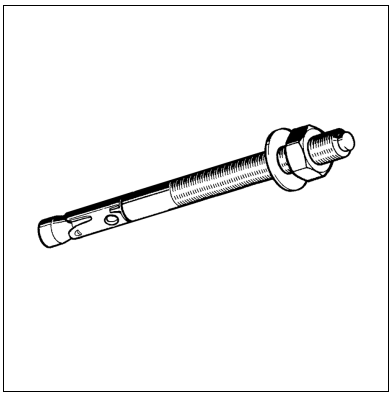


Bolt Anchor AN BZ plus

Group: 1408

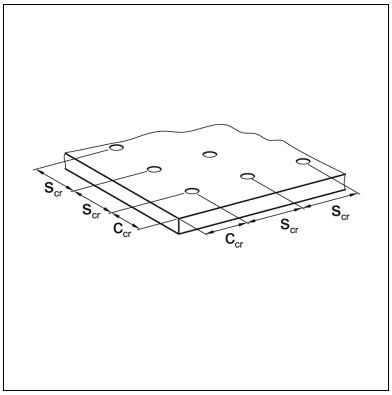
Application

Anchor for push-through mounting in M&E services and plant construction in concrete tensile zones. This anchor combines high permissible loads with close edge and centre distances.
Suitable for anchoring in cracked and non-cracked concrete - fixation of pipelines, channels, brackets, etc. in closed rooms - except for damp locations.

- No special drill required. Bore dia = thread size
- Simple and quick mounting due to its push-through concept
- Drive-in hammer zone for preventing any thread damage

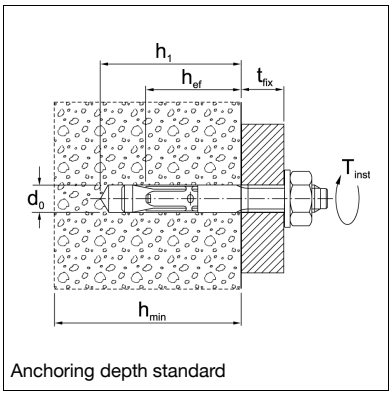
Scope of delivery

Supplied with washer and hexagon nut.

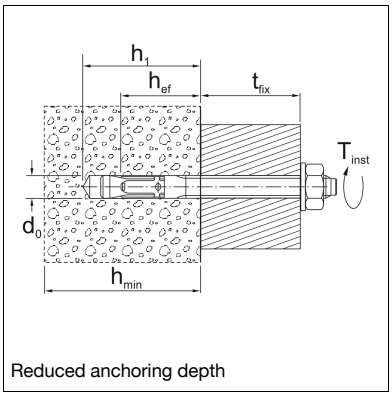


Installation

1. Drill bore hole according to the minimum bore hole depth perpendicularly to the surface.
2. Remove dirt from hole.
3. Drive the anchor into concrete up to its embedment mark.
4. Immediately resilient after tightening with the torque wrench T_{inst} indicated in the table below. Advices of the mounting instruction are to be respected!



Anchoring depth standard



Reduced anchoring depth

Technical Data

Standard anchoring depth:

Anchor size	M8	M10	M12	M16
Perm. load [1] tension C20/25 [2] [kN]	2.4	4.3	7.6	11.9
C25/30 [2] [kN]	2.7	4.8	8.5	13.3
C30/37 [2] [kN]	2.9	5.2	9.3	14.6
C40/50 [2] [kN]	3.4	6.1	10.8	16.8
C50/60 [2] [kN]	3.8	6.8	12.0	18.8
Perm. load [1] oblique ≥ C20/25 [2] [kN]	7.0	11.5	17.1	30.8
Perm. bending moment [1] [Nm]	13.1	26.9	46.9	123.4
Min. thickness of component h_{min} ≥ [mm]	100	120	140	170
(3 h_{ef}) Charact. centre distance s_{cr} [mm]	138	180	210	255
(1,5 h_{ef}) Charact. edge distance c_{cr} [mm]	69	90	105	127.5
Min. centre distance s at/edge distance c ≥ [mm]	40/70	45/70	60/100	60/100
Min. edge distance c at/centre distance s ≥ [mm]	40/80	45/90	60/140	60/180
Effective anchoring depth h_{ef} [mm]	46	60	70	85
Nominal diameter of drill d_0 [mm]	8	10	12	16
Depth of bore hole h_1 ≥ [mm]	60	75	90	110
Anchoring torque T_{inst} [Nm]	20	25	45	90
Perm. load [3] for fire exposure				
Perm. load R30 perm. F [kN]	1.25	2.25	4.0	6.25
Perm. load R60 perm. F [kN]	1.1	1.9	3.0	5.6
Perm. load R90 perm. F [kN]	0.8	1.4	2.4	4.4
Perm. load R120 perm. F [kN]	0.7	1.2	2.2	4.0

