

FM-MP3 evo

Anclaje metálico hembra para carga pesada opción n.º 7

El anclaje metálico FM-MP3 EVO, con manguito de expansión para tornillo de 3 segmentos, sirve para fijar elementos cuya finalidad es transferir cargas pesadas, en múltiples soportes: hormigón fisurado o no, soporte macizo o hueco.

Características

Materia

- Acero electrocincado

Ventajas

- Anclaje metálico universal, adaptado para mampostería hueca,
- cuerpos monobloques, con un exclusivo sistema de sujeción del cono
- Resistencia al fuego R120

Aplicaciones

Aplicación

- Barandillas
- Barreras de seguridad
- Equipos, múltiples aplicaciones no estructurales

Soportes

- Hormigón agrietado
- Hormigón no agrietado
- Piedra
- Ladrillo macizo
- Ladrillo alveolar (compatibilidad a comprobar)

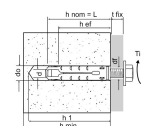


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Datos técnicos

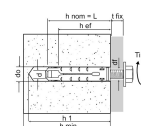
Dimensiones



Modelo	Product Reference	Dimensiones [ØxL] [mm]	Espesor máx. [tfix] piezas a fijar [mm]	Ø agujero [do] [mm]	Profundidad mínima de perforación [h1] [mm]	Profundidad de anclaje nominal [hnom] [mm]	Profundidad de anclaje mínima [hef.] [mm]	Ø agujero pieza a fijar [df] [mm]	Espesor mín. [tmini] piezas a fijar [mm]	Par de montaje [Nm]	Ctd por caja	Ctd por embalaje
73300B1004500	FM-MP3 evo	M6x45*	-	10	60	45	36	8	100	8	50	500
73300B1205000		M8x50*	-	12	70	50	43	10	100	15	50	500
73300B1506000		M10x60*	-	15	80	60	50	12	100	30	25	250
73300B1808000		M12x80*	-	18	100	80	69	14	140	50	20	200

* producto certificado cuando se utiliza con un tornillo de cabeza hexagonal DIN933 clase 8.8 y arandela DIN120-1 (tfix = Lv - hnom)

Dimensión clavijas con tornillos de cabeza hexagonal



Modelo	Product Reference	Dimensiones [ØxL] [mm]	Espesor máx. [tfix] piezas a fijar [mm]	Ø agujero [do] [mm]	Profundidad mínima de perforación [h1] [mm]	Profundidad de anclaje nominal [hnom] [mm]	Profundidad de anclaje mínima [hef.] [mm]	Ø agujero pieza a fijar [df] [mm]	Espesor mín. [tmini] piezas a fijar [mm]	Longitud de rosca [Lv] [mm]	Par de montaje [Nm]	Ctd por caja	Ctd emb:
73301B1004500	FM-MP3 evo	M6x45	5	10	60	45	36	8	100	50	8	50	50
73301B1205000		M8x50	10	12	70	50	43	10	100	60	15	50	25
73301B1506000		M10x60	20	15	80	60	50	12	100	80	30	25	12

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Design capacities - single anchor - no edge distances

Modelo	Product Reference	Dimensiones [ØxL] [mm]	Design capacity - Non-cracked concrete (3)								Bending moment MRd [Nm]
			Tension - NRd (1)				Shear - VRd (1-2)				
			C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	
73300B1004500	FM-MP3 evo	M6x45*	5	-	-	-	5.1	-	-	-	9.6
73300B1205000	FM-MP3 evo	M8x50*	8	-	-	-	9.3	-	-	-	24
73300B1506000	FM-MP3 evo	M10x60*	1.6	-	-	-	11.6	-	-	-	48
73300B1808000	FM-MP3 evo	M12x80*	16.7	-	-	-	27	-	-	-	84
73301B1004500	FM-MP3 evo	M6x45	5	-	-	-	5.1	-	-	-	9.6
73301B1205000	FM-MP3 evo	M8x50	8	-	-	-	9.3	-	-	-	24
73301B1506000	FM-MP3 evo	M10x60	11.6	-	-	-	11.6	-	-	-	48

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.

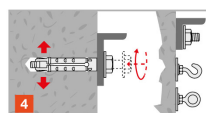
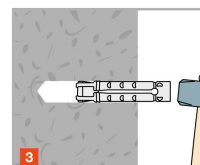
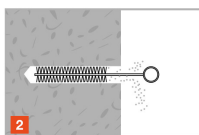
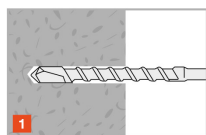
3. Concrete is considered non-cracked when the tensile stress within the concrete is $\sigma_L + \sigma_R \leq 0$. In the absence of detailed verification $\sigma_R = 3 \text{ N/mm}^2$ can be assumed (σ_L equals the tensile stress within the concrete induced by external loads, anchors loads included).

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Instalación



Installation data

Modelo	Product Reference	Dimensiones [ØxL] [mm]	Ø drilling hole [d0] [mm]	Min. drill depth [h1] [mm]	Ø drilling fixture [df] [mm]	Installation torque [Tinst] [Nm]	Embedment depth [hef] [mm]	Min. support thickness [hmin] [mm]
73300B1004500	FM-MP3 evo	M6x45*	10	60	8	8	36	100
73300B1205000	FM-MP3 evo	M8x50*	12	70	10	15	43	100
73300B1506000	FM-MP3 evo	M10x60*	15	80	12	30	50	100
73300B1808000	FM-MP3 evo	M12x80*	18	100	14	50	69	140
73301B1004500	FM-MP3 evo	M6x45	10	60	8	8	36	100
73301B1205000	FM-MP3 evo	M8x50	12	70	10	15	43	100
73301B1506000	FM-MP3 evo	M10x60	15	80	12	30	50	100

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Spacings and edge distances - ETA-09/0067

Modelo	Product Reference	Dimensiones [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]
73300B1004500	FM-MP3 evo	M6x45*	35	35	54	108
73300B1205000	FM-MP3 evo	M8x50*	45	45	65	130
73300B1506000	FM-MP3 evo	M10x60*	50	50	75	150
73300B1808000	FM-MP3 evo	M12x80*	75	75	104	208

* The above table values also apply to: evo S

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