

Shield Anchors

Projecting Bolt



INFORMATION

The projecting bolt shield anchor is a 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 general-purpose applications such as:

- Fencing
- Gates
- Pipe and ductwork
- Security Shutters
- Fire doors

BASE MATERIAL

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

SOFTWARE



[Click here to download the software](#)

FEATURES

- Three-way Expansion
- Medium Duty Anchor
- Zinc Plated
- Reaction To Fire Class A1

RELATED PRODUCTS



SDS+ Drill Bits



Hole Cleaning Pump

BOP1



Loose Bolt ZYP



Shield only ZYP



Shield only A4 Stainless Steel



Eye Bolt Shield Anchor ZYP



Hook Bolt Shield Anchor ZYP



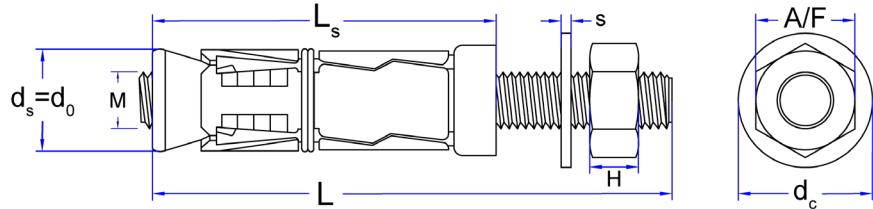


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RANGE DATA



RANGE DATA											
Part Number	Size of Thread	Sleeve Diameter = Drill Hole Diameter	Length	Head Height	Shield Length	Width Across Flats	Stud Grade	Washer Diameter	Washer Thickness	Retail Bag Part Number	Trade Bag Part Number
		$d_s = d_0$									
	mm	mm	mm	mm	mm	mm	-	mm	mm		
APB0610	6	12	60	5.0	45	10	4.6	12	1.5	JB8039	-
APB0625			75							-	-
APB0650			100							-	-
APB0815	8	14	75	5.5	50	13	4.6	16	1.5	JB8042	-
APB0840			100							-	-
APB0880			140							JB8045	-
APB1010	10	16	80	8.0	60	17	4.6	20	2.0	-	-
APB1030			100							JB8048	JP3177
APB1050			120							-	-
APB1070			140							JB8051	-
APB1215	12	20	100	10.0	75	19	4.6	24	2.5	-	-
APB1225			110							-	-
APB1250			135							-	-
APB1270			155							-	-
APB1635	16	25	160	13.0	110	24	4.6	30	3.0	-	-



