

Shield Anchors

Zinc and Yellow Plated Eye Bolt



INFORMATION

The ZYP Eye Bolt shield anchor is an Zinc and Yellow Plated three-way expansion shield suitable for use in concrete and brick

The thick walls of the expanders give the anchor its exceptional grip and allow it to cater for oversized holes caused by powerful drills in weaker materials such as brickwork.

It provides a reliable fixing solution for applications such as:

- Attaching Wires
- Bird Deterrents
- Ladder Restraints

BASE MATERIAL

- Concrete C20/25 to C50/60
- Non-Cracked Concrete
- Solid Brickwork
- Solid Concrete Blocks

FEATURES

- Three-way Expansion
- Medium Duty Anchor
- Zinc and Yellow Plated (ZYP)
- Reaction To Fire Class A1

RELATED PRODUCTS



SDS+ Drill Bits



Hole Cleaning Pump

BOP1



Loose Bolt ZYP



Projecting Bolt ZYP



Shield only ZYP



Shield only A4 Stainless Steel



Hook Bolt Shield Anchor ZYP



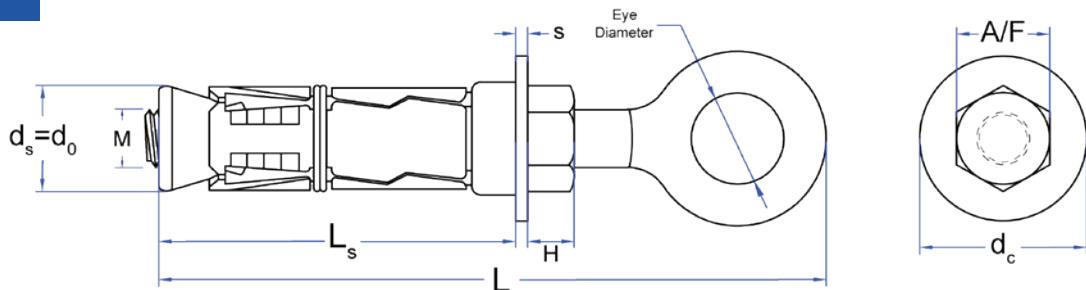


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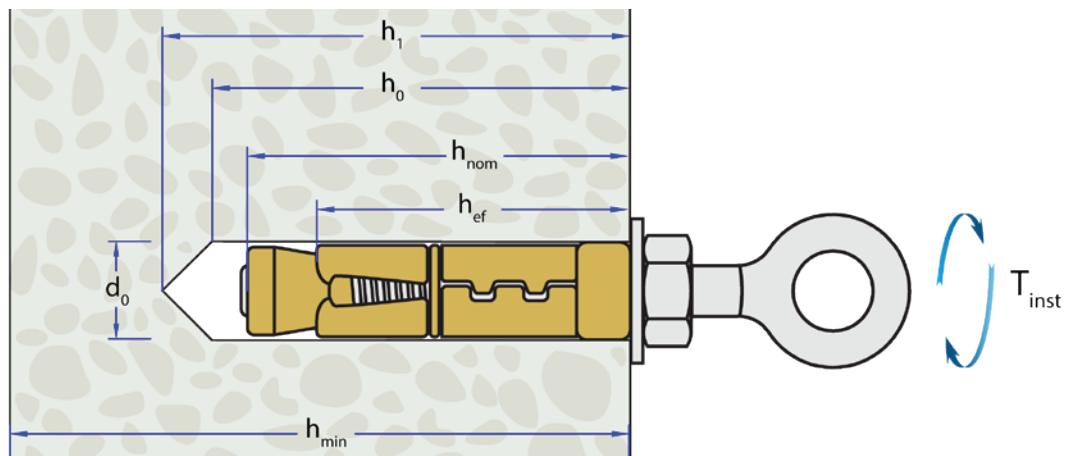
RANGE DATA



