BOSSONG

V-PLUS

TECHNICAL DATA SHEET



UPDATE

09-2026

V–PLUS

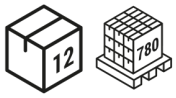
VINYLESTER RESIN
STYRENE-FREE



BCR 400 V-PLUS

cod. 747280 | 400 ml

Coaxial cartrige



BCR 300 V-PLUS

cod. 747260 | 300 ml

Foil cartridge



BCR 165 V-PLUS

cod. 747250 | 165 ml

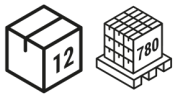
Foil cartridge



BCR 400 WINTER

cod. 747274 | 400 ml

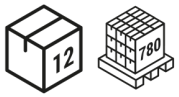
Coaxial cartridge

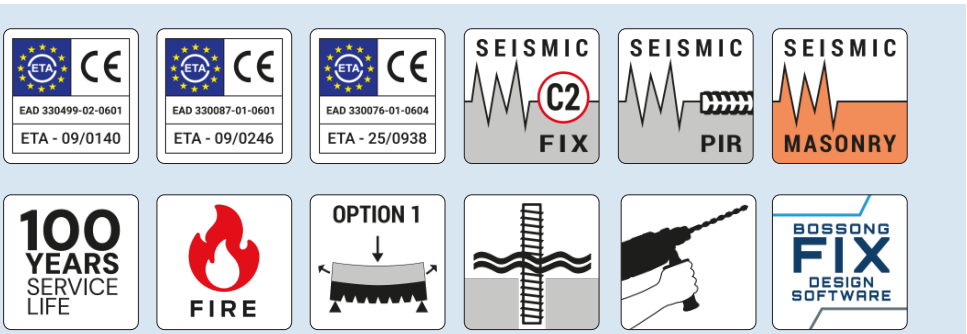


BCR 400 TROPICAL

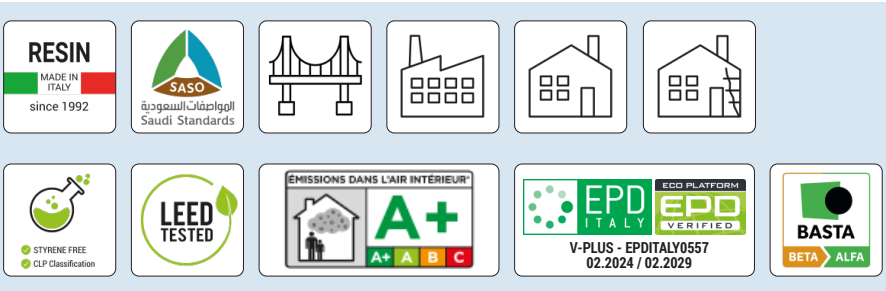
cod. 747276 | 400 ml

Coaxial cartridge



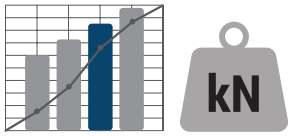








	20°C
OPEN TIME	7 min 30”
CURING TIME	40 min



STORAGE AND CONSERVATION



CARTRIDGE



⚠ **Made-to-order product; scheduled orders subject to MINIMUM quantities.**

SETTING TIMES

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

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

For wet and flooded holes, double the curing time.

V-PLUS STANDARD

BASE MATERIAL TEMPERATURE	OPEN TIME	CURING TIME
40°C	1 min	20 min
35°C	2 min	25 min
30°C	3 min	30 min
25°C	5 min	35 min
20°C	7 min 30"	40 min
15°C	11 min 30"	45 min
10°C	16 min	1 h
5°C	25 min	1 h 30 min
0°C	45 min	7 h
-5°C	65 min	14 h
-10°C	1 h 45 min	24 h

V-PLUS WINTER

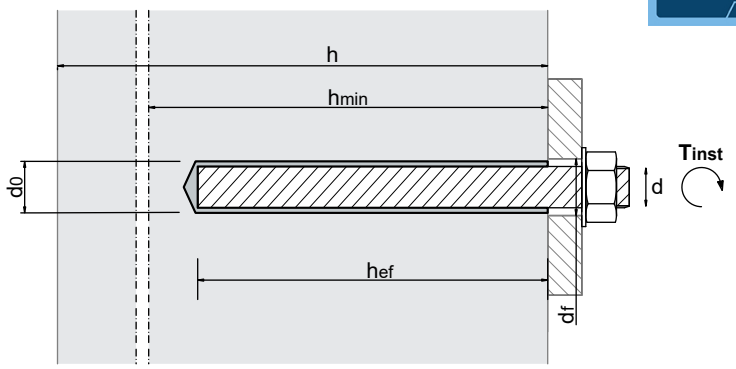
BASE MATERIAL TEMPERATURE	OPEN TIME	CURING TIME
20°C	5 min	30 min
15°C	7 min	35 min
10°C	10 min	50 min
5°C	15 min	1 h 10 min
0°C	25 min	1 h 40 min
-5°C	40 min	5 h 15 min
-10°C	1 h	15 h
-15°C	1 h 30 min	25 h
-20°C	2 h	48 h

V-PLUS TROPICAL

BASE MATERIAL TEMPERATURE	OPEN TIME	CURING TIME
50°C	2 min	20 min
45°C	3 min	20 min
40°C	4 min	20 min
35°C	6 min	30 min
30°C	8 min	40 min
25°C	11 min	50 min
20°C	14 min	1 h

