

Bolt FBN



Usage

Approved for:

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

Examples of use



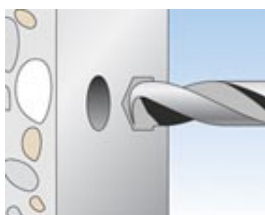
Installation

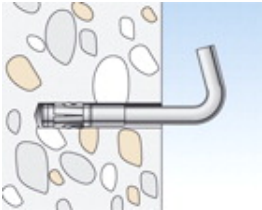
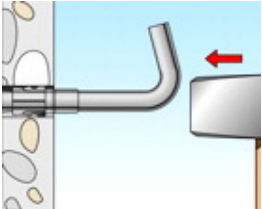
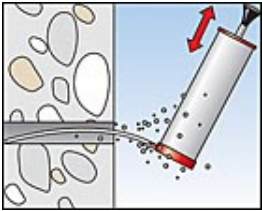
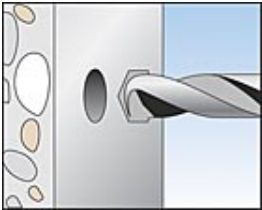
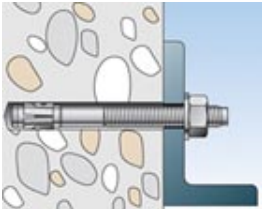
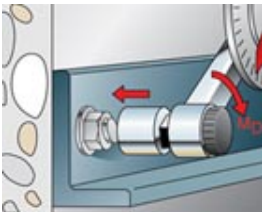
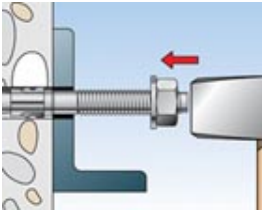
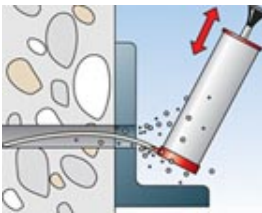
Type of installation

- Push-through and pre-positioned installation

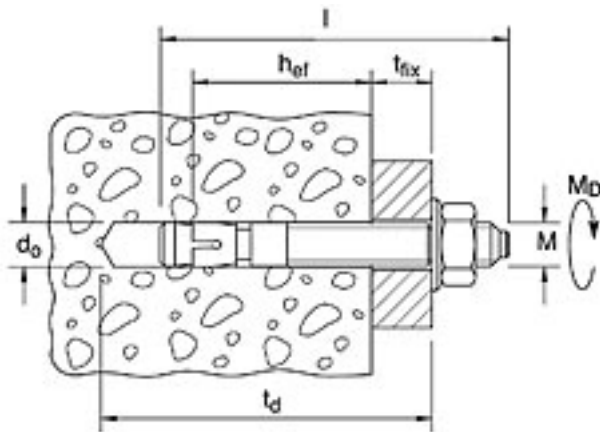
Installation tips

- 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



A4

Type	Art.-No.	ETA DIBt	drill d_o [mm]	Imprint on head	usable length [mm]	effect. anchoring depth h_{ef} [mm]	min. drill- hole depth for through fixings t_d [mm]	total length l [mm]	thread [Ø x length]	Washer (outer diameter x thickness) [mm]
FBN 6/10 A4	6908 7	■	6	-	10	40	65	68	M 6 x 25	12 x 1,6
FBN 6/30 A4	6908 8	■	6	-	30	40	85	88	M 6 x 30	12 x 1,6
FBN 8/10 + 23 A4	6908 9	■	8,0	B	10/23	48/35	73	76	M 8 x 41	16 x 1,6
FBN 8/30 + 43 A4	6909 0	■	8,0	F	30/43	48/35	93	96	M 8 x 59	16 x 1,6
FBN 8/50 + 63 A4	6909 1	■	8,0	K	50/63	48/35	113	116	M 8 x 81	16 x 1,6
FBN 10/15 + 23 A4	6909 2	■	10	C	15/23	50/42	83	89	M 10 x 51	20 x 2
FBN 10/50 + 58 A4	6909 3	■	10	K	50/58	50/42	118	125	M 10 x 87	20 x 2
FBN 10/100 + 108 A4	6909 4	■	10	P	100/108	50/42	168	174	M 10 x 134	20 x 2
FBN 12/15 + 35 A4	6909 5	■	12	C	15/35	70/50	105	113	M 12 x 71	24 x 2,5
FBN 12/45 + 65 A4	6909 6	■	12	I	45/65	70/50	135	143	M 12 x 103	24 x 2,5
FBN 12/100 + 120 A4	6909 7	■	12	P	100/120	70/50	190	202	M 12 x 157	24 x 2,5
FBN 16/10 A4	6909 8	■	16	-	10	64	98	109	M 16 x 54	30 x 3
FBN 16/25 + 45 A4	6909 9	■	16	E	25/45	84/64	133	144	M 16 x 89	30 x 3
FBN 16/50 + 70 A4	6910 0	■	16	K	50/70	84/64	158	169	M 16 x 114	30 x 3

