

FM-753 CRACK 3DG

Seismisch doorsteekanker

Het doorsteekanker FM-753 CRACK 3DG is een bevestigingssysteem door uitzetting voor zware belastingen op gescheurd en ongescheurd beton, voor het overbrengen van seismische belastingen (C1 en C2) in binnen- of buitentoepassingen.

Kenmerken

Materiaal

- Gehard staal (klasse 9.8),
- Speciale corrosiewerende 3DG-coating met glanzende afwerking,
- Uitzettingsring van A4 roestvrij staal voor maximale grip op de boorgatwanden.

Voordelen

Tijdwinst:

- Onmiddellijke uitzetting,
- Montage door het te bevestigen element, Ø van het boorgat = Ø van de plug,
- Voorgemonteerde moer en sluitring.

Prestaties:

- Seismische en dynamische belastingen,
- Seismische prestaties C1 en C2,
- Negen roestvrijstalen tanden voor een betere grip op de boorgatwanden,
- Brandwerendheid R120,
- Lage minimale rand- en hartafstanden.

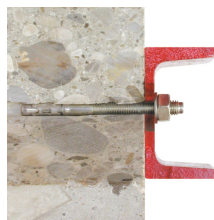
Toepassingen

Toepassingsgebieden

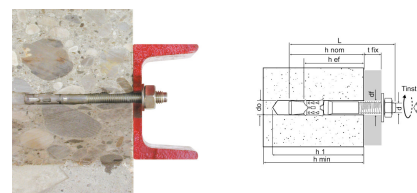
- Structurele bevestigingen met seismische voorzieningen,
- Gevel,
- Borstweringen,
- Hoekijzer voor gevelbekleding ITE,
- Ophangbeugels voor kapconstructies,
- Bevestiging van statische of quasi-statische belastingen.

Ondergrond

- Gescheurd beton,
- Ongescheurd beton,
- Seismische omgeving die overeenkomt met de categorieën C1 en C2.



Technische gegevens



Product dimensions

Referentie	Product Reference	Dimensions [ØxL] [mm]	Seismic certification	Thread length	Fixture thickness [t _{fix,max}] with standard setting depth [h _{ef,STD}] [mm]	Fixture thickness [t _{fix,max}] with reduced setting depth [h _{ef,RED}] [mm]	Hole diameter in fixture [d _f] [mm]	Hole diameter [d ₀] x depth [h ₁] in substrate with standard setting depth [h _{ef,STD}] [mm]	Hole diameter [d ₀] x depth [h ₁] in substrate with reduced setting depth [h _{ef,RED}] [mm]	Min. setting depth [h _{ef,STD}] [mm]
75350B0807500	FM-753 CRACK 3DG	M8x75	C1	30	10	24	9	8x70	8x56	48
75350B0809000		M8x90	C1	40	25	39	9	8x70	8x56	48
75350B1009000		M10x90	C1/C2	40	10	30	12	10x80	10x60	60
75350B1010500		M10x105	C1/C2	55	25	45	12	10x80	10x60	60
75350B1011500		M10x115	C1/C2	55	35	55	12	10x80	10x60	60
75350B1013500		M10x135	C1/C2	85	55	75	12	10x80	10x60	60
75350B1015500		M10x155	C1/C2	85	75	95	12	10x80	10x60	60
75350B1211000		M12x110	C1/C2	65	10	30	14	12x100	12x80	72
75350B1212000		M12x120	C1/C2	65	20	40	14	12x100	12x80	72
75350B1214500		M12x145	C1/C2	85	45	65	14	12x100	12x80	72
75350B1220000		M12x200	C1/C2	85	100	120	14	12x100	12x80	72
75350B1615000		M16x150	C1/C2	85	30	50	18	16x115	16x95	86
75350B1622000		M16x220	C1/C2	85	100	120	18	16x115	16x95	86

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Design capacities - single anchor - no edge distances - Uncracked concrete

Referentie	Product Reference	Dimensions [ØxL] [mm]	Design capacity - Non-cracked concrete (3)								Bending moment MRd [Nm]
			Tension - N _{Rd} (1)				Shear - V _{Rd} (2)				
			C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	
75350B0807500	FM-753 CRACK 3DG	M8x75	6	-	-	-	8.6	-	-	-	-
75350B0809000	FM-753 CRACK 3DG	M8x90	6	-	-	-	8.6	-	-	-	-
75350B1009000	FM-753 CRACK 3DG	M10x90	10.7	-	-	-	16.1	-	-	-	-
75350B1010500	FM-753 CRACK 3DG	M10x105	10.7	-	-	-	16.1	-	-	-	-
75350B1011500	FM-753 CRACK 3DG	M10x115	10.7	-	-	-	16.1	-	-	-	-
75350B1013500	FM-753 CRACK 3DG	M10x135	10.7	-	-	-	16.1	-	-	-	-
75350B1015500	FM-753 CRACK 3DG	M10x155	10.7	-	-	-	16.1	-	-	-	-
75350B1211000	FM-753 CRACK 3DG	M12x110	13.3	-	-	-	22.5	-	-	-	-
75350B1212000	FM-753 CRACK 3DG	M12x120	13.3	-	-	-	22.5	-	-	-	-
75350B1214500	FM-753 CRACK 3DG	M12x145	13.3	-	-	-	22.5	-	-	-	-
75350B1220000	FM-753 CRACK 3DG	M12x200	13.3	-	-	-	22.5	-	-	-	-
75350B1615000	FM-753 CRACK 3DG	M16x150	23.3	-	-	-	44.3	-	-	-	-
75350B1622000	FM-753 CRACK 3DG	M16x220	23.3	-	-	-	44.3	-	-	-	-