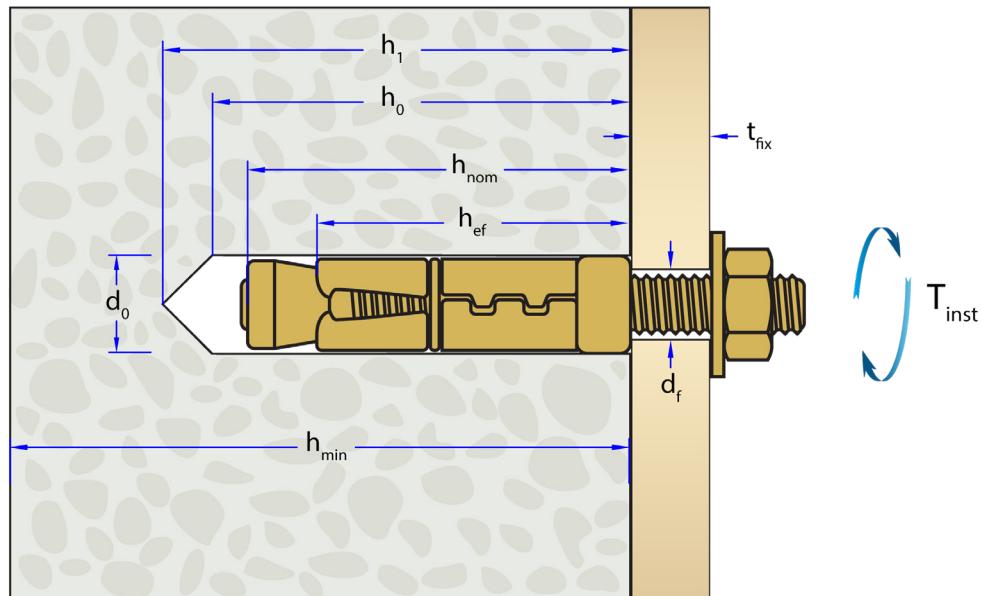


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INSTALLATION INTO CONCRETE



RANGE DATA									
Part Number	Drill Hole Diameter	Minimum Concrete Thickness	Minimum Hole Depth	Nominal Embedment Depth	Max Fixture Thickness	Fixture Clearance Hole	Installation Torque	Minimum Spacing	Minimum Edge Distance
	d_0	h_{\min}	h_1	h_{nom}	t_{fix}	d_f	T_{inst}	(s_{\min})	(c_{\min})
	mm	mm	mm	mm	mm	mm	Nm	mm	mm
APB0610	12	100	50	45	10	7	6	105	53
APB0625					25				
APB0650					50				
APB0815	14	100	55	50	15	9	14	120	60
APB0840					40				
APB0880					80				
APB1010	16	100	65	60	10	12	27	150	75
APB1030					30				
APB1050					50				
APB1070					70				
APB1215	20	120	85	75	15	14	46	180	90
APB1225					25				
APB1250					50				
APB1270					70				
APB1635	25	200	125	110	35	18	110	285	143





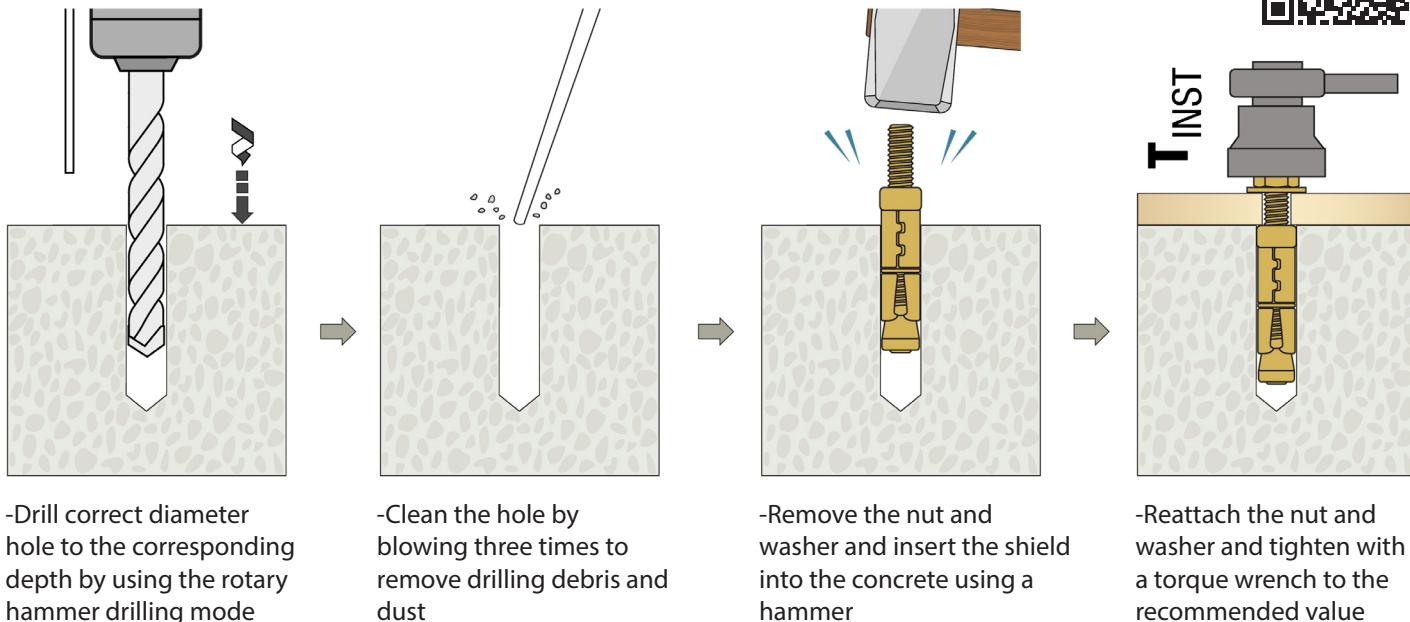
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INSTALLATION INSTRUCTIONS INTO SOLID CONCRETE