galvanized

Type	Art.-No.	ETA DIBt	drill d_o [mm]	Imprint on head	usable length [mm]	effect. anchoring depth h_{ef} [mm]	min. drill-hole depth for through fixings t_d [mm]	total length l [mm]	thread [Ø x length]	Washer (outer diameter x thickness) [mm]
FBN 6/5	45130	-	6	-	5	20	45	40	M 6 x 16	12 x 1,6
FBN 6/10	45136	-	6	-	10	25	50	55	M 6 x 30	12 x 1,6
FBN 6/30	45137	-	6	-	30	25	70	75	M 6 x 30	12 x 1,6
FBN 8/5	45131	■	8,0	-	5	35	55	58	M 8 x 23	12 x 1,6
FBN 8/10+23	45138	■	8,0	B	10/23	48/35	73	76	M 8 x 41	16 x 1,6
FBN 8/30+43	45139	■	8,0	F	30/43	48/35	93	96	M 8 x 59	16 x 1,6
FBN 8/50+63	45140	■	8,0	K	50/63	48/35	113	116	M 8 x 81	16 x 1,6
FBN 8/100+113	45141	■	8,0	P	100/113	48/35	163	166	M 8 x 130	16 x 1,6
FBN 10/5	45132	■	10	-	5	42	65	69	M 10 x 31	20 x 2
FBN 10/15+23	45142	■	10	C	15/23	50/42	83	89	M 10 x 51	20 x 2
FBN 10/35+43	15399	■	10	G	35/43	50/42	103	109	M 10 x 71	20 x 2
FBN 10/50+58	45143	■	10	K	50/58	50/42	118	124	M 10 x 87	20 x 2
FBN 10/100+108	45144	■	10	P	100/108	50/42	168	174	M 10 x 134	20 x 2
FBN 10/140+148	45145	■	10	S	140/148	50/42	208	214	M 10 x 174	20 x 2
FBN 10/160+168	45146	■	10	T	160/168	50/42	228	234	M 10 x 194	20 x 2
FBN 12/5	45133	■	12	-	5	50	75	83	M 12 x 41	24 x 2,5
FBN 12/15+35	45147	■	12	C	15/35	70/50	105	113	M 12 x 71	24 x 2,5
FBN 12/30+50	45148	■	12	F	30/50	70/50	120	128	M 12 x 86	24 x 2,5
FBN 12/45+65	45149	■	12	I	45/65	70/50	135	143	M 12 x 103	24 x 2,5
FBN 12/100+120	45150	■	12	P	100/120	70/50	190	202	M 12 x 137	24 x 2,5
FBN 16/10	45134	■	16	-	10	64	98	109	M 16 x 54	30 x 3
FBN 16/25+45	45151	■	16	E	25/45	84/64	133	144	M 16 x 89	30 x 3
FBN 16/50+70	45152	■	16	K	50/70	84/64	158	169	M 16 x 114	30 x 3

Type	Art.-No.	ETA DIBt	drill d _o [mm]	Imprint on head	usable length [mm]	effect. anchoring depth h _{ef} [mm]	min. drill-hole depth for through fixings t _d [mm]	total length l [mm]	thread [Ø x length]	Washer (outer diameter x thickness) [mm]
FBN 16/100+120	45153	■	16	P	100/120	84/64	208	221	M 16 x 166	30 x 3
FBN 20/10	45135	-	20	-	10	70	111	120	M 20 x 50	37 x 3
FBN 20/20	45154	■	20	-	20	100	151	165	M 20 x 50	37 x 3
FBN 20/60	45155	■	20	L	60	100	191	205	M 20 x 90	37 x 3
FBN 20/120	45156	■	20	R	120	100	251	265	M 20 x 90	37 x 3
FBN 20/250	45157	■	20	W	250	100	381	395	M 20 x 90	37 x 3
FBN 12/80+100 GS	45160	■	12	N	80/100	70/50	170	182	M 12 x 137	44 x 4
FBN 12/100+120 GS	45161	■	12	P	100/120	70/50	190	202	M 12 x 157	44 x 4
FBN 12/120+140 GS	45162	■	12	R	120/140	70/50	210	222	M 12 x 177	44 x 4
FBN 12/140+160 GS	45163	■	12	S	140/160	70/50	230	242	M 12 x 100	44 x 4
FBN 12/160+180 GS	45164	■	12	T	160/180	70/50	250	262	M 12 x 100	44 x 4
FBN 12/200+220 GS	45165	■	12	V	200/220	70/50	290	302	M 12 x 100	44 x 4
FBN 12/250+270 GS	45166	■	12	W	250/270	70/50	340	352	M 12 x 100	44 x 4
FBN 16/100+120 GS	45167	■	16	P	100/120	84/64	208	221	M 16 x 166	56 x 5
FBN 16/140+160 GS	45168	■	16	S	140/160	84/64	248	261	M 16 x 100	56 x 5
FBN 16/160+180 GS	45169	■	16	T	160/180	84/64	268	281	M 16 x 100	56 x 5
FBN 16/200+220 GS	45170	■	16	V	200/220	84/64	308	321	M 16 x 100	56 x 5
FBN 16/250+270 GS	45171	■	16	W	250/270	84/64	358	371	M 16 x 100	56 x 5
FBN 16/300+320 GS	45172	■	16	X	300/320	84/64	408	421	M 16 x 100	56 x 5
FBN 8 x 75 H	92420	-	8,0	-	-	-	-	75	-	-
FBN 8 x 95 H	92421	-	8,0	-	-	-	-	95	-	-