BOSSONG

POLY-SF

TECHNICAL DATA SHEET



UPDATE

09-2026

POLY SF

POLYESTER RESIN
STYRENE FREE



BCR 400 POLY SF

cod. 747176 | 400 ml

Coaxial cartrige

12 | 780

BCR 300 POLY SF

cod. 747138 | 300 ml

Foil cartridge

15 | 960

⚠ BCR 165 POLY SF

cod. 747122 | 165 ml

Foil cartridge

15 | 140

⚠ BCR 400 POLY SF-TP

cod. 747169 | 400 ml

Coaxial cartrige

12 | 780

⚠ BCR 300 POLY SF-TP

cod. 747144 | 300 ml

Foil cartridge

15 | 960

TON PIERRE available for **BCR-400 BCR-300**

⚠ Prodotto su richiesta, ordini programmati legati a quantità MINIME

On demand product; order planning required in connection with specific quantities

CE ETA EAD 330499-01-0601 ETA - 15/0560

CE ETA EAD 330076-01-0604 ETA - 11/0396

50 YEARS SERVICE LIFE

OPTION 7

DRY / WET

BOSSONG FIX DESIGN SOFTWARE

RESIN MADE IN ITALY since 1992

STYRENEFREE CLPClassification

LEED TESTED

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

EPD ITALY ECO PLATFORM EPD VERIFIED
POLY SF - EPDITALY0555
02.2024 / 02.2029

BASTA BETA ALFA

FAST	20°C
OPEN TIME	6 min
CURING TIME	45 min

STORAGE AND CONSERVATION

+30° +5°

CARTRIDGE

5 PP

kN

SETTING TIMES

Cartridge application temperature **+5°C / +30°C**

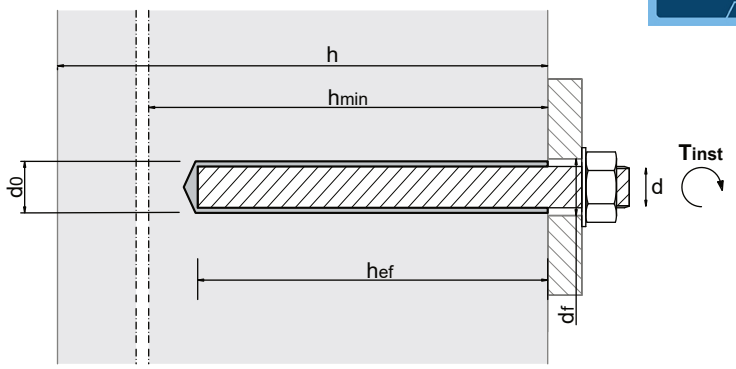
For winter applications a cartridge temperature is recommended. **≥ 15°C**

POLY-SF

BASE MATERIAL TEMPERATURE	OPEN TIME	CURING TIME
40°C	1 min	20 min
35°C	2 min	20 min
30°C	3 min	20 min
25°C	4 min	30 min
20°C	6 min	45 min
15°C	8 min	60 min
10°C	12 min	90 min
5°C	15 min	120 min
0°C	25 min	180 min
-5°C	30 min	360 min