[1] Loads for single anchors without influence of edge distances
[2] Cracked concrete (option 1)
[3] Edge/Centre distances in case of fire - respective approval is to be respected

Reduced anchoring depth:

Anchor size	M8	M10	M12	M16
Perm. load [1] tension C20/25 [2] [kN]	2.4	3.6	5.8	8.6
C25/30 [2] [kN]	2.7	4.0	6.5	9.6
C30/37 [2] [kN]	2.9	4.4	7.1	10.5
C40/50 [2] [kN]	3.4	5.1	8.2	12.2
C50/60 [2] [kN]	3.8	5.6	9.2	13.6
Perm. load [1] oblique ≥ C20/25 [2] [kN]	7.0	10.0	13.9	20.6
Perm. bending moment [1] [Nm]	13.1	26.9	46.9	123.4
Min. thickness of component h_{min} ≥ [mm]	80	80	100	140
(3 h_{ef}) Charact. centre distance s_{cr} [mm]	105	120	150	195
(1,5 h_{ef}) Charact. edge distance c_{cr} [mm]	52.5	60	75	97.5
Effective anchoring depth h_{ef} [mm]	35	40	50	65
Nominal diameter of drill d_0 [mm]	8	10	12	16
Depth of bore hole h_1 ≥ [mm]	49	55	70	90
Anchoring torque T_{inst} [Nm]	20	25	45	90
Perm. load [3] for fire exposure				
Perm. load R30 perm. F [kN]	1.25	1.74	3.04	4.51
Perm. load R60 perm. F [kN]	1.1	1.74	3.0	4.51
Perm. load R90 perm. F [kN]	0.8	1.3	1.9	3.5
Perm. load R120 perm. F [kN]	0.6	1.0	1.3	2.5

[1] Loads for single anchors without influence of edge distances
[2] Cracked concrete (option 1)

Permissible loads according to EN 1992-4 without influence of centre and edge distances. Overall safety factor is taken into account (Y_M und Y_F). Values of the mentioned approval are valid and could be seen in the latest issue under www.sikla.com/service/downloads.

Material: Steel, galvanised

Approvals / Conformity
Sikla Approval ETA-10/0259
FM-Approval for M10, M12, M16 only for Standard anchoring depth
VdS compliant for all sizes
Shock approval issued by the Federal Office for Civil Defence, Bern (Switzerland)

The types marked * are not part of the Seismic-Approval.

t_{fix} = max. effective length [mm]

The types marked with * are not part of the Seismic approval.
[1] Delivery date on request - goods are procured to order.

t_{fix} = max. usable length [mm]

Type	Thread connection	Standard anchoring depth t_{fix}	Reduced anchoring depth t_{fix}	Total length [mm]	W [kg]	Quantity [pack]	Part number
8/6/60 s *	M8	-	6	60	0.03	100	**114134**
8/10/21/75	M8	10	21	75	0.03	100	**114135**
8/30/41/95	M8	30	41	95	0.04	100	**114136**
8/50/61/115	M8	50	61	115	0.04	100	**114137**
8/100/111/165 [1)]	M8	100	111	165	0.06	50	**114138**
10/10/70 s *	M10	-	10	70	0.05	50	**114139**
10/10/30/90	M10	10	30	90	0.06	50	**114140**
10/20/40/100 [1)]	M10	20	40	100	0.06	50	**114141**
10/30/50/110	M10	30	50	110	0.07	50	**114142**
10/50/70/130	M10	50	70	130	0.08	50	**114143**
10/75/95/155	M10	75	95	155	0.09	50	**114144**
10/100/120/180 [1)]	M10	100	120	180	0.10	50	**114145**
12/10/85 s *	M12	-	10	85	0.08	25	**114146**
12/15/35/110	M12	15	35	110	0.10	25	**114147**
12/30/50/125	M12	30	50	125	0.11	25	**114148**
12/50/70/145	M12	50	70	145	0.13	25	**114149**
12/65/85/160 [1)]	M12	65	85	160	0.14	25	**114150**
12/85/105/180	M12	85	105	180	0.15	25	**114151**
12/105/125/200 [1)]	M12	105	125	200	0.17	25	**114152**
12/160/255 * [1)]	M12	160	-	255	0.18	20	**114153**
16/5/105 s * [1)]	M16	-	5	105	0.17	20	**114154**
16/25/45/145	M16	25	45	145	0.23	20	**114155**
16/50/70/170 [1)]	M16	50	70	170	0.26	20	**114156**
16/100/220 * [1)]	M16	100	-	220	0.35	10	**114157**