

# fischer fixing compass Panel building materials.





## Fastening simply and safely in panel building materials.

### Cavity metal fixing HM

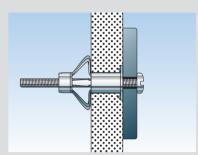
Our strongest solution for panel building materials.

Relative tension load level for gypsum plasterboard 12.5 mm: 100 %



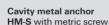
fischer cavity metal anchor HM – the expansion arms expand behind the panel, thus ensuring the secure fixing of heavy loads

- Highest loads due to the large coverage of the expansion arms behind the panel
- Installation can either be completed by hand, with a battery operated screwdriver, or using the fischer installation pliers
- Pre-assembled set comprising metal anchor and screw or angle hook suitable for all panel building materials from 3 to 50 mm
- The fixing should be selected based on the thickness of the panel building material
- The metric internal thread allows for the repeated loosening and fixing of the attachment



#### Versions







Cavity metal anchor HM-SS with hexagonal screw



Cavity metal anchor HM-H with angle hook

#### Type of installation



## Toggle and spring fixing KD

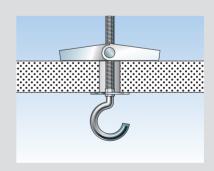
The cavity fixing for ceilings made from panel building materials.

Relative tension load level for gypsum plasterboard 12.5 mm: **100** %



fischer toggle and spring fixing KD – especially for the ceiling for a simple and secure installation with the highest load level

- Highest loads due to the large coverage of the transition beams on the panel
- The long thread of the toggle fixing allows for use with various panel thicknesses
- Simple installation the toggle fixing is placed in the drill hole by hand and flips open independently
- Pre-assembled set comprising toggle fixing and threaded rod or angle hook – suitable for all panel building materials from 3 to 69 mm
- Surface-flush removal



#### Versions



Spring fixing KD 3+4 / KDH 3+4 with thread in various lengths, with screw head or hook



Toggle fixing KD 5+6+8 / KDH 5+6+8 with thread in various lengths, with nut or hook

#### Type of installation



## **Board fixing PD**

The expansion plug for limited space.

Relative tension load level for gypsum plasterboard 12.5 mm: **65** %



fischer board fixing PD – the short, powerful expansion zone requires only a small amount of space

- Medium loads thanks to expansion in pressure-resistant panels and compression in the anchorage area in the case of softer panels (e.g. gypsum plasterboard)
- The fixing requires only a small amount of space behind the panel building material – as such, the PD is ideal for affixed gypsum plasterboard during renovation works
- Easy screwing in of the screw thanks to the pre-formed thread good setting sensation, the anchor noticeably rotates

Type of installation

#### Versions





Board fixing PD for the use of standard chipboard screws in gvz. and A4



### Universal plug UX

The universal solution in panel building materials.

Versions

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Relative tension load level for gypsum plasterboard 12.5 mm: **65** %

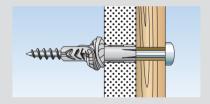


fischer universal fixing UX – the universal expansion part knots behind the panel and adapts ideally to the substrate

- Good load-bearing capacity thanks to the knotting of the expansion part in the cavity
- Quick and easy installation use UX R with edge to prevent the fixing from being pushed in too far
- Plastic fixing suitable for all panel building materials when combined with wood or chipboard screws



Universal fixing UX with or without edge for the use of screws, hooks and eyes in gvz. and A4



Type of installation



## **Gypsum plasterboard fixing GK/GKM**

The simple gypsum plasterboard fixing for a quick installation.

Relative tension load level for gypsum plasterboard 12.5 mm: **55** %



fischer gypsum plasterboard GK/GKM – the sharp, self-cutting thread allows for a quick and secure fixing in gypsum plasterboard

- Good load-bearing capacity thanks to the screw principle in the gypsum plasterboard
- The self-cutting thread cuts into the gypsum plasterboard and allows for a quick and easy installation by hand
- Short fixing length for limited space behind the gypsum plasterboard
- Easy to remove fully

#### Versions



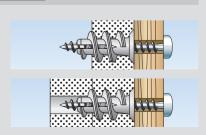








Gypsum plasterboard fixing GK (plastic) / gypsum plasterboard fixing GKM (metal) for the use of screws and hooks in gvz. and A4