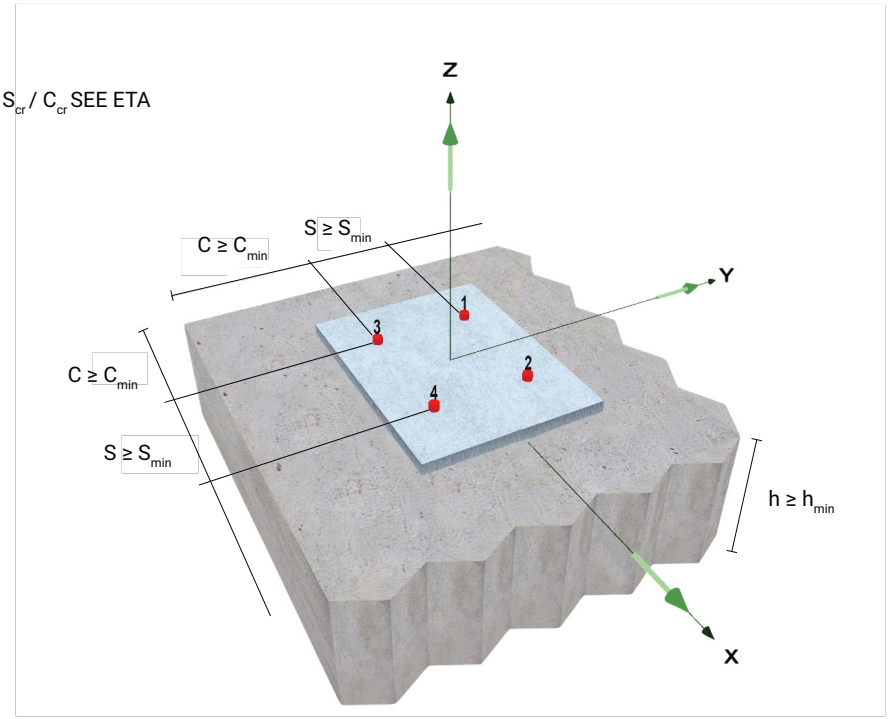
INSTALLATION DATA

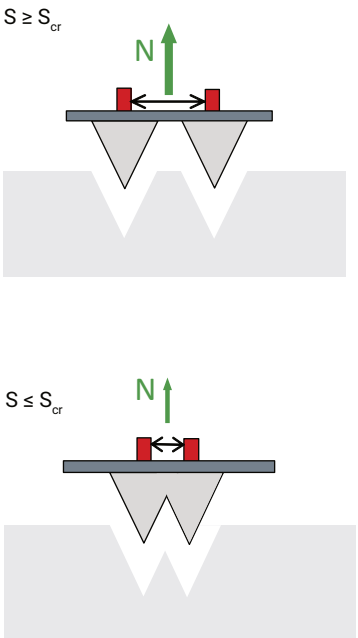
d	[mm]	BAR DIAMETER
d_0	[mm]	DIAMETRO FORO
h	[mm]	SUPPORT THICKNESS
h_{min}	[mm]	MINIMUM SUBSTRATE THICKNESS
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	MINIMUM EDGE DISTANCE
h_{ef}	[mm]	EFFECTIVE ANCHORAGE DEPTH
d_f	[mm]	PLATE HOLE DIAMETER
s_w	[mm]	KEY
T_{inst}	[Nm]	TIGHTENING TORQUE



CONCRETE

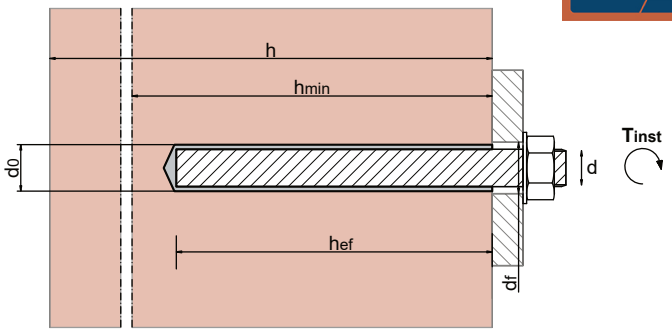
d [mm]	d_0 [mm]	h_{min} [mm]	S_{min} [mm]	C_{min} [mm]	d_f [mm]	S_w [mm]	T_{inst} [Nm]
M8	10	h_{ef} + 30 mm	40	40	9	13	10
M10	12	h_{ef} + 30 mm	50	40	12	17	20
M12	14	h_{ef} + 30 mm	60	40	14	19	40
M14	16	h_{ef} + 2 d_0	75	50	16	22	40
M16	18	h_{ef} + 2 d_0	75	50	18	24	80
M20	22-24	h_{ef} + 2 d_0	90	55	22	30	130
M24	28	h_{ef} + 2 d_0	115	60	26	36	200





INSTALLATION DATA

d	[mm]	BAR DIAMETER
d_0	[mm]	DIAMETRO FORO
h	[mm]	SUPPORT THICKNESS
h_{min}	[mm]	MINIMUM SUBSTRATE THICKNESS
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	MINIMUM EDGE DISTANCE
h_{ef}	[mm]	EFFECTIVE ANCHORAGE DEPTH
d_f	[mm]	PLATE HOLE DIAMETER
s_w	[mm]	KEY
T_{inst}	[Nm]	TIGHTENING TORQUE