RANGE DATA

Part Number	Size of Thread	Sleeve Diameter = Drill Hole Diameter	Length	Shield Length	Head Height*	Width Across Flats*	Washer Diameter*	Washer Thickness*	Eye Diameter	Retail Bag Part Number
	M	$d_s = d_0$	L	L_s	H	A/F	d_c	s	d_{eye}	-
	mm	mm	mm	mm	mm	mm	mm	mm	mm	-
AEBM06	6	12	80	45	5.0	10	12	1.5	10	-
AEBM08	8	14	95	50	5.5	13	16	1.5	11	JB8060
AEBM10	10	16	115	60	8.0	17	20	2.0	14	-
AEBM12	12	20	130	75	10.0	19	24	2.5	16	-

INSTALLATION INTO CONCRETE



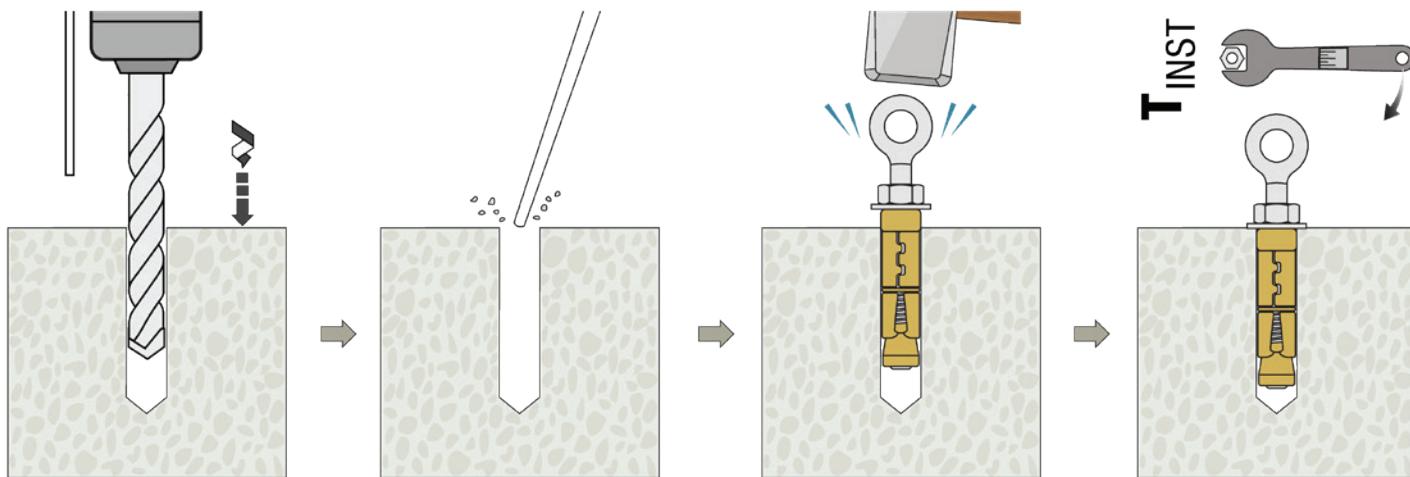
RANGE DATA

Part Number	Drill Hole Diameter	Minimum Concrete Thickness	Minimum Hole Depth	Nominal Embedment Depth	Installation Torque	Minimum Spacing	Minimum Edge Distance
	d_0	h_{min}	h_1	h_{nom}	T_{inst}	(s_{min})	(c_{min})
	mm	mm	mm	mm	Nm	mm	mm
AEBM06	12	100	50	45	6	150	100
AEBM08	14	100	55	50	14	150	100
AEBM10	16	100	65	60	27	200	150
AEBM12	20	120	85	75	46	250	200





INSTALLATION INSTRUCTIONS INTO SOLID CONCRETE



-Drill correct diameter hole to the corresponding depth by using the rotary hammer drilling mode