Type of installation



## The right fixing for every application.

Designation	fischer cavity metal fixing HM	fischer toggle fixing KD	fischer panel fixing PD	fischer universal fixing UX	fischer gypsum plaster- board fixing GK/GKM		
Illustration		4		-(( <del></del>			
Relative tension load level for gyp- sum plasterboard 12.5 mm	100 % with HM 6x37: 0.15 kN (15 kg)	100 % with KD 5: 0.15 kN (15 kg)	65 % with PD10: 0.10 kN (10 kg)	65 % with UX 6: 0.10 kN (10 kg)	55 % with GK/GKM: 0.08 kN (8 kg)		
Maximum load for the fixing <sup>1</sup>	HM 5x65 S: 0.50 kN	KD 8: 1.20 kN	PD 12: 0.80 kN	UX 10: 0.25 kN	GK/GKM: 0.11 kN		
Suitability for the following types of panel materials	- Gypsum plasterboard - Chipboard - Plywood boards - Hardboard - Light building boards made of wood wool - Gypsum fibreboard - OSB panels	- Gypsum plasterboard - Chipboard - Plywood boards - Hardboard - Gypsum fibreboard - OSB panels	- Gypsum plasterboard - Chipboard - Plywood boards - Gypsum fibreboard - OSB panels	- Gypsum plasterboard - Chipboard - Plywood boards - Hardboard - Gypsum fibreboard - OSB panels	- Gypsum plasterboard		
Use on ceiling	Yes	Yes	No	No	No		
Application out- doors	No	No	Yes, with screw A4	Yes, with screw A4	Yes, with screw A4		
Pre-positioned installation	Yes	Yes	Yes	Yes	Yes		
Push-through installation	No	No	No	Yes	No		
Type of connection	Metric screw, angle hook	Metric screw, round hook	Chipboard screw	Chipboard screw	Chipboard screw		
Usage length (conditional)	up to 30 mm	up to 63 mm	screw length	screw length	screw length		
Min. cavity depth for 12.5 mm panel thickness	19 mm	27 mm	23 mm	23 mm	13 mm		
Please note							
Installation aids	Installation pliers (optional)	No	No	No	Setting tool for GK		
Installation through tiles	Yes	Yes	No	Yes	No		
Removal	Surface-flush removal	Yes	Yes	Yes	Yes		
Application exa	mples						
	- Lightweight shelves - Lightweight mirror cabinets - Sub-structures - Curtain rails - Lightweight cabinets - Bathroom cabinets - Cabled lighting	On the ceiling: - Lighting - Curtain rails - Decorations	- Pictures - Lighting - Cornicing - Lightweight mirrors - Roller blinds - Cosmetic mirrors	- Pictures - Lighting - Comicing - Lightweight mirrors - Roller blinds - Cosmetic mirrors	- Pictures - Wall clocks - Noticeboards - Decorations - Lighting - Electrical installations		

<sup>&</sup>lt;sup>1)</sup> The load-bearing properties of the base material are not considered.

## Loads

Highest recommended loads<sup>1</sup> for a single anchor.

riigiost recommended loads for a single anonor.			Cavity metal fixing HM								
Туре			HM 4 x 32 S	HM 4 x 45 S	HM 5 x 37 S	HM 5 x 52 S	HM 5 x 65 S	HM 6 x 37 S	HM 6 x 52 S	HM 6 x 65 S	HM 8 x 54 SS
Thread size		[M]	M4	M4	M5	M5	M5	M6	M6	M6	M8
Installation characteristic	s										
Panel thickness		[mm]	3-13	16-23	6-15	7-21	20-34	6-15	7-21	17-34	7-21
Recommended load in the	e respective building mat	erial F <sub>rec</sub> <sup>2</sup>									
Gypsum plasterboard	9.5 mm	[kN]	0.15	-	0.15	0.15	-	0.15	0.15	-	0.15
Gypsum plasterboard	12.5 mm	[kN]	0.15	-	0.15	0.15	-	0.15	0.15	-	0.15
Gypsum plasterboard	19 mm (2 x 9.5 mm)	[kN]	-	0.25	-	0.25	-	-	0.25	0.25	0.25
Gypsum plasterboard	25 mm (2 x 12.5 mm)	[kN]	-	-	-	-	0.3	-	-	0.3	-
Chipboard	10 mm	[kN]	0.25	-	0.25	0.25	-	0.25	0.25	-	0.25
Chipboard	13 mm	[kN]	0.25	-	0.25	0.25	-	0.25	0.25	-	0.25
Chipboard	28 mm	[kN]	-	-	-	-	0.5	-	-	0.5	-
Plywood	4 mm	[kN]	0.1	-	-	-	-	-	-	-	-
Hardboard	3 mm	[kN]	0.1	-	-	-	-	-	-	-	-
Light building boards made of wood wool	16 mm	[kN]	-	0.05	-	0.05	-	-		-	0.05
Light building boards made of wood wool	25 mm	[kN]	-	-	-	-	0.05	-	-	0.05	-
Fibre-cement board	8 mm	[kN]	0.15	-	0.15	0.15	-	0.25	0.25	-	0.25
Gypsum fibreboard	10 mm	[kN]	0.15	-	0.15	0.15	-	0.25	0.25	-	0.25
Gypsum fibreboard	15 mm	[kN]	-	-	0.25	0.25	-	0.25	0.25	-	0.25

Highest recommended loads<sup>3</sup> for a single anchor.