SOLID BRICK

d [mm]		d_0 [mm]	h_{min} [mm]	h_{ef} [mm]	S_{min} [mm]	C_{min} [mm]	d_f [mm]	S_w [mm]	T_{inst} [Nm]
M8	Ø 8	10	h_{ef} + 30 mm	80	50	50	9	13	5
M10	Ø 10	12	h_{ef} + 30 mm	85	50	50	12	17	8
M12	Ø 12	14	h_{ef} + 30 mm	95	50	50	14	19	10
M16		18	h_{ef} + 30 mm	105	60	60	18	24	10



Solid brick (b) EN 771-1 CLASSIC RED ρ=1560 Kg/m³
120 x 250 x 55 mm

AAC

d [mm]	d_0 [mm]	h_{min} [mm]	h_{ef} [mm]	S_{min} [mm]	C_{min} [mm]	d_f [mm]	S_w [mm]	T_{inst} [Nm]
M8	10	h_{ef} + 30 mm	80	50	50	9	13	2
M10	12	h_{ef} + 30 mm	85	50	50	12	17	2
M12	14	h_{ef} + 30 mm	95	50	50	14	19	2
M16	18	h_{ef} + 30 mm	105	60	60	18	24	2



AAC2 (d) EN 771-4 CLIMAGOLD ρ=300 Kg/m³
625 x 200 x 360 mm

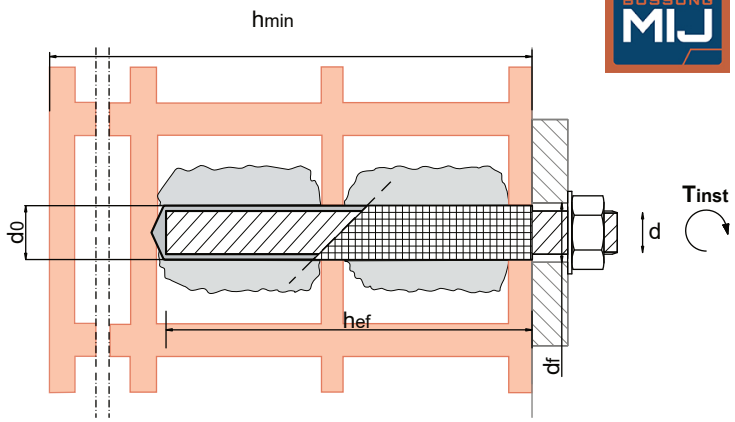


AAC5 (d) EN 771-4 SEISMIC BLOCK ρ=575 Kg/m³
625 x 200 x 300 mm

S_{cr} / C_{cr} SEE ETA

INSTALLATION DATA

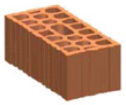
d	[mm]	BAR DIAMETER
d_0	[mm]	DIAMETRO FORO
h_{min}	[mm]	MINIMUM SUBSTRATE THICKNESS
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	MINIMUM EDGE DISTANCE
d_f	[mm]	PLATE HOLE DIAMETER
s_w	[mm]	KEY
T_{inst}	[Nm]	TIGHTENING TORQUE
h_{ef}	[mm]	EFFECTIVE ANCHORAGE DEPTH



HOLLOW BRICK

d [mm]		d_0 [mm]	h_{min} [mm]	h_{ef} [mm]	S_{min} [mm]	C_{min} [mm]	d_f [mm]	S_w [mm]	T_{inst} [Nm]
M8	GC 12x80	12	h_{ef} + 30 mm	80	$l_{unit,max}$	100	9	13	4
M10	GC 15x85	16	h_{ef} + 30 mm	85	$l_{unit,max}$	100	12	17	4
M10	GC 15x135	16	h_{ef} + 30 mm	135	$l_{unit,max}$	100	12	17	4
M12	GC 20x85	20-22	h_{ef} + 30 mm	85	$l_{unit,max}$	100	14	19	4