-Clean the hole by blowing three times to remove drilling debris and dust

-Insert the shield with eye assembled into the concrete using a hammer

-Tighten the nut with a torque wrench to the recommended value

PERFORMANCE DATA FOR STRUCTURAL APPLICATIONS (NON-CRACKED CONCRETE)

Performance Data* (C20/25 to C50/60 non-cracked concrete) - Bolt Grade 3.6*						
Size of Thread	Drill Hole Diameter	Minimum Hole Depth	Minimum Concrete Thickness	Characteristic Resistance	Design Resistance	Recommended Resistance
M	d_0	h_1	h_{min}	Tensile (N_{RK})	Tensile (N_{Rd})	Tensile (N_{Rec})
mm	mm	mm	mm	kN	kN	kN
6	12	50	100	3.6	2.0	1.4
8	14	55	100	4.5	2.5	1.7
10	16	65	100	7.2	4.0	2.8
12	20	85	120	9.6	5.3	3.7

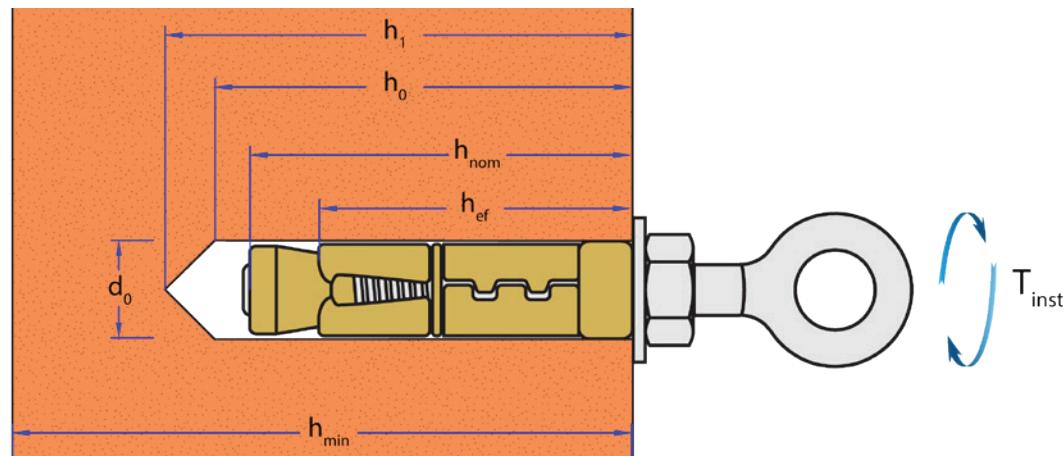
* Important notes:

- Fasteners subject to static and quasi-static tensile loads only.
- This product can not be used as lifting points or for use with safety restraint harnesses.
- Performance data stated for a single anchor, without the effect of spacing and edge distances. The influence of these parameters must be verified where applicable.
- Minimum concrete thickness, hole diameter, and embedment depth shall correspond to the dimensions stated in this document.
- Concrete strength class C20/25 to C50/60 is assumed.
- Stud grade 3.6 is assumed.
- Drill holes produced using rotary hammer drilling, unless otherwise noted.
- Installation carried out strictly in accordance with the product's Installation Instructions and performed by a trained operator.
- Characteristic and design resistances derived from JCP internal technical data.
- Design resistances are calculated from characteristic values using the appropriate partial safety factors corresponding to the decisive failure mode.
- The Recommended Resistance is calculated using an additional safety factor (γ_{Add}) equal to 1.4.





