

Bolt FBN



Usage

Approved for:

- Non-cracked concrete C20/25 to C50/60

Also suitable for:

- Concrete C12/15
- Natural stone with dense structure

For fixing of:

- Steel constructions
- Railings
- Consoles
- Ladders
- Cable trays
- Machines

- Staircases
- Gates
- Facades
- Window elements
- Wooden constructions

Description

- Anchor bolt for push-through and pre-positioned installation
- When the hexagon nut is tightened, the tapered bolt is pulled into the expansion clip and expands it against the hole wall.
- A4 stainless steel and hot-dip galvanised version for outdoor use and in damp conditions.
- For wooden structures use the FBN GS with large washer as per DIN 440.

Advantages/benefits

- Long thread allows stand-off installations and variable usable lengths.
- 8 to 16 mm diameter also for reduced anchoring depths, e.g. for small loads or if reinforcements are hit.
- Embossed letter on the head for subsequent control of the installation as it indicates the setting depth.
- Hook anchor FBN 8 H for simple installation of meshed reinforcements, wire gratings, etc.

Examples of use



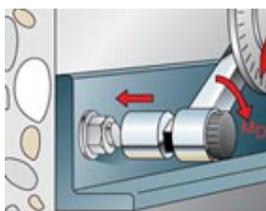
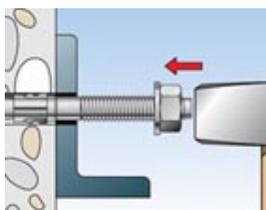
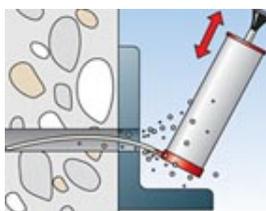
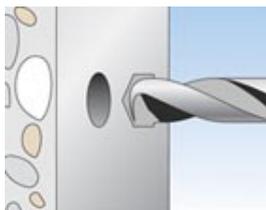
Installation

Type of installation

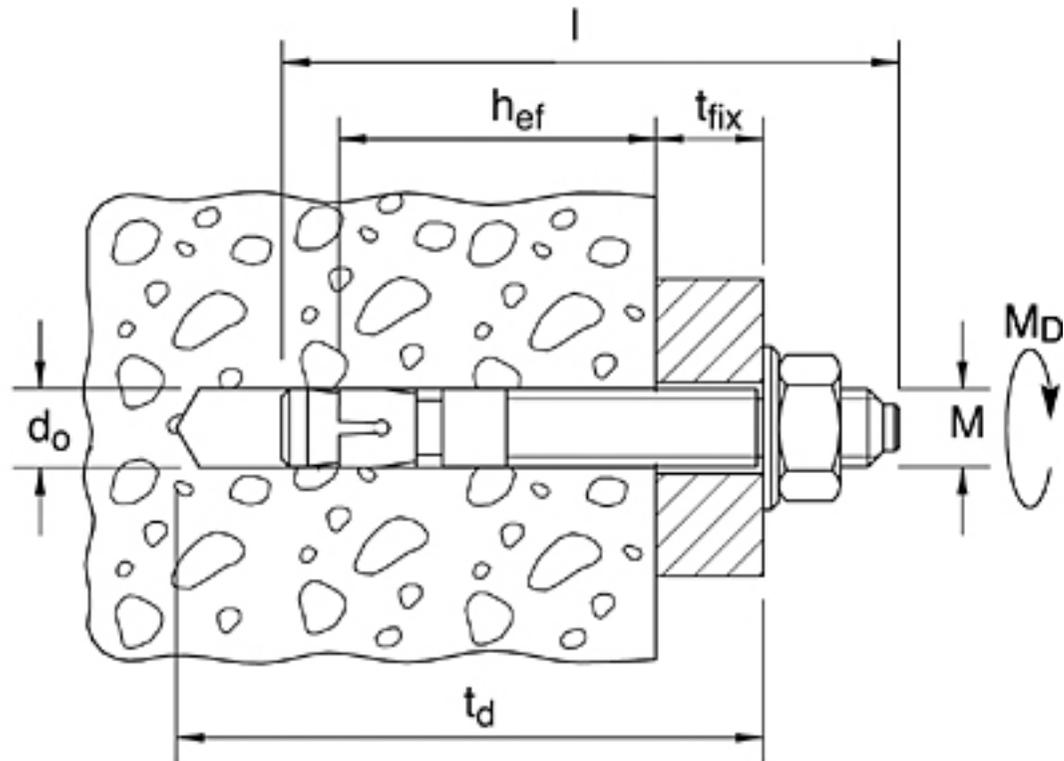
- Push-through and pre-positioned installation

Installation tips

- For series installation we recommend the Anchor bolt setting tool FABS (see page X) to reduce installation time.
- Before driving in, the hexagon nut must be brought into the optimal installation position (the bolt projects by 2 to 3 mm).