Click on the QR code or scan it to watch the video



-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

-Remove the nut and washer and insert the shield into the concrete using a hammer

-Reattach the nut and washer and tighten 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 4.6

Size of Thread	Drill Hole Diameter	Minimum Hole Depth	Minimum Concrete Thickness	Characteristic Resistance		Design Resistance		Recommended Resistance	
				Tensile (N_{RK})	Shear (V_{RK})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Rrec})	Shear (V_{Rrec})
mm	mm	mm	mm	kN	kN	kN	kN	kN	kN
6	12	50	100	3.6	4.0	2.0	2.3	1.4	1.6
8	14	55	100	4.5	7.3	2.5	4.3	1.7	3.0
10	16	65	100	7.2	11.6	4.0	6.9	2.8	4.9
12	20	85	120	9.6	16.9	5.3	10.1	3.7	7.2
16	25	125	200	24.0	31.3	13.3	18.7	9.5	13.3

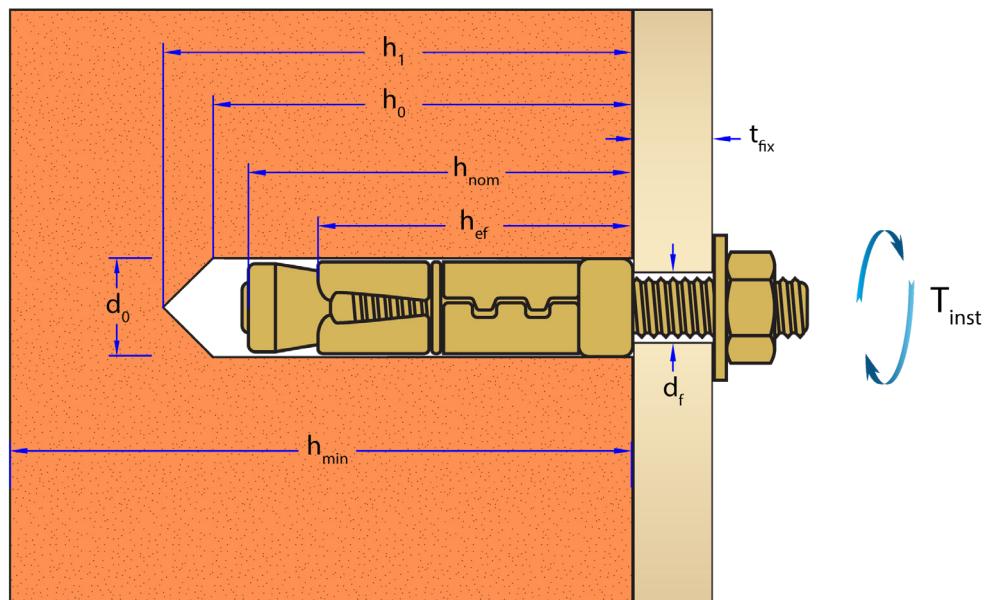
* Important notes:

- Fasteners subject to static and quasi-static loads.
- 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.
- 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.
- Performance data is valid for shear loading without a lever arm; installations involving a lever arm require additional verifications.
- Performance data is not valid for combined tensile and shear loading; where combined loading occurs, further checks shall be performed.
- For project-specific assessments or conditions not explicitly covered, download the JCP Anchor Calculation Program.