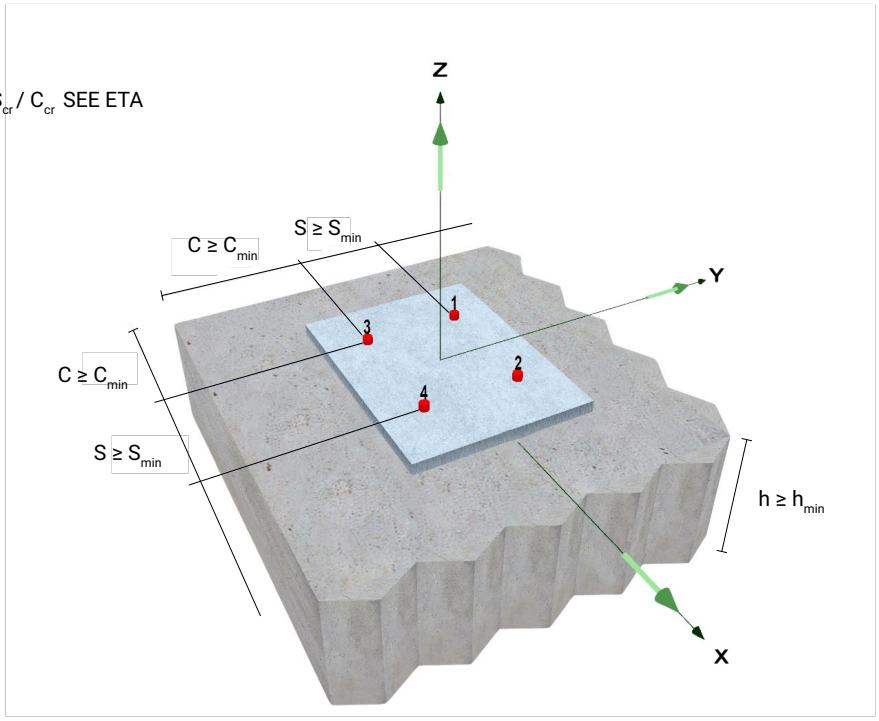
INSTALLATION DATA

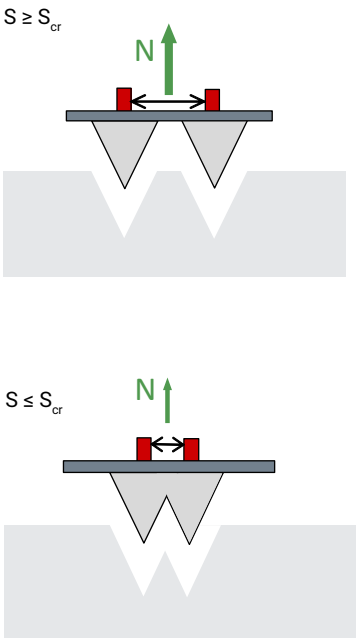
d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
h	[mm]	SUPPORT THICKNESS
h_{min}	[mm]	MINIMUM SUBSTRATE THICKNESS
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	MINIMUM EDGE DISTANCE
h_{ef}	[mm]	EFFECTIVE ANCHORAGE DEPTH
d_f	[mm]	PLATE HOLE DIAMETER
s_w	[mm]	KEY
T_{inst}	[Nm]	TIGHTENING TORQUE



CONCRETE

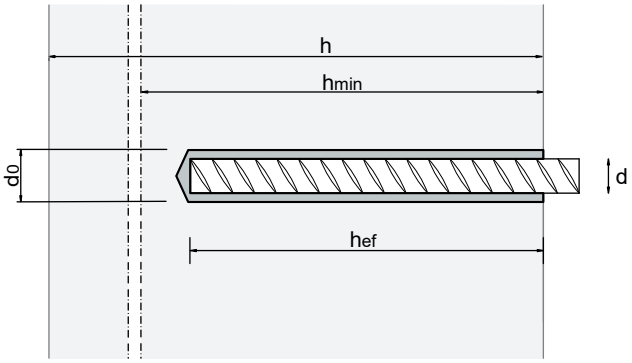
d [mm]	d_0 [mm]	h_{min} [mm]	S_{min} [mm]	C_{min} [mm]	d_f [mm]	S_w [mm]	T_{inst} [Nm]
M8	10	h_{ef} + 30 mm	40	35	9	13	10
M10	12	h_{ef} + 30 mm	50	40	12	17	20
M12	14	h_{ef} + 30 mm	60	45	14	19	40
M16	18	h_{ef} + 2 d_0	75	50	18	24	80
M20	22-24	h_{ef} + 2 d_0	90	55	22	30	130
M24	28	h_{ef} + 2 d_0	115	60	26	36	200
M27	30	h_{ef} + 2 d_0	120	75	29	41	250
M30	35	h_{ef} + 2 d_0	140	80	33	46	280





INSTALLATION DATA

d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
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

