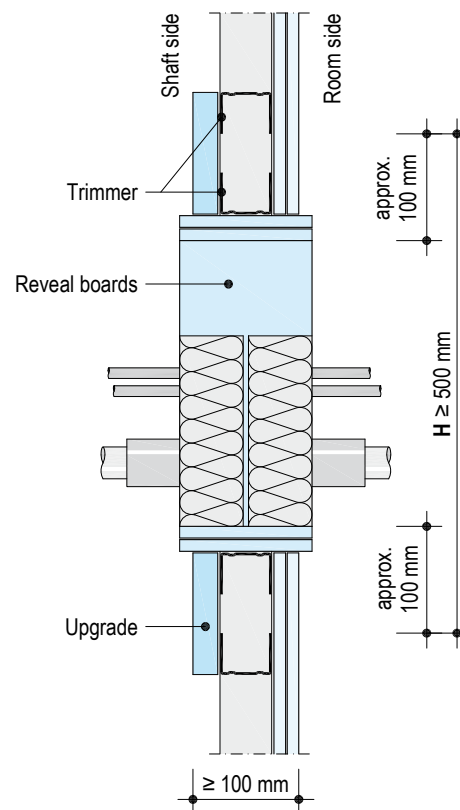
Horizontal section



Shaft side view



Vertical section



plus Extension of the fire resistance Certificate of Usability

- Partial upgrading of installation shaft walls
- Prior consultation in acc. to page 5 is recommended.

Note

Detailed specifications for applying the indicated solution examples as well as further solutions can be found at Knauf "Brandschutz mit Knauf" (BS1) section "Lead-through for individual electrical cables" or "Lead-through for several electrical cables" in the section "Knauf cable and pipe penetrations" (German only).

Stud frame

General

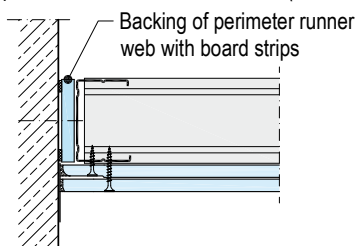
Apply Trennwandkitt acoustical sealant (two strings) or sealing tape to rear side of runners for the connection of flanking constructional components. In case of sound insulation requirements, seal carefully with Trennwandkitt acoustical sealant according to DIN 4109, supplement 1, chapter 5.2; porous sealant strips such as sealing tape are usually not suitable in this case. Fix perimeter runners to the floor and ceiling. Anchor wall perimeter runners with suitable dowels to flanking walls.

Use suitable fasteners:

- Knauf Deckennagel ceiling steel dowel (reinforced concrete)
- Fasteners for the building materials that are specially suitable and non-combustible

Wall height m	Max. fastening spacing Wall perimeter runner mm	Ceiling and floor connection profiles mm
W628A.de Knauf Installation Shaft Wall		
up to 15.00	500	–
W630.de Knauf Installation Shaft Wall		
≤ 3.00	625	625 ²⁾
> 3.00 to 7.00	500	625 ²⁾
W628B.de Knauf Installation Shaft Wall		
up to 5.00	500 ¹⁾	500
W629.de Knauf Installation Shaft Wall		
up to 5.60	500 ¹⁾	500
K251.de Knauf Fireboard Installation Shaft Wall		
up to 5.00	1000 ²⁾	1000
W635.de Knauf Installation Shaft Wall		
up to 5.00	1000 ²⁾	1000

1) Connection to wall with backing of the CW perimeter runner web with board strips (half cladding thickness) with system variants acc. to abP P-SAC-02/III-797 or with 2x 15 mm Knauf boards with wall heights > 3.00 m. Contact surfaces of the board strips with flanking component provided with acoustical sealant (2 beads).

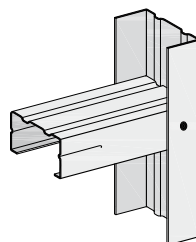


2) Structural connection, at least 3 anchoring point per side

W630.de Knauf Installation Shaft Wall – Stud crossbars with CW profiles

CW studs, as metal crossbars with spacings of 312.5 mm / double CW studs as crossbars with spacings of 625 mm (625 mm with 2x 12.5 mm cladding not permissible); rivet, crimp or apply with screws to UW wall connection profiles.

CW crossbar profiles may not be joined or extended.

