

X3 Højstyrke Lang dybel

X3 dybel i Ø8 og Ø10 mm med undersænket hoved kan benyttes til fastgørelse i beton og murværk.

Egenskaber

Materiale

Dybel: nylon

Skrue: hvid zinkbelagt stål

Fordele

- Høj styrke i de fleste grundmaterialer
- Op til tre sættedybder
- Mange anvendelsesmuligheder og hurtig installation
- Stor ekspansion
- Designet til facader og tungt tømrerarbejde

Anvendelse

Anvendelsesområder

- Ventilerede facader
- Stålkonstruktioner
- Trækonstruktioner

Egnet til

- Urevnet beton
- Massive mursten og hulsten
- Letvægtsmursten
- Letbeton
- Sten



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Teknisk data

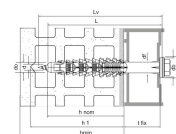
Product Dimension - Countersunk PZ Screw

Art. nr.	Product Reference	Plug [ØxL] [mm]	Screw [ØxL] [mm]	Reduced fixture thickness [t _{fix}] [mm]	Standard fixture thickness [t _{fix}] [mm]	Increased ⁽¹⁾ fixture thickness [t _{fix}] [mm]	Bit	Qty per box	Qty per outer box
64601B0603500	X3	6x35*	4,5x40	10	5	-	PZ2	100	1000
64601B0605000	X3	6x50*	4,5x55	25	20	-	PZ2	100	1000
64601B0606000	X3	6x60*	4,5x65	35	30	-	PZ2	100	1000
64601B0607000	X3	6x70*	4,5x75	45	40	-	PZ2	100	1000
64601B0806000	X3	8x60	6x68	20	10	-	PZ3	50	500
64601B0808000	X3	8x80	6x88	40	30	-	PZ3	50	500
64601B0810000	X3	8x100	6x108	60	50	-	PZ3	50	500
64601B0812000	X3	8x120	6x128	80	70	-	PZ3	50	500
64601B1006000	X3	10x60	7x68	10	-	-	PZ4	50	500
64601B1008000	X3	10x80	7x88	30	10	-	PZ4	50	500
64601B1010000	X3	10x100	7x108	50	30	10	PZ4	50	500
64601B1012000	X3	10x120	7x128	70	50	30	PZ4	50	500
64601B1014000	X3	10x140	7x148	90	70	50	PZ4	50	300
64601B1016000	X3	10x160	7x168	110	90	70	PZ4	50	250

⁽¹⁾ Only for aerated concrete

* Not covered by CE certification

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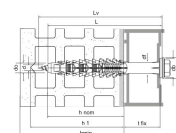


Product Dimension - Countersunk TX Screw

Art. nr.	Product Reference	Plug [ØxL] [mm]	Screw [ØxL] [mm]	Reduced fixture thickness [t _{fix}] [mm]	Standard fixture thickness [t _{fix}] [mm]	Increased ⁽¹⁾ fixture thickness [t _{fix}] [mm]	Ø drilling fixture [df] [mm]	Bit	Qty per box	Qty per outer box
64602B0806000	X3	8x60	6x68	20	10	-	8.5	T30	50	500
64602B0808000		8x80	6x88	40	30	-	8.5	T30	50	500
64602B0810000		8x100	6x108	60	50	-	8.5	T30	50	500
64602B0812000		8x120	6x128	80	70	-	8.5	T30	50	500
64602B1006000		10x60	7x68	10	-	-	10.5	T40	50	500
64602B1008000		10x80	7x88	30	10	-	10.5	T40	50	500
64602B1010000		10x100	7x108	50	30	10	10.5	T40	50	500
64602B1012000		10x120	7x128	70	50	30	10.5	T40	50	500
64602B1014000		10x140	7x148	90	70	50	10.5	T40	50	300
64602B1016000		10x160	7x168	110	90	70	10.5	T40	50	250
64602B1020000		10x200	7x208	150	130	110	-	T40	50	-
64602B1023000		10x230	7x238	180	160	140	-	T40	50	-
64602B1026000		10x260	7x268	210	190	170	10.5	T40	50	-
64602B1029000		10x290	7x298	240	220	200	10.5	T40	50	-

(1) *Only for aerated concrete*

NOTE: The thickness of the plaster must be included in the fixing thickness t_{fix}



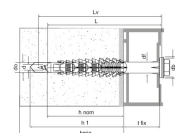
Product Dimension - Special hex head screw