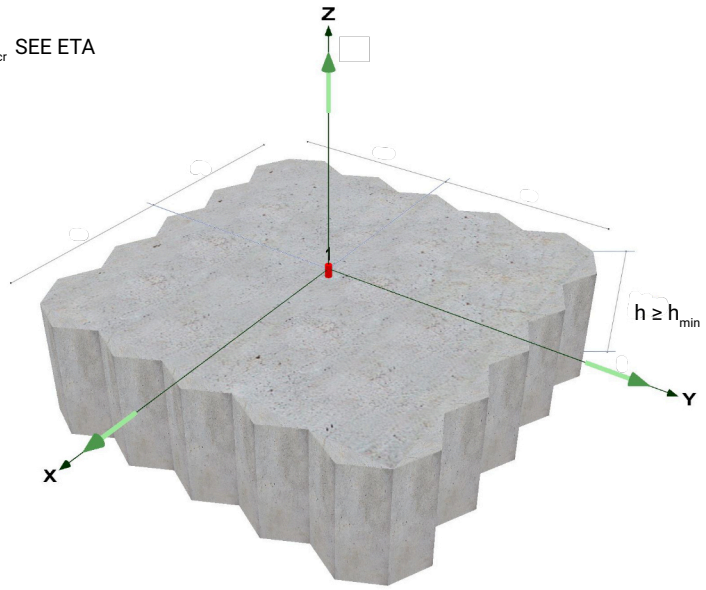


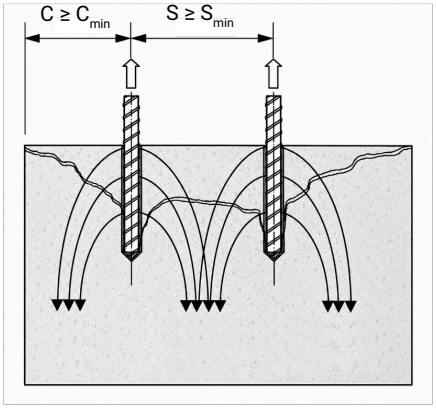
CONCRETE

d [mm]	d_0 [mm]	h_{min} [mm]	S_{min} [mm]	C_{min} [mm]
Ø 8	10*-12	h_{ef} + 30 mm	40	35
Ø 10	12*-14	h_{ef} + 30 mm	50	40
Ø 12	14*-16	h_{ef} + 2 d_0	60	45
Ø 14	18	h_{ef} + 2 d_0	75	50
Ø 16	20	h_{ef} + 2 d_0	75	50
Ø 20	25	h_{ef} + 2 d_0	90	55
Ø 25	30	h_{ef} + 2 d_0	115	60
Ø 28	35	h_{ef} + 2 d_0	120	75
Ø 32	40	h_{ef} + 2 d_0	140	80

(*) Recommended drilling depth up to 250 mm

S_{cr} / C_{cr} SEE ETA

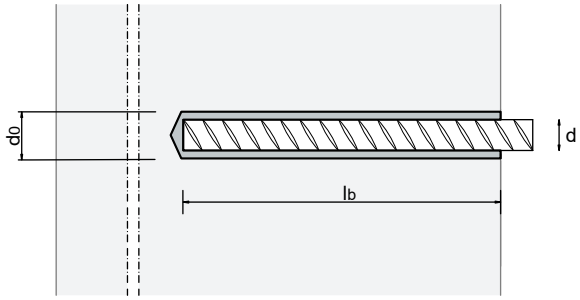




The tensile strength of the concrete is taken into account in the load transfer mechanism.

INSTALLATION DATA

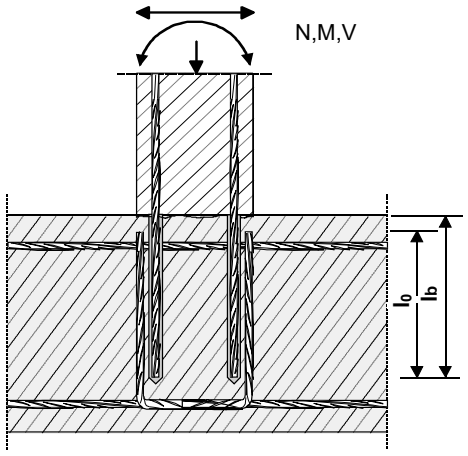
d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
l_b	[mm]	ANCHORAGE LENGTH
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	CONCRETE COVER
L_{max}	[mm]	MAXIMUM DRILLING DEPTH

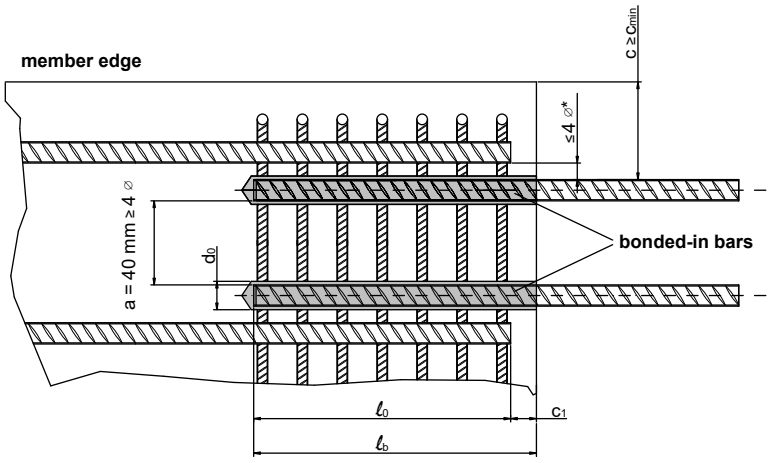


CONCRETE

d [mm]	d_0 [mm]	S_{min} [mm]	C_{min} [mm]	L_{max} [mm]
Ø 8	10* - 12	40	30 mm + 0,06 * l_b > 2 d	400
Ø 10	12* - 14	40	30 mm + 0,06 * l_b > 2 d	500
Ø 12	14* - 16	48	30 mm + 0,06 * l_b > 2 d	600
Ø 14	18	56	30 mm + 0,06 * l_b > 2 d	700
Ø 16	20	64	30 mm + 0,06 * l_b > 2 d	800
Ø 20	25	80	30 mm + 0,06 * l_b > 2 d	1000
Ø 22	26	88	30 mm + 0,06 * l_b > 2 d	1000
Ø 24	30	96	30 mm + 0,06 * l_b > 2 d	1000
Ø 25	30	100	40 mm + 0,06 * l_b > 2 d	1000
Ø 28	35	112	40 mm + 0,06 * l_b > 2 d	1000
Ø 30	35	120	40 mm + 0,06 * l_b > 2 d	1000
Ø 32	40	128	40 mm + 0,06 * l_b > 2 d	1000