1. The design loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing $s \geq 15$ cm (any diameter) or with a rebar spacing $s \geq 10$ cm, if the rebar diameter is 10mm or smaller.

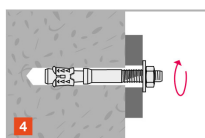
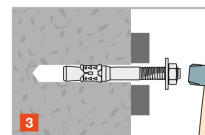
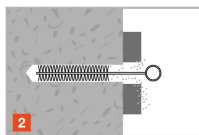
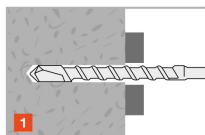
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges ($c \leq \max [10 \text{ hef}; 60d]$) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.

3. Concrete is considered non-cracked when the tensile stress within the concrete is $\sigma_L + \sigma_R \leq 0$. In the absence of detailed verification $\sigma_R = 3 \text{ N/mm}^2$ can be assumed (σ_L equals the tensile stress within the concrete induced by external loads, anchors loads included).

*Not covered by ETA-11/0080

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Plaatsing



Spacings and edge distances

Referentie	Product Reference	Dimensions [ØxL] [mm]	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]	Characteristic edge distance [ccr,N] [mm]	Characteristic spacing(5) - Scr,N [scr,N] [mm]
75350B0807500	FM-753 CRACK 3DG	M8x75	50	50	72	144
75350B0809000	FM-753 CRACK 3DG	M8x90	50	50	72	144
75350B1009000	FM-753 CRACK 3DG	M10x90	60	60	90	180
75350B1010500	FM-753 CRACK 3DG	M10x105	60	60	90	180
75350B1011500	FM-753 CRACK 3DG	M10x115	60	60	90	180
75350B1013500	FM-753 CRACK 3DG	M10x135	60	60	90	180
75350B1015500	FM-753 CRACK 3DG	M10x155	60	60	90	180
75350B1211000	FM-753 CRACK 3DG	M12x110	70	70	110	220
75350B1212000	FM-753 CRACK 3DG	M12x120	70	70	110	220
75350B1214500	FM-753 CRACK 3DG	M12x145	70	70	110	220
75350B1220000	FM-753 CRACK 3DG	M12x200	70	70	110	220
75350B1615000	FM-753 CRACK 3DG	M16x150	85	80	120	258
75350B1622000	FM-753 CRACK 3DG	M16x220	85	80	120	258

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Installation data

Referentie	Product Reference	Dimensions [ØxL] [mm]	Ø drilling hole [d0] [mm]	Min. drill depth [h1] [mm]	Ø drilling fixture [df] [mm]	Wrench size [SW] [mm]	Installation torque [Tinst] [Nm]	Embedment depth [hef] [mm]	Min. support thickness [hmin] [mm]
75350B0807500	FM-753 CRACK 3DG	M8x75	8	70	9	13	20	48	100
75350B0809000	FM-753 CRACK 3DG	M8x90	8	70	9	13	20	48	100
75350B1009000	FM-753 CRACK 3DG	M10x90	10	80	12	17	40	60	120
75350B1010500	FM-753 CRACK 3DG	M10x105	10	80	12	17	40	60	120
75350B1011500	FM-753 CRACK 3DG	M10x115	10	80	12	17	40	60	120
75350B1013500	FM-753 CRACK 3DG	M10x135	10	80	12	17	40	60	120
75350B1015500	FM-753 CRACK 3DG	M10x155	10	80	12	17	40	60	120
75350B1211000	FM-753 CRACK 3DG	M12x110	12	100	14	19	60	72	150
75350B1212000	FM-753 CRACK 3DG	M12x120	12	100	14	19	60	72	150
75350B1214500	FM-753 CRACK 3DG	M12x145	12	100	14	19	60	72	150
75350B1220000	FM-753 CRACK 3DG	M12x200	12	100	14	19	60	72	150
75350B1615000	FM-753 CRACK 3DG	M16x150	16	115	18	24	120	86	170
75350B1622000	FM-753 CRACK 3DG	M16x220	16	115	18	24	120	86	170