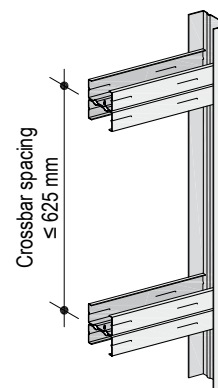
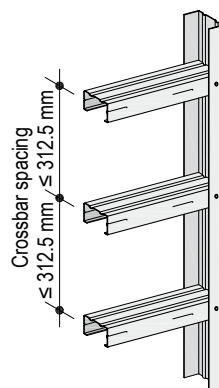


■ CW profile as crossbar



Stud crimper for crimping

■ CW double profile as crossbar



W628B.de Knauf Installation Shaft Wall – Stud construction with CW profiles

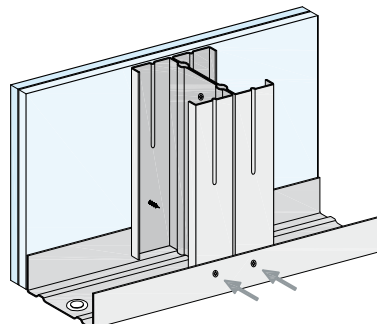
Apply and align CW studs as stud frame profiles in the perimeter connection profiles at appropriate spacings.

W629.de Knauf Installation Shaft Wall – Stud construction with CW double profiles

Screw two CW profiles to one another on the web side at centres ≤ 500 mm using Metal Screws LN 3.5x11.

Apply and align stud frame profiles in the perimeter connection profiles at appropriate spacings.

With wall heights > 5.00 m fix double CW studs to UW runners on ceiling and floor at the shaft side with rivets, crimps or screws.

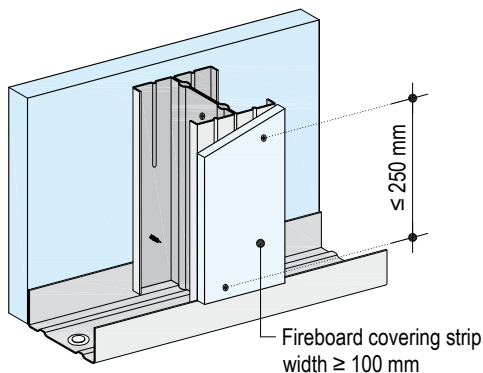


Note

The permissible wall heights vary depending on the system variant. Please observe the table in section "Technical and physical building data" on pages 8 to 19.

K251.de Knauf Fireboard Installation Shaft Wall – Stud construction with CW double profiles

Screw two CW profiles to one another on the web side at centres ≤ 500 mm using Metal Screws LN 3.5x11. With wall heights > 3.00 m on the shaft side, screw fix alternating 12.5 mm Fireboard covering strips of width ≥ 100 mm and on the wall perimeter runner of width ≥ 50 mm at a spacing of ≤ 250 mm. Apply and align stud frame profiles in the perimeter connection profiles at appropriate spacings.



W635.de Knauf Installation Shaft Wall – Stud construction with UW double profiles

Screw two UW runners to one another on the web side at centres ≤ 750 mm using Metal Screws LN 3.5x11. Apply and align stud frame profiles in the perimeter connection profiles at appropriate spacings.

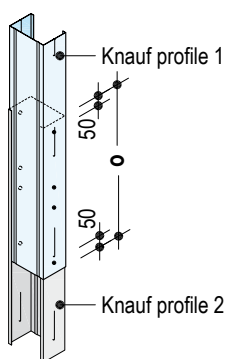
Apply Acoustical Sealant to the inner surface of the shaft sided flange of the double UW runner and apply and push on a 12.5 mm layer of Knauf Piano fire-resistant board.