Art. nr.	Product Reference	Plug [ØxL] [mm]	Screw [ØxL] [mm]	Reduced fixture thickness [t _{fix}] [mm]	Standard fixture thickness [t _{fix}] [mm]	Increased ⁽¹⁾ fixture thickness [t _{fix}] [mm]	Ø drilling fixture [df] [mm]	Bit	Wrench	Built-in washer [Ø]	Qty per box	Qty per outer box
64603B1006000	X3	10x60	7x68	10	-	-	10.5	T40	13	19	50	500
64603B1008000		10x80	7x88	30	10	-	10.5	T40	13	19	50	500
64603B1010000		10x100	7x108	50	30	10	10.5	T40	13	19	50	500
64603B1012000		10x120	7x128	70	50	30	10.5	T40	13	19	50	300
64603B1014000		10x140	7x148	90	70	50	10.5	T40	13	19	50	300
64603B1016000		10x160	7x168	110	90	70	10.5	T40	13	19	50	250

(1) Only for aerated concrete

NOTE: The thickness of the plaster must be included in the fixing thickness t_{fix}

Product Dimension - Large Rim Ø18 Plug with Hex-head screw



Art. nr.	Product Reference	Plug [ØxL] [mm]	Screw [ØxL] [mm]	Reduced fixture thickness [t _{fix}] [mm]	Standard fixture thickness [t _{fix}] [mm]	Increased ⁽¹⁾ fixture thickness [t _{fix}] [mm]	Bit	Wrench	Built-in washer [Ø]	Qty per box	Qty per outer box
64703B1006000	X3	10x60	7x68	10	-	-	T40	13	19	50	500
64703B1008000		10x80	7x88	30	10	-	T40	13	19	50	500
64703B1010000		10x100	7x108	50	30	10	T40	13	19	50	500
64703B1012000		10x120	7x128	70	50	30	T40	13	19	50	300
64703B1014000		10x140	7x148	90	70	50	T40	13	19	50	300
64703B1016000		10x160	7x168	110	90	70	T40	13	19	50	250
6470001006000		10x60 ▲/*/**	7x68	10	-	-	T40	13	19	100	1000
6470001008000		10x80 ▲/*/**	7x88	30	10	-	T40	13	19	100	1000
6470001010000		10x100 ▲/*/**	7x108	50	30	10	T40	13	19	100	1000
6470001012000		10x120 ▲/*/**	7x128	70	50	30	T40	13	19	100	1000
6470001014000		10x140 ▲/*/**	7x148	90	70	50	T40	13	19	100	1000
6470001016000		10x160 ▲/*/**	7x168	110	90	70	T40	13	19	100	1000

NOTE: The thickness of the plaster must be included in the fixing thickness t_{fix}

Art. nr.	Product Reference	Plug [ØxL] [mm]	Screw [ØxL] [mm]	Reduced fixture thickness [t _{fix}] [mm]	Standard fixture thickness [t _{fix}] [mm]	Increased ⁽¹⁾ fixture thickness [t _{fix}] [mm]	Bit	Pcs/blister	Blister/Pkg
64601B06060F2	X3	6x60*	4,5x65	35	30	-	PZ2	15	20
64601B08060F2	X3	8x60	6x68	20	10	-	PZ3	8	20
64601B08080F2	X3	8x80	6x88	40	30	-	PZ3	4	20
64601B08100F2	X3	8x100	6x108	60	50	-	PZ3	4	20
64601B08120F2	X3	8x120	6x128	80	70	-	PZ3	4	20
64601B10080F2	X3	10x80	7x88	30	10	-	PZ4	4	20
64601B10100F2	X3	10x100	7x108	50	30	10	PZ4	4	20
64601B10120F2	X3	10x120	7x128	70	50	30	PZ4	4	20

* Not covered by CE certification

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Design capacities - single anchor - no edge distances

Art. nr.	Design capacities - single anchor - no edge distances								
	Design capacity								
	Tension - NRd				Shear - VRd				Bending moment - MRd [Nm]
	Non-cracked concrete C12/25 [kN]	Non-cracked concrete C16/20 [kN]	Autoclaved aerated concrete AAC 2 [kN]	Solid brick (BP400) [kN]	Non-cracked concrete C12/15 [kN]	Non-cracked concrete C16/20 [kN]	Autoclaved aerated concrete AAC 2 [kN]	Solid brick (BP400) [kN]	
64602B0806000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0808000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0810000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0812000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1016000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1026000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1029000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1016000	0.65	0.83	0.25	1.6	-	-	-	-	11.3
64703B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1016000	1.8	2.5	0.25	1.6	-	-	-	-	18.2

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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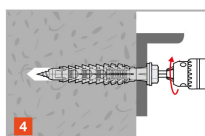
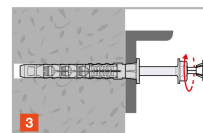
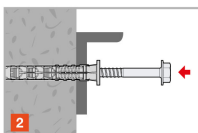
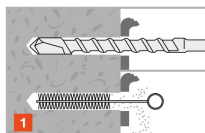
Recommended capacities - single anchor - no edge distances