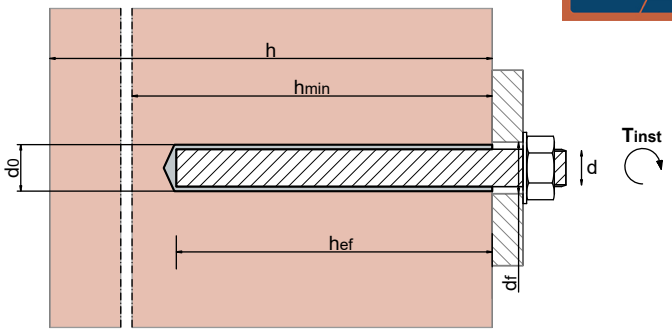
(*) Recommended drilling depth up to 250 mm





INSTALLATION DATA

d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
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	80/160	50	50	9	13	5
M10	Ø 10	12	h_{ef} + 30 mm	90	50	50	12	17	8
M12	Ø 12	14	h_{ef} + 30 mm	100/200	50	50	14	19	10
M16	Ø 16	18	h_{ef} + 30 mm	110/200	60	60	18	24	10



SOLID BRICK (b) EN 771-1 DANESI 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	90	50	50	12	17	2
M12	14	h_{ef} + 30 mm	100	50	50	14	19	2
M16	18	h_{ef} + 30 mm	110	60	60	18	24	2



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

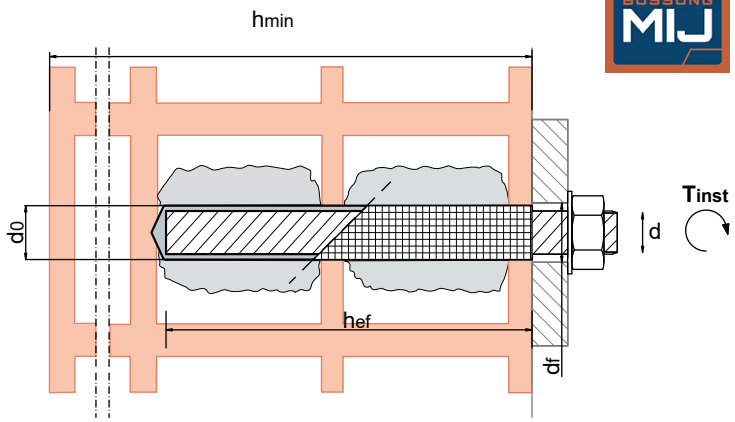


AAC5 (d) EN 771-4 SEISMIC BLOCK ρ=575 Kg/m³
625 x 200 x 300 mm

S_{cr} / C_{cr} SEE ETA

INSTALLATION DATA

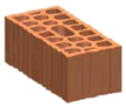
d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
h_{min}	[mm]	MINIMUM SUBSTRATE THICKNESS
s_{min}	[mm]	MINIMUM SPACING
c_{min}	[mm]	MINIMUM EDGE DISTANCE
d_f	[mm]	PLATE HOLE DIAMETER
s_w	[mm]	KEY
T_{inst}	[Nm]	TIGHTENING TORQUE
h_{ef}	[mm]	EFFECTIVE ANCHORAGE DEPTH



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 15x135	16	h_{ef} + 30 mm	135	$l_{unit,max}$	100	14	19	4
M12	GF 16x150	16-18	h_{ef} + 30 mm	150	$l_{unit,max}$	100	14	19	4
M12	GC 16x330	16-18	h_{ef} + 30 mm	130-330	$l_{unit,max}$	100	14	19	4
M12	GC 20x85	20-22	h_{ef} + 30 mm	85	$l_{unit,max}$	100	14	19	4
M16	GC 20x85	20-22	h_{ef} + 30 mm	85	$l_{unit,max}$	120	18	24	4

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



HOLLOW BRICK (c) EN 771-1 MATTONE DOPPIO UNI ρ=810 Kg/m^3

190 x 250 x 120 mm



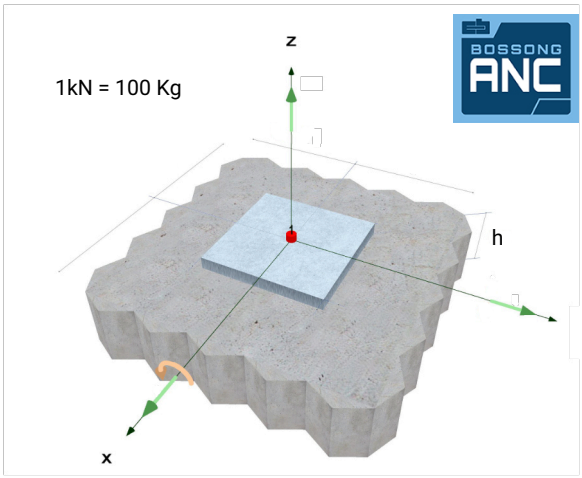
HOLLOW BRICK (c) EN 771-1 POROTON P800 ρ=900 Kg/m^3

300 x 245 x 230 mm

S_{cr} / C_{cr} SEE ETA

LOAD DATA

- EN1992-4
- Loads valid for a single anchor, without the influence of anchor 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 / +24°C/ +40°C
- for the calculation of admissible loadt: $N_{rec} = \frac{N_{rd}}{\gamma_{rec}}$; $V_{rec} = \frac{V_{rd}}{\gamma_{rec}}$
- γ_{rec} = 1,4