Vertical profile extensions

Dimensions in mm

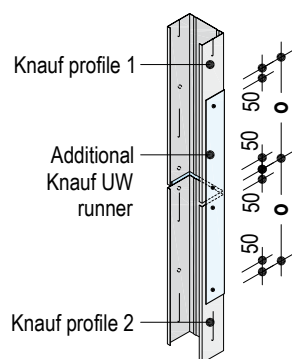
Alternative 1

2 CW profiles connected to form a box.



Alternative 2

2 CW profiles butt jointed, connected with additional UW runner.



Profile extensions

Knauf profiles	Overlap o
CW 50	≥ 500 mm
CW 75	≥ 750 mm
CW 100	≥ 1000 mm

- Stagger the heights of the profile joints (alternating upper and lower wall half)
- Crimp, screw fix or, if possible, crimp the profiles in the overlapping area

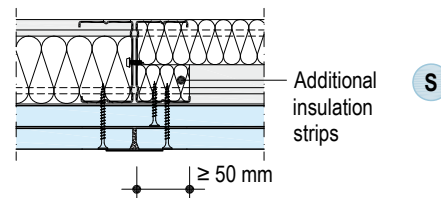
Insulation layer

General

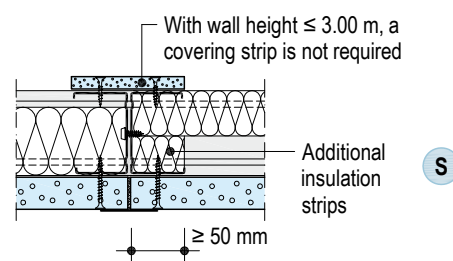
Depending on the requirements for fire protection, sound insulation and thermal insulation, secure the insulation against sliding (compress up to approx. 10 mm) and tightly joint in the grid (or if necessary install insulation strips as to prevent sliding in the stud profiles).

Additional insulation strips for deviation of the insulation material thickness > 20 mm from the stud web width.

W629.de Knauf Installation Shaft Wall

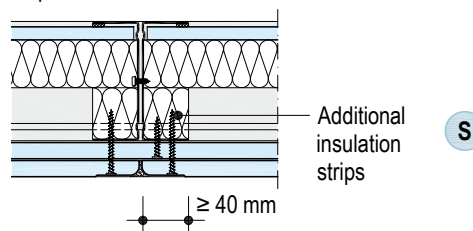


K251.de Knauf Fireboard Installation Shaft Wall



W635.de Knauf Installation Shaft Wall

Fill the UW 75 / UW 100 runners completely with additional insulation strips. S

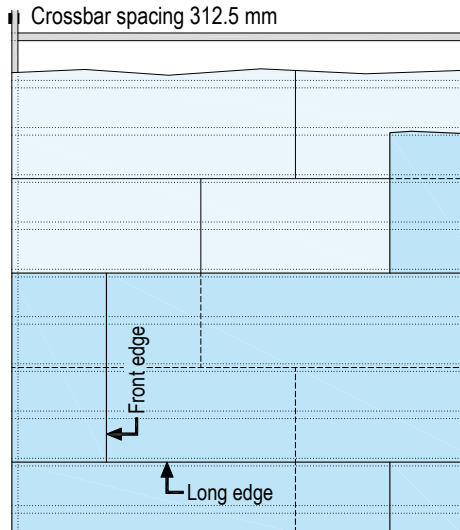


Installation schemes

Scheme drawings | Dimensions in mm

W630.de Horizontal board layers

- Feuerschutzplatte Knauf Piano fire-resistant board / Diamant (board width 1250 mm)
- Crossbar spacing 312.5 mm



Lower/upper layer:

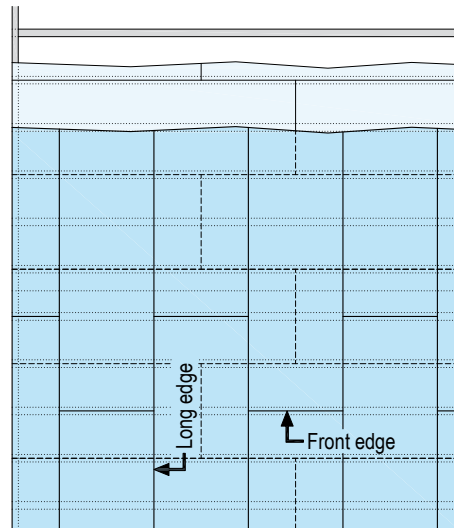
- Offset front edge joint by at least 500 mm.
- Arrange the long edge joints on the crossbar.

Offset between lower and upper layer:

- Stagger long edge joints by 625 mm.
- Stagger the front edge joints between board layers.