Technical data



Type	Art.-No.	ETA DIBt	Imprint on head	Drill hole diameter <div class="h6"> d_o </div> [mm]	Max. fixture thickness <div class="h6"> t_{fix} </div> [mm]	Effect. anchoring depth <div class="h6"> h_{ef} </div> [mm]	Min. drill-hole depth for through fixings <div class="h6"> h_2 </div> [mm]	Anchor length <div class="h6"> l </div> [mm]	Thread [mm]	Washer (outer diameter x thickness) [mm]
FBN 8/5	045131	-	-	8	-	35	55	-	M 8 x 23	16 x 1,6
FBN 8/10+23	045138	-	B	8	-	48/35	73	-	-	16 x 1,6
FBN 8/30+43	045139	-	F	8	-	48/35	93	-	M 8 x 59	16 x 1,6

Type	Art.-No.	<div style="display: inline-block; width: 10px; height: 10px; background-color: blue; margin-right: 5px;"></div> ETA <div style="display: inline-block; width: 10px; height: 10px; background-color: red; margin-right: 5px;"></div> DIBt	Imprint on head	Drill hole diameter <div class="h6">d ₀ </div> > [mm]	Max. fixture thickness <div class="h6">t _{fix} </div> [mm]	Effect. anchoring depth <div class="h6">h _{ef} </div> > [mm]	Min. drill-hole depth for through fixings <div class="h6">h ₂ </div> > [mm]	Anchor length <div class="h6">l</div> > [mm]	Thread [mm]	Washer (outer diameter x thickness) [mm]
FBN 8/50+63	045140	-	K	8	-	48/35	113	-	M 8 x 81	16 x 1,6
FBN 8/100+113	045141	-	P	8	-	48/35	163	-	M 8 x 130	16 x 1,6
FBN 10/5	045132	-	-	10	-	42	65	-	M 10 x 31	20 x 2
FBN 10/15+23	045142	-	C	10	-	50/42	83	-	M 10 x 51	20 x 2
FBN 10/35+43	015399	-	G	10	-	50/42	103	-	M 10 x 71	20 x 2
FBN 10/50+58	045143	-	K	10	-	50/42	118	-	M 10 x 87	20 x 2
FBN 10/100+108	045144	-	P	10	-	50/42	168	-	M 10 x 134	20 x 2
FBN 10/140+148	045145	-	S	10	-	50/42	208	-	M 10 x 174	20 x 2
FBN 10/160+168	045146	-	T	10	-	50/42	228	-	M 10 x 194	20 x 2
FBN 12/5	045133	-	-	12	-	50	75	-	M 12 x 41	24 x 2,5
FBN 12/15+35	045147	-	C	12	-	70/50	105	-	M 12 x 71	24 x 2,5
FBN 12/30+50	045148	-	F	12	-	70/50	120	-	M 12 x 86	24 x 2,5
FBN 12/45+65	045149	-	I	12	-	70/50	135	-	M 12 x 103	24 x 2,5
FBN 12/100+120	045150	-	P	12	-	70/50	190	-	M 12 x 137	24 x 2,5
FBN 16/10	045134	-	-	16	-	64	98	-	M 16 x 54	30 x 3
FBN 16/25+45	045151	-	E	16	-	84/64	133	-	M 16 x 89	30 x 3
FBN 16/50+70	045152	-	K	16	-	84/64	158	-	M 16 x 114	30 x 3
FBN 16/100+120	045153	-	P	16	-	84/64	208	-	M 16 x 166	30 x 3
FBN 20/10	045135	-	-	20	-	70	111	-	M 20 x 50	37 x 3

Type	Art.-No.	<div style="display: inline-block; width: 10px; height: 10px; background-color: blue; margin-right: 5px;"></div> ETA <div style="display: inline-block; width: 10px; height: 10px; background-color: red; margin-right: 5px; vertical-align: middle;"></div> DIBt	Imprint on head	Drill hole diameter <div class="h6">d ₀ </div> > [mm]	Max. fixture thickness <div class="h6">t _{fix} </div> [mm]	Effect. anchoring depth <div class="h6">h _{ef} </div> > [mm]	Min. drill-hole depth for through fixings <div class="h6">h ₂ </div> > [mm]	Anchor length <div class="h6">l</div> > [mm]	Thread [mm]	Washer (outer diameter x thickness) [mm]
FBN 20/20	045154	-	-	20	-	100	151	-	M 20 x 50	37 x 3
FBN 20/60	045155	-	L	20	-	100	191	-	M 20 x 90	37 x 3
FBN 20/120	045156	-	R	20	-	100	251	-	M 20 x 90	37 x 3
FBN 20/250	045157	-	W	20	-	100	381	-	M 20 x 90	37 x 3
FBN 12/80+100 GS	045160	-	N	12	-	70/50	170	-	M 12 x 137	44 x 4
FBN 12/100+120 GS	045161	-	P	12	-	70/50	190	-	M 12 x 157	44 x 4
FBN 12/120+140 GS	045162	-	R	12	-	70/50	210	-	M 12 x 177	44 x 4
FBN 12/140+160 GS	045163	-	S	12	-	70/50	230	-	M 12 x 100	44 x 4
FBN 12/160+180 GS	045164	-	T	12	-	70/50	250	-	M 12 x 100	44 x 4
FBN 12/200+220 GS	045165	-	V	12	-	70/50	290	-	M 12 x 100	44 x 4
FBN 12/250+270 GS	045166	-	W	12	-	70/50	340	-	M 12 x 100	44 x 4
FBN 16/100+120 GS	045167	-	P	16	-	84/64	208	-	M 16 x 166	56 x 5
FBN 16/140+160 GS	045168	-	S	16	-	84/64	248	-	M 16 x 100	56 x 5
FBN 16/160+180 GS	045169	-	T	16	-	84/64	268	-	M 16 x 100	56 x 5
FBN 16/200+220 GS	045170	-	V	16	-	84/64	308	-	M 16 x 100	56 x 5
FBN 16/250+270 GS	045171	-	W	16	-	84/64	358	-	M 16 x 100	56 x 5
FBN 16/300+320 GS	045172	-	X	16	-	84/64	408	-	M 16 x 100	56 x 5