Туре		Toggle and spring fixing KD										
			KD 3	KD 4	KD 5	KD 6	KD 8	KDH 3	KDH 4	KDH 5	KDH 6	KDH 8
Thread size		[M]	M3	M4	M5	M6	M8	M3	M4	M5	M8	M10
Recommended load in the respective building material F <sub>rec</sub> <sup>2</sup>												
Max. achievable recomm	nended load <sup>4</sup>	[kN]	0.35	0.50	1.50	1.90	3.20	0.05	0.10	0.17	0.32	1.00
Gypsum plasterboard	12.5 mm	[kN]	0.05	0.10	0.15	0.20	0.25	0.05	0.10	0.15	0.20	0.25
OSB panels	15 mm	[kN]	0.35	0.40	0.40	0.50	0.60	-	-	-	-	-
OSB panels	22 mm	[kN]	-	-	-	0.80	1.20	-	-	-	-	-

Highest recommended loads for a single anchor. Load values apply to the use of wood screws with the specified screw diameters.

Туре			Universal plug UX							
			UX 5	UX 6	UX 6 x 50	UX 8	UX 10			
Screw diameter	Ø	[mm]	4	5	5	6	8			
Recommended load in the respective building material F <sub>rec</sub> <sup>2</sup>										
Gypsum plasterboard	12.5 mm	[kN]	0.10	0.10	0.10	0.10	0.10			
Gypsum plasterboard	25 mm	[kN]	0.10	0.15	0.15	0.15	0.15			
Gypsum fibreboard (Fermacell	) 15 mm	[kN]	0.20	0.20	0.20	0.20	0.25			

Highest recommended loads<sup>6</sup> for a single anchor. Load values apply to the use of chipboard screws with the specified screw diameters.

Time			Board fixing PD						
Туре			PD 8	PD 10	PD 12				
Chipboard screw	Ø	[mm]	4	5	6				
Recommended load in the respective building material F <sub>rec</sub> <sup>2</sup>									
Gypsum plasterboard	9.5 mm	[kN]	0.10	0.10	0.10				
Gypsum plasterboard	12.5 mm	[kN]	0.10	0.10	0.15				
Gypsum plasterboard	2 x 12.5 mm	[kN]	0.15	0.15	0.15				
Gypsum fibreboard	12.5 mm	[kN]	0.20	0.25	0.30				
Plywood	25 mm	[kN]	0.15	0.40	0.80				
Chipboard	16 mm	[kN]	0.25	0.25	0.25				

Highest recommended loads<sup>6</sup> for a single anchor. Load values apply to the use of chipb

ringificat rootinine rided rough for a single another. Load values apply to the use of chipboard screws with the specified screw diameters.							
Model			Gypsum plasterboard fixing GK / GKM				
Chipboard screw	Ø	[mm]	4.0 - 5.0				
Gypsum plasterboard	9.5 mm	[kN]	0.07				
Gypsum plasterboard	12.5 mm	[kN]	0.08				
Gypsum plasterboard	2 x 12.5 mm	[kN]	0.11				

 $<sup>^{11}</sup>$  Contains safety factor 3.  $^{21}$  Applies to tension load, shear load and diagonal pull under each angle.  $^{31}$  Contains safety factor 4.

 $<sup>^{4)}</sup>$  If the base material cannot fail. With KDH, the bending of the hook is decisive.  $^{5)}$  Contains safety factor 7.  $^{6)}$  Required safety factor taken into account.

## What are panel building materials?



Panel building materials are thin-walled materials that are often only of relatively low strength – e.g. gypsum plasterboards such as "Rigips", "Knauf" and "Norgips"; gypsum fibreboards such as "Fermacell" and "Rigicell"; or chipboard, hard fibre boards, plywood, etc. Special fixings must be selected for optimum reinforcement: so-called cavity fixings. These are plastic or metal fixings that expand on the reverse side. They grip with form-locking and anchor directly on the reverse side of the panel in the cavity. As such, special fixings should be used for the best anchorage in panel building materials.

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