Tekniskt datablad

FM-MP3 evo
Sköldankare

FM-MP3 är tillverkat av galvaniserat stål och monteras i ett förborrat hål, under installationen dras konan in i ankaret som expanderar och skapar en stark förankring.

Egenskaper

Material

- Stål
- Elförzinkad

Fördelar

- Universellt betongankare som kan användas även för ihåliga material
- En solid kropp med unik expansion
- Kan användas för många olika applikationer
- Brandmotstånd R120

Användning

Användningsområden

- Säkerhetsbarriärer
- Stängsel
- Räcken

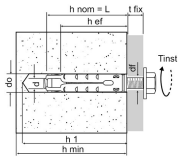
Lämplig för

- Godkänd för:
  1. Bärande konstruktioner i osprucken betong
  2. Multipel användning i icke-bärande konstruktioner i sprucken och osprucken betong

Tekniskt datablad

FM-MP3 evo
Sköldankare

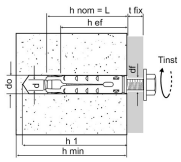
Teknisk data



Produktdimension – Endast ankare

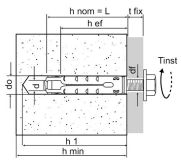
Art. nr.	Produktreferens	Plug [Ø x L]	För skruv	Hålets diameter [d_0] [mm]	Min. håldjup [h_1] [mm]	Nominellt infästningsdjup [h_{nom}] [mm]	Min. sätthöjd [h_{ef}] [mm]	Hålets diameter i fästelementet [d_f] [mm]	Min. fästtjocklek [h_{min}] [mm]	V
73300B1205000	FM-MP3 evo	12x50*	M8	12	70	50	43	10	100	
73300B1506000		15x60*	M10	15	80	60	50	12	100	
73300B1808000		18x80*	M12	18	100	80	69	14	140	

* *Certified product when coupled with hex head screw DIN933 grade 8.8 and washer DIN125-1 ($t_{fix} = L_v - h_{nom}$)*



Produktdimension – Sexkantskruv klass 8.8

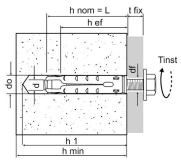
Art. nr.	Produktreferens	Plug [Ø x L]	Sexkantskruv [Ø x L]	Max. fixturens tjocklek [t_{fix}] [mm]	Hålets diameter [d_0] [mm]	Min. håldjup [h_1] [mm]	Nominellt infästningsdjup [h_{nom}] [mm]	Min. sätthöjd [h_{ef}] [mm]	Hålets diameter i fästelementet [d_f] [mm]
73301B1808000	FM-MP3 evo	18x80	M12x100	20	18	100	80	69	14



Produktdimension – Sexkantskruv klass 8.8 Stor bricka

Art. nr.	Produktreferens	Plug [Ø x L]	Sexkantskruv [Ø x L]	Max. fixturens tjocklek [t_{fix}] [mm]	Hålets diameter [d_0] [mm]	Min. håldjup [h_1] [mm]	Nominellt infästningsdjup [h_{nom}] [mm]	Min. sätthöjd [h_{ef}] [mm]	Hålets diameter fästelementet [d_f] [mm]
73307B1004500	FM-MP3 evo	10x45**	M6x50	5	10	60	45	36	8
73307B1205000		12x50**	M8x60	10	12	70	50	43	10
73307B1506000		15x60**	M10x80	20	15	80	60	50	12

** *Not covered by CE certification*

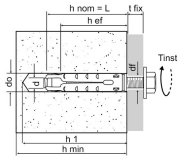


Produktdimension – Gängstång klass 5.8

Table "Produktdimension – Gängstång klass 5.8" cannot be displayed : no references available.

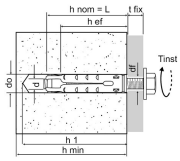
Tekniskt datablad

FM-MP3 evo
Sköldankare



Produktdimension – Smidd krokskruv

Table "Produktdimension – Smidd krokskruv" cannot be displayed : no references available.



Produktdimension – Smidd ögla

Table "Produktdimension – Smidd ögla" cannot be displayed : no references available.