INSTALLATION INTO SOLID BRICKWORK (20 N/mm²)



Part Number	RANGE DATA								
	Drill Hole Diameter	Minimum Hole Depth	Nominal Embedment Depth	Max Fixture Thickness	Fixture Clearance Hole	Installation Torque	Minimum Spacing	Minimum Edge Distance	
	d_0 mm	h_1 mm	h_{nom} mm	t_{fix} mm	d_f mm	T_{inst} Nm	(s_{min}) mm	(c_{min}) mm	
APB0610	12	50	45	10	7	5	*	*	
APB0625				25					
APB0650				50					
APB0815	14	55	50	15	9	12	*	*	
APB0840				40					
APB0880				80					
APB1010	16	65	60	10	12	22	*	*	
APB1030				30					
APB1050				50					
APB1070	20	85	75	70	14	38	*	*	
APB1215				15					
APB1225				25					
APB1250				50			*	*	
APB1270				70					

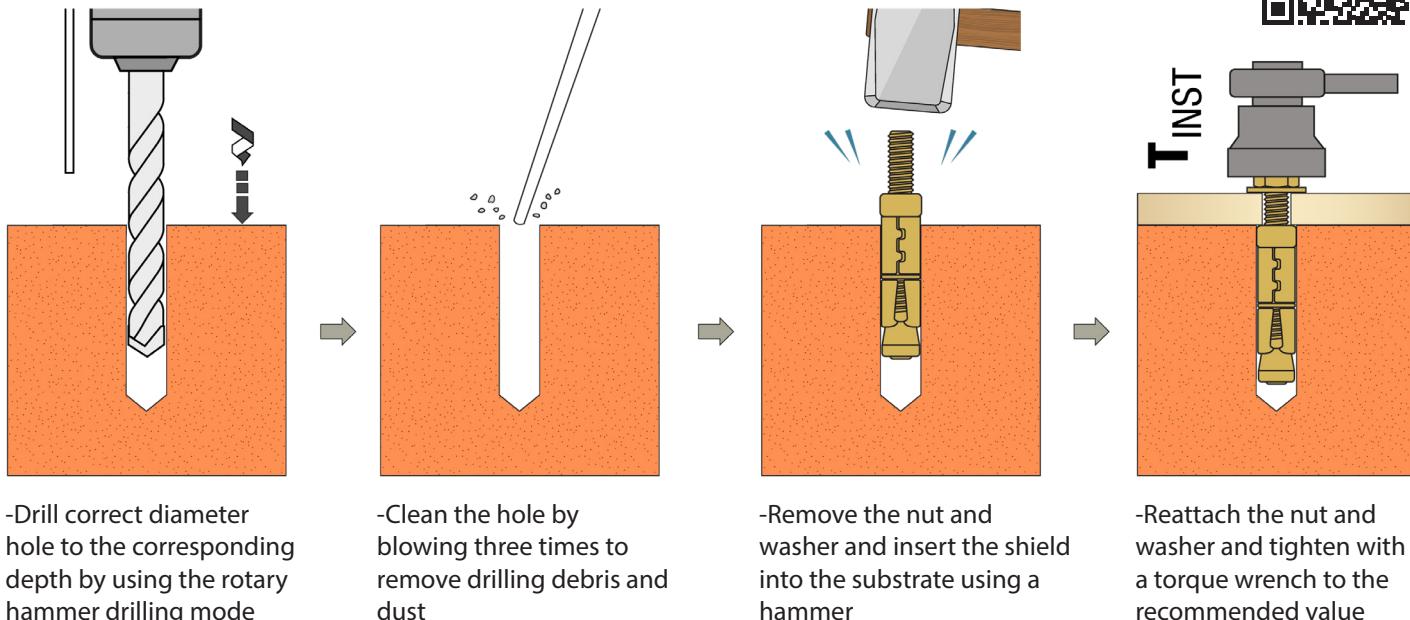
* Fixings shall be installed only in solid structural load-bearing brickwork and positioned centrally within the body of the brick. Anchors shall not be installed in the edge brick adjacent to a free edge. It is assumed that one fixing only is installed per brick unit, and spacing shall be such that 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)