INSTALLATION INTO SOLID BRICKWORK (20 N/mm²)

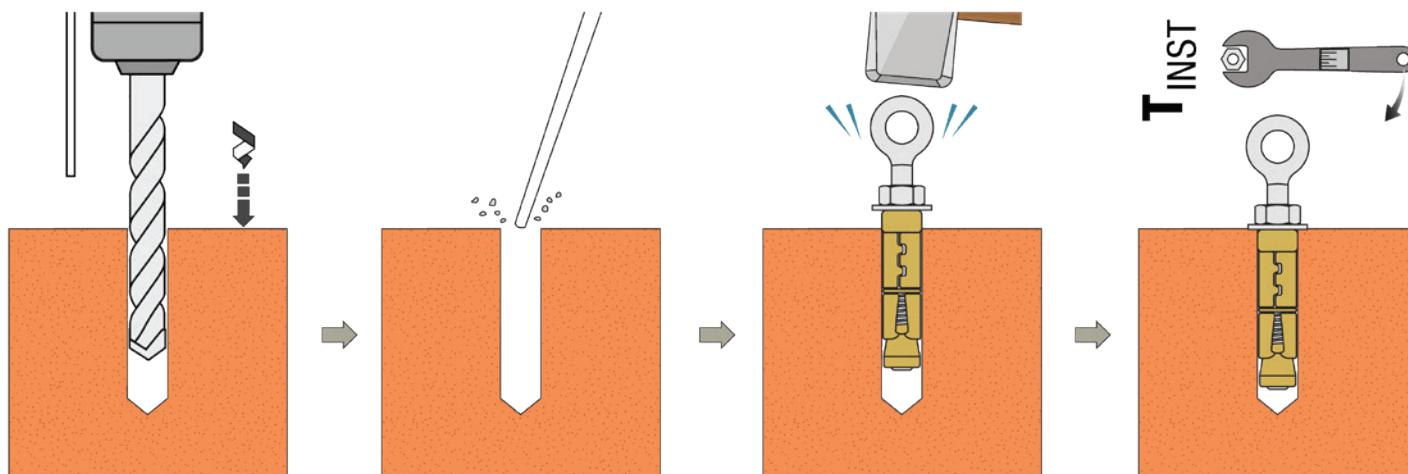


RANGE DATA

Part Number	Drill Hole Diameter	Minimum Hole Depth	Nominal Embedment Depth	Installation Torque	Minimum Spacing	Minimum Edge Distance
	d_0	h_1	h_{nom}	T_{inst}	(s_{min})	(c_{min})
	mm	mm	mm	Nm	mm	mm
AEBM06	12	50	45	5	*	*
AEBM08	14	55	50	12	*	*
AEBM10	16	65	60	22	*	*
AEBM12	20	85	75	38	*	*

* Fixings shall be installed only in solid structural load-bearing brickwork and positioned centrally within the body of the brick. Anchors shall not be installed in the edge brick adjacent to a free edge. It is assumed that one fixing only is installed per brick unit, and spacing shall be such that anchors are not set in the same or in adjacent bricks, leaving at least one clear brick unit between fixings.

INSTALLATION INSTRUCTIONS INTO SOLID BRICKWORK (20 N/mm²)



-Drill correct diameter hole to the corresponding depth by using the rotary hammer drilling mode

-Clean the hole by blowing three times to remove drilling debris and dust

-Insert the shield with eye assembled into the masonry using a hammer

-Tighten the nut with a torque wrench to the recommended value





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PERFORMANCE DATA FOR APPLICATIONS INTO SOLID BRICKWORK (20 N/mm²)

Performance Data* (Solid Brickwork 20N/mm ²) - Bolt Grade 3.6*				
Size of Thread	Drill Hole Diameter	Characteristic Resistance	Design Resistance	Recommended Resistance
M	d_0	Tensile (N _{Rk})	Tensile (N _{Rd})	Tensile(N _{Rec})
mm	mm	kN	kN	kN
6	12	5.0	1.8	1.3
8	14	5.5	2.0	1.4
10	16	5.5	2.0	1.4
12	20	5.5	2.0	1.4

* Important notes:

