Technical Sheet

FM-MP3 evo
Ekspansionshylse

FM-MP3 evo er et anker fremstillet af galvaniseret stål med tre ekspansionssekmenter, som installers i et forboret hul og forankres ved momentkontrolleret ekspansion.







Features

Materiale

- Stål
- Hvid zinkbelagt

Fordele

- Universal metalanker, også egnet til hule grundmaterialer
- Et-lags ankerkrop med unikt ekapansionssystem
- Mange anvendelsesmuligheder
- Brandmodstandsevne R120

Applications

Anvendelsesområder

1. Sikkerhedsbarrierer
2. Hegn
3. Gelændere

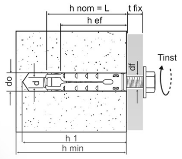
Egnet til:

- Godkendt til:
  1. Bærende konstruktioner i urevnet beton
  2. Anvendelse af flere ankre (multiple use) i ikkebærende konstruktioner i revnet og urevnet beton

Technical Sheet

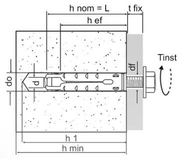
FM-MP3 evo
Ekspansionshylse

Teknisk data



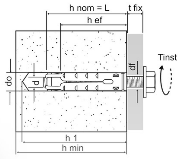
Produktdimension - Kun anker

Produktdimension - Kun anker
See full table online ➡️



Produktdimension - Sekskantskrue klasse 8.8

Produktdimension - Sekskantskrue klasse 8.8
See full table online ➡️

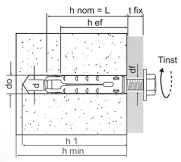


Produktdimension - Sekskantskrue klasse 8.8 Stor skive

Produktdimension - Sekskantskrue klasse 8.8 Stor skive
See full table online ➡️

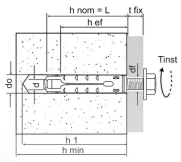
Technical Sheet

FM-MP3 evo
Ekspansionshylse



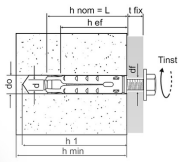
Produktdimension - Gevindstang klasse 5.8

Produktdimension - Gevindstang klasse 5.8
See full table online ➡️



Produktdimension - Smedet kopkrog

Produktdimension - Smedet kopkrog
See full table online ➡️



Produktdimension - Smedet øje

Produktdimension - Smedet øje
See full table online ➡️

Technical Sheet

FM-MP3 evo
Ekspansionshylse

Anbefalede belastninger / for enkeltankre / uden kantafstande eller mellemrum - ETA-09/0067

Reference	Metallic fixings dimensions	Metallic fixings loads								
	Navn	Anbefalet kapacitet								
		Bøjningsmoment M_{rec}[Nm]	Spænding - N_{rec}[kN]				Skæring - V_{rec} (1-2)[kN]			
			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	17	5.7	7	8	8.8	6.8	8.2	8.2	8.2
73300B1506000	FM-MP3 evo	34	8.3	10.4	12	13.2	8.5	10.3	12	13.2
73300B1808000	FM-MP3 evo	60	11.9	14.5	16.8	18.4	19.3	19.3	19.3	19.3

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

Designkapaciteter - enkelt forankring - ingen kantafstande

Reference	Metallic fixings dimensions	Metallic fixings loads								
	Navn	Designkapacitet - ikke-revnet beton (3)[kN]								
		Bøjningsmoment MRd[Nm]	Spænding - NRd (1)				Skæring - VRd (1-2)[kN]			
			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	24	8	-	-	-	9.3	-	-	-
73300B1506000	FM-MP3 evo	48	1.6	-	-	-	11.6	-	-	-
73300B1808000	FM-MP3 evo	84	16.7	-	-	-	27	-	-	-
73301B1808000	FM-MP3 evo	84	16.7	-	-	-	27	-	-	-
73307B1004500	FM-MP3 evo	9.6	5	-	-	-	5.1	-	-	-
73307B1205000	FM-MP3 evo	24	8	-	-	-	9.3	-	-	-
73307B1506000	FM-MP3 evo	48	11.6	-	-	-	11.6	-	-	-

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

Technical Sheet

FM-MP3 evo
Ekspansionshylse

Anbefalede belastninger / for enkeltankre / uden kantafstande eller mellemrum - ETA-10/0074

Reference	Metallic fixings dimensions	Metallic fixings loads
	Navn	Anbefalede belastninger / for enkeltankre / uden kantafstande eller mellemrum - ETA-10/0074
		Designkapacitet - revnet og ikke-revnet beton
		Træk og Forskydning - 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 - Gør-det-selv - Sekskantskrue

Reference	Metallic fixings dimensions				
	Navn	Dimensioner[mm]		Andre	
		Stik[mm]	Unbrakoskrue	Stk/blister	Blister/pakke

Produktdimension - Gør-det-selv - Smedet kopkrog

Reference	Metallic fixings dimensions				
	Navn	Dimensioner[mm]		Andre	
		Stik[mm]	Kophage	Stk/blister	Blister/pakke

* *Not covered by CE certification*

Produktdimension - Gør-det-selv - Smedet øje

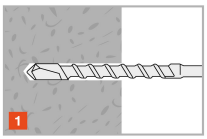
Reference	Metallic fixings dimensions				
	Navn	Dimensioner[mm]		Andre	
		Stik[mm]	Øje	Stk/blister	Blister/pakke

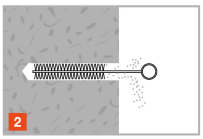
* *Not covered by CE certification*

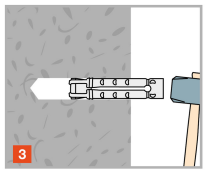
Technical Sheet

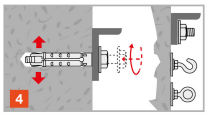
FM-MP3 evo
Ekspansionshylse

Montering









Installation data

Reference	Metallic fixings dimensions	Installationsdata					
	Navn	Installationsdata					Afstande og kantafstande
		Ø borehul[mm]	Dybde af borehul[mm]	Ø boreholder[mm]	Drejemoment [T_{inst}][Nm]	Indlejringsdybde [h_{ef}][mm]	Min. understøttelsestykkelse [h_{min}][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

Achs- und Randabstände - ETA-09/0067 Opt.7

Reference	Metallic fixings dimensions	Installationsdata			
	Navn	Afstande og kantafstande			
		Min. indbyrdes afstand[mm]	min. Achsabstand[mm]	charak. Randabstand[mm]	charak. Achsabstand[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

**Ausführung RH ohne CE-Kennzeichnung

Afstande og kantafstande - ETA-10/0074

Reference	Metallic fixings dimensions	Installationsdata			
	Navn	Afstande og kantafstande - ETA-10/0074			
		Characteristic spacing(5) - Scr,N[mm]	Characteristic edge distance[mm]	Min. edge distance[mm]	Min. spacing[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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