Click on the QR code or scan it to watch the video



-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

-Remove the nut and washer and insert the shield into the substrate using a hammer

-Reattach the nut and washer and tighten with a torque wrench to the recommended value

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

Performance Data* (Solid Brickwork 20N/mm²) - Bolt Grade 4.6

Size of Thread	Drill Hole Diameter	Characteristic Resistance		Design Resistance		Recommended Resistance	
		Tensile (N _{RK})	Shear (V _{RK})	Tensile (N _{Rd})	Shear (V _{Rd})	Tensile (N _{Rec})	Shear (V _{Rec})
M	mm	mm	kN	kN	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:

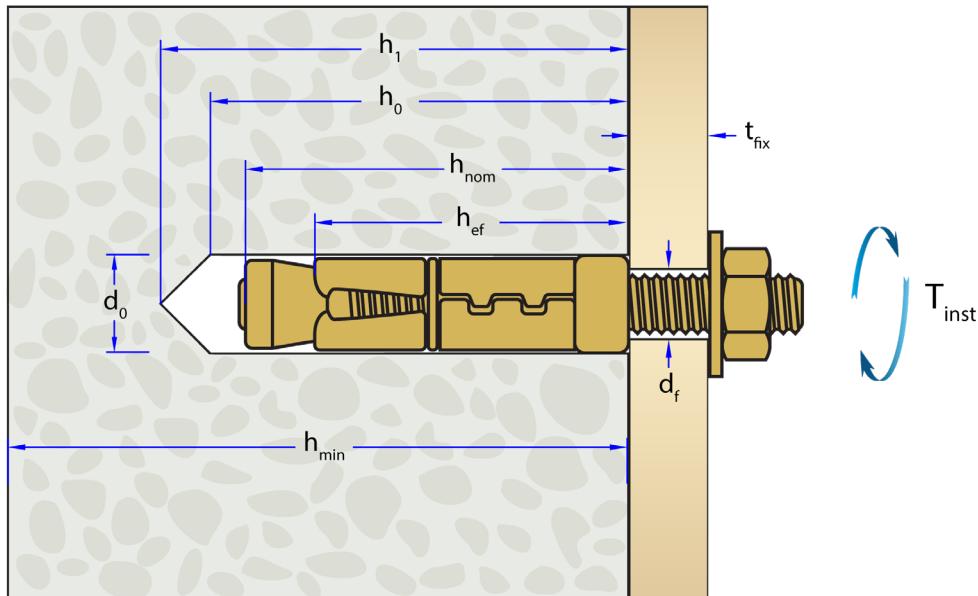
- Fasteners subject to static and quasi-static loads.
- Performance data stated for a single anchor, without the effect of spacing and edge distances. The influence of these parameters must be verified where applicable.
- It is assumed that anchors are installed centrally within the body of a 20 N/mm² 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.
- Performance data is valid for shear loading without a lever arm; installations involving a lever arm require additional verifications.
- Performance data is not valid for combined tensile and shear loading; where combined loading occurs, further checks shall be performed.

**Due to the variable nature of bricks and blocks, the above figures are for guidance only.
For critical applications, a site test is recommended.**





INSTALLATION INTO SOLID CONCRETE BLOCKS (7 N/mm²)



RANGE DATA								
Part Number	Drill Hole Diameter	Minimum Hole Depth	Nominal Embedment Depth	Max Fixture Thickness	Fixture Clearance Hole	Installation Torque	Minimum Spacing	Minimum Edge Distance
	d_0	h_1	h_{nom}	t_{fix}	d_f	T_{inst}	(s_{min})	(c_{min})
	mm	mm	mm	mm	mm	Nm	mm	mm
APB0610	12	50	45	10	7	5	*	*
APB0625				25				
APB0650				50				
APB0815	14	55	50	15	9	12	*	*
APB0840				40				
APB0880				80				
APB1010	16	65	60	10	12	22	*	*
APB1030				30				
APB1050				50				
APB1070				70				
APB1215	20	85	75	15	14	38	*	*
APB1225				25				
APB1250				50				
APB1270				70				

* 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 $3 \times h_{\text{nom}}$.