W630.de Board layer 1 horizontal, board layer 2 vertical

- 2x 20 mm Massivbauplatte Solid Board (board width 625 mm)
- Crossbar spacing 312.5 mm



Lower layer:

- Offset front edge joint by at least 500 mm.
- Arrange the long edge joints on the crossbar.

Upper layer:

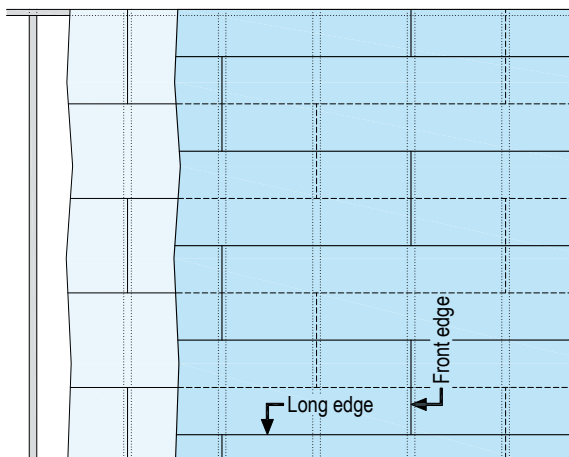
- Arrange the front edge joints on the crossbar and stagger by 625 mm.

Offset between lower and upper layer:

- Stagger the board joints of the upper layer by approx 312.5 mm to the board joints of the lower layer.

W628B.de/W629.de Horizontal board layers

- Silentboard / Massivbauplatte Solid Board (board width 625 mm)
- Stud spacing 625 mm

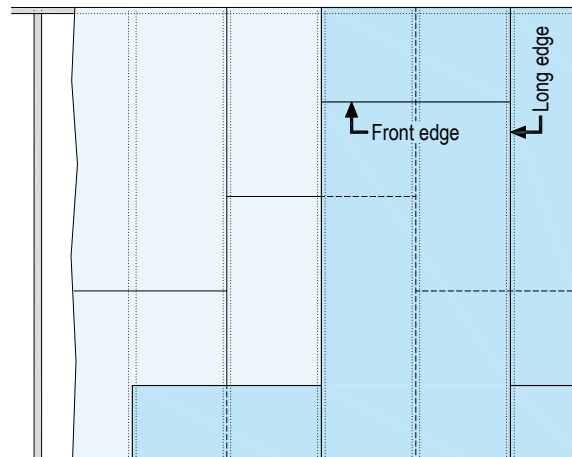


Lower/upper layer:

- Recommendation: Board length 2500 mm
- Front edge joints must be staggered by at least one stud spacing.
- Stagger the long joints between the cladding layers by at least half a board width.

W628B.de/W629.de/K251.de/W635.de Vertical board layers

- Feuerschutzplatte Knauf Piano fire-resistant board / Diamant / Knauf Feuerschutzplatte fire-resistant board / Fireboard (board width 1250 mm)
- Stud spacing 625 mm



Lower/upper layer:

- Stagger long edge joints by 625 mm (one stud spacing)
- If non floor-to-ceiling high boards are used, stagger the front edge joints ≥ 500 mm (for K251.de ≥ 1000 mm) in a cladding layer
- For K251.de apply backing to front joints using profiles or Fireboard strips.
- Stagger the front edge joints between board layers in case of multi-level cladding.

