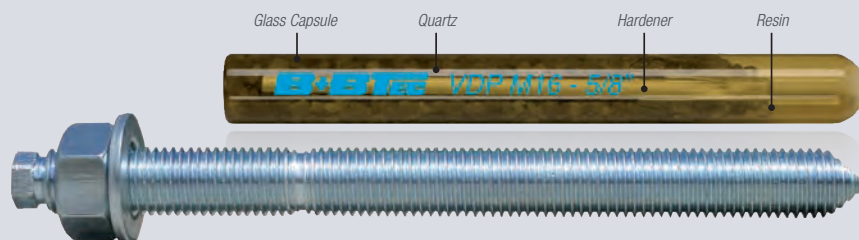


Glass Capsule Anchor for Non-Cracked Concrete



Anchor Components

Glass Capsule Anchor VDP M8 - M30

- Glass capsule containing Quartz Aggregate, Hardener and Resin.
- Components are mixed by driving in Anchor Rod.

Anchor Rods ASTA M8 - M30

- Steel 5.8 and 8.8 Zinc Plated and Hot Dip Galvanized
- Stainless Steel A4-70 and A4-80
- High Corrosion Resistant Steel 1.4529

Use Conditions

- Installation in Non-Cracked Concrete C20/25 to C50/60 according to EN 206-1:2000-12
- For Static and quasi static loading
- In Dry or Wet Holes
- Min. Installation Temperature: Mortar +5°C, Concrete -5°C.
- Structures subject to dry internal and permanent damp internal conditions.
- Structures subject to external atmospheric exposure.

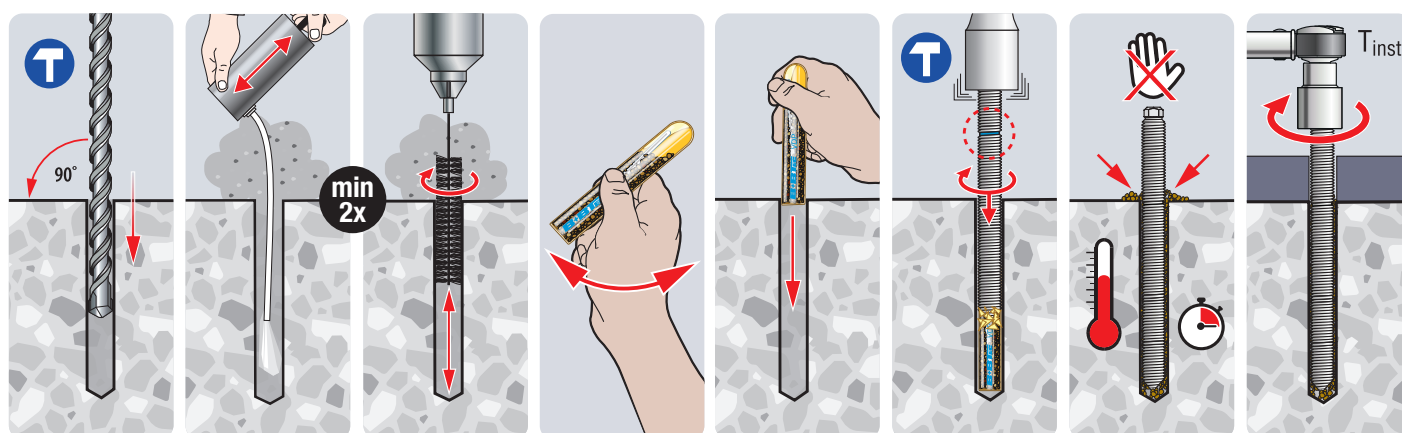
Typical Applications

- Infrastructure Construction (Roads, Viaducts, Sound Barriers, Crash Barriers, Harbours, High Rise Construction, Steel Construction)
- Production Facilities (Installation of Cranes, Robots, Conveyor Lines etc.)

