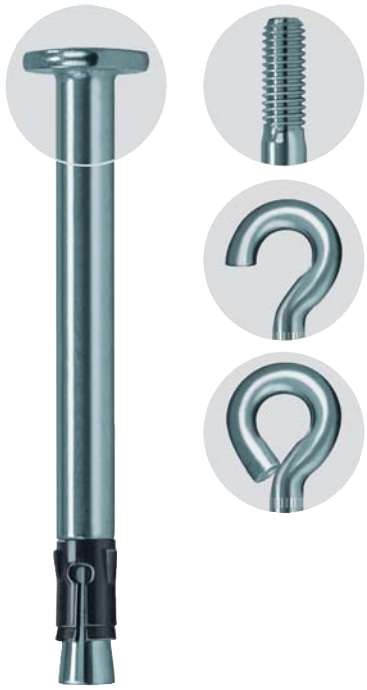
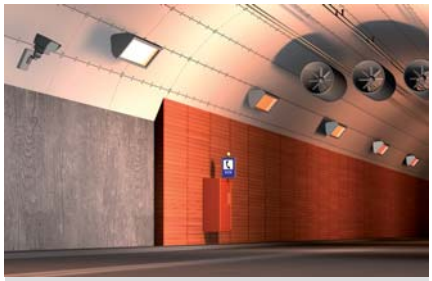
Nail anchor FNA II

The installation-friendly hammerset anchor for multiple fixings



Suspended ceilings



Fire protection boards

VERSIONS

- Zinc-plated steel
- Stainless steel
- Highly corrosion-resistant steel

BUILDING MATERIALS

Approved for:

- Concrete C12/15 to C50/60, cracked, for multiple fixings of non-structural applications

Also suitable for:

- Solid sand-lime brick
- Natural stone with dense structure
- Prestressed hollow-core concrete slabs

CERTIFICATES

ETA-06/0175
ETAG 001-6
Multiple use for non-structural applications in concrete

Fire resistance classification R 120
Anchor types see test report

RWS 1350 °C
Anchor types see test report

ZTV 1200 °C
anchor types see test report

EDELSTAHL Rostfrei
INOX STAINLESS STEEL

from M8

ADVANTAGES

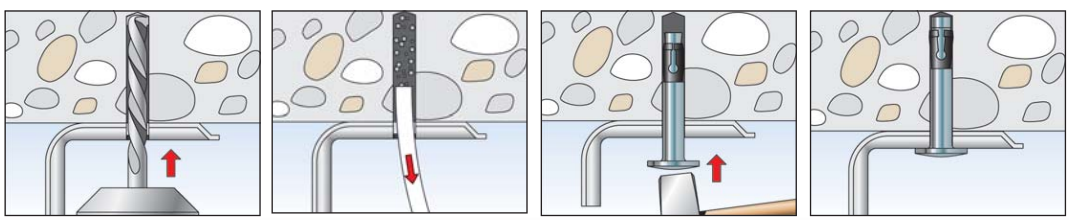
- The special active principle allows for a simple hammerset installation and, therefore, a short processing time.
- The extremely short anchor depth prevents reinforcement hits, and creates the conditions for a trouble-free installation.
- The optimised expansion clip ensures hold when placing in the drill hole, and prevents it falling out during overhead installations.
- The massive shaft cross-section guarantees a high load-bearing capacity, thus offering an extremely high level of safety.
- A range of head shapes allows for the fixing of wide-ranging fixtures, and for the ideal adaptation to suit the intended use.

APPLICATIONS

- Fire protection plates
- Fire protection boards
- Ventilation systems
- Wire and nonious hangers
- Mounting rails
- Metal clamps
- Substructures made of wood and metal

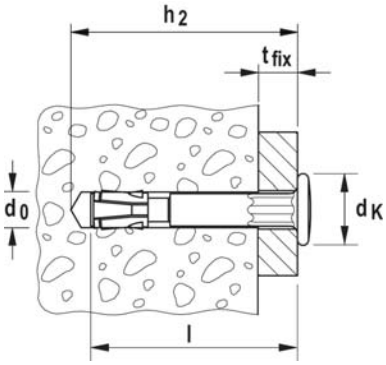
FUNCTIONING

- The FNA II with nail head is suitable for push-through installation. The FNA II M6 is suitable for pre-positioned and push-through installation. The FNA II OE and H are suitable for pre-positioned installation.
- The installed FNA II nail anchor expands automatically under load. The cone is pulled into the expansion clip and expands it against the drill hole wall.
- Available setting tools:
  FNA S-SBO to slip onto the drill,
  FNA S-SDS for series installation with a drilling hammer,
  FNA S-H for the manual installation of mounting rails.



