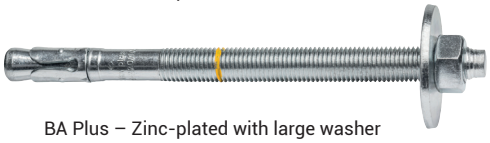


BA Plus – Zinc-plated



BA Plus – Zinc-plated with large washer

Features

- Wide range of installations in diameters M6 – M20.
- The rounded expansion cone makes anchor installation easier.
- Depth marking on the anchor facilitates pre-installation.
- A long threaded section provides greater installation flexibility.
- Approved Option 7 for non-cracked concrete.

Certificates and approvals

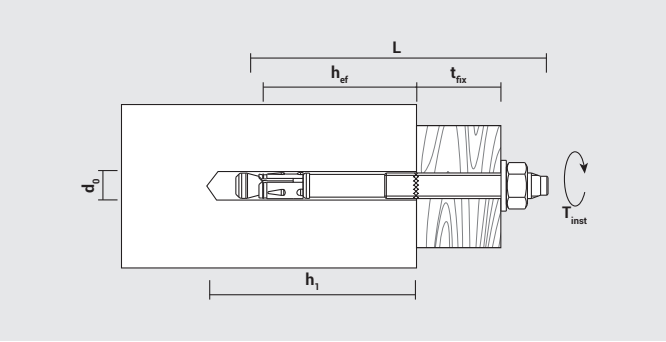
CE Option 7 ETA

A4 STAINLESS STEEL

Base material

- Concrete
- Dense natural stone

Main dimensions



Zinc-plated

Reference	d_0 [mm]	$h_1 \geq$ [mm]	$h_{ef} \geq$ [mm]	L [mm]	t_{fix} [mm]	$T_{inst} \geq$ [Nm]
9645BAP (1)	6	38	25	45	5	15
9660BAP	6	48	35	60	10	15
9680BAP	6	48	35	80	30	15
96100BAP	6	48	35	100	50	15
9850BAP (1)	8	40	25	50	5	-
9875BAP	8	60	45	75	10	15
9885BAP	8	60	45	85	20	15
9895BAP	8	60	45	95	30	15
98115BAP	8	60	45	115	50	15
98135BAP	8	60	45	135	70	15
91060BAP (1)	10	42	27	60	10	-
91075BAP (1)	10	55	40	75	10	-
91085BAP	10	65	50	85	10	30
91092BAP	10	65	50	92	17	30
910105BAP	10	65	50	105	30	30
910125BAP	10	65	50	125	50	30
910145BAP	10	65	50	145	70	30
910175BAP	10	65	50	175	100	30
910215BAP	10	65	50	215(*)	140	30
91270BAP (1)	12	58	38	70	2	-
912110BAP	12	90	70	110	10	50
912120BAP	12	90	70	120	20	50
912130BAP	12	90	70	130	30	50
912150BAP	12	90	70	150	50	50
912180BAP	12	90	70	180	80	50
912200BAP	12	90	70	200	100	50
912220BAP	12	90	70	220(*)	120	50
912240BAP	12	90	70	240(*)	140	50
912260BAP	12	90	70	260(*)	160	50
912300BAP	12	90	70	300(*)	200	50

(1) Does not comply with ETA approval.
* Large washer for timber construction.

Continued on next page [...]

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Coating

- Zinc-plated
- Hot-dip galvanized

[...] Main dimensions

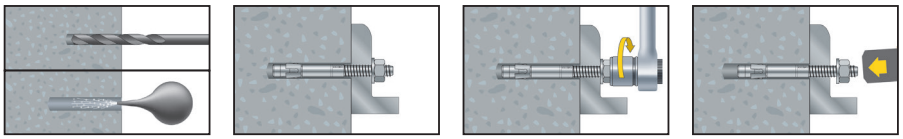
Reference	d_0 [mm]	$h_1 \geq$ [mm]	$h_{ef} \geq$ [mm]	L [mm]	t_{fix} [mm]	$T_{inst} \geq$ [Nm]
912320BAP	12	90	70	320(*)	220	50
91695BAP (1)	16	75	50	95	10	-
916135BAP	16	110	85	135	15	90
916150BAP	16	110	85	150	30	90
916180BAP	16	110	85	180	60	90
916200BAP	16	110	85	200	80	90
916220BAP	16	110	85	220(*)	100	90
916270BAP	16	110	85	270(*)	150	90
916320BAP	16	110	85	320(*)	200	-
920110BAP (1)	20	90	60	110	10	-
920160BAP	20	130	100	160	20	-
920215BAP	20	130	100	215	75	-
920270BAP	20	130	100	270	130	-