Fastening of the cladding

Fastening of the cladding to the stud frame with Knauf drywall screws

Cladding		Metal stud frame (penetration ≥ 10 mm) Metal gauge $s \leq 0.7$ mm		Max. fastener spacings	
Board type	Min. thickness mm	Drywall screws TN	Diamant screws XTN	1st layer mm	2nd layer mm
W628A.de Knauf Installation Shaft Wall					
Massivbauplatte Solid Board	2x 25	TN 3.5x35 + TN 4.5x70	–	300	200
W630.de Knauf Installation Shaft Wall					
Fire-resistant board Knauf Piano	2x 12.5	TN 3.5x25 + TN 3.5x35	–	750	250
Diamant	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	750	250
Massivbauplatte Solid Board	2x 20	TN 3.5x35 + TN 3.5x55	–	600	200
W628B.de Knauf Installation Shaft Wall – cladding acc. to abP P-3393/172/08-MPA BS					
Fire-resistant board Knauf Piano	2x 12.5	TN 3.5x25 + TN 3.5x35	–	750	250
Diamant	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	750	250
Silentboard	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	600	200
Knauf fire-resistant board	2x 15	TN 3.5x25 + TN 3.5x45	–	750	250
Diamant	2x 15	–	XTN 3.9x33 + XTN 3.9x55	750	250
Fireboard	2x 20	TN 3.5x35 + TN 3.5x55	–	750	250
Massivbauplatte Solid Board	2x 25	TN 3.5x35 + TN 4.5x70	–	300	200
W628B.de Knauf Installation Shaft Wall – cladding acc. to abP P-SAC-02/III-797					
Fire-resistant board Knauf Piano	2x 12.5	TN 3.5x25 + TN 3.5x35	–	250	250
Diamant	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	250	250
Silentboard	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	250	200
Massivbauplatte Solid Board	2x 20	TN 3.5x35 + TN 3.5x55	–	250	200
Fireboard	2x 20	TN 3.5x35 + TN 3.5x55	–	250	250
Massivbauplatte Solid Board	2x 25	TN 3.5x35 + TN 4.5x70	–	250	200
W629.de Knauf Installation Shaft Wall – cladding acc. to abP P-3393/172/08-MPA BS					
Fire-resistant board Knauf Piano	2x 12.5	TN 3.5x25 + TN 3.5x35	–	750	250
Diamant	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	750	250
Silentboard	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	600	200
Knauf fire-resistant board	2x 15	TN 3.5x25 + TN 3.5x45	–	750	250
Diamant	2x 15	–	XTN 3.9x33 + XTN 3.9x55	750	250
Massivbauplatte Solid Board	2x 20	TN 3.5x35 + TN 3.5x55	–	600	200
Fireboard	2x 20	TN 3.5x35 + TN 3.5x55	–	750	250
Massivbauplatte Solid Board	2x 25	TN 3.5x35 + TN 4.5x70	–	300	200
W629.de Knauf Installation Shaft Wall – cladding acc. to abP P-SAC-02/III-797					
Feuerschutzplatte fire-resistant board Knauf Piano	2x 12.5	TN 3.5x25 + TN 3.5x35	–	250	250
Diamant	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	250	250
Silentboard	2x 12.5	–	XTN 3.9x23 + XTN 3.9x38	250	200
Massivbauplatte Solid Board	2x 20	TN 3.5x35 + TN 3.5x55	–	250	200
Fireboard	2x 20	TN 3.5x35 + TN 3.5x55	–	250	250
Massivbauplatte Solid Board	2x 25	TN 3.5x35 + TN 4.5x70	–	250	200
K251.de Knauf Fireboard Installation Shaft Wall					
Fireboard covering strips	12.5	TN 3.5x25	–	250	–
Fireboard	30	TN 3.5x45	–	250	–
W635.de Knauf Installation Shaft Wall					
Diamant	2x 15	–	XTN 3.9x33 + XTN 3.9x55	750	250

Jointing

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⁾.

With Fireboard, a skim coating of the entire surface with Knauf Fireboard-Spachtel filler is additionally required before application of direct coatings or linings.

Suitable jointing materials

- TRIAS: Hand filling *without* joint tape in the long joint edges; easy to sand, with high strength and suitable for areas of high humidity, reduced absorption for surfaces with uniform appearance, the ideal filler particularly for systems with Diamant boards
- Uniflott: Hand filling *without* joint tape strips in the long joint edges
- Uniflott imprägniert impregnated: Hand filling of impregnated boards *without* joint tape in the long edge joints, water-repellent, matching green colour
- Fugenfüller Leicht: Hand filling *with* joint tape, preferably with Knauf Fugendeckstreifen Kurt joint tape
- Fireboard-Spachtel filler: Hand filling of Fireboard *with* fibre glass joint tape.

Suitable finish filling compounds

- Q2, application by hand: Fill & Finish, SuperFinish
- Q3/Q4, application by hand: Readygips, SuperFinish
- Q3/Q4, machine application: Readygips, ProSpray Light
- Fireboard Spachtel filler for full surface skimming of Fireboard

Filling of the gypsum boards

- 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 provide technical fire protection and sound insulation properties as well as the structural properties!