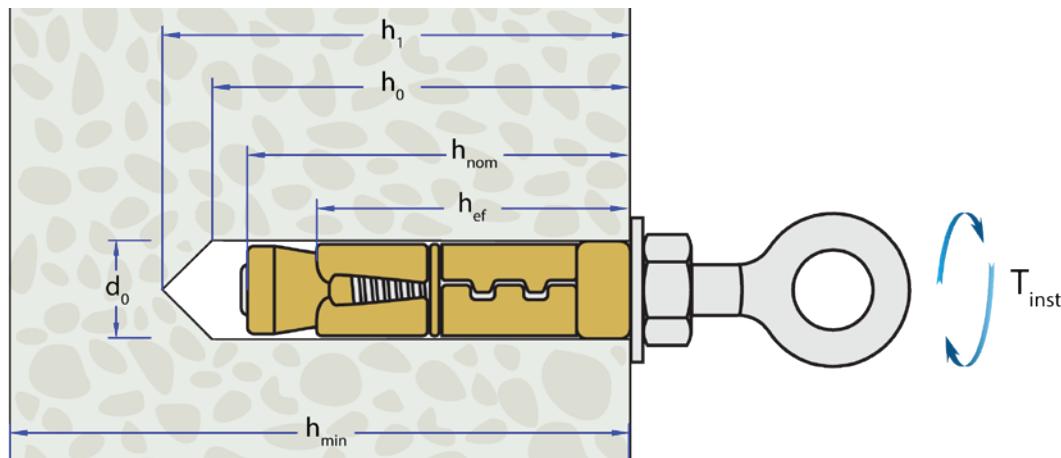
- Fasteners subject to static and quasi-static tensile loads only.
- This product can not be used as lifting points or for use with safety restraint harnesses.
- Performance data stated for a single anchor, without the effect of spacing and edge distances. The influence of these parameters must be verified where applicable.
- Stud grade 3.6 is assumed.
- It is assumed that anchors are installed centrally within the body of a 20 N/mm² brick, with one fixing only per brick unit.
- Anchors shall not be installed in the edge brick adjacent to a free edge, and spacing shall be arranged such that anchors are not installed in the same or in adjacent bricks.
- Drill holes produced using rotary hammer drilling, unless otherwise noted.
- Installation carried out strictly in accordance with the product's Installation Instructions and performed by a trained operator.
- Characteristic and design resistances derived from JCP internal technical data.
- Design resistances are calculated from characteristic values using the appropriate partial safety factors corresponding to the decisive failure mode.
- The Recommended Resistance is calculated using an additional safety factor (γ_{Add}) equal to 1.4.

Due to the variable nature of bricks and blocks, the above figures are for guidance only. Site tests are recommended to determine the allowable resistance under the actual site conditions and specific base material characteristics.





INSTALLATION INTO SOLID CONCRETE BLOCKS (7 N/mm²)