Approvals & Test Reports



Installation Procedures



Curing Times

Temperature ¹⁾ °C	-5	+5	+20	+30
Curing Time Dry Holes	5 h	1 h	20 min	10 min
Curing Time Wet Holes	10 h	2 h	40 min	20 min

1) Concrete Temperature



Member Thickness, Edge Distance & Spacing

Anchor Size	D _a		m8	m10	m12	m14	m16	m20	m22	m24	m27	m30	m36
Min. Member Thickness	h_{min}	[mm]	110	120	140	150	160	220	240	270	320	350	450
Min. Edge Distance	C_{min}	[mm]	40	45	55	60	65	85	95	105	125	140	180
Min. Spacing	S_{min}	[mm]	40	45	55	60	65	85	95	105	125	140	180

Performance Data Concrete C20/25¹⁾

Design Resistance

Steel Failure

Anchor Size		D _a		m8	m10	m12	m14	m16	m20	m22	m24	m27	m30	m36
Steel 5.8	Tensile	N_{Rd}	[kN]	8,4	11,3	16,1	20,5	23,6	44,5	52,1	61,0	79,2	93,9	136,9
	Shear ²⁾	V_{Rd}	[kN]	7,2	11,2	16,8	23,2	31,2	48,8	60,8	70,4	92,0	112,0	163,4
Steel 8.8	Tensile	N_{Rd}	[kN]	8,4	11,3	16,1	20,5	23,6	44,5	52,1	61,0	79,2	93,9	136,9
	Shear ²⁾	V_{Rd}	[kN]	12,0	18,4	27,2	36,8	50,4	78,4	96,8	112,8	147,2	179,2	261,4
A4-70	Tensile	N_{Rd}	[kN]	8,4	11,3	16,1	20,5	23,6	44,5	52,1	61,0	79,2	93,9	136,9
	Shear ²⁾	V_{Rd}	[kN]	8,3	12,8	19,2	25,6	35,3	55,1	67,9	79,5	103,2	125,6	183,3
A4-80	Tensile	N_{Rd}	[kN]	8,4	11,3	16,1	20,5	23,6	44,5	52,1	61,0	79,2	93,9	136,9
	Shear ²⁾	V_{Rd}	[kN]	11,3	17,3	25,6	34,6	47,4	73,7	91,0	106,0	138,3	168,4	254,7

Recommended Loads³⁾

Anchor Size		D _a		m8	m10	m12	m14	m16	m20	m22	m24	m27	m30	m36
Steel 5.8	Tensile	N_{rec}	[kN]	6,0	8,1	11,5	14,7	16,8	31,8	37,2	43,6	56,6	67,1	97,8
	Shear ²⁾	V_{rec}	[kN]	5,1	8,0	12,0	16,6	22,3	34,9	43,4	50,3	65,7	80,0	116,7
Steel 8.8	Tensile	N_{rec}	[kN]	6,0	8,1	11,5	14,7	16,8	31,8	37,2	43,6	56,6	67,1	97,8
	Shear ²⁾	V_{rec}	[kN]	8,6	13,1	19,4	26,3	36,0	56,0	69,1	80,6	105,1	128,0	186,7
A4-70	Tensile	N_{rec}	[kN]	6,0	8,1	11,5	14,7	16,8	31,8	37,2	43,6	56,6	67,1	97,8
	Shear ²⁾	V_{rec}	[kN]	6,0	9,2	13,7	18,3	25,2	39,4	48,5	56,8	73,7	89,7	130,9
A4-80	Tensile	N_{rec}	[kN]	6,0	8,1	11,5	14,7	16,8	31,8	37,2	43,6	56,6	67,1	97,8
	Shear ²⁾	V_{rec}	[kN]	8,1	12,4	18,3	24,7	33,8	52,6	65,0	75,7	98,8	120,3	175,5

1) All Loads in kN for a Single anchor in Dry/Wet, Non-Cracked Concrete C20/25 without edge or spacing influences. Temperature Range 50°C/80°C for long/short term. 2) Steel strength in kN without bending moment. 3) Incl. Safety factor $\gamma_G = 1,4$

Free Anchor Design Software for Structural Safety!