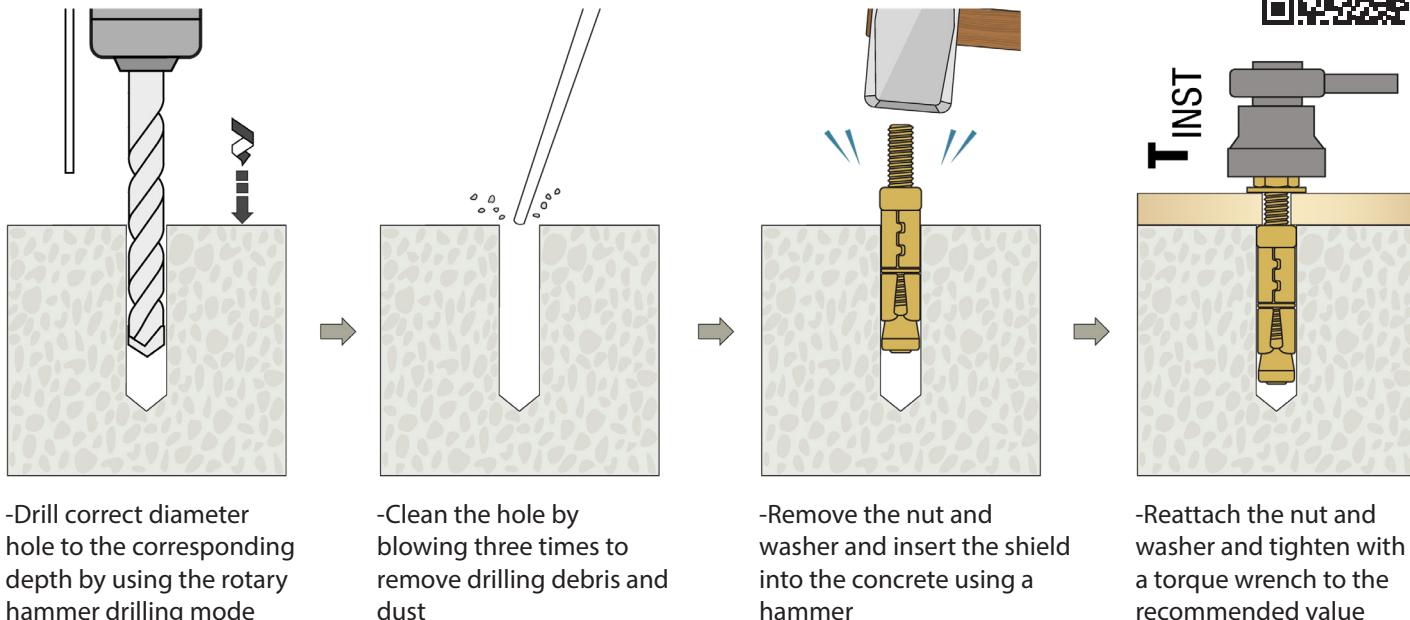


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INSTALLATION INSTRUCTIONS INTO SOLID CONCRETE



-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

-Remove the nut and washer and insert the shield into the concrete using a hammer

-Reattach the nut and washer and tighten with a torque wrench to the recommended value

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

Performance Data* (Solid Concrete Block 7N/mm ²) - Bolt Grade 4.6							
Size of Thread	Drill Hole Diameter	Characteristic Resistance		Design Resistance		Recommended Resistance	
		Tensile (N _{RK})	Shear (V _{RK})	Tensile (N _{Rd})	Shear (V _{Rd})	Tensile (N _{Rec})	Shear (V _{Rec})
mm	mm	kN	kN	kN	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 loads.
- 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.
- 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.
- Performance data is valid for shear loading without a lever arm; installations involving a lever arm require additional verifications.
- Performance data is not valid for combined tensile and shear loading; where combined loading occurs, further checks shall be performed.

**Due to the variable nature of bricks and blocks, the above figures are for guidance only.
For critical applications, a site test is recommended.**

