

FM-X5

Cheville nylon longue souple

La cheville nylon longue FM-X5 est optimale pour la fixation d'éléments sur tout type de support creux ou plein, nécessitant un réglage manuel lors de la pose, tels que des châssis ou cadre de fenêtre ou porte.

La cheville est livrée prémontée avec une vis tête fraisée ou une vis tête hexagonale.

Caractéristiques

Matière

- Vis : acier électrozingué,
- Cheville : nylon.

Avantages

Gain de temps à la pose :

- Cheville et vis prémontés,
- Pose au travers l'élément à fixer,
- 8 ailettes qui empêchent toute rotation dans le trou de perçage,
- Nylon flexible et faible couple de serrage, permettant un réglage manuel,
- Cheville en polyamide PA6 qui garantit une très bonne résistance au temps.

Applications

Domaines d'utilisation

- Fixation de chevrons ou tasseaux,
- Fixation d'équerres simples,
- Fixation de menuiseries,
- Fixation de rails et colliers pour câbles et tuyaux,
- Fixation de revêtements minces en façades.

Supports

- Béton non fissuré,
- Béton cellulaire,
- Pierre naturelle,
- Maçonneries pleines et creuses.



FRÜLSIDER
YOUR FIXING FACTORY

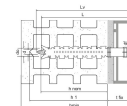
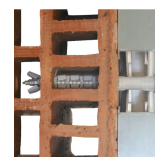
SIMPSON
Strong-Tie



FM-X5
Cheville nylon longue souple

Données techniques

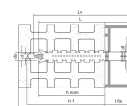
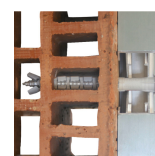
Dimensions cheville avec vis tête fraisée



Références	Product Reference	Dimensions [ØxL] [mm]	Ep. max pce à fixer [t _{fix,max}] [mm]	Profondeur mini perçage [h ₁]	Profondeur d'ancrage nominale [h _{nom}] [mm]	Ep. mini support [h _{min}] [mm]	Ø perçage pce à fixer [d _f] [mm]	Ø vis [d] [mm]	Longueur vis [L _v] [mm]	Embout	Qté par boîte	Qté par surconditionnement
64301B0808000	FM-X5	Ø8x80	10	80	70	120	8.5	6	85	T30	100	1000
64301B0810000	FM-X5	Ø8x100	30	80	70	120	8.5	6	105	T30	50	500
64301B0812000	FM-X5	Ø8x120	50	80	70	120	8.5	6	125	T30	50	500
64301B1010000	FM-X5	Ø10x100	30	80	70	120	10.5	7	105	T40	50	500
64301B1011500	FM-X5	Ø10x115	45	80	70	120	10.5	7	120	T40	50	500
64301B1013500	FM-X5	Ø10x135	65	80	70	120	10.5	7	140	T40	50	200
64301B1016000	FM-X5	Ø10x160	90	80	70	120	10.5	7	165	T40	50	200
64301B1020000	FM-X5	Ø10x200	130	80	70	120	10.5	7	205	T40	50	-
64301B1023000	FM-X5	Ø10x230	160	80	70	120	10.5	7	235	T40	50	-

* plaque de plâtre incluse

Dimensions cheville avec vis tête hexagonale



Références	Product Reference	Dimensions [ØxL] [mm]	Ep. max pce à fixer [t _{fix,max}] [mm]	Profondeur mini perçage [h ₁]	Profondeur d'ancrage nominale [h _{nom}] [mm]	Ep. mini support [h _{min}] [mm]	Ø perçage pce à fixer [d _f] [mm]	Ø rondelle [d _r] [mm]	Ø vis [d] [mm]	Longueur vis [L _v] [mm]	Clé SW [SW] [mm]	Embout	Qté par boîte	surcc
64302B1008500	FM-X5	Ø10x85	15	80	70	120	10.5	19	7	90	13	T40	50	
64302B1010000	FM-X5	Ø10x100	30	80	70	120	10.5	19	7	105	13	T40	50	
64302B1011500	FM-X5	Ø10x115	45	80	70	120	10.5	19	7	120	13	T40	50	
64302B1013500	FM-X5	Ø10x135	65	80	70	120	10.5	19	7	140	13	T40	50	
64302B1016000	FM-X5	Ø10x160	90	80	70	120	10.5	19	7	165	13	T40	50	