Art. nr.	Design capacities - single anchor - no edge distances								
	Design capacity								
	Tension - NRd				Shear - VRd				Bending moment - MRd [Nm]
	Non-cracked concrete C12/25 [kN]	Non-cracked concrete C16/20 [kN]	Autoclaved aerated concrete AAC 2 [kN]	Solid brick (BP400) [kN]	Non-cracked concrete C12/15 [kN]	Non-cracked concrete C16/20 [kN]	Autoclaved aerated concrete AAC 2 [kN]	Solid brick (BP400) [kN]	
64602B0806000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0808000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0810000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B0812000	0.65	0.83	-	1.4	-	-	-	-	11.3
64602B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1016000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1026000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64602B1029000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64603B1016000	0.65	0.83	0.25	1.6	-	-	-	-	11.3
64703B1006000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1008000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1010000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1012000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1014000	1.8	2.5	0.25	1.6	-	-	-	-	18.2
64703B1016000	1.8	2.5	0.25	1.6	-	-	-	-	18.2

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).

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Montering



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Spacings and edge distances

Art. nr.	Product Reference	Plug [ØxL] [mm]	Spacings and edge distances									
			Non-cracked concrete C12/15				Non-cracked concrete C16/20				Autoclaved aerated [r	
			Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]	Characteristic edge distance [ccr,N] [mm]	Minimum thickness of support [mm]	Min. edge distance [mm]	Min. spacing [mm]	Characteristic edge distance [mm]	Minimum thickness of support [mm]	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]
64602B0806000	X3	8x60	70	85	85	100	50	60	60	100	100	250
64602B0808000	X3	8x80	70	85	85	100	50	60	60	100	100	250
64602B0810000	X3	8x100	70	85	85	100	50	60	60	100	100	250
64602B0812000	X3	8x120	70	85	85	100	50	60	60	100	100	250
64602B1006000	X3	10x60	70	70	140	100	50	50	100	100	100	250
64602B1008000	X3	10x80	70	70	140	100	50	50	100	100	100	250
64602B1010000	X3	10x100	70	70	140	100	50	50	100	100	100	250
64602B1012000	X3	10x120	70	70	140	100	50	50	100	100	100	250
64602B1014000	X3	10x140	70	70	140	100	50	50	100	100	100	250
64602B1016000	X3	10x160	70	70	140	100	50	50	100	100	100	250
64602B1026000	X3	10x260	70	70	140	100	50	50	100	100	100	250
64602B1029000	X3	10x290	70	70	140	100	50	50	100	100	100	250
64603B1006000	X3	10x60	70	70	140	100	50	50	100	100	100	250
64603B1008000	X3	10x80	70	70	140	100	50	50	100	100	100	250
64603B1010000	X3	10x100	70	70	140	100	50	50	100	100	100	250
64603B1012000	X3	10x120	70	70	140	100	50	50	100	100	100	250
64603B1014000	X3	10x140	70	70	140	100	50	50	100	100	100	250
64603B1016000	X3	10x160	70	70	140	100	50	50	100	100	100	250
64703B1006000	X3	10x60	70	70	140	100	50	50	100	100	100	250
64703B1008000	X3	10x80	70	70	140	100	50	50	100	100	100	250
64703B1010000	X3	10x100	70	70	140	100	50	50	100	100	100	250
64703B1012000	X3	10x120	70	70	140	100	50	50	100	100	100	250
64703B1014000	X3	10x140	70	70	140	100	50	50	100	100	100	250
64703B1016000	X3	10x160	70	70	140	100	50	50	100	100	100	250

* Not included in the approval

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Installation data

Art. nr.	Installation data		
	Ø drilling hole [d0] [mm]	Min. drill depth [h1] [mm]	Ø drilling fixture [df] [mm]
64602B0806000	8	55	8.5
64602B0808000	8	55	8.5
64602B0810000	8	55	8.5
64602B0812000	8	55	8.5
64602B1006000	10	65	10.5
64602B1008000	10	65	10.5
64602B1010000	10	65	10.5
64602B1012000	10	65	10.5
64602B1014000	10	65	10.5
64602B1016000	10	65	10.5
64602B1026000	10	65	10.5
64602B1029000	10	65	10.5
64603B1006000	10	65	10.5
64603B1008000	10	65	10.5
64603B1010000	10	65	10.5
64603B1012000	10	65	10.5
64603B1014000	10	65	10.5
64603B1016000	10	65	10.5
64703B1006000	10	65	10.5
64703B1008000	10	65	10.5
64703B1010000	10	65	10.5
64703B1012000	10	65	10.5
64703B1014000	10	65	10.5
64703B1016000	10	65	10.5