- **Recommendation:** Front edge and cut edge joints as well as mixed joints (e.g. HRAK + cut edge) of the visible cladding layers filled using Uniflott or TRIAS, will require the application of Knauf Joint Tape Kurt as well.
- Fill in visible screw heads.
- Lightly sand visible surfaces after drying of the filler material, if required.

Joint filling of the connection joints

- Apply connections to the flanking drywall construction (ceiling/walls), 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" (German only)¹⁾.
- Apply Trenn-Fix when filling joints to adjacent solid construction components.
- Fully seal (with a frictional bond) the connection to the floor with joint filler.

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 filling 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 after screed has been applied.
- Observe code of practice no. 1 "Baustellenbedingungen"¹⁾.

1) Issued by the Industriegruppe Gipsplatten im Bundesverband der Gipsindustrie e.V.

Quality levels	Joint implementation Long edges half-rounded tapered edge/half-rounded edge	Joint implementation Front edge bevelled cut edge	Description working steps
Q1			<ul style="list-style-type: none"> ■ Fill the joints with Uniflott, Uniflott imprägniert or TRIAS ■ Fill the visible parts of the fastener
Q2			<ul style="list-style-type: none"> ■ Preliminary jointing in acc. with quality level Q1 ■ Finish (finish compound) until a smooth transition to the board surface with Uniflott, Uniflott imprägniert, TRIAS, Readygips, Fill & Finish or SuperFinish <p>No application marks or ridges may remain visible. Sand off the areas concerned if necessary.</p>
Q3			<ul style="list-style-type: none"> ■ Jointing in acc. with quality level Q2 ■ Wide jointing of the joints as well as clean and accurate removal of the remaining board liner filling the pores, e.g. with Readygips, Knauf SuperFinish, Fill & Finish or ProSpray Light. <p>If necessary, i.e. physical ridges and grooves are not acceptable and must be sanded if necessary.</p>
Q4			<ul style="list-style-type: none"> ■ Jointing in acc. with quality level Q2 ■ Complete surface covering of skim coat with a layer thickness of at least 1 mm, e.g. with Readygips

Coatings and linings

For direct application of a coarse texture wallpaper, the surface must at least have quality level Q2.

For direct application of a textured paint coat, the surface must at least have quality level Q3.

With Fireboard, the surface must be completely filled in both cases, e.g. with Knauf Fireboard-Spachtel filler.

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 "Vorbehandlung von Trockenbauflächen aus Gipsplatten zur weitergehenden Oberflächenbeschichtung bzw. -bekleidung" issued by the Industriegruppe Gipsplatten im Bundesverband der Gipsindustrie e.V.

Ensure that the primer is compatible with the coating / paint / lining.

In order to compensate for the differences in absorption of surfaces, coatings of primer such as Knauf Tiefengrund primer or Spezialgrund floor dispersion 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 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 Spannarbeiten innen" (German only) released by the Bundesausschuss Farbe und Sachwertschutz.
- Ceramic tiles
 - System W628A.de only up to 1.00 m installation shaft width
- Plaster and filler materials
 - Top coats (e.g. Noblo, Raumklima Spritzputz spray plaster, Rotkalk Filz)
 - Full surface plaster (e.g. Readygips, ProSpray Light).

Application of plaster layers only in conjunction with Knauf Fugendeckstreifen Kurt joint tape.
- Coatings
 - Dispersion paint (e.g. Intol E.L.F., Malerweiss E.L.F.),
 - Multicoloured (rainbow) emulsion
 - Silicate-based emulsion paints with suitable primer.

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

Unsuitable coatings and linings

- Alkaline coats such as lime, water glass paints and silicate-based paints.

Notes

Gypsum board surfaces that have constantly been exposed to light without any protection can cause yellowing after coating. The yellowing agents are soluble in water and can penetrate through to the next coating layers and impair the adhesion properties of filler materials. In this case, the application of special primers such as Knauf Sperrgrund barrier coating for finish coats and filler materials and Knauf Atonol for paint coats are recommended.

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 installation shaft walls.

Material requirement per m² of installation shaft wall without allowance for loss and waste.