* plaque de plâtre incluse

FM-X5

Cheville nylon longue souple

Design capacities - single anchor - no edge distances

Références	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]	
64301B0808000	-	-	-	-	-	-	-	-	-
64301B0810000	-	-	-	-	-	-	-	-	-
64301B0812000	-	-	-	-	-	-	-	-	-
64301B1010000	-	-	-	-	-	-	-	-	-
64301B1011500	-	-	-	-	-	-	-	-	-
64301B1013500	-	-	-	-	-	-	-	-	-
64301B1016000	-	-	-	-	-	-	-	-	-
64301B1020000	-	-	-	-	-	-	-	-	-
64301B1023000	-	-	-	-	-	-	-	-	-
64302B1008500	-	-	-	-	-	-	-	-	-
64302B1010000	-	-	-	-	-	-	-	-	-
64302B1011500	-	-	-	-	-	-	-	-	-
64302B1013500	-	-	-	-	-	-	-	-	-
64302B1016000	-	-	-	-	-	-	-	-	-

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

FM-X5

Cheville nylon longue souple

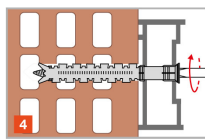
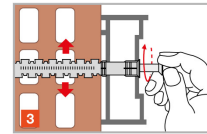
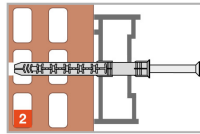
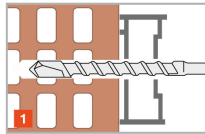
Recommended capacities - single anchor - no edge distances

Références	Design capacity								Bending moment - MRd [Nm]
	Tension - NRd				Shear - VRd				
	Non-cracked concrete C20/25 [kN]	Hollow concrete block [kN]	Hollow brick [kN]	Solid brick (BP400) [kN]	Non-cracked concrete C20/25 [kN]	Hollow concrete block [kN]	Hollow brick [kN]	Solid brick (BP400) [kN]	
64301B0808000	-	-	-	-	-	-	-	-	-
64301B0810000	-	-	-	-	-	-	-	-	-
64301B0812000	-	-	-	-	-	-	-	-	-
64301B1010000	-	-	-	-	-	-	-	-	-
64301B1011500	-	-	-	-	-	-	-	-	-
64301B1013500	-	-	-	-	-	-	-	-	-
64301B1016000	-	-	-	-	-	-	-	-	-
64301B1020000	-	-	-	-	-	-	-	-	-
64301B1023000	-	-	-	-	-	-	-	-	-
64302B1008500	-	-	-	-	-	-	-	-	-
64302B1010000	-	-	-	-	-	-	-	-	-
64302B1011500	-	-	-	-	-	-	-	-	-
64302B1013500	-	-	-	-	-	-	-	-	-
64302B1016000	-	-	-	-	-	-	-	-	-

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 $\gamma_F=1.4$. 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 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 ($c \leq \max [10 \text{ hef}; 60d]$) 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).

FM-X5
Cheville nylon longue souple

Mise en oeuvre



Spacing, Edge Distance and Member Thickness

Références	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]	Characteristic spacing(5) - Scr,N [scr,N] [mm]	Characteristic edge distance [ccr,N] [mm]
64301B0808000	8	80	8.5	-	-	-	-	-
64301B0810000	8	80	8.5	-	-	-	-	-
64301B0812000	8	80	8.5	-	-	-	-	-
64301B1010000	10	80	10.5	-	-	-	-	-
64301B1011500	10	80	10.5	-	-	-	-	-
64301B1013500	10	80	10.5	-	-	-	-	-
64301B1016000	10	80	10.5	-	-	-	-	-
64301B1020000	10	80	10.5	-	-	-	-	-
64301B1023000	10	80	8.5	-	-	-	-	-
64302B1008500	10	80	10	-	-	-	-	-
64302B1010000	10	80	10	-	-	-	-	-
64302B1011500	10	80	10	-	-	-	-	-
64302B1013500	10	80	10	-	-	-	-	-
64302B1016000	10	80	10	-	-	-	-	-

* Not included in the approval

FM-X5
Cheville nylon longue souple

Installation data

Références	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]	Characteristic spacing(5) - Scr,N [scr,N] [mm]	Characteristic edge distance [ccr,N] [mm]
64301B0808000	100	250	-	-
64301B0810000	100	250	-	-
64301B0812000	100	250	-	-
64301B1010000	100	250	-	-
64301B1011500	100	250	-	-
64301B1013500	100	250	-	-
64301B1016000	100	250	-	-
64301B1020000	100	250	-	-
64301B1023000	100	250	-	-
64302B1008500	100	250	-	-
64302B1010000	100	250	-	-
64302B1011500	100	250	-	-
64302B1013500	100	250	-	-
64302B1016000	-	-	-	-