Rekommenderade belastningar / för enkelankare / utan kantavstånd eller avstånd - ETA-09/0067

Art. nr.	Produktreferens	Design capacity - Non-cracked concrete (3)								
		Spänning - N_{rec}1)				Skärkraft - V_{rec} (1-2)				Bending moment MRd [Nm]
		C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	
73300B1205000	FM-MP3 evo	5.7	7	8	8.8	6.8	8.2	8.2	8.2	17
73300B1506000	FM-MP3 evo	8.3	10.4	12	13.2	8.5	10.3	12	13.2	34
73300B1808000	FM-MP3 evo	11.9	14.5	16.8	18.4	19.3	19.3	19.3	19.3	60

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 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\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).
* The above load values also apply to: evo S

Tekniskt datablad

FM-MP3 evo
Sköldankare

Konstruktionskapacitet – enkel förankring – inga kantavstånd

Art. nr.	Produktreferens	Dimensioneringskapacitet – icke-sprickbildad betong (3)								
		Spänning - NRd (1)				Skärkraft - VRd (1-2)				Böjmoment MRd [Nm]
		C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	
73300B1205000	FM-MP3 evo	8	-	-	-	9.3	-	-	-	24
73300B1506000	FM-MP3 evo	1.6	-	-	-	11.6	-	-	-	48
73300B1808000	FM-MP3 evo	16.7	-	-	-	27	-	-	-	84
73301B1808000	FM-MP3 evo	16.7	-	-	-	27	-	-	-	84
73307B1004500	FM-MP3 evo	5	-	-	-	5.1	-	-	-	9.6
73307B1205000	FM-MP3 evo	8	-	-	-	9.3	-	-	-	24
73307B1506000	FM-MP3 evo	11.6	-	-	-	11.6	-	-	-	48

1. The design loads 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 ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 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 ≤ max [10 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\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).
** Not covered by CE certification

Rekommenderade belastningar / för enkelankare / utan kantavstånd eller avstånd - ETA-10/0074

Art. nr.	Produktreferens	Konstruktionskapacitet – sprucken och icke-sprucken betong
		Spänning och skjuvning - F_{rec} [kN] - C20/25-C50/60
73300B1205000	FM-MP3 evo	5.7
73300B1506000	FM-MP3 evo	7.6
73300B1808000	FM-MP3 evo	9.5

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 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\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).
* The above load values also apply to: evo S

Produktdimension – D.I.Y – Sexkantskruv

Table "Produktdimension – D.I.Y – Sexkantskruv" cannot be displayed : no references available.

Tekniskt datablad

FM-MP3 evo
Sköldankare

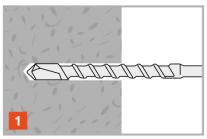
Produktdimension – D.I.Y - Smidd krokkrok

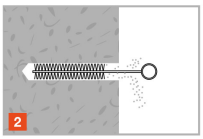
Table "Produktdimension – D.I.Y - Smidd krokkrok" cannot be displayed : no references available.

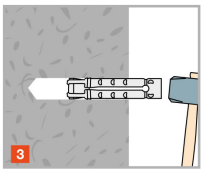
Produktdimension – D.I.Y - Smidd ögla

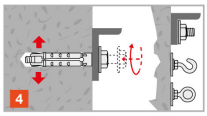
Table "Produktdimension – D.I.Y - Smidd ögla" cannot be displayed : no references available.

Montering









Installation data

Art. nr.	Produktreferens	Ø drilling hole [d0] [mm]	Min. borrdjup [h1] [mm]	Ø borrfixtur [df] [mm]	Installation torque [Tinst] [Nm]	Embedment depth [hef] [mm]	Min. stödtjocklek [hmin] [mm]
73300B1205000	FM-MP3 evo	12	70	10	15	43	100
73300B1506000	FM-MP3 evo	15	80	12	30	50	100
73300B1808000	FM-MP3 evo	18	100	14	50	69	140
73301B1808000	FM-MP3 evo	18	100	14	50	69	140
73307B1004500	FM-MP3 evo	10	60	8	8	36	100
73307B1205000	FM-MP3 evo	12	70	10	15	43	100
73307B1506000	FM-MP3 evo	15	80	12	30	50	100

** Not covered by CE certification

Avstånd och kantavstånd – ETA-09/0067

Art. nr.	Produktreferens	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]	Characteristic edge distance [ccr,N] [mm]	Karakteristiskt avstånd (5) - Scr,N [scr,N] [mm]
73300B1205000	FM-MP3 evo	45	45	65	130
73300B1506000	FM-MP3 evo	50	50	75	150
73300B1808000	FM-MP3 evo	75	75	104	208

* The above table values also apply to: evo S

Spacings and edge distances - ETA-10/0074

Art. nr.	Produktreferens	Characteristic spacing(5) - Scr,N [scr,N] [mm]	Characteristic edge distance [ccr,N] [mm]	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]
73300B1205000	FM-MP3 evo	45	45	200	130
73300B1506000	FM-MP3 evo	50	50	200	150
73300B1808000	FM-MP3 evo	75	75	200	210

* The above table values also apply to: evo S

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