TECHNICAL DATA

Nail anchor **FNA II** with nail head



	Zinc-plated steel	Stainless steel	Highly corrosion resistant steel	Approval	Drill hole diameter	Min. drill hole depth for through fixings	Anchor length	Max. fixture thickness	Head-Ø	Sales unit	
	Art.-No.	Art.-No.	Art.-No.	ETA	d_0 [mm]	h_2 [mm]	l [mm]	t_{fix} [mm]	d_K [mm]	[pcs]	
Item	**gvz**	**A4**	**C**								
FNA II 6 x 25/5	**044121** 1)	–	–	■	6	40	35	5	13.0	100	
FNA II 6 x 30/5	**044115** 1)	**044122**	–	■	6	45	40	5	13.0	100	
FNA II 6 x 30/5	–	–	**044124**	■	6	45	40	5	13.0	25	
FNA II 6 x 30/30	**044116**	**044123**	–	■	6	70	65	30	13.0	50	
FNA II 6 x 30/30	–	–	**044125**	■	6	70	65	30	13.0	25	
FNA II 6 x 30/50	**044117**	**046024**	**500569**	■	6	90	85	50	13.0	50	
FNA II 6 x 30/75	**044118**	–	**500573** 2)	■	6	115	110	75	13.0	50	
FNA II 6 x 30/100	**044119**	–	**500574** 3)	■	6	140	135	100	13.0	50	
FNA II 6 x 30/120	**044120**	–	**500575** 3)	■	6	160	155	120	13.0	50	

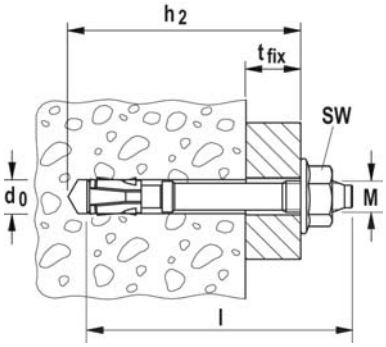
1) with hexagon below the nail head for anti-rotation lock of hole and wire hangers (for example) and centring for optional setting tool FNA-S

2) On request.

3) Delivery time on request.

TECHNICAL DATA

Nail anchor **FNA II M6**
with thread and flange nut



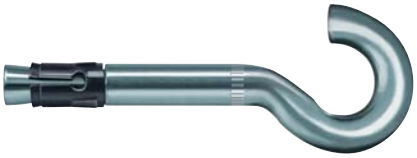
	Zinc-plated steel	Stainless steel	Highly corrosion resistant steel	Approval	Drill hole diameter	Min. drill hole depth for through fixings	Anchor length	Max. fixture thickness	Thread	Width across nut	Sales unit
	Art.-No.	Art.-No.	Art.-No.	ETA	d_0 [mm]	h_2 [mm]	l [mm]	t_{fix} [mm]	M	⬡ SW [mm]	[pcs]
Item	**gvz**	**A4**	**C**								
FNA II 6 x 25 M6/5	**044111**	–	–	■	6	40	45	5	M 6	10	100
FNA II 6 x 30 M6/5	**044109**	–	–	■	6	45	50	5	M 6	10	100
FNA II 6 x 30 M6/5	–	**044112** 2)	–	■	6	45	50	5	M 6	10	50
FNA II 6 x 30 M6/5	–	–	**044113** 2)	■	6	45	50	5	M 6	10	25
FNA II 6 x 30 M6 x 41	**044110** 1)	–	–	■	6	40	41	–	M 6	10	100
FNA II 6 x 30 M6/10	**046022**	–	–	■	6	45	55	10	M 6	10	100
FNA II 6 x 30 M8/5	**044114**	–	–	■	6	45	51	5	M 8	13	50