$l_{unit,max}$ = Maximum masonry block size



Hollow Brick (c) EN 771-1 Double brick UNI ρ=810 Kg/m³
190 x 250 x 120 mm



Hollow Brick (c) EN 771-1 POROTON P800 ρ=900 Kg/m³
300 x 245 x 230 mm

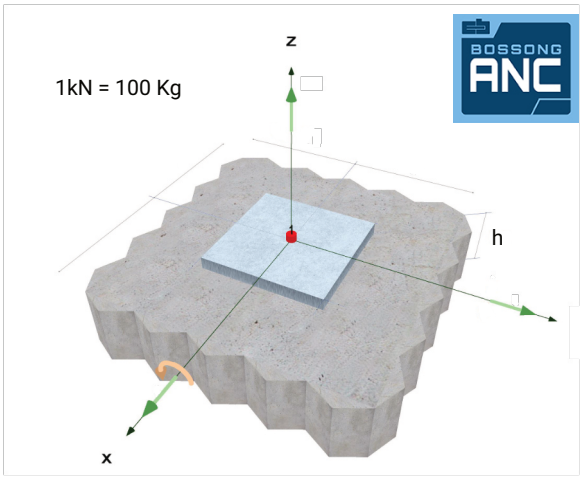


Hollow Brick (c) EN 771-1 Hlz B ρ=900 Kg/m³
115 x 240 x 71 mm

S_{cr} / C_{cr} SEE ETA

LOAD DATA

- EN1992-4
- Loads valid for a single anchor, without the influence of spacing or edge distance.; h ≥ 2hef
- Shear action not directed towards the edge
- Overall safety factor included
- ψsus = 1,0
- Range T°C = -40°C / +40°C/ +50°C
- For the calculation of the admissible load: $N_{rec} = \frac{N_{rd}}{\gamma_{rec}}$; $V_{rec} = \frac{V_{rd}}{\gamma_{rec}}$
- γ_{rec} = 1,4



DESIGN LOAD – STEEL SIDE

THREADED RODS

Nrd,s [kN]							
STEEL CLASS	M8	M10	M12	M14	M16	M20	M24
4.8	10,0	15,3	22,7	30,7	42,0	65,3	94,0
5.8	12,0	19,3	28,0	38,7	52,0	81,3	117,3
8.8	19,3	30,7	44,7	61,3	84,0	130,7	188,0
A2-A4/70	13,9	21,9	31,6	43,3	58,8	91,4	132,1

Vrd,s [kN]							
STEEL CLASS	M8	M10	M12	M14	M16	M20	M24
4.8	6,0	9,2	13,6	18,4	25,2	39,2	56,4
5.8	7,2	11,6	16,8	23,2	31,2	48,8	70,4
8.8	12,0	18,4	27,2	36,8	50,4	78,4	112,8
A2-A4/70	8,3	13,1	18,9	26,0	35,3	54,8	79,2

LOAD DATA

CONCRETE NON-CRACKED C20/25





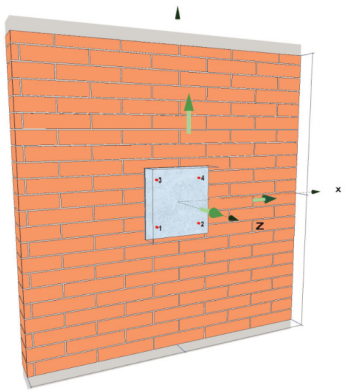
BAR DIAMETER	M8	M10	M12	M14	M16	M20	M24
d_0 [mm]	10	12	14	16	18	22-24	28
h_{ef} [mm]	DESIGN TENSILE LOAD N_{rd} [kN]						
60	10,1						
70	11,7	14,7					
80	13,4	16,8	18,4	19,5			
100	16,8	20,9	23,0	24,4	25,1		
120	19,3	25,1	27,6	29,3	30,2	35,9	
140		29,3	32,3	34,2	35,2	44,0	45,3
160		30,7	36,9	39,1	40,2	50,3	53,6
180			41,5	44,0	45,2	56,5	60,3
200			44,7	48,9	50,3	62,8	67,0
220				53,8	55,3	69,1	73,7
240				58,6	60,3	75,4	80,4
260				61,3	65,3	81,7	87,1
280					70,4	88,0	93,8
300					75,4	94,2	100,5
320					80,4	100,5	107,2
340						106,8	113,9
360						113,1	120,6
380						119,4	127,3
400						125,7	134,0
450							150,8
480							160,8

BAR DIAMETER	M8	M10	M12	M14	M16	M20	M24
d_0 [mm]	10	12	14	16	18	22-24	28
h_{ef} [mm]	DESIGN SHEAR LOAD V_{rd} [kN]						
60	12,0						
70	12,0	18,4					
80		18,4	27,2	36,8			
100			27,2	36,8	50,3		
120					50,4	71,9	
140						78,4	90,5
160							107,2
180							112,8