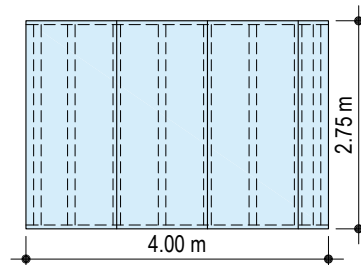
Description	Unit	Quantity as average value					
		W628A.de F90	W630.de F30	W628B.de F90	W629.de F90	K251.de F90	W635.de F90
Stud frame							
Knauf angle profile 50/35/0.7	m	1	–	–	–	–	–
Knauf UW runner; e.g. UW 50	m	–	0.5	0.7	0.7	0.7	4.3
Knauf CW stud; e.g. CW 50	m	–	3.7	2	3.5	3.5	–
Knauf CW stud/UW runner as a joint backing	m	–	–	–	–	0.3	–
Knauf Metal Screw LN 3.5x11 (Connection to double stud)	pcs	–	–	–	3.8	3.8	2.8
<i>Metal blind rivet</i> Alternative: Metal screw LN 3.5x11 or crimps (Connect CW stud to UW runner)	pcs	–	2.9	–	–	–	–
Knauf Trennwandkitt acoustical sealant	pcs	0.2	0.3	0.3	0.3	0.3	0.3
Alternative Knauf Dichtungsband sealing tape; e.g. 50/3.2 mm	m	1	1.2	1.2	1.2	1.2	1.2
Knauf Trennwandkitt acoustical sealant for intermediate board	pcs	–	–	–	–	–	0.4
With fasteners suitable for the substrate that are compliant with the fire protection requirements							
Knauf Deckennagel dowel with reinforced concrete	pcs	2.2	0.7	0.9	0.9	0.9	0.9
Alternative Drehstiftdübel nailable plug "K" 6/35	pcs	–	0.9	0.7	0.7	0.7	0.7
Alternative Drehstiftdübel "K" 6/50 (plastered connection surfaces)	pcs	–	0.9	0.7	0.7	0.7	0.7
<i>Insulation layer, e.g. Knauf Insulation</i>	m ²	as req.	as req.	as req.	1	1	1
Knauf boards							
Feuerschutzplatte Knauf Piano fire-resistant board; 12.5 mm	m ²	–	–	–	–	–	1
Diamant 12.5 mm	m ²	–	2	–	–	–	–
Diamant 15 mm	m ²	–	–	–	–	–	2
Massivbauplatte Solid Board 20 mm	m ²	–	–	–	2	–	–
Massivbauplatte Solid Board 25 mm	m ²	2	–	–	–	–	–
Fireboard 12.5 mm (board strips)	m ²	–	–	–	–	as req.	–
Fireboard 20 mm	m ²	–	–	2	–	–	–
Fireboard 30 mm	m ²	–	–	–	–	1	–
Fastening (fastening of the boards, Knauf fasteners see page 39)							
1 layer	pcs	5.5	11	8	10	18	8
2 layer	pcs	7	22	16	18	–	16
Board strips	pcs	–	–	–	–	as req.	–
Jointing (e.g. quality level Q2) – see also page 40							
Knauf filling compound, e.g. Uniflott or TRIAS	kg	0.8	0.4	–	0.85	–	0.5
Fireboard-Spachtel filler	kg	–	–	0.6	–	0.55	–
Fugendeckstreifen Kurt joint tape (for front edges)	m	–	as req.	–	as req.	–	as req.
Knauf fibre glass joint tape (long/front edges)	m	–	–	1.1	–	1.1	–
Trenn-Fix, 65 mm wide, self-adhesive	m	as req.	0.9	0.9	0.9	0.9	0.9
Knauf edge/corner trims; e.g. Kantenschutzprofil edge trim 23/13	m	as req.	as req.	as req.	as req.	as req.	as req.

The quantity relates to a partition area of:

- W628A.de:
H = 2.75 m; L = 2.00 m; A = 5.50 m²
- W630.de / W628B.de / W629.de / K251.de / W635.de:
H = 2.75 m; L = 4.00 m; A = 11.00 m²

Legend:

as req. = as required | Material not provided by Knauf = printed in italics



Technical advice

You ask. We answer. Knauf Direkt

Competent advice and information

Our extensive long-standing expertise for your safety and peace of mind – advice “just in time”.

Knauf Direkt is a team of technically competent employees with a wide skill base. Architects, building physicists, master timber construction craftsmen and many other areas assist you with professional advisory services in the areas of timber construction, drywalling, plastering/stucco work and architecture.