DESIGN LOAD – STEEL

THREADED RODS

Nrd,s [kN]								
STEEL CLASS	M8	M10	M12	M16	M20	M24	M27	M30
4.8	10,0	15,3	22,7	42,0	65,3	94,0	122,0	149,3
5.8	12,0	19,3	28,0	52,0	81,3	117,3	152,7	186,7
8.8	19,3	30,7	44,7	84,0	130,7	188,0	244,7	299,3
A2-A4/70	13,9	21,9	31,6	58,8	91,4	132,1	171,7	209,6

Vrd,s [kN]								
STEEL CLASS	M8	M10	M12	M16	M20	M24	M27	M30
4.8	6,0	9,2	13,6	25,2	39,2	56,4	73,2	89,6
5.8	7,2	11,6	16,8	31,2	48,8	70,4	91,6	112,0
8.8	12,0	18,4	27,2	50,4	78,4	112,8	147,2	179,2
A2-A4/70	8,3	13,1	18,9	35,3	54,8	79,2	102,9	125,6

REBAR

Nrd,s [kN]									
STEEL CLASS	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
B450C	19,3	30,5	43,6	59,4	77,5	121,1	189,4	237,6	310,1
500B	20,7	32,7	46,8	63,8	83,3	130,1	203,4	255,2	333,1
500C	19,6	31,0	44,4	60,5	79,0	123,4	192,9	242,0	315,9

Vrd,s [kN]									
STEEL CLASS	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
B450C	9,0	14,2	20,3	27,7	36,2	56,5	88,4	110,9	144,7
500B	9,7	15,3	21,8	29,8	38,9	60,7	94,9	119,1	155,4
500C	9,2	14,5	20,7	28,2	36,9	57,6	90,0	112,9	147,4

LOAD DATA

NON-CRACKED CONCRETE C20/25





BAR DIAMETER	M8	M10	M12	M16	M20	M24	M27	M30
d_0 [mm]	10	12	14	18	22-24	28	30	35
h_{ef} [mm]	DESIGN TENSILE LOAD N_{rd} [kN]							
60	15,2							
70	18,8	17,6						
80	19,3	20,1	23,5					
100		25,1	30,2	32,8				
120		30,2	36,2	43,1	43,1			
140		30,7	42,2	54,3	54,3	54,3	54,3	54,3
160			44,7	64,3	63,7	66,4	66,4	66,4
180				72,4	71,6	79,2	79,2	79,2
200				80,4	79,6	92,8	90,5	92,8
220				84,0	87,5	105,1	99,5	107,0
240					95,5	114,6	108,6	120,6
260					103,5	124,2	117,6	130,7
280					111,4	133,7	126,7	140,7
300					119,4	143,3	135,7	150,8
320					127,3	152,8	144,8	160,8
340					130,7	162,4	153,8	170,9
360						171,9	162,9	181,0
380						181,5	171,9	191,0
400						188,0	181,0	201,1
450							203,6	226,2
500							226,2	251,3
550							244,7	276,5
600								295,3

BAR DIAMETER	M8	M10	M12	M16	M20	M24	M27	M30
d_0 [mm]	10	12	14	18	22-24	28	30	35
h_{ef} [mm]	DESIGN SHEAR LOAD V_{rd} [kN]							
60	12,0							
70	12,0	18,4						
80		18,4	27,2					
100			27,2	50,4				
120				50,4	78,4			
140					78,4	108,7	108,7	108,7
160						112,8	132,7	132,7
180							147,2	158,4
200								179,2

Steel-side failure Class 8.8

LOAD DATA

CRACKED CONCRETE C20/25



BAR DIAMETER	M10	M12	M16	M20
d_0 [mm]	12	14	18	22-24
h_{ef} [mm]	DESIGN TENSILE LOAD N_{rd} [kN]			
70	13,2			
80	15,1	16,4		
100	18,8	22,6	23,0	
120	22,6	27,1	30,2	30,2
140	26,4	31,7	38,0	38,0
160	30,2	36,2	46,5	43,6
180	30,7	40,7	54,3	49,0
200		44,7	60,3	54,5
220			66,4	59,9
240			72,4	65,3
260			78,4	70,8
280			84,0	76,2
300				81,7
320				87,1
340				92,6
360				98,0
380				103,5
400				108,9

BAR DIAMETER	M10	M12	M16	M20
d_0 [mm]	12	14	18	22-24
h_{ef} [mm]	DESIGN SHEAR LOAD V_{rd} [kN]			
70	18,4			
80	18,4	27,2		
100		27,2	45,9	
120			50,4	60,4
140				76,1
160				78,4

Steel-side failure Class 8.8

LOAD DATA

NON-CRACKED CONCRETE C20/25





BAR DIAMETER	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
d_0 [mm]	12	14	16	18	20	25	30	35	40
h_{ef} [mm]	DESIGN TENSILE LOAD N_{rd} [kN]								
60	14,1								
70	16,4	19,1							
80	18,8	21,8	23,5	23,5					
90	19,3	24,5	28,0	28,0					
100		27,2	32,7	32,8	32,8				
120		30,5	39,2	42,2	40,2	43,1			
130			42,5	45,7	43,6	48,6			
140			43,6	49,3	46,9	54,3			
150				52,8	50,3	59,7	60,2		
160				56,3	53,6	63,7	66,4		
170				59,4	57,0	67,6	72,7		
180					60,3	71,6	79,2	79,2	
190					63,7	75,6	85,9	85,9	
200					67,0	79,6	92,8	92,8	92,8
210					70,4	83,6	99,8	99,8	99,8
250					77,5	99,5	124,4	124,6	125,7
280						111,4	139,3	139,6	140,7
300						119,4	149,2	149,5	150,8
320						121,1	159,2	159,5	160,8
360							179,1	179,4	181,0
380							189,0	189,4	191,0
400							189,4	199,4	201,1
420								209,4	211,1
440								219,3	221,2
480								237,6	241,3
500								237,6	251,3
550									276,5
600									301,6
640									310,1