Steel-side failure Class 8.8

LOAD DATA

- TR054
- Loads valid for a single anchor, without the influence of spacing or edge distance.
- Shear action not directed towards the edge
- Overall safety factor included
- Range T°C = -40°C / +40°C/ +50°C
- For masonry elements not covered by the ETA, the resistances can be evaluated by in situ tests according to the EOTA TR053



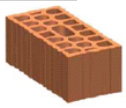
SOLID BRICK

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	0,8	2,2	0,6	1,6
Ø8	80	0,8	2,2	0,6	1,6
M10	85	1,0	3,4	0,7	2,4
Ø10	85	1,2	3,2	0,9	2,3
M12	95	1,4	4,6	1,0	3,3
Ø12	95	1,4	4,6	1,0	3,3
M16	105	1,6	5,4	1,1	3,9



DOPPIO UNI

d [mm]		N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	GC 12 x 80	1,6	2,4	1,1	1,7
M10	GC 15 x 85	2,0	2,6	1,4	1,9
M12	GC 20 x 85	2,2	3,6	1,6	2,6



HLZ

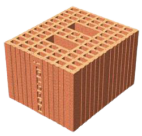
d [mm]		N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	GC 12 x 80	1,4	1,6	1,0	1,1
M10	GC 15 x 85	1,8	2,2	1,3	1,6
M12	GC 20 x 85	2,0	2,2	1,4	1,6



LOAD DATA

POROTON

d [mm]		N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M10	GC 15 x 135	1,4	2,2	1,0	1,6



AAC2

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	0,75	0,75	0,5	0,5
M10	85	1,0	0,75	0,7	0,5
M12	95	1,25	1,25	0,9	0,9
M16	105	1,25	1,25	0,9	0,9

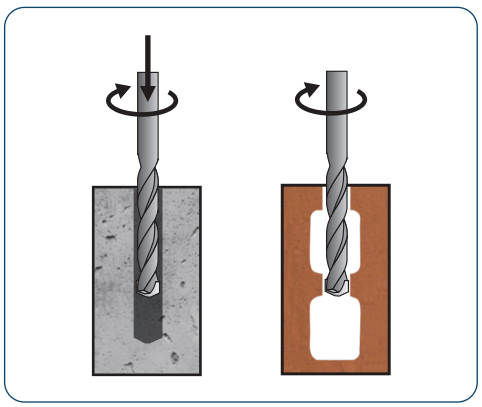


AAC5

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	1,25	1,75	0,9	1,3
M10	85	1,5	2,0	1,1	1,4
M12	95	1,75	2,0	1,3	1,4
M16	105	2,0	2,0	1,4	1,4

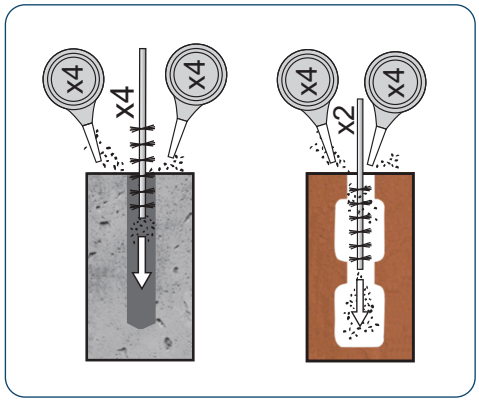


INSTALLATION PROCEDURE



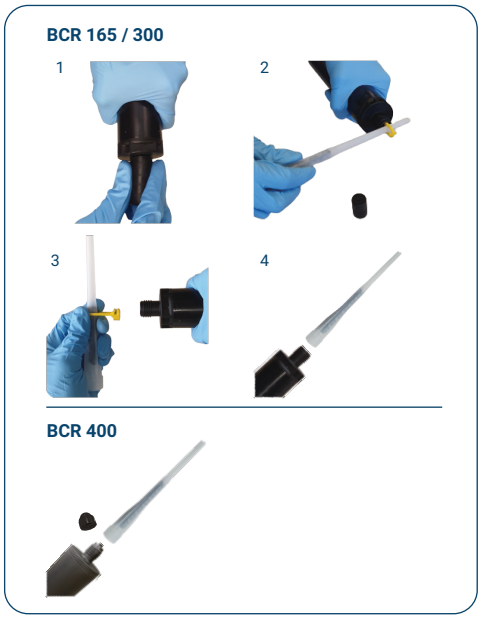
DRILL THE HOLE

Use a rotary hammer drill for solid materials, but use only the rotary setting for hollow materials to avoid damaging the base material. Always ensure the hole is drilled perpendicular to the surface.