(1) Does not comply with ETA approval.
* Large washer for timber construction.

Hot-dip galvanized

Reference	d_0 [mm]	$h_1 \geq$ [mm]	$h_{ef} \geq$ [mm]	L [mm]	t_{fix} [mm]
9HD872BAZ	8	60	45	72	10
9HD892BAZ	8	60	45	92	30
9HD8112BAZ	8	60	45	112	50
9HD8147BAZ	8	60	45	147	85
9HD1092BAZ	10	75	60	92	10
9HD10102BAZ	10	75	60	102	20
9HD10112BAZ	10	75	60	112	30
9HD10132BAZ	10	75	60	132	50
9HD10162BAZ	10	75	60	162	80
9HD12103BAZ	12	90	70	103	5
9HD12118BAZ	12	90	70	118	20
9HD12128BAZ	12	90	70	128	30
9HD12148BAZ	12	90	70	148	50
9HD12163BAZ	12	90	70	163	65
9HD12178BAZ	12	90	70	178	80
9HD16123BAZ	16	110	85	123	5
9HD16138BAZ	16	110	85	138	20
9HD16178BAZ	16	110	85	178	60

Installation procedure



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Installation parameters

Type	Spacing		Edge distance		Min. thickness structural part h_{min} [mm]	Torque installation $T_{inst} \leq$ [Nm]	Ø of clearance hole in ficture Df [mm]
	s_{cr} [mm]	s_{min} [mm]	c_{cr} [mm]	c_{min} [mm]			
BA Plus 6	105	50	53	50	100	8	7
BA Plus 8	135	50	68	50	100	15	9
BA Plus 10	150	120	75	90	120	30	12
BA Plus 12	210	100	105	100	140	50	14
BA Plus 16	255	140	128	125	200	110	18
BA Plus 20	300	160	150	150	200	180	22

Recommended loads on C20/25 concrete

Type	Permissible tension load[1][2][3] N_{per} [kN]	Permissible shear load V_{per} [kN]	Permissible bending moment M_{per} [Nm]
BA plus 6	3.6	3.0	4.7
BA plus 8	7.3	6.5	13.4
BA plus 10	7.6	8.5	23.9
BA plus 12	9.5	9.5	46.8
BA plus 16	11.9	14.6	95.1
BA plus 20	19.8	24.0	127.3

[1] Permissible loads for single anchor without influence of spacing and edge distance.
[2] Load figures include the resistances partial safety factors as per approval and parial safety factor on the action of γF = 1.4.
[3] For higher concrete strengths up to C50/55 the values increase by max. 55%.

Recommended loads for non-approved anchor sizes in uncracked concrete C20/25

Type	Permissible tension load[1][2][3] N_{per} [kN]	Permissible shear load V_{per} [kN]	Effective depth M_{per} [Nm]
BA plus 6-45/5	1.5	1.5	25
BA plus 8-50/5	1.5	1.5	25
BA plus 10-60/10	1.8	1.8	27
BA plus 10-75/10	2.5	2.5	40
BA plus 12-70/2	2.4	2.4	38
BA plus 16-95/10	4.0	4.0	50
BA plus 20-100/10	6.0	6.0	60

[1] Permissible loads for single anchor without influence of spacing and edge distance.
[2] Load figures include the resistances partial safety factors as per approval and parial safety factor on the action of γF = 1.4.
[3] For higher concrete strengths up to C50/55 the values increase by max. 55%.

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