BAR DIAMETER	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
d_0 [mm]	12	14	16	18	20	25	30	35	40
h_{ef} [mm]	DESIGN SHEAR LOAD V_{rd} [kN]								
60	9,0								
70	9,0	14,2							
80		14,2	20,3	27,7					
100				27,7	36,2				
120					36,2	56,5			
150							88,4		
200								110,9	144,7

Steel-side failure B450C

LOAD DATA

REBAR

$L_{b,min}$ = Minimum anchorage length

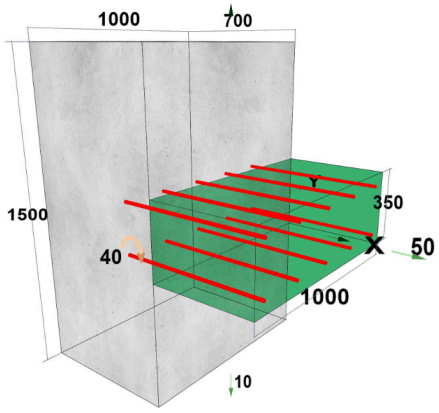
$L_{0,min}$ = Minimum overlap length

$L_{bd,y}$ = Yielding anchorage length

$L_{0,PIR,y}$ = Yielding overlap length

α_2 = concrete cover coefficient

Range T°C = -40°C / +50°C/ +80°C



BAR DIAMETER	STATIC ADHESION VALUES $f_{bd,PIR}$ [N/mm²]								
	C12/15	C16/20	20/25	C25/30	C30/37	C35/45	C40/50	C45/55	C50/60
Ø8 - Ø14	1,60	2,00	2,30	2,70	3,00	3,40	3,70	4,00	4,30
Ø16 - Ø20	1,60	2,00	2,30	2,70	3,00	3,40	3,70	4,00	4,00
Ø22	1,60	2,00	2,30	2,70	3,00	3,40	3,70	3,70	4,00
Ø24 - Ø25	1,60	2,00	2,30	2,70	3,00	3,40	3,70	3,70	3,70
Ø28	1,60	2,00	2,30	2,70	3,00	3,40	3,40	3,40	3,40
Ø30 - Ø32	1,60	2,00	2,30	2,70	2,70	2,70	2,70	2,70	2,70

BAR DIAMETER	BOND VALUES UNDER SEISMIC CONDITIONS $f_{bd,PIR}$ [N/mm²]							
	C16/20	20/25	C25/30	C30/37	C35/45	C40/50	C45/55	C50/60
Ø12 - Ø25	2,00	2,30	2,30	2,30	2,30	2,30	2,30	2,30
Ø28 - Ø32	2,00	2,00	2,00	2,00	2,00	2,00	2,00	2,00

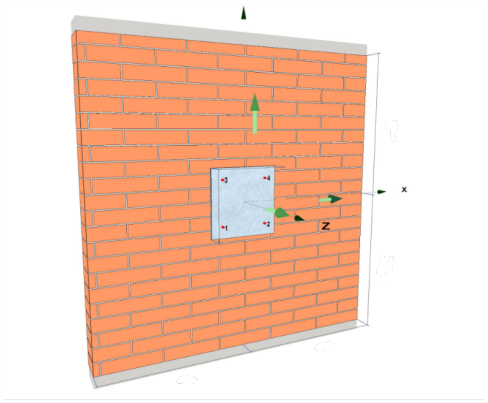
ANCHORAGE AND LAP LENGTH

BAR DIAMETER	CLASS CONCRETE	YIELDING LOAD	$L_{b,min}$	$L_{0,min}$	$L_{bd,y}$ α_2=1	$L_{bd,y}$ α_2=0.7	$L_{0,PIR,y}$ α_2=1	$L_{0,PIR,y}$ α_2=0.7
[mm]		[kN]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
Ø 8	C20/25	21,9	113	200	379	265	568	398
	C30/37		100	200	290	203	436	305
	C50/60		100	200	203	142	304	213
Ø 10	C20/25	34,1	142	213	472	330	708	496
	C30/37		109	200	362	253	543	380
	C50/60		100	200	252	177	379	265
Ø 12	C20/25	49,2	170	255	567	397	851	596
	C30/37		130	200	435	305	653	457
	C50/60		120	200	304	212	455	319