B+BTec DesignFiX® Anchor Design made Easy!

Input Freedom & 3D User Interface

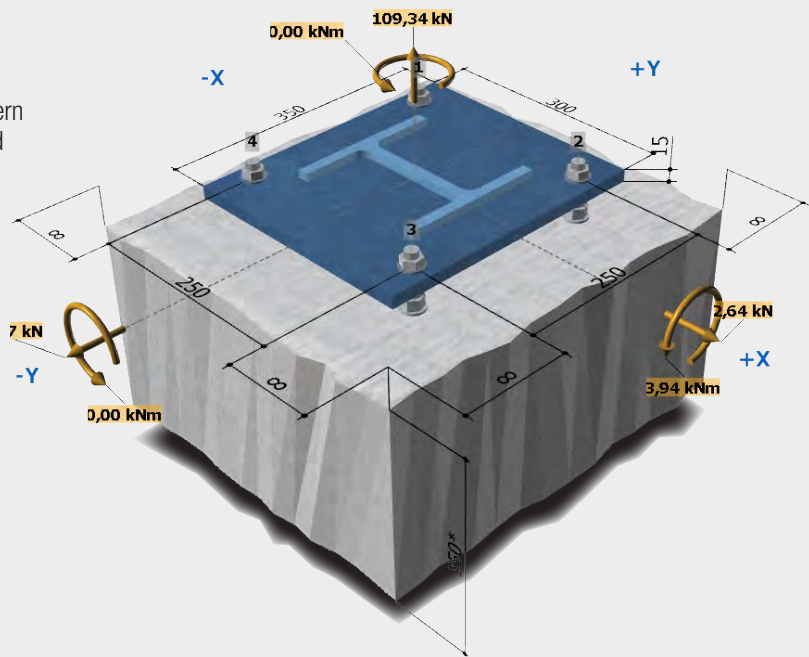
B+BTEC DesignFIX® offers complete freedom to select an anchor pattern and base plate configuration, as well as the position and direction of load combinations. Changes are made directly into the 3D user interface.

Anchor Type Comparison

B+BTEC DesignFix® displays the usability of the various anchor types (according to European directive ETAG 001 and EN 1992-4), including the values for static loads and under seismic influence. This allows you to compare the calculation results of the different anchor types in a single easy to read panel.

Calculation Effective Anchorage Depth

When selecting an Injection Mortar **B+BTEC DesignFIX®** allows for the automatic calculation of the most effective anchorage depth, taking in consideration the minimal and maximum values of the ETA.

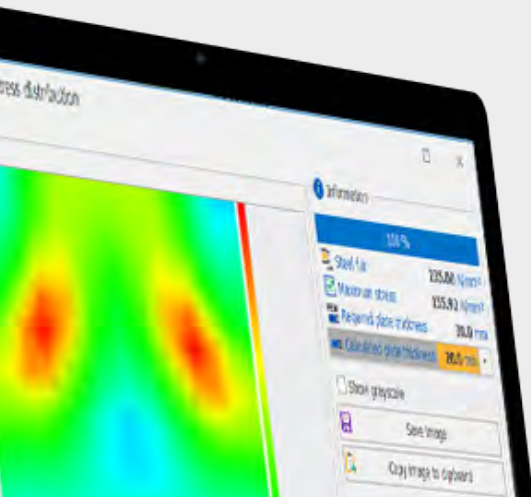


Calculation Base Plate Thickness

The integrated FEM-Calculation Method (Finite Element Method) in **B+BTEC DesignFIX®** allows you to calculate the base plate thickness based upon the stresses in the base plate in combination with the base plate configuration.



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