1) without nut; e.g. for fixing of pipe clamps

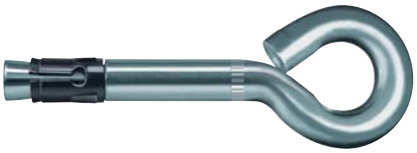
2) with nut and washer (no flange nut)

Nail anchor FNA II

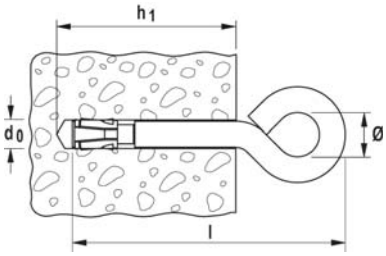
TECHNICAL DATA



Nail anchor **FNA II-H** with hook



Nail anchor **FNA II-OE** with eye



	Zinc-plated steel	Approval	Drill hole diameter	Anchor length	Min. drill hole depth	Inner diameter of the hook/eye	Sales unit		
	Art.-No.	ETA	d_0 [mm]	l [mm]	h_1 [mm]	[Ø mm]	[pcs]		
Item	**gvz**								
FNA II 6 x 25 H	**044126**	–	6	54	35	10	50		
FNA II 6 x 25 OE	**044127**	■	6	54	35	10	50		

TECHNICAL DATA

Machine setting tool **FNA S-SDS**

Machine setting tool **FNA S-SBO** for mounting on the drill bit (drill-Ø 6mm)

Hand tool **FNA S-H**

Item	Art.-No.			Sales unit [pcs]
FNA S-SDS	**061547**	for all FNA II with nail head	The ideal setting tool for the serial installation with SDS-plus adapter for driving in FNA II with nail head using a hammer drill.	1
FNA S-SBO	**061548**	for all FNA II with nail head	For a power saving and fast installation to be placed on the drill.	1
FNA S-H	**095990**	for FNA II with metric thread M6	E.g. for the fixing of installation of mounting rails. Chuck with outer diameter of 15mm for the installation of FNA II M6 by hand.	1

LOADS

Nail anchor FNA II

zinc plated steel / stainless steel / high corrosion resistant steel

Highest permissible loads[1] for a single fixing point[6] as part of a multiple fixing of non-structural systems[4] in concrete C20/25 up to C50/60[3].								Minimum spacings while reducing the load	
Type	Material fixing element	Effective anchorage depth h_{ef} [mm]	Minimum member thickness h_{min} [mm]	Maximum torque moment T_{inst} [Nm]	Permissible load F_{perm} [2] [kN]	Required edge distance for Max. Load c [mm]	Required spacing for Max. Load s [mm]	Min. spacing s_{min} [5] [mm]	Min. edge distance c_{min} [5] [mm]
FNA II 6 x 25	gvz	25	80	-	1,4	100 for s ≥ 200	100 for c ≥ 200	40	40
FNA II 6 x 30	gvz	30		-	2,4				
	A 4								
	C								
FNA II 6 x 25 M6	gvz	25		4	1,4				
FNA II 6 x 30 M6	gvz	30		4	2,4				
	A 4								
	C								
FNA II 6 x 30 M8	gvz	30		4	2,4				
FNA II 6 x 25 OE	gvz	25		-	0,7				

For the design the complete approval ETA - 06/0175 has to be considered.

[1] The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of γ_L = 1,4 are considered.

[2] Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads, bending moments as well as reduced edge distances or spacings (anchor groups) see approval.

[3] For concrete compressive strength C12/15 see approval.

[4] Multiple use is defined acc ETAG 001 Part 6 with min. 3 fixing points with min. one anchor per fixing point and a permissible load of 1.4 kN or min. 4 fixing points with min. one anchor an a permissible load of 2.1 kN.

[5] Minimum possible axial spacings resp. edge distances. Smaller permissible loads acc. approval are required.

[6] A fixing point is defined as a single anchor or a group of 2 or 4 anchor.