BAR DIAMETER	CLASS CONCRETE	YIELDING LOAD	$L_{b,min}$	$L_{0,min}$	$L_{bd,y}$ α_2=1	$L_{bd,y}$ α_2=0.7	$L_{0,PIR,y}$ α_2=1	$L_{0,PIR,y}$ α_2=0.7
[mm]		[kN]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
Ø 14	C20/25	66,9	198	297	661	463	992	694
	C30/37		152	228	507	355	761	532
	C50/60		140	210	354	248	531	371
Ø 16	C20/25	87,4	227	341	756	529	1134	794
	C30/37		174	261	580	406	869	609
	C50/60		160	240	435	304	652	456
Ø 18	C20/25	110,6	255	383	850	595	1276	893
	C30/37		196	294	652	456	978	685
	C50/60		180	270	489	342	733	513
Ø 20	C20/25	136,6	284	426	945	662	1418	993
	C30/37		217	326	725	507	1087	761
	C50/60		200	300	544	380	815	571
Ø 22	C20/25	165,3	312	468	1040	728	1560	1092
	C30/37		239	359	797	558	1196	837
	C50/60		220	330	598	419	897	628
Ø 24	C20/25	196,7	340	510	1134	794	1701	1191
	C30/37		261	392	870	609	1304	913
	C50/60		240	360	705	494	1058	740
Ø 25	C20/25	213,4	354	531	1181	827	1772	1240
	C30/37		272	408	906	634	1359	951
	C50/60		250	375	734	514	1102	771
Ø 26	C20/25	230,8	369	554	1229	860	1843	1290
	C30/37		283	425	942	659	1413	989
	C50/60		260	390	764	535	1146	802
Ø 28	C20/25	267,7	397	596	1323	926	1985	1389
	C30/37		304	456	1014	710	1522	1065
	C50/60		280	420	895	627	1343	940
Ø 30	C20/25	307,3	425	638	1418	992	2126	1489
	C30/37		326	489	1208	845	1811	1268
	C50/60		300	450	1208	845	1811	1268
Ø 32	C20/25	349,7	454	681	1512	1059	2269	1588
	C30/37		386	579	1288	902	1933	1353
	C50/60		320	480	1288	902	1933	1353

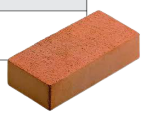
LOAD DATA

- TR054
- Loads valid for a single anchor, without the influence of anchor spacing or edge distance.
- Shear action not directed towards the edge
- Overall safety factor included
- Range T°C = -40°C / +50°C/ +80°C
- For masonry elements not covered by the ETA, the resistances can be evaluated through in situ tests according to the EOTA TR053



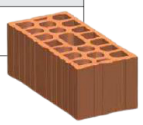
SOLID BRICK

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	1,2	2,0	0,9	1,4
Ø8	80/160	1,0/1,8	2,0/2,8	0,7/1,3	1,4/2,0
M10	90	1,2	3,8	0,9	2,7
Ø10	90/180	1,4/1,8	3,4/4,4	1,0/1,3	2,4/3,1
M12	100/200	2,0/2,2	4,8	1,4/1,6	3,4
Ø12	100/200	1,6/2,2	4,8/5,6	1,1/1,6	3,4/4,0
M16	110/200	2,2/2,8	5,8/10,4	1,6/2,0	4,1/7,4
Ø16	110/200	2,2/2,6	5,0/8,4	1,6/1,9	3,6/6,0



DOPPIO UNI

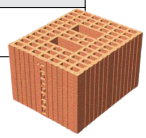
d [mm]		N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	GC 12 x 80	0,8	1,2	0,6	0,9
M10	GC 15 x 85	1,2	2,0	0,9	1,4
M10	GC 15 x 135	1,8	2,2	1,3	1,6
M12	GC 15 x 135	1,6	2,2	1,1	1,6
M12	GF 16 x 150	2,2	2,0	1,6	1,4
M12	GC 16 x 330	2,8	2,4	2,0	1,7
M12	GC 20 x 85	1,6	2,0	1,1	1,4
M16	GC 20 x 85	1,6	3,0	1,1	2,1



LOAD DATA

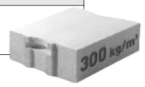
POROTON

d [mm]		N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	GC 12 x 80	1,0	1,6	0,7	1,1
M10	GC 15 x 85	1,2	2,0	0,9	1,4
M10	GC 15 x 135	1,6	2,4	1,1	1,7
M12	GC 15 x 135	1,8	2,8	1,3	2,0
M12	GF 16 x 150	2,2	2,8	1,6	2,0
M12	GC 16 x 330	3,0	2,6	2,1	1,9
M12	GC 20 x 85	1,6	2,6	1,1	1,9
M16	GC 20 x 85	1,8	3,2	1,3	2,3



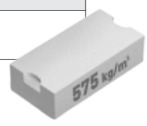
AAC2

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	1,0	1,3	0,7	0,9
M10	90	1,0	1,5	0,7	1,1
M12	100	1,5	1,5	1,1	1,1
M16	110	1,8	1,5	1,3	1,1

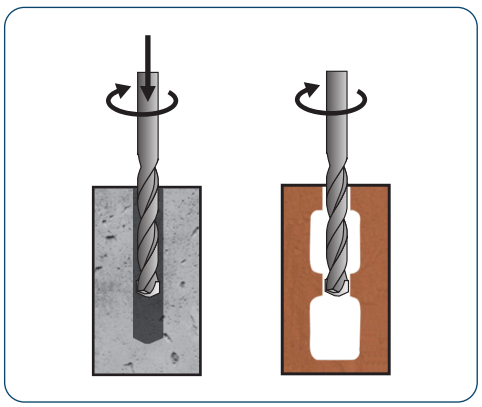


AAC5

d [mm]	h_{ef} [mm]	N_{rd} [kN]	V_{rd} [kN]	N_{rec} [kN]	V_{rec} [kN]
M8	80	1,8	2,0	1,3	1,4
M10	90	2,0	2,5	1,4	1,8
M12	100	2,3	2,8	1,6	2,0
M16	110	2,5	3,0	1,8	2,1