Competent building consultancy advice assures the use of efficient systems and avoids the cost of additional materials or overly complex constructions. Furthermore, the assurance you receive often saves multiples of the avoided building damage and compensation claims.

The Knauf Direkt employees can direct you to a Knauf system consultant for on-site consultation on building projects. They offer you support for your building projects including personal consultation on the building site - quickly, competently and free-of-charge.

We know you. It pays off.

We offer listed customers or partners telephone advice at a reduced tariff on a German land line. Furthermore, you are automatically directed to the next free colleague.

How to contact us

The right partner for every technical query.



- For questions on drywalling and floor systems
Tel.: 09001 31-1000¹⁾ (Germany only)
- For questions on plaster and façade systems
Tel.: 09001 31-2000¹⁾ (Germany only)

Availability:

Mo – Th 7:00 – 18:00 and

Fr 7:00 – 17:00

1) A call to Knauf Direkt is charged at € 0.39/min in Germany. Callers whose phone numbers are not registered within the Knauf address data base, e.g. private builders or non-customers, will be charged a rate of € 1.69 per minute within Germany. Calls from mobiles will be charged depending on the tariffs of the network operator.

Tendering centre

Quickly and comfortably create complete tender specifications

Your tender - quick and complete

The comprehensive platform offers more than 3000 up-to-date tendering specification texts in various formats (Word, GAEB, PDF, HTML).

The complete texts are arranged systematically and available on an interdisciplinary basis for the areas of drywalling, floor systems and plaster and façade. Comprehensive tender specifications such as a complete external thermal insulation composite system can be put together in minutes.



Up-to-date tender specifications for everyone
Knauf systems and products
www.ausschreibungscenter.de

Access to certificates of usability for fire protection

In the abPs (German National Technical Test Certificate), a fire test performed according to the applicable standards is documented and the scope (possible applications) for the tested system that can be used in practice is described.

Here at

www.knauf.de/profi/tools-services/kontakt/

you can access the available test certificate for your building site.

CAD design details

All of the design details in this System Data Sheet as well as further details can be found at

www.knauf.de/profi/tools-services/dokumenten-center/cad-details-downloaden/

Available for download in the formats DWG, DXF, PDF and GIF.

Information on the sustainability

Building assessment systems ensure the sustainable quality of buildings and constructional structures by a detailed assessment of ecological, economic, social, functional and technical aspects. The certification systems of the DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen, German association for environmentally sustainable building), BNB (Bewertungssystem Nachhaltiges Bauen, Quality rating system for environmentally sustainable building) and LEED (Leadership in Energy and Environmental Design) are of particular relevance in Germany.

Knauf products and installation shaft wall systems can positively influence many of these criteria.

DGNB/BNB

Ecological quality

- Criterion: Risks for the local environment

The relevant environmental data are contained in the EPD for gypsum products

Economic quality

- Criterion: Building related life-cycle costs

Cost-effective Knauf Drywalling

Sociocultural and functional quality

- Criterion: Space efficiency

Slim, floor-space enhancing Knauf installation shaft wall systems

- Criterion: Suitability for conversion

Flexible Knauf Drywalling

Technical quality

- Criterion: Fire protection

Comprehensive fire protection know-how

- Criterion: Sound insulation

Exceeding the demands of the standard with Knauf sound protection

- Criteria: Ease of dismantling and recycling

Knauf Drywalling is fully compliant

LEED

Materials and resources

- Credit: Recycled Content

Recycled content in Knauf boards, e.g. FGD gypsum

- Credit: Regional Materials

Short transport routes provided by the extensive network of Knauf manufacturing facilities

Detailed information on request

Knauf Direct

Technical Advisory Service:

▶ knauf-direkt@knauf.de

▶ www.knauf.de

Knauf Gips KG Am Bahnhof 7, 97346 Iphofen, Germany

All technical changes reserved. Only the current printed instructions are valid. The stated information represents current state-of-the-art Knauf technology. The entire state of approved engineering rules, appropriate standards, guidelines, and rules of craftsmanship are not included herewith. These and all application instructions have to be adhered to separately by the installer. Our warranty is expressly limited to our products in flawless condition. All application quantities and delivery amounts are based on empirical data that are not easily transferable to other deviating areas.

All rights reserved. All amendments, reprints and photocopies, including those of excerpts, require our expressed permission.