CLEAN THE HOLE

Blow out the hole using a blow-out pump or air compressor to completely remove dust and debris, then clean the walls with a brush and blow it out again until the hole is completely clean.

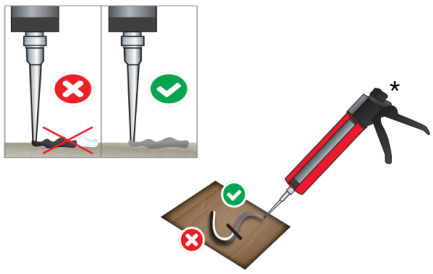


PREPARE THE CARTRIDGE

For the 300 ml and 165 ml sizes, unscrew the cap, insert the mixer into the plastic extractor, and pull to remove the bag's metal clip. Screw on the mixer and insert the cartridge into the dispenser, using hand and face protection.

For the 400 ml size, unscrew the cap. Screw on the mixer and insert the cartridge into the dispenser, using hand and face protection.

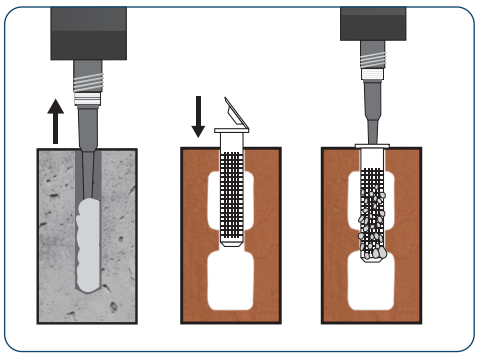
INSTALLATION PROCEDURE



* Use an appropriate dispenser

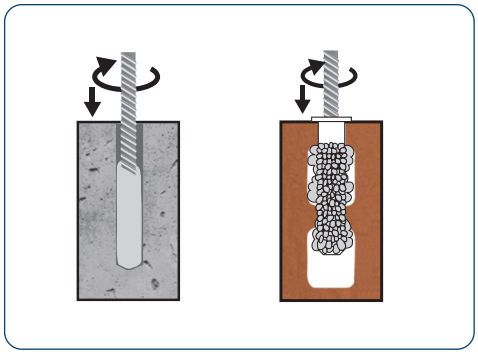
CHECK FOR PROPER MIXING

Extrude an initial portion of the product until the two components are completely mixed; only then is the product ready for use.



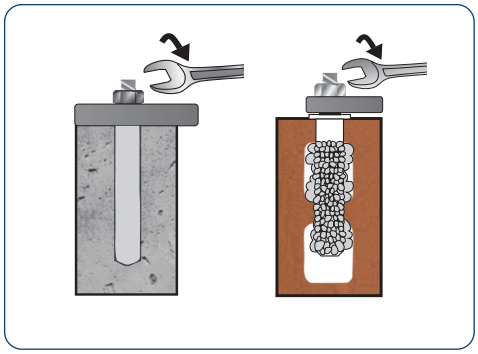
EXTRUDE THE RESIN

Fill the hole starting from the bottom up to approximately two-thirds of its volume. For hollow materials, insert the plastic or metal sleeve into the brick and extrude the resin until the hole is completely filled. For deep holes, use extension tubes to ensure proper filling from the bottom outwards, avoiding air pockets or unfilled areas. The chemical anchor is thixotropic and suitable for overhead applications. Using an extension tube with an injection plug allows for precise control of the resin flow, ensuring the hole is correctly filled from the bottom to the opening.



INSERT THE METAL BAR

The metal element must be clean and dry and should be inserted with a rotating motion to allow air bubbles to escape.



OBSERVE THE RECOMMENDED SETTING TIMES

Once the allotted time has elapsed, tightening and loading can be carried out.

NOTE: The technical, installation, and load data provided in this document are subject to revision and updates. This version supersedes and replaces all previous versions. It is the customer's responsibility to verify the suitability of Bossong products for the intended application and to ensure that job site conditions, as well as usage and disposal procedures, comply with applicable regulations. For specific applications and designs, the use of BOSSONG FIX software for anchor sizing and verification is recommended; this is available in the technical section of the Bossong website. To access the most up-to-date version of the technical documentation, please visit www.bossong.com or contact our Technical Department.