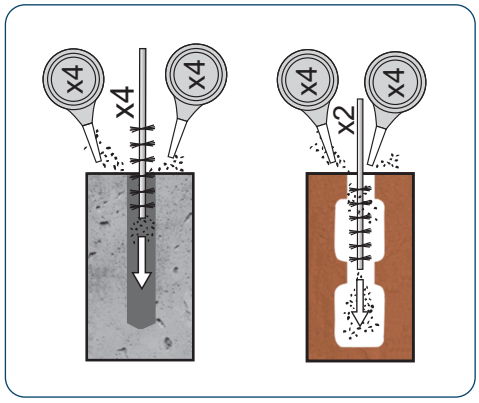


INSTALLATION PROCEDURE



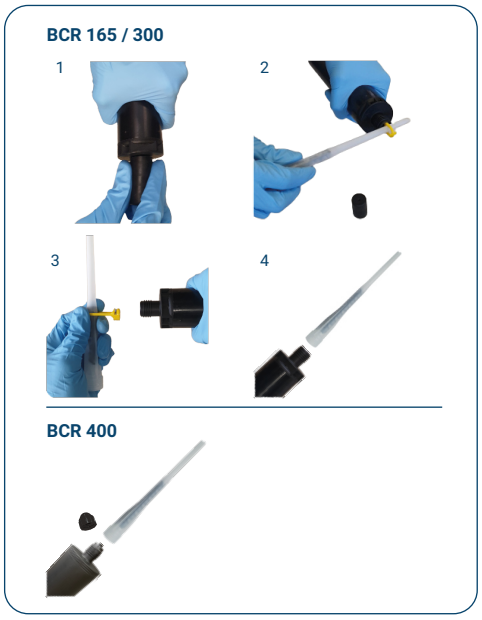
DRILL THE HOLE

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.

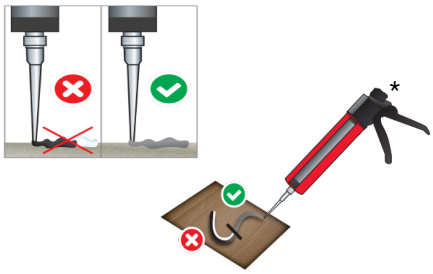


PREPARE THE CARTRIDGE

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 and 585 ml sizes, unscrew the cap. Screw on the mixer and insert the cartridge into the dispenser, using hand and face protection.

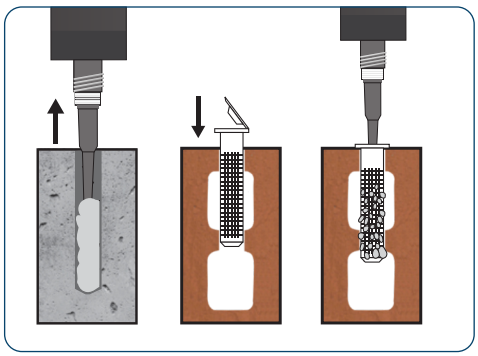
INSTALLATION PROCEDURE



* Use an appropriate dispenser

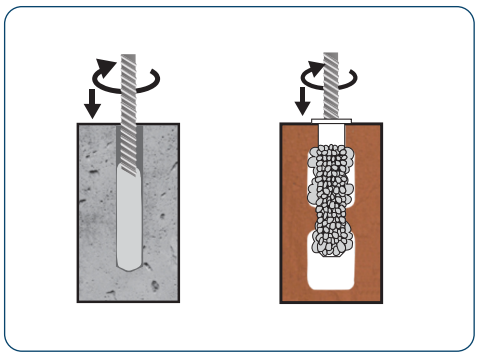
CHECK FOR PROPER MIXING

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



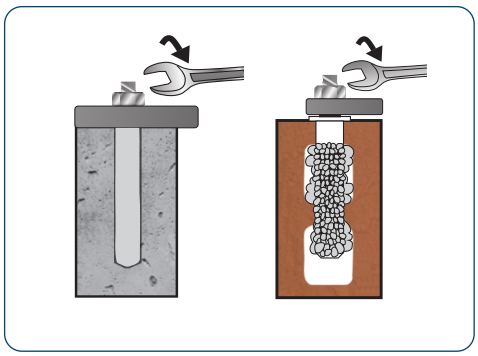
EXTRUDE THE RESIN

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

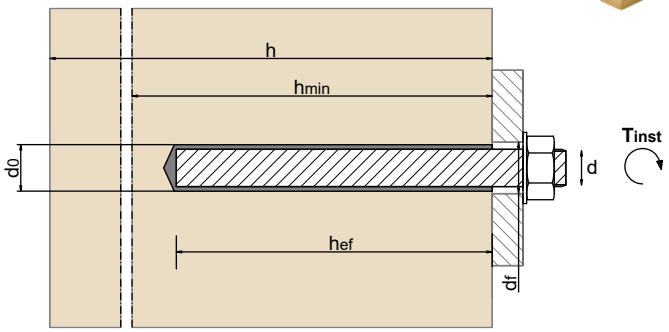
Once the curing time has elapsed, tightening and loading can be carried out.

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.

INSTALLATION DATA

d	[mm]	BAR DIAMETER
d_0	[mm]	HOLE DIAMETER
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





WOOD

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	160	80	50	50	9	13	7
M10	12	200	100	50	50	12	17	15
M12	14	240	120	60	60	14	19	25
M16	18	320	160	80	80	18	24	30

WOOD

BAR DIAMETER	EFFECTIVE ANCHORAGE DEPTH	PERMISSIBLE TENSILE LOAD	ALLOWABLE SHEAR LOAD
d [mm]	h_{ef} [mm]	N_{rec} [kN]	V_{rec} [kN]
M8 - Ø8	80	3,2	For shear values, refer to the instructions. CNR-DT 206/2007 (7.10.2.3)
M10 - Ø10	100	4,2	
M12 - Ø12	120	6,1	
M16 - Ø16	160	10,7	