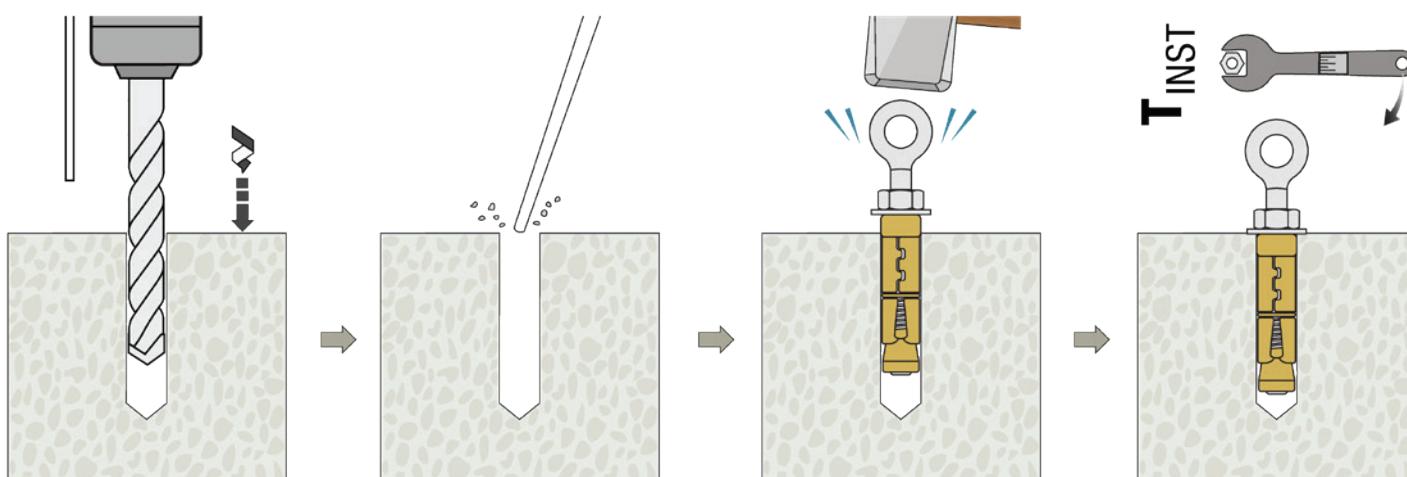


RANGE DATA

Part Number	Drill Hole Diameter	Minimum Hole Depth	Nominal Embedment Depth	Installation Torque	Minimum Spacing	Minimum Edge Distance
	d_0	h_1	h_{nom}	T_{inst}	(s_{min})	(c_{min})
	mm	mm	mm	Nm	mm	mm
AEBM06	12	50	45	5	*	*
AEBM08	14	55	50	12	*	*
AEBM10	16	65	60	22	*	*
AEBM12	20	85	75	38	*	*

* Fixings shall be installed only in solid structural load-bearing concrete block-work and positioned centrally within the body of the block. The minimum edge distance from the edge of the block shall be not less than $1.5 \times h_{\text{nom}}$. Where block dimensions permit, two or more anchors may be installed within the same block or in adjacent blocks, provided that the centre-to-centre spacing between anchors is not less than $3 \times h_{\text{nom}}$.

INSTALLATION INSTRUCTIONS INTO SOLID CONCRETE



-Drill correct diameter hole to the corresponding depth by using the rotary hammer drilling mode

-Clean the hole by blowing three times to remove drilling debris and dust

-Insert the shield with eye assembled into the concrete using a hammer

-Tighten the nut with a torque wrench to the recommended value





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PERFORMANCE DATA FOR APPLICATIONS INTO SOLID CONCRETE BLOCKS (7 N/mm²)

Performance Data* (Solid Concrete Block 7N/mm ²) - Bolt Grade 3.6*				
Size of Thread	Drill Hole Diameter	Characteristic Resistance	Design Resistance	Recommended Resistance
M	d_0	Tensile (N _{Rk})	Tensile (N _{Rd})	Tensile (N _{Rec})
mm	mm	kN	kN	kN
6	12	4.0	1.4	1.0
8	14	5.7	2.0	1.5
10	16	5.7	2.0	1.5
12	20	5.7	2.0	1.5

* Important notes:

- Fasteners subject to static and quasi-static tensile loads only.
- This product can not be used as lifting points or for use with safety restraint harnesses.
- Performance data stated for a single anchor, without the effect of spacing and edge distances. The influence of these parameters must be verified where applicable.
- Stud grade 3.6 is assumed.
- It is assumed that anchors are installed centrally within the body of a 7 N/mm² concrete block, with one fixing only per block unit.
- Anchors shall not be installed in the edge block adjacent to a free edge.
- Drill holes produced using rotary hammer drilling, unless otherwise noted.
- Installation carried out strictly in accordance with the product's Installation Instructions and performed by a trained operator.
- Characteristic and design resistances derived from JCP internal technical data.
- Design resistances are calculated from characteristic values using the appropriate partial safety factors corresponding to the decisive failure mode.
- The Recommended Resistance is calculated using an additional safety factor (γ_{Add}) equal to 1.4.

Due to the variable nature of bricks and blocks, the above figures are for guidance only. Site tests are recommended to determine the allowable resistance under the actual site conditions and specific base material characteristics.

